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PREFACE

THIS book explains what credit is, what it does, and how it works. It is hardly to be expected that all those who welcome its scope should accord an immediate adherence to the methods by which it proposes to attain its ends. Men weary of old explanations, but they are suspicious of new ones. What kind of analysis satisfies scientific, scholarly, and orthodox fastidiousness? Evolutionary explanation has revolutionized the latter-day universe, and yet it makes slow progress in political economy, the very domain from which it sprung. In wages-theory, it accounts for the groups of workers; and in value-theory, it appears in a mathematical phase to explain how the forces in play come to an agreement. The department of credit has not, hitherto, made its acquaintance. The friendship would naturally begin with a pervasive use of biological analogy, which is believed to be of the essence of explanation.

Analogy consists in a forceful picturing which carries conviction that the process in hand forms part and parcel of the real world that we know. Thus the field of reality is extended and education is advanced. The application is not confined to mere illustration, nor, on the other hand, is analogy carried to an extreme. One or two biological notions only have been selected. The simple promise to pay money is regarded as the characteristic, ultimate fact of credit, out of which all credit phenomena are constructed, cellwise; the circumstances under which such promises are made are looked upon as environmental.

There is no reason why economics should be merely an

applied science. It is too often thought safe and sane to limit the economic arsenal to old, approved weapons, and in discussions of current events, often financial, to cast theories away. The search for the more general truths, however, will not cease.

Dynamic analysis is impossible, if not naturalistic. Progress consists in the passage, struggle, survival, or escape of an individual or individuals, through a series of environments. Even if the motion double upon itself and appear to be in a circle, it can only be analyzed upon the hypothesis of environments. Biological characterizations are thus indispensable to dynamic explanation. That the fortunes of a man be traced in his economic interests alone, or those of a typical man, or of a dollar, or a dollar's worth, makes no difference in the principle appealed to.

This view of the center of gravity of economic explanation would seem to be timely, for in modern economics are to be noted three main stages of price theory. The "quantity theory" was one phase of that earliest static generalization which understood any class of economic interests as taken together in a physical whole. This was the "fund" stage. The second found sententious expression in the phrase, "business makes money," which is a half truth useful as a weapon against fiat inflationism in the field of politics, — "a good-enough Morgan till after election," — and dynamic in so far as it shows that considerable expansion of loans may be quite normal. But as a theory it is incomplete, for it fails to account for price fluctuations, because it regards normal credit as incapable of causing them and abnormal credit as unaccountably causing them. Lastly comes the dynamic theory herein advanced, that price fluctuation is itself a normal phenomenon, depending upon the interacting interests of various orderly groups of producers and finan-

ciers, and traceable through successive stages, whether nominal purchasing power be regarded in the light of normal or abnormal credit.

The present view represents to some extent an inversion of former ones. The Ricardian system approached the subject of prices through the portal of a materialistic hypothesis, namely, that of a community in full possession of a developed metallic money system but devoid of credit. That its assumption strains economic credulity to the utmost will, it is hoped, sufficiently appear in the following pages. The system herein advocated, however, does not disdain hypothesis, but adopts the antithetical one of a society using credit alone.

It will be found that this procedure permits the subsequent introduction of the circumstance of money-use with little modification in the method, the process described, or the results. The changes of price due to money-use may be added to or subtracted from those due to credit-use; but during the cycle of usual fluctuation the former are a minor quantity. The common method does quite the reverse. It builds the fluctuations of the important factor (credit) upon those of the unimportant (money). (The saying is current that "credit acts like money.)" The likeness is really reflected the other way: money employed to purchase acts like credit! The traditional, financial materialism, when put to the biological test, is no longer satisfactory. The present dynamic treatise, founded upon the simple unit of the economic promise (the real idea at the bottom of the catch-phrase, "business makes money"), and avoiding the entanglement of "normal" and "abnormal," and the misleading likening of the promise to the guaranty-material, seems to be founded upon correct principles, whatever shortcomings may be discovered in their further development.

CONTENTS

PAGE

INTRODUCTION I. THE EVOLUTIONARY POINT OF VIEW IN THE STUDY OF CREDIT 1

INTRODUCTION II. PRELIMINARY STATEMENT 13

PART I

FIRST PRINCIPLES

CHAPTER

I. THE FIELD OF CREDIT 23

II. THE UTILITY OF CREDIT 40

PART II

CAPITAL

III. LIQUIDATION, SET-OFF, AND PAYMENT 65

IV. INVESTMENT AND THE FLOW OF CREDIT 97

V. INTEREST 148

PART III

HIGH AND LOW PRICES

VI. THE VALUATION OF CAPITALS 185

VII. THE MARKET IN ITS RELATION TO RENT, PROFITS, AND INTEREST 205

PART IV

THE LESSON OF HISTORY

CHAPTER		PAGE
VIII.	Financial Statistics and Crises	234
IX.	The International History of Prices . . .	252
X.	The Causes of Crises	275
XI.	Money and Credit as Mutual Substitutes . .	287

PART V

CREDIT AND SOCIETY

XII.	Notes and Deposits. The Organic Idea in Financial Legislation	307
XIII.	Bimetallism and Other Materialistic Standards	342
XIV.	Justice for Debtors. Idealistic Standards .	384

THE CREDIT SYSTEM

INTRODUCTION

I

THE EVOLUTIONARY POINT OF VIEW IN THE STUDY OF CREDIT

1. The scope of political economy cannot permanently be diverted from the original one of studying man in his economic environment. — 2. The mental habits, however, of the end of the eighteenth and the beginning of the nineteenth centuries, were not sufficiently dynamic to pursue a social study very far in the biological field. — 3. The psychology of economics, while apparently a departure from the original scope of the science, really clears the ground for development along the old lines. — 4. But this return suffers a temporary check from "materialism." — 5. The primary purpose of economic as of other science, is to offer an explanation rather than a mechanism. — 6. In the theory of value and distribution, men are prone to confuse the psychologic localization of evaluation with the causes or circumstances of it. After all, it is not so much *causes* about which economists argue nowadays as *emphasis*. — 7. It is fashionable to exaggerate the dependence of interest on psychological causes. But productivity is determinative on interest in momentous periods, through new investment. — 8. Consequently the price-level is dependent also on productivity. — 9. The variety of the kinds of credit offers evidence of organization of industry in groups, some more and some less material. Productivity thus influences interest and the price-level groupwise. — 10. The analogy of guaranty explains the utility of the groups. The use of money thus receives its fundamental sanction. — 11. Credit- and production-groups characterize each other. — 12. Capitalization is said to be nominal, if fluctuation in price-level does not affect the real rate of interest. But the rate of interest has a potent effect on the price-level. Credit theory is one of price-level and of the material conditions of price-level, which afford the sanctions and guaranties of sustained exchange or marketing. — 13. The organic view of credit is indispensable in criticizing financial legislation. — 14. Bimetallic legislation also requires this test, for deferred payment is but another name for credit.

1. MODERN science is the manifestation of the interest which man cherishes for his environment, and the physio- The evolutionary point of

view is coeval with the science of political economy.

cratic or economic literature was ushered in with the general reawakening. Wealth was looked upon as a material item; and population, rent, wages, and interest were studied in their relation, primarily, although not exclusively, to *material* facts of nature or industry, such as climate, soil, agriculture, and mechanic arts, and their so-called products.

Theory of cost of production.

The theory of value was characteristic. Values were supposed to be the relative quantities exchanged, which were fixed by the recalcitrancy of the materials engaged in the technical process. This explanation soon came to be known as the *theory of cost of production.*

2. This theory was erroneous only in so far as incompleteness may spell error. Study of the environment was proper to the period; to neglect it would have been indeed error.

But the primitive economics was static.

Immaturity is a matter of course in preliminary studies. The roughhewing of analysis is necessarily static; the dynamic period follows. Thornton and Longe insisted on a more dynamic theory of wages. Von Thünen had championed a differential treatment of that topic. Rae, Gossen, and Jevons enlarged the theory of value by psychological studies. It was the static rather than the materialistic element in the Ricardian doctrines, however, that called for emendation. The materialistic must survive. The static was provisional. The Austrian school placed the whole science on a new footing so firmly that its teachings seemed the final word. The change was so thoroughgoing as to assume among some followers almost the unfriendly attitude of a refutation and supplanting. Even in science, the free play of personality seems to call for occasional outcroppings of healthy prejudice.

3. What had been gained? Was it settled that economics was to be a science *not* of evolution but only of psychology, or, at the most, of psychological evolution? for the proposition to divorce psychology from evolution could but provoke

not properly lie in the field of economics; the evolutionary treatment was the original one and is the only one that, by bringing into view all influences and conditions, can satisfy curiosity. No pretence is made in this book of a thoroughgoing application of evolutionary method. The reader need look for no "Structure and Life of the Body Social." Neither the knowledge nor the faith of the writer leads thus far. But he believes the point of view here favored may reasonably be applied to a department of political economy so essentially human and organic as credit.

Two procedures recommended themselves, both of which were adopted: the first was to reduce credit to its simple cell, the business promise to pay money; the second was to imagine an environment. This latter part is the more difficult, for it involves a theory of social progress. Financial progress is evidently a department of social, and is therefore subjected to the same influences and enveloping conditions. If this part is little developed, that is not because of a lack of faith; but this little has been offered in the hope of adding a slight contribution to the general theory of progress by reviewing it from the angle of credit. The explanation which really explains must show that *credit acts naturally.*

The economic environment is weighty for the study of credit because the latter is dynamic.

6. Perhaps also the topic of distribution is not yet finally quieted, and some suggestion may here be found for further development. The question is raised whether the exposition of economic action is to be contented with a mere theory of psychology. Taken rightly it is true enough that values *consist* wholly in subjective estimates. Is that equivalent to saying that values are *entirely dependent* on them? Whichever way that question may be answered, what stress should be laid on the environing material facts? Through what object glass are they to be regarded? How does their influence work?

In distribution the cause of values is not necessarily in the valuer.

All well-thought-out economics take account of the en-

Most theories take account of the essential facts; but sometimes they lay too much stress on the psychologic.

vironment. If they venture too far in one part of their argument, compensation is offered in another. But enthusiasm for a point of view — generally fashionable — leads to discussions which are largely merely of words. The disputes are about terms as much as facts. The desideratum is a system which will permit the use of the right terms. A well-balanced theory will lay the stress of each term where it belongs. Professor Alfred Marshall has contributed seriously to this end.

Cost of Production.

After the endless discussion of a couple of decades ago, the view might be defended that a "cost of production theory" is one which lays stress upon environment in a naïve way. Marshall seemed to have attained to the golden mean; but many minds are not so dynamically constructed as his: they feel uncertain if called upon to shift their point of view frequently from one standard or test to another, from utility to cost. In effect, this thoroughly correct method is the one making the hardest demand upon the judgment. The continued exercise of judgment is tiresome. Consequently, many persons welcome that view of value, for instance, which not only attaches it solely to valuation (done correctly by many theorists), but also throws in a gratuitous exclusion of the influence of environment, or an implication that it is sufficiently noticed without extended analysis. The psychological school is wont to assert that production accommodates itself to valuations. This is incorrect. Valuation is in equilibrium with supply, as Marshall has happily demonstrated.

Interest riveted too closely to the valuation end.

7. In further pursuit by economists of the same artificially simplified reasoning, "interest" has been riveted too closely to the valuation end. From the indisputable generalization that the value of capital is the present worth of expected income flows the apparent demonstration that the rate of interest is in no wise caused by the productivity of capital,

but is wholly the creature of that estimate of the future which resides deep in racial temperament. Is racial temperament (itself a "subjective environment" or permanent, unalterable state of mind) an explanation for all questions of interest? Fluctuations of rate occur in the attempt of demand and supply of capital [1] to adjust themselves to the temperamental view, which is none other than that called by Mill "the effective desire of accumulation." The racial determinant is doubtless essential to men's prosperity as a wealth-begetting generation; but it is of no immediate consequence to the daily or annual calculations of the business man. If the psychological theorist is told that valuations must accommodate themselves to supply, he admits the statement, and so he may always cover retreat from his extreme position concerning the influences of valuation upon interest with the admission that the rate is temporarily affected by output.

"Racial temperament" preferred by some as a cause of interest, to productivity.

Racial temperament not an "influence" in business calculations.

It is, of course, true in general that capital is nominally measured by multiplying expected income by a factor or factors which give its present value at the market rate or expected market rates. But it is also true that new applications of capital determine market rate by instituting a comparison between expenses [2] (or instantly accruing income) and "income" (next inflowing revenue). The mental world advances by a refining process, and the newer statement is essentially the older view of demand and supply as modified by the theory of "margins."

It is not, then, true that all capital is valued in consequence of an independent market rate of interest, all the time. When the investment is in the making, the flow of causation is the other way about. At such a moment, the manufacturer or merchant carefully calculates whether his special

[1] Fisher, The Rate of Interest, pp. 170, 194.
[2] *Id.*, *Ib.*, pp. 126, 193.

"income streams," or field for investment, do not offer advantages over the loaning of his funds in the "money" market. His estimate is based on what the capital costs as well as on what the product will bring. If he is successful, others will imitate his example. The temporary rate of interest will be affected by each withdrawal or addition of loan funds determined by the arguments for or against investment in enterprises under the control of the capitalist. The mass of capital will be valued at the current rate, in which the flow of goods has had as much to say as have had the traditions of saving.

Productivity affects interest-rate through new investment.

8. The value of the circulating medium is undoubtedly based, in a sense demanding nice discrimination, on that of the metallic standard (at present the gold dollar, in the United States). But it it will be shown that its temporary value, which expresses the price-level for those periods which are most interesting in business calculations, is dependent on the state of credit. And credit, in turn, while ultimately without question hedged within severe boundaries by that rate of interest which expresses the racial sense of futurity, is for business purposes dependent upon immediate prospects from investment. It is with these practically pertinent periods that the theory of credit has eminently to do. The theory of general prices in relation to prosperity is the chief branch of the theory of credit and for it interest bulks largely.

The question of general prices closely connected with that of interest.

It is precisely at the point of contact of these three domains, credit, prices, and interest, that a monument should be erected to their organic relationship. It is here, if anywhere, that the evolutionary point of view should be helpful.

Organic relation of industries typically a grouping in order of materiality.

9. Economy, like organic nature, is a congeries of worlds within worlds. The subdivision of allied activities is, consequently, characteristic of all of its branches, including credit. Industrial activities are notoriously grouped accord-

ing to their materiality. Raw production, preparation of tools, manufacture of finished products, are separate stages. In distribution, it is accepted as correct to say that the various kinds of raw materials are more closely associated than is each with its derivative products. Again, the different stages of production give rise to different sorts of credit, long, short, demand, which classify them on a credit basis. Thus industry is stratified credit-wise, no matter how much its compartments may cluster perpendicularly. The prosperity of the successive, connected, individual businesses, it is true, is quasi-independent. Under separate proprietorship, their profits are calculated apart, and the demand from later producers and from finishers differs in no wise from that from consumers. But each stage group also exerts its influence upon the rate of interest, since competition within it unites it upon one rate of returns. Thus the profits in each group and the interest for each respective stage of credit are calculated independently of those in other groups. But there is competition or "arbitration" between the groups, leading to equalization of rent, profits, interest, or other returns or incomes.

Groups exert independent influence upon interest and credit markets.

In each group, moreover, the limitations on investment, other than those due to racial psychology, are caused by the opposition of an environment, which, however, assumes a less gross and material character as the groups become more advanced and refined. The distinction between the groups is a physical one, and upon it depends the distinction between the kinds of credit which subtend them.

The environment of each group is distinct.

10. Each group offers a technical guaranty for the services which it professes to perform and for the credit founded upon those services, — for its own credit and for that based upon services rendered by goods later in each series. Thus later credit is guaranteed cumulatively by the technical processes preceding as well as by its own. The technical pro-

The guaranty element pres-

ent in each group.

cesses, plant, and materials offer a material reserve calculated to replace the goods as they become deficient.

The guaranty element in banking.

Finally, banking, the business par excellence of dealing in credit, offers a similar material guaranty for its special form of credit, demand credit, namely money, which in this

Money reserve.

connection is called outright a "reserve," and which organically corresponds to the material means of guaranty mentioned above as associated with the various technical stages of production.

The environment is thus in touch with and puts its limits upon all economic activities, even those which are least material, such as the business of banking; for men cannot produce or promise beyond their power to guarantee. Economic truth is confirmed by restatement in evolutionary terms.

The kind of credit is the distinguishing characteristic of the production groups.

11. The credit arising in each technical group has its own termin-time, laws, and customary observances, and may be studied separately. In each case, the value of the credit is ascertained in connection with the appertaining process, its prospects and productivity. But credit enjoys not only the material guaranties of the technical processes, but the immaterial sanctions of the other credit compartments, with which the one in question may have dealings. Thus the

Reguaranty of credit.

credit compartments successively guarantee each other, until demand credit is reached, which is guaranteed by money. And so the credit system is organized.

Meaning of nominal capitalization.

12. It has been well said that the process of capitalization is *nominal*, and nowhere is this observation more apposite than in the theory of price-level or general prices or value of money. Since capital, in the sense of principal, is estimated at a given rate from the value of product, fluctuation in value of product cannot affect the relation of product to principal, *after the valuation has been made and after the general rate of interest has been established.* The distinction noted

above, § 7, that the productivity of capital has a preceding or anterior effect in establishing the rate seems nice to some students. But the statement that the rate is settled by racial tendencies is too large to constitute the most interesting part of a theory.

Capitalization influenced by rate of interest.

The rate of interest has a potent effect on the capitalization of a society's wealth. The conditions attaching to guaranty looked on as a fee for a professional service also are influential through rent, profits, and interest, especially that guaranty which is manifested in the material form of money. Rent may be taken in the sense of a fee and may occupy a marginal or strategic position in competition with, and hence aiding to fix, the rates of profits and interest and thus the amplitude of capitalization. It is not solely an intramarginal revenue. A large part of the theory of credit consists (1) in the working out of the price-level as a function of nominal capitalization under the influence of interest-charges, and (2) in the demonstration of continuous and thoroughgoing limitations upon credit operations at every step by the sanctions and circumscribing influences of part-environments.

Essential elements of a theory of credit.

The guaranties and sanctions of credit.

It is elementary to say that technically the rawer materials afford a guaranty of further production in the later stages of manufacture towards finished goods, or in the later technical circulation of materials, and that, in the same way, the least gross material, money, assures the circulation of credit. It secures the continuous passing of promises from hand to hand, as through a commercial or industrial institution. On the other hand, the credit of raw production is made good by that of the next stage, and so on to that of the sale to retailers, which is indorsed by banker's credit, while the latter is affirmed by gold.

Gold as a guaranty.

Gold guarantees the most mobile credit. It is itself the most mobile and marketable guaranty material. It is that

portion of the economic environment which comes most directly in touch (if such an expression be permissible) with the immaterial or psychic elements of industry.

13. But the domain of the organic and evolutionary view of credit is not exhausted with the theory of price-level. That view also affords the only possible explanation and standard of criticism of the progress of monetary legislation. Advance in this important department of government, which professedly reflects public opinion, like that in social morals, can be measured by no other test than the evolutionary. Accordingly, chapter XII has been devoted to a discussion of the favor which the organic view has won in the voting population as evidenced by financial legislation.

The evolutionary and organic view of credit is indispensable in measuring the progress of monetary legislation, and in all discussions as to the best monetary system, in the sense of a just and fair system.

14. Another branch of such legislation relates to legal tender, which bears a denominational legend and devices stamped by government officials either upon a metal or upon a fabric. Since money of this sort is employed for reserve purposes, its value enjoys a sort of appeal jurisdiction in assessing that of the bank or other credit which it guarantees, and hence that of the further credit which that credit guarantees, and so on. It has not the direct importance for periods of economic calculation which many orators, and even theorists, have claimed for it; but its possibly ultimately limiting and environmental character makes the circumstances fixing its value worthy of careful study. For sake of argument only, may be conceded, provisionally, the exclusive control of credit value by that of such money. The whole "money question" is then resolved into one as to what standard is most "organic." The field of moral standards and that of *laissez-faire* are here opened wide, and the argument of the last two chapters does not hesitate to enter; reviewing and modifying, in the first place, the concrete propositions for new standards, generally of the class known as "bimetallic" (chapter XIII), and finally (chapter

XIV) theoretical arguments based more or less consciously upon organic reasoning as to *why prices ought to move or to be moved up or down.*

II

PRELIMINARY STATEMENT

1. This book employs extensively the method of argument from ordinary observation. — 2. Topics treated are based on the economic promise as point of departure. — 3. Credit is a branch of sociology. The argument is necessarily typical and the conclusions depart from reality only to the extent implied in such method. — 4. Financial science suffers from lack of coherence. — 5. The recent theories of utility are indispensable. — 6. Term "capital" may well be used in its financial sense. — 7. Differentiation and contrast of subject with object are necessary to modern method. — 8. The above-mentioned contrast affords the basic distinction between credit and money. Credit indicates the possession and disposition of goods. — 9. Credit is kinetic. — 10. The problem of prosperity is one of the ebb and flow of credit, — 11. which must be traced through many stages of industry, — 12. from those which afford "profits" to those which furnish "rent." — 13. Money is an important part of the environment of credit. — 14. The truth in the quantity theory of money is that it is influential on prices in a time of crisis. — 15. The competitive standard of deferred payments is none too nice; legislative enactments are rather calculated to make a bad matter worse. — 16. Monetary is open to the same criticism as other legislation, that it is enacted in disregard of the organic constitution of society. — 17. Bimetallic propositions too often attribute undue importance to money in respect to general prices, and demand an excessive control on the part of Government. — 18. But the theory of deferred payments may be developed on the temporary hypothesis of a money-using society. — 19. A standard of deferred payments has a positive existence in the absence of legislative enactment. — 20. The study of credit is a part of the theory of progress. — 21. The hypothesis of a credit-using society is permissible.

1. The boundaries of a given field of human interests are originally set, not by scientific definitions, but by the experience of the chief actors, and accepted thereafter by mankind. Thus men instinctively come to regard it as an intimately associated whole, the parts of which are well defined; and in their attempts to reason about it, they seek

Credit is a separate topic.

a central thought which shall connect its multifarious divisions and ever recall a satisfactory explanation of each. Such a field is credit.

Analysis begins with the simplest data.

2. This book is designed as a contribution toward an articulated and consistent explanation of the financial happenings of prosperity, crisis, depression, price-level, interest, capital, and correlated branches, developed from a fundamental conception of credit and money, and from a biological view of social activity. By adherence to literal definitions of credit as promises and of money as material goods, simplicity and unity are sought to be obtained.

Organic nature of credit.

3. The credit system is an organic portion of the general social scheme. It is not detached from the rest of society and run upon a separate plan. The general social principles of suggestion, imitation, coöperation, congregation, aggregation, and especially selection and survival and the conception of environment and process, present themselves here as truly as elsewhere, but under a distinctive garb. It is true that the credit system is presented as it appears to the writer; it may reveal itself very differently to others. Disagreement is the privilege, nay, therein lies the necessity, of authorship.

A theoretical account of an organic subject matter cannot escape the personal and partial.

A theory is a description of the reflection of the world of acts and deeds in the mind of the writer. In the nature of things, it can never state the exact reality, since, in the first place, it treats of a typical state of affairs, not the doings of any concrete individual or set of individuals. The "economic man" cannot be abolished. In the second place, even if actuality be granted to an average or a typical picture, it cannot hope by far to equal in complexity the reality nor to include all of the kinds of motives and limitations that enter into the problem of life. The incapacity of the mind to comprehend distinctively but simultaneously all activities is shown by the large and growing list of social sciences, and by their continual differentiation.

4. The theory of finance has lacked coherence and unity. The objective phenomena, — reserve, deposits, bank notes, loans, stocks, bonds, individual notes and bills, — have been treated as empirical facts without parallel, analogy, or relation to anything else. The interest attaching to anything, however, is precisely as to whether it is the concrete manifestation of the working of any broad, natural principle or process. Peradventure in credit are social processes more neatly illustrated than in any other department of social life.

The organic view lends coherence to financial phenomena which had appeared disconnected.

5. Bank credit and individual notes have sometimes been looked upon as a sort of goods offered for goods. Now, the bank notes were a loan to the issuing bank from the public. Again, the deposits were funds gathered by the banks from individuals, which, in the aggregate, constituted great capitals. One is helped out of this slough of credit, sales, funds, loans, etc., by the conception of the essential relation of present to future which lies back of the "Austrian" theory of value, and of interest as a function of values and of time or waiting. The ensuing uniform appreciation of a credit instrument as a definite promise to pay money, interpreted in view of everything connoted by such promises, reforms the heterogeneous ideas of finance and reduces them to simplicity.

Assistance from recent theories of utility.

6. It is probable that the term "capital" will be more and more employed in its financial sense. The advantages of the change are important. The way is already paved by the Austrian school of economists, to whom capital is only goods implicated in a process of production.[1] This is a

Tendencies in use of term "capital."

[1] But they do not anticipate the revolution. V. Boehm-Bawerk heartily disapproves "those conceptions which see in capital not a complex of goods, but an abstract quantity hovering over goods, as it were; as, for instance, Kühnast's 'sum of value,' or McLeod's 'circulating power.'" Positive Theory of Capital, p. 58. Practical writers may foreshadow a change in theoretical definitions. Edward Atkinson overshot the mark:

step in the right direction. The next step is to inquire, Why goods at all? Why not that which implicates the goods, *i.e.* credit or the business contracts which credit guarantees? Each credit instrument may thus be shown to stand in a definite relation to a general plan of capitalization, and the mass of such instruments to bind social industry into a whole dedicated to production and guaranteed against willful diversion to wasteful consumption. The great, purposeful, capitalistic machine is thus demonstrated to be a compact of individual volitions. Its dynamic ebb, flow, and control can be appreciated by the student of credit alone.

Contrast of subject with object.

7. There is need of an economic philosophy which distinctly contrasts the subject with the object. The method of describing the physical conditions and circumstances of production in isolation from the psychological, on the assumption that the former are complete in themselves, is crude. The "marginal" psychological theory is a bridge to a more dynamic philosophy.

The proper place for the employment of contrast is precisely where fundamental conceptions are involved. To-day the world of thought is profoundly interested in the opposition of subject *vs.* object. Every explanation of human affairs must pay due attention to this point of view. Economic science has not as yet fulfilled its mission in this respect, and this neglect is the ground of much of the reproach against it as behind the times.

Contrast between credit and money.

8. This contrast should begin at and be continued from the fundamental definitions and conceptions of the science. In the division of credit, it should at once appear in a clear distinction between credit and money as that between the (psychological) promise, on the one hand, and the (material)

[1] "The only capital which is of permanent value is immaterial — the experience of generations and the development of science." Cited in Wells's Recent Economic Changes, p. 31.

guaranty, on the other. It should show that credit is a consistent and all-prevailing manifestation of the organizing and controlling mental forces in industry and commerce; that credit documents indicate what is done with material things: for example, that some are consumed and others reproduced. The relation between circulating material capital and permanent is only really intelligible in the light of that between commercial business paper and such titular and guaranty documents as stocks and bonds. The subject of credit covers that of investment because both are concerned with the systematic control of industry.

9. The kinetic nature of credit is evidenced by the fact, clearly shown by McLeod and again by Dunbar, that it first emerges when something is done with goods. Goods lying unused and unwanted do not give rise to credit, or only in an exceptional way, say as a hypothecation to cover losses, and then on the supposition that they can be sold. This immaterial and symptomatic nature of credit documents is illustrated by their relative disappearance in a time of depression and answers the question, what is done with the savings made in hard times? If such surplus products as then accrue are not directed into investments productive of values, the promissory evidences of production do not persist. Here the process of set-off comes in to explain the annihilation of an existing mass of financial capital. Consequently, much space has been devoted to the subject of set-off, and the writer has ventured to use the terms "set-off," "liquidation," and "payment" in a rather definite way.

Credit is the kinetic constituent of industry.

10. But scholars should not be satisfied, nowadays, with a mere mechanical description of how things work. They must know the reason for the movements in the tide of credit: why and how does it ebb and flow? Let them revert to the contrast of mind with matter, of financial plans with tech-

The ebb and flow of credit is a distinct problem.

nical processes and results, to the multiplication of evidences of speculation, to the swelling of hopes as to the future, when a new spurt of industrial energy is in preparation. It is not enough simply to advert to the fatigue and recuperation, to the buoyancy of the speculator; the task is not finished till credit has been traced into its physical basis; for the *future* expectations are rooted in *past* performances.

whose workings must be traced through many stages of industry and many temperaments of producers.

11. It is a problem of outer conditions, a dynamic, biological problem, with which the inquirer is confronted. In order to follow the influence of environment upon men's economic hopes and promises, and consequently upon prices, he must go back to the foundations of industry. And here the contrast between "word and deed" forces itself forward in a new connection.

The reaction between promise and guaranty-fund is found in many different part-environments. Of these, some are themselves preponderantly physical, while others are typically psychic. Since they also witness competitive reactions between one another, the resulting picture is a composite of contrasts between contrasts: within and between environments.

The material conditions of profits and rent belong to many part-environments.

12. Finally it appears that, the fundamental conditions of prices having been ascertained, the master problem in economic science of profits and rent has been deeply broached. The labors of modern students have tended, now towards the identification of these parts of the national dividend, now towards their opposition, and again towards their reconciliation through middle terms. The last view seems to give due weight to the other two, and it is the one which is most consistent with experience; for general price influences are conditioned from top to bottom in circles which are progressively more material.

13. After the exposition of the mental nature of credit, and hence of the immediate dependence of general prices

upon the business temper prevailing in a given year, and again of the way in which that temper is controlled, or rather subjected to limitations rooted in the very foundations of industry and of the material activities manifested in manufactures and agriculture, there remained one main, integral part of the explanation of prices, namely, the immediate limitation, within the financial environment proper, put upon the process of organic inflation.

Here, again, the contrast between the material and immaterial — the fundamental viewpoint of all business speculation — comes forward with especial prominence. It is demonstrated that, in the financial region, man cannot dispense with the material background of metallic money, nor with its biological rôle, the corrective of speculative aberration.

Metallic money may be viewed as a part of the environment in the business of banking.

14. In this remedial stadium, it is an unavoidable corollary that the value of promises, that is to say, the present value of the promised, as yet unfabricated, future commodities, should fluctuate about or in the neighborhood of a measure or standard set by the present market value of metallic money. This definitive resistance to inflation, fairly incidental to the process of the making of the price-level, is that which lends color to the vulgar definition of money as the standard of value, and again to the naïve, popular, and erroneous understanding of the "quantity theory of money," a theory which is defective in some points, even in its authoritative formulations.

Money affects the price-level when it is employed in making good a financial guaranty. The "quantity theory" was crudely based on this circumstance.

15. There is a fascination in the application of theory. Man's restless activity leads him to action often upon the slightest reflection. The popularization of an idea, already familiar and out of date to the few, leads the many to foolish and extravagant speculations and acts. Of such material are popular explanations of prices and the popular code of price-morality made up.

Business competition establishes standards of payment which do not too nicely discriminate

individual cases. Legislation, under popular pressure, is disposed to decree rules even more unmindful of private interests.

It is not sufficient, therefore, in an account of a social institution like the credit system, to stop with a description of the organism working mechanically and purely upon individual motives, as individuals would naturally act with a view to their own personal gain, or even with a view to the public advantage, merely as influenced by the ethical standards they may adopt in their private conduct. Men seek *en masse* to improve social well-being through governmental regulation, by preventing undue swerving from the beaten path or even by documenting lines of conduct believed to be universally applicable. It is not too much to say that this belief in the possibilities of sweeping legislation is too often a miscalculation. How could it be otherwise, in view of the imperfect articulation of legislative action with the investigations and conclusions of professional theorists; especially in the United States, where the mass of legislation is enacted outright at the session at which it is proposed, after a merely momentary reference to a committee composed of members of the legislature alone, most of whom are persons — whatever their attainment or natural abilities — whose energies are absorbed in pursuing the art of seeking and holding office?

Monetary legislation affords food for reflection on the scope of lawmaking in general.

16. It is possible that legislative activity is *brutum fulmen*, or, at most, is of social benefit as a letting-off of steam. The view of the *laissez-faire* school is that it is entirely meddling and injurious. Their tendency is nihilistic. A saner view, perhaps, recognizes good as well as bad legislation. Whatever the political theory be, such influence as legislation may have, is, in any case, a reaction from organic, spontaneous, social phenomena.

Naturally, what this book has to say directly about legislation does not extend beyond a mere sketch of the extent to which the belief in organic activity has gained ground in financial lawgiving, especially in United States banking laws,

and how thus the recognition of money as a guaranty fund has spread.

17. Sometimes legislation is but the crystallization of organic practice which is become institutional; sometimes it attempts to put theories in practice; but more often, happily for mankind, theories do not reach the legislative stage. The last statement holds quite generally in the wide range of discussion that is aroused by the proposition of bimetallism. The minor part played by money in the prices question has sufficiently appeared, and yet all of the popular and much of the academic debating of the subject assumes the complete competence of price regulation through that agency The following text however, demonstrates that such control could at best be but partial, or directed toward waves of price oscillation too prolonged to be of practical influence on most men's fortunes.

Bimetallic propositions attribute undue importance to money and assume excessive power of control on the part of government.

18. The question of regulating the standard, however, may be provisionally accorded a factitious place in the doctrine of debtor's rights and wrongs, by conceding to it, *argumenti gratia*, all the importance that is claimed for it. By that concession, certainly, one is left free to discuss the ethics of price fluctuation in the abstract, whether he think it controllable or not. The argument is socially fundamental in this case, as it was in that of the objective price-level.

Concession, *argumenti gratia*, of the hypothesis of the money-using society, in discussing the standard of value.

19. On the topic of monetary ethics or of deferred payments, one inquires, perforce, into the nature of standards in general. The discovery follows that they are a social product, and have a general validity, therefore, more radical than a merely legislative act, — especially than a law which attempts remedies and is not restricted to a registering of established practice. Standards of business conduct have a positive sanction, that of deferred payments as a social product, included, so that compliance with them is moral. In their discussion, morever, the contrast between subject

A "natural" standard of value as opposed to an artificial standard.

and object is almost as prominent as in the earlier part of the work, that concerning the price-level; for it is now a question of expressing equal subjective values in different quantities of commodities. The equality is mental, and lies in the domain of consumption; the bearer of that equality is physical — the commodities of human economy.

This part of the analysis — the study of deferred payments — is eminently in line with recent psychological tendencies in the logic of political economy and is dependent upon the general philosophy of progress.

20. This book would contribute to the bringing of economics, and especially of the topic of credit, into harmony with a general philosophy of progress.[1] In so far as it lays stress upon the psychological element, it is in agreement with recent thought; for, however much psychologists may disagree in the materialness of their views, it is evident that the psychologizing of economics has advanced it a long way towards the ideal.

The hypothesis of a credit-using society is more practical than that of a money-using society.

21. A criticism which may be made upon the theory of this book is that it assumes an employment of credit even more extensive than that which really obtains. But a different hypothesis would be much less truthful. There are some localities, countries, and economic environments in which it is still habitual to use government notes, and even metallic money to some extent, especially among wage earners and farmers; but, in view of the preponderance which organic credit has won in the economic world, the hypothesis of a purely credit-using community is permissible for the sake of affording to finance the radical analysis to which it is entitled. Moreover, in the seventh chapter, by the hypothesis of successive environments, place is reserved for a study of the rather primitive and exceptional, money-using part-societies, which shall put them in their proper light in relation to the larger and typically credit-using world.

Exclusively metallic money-using communities demand the exceptional hypothesis of a primitive environment.

[1] Cf. the writer's "The Kinetic Theory of Crises," University Studies, University of Nebraska publications, 1897.

THE CREDIT SYSTEM

PART I

FIRST PRINCIPLES (CHAPTERS I–II)

CHAPTER I

THE FIELD OF CREDIT

1. The field of credit is wider than that of banking. Credit is a necessity in modern business. Its study is not one of practical measures, as such, but of the principles that lie back of them. — 2. To liken a bank loan to a sale of goods is not very helpful unless one also show wherein it is unlike. — 3. In both cases that party is called "buyer" who offers the more generalized purchasing power; but in a sale of goods it is the seller who has a stock of material goods, whereas in the sale of a note it is the buyer-banker who possesses the only material involved, the money reserve. — 4. When it is said that a bank affords by anticipation the present use of future funds, an opening is offered for the whole theory of the circulating medium. — 5. Banking differs from other businesses neither in the practice of buying and selling, nor in the keeping of a reserve, nor in the management of reserve by loaning more or less, but in the regulation the banker exercises over traders and manufacturers who seek his guaranty. — 6. Undue stress laid by legislators upon bank notes is a sort of materialism. — 7. The fact that it is the practice for banks to "exchange" checks but "circulate" notes, is also materialistic, and is illustrated by the early history of the Bank of Amsterdam. — 8. Bank policy in time of crisis deserves close study. — 9. Bank guaranty is especially significant and efficacious at that time. — 10. It alone stands between the business community and reversion to a primitive money or even to a barter economy. — 11. Credit is the foundation of modern exchanges, and must be explained independently of the crude ideas suggested by the hypothesis of a community employing solely money.

The topic of credit is more general and fundamental than that of banking.

1. A GLANCE at the partly coincident fields of banking and credit will make it easier to grasp the distinction between them and to form an idea of the scope of the latter, and hence of the present book. Treatises on banking assume or briefly premise that it serves certain social uses, that a bank is an agency for lending and a place for deposit, and that there is a common demand for an intermediary of this sort; but the grounds for this want are not always made clear.

Credit is a modern necessity.

Under the modern development of affairs, it is inevitable that a large proportion should be conducted upon credit. Practical writers accept the bank as an existing fact, and explain its workings in a systematic manner, but do not show why it is that trade, production, transportation, and exchange *cannot be carried on without credit.* Indeed, it is often said by those who have not made a special study of finance, that if business could only be continued with metallic money alone, it would be much sounder. Many persons, otherwise not without intelligence, cherish the ideal of commerce wholly on a "cash" basis. Inquiry whether the objection to the use of credit is well founded is unavoidable.

Financial writers set forth sufficiently the dangers of banking. They show the peril of excessive commitments and how that evil is sought to be remedied by the expedient of combined reserves and by the use of clearing-house certificates. The history of banking furnishes abundant illustration. The Bank of France has skillfully accommodated itself to drastic political upheavals, and its management has generally offered an example of how best to steer clear of financial crises, while instances selected from early periods in the United States and in England have rather illustrated how best to bring them on. The Bank of France was admirably managed during the period of the *coup d'état,* and again during that of the Franco-Prussian War. The Bank of England failed to cope with the crisis of 1857.

Questions of prices, crises, and prosperity belong to the broader study of the credit system.

The attempts to meet crisis conditions have, however, resulted in better management of its note issues. And yet no philosophical defense is made of the ways in which financiers have sought to bring crises under control, nor a radical explanation of the real nature of inflation, or of the causal relation of the latter to capitalistic and industrial convulsions. Works on banking say little about the rise and fall of prices in times of prosperity and depression, respectively, and less to show their necessary connection.

2. The functions of deposit and issue are exercised through a practice that appears analogous to a sale of goods; for the bargain in which they are employed is one for the exchange of credits, and hence may possibly be regarded as of such a nature. Literal accuracy is not to be looked for in expressions that are obviously pictorial, and yet it would plainly be well to attempt precise statement; for the inference that the operation of loaning is a sale is not devoid of difficulties. A loan impresses one as belonging to an entirely different realm of economic activity. It is perhaps sufficiently similar so that the analogy may stand as a means of illustration, but is dissimilar in this, that the patent transaction in the banking operation is so entirely foreign to that of the mercantile.

The likening of a bank loan to a sale diverts attention from the underlying guaranty.

Goods are bought and sold for the purposes of production or consumption. In "consumption" are often included acts that are really for production, as "consumption" of raw materials to be converted into final products; and in "production" is included the transporting of them to the place where, or the holding of them until the time when, they are wanted. But the making of a loan is a distinct act meant to further the technical operations; it is a special business ancillary to them. It is not the productive act itself. The loaner does not touch material; he does not lay his hand upon the goods, nor put his shoulder to the

wheel. Neither he nor his clerks stoke the boiler or open the throttle. Banking is back of all of these concrete operations, it is *general* to all of them. It makes no difference whether the banker is loaning to a manufacturer of iron, or of cloth, or to a cultivator of potatoes: his attitude towards all of these businesses is the same.

It is one of personal relation and guaranty. If a manufacturer were in doubt as to whether to put a certain pattern upon the market, it would mean much that a rich and influential friend should say: "Go ahead! I will see you through." That is as far as the banker does anything tangible; and his act of interest is certainly neither a sale nor a purchase. Their several activities are characteristic of different environments or markets.[1] However, he is in the long run well paid for his advice and encouragment, is perhaps the abler party of the two concerned in a loan, and his profits are often large.

3. The parallel between loan and sale is carried further, by the employment, in the former case also, of the terms "buyer" and "seller." But it seems hard to decide on principle whether to call the borrower or the lender, "buyer." The buyer of goods acquires his new property with a purchasing power more general than inheres in them; he offers money. One cannot with goods he already has barter for those he wants unless he discover the special man who wants those that he has and who can and will deliver those goods he wants. The banker who "purchases" the private note, *i.e.* "sells" bank credit, also offers *the more general purchasing power*. Both he and the borrower dispose of credit in the sense that they are not dealing with material things; but the banker's credit, the deposit or the bank note, has more general purchasing power than the private note received in exchange. Hence the seller and the borrower are alike in

The term "buyer" might have been applied, in the cases both of goods and of credit, exclusively to the one who makes the prior offer.

[1] Cf. ch. II, §§ 18, 19, *infra*.

that they both offer the more concrete and less general commodity.

There is, however, the distinction between them, that the former is usually passive. In practice, the buyer of goods comes to him and asks for them, and he decides whether to trust that particular customer, and whether the "money" the latter offers is good; and so he merely reacts. His is a selective function, he distinguishes the good buyers and weeds out the bad. But the stimulus so desirable in the nervous system of society manifests itself in this case through the buyer. This statement cannot be laid down with absolute universality, since in some mercantile businesses the seller does take the initiative: for instance, jobbers and wholesalers send their salesmen "on the road." The "traveling man" fulfills an important place in modern commerce. But still it can hardly be said that the selective function is as yet transferred to the buyer.

There is a different source of the prior offer in the case of the loan from that in the case of the sale.

On the other hand, in the case of a loan, the stimulus does not come from the banker, the buyer and proprietor of the less concrete wares, but from the individual who wants a discount of his note. In that case the seller leads in the bargaining. The buyer-banker reserves judgment as to whether he choose to invest in a particular note. It is his turn to act in a discriminative capacity in the economic organism, and the stimulus or nerve impulse comes from the man who happens to be called the seller.

So far, then, as the selective function be chosen as the test, it is the seller that fulfills it in the case of goods, but, in the case of a loan, the buyer. All depends upon the circumstance as to which party, from the nature of his business, is more stationary than the other. It is a matter of physical mobility. In the case of the handling of material goods, naturally, the seller is more or less confined by them. He watches them while buyers come to make him offers. On the

Common parlance has decided in all cases in favor of the test of generalization of purchasing power, in making the distinction between

"buyer" and "seller."

other hand, in the case of the purchase of credit with credit, the buyer is the party that commands the complex business. The bank is stationary. The clerks, account books, safe, and reserve are there. One or more banks form a "money-market." The French call it a "place." These responsibilities immobilize the banker-buyer. In this case the seller, therefore, acts as the one to give the impulse, the electric spark, the disturbance of equilibrium which sets the wheels of finance going.

It would seem that the dissimilarity in the assignment of the selective function is caused primarily by more or less physical accidents: the stimulus comes from the one who is not charged with the physical goods or plant. Either buyer or seller may do the selecting, according to the convenience of the business. But on the other hand, in both cases the buyer is the person who offers the *higher kind of credit*. Whether the one man is called "buyer" and the other "seller" depends upon the consideration, whether it is the one or the other that offers the more developed and *generalized form of promise*. In the case of the sale and of the loan, the "buyer" is the party that offers the more *widely useful purchasing power*. The logic of language has, in the usage with respect to the terms "purchaser" and "buyer," recognized a most important point, upon which the whole explanation of price phenomena depends, that purchasing power is a matter of accumulation of guaranties.[1]

4. One duty of the bank is said to be the providing merchants and dealers of every description with the present use "by anticipation" of funds expected by them in the future. By "funds" is meant rights whose ripening into present utilities is awaited with confidence. The word lacks definiteness, and, perhaps for that reason, is rather popular. In so far as future values are merely expected to be objective,

[1] Cf. chs. II, §§ 6, 12; IV, §§ 2, 13, 24, 27, *infra, et passim.*

that is, to be realized only in future things, in goods not yet created, they cannot now be concretely utilized or applied. It is impossible that those unfinished materials which will be the bearers or carriers of values can be enjoyed by anticipation at the present time, or that the totality of future products maturing at a given date, say six months hence, can now be consumed.

Purchasing power arises from "anticipation" of future goods.

The "anticipation" consists in the fact that the reasonable assurance of a new crop of utilities enables men to purchase present articles. It is not the promised commodities that are enjoyed, but a *share of subsisting, which is proportionate to the claim men have upon future goods.* This power of determining the destination of tangible things *is the real scope of the employment of money.* "No provision for the morrow, no enjoyment for to-day," is the rule whose pursuit makes men dynamic.

Holders of contracts for future produce have an option of enjoying less now or more in the future.

The productive process will yield an accession of value, and it is from this circumstance that misunderstanding arises. The present goods alone obtain their effective worth in the market of to-day, but the surplus cannot now be enjoyed. The anticipation of future funds creates no greater satisfactions, but lodges financial control in the hands of those who can dispense with present utilities and who prefer power to other gratification. The dominion of capital is essentially the mastery of finance.[1] By the secular, or-

[1] Professor T. B. Veblen, now of the University of Missouri, has written a very clever book to demonstrate the dominant position of the financier. He claims (The Theory of Business Enterprise, pp. 98 *sqq.*), however, that the valuation of future goods is a social evil, in that it is a means of enrichment of the few. However that may be, it is a social necessity in that it furnishes an organic tool of exchange, and it is an individual necessity in the making of business plans. A satirical criticism of modern business methods, however systematic, cannot be intended as a complete analysis, although it ought to be a guide of business men to improvement. To him that would mend his own ways, the book should be very instructive. To the impartial student, it is entertaining and suggestive. Veblen shows that many financiers pocket their profits without waiting. It would be

ganic methods of history, the financial has displaced the feudal system. What new institution will, in turn, supplant it? It is credible that the new change will be no more spasmodic and arbitrary than was the old.

Is banking in ordinary times a peculiar business which deserves separate state regulation?

5. Again, the rule is announced that a bank must have no resources that are not readily salable. Radical explanation should be obtainable. The peculiar quality of such assets is fundamental. Prompt liquidation is a distinctive feature of certain businesses. But why should the banker need to have continually on hand a species of goods which he can sell at a moment's notice, whereas the department store can only turn over its stock once or twice a year? Connected with this fluidity of capital is the social status of the banker's calling; for he is often likened to the governor of a steam engine. The special nature of the goods in which he deals calls for study. They have already been shown to be generically different from those of the merchant.

The distinction is found partly in the general nature of the purchasing power to which allusion has already been made,[1] and in which the resources of the banker consist. His reserve is regulated by loaning more or less; by decreasing loans he increases it automatically. He is dealing in something which is so homogeneous in its nature, that, as it passes through his hands, he can act upon it as the engineer acts upon steam through the throttle valve of the locomotive. It can be closed upon commercial credit or opened at will. It can be adjusted through the mechanism of the bank discount rate.

In the case of an ordinary business, that method of regulation holds only in a qualified way. A merchant, like a banker, must keep by him a certain amount of small change as reserve. He dare not, in the long run, buy faster than

difficult to prevent some persons from buying the future chances of others or to guarantee the latter against a bad bargain. [1] § 2, *supra*.

he sells or sell faster than he buys. He must be sure that he is disposing of the goods on the shelves before he acquires new ones to replace them. When business is active, he is turning his capital quickly, selling rapidly, and, therefore, can "stock up" equally fast. But if an unusually urgent pressure for payment comes upon him through the banker or the persons from whom he obtains raw materials or inventory on hand, he must pursue the same plan as the banker: he must stop purchasing until the paying of his "loans," that is, until the further purchase of goods from him. For he, by buying them, made a loan to the public; he acquired them in the confident expectation that customers would take them off his hands.

The cases are parallel. Having himself obtained a bank loan in performing a social service of distribution, and finding himself called upon to pay, he does precisely as the banker: he ceases to give mere "customary" credit to the public, until it liquidates his existing commitments by buying the goods offered.

The banker offers special guaranties to business,

But the contrast is only brought out the better by stating the resemblance. The banker needs a greater amount of reserve than the merchant, since his must largely suffice for both; he must maintain his assets in a more liquid condition, and they must be in the highest degree general and homogeneous, for his business is so related to the merchant's that, in this matter of purchase and sale, it is the former which regulates the latter. The banker is, then, of high potency in determination of outlay, investment, and capitalization. The merchant, dealing upon credit obtained with him, is under pressure not only to pay the other creditors, but him in the first instance; and he, as the guarantor, occupies a position of vantage. According to the pessimist, this ranking situation is one purely of exploitation. The better view is that the banker is charged with grave responsibilities

which place him in a credit-relation with it,

with respect to the more materialistic circles of an economy. The merchant's business is not wholly carried on upon his own individual credit, but to a large extent the banker has taken the place of the wholesale or other seller of goods to the merchant. The latter, instead of now owing the jobber, has paid him with the bank discount, and the banker has substituted himself for the jobber as creditor. The banker, then, it is that exercises direct authority over the merchant as to the payment of debts.

He, therefore, occupies the position of a governor. He holds his reserve in order to make good the obligations he has assumed for the merchant, having squared the latter's account with the jobber, by assuming, in turn, the jobber's debt toward "the public." On the other hand, he has undertaken the responsibility of holding the merchant to his contract, and, therefore, feels especially the ups and down of prosperity. In the management of his discounts, of the flow of paper through his portfolio, and of his reserve, he possesses a peculiar mechanism, by means of which he coerces the merchant to do what the latter ought to do anyhow, but might not, if there were not at hand a specialist, master of a potent agent that can be brought into contact with the merchant's affairs. The latter deals in goods primarily and in credits secondarily. The former, in credits primarily and in goods secondarily, in reserve items, or, ultimately, in security of a physical nature that he may be constrained to accept. To loan on commodities is called a "Lombard business." That is not carried on by banks in the United States to any considerable extent, except in so far as the security offered by surreptitious chattel mortgages may afford a fair parallel. What one kind of business man does as principal occupation is the side issue of another; different callings are made up of the same ingredients in unlike proportions; the dissimilarity of the businesses is due to the

through which he influences its credit-relations with the public.

unequal parts of the mixture. They affect each other through their similar elements.

6. Professors McLeod and Dunbar call attention to the circumstance that it has been the note rather than the deposit that has claimed the solicitude of the legislator.[1] The suggestion at once arises that it is the materiality of the former which appeals to the physical senses of the representative of the people. He is a materialist in finance. Essentially note and deposit are identical;[2] they are both bank credits of the same kind. But most writers do not attempt to characterize them in a broad way that can fundamentally satisfy. It is learned that they are demand credit, a species of short-time credit, and it is said very truly that the bank purchases long-time with short-time credit. They will be better understood when the subject of the relation of financial capital to purchasing power is reached.[3]

Materialism is found in popular view of the bank note.

7. In this connection, the elementary inquiry is properly raised, why it is that bank notes are not so commonly and voluntarily redeemed as deposits. Since there is no essential difference between a bank note and a deposit, why does not the American banker present the notes spontaneously to his rivals for the sake of curtailing their business? He does not fail to present the checks drawn on them, which he may hold. The only difference in form between check and note is that the latter reads as a promise of the bank, but the former as an order on it. A check is a bill of exchange drawn on a bank. While that is the only economic difference, and in the law of bills and notes there is no serious distinction drawn because of the absence of identity in the terms of those instruments, and in commerce also there is

Widespread materialistic views cause notes to circulate while

[1] Cf. ch. XII, *infra*.

[2] Depositor and note holder are equally common law creditors. Cf. Dunbar, Theory and History of Banking, ch. V. For France, cf. Maurice Patron, The Bank of France (United States Monetary Commission Publ.), p. 53.

[3] Cf. ch. IV, § 9 *sqq.*, ch. XII, § 6, *infra*.

checks are presented for payment.

little besides customary or local preference between them, yet it is certainly remarkable that unlikeness in form of two things which are essentially identical should have led through historical paths to such entirely dissimilar legislative treatment.

It is stated that the reason for the discrimination between notes and checks is that in a very large community, where there is a great number of banks, as in the case of the 7000 national banks in the United States, one banker can pay out the note of another over his counter, and thus use it as cash. He ordinarily is so widely separated from any of the debtor banks that direct re-presentation to them for redemption is not likely to afford him the advantage otherwise accruing from curtailing the operations of near-by competitors; for his clients are in his immediate neighborhood, whereas the note which he pays out, and which he might have sent away for redemption, is issued by a bank at a distance. But the same motive with respect to remote rivals should affect the banker in the case of a check. Nevertheless, he will send the check from the East to San Francisco promptly, or the banker's draft — which is the same thing for his purpose — to be collected, notwithstanding the fact that his clients are entirely different from those of the California institution, and that there is not the slightest advantage to him from reducing its resources. He has no other outlet for this formula of the demand obligation. The materialistic views of the public thus affect banking practice as well as legislation.[1] This contrasted habit of looking upon notes and checks is not perhaps an essential topic in the exposition of the general principles of credit, but is interesting as illustrating the relative stress laid by men upon material and immaterial things. Historical light is obtained from accounts of the origin of the Bank of Amsterdam. There was

[1] Cf. ch. XII, § 10 *sqq.*, *infra*.

a significant difference between the first form of a bank order, which was coeval with the founding of the Bank in 1609,[1] viz. a simple draft upon it for money which had been deposited, and the second, or the *recipisse*, which was adopted some 74 years later.[2] The latter was not an order upon the bank, but circulated like money. Under the first, the owner of money deposited it, gave a check upon that deposit to his creditor, and accompanied the latter to the bank. The deposit was transferred by virtue of the oral and written assignments. Under the second, practically, the bank issued a note, which circulated and was not presented for redemption at every transfer. In these ways of granting bank favor is seen an early stage of the two forms of demand credit since become traditional. It appears that, in custom, the "*recipisse*" (the bank note) was used to make ordinary payments, and probably — especially when, as it happened in the Bank of Amsterdam, the bank extended assistance without publishing the fact — loans were effected with such notes in those cases in which they were not with cash. In England, too, it became common for the goldsmiths and jewelers to honor transfers of deposits of gold and bullion made with them, and they also made the discovery that they might loan in the other way: they could acknowledge that a person had a deposit with them when he had none. But the document bearing this concession never came to be regarded as money, but remained a debt to be redeemed. It did not reach that degree of emancipation from concrete obligation which might cause it to be taken almost in the sense of fiat money, and which was attained by the later Dutch form. The history of the differentiation of checks from notes illustrates what a wide sway the material form and the customs connected with it exert over men's actions. It is easy to pay the note out again simply on account of its form.

Evidence from the history of the old Bank of Amsterdam indicates the origins of the "legislative" notions about credit.

[1] Dunbar, *op. cit.*, p. 98. [2] *Id.*, *ib.*, p. 104.

8. In time of crisis, banks can often arrest the acute part, a run and panic, by loaning freely *at that particular moment;* but no fundamental explanation is commonly forthcoming as to why that expedient is successful. The exegesis would proceed to demonstrate, first of all, how business is carried on and sales are made by means of credit; then, how it disappears; and lastly, how the banks, by their facile, common organization, are enabled to extend to one another a forbearance which greatly benefits the public; for it permits debtors to avoid failure in many cases and prevents disastrous clamor for cash. It encourages a wholesome liquidation. It effects by spontaneous organic means most beneficial results, whereas the "stay laws" or *moratoria* enacted by legislators, often work harm.[1]

Pivotal position of bank management in time of economic crisis is a consequence of the universal use of credit in buying and selling.

The bank has a reserve, which, always at the disposal of business men, is a boon to them in time of crisis. Every proper credit instrument is a promise to pay money; but that obligation does not necessitate that each promisor-debtor keep so much cash by him. The evolution of finance has enabled him to unburden himself in some way other than by money payment. He obtains independent credit by selling goods, performing services, and drawing wages. He ascertains those sales or wages due, in the form of an organ generally acceptable, which, in times of usual confidence, passes current in preference to money, and frees him from his servitude. A crisis is a time when this privilege is withdrawn and he is called on to pay money. He knows that he can be held to literal compliance, but has not maintained sufficient cash on hand, since he had expected no breach in the usual exchange of debts for debts. Trade is at a standstill and his position is critical.

9. The banker, however, opportunely intervenes. He holds a reserve for this particular contingency. By dis-

[1] Cf. ch. X, § 7, *infra.*

counting a merchant's or manufacturer's bills and thus becoming the latter's creditor, he also substitutes himself for the same person's debtor. To guarantee a debtor's debtor is to undertake a charge of the utmost delicacy and responsibility, the successful conduct of which by bankers has made modern business possible in its existing comprehensiveness. This work of pacification and assurance would be impossible in the absence of a financial force which far exceeds the frontiers of the banking business and calls for independent analysis. So numerous are the debtors' debtors that, in time of crisis, the bank guaranty is a public salvation. Banks then usually pay out gold freely. The American system of banks imported gold from abroad in large quantities, up to $100,000,000, in the year of crisis 1907, while also, it is true, in that case, resorting to bold and unusual expedients in order to avoid substraction from their hoard. It is remarkable, however, that in a crisis more gold circulates than in prosperity. The guaranty of the banks makes them the medium of this supply, even if half-hearted or recalcitrant. In good times, practically no gold is handed about in the United States. The hypothesis of a credit-using community is quite typical of everyday experience.[1] A large amount of gold circulated in the crisis of 1893. Persons who had never seen eagles before clinked them in their pockets then, and during the three or four disastrous years that followed.[2]

The community needs the business insurance afforded by banks.

Money is important in a crisis.

[1] "We may therefore safely accept an average of 80 to 85 per cent as the probable percentage of business of this country done by check." Kinley, The Use of Credit Instruments in Payments in the United States, National Monetary Commission, p. 201. Professor Kinley does not include paper money in credit instruments. If that were done, the proportion of credit would be raised, in good times, very close to 100 per cent.

[2] "The system of purely fiduciary currency, which is in process of becoming firmly established, is not yet sufficiently stable to prevent us from being *thrust rudely back into the old ways* whenever we exceed the limits of our resources.

"Crises afford a striking proof of this fact. The initial period, the pre-

10. The momentary return to metallic money is fraught with a biological significance, for it points plainly to the inference that a crisis is the breaking down of a credit structure, of a business organization, which had been painfully built up and had hitherto escaped the need of cash payments. An elaborate process of setting-off can no longer be kept in operation; an intricate system of balances and equalizations which had been created by the evolution of business has suddenly ceased to work; the community grasps for some means to carry on its affairs, and returns to the practice of an early epoch when actual, physical, materialistic money was current.

Consequences of a failure of credit admit of biological explanation.

The employment of money during a panic is not a return to the righteous and natural medium of circulation; that is the ingenuous fallacy of the street corner. It is rather a reversion to an earlier and more primitive social housekeeping. The calamity has shoved men back into a ruder state, where, instead of reckoning accounts and carrying forward balances, and setting off expenses with income and profits with investment, so that the progress of the economy is

cursor of the crisis, is nothing but an abnormal extension of credit and of speculation. At such times the need of loaning upon the solid foundation of metallic currency is felt with a new intensity; and when, with the blindness resulting from overconfidence, this need has been neglected, when from a disregard of the functions of money, a crisis is brought about by the violent rupture of the equilibrium of credit, *gold at once resumes its rights*, is sought for on all sides, and, according to the seriousness of the offense, exacts complete amends, with the honors of a premium as high as it may choose to make it." (The italics are the present writer's.) Maurice Patron, National Monetary Commission, The Bank of France in its Relation to National and International Credit, p. 7.

Reserve is a connecting tissue useful for the maintenance of industrial life and circulation at a time when they would otherwise cease owing to suspension of the exchange function of credit. It is half good and half credit: as credit it keeps alive circulation of goods; as good it can circulate in the goods market after the temporary disappearance of the separate credit market. Banks in normal condition should possess sufficient reserve to meet an emergency. (Cf. O. M. W. Sprague, Crises under National Banking System, pp. 81, 156, 147, 127.)

satisfactorily recorded by bookkeeping or by a use of documents and tokens practically equivalent to bookkeeping, they hark back to the practice whereby the industrious person acquired perforce his goods directly in material form, and his profits were a substance that he must hoard if he would enjoy it. This social atavism often goes so far that, if the disaster is very serious, the intermediary substance, namely, money, is no longer obtainable, and recourse must be had to the barter of a still remoter age. To such straits were men in certain localities reduced during the above alluded to crisis of 1893. The housekeeper not only searched for what he wanted to consume, but also for some one who was willing to exchange it, on the spot, for what he produced.

11. It now becomes plainer why it must be insisted that *the proper way is not to explain credit by money, but money by credit.* The real thing to be understood, in and of itself, is the exclusively mental process by which exchange may be and is carried on, and the significance of money must be derived from its incidental association with the more highly evolved way of exchanging without it. Money is the alternative, it is, on special occasions,[1] the substitute, for credit; credit is not the substitute for money; and, therefore, its use can be explained only in connection with the usual and normal thing for which it is substituted. Finance is a specific activity within sufficiently definite environment. Credit is positive, whereas money is equivocal or neutral, and more often than not forms a portion of the passive *entourage* or fixed conditions.

The psychology of finance cannot be inferred from a materialistic study of a mere money economy.

[1] Cf. ch. XI, § 8, *infra.*

CHAPTER II

THE UTILITY OF CREDIT

1. While it is true that speculators make and lose fortunes through price fluctuations, yet, generally speaking, no social object is attainable by attempts to regulate prices directly. — 2. The only way of affecting prices, fundamentally, is to modify the periodical over-sanguineness of the public as to the possibilities of the wealth-producing machine. — 3. Such radical treatment is obstructed by the traditional materialistic view which necessarily overcast the speculations of the early economists, and can only be frankly avowed in a separate study of credit, which is really the dynamic element in industry. — 4. Static economics explains the advantages of trade. — 5. Dynamic economics justifies the widening of the market. — 6. Indorsement gives a purchasing power better than gold. — 7. Credit places responsibility and is characteristic of an enterprising people. There could be no credit in the socialistic state. — 8. Credit indicates risk. — 9. The doctrine of continuities applies to credit. — 10. The test of credit is the promise of guaranty of a business enterprise, and the history of credit is that it passes through a cycle of generalization. Credit is graded like goods. — 11. The general use of credit amounts to an institution, which furthers enterprise and must be accepted by all. — 12. Like many another institution, credit had a shady origin, and the contemplation of its history teaches us that we cannot always look to history in order to establish the present justification of our acts. — 13. Any practice of manufacture or consumption which results in a falling off in product eventuates likewise in a shrinkage of circulating credit. — 14. Luxurious expenditure has this effect. — 15. The system of set-off or compensation afforded to the public by banks tends to hasten the kind of settlement known as liquidation, but to delay that known as payment (with money). — 16. It is indispensable to an explanation of credit that finance be regarded biologically as active in a separate environment. — 17. Financiers and manufacturers belong to separate environments. — 18. The dynamic nature of credit may further be understood by conceiving of credit documents as negative signs affixed to goods.

1. PRICES are the economic *yardstick*. They *measure* economic conditions and report them. But the message

must be deciphered! The common conception is quite the reverse. It prefers to associate them with irreconcilable potencies. If anything goes awry with industry, if times are bad, if produce brings little, the notion spreads that these evils should be remedied by acting upon prices. The perversity of the popular view summons for scientific adjudication the question, how important a contributor to economy are general prices? All persons will probably agree in the statement, that man can only produce effects by acting through *causes*, or along the line and in the direction of the natural or ordinary course of affairs; for it is visionary to expect to accomplish results by means essentially different from those demonstrably in presence. The proposition to bring about prosperity by acting upon prices has a doubtful sound. The simplicity of the means seems hardly adequate to the magnitude of the end. The better view is that prices are a *gauge*. They are an indication which belongs to the symptomatic side of economic life. Doubtless, a contractor may be ruined if they mount after he has signed an undertaking to do a certain piece of work; but the proximate cause of individual misfortune is plainly inconclusive as an explanation of social disaster. It may not be desirable absolutely to guarantee everybody against failure;[1] for it is as true among men as among animals that progress takes place partly by ruination of individuals. However, if the purpose be to protect men in general from economic annihilation, it would hardly be attained by acting upon prices, but upon something anterior which caused their deviation. The suspicion lurks that an unvarying price-level may not be desirable, just as drawbacks may be discovered to a climate of uniform, mild temperature. If the chief function of a price is as a gauge, it probably is better economy to attack the evils of prices at their source in men's motives, and to

What is meant by saying that money is a measure.

Prices are symptoms,

[1] Cf. ch. XIV, §§ 8–11, 13, *infra*.

pass entirely over the first impulse to accept the popular posing of the problem. Money is useful to carry goods from the proprietorship of one person over into that of another. But the important question is not how much money men possess, but what is socially the process of "making money."

of three classes of business facts.

If it holds true that a disturbance in prices indicates a rise or fall in the prevalent expectations of the community as to production, it is proper to inquire whether it be not more feasible to affect the former through the latter, than the other way about. Organic inflation is most certainly an indication that men expect an extraordinary amount of wealth to be made available and to be covered into their strong boxes in the near future. Can that expectation be corrected in any way by acting upon prices, or by an edict that they be lowered? The popular demand, however, commonly runs for *higher* prices. But it is only too apparent that to raise them mechanically is not to infuse the business world with the energy of legitimate enterprise. Prices have two chief functions: one is that, with respect to particular goods, they indicate the rate at which the latter are estimated, compared with one another. The second is that they sum up the outlook of the community at large with respect to prosperity. Only as a third and minor case, can it be said that they are interesting with relation to a standard of value. This will receive particular treatment in the last part of the book. It is with the second that chapters I–XI have chiefly to do.

The naïve quantity theory of prices is illogical.

2. Theorizing on money is a favorite popular amusement in a democratic country, and an ardently pursued "elective" in the unchartered school of national politics; and, in spite of a succession of heated "educational" campaigns, the opinion survives in some quarters that the quantity theory of the value of money is the right one. Whatever truth in-

heres in it will gradually appear in the later discussion, but it is mentioned here because it is usually associated with the cost of production explanation of price-level, whereas the subject may better be approached from the point of view of credit. The popular innuendo is that the value of "money" depends in a simple way upon coin, notwithstanding that the principal, the difficult problem of the value of the circulating medium, is that of its connection with credit.

When the orator persists in allegiance to the quantity theory, he ordinarily means that credit has nothing to do with the making of the level of prices. At best, he equivocates on this important part of the price-problem. Indeed, intricate analyses are not suited to public addresses. No one denies that gold has a market value, as do potatoes, and that its value depends very largely upon its quantity. But to maintain that a simple cost exposition of such value settles the whole money question, is a grave error.

So, prices of themselves are signs and not things or motives, and it is of first importance in financial study to learn what they signify. They cannot be regulated directly any more than the pressure on a steam gauge by moving the dial. It is necessary to go to the boilers, to shovel on or shake out coal, or work the drafts; and then the dial will measure the effect.

Prices fluctuate with prosperity more than with the money supply.

If one venture so far as to claim that, taking human nature as it is, there cannot be a boom in physical, technical industry unless there exist a certain amount of spontaneous inflation, the remark need excite no surprise, for it comports an objective contemplation of economy. Thereupon, if fire be not drawn from under the financial boilers, an explosion may occur. If such a catastrophe cannot be regarded with equanimity, it still holds true that varying pressure may be beneficial. A sudden disruption of industry may, even in the present enlightened age, be at times even desirable, for

men have not yet learned to clear the way for further economic progress by gentler means. The proper burden of science is plainly not to show how things should be ideally, but the organic laws which control them. Men are morally free to form their own ideals only in presence of the facts. It certainly is an advantage to know whether, in the effort to better the economic situation, it is prices or ourselves that call for modification. A good physician teaches always to look to the causes and not to the symptoms. In business the same principle applies.

Orthodox political economy is naïvely materialistic.

3. The topic of credit constitutes so special a branch of political economy that it may almost be called a distinct science. In a broad sense, it would not do to state that it is not a part of the larger branch of learning; indeed, it would be preferable to assert that it is a most important, but neglected part. The philosophy, or the real explanation, of credit claims widespread study. As political economy has heretofore been treated, it is very largely a material and static science. By a "material science" is meant that it deals with industry and wealth from the point of view of material quantities. Mill [1] states that the pay of the laborer is the "real" wages that he receives, viz. goods and necessaries; and profits are the portion of the product turned out by the factory, which the proprietor is able to take for himself. The theory of wages in general is expounded as concerning the partition of a material fund, determined by forces that are deemed sufficiently exact. It consists of the circulating capital which is appropriated to the payment of the wages.

On a broad view of the case, "orthodox" political economy is found to be very largely occupied with a description of the environing conditions, chiefly material, under which

[1] John Stuart Mill, Principles of Political Economy, bk. II, ch. XI and ch. XV, § 7.

industry is carried on, although unconscious of its biological mission. According to Mill, the wage fund was limited mainly by the state of the arts and sciences which prescribed the proportion of laborers to capital, and of cost to value of product. It is true, on the other hand, that his school admits that there is here a psychological determination also; that the wage fund will depend partly upon the mental condition of the employers, — the disposition of the responsible class to appropriate the funds at its disposal to reproduction, and, hence, to the persuasion and occupation of labor as a means for further creation of goods. That self-determination, however, plays the less important rôle. The foremost thing is the material conditions. The mental are little dwelt upon by Mill, but more by a later writer, Cairnes.

The wage fund illustrates the criticism.

The whole subsequent course of economic science has been away from the material view, not because it was essentially erroneous, but for the reason that it needed complementing with a study of mental processes. In the case of credit, the breach is apparently widened. A domain is reached where mental processes may be considered abstractly and apart from their direct power over material things. While credit institutions may properly be regarded as environing conditions, they are not material. A bank is essentially a psychological organization. Business dispositions, arrangements, and processes are cerebral facts and operations. In a broad way, it may be said that credit is the study of the power which sets industry going. In credit reside the dynamics of economics. A revolution has been wrought in the student's conception of economy, which may be characterized as one from a static to a dynamic or kinetic point of view. It is not the province of a book on credit to trace that change through the various theories of political economy, but it would seem that the study of credit belongs to the final stage of the movement.

The study of credit is avowedly psychological.

4. An illustration of this development is found in the case of international exchange, which is presented in the most dynamic portion of the work of Mill. The wage fund presents to view a heap of necessaries that are to be distributed among laborers. That is a static conception. It does not correspond to reality; not does it help much toward an understanding of what is actually passing. To prove that the wage that labor as a whole can obtain is a fixed amount, is useful and true only under very special circumstances, because observation shows that laborers in different industries, localities, and businesses are at any particular moment working under very different conditions; and only slowly are their environments so assimilated that it may be said that they are affected in a common way.

The wages fund is a static conception.

International exchange, on the other hand, is the topic in Mill which receives most dynamic treatment. If one country purchases goods of another and imports them, it hypothetically at once pays for them in money. The second country, now having money and not goods, is in situation to send it back to the first, in order to continue the commerce; the operation is completed with the second purchase.[1] Goods have been paid for with goods, and the cycle is finished. The process is dynamic in the sense that it exhibits a disturbance and restoration of equilibrium. It is stated as one between material goods exchanged on both sides. The result is practically accomplished by the exchange of goods against money and the subsequent return of the money against other goods. The explanation, then, of this commercial way of doing, is one sanctioned through the restoration of a disturbed equilibrium; and the unsettling of static peace is portrayed as something unavoidable but still not wholly desirable. The coveted end was to effect the ultimate barter of goods for

International exchange is a topic susceptible of both static and dynamic treatments.

[1] *Op. cit.*, bk. III, ch. XIX.

goods. Fortunately, a mechanism was provided for this purpose.

The dynamic view may be illustrated by motives for widening the market.

5. There is a reverse side of the picture. In order that a market be established where there was none previously, it is necessary that some one should go forward to offer goods; that he should make attractive conditions; that he should say: "Instead of trading goods to me you may pay money; it may be more convenient for you to do that than to deliver goods; I do not intend to consume your goods personally. If it is still more to your liking, I will give goods against your promises." By such diplomacy he induces the other party (or nation) to come into his market. He has conquered and established a market, he has created a new organization.

The dynamics of industry are found in the psychological point of view.

Industries and social acts move along lines that are already worked. Men are creatures of habit; they do things in the way which they have been taught. He who creates a new market or economy, deserves well; he is an opener of a road in the wilderness. But the static political economy assumed that all roads were open, that there was no merit in the pathfinder, that there was no necessity of disturbing equilibrium. If, in extending the organization of industry, it has been found requisite to manufacture goods that were not wanted at home, even to lay hand on capital heretofore engaged in the manufacturing of articles that were wanted, that innovation occasions inconvenience and readjustment, a corresponding disturbance is created abroad, and a certain stress is put upon everybody engaged in industry, to adapt himself to the new conditions. The emphasis, in this view of things, is laid, not exactly upon the restoration of equilibrium, but upon the first unbalancing; and it is quite appropriate to say that, when economic calm is ruffled by the breaking through of hidebound habits of business, the result is accomplished by means of money or of credit. The

conclusion, then, is that credit, the usual tool of exchange, offers the opportunity for dynamic action. The dynamics of economics is contained essentially in it.

Credit is the power which controls technical operations.

6. Credit is not merely an organization in economy, but also a power. Here it is not question of the release of energy through the fire, but of the higher potency that kindles it under the boilers. A person little known draws his note for $100.00, which is not readily negotiated. If, however, he happens to be acquainted with some better-known dealer, who is confident that he is "good" for $100.00, he can buy commodities from his friend with the note. Then the latter, perchance, indorses it and buys $100.00 worth from somebody else; who continues the procedure. It swings about the circle until it comes back to the maker to be paid. The more names that are indorsed on the back of it, the less inquiry is made as to who he is, or who his friend is; and finally it acquires a power of purchase that is *better than gold.*[1] It is the psychic power concentrated in the signatures on a credit document, representing the accumulated resources in industry of a number of persons, that gets up steam. The difference between credit and economics emerges more clearly: the former has to do with the organization and manifestation of *activities* in industry; the latter, with its general and especially its ideal *conditions.*[2]

The meaning of credit for individual development may be tested by the hypothesis of the socialistic state.

7. There would be no credit in a socialistic state. This proposition is closely connected with the one last considered. Such a community is an emotional conception based very largely on the hypothesis that there are no promotion and no risk undertaken by individuals. But if the state undertook to assign to every one a task according to his ability, and remuneration according to his efforts, there would be no such a thing as success — outside of politics — but only

[1] Cf. ch. III, § 4, *infra.*

[2] Therefore chapters VI, VII, *infra,* belong to the dynamics of economics.

official opinion of success. Better ground for revolution could hardly be imagined.

One object of credit is to fix responsibility.[1] The sociologist properly explains that industry is a social organization. Political economy has been much occupied with the principle that, without intending to be social beings, or to be generous, men do, nevertheless, in the full meanness of their hearts, help one another. So perfect is the organization of production that, as business is carried on, responsibility is compulsory: it is imposed through the instrumentality of credit. "I promise to pay $100.00" is a personal undertaking entered into by Mr. Hobson. He has purchased $100.00 worth of goods of Mr. Dobson, and has given his note for that sum. When Dobson manufactured them, he assumed the primary liability for all charges connected with them, but, as soon as Hobson gave him the note, the latter became answerable for their social distribution. He was bound to protect them from deterioration until a consumer demanded them, and then to exact, if possible, at least so much compensation as would cover their costs. The consumer, in turn, was obligated not to surrender an exaggerated price, in case Hobson or Dobson miscalculated the market. To be sure, if Hobson do not pay Dobson, the goods may be shipped back. The credit document exactly places the responsibility. The success of the working of the credit organization depends upon the fact that the social onus seldom rebounds upon Dobson. If it never sprung back, that would be an almost ideal state of affairs. According to the statistics of the mercantile agencies, the business promise is fulfilled in more than 99 cases out of 100.

Credit is a social but not a socialistic category.

Prompt payment of bills and notes illustrates the degree

[1] As government is understood and practiced, the state fixes its own responsibility by means of indicia borrowed from organically evolved private credit. When Switzerland recently took over the railway system,

in which commercial responsibility is sustained. Modern industry works by virtue of the perpetual undertaking and fulfilling of such incumbencies. The great school of character, incorporated in the organization of industry, exerts its discipline largely by the putting upon individuals of a burden in the nature of credit. It is unnecessary to point out the deteriorating effect upon humanity, were men not compelled to assume responsibility; the dispensation will never happen. It is impossible that the business of the world should proceed without strong, well-tested, trustworthy people. Personal credit will always exist and the topic is of solid permanence.

8. Accidents happen: men enter upon enterprises that are not successful; promoters underwrite, or obtain to be underwritten, new railroad and industrial schemes which fail. The credit system, however, determines exactly where the brunt of the disasters shall fall. Frauds are also perpetrated through it. It is only necessary to locate the promises in connection with the failed undertakings, in order to select the members of society who should assume the social loss. The persons who own the stocks and bonds of the company, and generally those who promote it, lose perhaps the funds that they have invested. Persons who have sold goods and taken notes or the stock of the company in payment lose their goods. The last fifteen years have been a period of very active promotion, and it is not out of place to add that the persons who have not lost are often those who have sold opportunely their stocks and bonds of recent creation, and put the realized "money" into old and approved secur-

Credit fixes responsibility.

the transfer was accomplished by the exchange of state bonds for the outstanding corporation obligations. The transaction amounted to a declaration that the state had substituted its liability for that of the preexisting corporations, and that the creditors and owners had, reluctantly perhaps, consented to the arrangement. *State bonds are an imitation of private obligations.*

ities. Financial success is determined by where the good and bad credits are located. The ultimate ethics of the case is doubtless a different thing from determination of the actual social utility of the system; but it is wrong to assume that the employment of credit, in the majority of cases, is open to criticism simply because there have been scandals. The realm of credit is a broad one, from the note for $100.00 up to stock in a new enterprise. The stock is a title; but at the extremity of a series of credit phenomena, titles may be included.

The idea of continuity is essential to the explanation of credit.

9. Credit partly comprises and partly is comprised within series of phenomena which find their fundamental, biological explanation in the fact that they differ gradually one from another in what might be called, for lack of a better word, their materiality or immateriality. The subject deals first with exchange of other goods by means of a particular kind, namely, metallic money, — still a material, but unlike the others, not meant to be consumed. One parts with money for the purpose of consumption; and hence money is differentiated from the ordinary kinds of commodities, which are not parted with, but acquired for that purpose. Next to it, in order, come promises in the nature of simple notes and bills of exchange; and then those that are less and less individual, bearing numerous indorsers; and those emanating from an institution which deals in credit. Those that it "issues" are based upon those which it has "purchased" from individuals and "owns."[1] The portfolio is a colossal indorsement of every bank note and deposit account. It is the acme of suretyship. And then come the titles to whole industrial organizations, connoting all the future goods and temporary promises which may be created or entered into in the course of fabrication. There exists, then, a materio-mental series which is indispensable for the full explanation of credit.

[1] Cf. ch. I, §§ 2, 3, *supra*.

The ultimate element or simple cell to which credit can be reduced is the personal guaranty of a money payment.

10. An important weapon in the armory of analysis is the distinction between the "personal" and "impersonal." The reader has doubtless perceived that the attempt is to reduce credit to the simplest expression. In every branch of science, whether mental or physical, it becomes necessary to seek for some preliminary test or standard which shall indicate whether an instance belongs to that jurisdiction. Thus, there are many tests proposed by sociological writers to determine whether a case pertains to their realm. Professor Giddings gives "consciousness of kind" as the standard in that department of knowledge. If it be a case in which one acts as he does because he is conscious that he is like others, then it is one that falls under the science of sociology, of which political economy is a branch; and therefore that test should always apply to it also, and to the credit part. What, then, is the further criterion which shall determine whether the field of consideration be restricted to that portion of sociology, and then again of political economy, called "credit"? It is whether *a promise of guaranty be involved.* An unique term, then, to which credit is reduced, is the economic promise, and more specifically, the promise of guaranty.

Guaranty is the test of credit.

Economic promises pass through a process of depersonalization,

That credit is a subbranch of sociology is evidenced by the remarkable blending of individuals into a society which can be traced. The economic promise must have an individual origin. Even if it be that of a corporation, the latter is, in ultimate resort, but a collection of men, and its promise is none the less theirs. The assignment of a credit document from hand to hand involves its indorsement and reindorsement, with the result that it acquires gradually a more and more general currency.[1] That implies an increasingly un-

[1] The writer avoids the assertion that all credit is thus assigned. Assignment, however, is typical of large classes of credit documents, such as commercial paper, and stocks and bonds.

impeachable purchasing power, and that again a high degree of socialization. The instrument, therefore, becomes impersonal the more it is indorsed and guaranteed; and thus emerges an unavoidable contrast.

When individual credit begins its career, it is questionable whether anything can be bought with a given nominal amount of it. It has no market, but only a personal significance. When it reaches the climax, there is no doubt that it can buy anything that is offered for sale, the price of which has been agreed upon. The fact that a vendor offers is sufficient evidence that he consents to relinquish possession to any purchaser who is provided with this kind of credentials; for it is not the buyer's own promise, but socialized promises, that he brings; it is generalized and impersonal credit. And the other way about: any one having in his possession chirographic credit, of this quality, is absolutely sure that he can buy with it any goods offered for sale by persons accustomed to credit transactions. In this socialization of undertakings to pay, the making of them a social quantity and force, the most beautiful example is found that could possibly be adduced of the sociological point of view. The stage where sellers will sell to any buyer and buyers can buy from any seller marks a point in the development of common housekeeping that could only have been attained by the socialization of credit.

accompanied with gain of purchasing power.

The process here indicated, in the market for promises, is somewhat similar to one observable in that for material goods. The latter also are increasingly generalized. Most of those that can be manufactured at wholesale are of this type, for they are classified. Wheat is graded in the elevators. If one buys "No. 2 red winter wheat," he knows exactly to what standard it must answer. Where it was raised or what has been the history of that particular lot are of no importance. He would indifferently accept an-

The socialization of promises and that of goods are parallel.

other, provided it agreed with the definition of "No. 2 red winter wheat." The principle of grading is applied to many products. The very handsome furniture that is manufactured at wholesale, by pattern, is turned out in such large quantities that it can be looked upon as socialized. The American method of replaceable parts of machinery, in locomotives, watches, etc., of excellent quality but nevertheless all exactly alike, so that a fitting member can always be obtained from the factory or the jobber to substitute for a worn or broken one, is again an example of socialization.

The large market is reached when the developed socialization of promises meets that of goods.

Credit is an institution,

11. When a primitive practice of human living, like barter, is at last evolved in this general way, it becomes an institution. Institutions have their distinct utilities. They may be modified, but no ukase can create or destroy them. This principle holds true, above all, of credit. The reindorsement of credit instruments, then, induces the social point of view to emerge. On the whole, dealers are not especially interested in the inquiry who are the individuals connected with the history of a particular document, they only want to know what is the character of it. Bills and notes are not all of the highest class: there are "No. 1," "No. 2," and "No. 3 paper"; there are "one-name," "two-name," and "three-name paper," in the same way that there exist "No. 2 red winter," and many other descriptions.

Credit is a *disturbing* factor in industry in this sense, that it is the means of breaking up a static condition and of starting a dynamic movement. It, therefore, is fraught with a social utility which cannot be dispensed with. It is an institution so firmly established that the individual cannot prosper without it. Therefore, it appears to be imposed upon him. In the United States, it is useless to propose the

Americans are even, temporarily, it is to be hoped, compelled to put up with a needless complexity of government paper. Either by the evolution of economic history, as in the case of the bank deposit, or of political history, as in that of government paper money, greenbacks, treasury notes, and silver certificates, this method of dealing has been prescribed to men in their gainful pursuits. If they do not relish it, they must seek other fields.

— organically or artificially created — which *appears* to be imposed upon the individual.

12. Finance is a more highly developed housekeeping than farming or even manufacturing. Its economic atmosphere is rarefied. This is something that all feel, but to analyze the sentiment is more difficult. Intricate problems of responsible conduct demand solution, when banking and finance are tested from the public point of view. The social and ethical bearings of credit find illustration in the management of moneyed institutions. The standard of honorable application of the reserve, for example, was curiously tested by the Bank of Amsterdam. The original, and always the ostensible, plan of the Bank was to keep a reserve as large as its deposits. In other words, it was a warehouse which guarded the coin confided to its vaults, and the "deposits" or checks were orders or warrants upon it for the transfer of title to stored money. The only distinction between the Bank of Amsterdam and the modern warehouse was that the money given in charge to the former was not packed in a separate bag labeled with the depositor's name. It was generalized, in that it was held for the common satisfaction of all depositors. By means of a system of assaying, the quantity of precious metal received was determined, and entry was made for it. With that modification, the system was that of warehousing. Indeed, in many lines of commerce, the modern warehouse no longer undertakes to keep one proprietor's goods separate from others' of like kind and quality. But the temptation offered by the then first

How dishonest loans came to be honest "deposits."

adopted communizing of money was too strong for the officers of the bank. They transgressed the conditions of deposit, not, be it said to their honor, for their own emolument, but in their patriotism as loyal citizens of the Low Countries, and especially of the Province of Holland. Either they abstracted portions of the precious metals deposited in the vaults, or they gave "deposits" for which no equivalent had passed over the counters. That was dishonest, although it may have been patriotic. The curious outcome, however, is that nowadays bankers are able unhesitatingly to avow: "We grant deposit-credits in return for which no metallic consideration has entered our wicket. Our cash on hand does not amount to a tenth of our demand liabilities." What was still stigmatized as dishonesty in the eighteenth century became prudent economy early in the nineteenth. Relativity of morals is the only possible ethical standard in finance.

Finance is more intricate and intangible than manufacture, but practical morality here as elsewhere must conform to the teachings of experience.

13. The institution of banking is an evolution of an unmoral nature. It exists by virtue of the principle that in modern society business cannot be carried on without debts, which are necessary evils. Since evil is essentially the negative side of good, the good of increased material things is inseparable from the evil of debts.

In order that the debt system may be properly organized, banks have been invented. They are stated to accumulate the funds of individuals into large aggregates, which are then "issued," not bearing the name of this or that person, but only that of the bank. The frequency with which the word "deposit" reappears in banking accounts lends color to the popular idea that individuals *deposit money*, which the banks loan again. Whenever convenient, however, popular usage favors the other notion that any wealth may be "deposited." Under this phase, the word "funds" is a convenient escape from exact statement: so convenient

that the persons are rare who stop to analyze what is really deposited, or whether anything is deposited. The facts are simple: *deposits are loans* from banks. In possession of the debtors and of the latters' assignees, they are redeposited, lending momentary strength to the banking institutions favored. The aggregation of credits, none the less, springs from individuals, and is, in every case and to the fullest extent, traceable to natural persons, notwithstanding that, under the prevailing custom, the deposit and the bank note bear the name of no debtor except the bank. What is accomplished by collection of capital is sufficiently obvious. But the dynamic principle is important that, although a bank's deposits may continue for a long time at the same height, nevertheless, they are sustained by continually substituted new promises. A stream of "paper" is constantly passing through it; it can affect the reserve by influencing the volume of the current.

Deposits are loans.

Bank credit is some measure of the wealth in course of production by depositors.

The inference follows that the capital of the country, although it were to remain stationary as to quantity and value, nevertheless is being continually consumed and reproduced; and this flow corresponds to the consumption and reproduction of real material. And in so far as additional values, depending on technical capital and borne by goods, are superinduced, just so much higher will loans mount. The bank, then, is the collector where the surplus of a community gravitates, and where in general the nascent capital is to be found.

It is not strange, therefore, that, financially speaking, "circulating capital" is employed to mean credit flowing through the bank; whereas economists, speaking of circulating capital in a narrower sense of the word, intend goods which must be destroyed at one mechanical or chemical operation or in a very few. The value of a factory, on the other hand, is represented chiefly by bonds and stocks.

in form of circulating capital.

These fixed forms of credit are purchased sparingly by banks, for the reason that absence of the liquid quality renders them unmanageable in the contingencies of financial stress which those institutions are bound to combat. Credit corresponds with industry and commerce, two by two. A given part of the credit represents a like part of the material capital.

14. The nascent capital of a community is paralleled by bank deposits, but not so the absolutely fixed. Indeed, the latter is made out of the circulating, which is created preliminarily to being "turned" into fixed. Similarly, bank deposits are "turned" into stocks and bonds, which are "fixed" credit.

By observation of the effect of luxury on the amount of credit, is obtained some indication of the correspondence of credit with production.

The effect of consumption on the amount of the bank deposits evidences the duality alluded to. The late Professor Sidney Sherwood [1] demonstrated that consumption caused a cessation of increase, or an actual decrease, in circulating promises. Credit-capital (exclusive of titles like stocks and bonds) corresponding to the unfinished or undelivered goods, if there occur an annihilation of commodities which are not applied to reproduction of material things of value, the equivalent obligations and contracts will necessarily vanish. If a merchant prince buy a yacht, it may fairly be presumed to replace no value whatsoever, unless mayhap utilized to augment the fame of the owner and thus to advertise his wares. It is a consumption good; and when the yachtsman has expended money in buying it, there will be no further reproduction of written undertakings corresponding to the value of the pleasure ship, because he does not intend to fabricate anything vendible with it. Hence a decrease in the amount of circulating financial capital to the extent of its value occurs. He may, indeed,

The credit point of view aids economic analysis.

[1] "The Nature and Mechanism of Credit," Quarterly Journal of Economics, January, 1894.

mortgage it, but the favor decreases the ability of financial circles to make industrial loans.

If, on the other hand, he purchase a productive machine, like one devoted to the building of yachts, then there will be expected a renewal of the amount laid out, and the purchase will operate in no way to decrease the quantity of credit, which, on the contrary, will be augmented by the profits. Ill-considered application of credit to the purchase of yachts and automobiles might not only cause the surplus loans and deposits in the banks to disappear, but might diminish the original amount with which the calculation started, to an indefinite extent. This principle, which Mill illustrated with the parable of the spendthrift, appears peculiarly conclusive from the credit point of view. Yachts and automobiles will not by thrifty persons be made the object of the securing of bank loans, whereas, a yacht-making machine would be looked to by the banker as evidence of coming future values. It appears, then, that the purchase of luxuries tends to diminish the amount of credit in circulation and hence the social capital. The large number of loans made in recent years for the purchase of automobiles has not augmented the sound paper permanently available.

Banks have the effect of deferring payment, but they hasten liquidation.

15. Banks hasten liquidation. It is plain that the operation of discount accelerates settlement of accounts in the various available ways. The authority of Professor Dunbar has already been cited to the effect that the bank obtains for its customer the present use of future funds. Thereby occurs really an early ripening of liquidation, because, when a bank substitutes itself for a debtor whose note is discounted by a creditor, it has matured the former's opportunity to "pay" his debt to somebody else. Therefore, what Professor Dunbar calls "enjoying future goods" is really quickening of liquidation. The result is to make the creditor's position more secure, because he has substituted the bank

for himself in his relation to the debtor and in his further transactions.

This point leads to the further one, that the bank by this means organizes credit, since by stepping in between the original parties, on the one hand, and the general public, on the other, it makes the whole operation in which the credit originates more certain. It puts its stamp, its seal, upon the business undertaking, hastens the settlement of the debts involved, and assumes the general responsibility for them. That is a social undertaking in a high degree. It is sustained in this service by its customers. A large section of society supports it. When it undertakes the adjustment of the debts of a given debtor, vicariously a large number of persons, all the depositors of the bank and all the other borrowers, by virtue of their obligation, are also engaged in the guaranteeing of the debts of that single individual debtor.

Banks fill a simplifying rôle.

Liquidation is the operation whereby the bank substitutes its promise for an individual's and thus favors the conveniences which flow from the shifted responsibility. There is here notable absence of strict payment, but only a "satisfaction"; for when the bank issues its promise against that of a business man, it is still credit that is involved. There is no real paying until commodities of some sort are passed. In the case of the bank, the definitive commodity would be the special one that is acceptable among financiers, namely, gold. The bank, therefore, by intercalating its credit in the series, delays payment but hastens liquidation. Thus gold is economized.

Liquidation and payment may be distinguished by the extent to which money enters into the satisfaction.

16. The analysis of industrial life, taken in a large sense, is aided by the separating of financial operations from those of the narrower industrial circle, as ordinarily considered in political economy, and by regarding the former as belonging to a different compartment. Bills and notes and other

The fundamental thought in the dynamic treatment of economy is biological,

financial promises and documents, titles to going businesses, and stocks and bonds, are dealt in exclusively. There is a large mass of the circulating indebtedness of the country which is not identified with any particular business or industrial process. It has lost the hall mark of its origin, and may be dealt in as if it were a separate species of material goods, and not with reference to its origin in promises for concrete production. Hence arises the justification for the speaking of a bank loan as a sale to the bank of certain goods, namely, written promises to pay or pieces of credit paper. The dealing in them is so independent of any operation that may be simultaneously carried on in a specific process of manufacture or transportation, that it cannot be looked upon otherwise than as occurring within an entirely separate environment. It constitutes a distinct market.[1] Later on, the series of industrial part-markets, capped with a financial, will receive further attention; but at present it is sufficient simply to place the two contrasted milieux of finance and industry over against each other. A person passes from the one to the other, if he discontinues a business of carrying on a store or a factory and adopts that of dealing in credit.

— it affirms a series of environments in objective economy.

Society also, in the course of its progress, passes integrally from one "zone of characterization" into another. Whenever a financial crisis takes place, a contrast between *entourages* is evoked, which is not merely a contemporaneous setting-over-against-one-another of previously concordant elements, but is also a temporal and historical. The theory of crises rests fundamentally upon the necessity that society, in its progress, pass from crude to relatively complex conditions, signalized by greater perfection in the economies of the credit system and in the organization of industry. A wider dealing in the securities of corporations is observed. The study of crises teaches that, as in outer nature are

Crises expose the contrast between the environments which they disturb,

[1] Cf. chapters VI, VII, *infra*.

found plants and animals endeavoring to survive under the circumstances in which they are placed, a large mass of them perishing, but finally a mode of existence working itself out which is favorable to the survivors and to their successors; in the same way, in industry, enterprisers continually attempt the impossible; the crisis comes and sweeps away the unsuccessful. They are not undeserving, in all cases; their efforts may be for the common weal, even where they appear to be selfish, for failure is the precursor of success. It is, inferentially, necessary that crises take place in order that a better system of industry may be evolved.

and illustrate the apparent disregard of individuals which accompanies evolution.

17. Different environments breed distinct types of men. Two principal kinds of leaders are prominent in economic life. One is typified by inventors and especially by that rare species that are at once inventors and enterprisers, and often attain to fame. It is not the professional scientist in his laboratory (who really lays the foundation for all economic progress) that wins reputation, but rather the class which combines scientific knowledge with rare business ability. Such men have been Edison, the Westinghouses, Bessemer, the Siemens, and the Krupps. Men of this type have seen the possibilities for the benefit of mankind in scientific processes, and, at the same time, have had sufficient business enterprise and ability to carry on an individual fight for survival within the financial bailiwick. They have grounded their own property interests so firmly that they are become the envy of their neighbors, and consequently, an example to be followed. An inventor may make money, provided he be also a master of finance.

Differences between environments may be indicated by the activities of great men.

The other class is purely financial. In English-speaking countries, a "banker" is one who purchases time with demand obligations; but, on the Continent of Europe, the term embraces also those who carry on many kinds of other financial operations, such as dealing in stocks and bonds,

The term "bank" is broader on the Continent than in England

and underwriting or otherwise gathering funds for business enterprises and large corporations at home and abroad.[1]

and the United States.

Bankers, then, are to be classed among those who have furthered enterprise at the mental or psychological end of the biological series in industry. They deserve as great as, or perhaps greater, credit than do inventors, because much of the progress which has taken place in industry has been due to their promotion, to their faith in the enterprises which they have underwritten, or whose circulating capital they have guaranteed, and to their ability to obtain subscribers to them. Their foresight is even greater than that of inventors. Their operations are typically capitalistic.

Bankers are called upon to exercise foresight in the highest degree.

18. A credit document may be viewed as a negative sign. Raw or partly manufactured materials so affected are ones upon which some operation remains to be performed. Contracts for production are at least attested by such instruments, if otherwise not reduced to writing. The agreement of guaranty is thus more formal than the principal one. The promise to pay money contained in the former is in reality a forfeit in case the undertaking to manufacture is broken,

The negative nature of credit adapts it to the circulating of goods

[1] Underwriting and selling stocks and bonds are looked upon abroad as parts of the banking business. "Deposits, stock market orders, and the flotation of securities are the three branches which bring prosperity and profit to the great financial institutions." Maurice Patron, The Bank of France, p. 51.

Fault is found with banks for neglecting to encourage speculation: "Have the industry and commerce of the country profited by additions to capital enabling them to expand? Have great public works been set going, or, in a word, has anything been promoted? The answer to all these questions is a sad negative. Our credit establishments have had no share in this great speculative movement, they have made no efforts to prepare a bed through which it might flow towards more fertile fields, in drawing off, for example, the money of the public towards our great French industries which are all suffering from defective plant and deficient running capital." Lysis, Contre l'Oligarchie Financière en France, p. 226.

Bank speculation should be left to itself. Testis, Le Rôle des Établissements de Crédit en France, p. 139. But the guaranty should be a short one.

and hence the note and the bill are the negative determinants, effectual to stimulate industry. *Credit is therefore mathematically the means of circulating goods.* What more logical than that the surety agreement which was entered into to guarantee the production of certain commodities, should be the means by which they are exchanged? Such contracts are forthwith effected to the purpose of general circulation and of the peculiar traffic of the financial district. They constitute in themselves the proof of the exchange of the products. If "A" contracts to manufacture certain wares for "B," "A" has thereby potentially exchanged them. It is incredible that in an advanced community, working upon order, marketable services should be exchanged by any other means than by credit. Therefore, metallic money, when used exceptionally for purposes of trade, is presumably filling the secondary rôle of a substitute for credit. It is the unusual or abnormal tool of commerce. It is employed *qua* credit, and not *qua* material substance. Therefore prices, measured as they must be by credit, can hardly depend directly upon the value of money. The traditional contrary treatment of credit by analogy with metallic money, which would prove that the value of the former always mounts and falls under the influence of supplies of the latter alone, is presumably fallacious or insufficient.

and makes it the typical medium of exchange, for which money may exceptionally be substituted, but which the value of money does not directly affect.

PART II

CAPITAL (CHAPTERS III–V)

CHAPTER III

LIQUIDATION, SET-OFF, AND PAYMENT

1. Goods and promises circulate in opposite directions. The end of the circuit is where the maker of the promise takes it up by a final act, which may be either a set-off or a payment. — 2. Foreign exchange offers a simple case of set-off between only four parties. — 3. Since the trade is in exchange, anything which pays for exchange, goods, money, or demand promises, may circulate in the other direction. — 4. The circulation of a given kind of promise is limited. — 5. Recognition by the law of the ancient practice of novation of promises was tardy. — 6. The promises commonly used for purchase are not original promises but a guaranteed form of them, known as deposits and bank notes; but it is manifestly impracticable to apply them in taking up the identical individual-notes for which they were originally issued. Anybody's deposit is good to offset anybody else's individual note. Bank notes and deposits are not created in principle faster or slower than individual notes; and the latter are not created faster or slower than goods are manufactured. Hence there is a rough correspondence between the values emerging from production, individual notes, and bank credits. "Business makes money." — 7. A premium or discount on the promises of another country makes it profitable to trade with it, either by sale or purchase of goods. Profitable business at home will, in the long run, cause cheap exchange and favor imports. Thus financial prosperity affects the course of trade. Stocks and bonds are the most permanent of the known means of satisfying international indebtedness. — 8. The most noticeable classes of credit have been those in which the intention was to make a contract of payment to be deferred during the transportation of goods. But the most important modern kinds of credit are those which run during that special "transportation" of goods known as "manufacture"; in them the noticeable thing is the time for which the promises are made. Both

kinds of promises effect the economy of substitution of debtors and creditors, so that the nearest debtor pays the nearest creditor. — 9. The fundamental principle in every purchase of goods is the same as that in keeping a bank-reserve; money is primarily used as a store of value. This principle establishes the genetic solidarity of the financial organism. — 10. Since bank deposits are used to make loans, and loans are necessary for the steadying and reassuring of almost all business transactions, it follows that deposits fluctuate with the needs of business and commercial paper is drawn for the production period. — 11. Commercial paper binds industrial society together more truly than charters, stocks, and bonds. — 12. This is true whether the notes or bills are made before or after the execution of orders or in the absence of orders of goods. — 13. This correspondence is closely related to the idea of Ruskin that debts constitute currency. — 14. "Liquidation" is an apt term for the fact that a developed credit system exists by virtue of the perpetual satisfaction of old indebtedness with new. But if this substitution be excessive, so that a "one by one" correspondence of debts with production is not maintained, inflation appears. Even judgments at law are liquidated. If not, the settlement is by payment and thus the environment is lowered. — 15. Set-off is a form of liquidation where debt is not continued but is extinguished.

1. In diagram I the use of credit for exchange is visualized as a passing of it from hand to hand in a mechanical manner. For this process, the term borrowed by McLeod[1] from the Roman Civil Law, "novation," is convenient, even though the obligations contemplated by the civil be not precisely the same as those understood by the common law. It signifies that the debtor on a written promise or credit instrument, acknowledges that, instead of continuing to owe the old, he changes his allegiance to a new creditor.

The law term "novation" is descriptive of the economic principle of "circulation."

"B" sells goods to "A" and the latter gives his note for them. Then the former, wishing to obtain metallic money, applies to "C," who lets him have it. "B" passes "A's" note on to "C." In this transaction the metal is viewed as any other commodity, and the note of a third party is "paid" for it. "C" now covets goods of "D," who, in turn, becomes proprietor of the note. The latter obtains metallic money from "E," who then buys merchandise of "F" with

[1] The Theory of Credit, 2d ed., p. 95, *et passim.*

Diagram I

The Mechanism of Credit

General Case of Novation & Offset

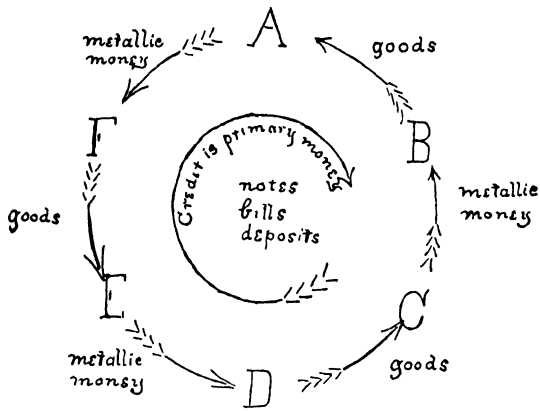
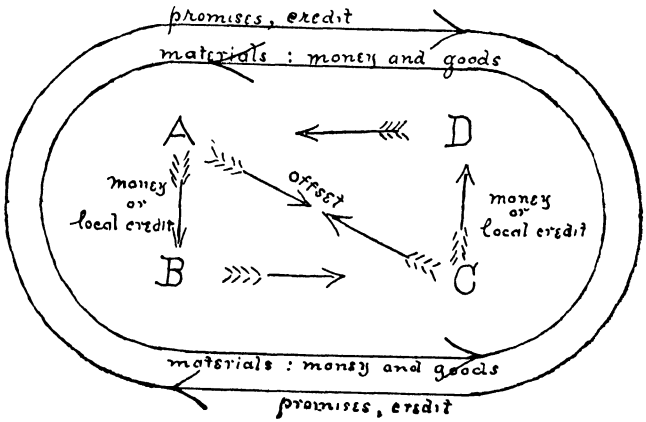


Diagram II

Special Case of International Exchange



the paper. Finally "F," as it happens in the diagram, demands metallic money from "A," and is able to "buy" it with "A's" own signature, which thus purchases alternately consumables and money — but always commodities — until the last purchase of money, being from the signer, constitutes a "payment." If the second transaction with "A" had concerned consumables instead of money, it would none the less have terminated the career of the note, but would not have been called a "payment."

Credit moves one way and goods the other. Money is included under goods: it is not here used as quasi-credit, but plays the part of a commodity. The circulator has been credit; the circulatees have been money and goods. When the note reaches "A," there is no further employment for it. He has at last satisfied his debt to "B" by paying the cash to "F." The previous transactions were operations of novation and liquidation. As the note went about, it became generalized and acquired a more unquestioned purchasing power. The use of the word "circulate" is evidence that this typical illustration is deep-seated in the mentality of the race.

When a note is tendered to the maker, the set-off s final, for t involves payment.

In general, therefore, when a promissory instrument comes back, in payment, to the person who made it, there occurs an extinguishment of the credit, a set-off, or a final payment. But if, as the note traveled in the opposite direction to the goods and to the money, it were discovered, perchance, that "A" was not "good pay," then each of the persons, "B," "C," "D," and "F" (depending on how far the note had gone), who had made sales or loans on the faith of "A's" signature, would lose confidence. If they had indorsed the document or one of them still owned it, the transfers would be perhaps unsettled, for the parties subsequent to "A" would seek to be placed in their original position. On the other hand, if the note succeed in swing-

ing about the whole circle to "A" again, and he have maintained his business integrity and reputation until he can win it back with his own services, material products, or hard cash, then there is no possibility of reopening the combined transaction. It might well have been that no money was handled, but that the instances were all sales. That case would have suggested the pregnant, general principle that all transfers or transactions involving the quieting of personal claims could conceivably be carried on with credit alone and without direct use of money.

So long as the credit is uncanceled, the transactions may be reopened.

2. International exchange (diagram II) resembles the typical illustration, except that it is limited to four parties. The inner circle denotes, precisely as in the first diagram, the circulation of material goods in one direction. "B" in New York sells goods to "C" in Liverpool; "D" in Liverpool sells other goods to "A" in New York. "B," in order to obtain payment from "C," draws a bill of exchange upon him and sells it to "A," the debtor of "D." "A," who is also in New York, is "B's" neighbor, and consequently, by selling the bill to the former, the latter is enabled to collect without the knowledge of his debtor "C," and even before "C" may have taken any measure to absolve himself. Moreover, "A," by the purchase of the same foreign exchange, has provisionally discharged his debt to "D" by paying "B"; and therefore he has accomplished all the necessary sacrifice of satisfying "D" without the latter's awareness.

Foreign exchange, usually illustrated by a transaction between four parties, is a simple case of circulation of goods with credit.

But acquisition of title to a bill does not complete payment to "D." It has let "A" out, unless the bill purchased proves to be bad, in which case recourse would be had to "A" again, as indorser. Proprietor of the order on "C," he must still send it to his creditor "D" in Liverpool, and the latter, at last in possession of an authentic claim upon his neighbor "C," for the price of the consignment to New York, is glad to have that instead of an order on "A," who

is in that distant city. He presents it to "C," who pays him in money. The space between the men who are near to each other, in pairs, is bridged, not with merchandise, but with money, and a double circulation takes place, the wares and money circling in one direction, the credit in the other. Briefly stated, "B" sells the bill to "A." "A" pays it to "D," who presents it to "C" to be cashed; and the last returns it to "B" as evidence that it is paid. It is plain that goods and money move in the opposite direction.

If one kind of credit circulates in one direction, a different kind may circulate in the opposite direction.

3. It is, indeed, true that "A" probably pays "B" in New York, and "C," "D" in Liverpool, not with money but with bank checks. So is not the rule of contrary currents here subject to an exception? For the two credit documents, a check and a note, are not pursuing the same course. The inconsistency is at most partial and in order to save the principle. The bank check is assimilated to money and to gold, that is to say, is economically more closely related to them than is the credit which circulates in the opposite direction. If not logically a substitute for money, it is payable in money on demand, both purchase goods, and each purchases the other. Whereas the bill of exchange, which pursues the contrary route, is payable after a length of time and is only consented to by special arrangement. The bank demand credit is apparently an intermediate phenomenon between money and bills of exchange,[1] and very naturally, in this case, is in close affinity with the former; while the relatively fiduciary character of the latter is placed in salient contrast. International exchange is manifestly a special case of the broad principle of novation. It may be appropriately termed, *the principle of paying the nearest creditor and of being paid by the nearest debtor*. The "mechanism of exchange" is thus clothed with a comprehensive significance.

International or quadrangular exchange depends on the principle of paying the nearest creditor.

[1] Cf. ch. VII, §§ 4–7, *infra*.

The wider the market, the more intense must be the credit current in it.

4. Payment by means of credit pervades a variety of markets. One does not, probably, pay a debt due in New York by the instrumentality of a check drawn upon his deposit in a bank of Lincoln, Nebraska; nor does he pay a debt in London directly with one on a Chicago bank. Credit documents circulate within limits, regions, or environments partly geographical and partly determined by usage or convenience attaching to their classes, which severally find more favor in some trades than in others. If it be desired to effect a payment in New York with a Lincoln deposit, it is usual with it first to buy a "draft" on Chicago or on New York. In that way a higher degree of credit is secured, which enjoys the sanction, not merely of the local but of the central reserve city bank. It therefore acquires a more convenient purchasing power, not in the sense, primarily, that it buys more goods, but that it buys goods in more places. That he who offers highly guaranteed credit, moreover, can also drive an advantageous bargain in large transactions, would seem to be elementary. The New York or Chicago bank only accepts, without reserve, a purchasing power of that degree of intensity. And if it be desired to purchase goods in Bordeaux with a New York deposit, an order upon a London bank must first be obtained, which affords a still higher degree of goods-attraction, in the sense of wider currency, because it enjoys the sanction of a responsible guaranty by the "clearing house of the world." For distant payments, its business district coincides with the two hemispheres; but not for ordinary, as familiar experience teaches. In order, therefore, to displace goods across the ocean, there is provided by the credit organism a still higher potency and intensity of promise than that required at home. Promises are piled upon promises, like Pelion on Ossa, until a financial energy is accumulated that will draw goods from the uttermost corners of the earth and

gold from the ground. It is much more efficient than metallic money.[1]

Novation received full recognition in law only at a late date.

5. With reference to the novation, or mechanical handling of credit, it may be remarked that, in this practice, a good illustration is found of the way in which institutions grow without being consciously recognized until they have long flourished in silent efficiency. The recognition of the validity of a transfer of a debt from one creditor to another is of modern growth. The more primitive law laid it down that a man could only sue on a debt originally contracted in his own favor; a debtor could not be constrained except at the instance of the person from whom he had borrowed the money or obtained the goods. That view of the case persisted for a long time in the common law of England.[2] Nevertheless, the claim of the assignee of mercantile paper to

[1] "And what is the risk of the operation of discounting for a period of three months? The commercial operation which had been foreseen will have run its course: the wheat will have been turned into flour; the flour will have been sold to flour merchant or to the baker; the capital will have been realized in specie. But, if, perchance, the operation shall not have succeeded, if one of the parties who signed the bill falls into trouble, there then occurs a remarkably rapid liquidation: failure with summary procedure, or at worst, auction sale of the goods which gave rise to the operation.

"What risk does the Bank run? There may occur a difference in the price of the goods in a delay of three months. That is not of great account. Moreover, in order that the Bank may stand to lose, all three — seller, buyer, and banker — must have gotten into trouble. So that it is singularly and irresistibly apparent that we have there an assemblage of guaranties of such importance that the bill which should only be guaranteed by paper bearing three names as prescribed by the statutes of the Bank of France, and which should only be supported by commercial operations having the ease and the rapidity of liquidation which I just indicated, *is worth just as much as gold and silver*." Speech of M. Rouvier, June 22, 1897, cited in Jules Domergue, La Question des Sociétés de Crédit, p. 127. The italics are the writer's.

[2] "The negotiability of promissory notes was not set upon a firm basis until it had obtained the sanction of Parliament. . . . Their negotiability was established in 1705 by the statute 3 and 4 Anne, c. 9, §§ 1–3."

"It was not until 1666 that courts declared that 'the law of merchants

recover without the coöperation of the original creditor, was recognized in practice from early times in what was known as the law merchant. It was the practice of merchants, from the time of the Assyrians, to effect the discharge of distant debts by payment to a neighboring creditor. The debtor paid a fellow townsman, who might be in position to surrender, in return, title to indebtedness from a person in a foreign country or remote place, which was thereupon forwarded by the latter to the absent obligee for collection.

6. The process of diagram I is seldom carried out exactly as represented there. The hypothesis was that a purchaser, "A," gave his note, which was passed about a circle of buyers and sellers, until finally he happened to effect a sale to the person who momentarily held it. Then he was confronted with it, so that the effect of his sale was to "pay" the debt which he had incurred when he was the buyer of the original lot. The reader recognizes that precisely that case is not a very common one, but rather serves as a vivid illustration calculated to impress a relation. In practice, notes do not box the compass in that simple way; they are sometimes held by the creditor until maturity, or, perhaps more usually, discounted at a bank.

Nevertheless, the principle inculcated by the diagram holds true. Notes are paid habitually with the proceeds of commodities which the obligors manufacture for sale or buy in order to revend at a profit. They are discounted, when first drawn, and, at maturity, are paid by assignment to the creditor bank of deposits to an equal amount, which had been earned by the disposal of merchandise or services. The notes and deposits are canceled; they are offset.

It is not, however, usually the original credit that circulates, but some form of guaranty of it.

is the law of the land, and the custom is good enough generally for any man, without naming him merchant.'" Norton on Bills and Notes, 3d ed., p. 2.

Correspondence of the gross mass of bank-deposit guaranties with that of original paper discounted is quite noticeable.

But deposits are not necessarily compensated by the identical individual notes for which they were originally conceded. The debtor, by his traffic, comes into possession, not of his own note, nor of the bank notes or deposits in return for which he "sold" his original, individual promise to the bank, but of equivalent bank notes or deposits. Those with which he pays his debt to the bank may not be the identical ones which were acquired from the bank where he deals, but may have been obtained by a strange discounting, no matter where or for whom. However, it makes no difference at all in the bookkeeping whither one goes to trace the origin of this class of credit. The end of the operation is that the note is canceled; and this result is accomplished by a preparatory novation in favor of "A" of *an amount of bank credit equal to the proceeds of the discount of his own note,* although the liberating promises may have been brought into existence at the instance of somebody else and consequently by a different discount. On the average of a number of sales, they will prove to have been effected by persons who have given their notes for previous purchases. In some proportion to new sales made, previous discounts exist "unpaid," and, in the same ratio, deposits and notes are presented to the bank in "payment" of the maturing paper.

It has been adverted to that paper flows through banks at an ascertainable rate, and that they regulate the amount of outstanding indebtedness in the community. The rate of its payment must correspond, in general, to that at which obligors on mercantile paper are providing themselves with the means to take it up. As evidence of indebtedness comes around to the original incurrers, it is extinguished precisely in the same way in a large community as in the circular illustration. There the hypothesis was that, after effecting a certain number of sales, the note was brought back to the

person who originally made it; and so in a larger community equal demand credit that is out will return to the banks and be by them again collected from their debtor, no matter whether the deposits and the notes surrendered by him are those that originated from the discounting of his debt or not. If he had not effected the discount, there would not finally be found outstanding disposable funds with which to take it up when matured.

The principle of continual renewal and refreshing of guaranties is so important that a restatement of it in somewhat different language may not be considered out of place:

The deposit-and-bank system rests upon precisely the same principle of compensation as does the simple market for credit without banks.

In the case of the banking system, it is effectively just as true that credit paper performs an ascertainable journey, prolongs its travels for a fixed length of time, and comes home to the maker at last, as it is in the simple hypothetical series of novations contemplated in diagram I. But where the service of the banker is supposed to intervene, the aspect is somewhat different, because the payee of a note does not pass it about; he discounts it and it lies in the bank until maturity. Then the maker, by the sales of his products, having come into possession of sufficient strange deposits, satisfies it with them. That the principle of the original case is still under discussion is plain, when it is considered that deposits circulate in the banking system precisely as the individual note in diagram I. The deposit is the substitute for the note; as often insisted upon in these pages, it guarantees the latter. The public that gladly accepts the bank credit does not know what individual note lies under the deposit assurance. But the latter must be the guaranty of some note lying in the portfolio of some bank.

Travels of a deposit are not precisely the same as those of a

Indeed, the journey that the deposit makes before it returns to the bank as a set-off or satisfaction-piece, may not be precisely the one that would have been pursued in the hypothetical case, because the bank credit being better, the

note would have been had it not been discounted.

deposit probably circulates further than the individual note would have done. It is broken up, and fractions follow divergent routes. The deposit is, in turn, supported in different ways and degrees, if not fully guaranteed, by all of the persons interested in the bank, whether as depositors or as stockholders. But the individual note, in the hypothesis of the diagram, was secured only by the single circle of assignees about which it traveled. Naturally, therefore, the bank deposit has a wider purchasing field. The interesting, social fact emerges that when the deposit returns, it does not discharge the note for which it was specifically discounted; nevertheless, it takes up an equivalent sum, and, on the average, bank deposits must reënter as fast as notes are to be paid.

So that the principle of the primitive credit case is carried out in the complex banking system. The individual notes passing through the portfolio of the bank at a certain rate, determined by the production period of the goods in the course of manufacture, must be met *pari passu*, in procession, by the deposits as they return from their circle of usefulness in the exchange of goods. The latter cannot return faster, because the former are not signed faster; and they cannot come back slower, because the former must be satisfied as fast as drawn. And it is as true in the complex as in the primitive case, that the original maker, "A," raises the debt of the note by the sale of his goods, only he is not paid for them by the note returned to him, but with bank deposits. Thereupon he, with the latter, takes up the former. Both the note and the equivalent deposit are cancelled. In the first illustration, the tardy sale of goods by "A" paid for his previous purchase. The note was the evidence that established and identified the ultimate barter of goods against goods. It could not certify a different loan and hence was destroyed as *functa officio*. In the complex banking system,

Dualism of credit and commodities is unavoidable.

there is an additional cancellation, namely, of an amount of guaranty-credit or deposit equivalent to the original in the primitive mechanism.

When, therefore, in conformity with practice, another set of guaranties is added, and thus complication introduced, the principle obtains, precisely as in the simple hypothesis, that all of the credit that depended upon a certain technical process is extinguished when it has run its course and the goods are alienated. And so, when the "pure" capital of a commonwealth shall have finished its cycle from chrysalis to chrysalis, all of the society-wide, circulating credit must be cancelled or replaced.

An additional guaranty, that of the bank, is introduced for the purpose of circulation, while the original note lies in the bank. At the end of the period of credit, two guaranties are cancelled.

New credit may and will be necessarily created, for otherwise, that which is normally supplied to the bank and passing through its portfolio would decrease or disappear.[1] Not

[1] Business is impossible without a market, the life of which is continual exchange. Because financial life is founded on industry, and in order that it may have an existence of its own, it has its part market. Credit not continually renewed or exchanged becomes a mere title. The necessity of renewal may be illustrated by the extreme case of a mortgage company: "The Crédit Foncier uses as an amortizement for its borrowings the annuities that it receives from its debtors. *This amortizement is so planned that there is a rotation between the amortizement, the payment of annuities, and fresh borrowings. Capital* here changes hands more slowly than in an ordinary bank, but it *circulates*, one may say, *automatically*. There is, then, according to the needs, a demand for capital, and in proportion to the size of the sums borrowed by the Crédit Foncier, an amortizement of this capital. Finally, a thing that we must bear in mind is that the obligation of the land credit, which in reality represents a lien on 'immovable' property, becomes 'movable' property which may be transferred and sold like all securities of this kind." André Liesse, National Monetary Commission, Evolution of Credit and Banks in France, p. 247; cf. p. 104: cf. Maurice Patron, The Bank of France, p. 108. Italics are the present writer's.

"The Rich Men's Panic" of 1907 is a good example of interference with the regular flow of liquidation by "tying up" of securities in such a way that they cannot come upon the market in orderly succession, but are liable to be suddenly offered *en masse* for demand credit or money. O. M. W. Sprague, Crises under National Banking System, pp. 241, 247. Disorderly demand for "payment" will cover in part the origin of many crises.

only is "A" producing more goods, but the person to whom he has sold is using "A's" former output, which has been paid for, as ultimate guaranty in a further financial transaction. The individual note lies in the portfolio of the bank, while the deposit is traveling about and doing its work. There is, therefore, no possible inflation. The original note is not in use; the deposit takes its place. Consequently, the principle is reached, which was so well worked out by Professor Dunbar, and which Professor Laughlin, in his recent work on credit, has magnified and emphasized, that the bargains executed in the community create their own means of exchange, and that, unless some unusual miscalculation occur, there is less probability of inflation from business done upon organic credit than from that effected through other media.

The phrase "Business makes money" implies this dualism.

7. Arbitration of exchange is a prominent instance of liquidation. Its rule may be summarized as *the purchase of the cheapest credit in the market for foreign bills.* An importer of goods, in paying for them, naturally seeks the most economical exchange available. It is generally said that this competitive proceeding tends to equalize the price, so that that on a given country can be and is quoted as at a given rate.[1] The market for exchange has its price as have those for goods or stocks. A price in any market is a more or less conventional indication; but in that for credit it serves its purpose with sufficient efficacy to send exports in and draw imports from various directions, so that it guides the course of trade.[2]

Arbitration of exchange illustrates the directing power of credit upon commerce.

It may be called the purchase of the cheapest bills of exchange.

[1] M. Maurice Patron, The Bank of France, National Monetary Commission, p. 106.

[2] Blocking of trade from exhaustion of demand for exchange may affect the interior markets: "From Chicago, on Friday, September 19, it was reported that the 'shipping movement was partially paralyzed by the news from New York that sterling exchange was unnegotiable.' Through the following week the situation remained serious. The movement of wheat to the Atlantic ports fell off, and in consequence the elevators and

If exchange is cheaper on one country than on another, an importer of goods, no matter whence they come, will purchase it, for application to his debt, unless, indeed, charges of collection offset the advantage. In a place in which exchange is comparatively high, there is a rising tendency for gold to be exported and a falling for importation of merchandise. General prices have probably recently been relatively high, and therefore it presents a weakening market for goods. Very naturally, whether exports tend to flow toward it depends upon whether prices are still esteemed remunerative. In fine, the attitude of exchange in any given country is more or less indicative of what it wants and of the direction in which exports will go.

The price of credit is a gauge of the dynamics of trade.

If the importer has effected his purchases in a different country from the one on which the exchange is low, he is subjected to additional brokerages in paying his bill. Although buying the cheapest promises, he cannot avoid adding to that outlay other charges. There is a preference, therefore, to take imports also from the country on which bills offer a favorable differential.[1]

If exchange is low, the market rate of interest may be high. Cheapness in the case of any security means, from the individual point of view, high interest; hence other securities likely to compete with exchange for temporary

Cheap exchange influences the money market to put up the

stockyards became crowded to their utmost capacity, and shipments from primary markets were necessarily refused by the railroads." O. M. W. Sprague, Crises under National Banking System, p. 60.

[1] "In other words, the cost of the triangular settlement" (paying for imports from the United States by exports to Europe) "must furnish profit over and above what they (the Argentinians) would get if they dealt directly with their European customers." "This would have been a more expensive trade than the direct trade between them and the people of Europe. The same reasons that have built up a direct trade between ourselves and Europe have built up a direct trade between South America and Europe." David Kinley, "The Promotion of Trade with South America," The American Economic Review, Vol. 1, No. 1, March, 1911, p. 59.

loan rate; and hence follow importation of gold and capital goods.

investment tend to be a bargain also. A high rate encourages *importation* of gold as well as of goods, — introduction of capital in various forms, in order to enjoy the profit. Credit phenomena form an organic whole; the different expressions of credit work together to guide the course of trade. Either gold will be imported and the rate brought down, or, if it stays up for any cause, goods will flow in, also. The high rate may be an evidence of the more permanent state of expansion in the country: that high charges are made for guaranty because there is prospect of big profits in industry. The high rate, the low exchange, the importation of goods from the country where the rate is low to the one where it persists high, are effects of the volume of promises, which, in turn, expresses the anticipated profitableness of permanent or temporary investment.

The various phenomena of capital — interest, profits, price of securities, price of goods — exert an harmonious influence upon the course of commerce.

Liquidation with international securities is often more definitive and satisfactory than payment with gold.

Of late years the balance of trade has been paid to a large extent, not by the sending of gold,[1] but of what are known as international securities.[2] They consist in those stocks and bonds which are looked upon in the international market as absolutely solid: for instance, the securities of good European or American railroad lines, or the bonds of firmly established governments. As in the transmission of gold

[1] On disadvantage of inability to contract caused by exportation of money, cf. O. M. W. Sprague, Crises under National Banking System, 92.

[2] Growing movement of securities decreased relative call on gold for international payments. The output of the mines can more and more be devoted to the purpose of guaranty. Thus "Higher Finance" renders a service to the needs of the humbler walks of trade. The shrunken stream of gold across seas and frontiers is more easily subjected to conscious control, which has been assumed in the various nations by banks playing a national rôle. This organic precedent has suggested the thought that the United States should legislatively create, *de toutes pièces*, a central bank which should decree an official rate of foreign exchange, since no bank in that country has gained a monopoly of that traffic. For several months of 1894 a Bond Syndicate, under contract with the United States treasury, prevented export of gold. Cf. ch. X, § 21, *infra*.

to pay a trade balance, so in the forwarding of securities, it is not the debtor himself that sends them. They arrive, certainly, because it rewards *some one* better to export securities than gold, for, at a given moment, in the market of the creditor country, where low profits and commodity prices prevail, they happen to bear a relatively high money value. Low profits in the foreign country induce low prices of goods and, temporarily, high of securities. Hence goods and securities are transported in opposite directions to satisfy the instantaneous needs of reciprocal obligations and exigencies. But the effect of the exportation is to evoke, in turn, *a debtor relation from the hitherto creditor country*, and to balance the debt which existed against the locality which exports them, by deferring it. The new funded is now substituted for the original commercial debt, which is banished from the market for foreign exchange, and thus securities quiet the temporary evidences of dependency, by substituting long time for short time documents. Therefore, bonds and other recognized obligations are come to be regarded as a means of final payment.

Securities, confessedly, are not material capital. Payment with gold constitutes, in a sense, satisfaction with material, if not with consumable, capital, but does not imply the retention of the gold for a long time by the foreign country. The transaction lacks the finality and decisiveness which are thoughtlessly attributed to transfer or possession of material things of value. Rise in prices abroad will revive the importation of goods thither and lead to the re-exportation of the gold. On the other hand, it is possible that, if securities do not rise again sharply in the place which exported them, they may be retained a longer time in the creditor country than the gold would have been. Consequently, the satisfaction of the balance of trade between the two localities is really more definitively effected by the sending

The quieting effect of securities on reactions in the trade movement is greater

than that of gold.

of documents than it would have been by displacement of gold.[1]

The fixed investment instrument is a peculiarly long time form of debt, so long that it is rather spoken of as a title to property. However, finally it may be paid. Railroad stocks and bonds are not likely to be extinguished except by a corporation merger, or by substitution of a new series, in consequence of a refunding operation. Capitalists do not want their "money" back so long as the company is successful; and they are not likely to recover, if its prosperity ceases. Often the bonds are written to run for 99 years. Securities of this class, then, offer the preferable method of international, financial liberation. When credit is developed into a title, it exerts a quieting rather than a stimulating influence upon commerce.

In order to facilitate transportation, it is inevitable that agreements be made; the element of time cannot be excluded.

8. The granting of a bank discount is, in principle, the same operation as the drawing of a bill of foreign exchange. A short way of explaining the latter is to represent it as a case in which near debtors and creditors are substituted for distant.[2] In the discounting of ordinary commercial paper, which is to run an appreciable period, the same rule holds, only it is applied to the case where time, rather than space, is the characteristic category. But the practice of using foreign exchange credit instruments arose, as the term implies, in international commerce, and the explanation is commonly offered that, by this device, merchants are enabled to pay creditors *at a distance*. Exchange is drawn for some *time* only in order to permit the transportation of the ex-

[1] The forces effective on gold movement may be and generally are very complicated. For the crisis of 1893 in the United States, the following are mentioned: (1) the currency premium, (2) the foreign exchanges, (3) the merchandise movement, (4) the difference in lending rates between New York and London, (5) special influences from suspension of bank payments. O. M. W. Sprague, Crises under National Banking System, p. 191.

[2] Cf. § 3, *supra*.

ports which it *secures* and guarantees. While conveyance of tools and consumables, and the convenience of paying the nearest creditor by the nearest debtor, are striking spatial occurrences, yet it still remains true that this special kind of credit is also given for definite time.

The element of time, however, claims instantaneous recognition in the case of another kind of commercial paper, such as is discounted by packing houses or cotton factories. Whenever any productive operation is entered upon, individual paper is drawn and discounted equivalent to the values of the material and wages and other expenses involved. The bank now substitutes itself for the debtor, the person or corporation who made or accepted the paper. The creditor is "paid" at once. In other words, he is the "nearest" creditor, and the bank constitutes itself, *in point of time, the "nearest"* debtor. There is no real payment at this stage, but a substitution of the bank's guaranty for the original debt. In place of waiting for the transportation of goods, the bank watches their manufacture, which, as often explained by economists, is, in last analysis, but another form of transportation. The time element fixes the attention in this class of contracts of guaranty. The bank "carries" the debt, having substituted itself to the creditor for the present debtor; and finally, when the paper has matured, presents it to the debtor, and constitutes itself thereby, in turn, the "nearest" creditor. Consequently, the operation is precisely the one already made familiar in the study of foreign exchange, of paying the nearest creditor by the nearest debtor, only *the payments are separated by time instead of by space.* The debtors and creditors here are sundered by six months, perhaps, whereas, in the case of international exchange, they were divided by 3000 miles. Time is a minor consideration in the latter case, it requiring but five or six days to span 3000 miles.

In a large number of cases, the time element is the main consideration.

The international principle of paying the nearest creditor is as active in the case of a discount as in that of foreign exchange, only the word "nearest" must receive a temporal interpretation.

The chief use of money is not the making of purchases but the storing of objective value.

9. The guaranty fund consists of the gold which bankers [1] collect in their reserve to make good their characteristic undertakings. In a broad way, it is the material fund, the commodity that is held and stored in order to assure the promise of a debtor, or the suretyship of any person dealing in debts, *in case the exaction of it be not rendered superfluous by the probable occurrence of a set-off.* The evolutionary aspect of the fund stands out in bold relief. It may appear to be a novel proposition that the original function of money is, not to serve as a medium of exchange, nor as a standard, but as a *store* of value. The quality which authorizes money to act as a medium of exchange is precisely that it thesaurizes, though that be but for a little while. One sells his possessions for money in order that the latter may preserve the value of the former until he can take measures to purchase others. The delay may be insignificant, but the safe-keeping of value approximately but immediately is the principal inducement for the employment of money. *No certainty is implied that exactly that amount of value is to be preserved;* but money is a commodity that usually perpetuates objectively value, as well, at least, as that parted with. The shopkeeper is taking no more risk in storing the dime for which he sold his spools of thread than the spools themselves, and it is no mean advantage that he is able to dispose of so convenient a surrogate, which subjects the world's good things to his pleasure, when and where he will, — to the extent of a dime!

The treasure which the banker guards is performing effectively the same function in the elaborately evolved system

[1] The case is complicated in appearance when legislation permits banks to hold national scrip or other promises, as reserve or part reserve. Specie must be provided, if not by the direct guarantor, at least by the guarantor's guarantor, etc., even though that place be taken by the state. Whether the devices here hinted at economize the use of metal, or whether that economy be not more apparent than real, is an open question.

of credit; indeed, his case is more strikingly in point than is that of the primitive merchant. That the dime was only prolonging personal possessions while it was said to be acting as a medium of exchange, is not a fact that challenges attention. But the inference is unavoidable that the precious metal is warehoused in the banker's reserve, not under the delusion that it maintains an unvarying value, nor to act as a standard, primarily, but *in order to assure, with the shortcomings inherent in every commodity, a mass of value* over against the time when he may be called upon to pay a balance. Money fulfills precisely the same function in a highly evolved system that it did on its first invention. It never was the medium of exchange, except incidentally and in a derivative application; it was always a treasure. What it accomplishes in the modern credit system is, in principle, the same as in the small beginnings of trafficking.

That use appears prominently in the metallic bank reserve, which is a store of objective commodity for the purpose of guaranty.

This conception of money work will be useful throughout the whole question of currency and analysis of prices. Credit is manifestly the more important instrument of the two, for reserve is only held against a contingency, in case the promise-fabric crumble for the moment and men be compelled to revert to more primitive circumstances and procedure. The banker surrenders metal only in order to make good to dealers the cases when they, being at the same time depositors, are called upon among themselves to pay cash on balances which they have not offset by sales. In the case of "A" again, a crisis may be supposed, when he has not been able to continue his marketing. He is now bound to pay his note in gold, but not having that, negotiates a loan. The banker, under the circumstances, may be called upon to pay the gold instead of "A." He virtually furnishes it, but does so literally only in extreme cases of panic. The creditor usually is satisfied with the deposit or banker's guaranty contract, and renounces his purpose of

exacting the nominated forfeit. The deposit is *seriatim* snatched up by others who are only too glad to obtain it.

"Cash," as ordinarily understood, means bank credit; it would be impossible to carry on business with money alone and without credit.

10. The subject of the correlation of business promises with industrial production and with commercial operations deserves extended treatment, for the reader will naturally ask, "Is it unavoidable that there be an amount of outstanding indebtedness in a community fully equal to the current, technical production? Pseudo-conservatives undiscriminatingly affirm that "getting in debt" is a pernicious thing. The community should carry its business on wholly "on a cash basis," as they call it. The contention has a safe, sound, moral, and self-evident tone which satisfies the conscience, if not the reason. The merits of the opposite doctrine claim investigation, for the proposal is obviously impossible of execution in the modern organization of industry.[1]

A bank, by the granting of a discount, guarantees to the public that an operation of manufacture which has been entered upon is well planned and will probably result in the production of real values, that is, of goods that will sell and cover the cost of production. That assurance circulates chiefly in the form of deposits. Every deposit [2] is, therefore, or should be, conclusive evidence that some one, some where, has entered upon the construction of useful things which bankers, expert critics of enterprise, are morally certain will result in values. If this practice is adhered to, there must exist, at any given time, an amount of credit in circulation, either of bills and notes or of their representatives in the shape of bank deposits and bank notes, about correspondent, when weighted with a factor for rapidity of cir-

[1] Cf. the writer's article, "The Source of Financial Power," Journal of Political Economy, vol. XIII, No. 3.

[2] There would appear to be confusion in the too prevalent, foreign idea that a bank note is a check, and yet that notes are issued for loans, while deposits are not. Cf. Maurice Patron, The Bank of France, pp. 61, 63 n.

culation,[1] to the unripe, objective values in the course of production, or, in common parlance, to the unfinished goods.[2] Since demand indebtedness of banks is used as a means of buying and selling, it follows that *present goods are habitually bought and sold indirectly with future.* Mill perceived the "two by two" parallelism of finance with manufacture, although he failed to predict the dominant position which credit was later to assume;[3] "The extent of a man's actual sales forms some limit to the amount of his real notes, and as it is highly desirable to commerce that credit should be dealt out to all persons in some sort of regular and due proportion, the measure of a man's actual sales, certified by the appearance of his bills drawn in virtue of those sales, is some rule in the case, though a very imperfect one in many respects."

Present goods are bought with future.

The notes run for a period roughly equal to that demanded for the purpose of fabricating an order of goods. The time from the instant the raw material enters the factory until the finished products have gone out is definitely ascertainable. It seems quite natural that business paper should run approximately as long; otherwise the manufacturer cannot sell his goods and take up his note. If he waits longer, he submits to pay interest on it after he has long ago, perhaps, had at disposal the liquid funds necessary to redeem it. On the other hand, if the note or bill is too short, it is obvious that they cannot have been realized. The limits of the duration of commercial paper are thus fixed.

[1] If one carries on business with "his own money," he is really employing other men's discounts. Cf. Fisher, The Purchasing Power of Money, ch. V, §§ 3, 4, 5.

[2] Increase of deposits in the Bank of France, 1859–1860, taken as a sign of depression, of hoarding. Liesse, History of Banking in France, Monetary Commission, 91. Either these deposits correspond to loans of other banks — which are not a sign of depression, — or are circulated in the place of specie.

[3] Mill, Principles of Political Economy, Laughlin's ed., p. 331.

That the lengths of certain technical processes diverge from the standard periods expressed in marketable paper is not proof that those periods are not determined by production.

But the production periods in different businesses are various. How can paper of diverse antecedents be generalized and rendered homogeneous, so that that originating in one branch may be available for sale and other consideration in another? In the first place, it is drawn for different lengths of time, three, six, and nine months, for the evident purpose of accommodating it to unlike technical processes. In the second, so far as production periods do not correspond to those usual times, the producer would, indeed, be compelled to suffer the consequences by paying interest a little longer, or by renewing his indebtedness shortly before his product is marketable, did not the banks purchase the misfits, within a reasonable tolerance, and fill the breaks in the note or bill parallelism by piecing out the deficient credits with those that are excessive. Thus they are enabled to permit some concerns to pay before due, and to give slight extensions to others, without inconvenience. The banker, therefore, is not reduced idly to hold his hands, because long-time instruments have been anticipated, and short-time have also been paid. Anyhow, the social utility of a commercial paper as homogeneous as possible outweighs the individual disadvantages of slight failure of correspondence. It remains true that the time that such promises run answers, on the average, to that consumed in production.

11. The supply of paper [1] is explained by the imperative rule that all business, under individual enterprise, must be

[1] The reason for the incurring of loans is stated by Professor Fisher to be the need of equalizing income during the year. "A ready-made clothing house may buy overcoats in summer in order to sell them in the fall." . . . "This would mean the alternation of famine and feast in his family." "The clothier, instead of suffering the large cash expense of stocking-in in summer, will make out a note to the manufacturer of overcoats. After the fall trade, this note is extinguished, having fulfilled its function of leveling the income stream of the clothier." The Rate of Interest, p. 243. Another reason is the purchase of land or permanent plant. *Id.*, p. 245. The persons who have a temporary excess loan to those who

held together by a network of contracts. The manufacturer sets his plant in operation because he has bound some one to take specific goods. The merchant loads the ship under a similar inducement. The purchaser is obligated by giving a note [1] or accepting a bill. The writing does not recite the contract; it does not specify that the buyer is to acknowledge delivery at such a date and surrender a consideration for so many goods. There was perhaps a separate memorandum between the parties to that effect. But the note is given as a collateral contract of forfeit, as a guaranty which is entered into by the purchaser of the goods, that he will take them. The essential force that holds the industrial fabric together lies in that guaranty. If the community were socialistic, *ex hypothese*, none would be called for. Goods-making would run spontaneously. There would be nothing which properly could be called "business." But, as the world exists, industry is interwoven in the way described. The system of guaranties is the essential, integral part, and is backed up by a guaranty-fund in the shape of gold to pay obligations which may not offset. The facts belie the naïve theory that business ought to be carried on "on cash," unless thereby liquid credit be understood.

Bills and notes are a congeries of guaranties that hold together the fabric of the social, productive machine.

12. The credit system is constituted out of contracts that cement industry, and lend to it certainty, on which the individual producers and dealers as well as the consumers can rely. Naturally, the case at first selected in order to

The organic correlation effected by the structure of debts

wish to avoid a temporary deficiency. *Id.*, p. 253. The distinction between the individual's motive in borrowing and the direct social utility of the institution is plain.

[1] If the note is not given nor the bill of exchange drawn when the goods are ordered, or if the goods are made for stock and not at all upon order, the result is the same: the paper must be written for the production period in order to avoid an excess or deficiency of promises at any moment. Cf. next section, § 12. The European custom of drawing bills may have incidental advantages, but makes no difference in the amount or time of commercial credit. Victor Morawetz, The Banking and Currency Problem in the United States, pp. 69–72.

holds also true for production not upon order but "for the market."

substantiate the principle was that which appears strongest, namely, where merchandise is fabricated upon order. Extensive branches are managed upon this principle, especially in the iron industry. Indeed, if orders enough do not come in, an iron furnace would be likely to run awhile for the sake of maintaining the plant in operation and of keeping the personnel together, but the bulk of its output serves to fill precedent orders. The textile industry, also, widely conforms to this custom. The explanation offered above thus holds literally for some of the staple lines, but others are conducted and financed differently. The farmer and planter do not sow and reap under contract, and, to some extent, the jobbing trade is not dependent upon specifications from retailers.

Nevertheless, even in the last case, the notes which are given, as purchases are consummated, or subsequent to their completion, would most conveniently run for the production period. It still determines the appropriate due date; and calculations are still based upon its expiration. Hence the same *reductio ad absurdum* follows in this case as in the other: there would be either a shortage or an idle surplus age in the means of a manufacturer, if any note that he gave or received in the course of his business did not fall in with the production period. And consequently, even if these promises are not entered into in anticipation of the finishing of the particular raw materials out of which the goods bought are manufactured, nevertheless, they still bind businesses together. They even, by a familiar process of reaction, constrain production to proceed at a calculated and expected rate. The undertakings of those who give and take financial paper are still interlaced on the basis of ascertained rates of output obtaining in their different branches, and, by virtue of it, constitute in the mass one gigantic, socio-industrial mechanism. The proposition,

Business promises react so as to keep business alive at its possible pace.

then, ever holds that business furnishes its own "money," which consists essentially of the obligations current in business.

13. The addition to be made to the last mentioned proposition, which is already gaining ground outside of academic circles, is in the line of the relation of the purchasing power of these obligations to *future* production. They purchase *present* because they constrain the consummation of *future* goods. Ruskin noticed that the debt is the primary means of carrying on business exchanges.[1] In the following citation, he is defining what money is, and incidentally tells what debts do:

Ruskin perceived that the essence of the purchasing power lay in the further obligation to produce.

"It (money) is not wealth but a documentary claim to wealth, being the sign of the relative quantities of it or of the labor producing it to which at a given time persons or societies are entitled.

"If all the money in the world, notes and gold, were destroyed in an instant, it would leave the world neither richer nor poorer than it was. But it would leave the individual inhabitants of it in different relations.

"Money is therefore correspondent in its nature to the title deed of an estate. Though the deed be burned, the estate still exists, but the right to it has become disputable.

"*The currency of any country consists of every document acknowledging debt which is transferable in the country.* (And a gold piece is as much a document as a bond.)

"This transferableness depends upon its intelligibility and credit. Its intelligibility depends chiefly on the difficulty of forging anything like it, its credit, much on national character, but ultimately *always on the existence of substantial means of meeting its demand.*"

Ruskin first lays stress upon the rule which may be easily

[1] Dr. F. J. Stimson, "Ruskin as a Political Economist," Quarterly Journal of Economics, vol. II, p. 423.

enlarged to read that money is essentially a sign of some transaction with respect to material, or of something which should go on with respect to it, or with respect to the person in whose charge goods are confided or who has property in them. And he continues that it is money of this sort, as a token of processes entered upon, *whether engraved upon metal or printed on paper*, which carries on the business of a country. The careful reader will assuredly not jump from that statement to the fiat money conclusion. Ruskin guards himself on this point: he says that "currency is a document acknowledging debt," originating, perforce, in the usual, competitive production and distribution and not in a government printing press. He means "private debt," not "public." He further says that its value or "credit" depends, ultimately, *always on the existence of substantial means of meeting its demand.* When that qualification is added, no danger of fiat money remains.

Liquidation as distinguished from payment is the substitution of new debts for old.

14. An individual note is satisfied, since it has been found to be only a guaranty, either with a fresh one or with a deposit. It has been explained that deposits originate in loans.[1] When the production period is completed and the note falls due, the creditor-manufacturer or his banker presents it for payment, and accepts a deposit in discharge. It is as good as cash to him. Indeed, a deposit is carelessly called "money." It originated in the expected making of different goods. The general principle involved is that *perpetually old indebtedness is paid off with new.* All that the seller cares for is to know that he can liquidate finished wares in the form best calculated for the purchase of additional labor and materials. It is much more convenient for him to receive an equivalent in the form of a check than in that of money. The purchasing power of the check is, in this sense of convenience, greater. Consequently he never

[1] Cf. § 6, *supra*, and Dunbar, *op. cit.*, ch. II.

literally is "paid." The distinction clearly emerges between "payment" and "liquidation." [1] The way is made smooth for the business of the world by a perpetual liquidation, until a crisis comes, when payments are constrained to be made. Liquidation is piled upon liquidation. It may be defined as the *refreshing of credit with newly tested indebtedness.*

Renewed notes may be more difficult to liquidate or offset than original, for, while they recite the identical individual obligations, they may not correspond to any additional goods manufactured. The dualism of debts and merchandise is discredited. There will, indeed, be no more paper circulated in the community than before, provided the renewed notes are laid aside by the creditor until the wares are disposed of or until maturity. But if they continue to circulate vicariously in the form of bank guaranties, although the cycle of manufacture has not been completed by sale, or even after the finished consumables or vendables have been turned over again and again for other new notes, there will be a tendency to inflation. If the debtor, instead of obtaining that his note be continued or renewed, take it up with a new-loan with "money" borrowed on his general reputation for solvency, or with the aid of another's indorsement, the effect will not be different. What he borrows, probably, is a deposit; but he thus causes credit to circulate when he has not manufactured any goods to correspond.

Credit extended and production not extended spell inflation.

There is danger in renewals.

Much dialectics have been wasted over the possibility of an overproduction of commodities. It cannot be desired, anyhow, that times may arise when men are commonly trying to extend their credit in order to save themselves from the consequences of an interruption of the circulation of goods. A condition supervenes of promises stretched but of sales

Overproduction and abnormal credit are as truly objects of systematic study as is normal credit.

[1] Cf. ch. II, § 16.

curtailed. It needs little insight to recognize an abnormal[1] state of affairs known as "inflation." Objective wealth, which is the basis of purchasing power, continues to exist. But the vulgar means of acquiring proprietorship has, for the moment, lost its efficiency. The principle of correspondence of credit with products is best grasped with the aid of the usual, static, economic hypothesis of *normal condition*. The outstanding credit represents current output, barring allowance for rapidity of circulation; and is reduced through bank discount, to a homogeneous mass of deposits, which are severally equally capable of purchasing any goods that may be in the market.

Whether stoppage of circulation attain to the degree of a crisis or not, the consequent failure to pay or discharge indebtedness drives creditors to legal measures. The debtor is sued and judgment obtained against him. The law recognizes an unique method of maintaining solvency, — payment in money. Consequently, if the legal prescription is carried out, that case would form an exception to the principle that old debts are paid by new. The scene of the legal process or lawsuit constitutes a more primitive environment, where settlement is made with money and not with new indebtedness. When one goes to law, he reverts to simpler *economic* conditions, however exalted the *legal* atmosphere may be. He is specifying a material satisfaction-piece, namely gold, in enforcing *payment* of his claim, instead of accepting a promise of future production to *liquidate* it. Resort to such exactions denotes a breaking down of the mutual confidence and of the delicate, complex system in which men are striving and weaving in the present age.

In the case of failure to liquidate, the law shifts the scene to a lower environment, and the sheriff levies on the debtor's goods.

But even in the case of resorting to the assistance of the

[1] This cause of inflation may be looked upon as an episode intensifying the more normal and rhythmic inflation due to speculation and promotion. Cf. chs. VIII-XI, *infra*.

courts, the attorney for the plaintiff will give satisfaction, in practice, if the sheriff shows that the debt has been "paid" with a cashier's check. The sheriff executes upon the debtor's possessions, thus forcing circulation where the latter could not effect sale by persuasion, but, instead of demanding money, receipts to the purchasers upon their tender to him of good bank deposits. And the creditor exonerates the sheriff, if the latter novates or assigns those funds to him. The outcome is that in almost all cases, even in that of a judgment and execution at law, *an economic promise is fulfilled, not by payment, but by liquidation.*

Even then some credit will be found in the community to liquidate that debt.

15. "Set-off" was defined as the circumstances under which a man's note comes back to him in satisfaction for goods that he has sold. In diagram I, "A" began by purchase of goods; and the ultimate effect of the cycle of sales for credit was to fulfill an act of barter. When the whole transaction was finished, the result was the same as if he had bartered the goods which he last sold for those which he first purchased. This rule holds also in the most complicated credit system. However, it may happen that somebody on the circle from "G" about to "A," refuses to buy. Suppose "E" fails to strike a bargain with "F." The note comes back to "A," who, on the new hypothesis, has not been able to sell.

Failure of liquidation is a condition of economic crisis which accompanies a clogging of the goods market.

Here, in the most simple form, is an illustration of the clogging of sales in an economic crisis. The credit has been launched, but a condition of affairs has arisen in which the corresponding merchandise cannot be sold. Producers are unable to meet their obligations. Those who have wares rush to dispose of them at the lowest prices. Many fail because they are unable to pay their notes; and the noteholders in the series fail because they are unable to collect.[1]

[1] Failure to sell is attributed by some to overproduction and underconsumption, and this, in turn, is held by such authors to be the sole, or

The following six chapters attempt to trace the steps of the development of an ordinary or normal obstruction of sales.

References on International Payments

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fundamental cause, of economic crises. Cf. Camillo Supino, Crisi Economiche.

CHAPTER IV

INVESTMENT AND THE FLOW OF CREDIT

1. Those promises devoted to meeting expenses of manufacturing or other production are quickly liquidated or otherwise disposed of, while those destined to investment tend to collect and to form a basis for a large part of the bank deposits. Sale of capital goods is correspondingly slow. — 2. A considerable flow of credit from place to place is thus put at the service of the banks, and it acquires additional guaranties on the route toward the financial center. — 3. Inflow of deposits to banks is a dynamic consequence of the ordinary course of repayment of bank loans and of profit-taking, and furnishes a bank with a credit position which it utilizes by directing its debtor to pay to the financial center, — to a central bank. — 4. Such a flow of "money" to the center, makes "money" cheap there, and thus encourages promotion. Promotion is a necessary stage of the process of investment. — 5. Underwriting is the means of the obtaining of funds from the central bank or other financial institution pending the marketing of the securities of the new enterprise. — 6. Final disposal of securities to permanent holders is the only possible discharge of the promoters and underwriters, who are thus relieved from the obligation to return deposits to their places of origin, or, in other words, to satisfy the provincial claim on them. — 7. Capital in the legal sense of permanent ownership either of material or credit is necessary neither in banking nor in industry, except as a guaranty against miscalculation. — 8. Ownership is not the unlimited dominion assumed by legal theory: in production, it is a temporary control for a specific purpose with a right of marketing; in consumption, it is a right to help or harm one's self as much as one can without doing what is considered to be an interference with others. "Ownership" has one meaning as between the head of the family and the other members, and quite a different meaning as between the same person and third parties. — 9. Much of the purchasing power of a community arises from bank loans upon collateral of titles or obligations of businesses; hence such titles or obligations are known as "securities." — 10. Therefore it is no exaggeration to say that a purchase made with a check drawn for ten dollars or with a bank note of ten dollars is made with the promise of *some* future production to that amount. Contracts for future produc-

tion are the logical means of exchange, since exchange is the basis of them. — 11. The guaranteeing of industry is a great stimulus to it, — 12. and is chiefly effected by banks. — 13. Bank credit bears no earmark of the transaction in which it arose and hence is generalized and adapted to general circulation. — 14. Liquidation, set-off, and payment must be distinguished, in the case of bank credit. — 15. Life insurance companies and all financial institutions other than banks are open to abuses arising from lack of obligation for payment on demand. — 16. Financial corporations have been formed in order to avoid legitimate, personal responsibility; hence arose the bogy of the "money power." — 17. In the study of credit, the word "capital" must be used for the promises which keep production going, and not for the materials and machines used. — 18. A capitalist in the narrow sense is a person who seeks to invest his profits. — 19. These are free goods seeking a monopolized application. — 20. A purchase of bonds or stocks is a loan in the sense that it is calculated that interest will be paid, although the repayment of the principal is by a different process than obtains for other loans. Bonds and even stocks are credit documents. — 21. When an investment is made, the deposits paid for it, although they furnish purchasing power to the new business, are not renewed when the commercial paper on which they were based is paid off, — they are merged into (or liquidated by) the new securities. — 22. The perpetual investment may be paid off at any time by the public through the stock market. — 23. Commercial paper is created in order to guarantee the production of circulating material capital. — 24. Demand credit expresses, through its general and unqualified form, an intention on the part of consumers to purchase. The breaking of that promise is apt to bring on an industrial crisis. — 25. "Cheap money" means that financiers are disposed to sell their signatures of guaranty on reasonable terms. — 26. This will happen at a period of business depression; but if a money panic occurs, guaranties will be high even if sales of commodities are suspended. — 27. No matter in what locality an operation of industry be carried on, the promises incidental to it may furnish purchasing power in any other locality, however remote. Thus a great enterprise may receive contributions in minute amounts from the farthest corners of the earth, aggregating large sums, and without the intervention of money. — 28. The abuse of the flow of credit is the means of overproduction. Hence comes the claim of socialists that capitalism necessarily implies overproduction. — 29. International movement of money is a stimulus to business and investment.

Documents recording

1. INDEBTEDNESS is the indispensable tool of economic production and traffic. However, the business promise, the check or note or bill, is a peculiarly abbreviated document.

The undertaking to pay money inscribed on it is not expected to be fulfilled, except in case of failure to liquidate or offset; the creditor, in accepting it, does not dream of exacting money from the debtor. Although the note says, "I promise to pay one thousand dollars at such a date," the obligee visualizes bank deposits or notes rather than gold, as the means of final restitution. The one thousand dollars is, to all intents and purposes, a forfeit provided for the exceptional but still possible circumstance that the debtor be unable to replace the now due with current, freshly tested credit. The next step will be to consider how this moving mass of indebtedness is utilized for investment.

indebtedness perform guaranty and circulative services.

When goods are sold, there is no means of determining whether the specific ones in question realize a value which is to be appropriated to the maintaining of the vendor establishment or firm at its existing capacity, or whether they are the bearers of values which augment its previous property. The product must embody either expenses or profits. Nevertheless, on the supposition that it surpasses the outlays incurred in its manufacture, it is plain that, for so much of the total as only reaches to replacement, the establishment would have an *immediate use*, because, in order that it may perpetuate itself, those values demand immediate reconversion into raw material, labor, repairs, etc. But there will be hesitation as to the investment of the surplus. The firm would pause to consider whether they chose to divide and enjoy their profits, or, as a concern, to make an investment in extended business. Their bank deposits would, in large proportion, represent profits, since there would be a tendency to "check out" the profit slower than the cost portion of the sales. The general application follows that the banks of a country hold, in large measure, its financial profits; and, therefore, that they and similar institutions are the intermediaries through which new investments are made. Their

Bank deposits contain, in large measure, the social surplus.

making may be traced through the transmission of purchasing power in the form of credit.

Elusive meed of truth in the popular phrase that "banks" loan out their "deposits,"

2. Surplus or profits held by banks will certainly not be confounded with products stored in warehouses, for the promises, of which the former consists, affect men with all the cogency of title to the latter. On an average, which may be actuarially estimated, there passes through the banks a definite amount of credit. A portion is surplus, which is more likely to linger than that which simply replaces the body of the capital engaged.[1] There is always a large amount of "credit" of this nature in the banks, consisting of deposits that have parted company with the original borrowers and which the banks may handle to suit themselves, so far as is consistent with conservative management. The present owners neglect to employ their deposits, and thus leave property to an equal amount in control of their banker.[2] It is possible that the banks may not call upon each other for the payment of these deposits, but they may be used for temporary investment, during the forbearance of the capitalists who own them. Unless the debtor bank be creditor of another, this economy is impossible; for one

[1] It has been estimated that deposits awaiting investment in the four great French banks amount to about a quarter of their total deposits. A. Lefranc, La Liberté du Commerce et les Établissements de Crédit, p. 10. "They (the great banks) thus put at the service of commerce and industry the resources offered by saving as fast as it accumulates." (*Les ressources de l'épargne en formation*) *id.*, p. 101.

[2] The financier's use of "capital" and his belief in the parallelism of finance with production, are illustrated by the following quotation from the New York Clearing House Report of November 11, 1873: "Banks are the natural depositors of the Current Capital of the nation, *passing into and out of active industry and commerce.* The balances held by them are for the time specially reserved by their owners from permanent investment and kept subject to immediate command. They constitute a main portion of the wealth of the community *which is not yet ready to be consolidated into fixed capital or immovable forms.*" The italics are the writer's. Cited by O. M. W. Sprague, in Crises under National Banking System, p. 91.

cannot purchase with what he already owes, but only with what others owe him.

Among other temporary investments, the banks in the distant localities buy exchange upon the great money centers. A feeder in Nebraska selling hogs in Chicago would, in such case, draw a bill of exchange upon Chicago, and discount it in Lincoln. Or he receives from the live-stock broker in Chicago a draft upon that city and deposits it. He, in any case, obtains a deposit in Lincoln. The bank of the latter city acquires, in turn, a corresponding deposit in Chicago; for it does not collect the individual note or bank draft, but sends it to Chicago for deposit in the reserve bank where it habitually maintains a balance. In either case, the Lincoln bank provides the paper with its corporate indorsement. The deposit in Chicago thus has back of it the countersignature of the local bank. When it circulates as an obligation of the reserve, it has, in effect, the additional name of the provincial bank, for a deposit is customarily guaranteed by the signature of the depositor upon the paper surrendered, whether that be an individual note or bill, or a bank check or draft. Credit arising from a sale in a province may be made available at a financial center, if it brings with it the local indorsement and there receives the additional one of the central, credit institution. It thus mounts sensibly in intensity of purchasing power; for, in receiving the two official engagements, it practically enjoys the benefit of those of all the depositors and stockholders concerned.[1] An undeniable accession of power for economic control thus arises. If the commercial document is passed from the Chicago bank to one in New York, where it secures a further deposit, it will be correspondingly more indorsed and more available. A bank may find that its reserve is becoming low, and may

explains the flow of credit.

The reguaranty of local promises is a characteristically organic process.

[1] The result is weakened by "remedial" legislation, such as the limited liability law.

send paper from its portfolio to a central bank for rediscount. In that way, the latter acquires paper that is guaranteed by the local bank, although, of course, it is liable soon to lose reserve to an equivalent amount. It is common to account for investment by tracing the movement of deposits. The preferable way is to follow the fortunes of the guaranties which sanction deposits, and form the chief resources of banks. Creditors' accounts are concrete, and can be identified by their individual earmarks.

Large deposits strengthen a bank, because they tend to give it heavy claims which it can collect but which are not demanded of it in turn.

3. The surplus or profits of the outlying districts are redeposited, to a considerable extent, in the banks of the central city or cities. The country banker finds himself in possession of an excess of deposits above loans. Agreeably to the basic theory which teaches that deposits as a whole originate in loans,[1] this could not be true of the nation's banks as a guild, since, taken all together, the two items must be equal. But some banks find themselves provided with an excess of deposits, which have arisen not in their own loans but in others'. Such assets appear in their accounts as bills receivable, as "remittances" due. They are claims on other banks, and not on their own, original customers.

These assets are not necessarily demands against the money center, but against all possible places, often those remote and unimportant. Surplus "deposits" are sometimes, also, the produce of loans by the bank not acknowledged as such in the statement of assets. They are advances made to customers, free of interest, on the strength of securities, mostly checks, bills, and drafts, deposited but not yet collected. They are intrusted by the stronger firms, which have dealings at a distance, and presumably are "making money."

Claims in course of collection arise from

Such strange deposits are a source of strength in that they furnish resources immediately payable; although they are subject to sudden withdrawal, leading to disaster, notable

[1] Dunbar, *op. cit.*, p. 48.

instances of which occurred after the Knickerbocker Trust panic of October, 1907. A bank possessing them is, therefore, in a strong position momentarily, and naturally desires to exert its power of guaranty a little further, — in other words, to extend its loans. But if the home demand for accommodation is inadequate or untrustworthy, the provincial bank naturally looks to the money centers, where it purchases gilt-edged paper or securities, with the intention of holding temporarily and reselling.

profits, move towards the money markets or scenes of investment, and constitute what is known as the "quick capital" of a society or nation.

If it uses for this purpose the sight or short time credit which constitutes its surplus, the documents in question must be enriched by its indorsement, and the deposits circulated by the central reserve bank are correspondingly strengthened. Thus its surplus[1] contributes to bring about one simultaneously at the money center. For the "remittances" are sent thither for collection and left on deposit. In sending the paper on, the local bank must indorse it. Hence, it is literally true that the resources of the central bank consist of provincial business promises, indorsed by the home banks, and by those of all subsidiary centers through which it may have passed.[2]

4. The banks throughout the country keep a large deposit, in the aggregate, in the central banks.[3] Many firms and

[1] Taking the banks as a guild, the total liabilities must equal the total resources, and, within narrower limits, total loans will roughly fluctuate with total deposits plus bank notes. Nevertheless, in some banks the deposits may, to a considerable extent, represent paper of various kinds in process of collection. The possibility of this state of affairs will be more readily perceived, if one notices that depositors may considerably overdraw their individual accounts without at once receiving notice from their bankers, — a postern gate sometimes taken advantage of by weak business men.

[2] Cf. the writer's paper, "The Source of Financial Power," Journal of Political Economy, vol. XIII, no. 3 (June, 1905).

[3] Redeposits are specialized in a few banks. "The Bankers' deposits n New York were concentrated in 7 banks in 1873, which held 44.9 millions due other banks, against only 15.7 held by the 43 other banks of New York, while of individual deposits they only held 34.1, against 154.4.

This actual credit differential in favor of the central bank has the highest purchasing power and naturally seeks investment.

merchants also own deposits there: for instance, a jobbing house in a Nebraska city is likely to keep an account in Chicago or New York. All of these deposits that gravitate from the distant localities, originate in transactions there and are obtained upon paper indorsed by responsible men. Coming into the possession of a central bank, they remain, during the production period or during the actuarially probable delay in paying them, at its disposal. What is done with them, or more exactly, with the assets which warrant them?

The topic of circulation touches that of investment.

At this point the topic of flow and circulation of credit blends with that of investment. The concentrated deposits are larger at some times than at others. They flow in more readily and they flow out less freely. Then it is that "money becomes cheap" in Wall Street. So enormous is the surplus production of the country that it accumulates with embarrassing rapidity if it be not systematically drained and effaced by investment. Money becoming cheap in Wall Street means that reënforced purchasing power is gathering because unused. It is true that it is ultimately cleaned up by collection and satisfaction from the primitive obligors, and that the great banks prove a social utility in the clearing of a diminishing mass of cross-indebtedness. But they find no profit in a gratuitous presentation of exchanges for liquidation and offset. They are proprietors of evasive but highly intense purchasing power, and their problem is to

In 1907, Aug. 22, the bankers' deposits were chiefly found in but six banks, which held for National Banks, 168.6 millions compared to 90.7 held by 32 other New York Banks, and for other banks 158.6 as compared with 47.5; while of individual deposits they only held 285.1 compared with 247.5 held by the 32 others. In this case of 1907 the bankers' banks also held a majority of individual deposits, but their net bankers' deposits are three times those of the others, 304.2: 1060." O. M. W. Sprague, Crises under National Banking System, 17, 233. Redeposits are bankers' deposits. They, like individual deposits, are secured by loans, only the bank more often procures its loans on collateral or other's credit, while the individual, in the majority of cases, acquires his on his own name.

utilize it during its actuarially estimated existence. One method is by the making of stock loans. Another is by direct or indirect underwriting or launching of businesses and the constituting of permanent capitals.

Specialists in the science of finding employment for the catallactic current are called "promoters." Their feverish brains are cognizant of the inventions and the possibilities of combination and trade openings. Their calling is quite distinct and may well claim the individual energies of the ablest. The promoter puts his proposition into shape. He obtains options from brewers or cattle ranches or shipbuilding concerns. But he cannot independently mass the surplus capital or investment fund, in its scattered condition, for he does not possess the financial machinery requisite to reach the modest but original proprietors of profits. The road of direct approach is, indeed, not infrequently attempted; but it cannot be said that the effort to circumvent the organic, investment system has proved fortunate to those whose confidence has been won.

The promoter is a broker in business opportunities.

Capitalists will buy stock in a mill that is turning out products, when they will not invest in a castle in Spain. They want to know whether a plant has been constructed and connections have been built up, and especially whether raw materials are in course of transformation and the output has found a market.[1] How artful is the mining promoter in arguing that his workings are developed and all ready to be a great success! The task of the promoters is to set the business actually going. That involves great risk. The conspicuously successful businesses were not launched in that way: they trace their origin to the small beginnings of things industrial and commercial, and their present commanding position is but the effect of the patient survival of the fittest. Men do not commonly enter into an undertaking involving

[1] Meade, Trust Finance, ch. VII.

probability of loss, unless the possibility of profit be great. Only a very speculative person would presume, with his own capital and reputation and acting upon his own responsibility, to put in motion a great combination, to pay off the old stockholders, and buy new material. Those who undertake this work must insist upon large profits.

The underwriter is enabled to be a guarantor of whole businesses by his possession of small and often distant deposits collected into great capitals,

5. The promoter and organizer needs collaboration. He applies, perhaps, to the same central bank, to which the West and South have sent deposits, often vicariously through local banks and unmindful that they are contributing to cosmopolitan, constructive power; and that establishment consents, directly or indirectly, to what is called an "underwriting." It advances funds to him and his friends, if not to his corporation, on the virtual pledge of the latter's stock and bonds. The transaction may be called a sale of stock. The underwriter or underwriting bank thus furnishes the corporation funds with which to buy raw material, and to pay laborers to put it through the process which makes it marketable. The advances are probably granted, not by a national, but by a private bank.[1] Indirectly, the liquid funds of the national banks will be tapped, however, by stock loans, when once the underwriters have put the stock on the market. Or gilt-edged securities may well be pledged with them, as collateral for the enjoyment of their highly charged and efficient purchasing power. Also, ways have been devised of engaging the time-funds in the hands of the insurance corporations, which resemble bank funds in their widespread origin. They constitute a legal trust, however, while the latter are conveyed with full title. But the former are more easily devoted to investment, since they cannot be recalled on demand.

[1] Banks of issue must not be interested in business enterprises. André Liesse, National Monetary Commission, Evolution of Credit and Banks in France, p. 72.

At last the promoter finds himself in position to advertise the privilege of putting money into a going concern, which is on the point of paying large profits. In Continental countries, bankers of the capital cities openly promote new concerns. In the United States and England, the central reserve banks, debtors on provincial deposits, practice loaning on stocks which have been already put on the market. Thus the American or English promoter must carry his securities a step further, in order to secure the coveted liquid funds. The difference between the two practices is not fundamental: provincial deposits strengthen the central bank.

and earns a large remuneration, — a sort of rent for the use of confidence-inspiring reputation, and at the same time, a premium for risk.

It undertakes, at the instance of the promoter, the risk which an individual would incur if he alone tried to launch a large concern. The moment is critical, especially when, as commonly happens, promotion is widespread. A wave of discredit is more than likely to pass over the community and obliterate the channels of commercial circulation. The country capitalists besiege the local bank for their deposits. The latter repeats the demand to the reserve, and, through it, to the central reserve banks. Deposits have been considered, at least up to the remarkable, general, bank suspension of October, 1907, to be a sacred, demand, cash obligation. The underwriters have advanced their resources upon the prospects of an inchoate enterprise which has not yet sold its stock; or has sold it only for the purpose of hypothecation. The country depositors have a string attached to their deposits, for they are entitled to withdraw them at pleasure.[1]

Demand credit is the Schoolmaster of Integrity.

[1] "The market, however, is in a shape from which wide fluctuations may be expected. Yesterday we had an illustration of this in a sharp breakdown *of a certain group of industrials* which extended its effect through the general list. The break should have come during the latter part of March, as I prognosticated it would, but there was united action to stem the current at that time by a number of powerful leaders with a view of bridging over the first of April settlements, expecting easy money thereafter. *Their calculations as to the speedy return of money to this center*

Payment on demand is the fundamental right inscribed in the charter of the depositor's liberties. It is the most precious attribute of the institution of credit, which would otherwise be perverted to the selfish aims of strong aspirants for wealth. The practice is eminently justified, since the individual depositors generally draw no interest. Their funds are generously devoted to the support of a useful institution.

having miscarried, they lost their grip in holding the market and in the severity of the raids which caught an innumerable number of stop orders and weakly margined accounts. To the deluge of stocks from this cause is due the bad break." Clew's letter, April 8, 1899. The italics are the writer's.

A United States Treasury official plainly said: "The great trouble in New York is that the banks have allowed themselves to become heavily loaded with loans made on industrial securities. The public has not taken these securities as actively as they were expected to do; in other words, they have not bitten readily at the bait thrown out to them. Therefore it will be necessary to renew the loans on these securities, and the consequence has been that *the banks*, instead of being able to work out of their difficulties by crop-moving time, as they expected, *have had to carry along the heavy burden which they thought the public would take off their hands*. The banks ought never to have gone into this kind of business. They had to do so largely because of the influence of strong men who were floating the new securities, and who either had the controlling interests in the banks themselves, and so influenced their action, or who were important factors in the success of the institutions, and whose wishes regarding the flotation of the new combinations consequently became law." Italics are the writer's. W. R. Lawson, the New York Banks and the Treasury. Banker's Magazine, London, Nov., 1902, 573, cited in M. T. England, Speculation in Relation to the World's Prosperity, University of Nebraska Studies, vol. VI, no. 1, p. 24.

The following cases are given in which repayment of loans made by the West to the East might diminish Eastern bank deposits: (1) "The trade relations of the rest of the country with the East may have given Western and Southern Banks a favorable balance of payments, and the investment of Eastern capital in the West may have contributed to this result." (2) "The bonds purchased by the Government were to some extent held outside New York, though the immediate payments made by the Treasury may have been made through the New York Banks." (3) "Loans of outside banks in New York, if liquidated, would provide the means of drawing funds from that city." (4) "The banks seem to have rediscounted freely at the Eastern money centers." O. M. W. Sprague, Crises under National Banking System, p. 148; cf. pp. 166, 175, 294.

The efficacy of this counterbalance has not always been appreciated.

The surplus owning public is the surety of the underwriter.

6. There is evidently one door of escape by which the reserve banks may, without offense, avoid the obligation of arbitrary repayment, and that is, to have induced the distant and scattered owners of surplus to *renounce their claims by buying the stock*,[1] before the epidemic of bad credit[2] shall have swept over the country. The result will be to remove the load from the shoulders of Wall Street. For instead of withdrawing their deposits and taking the cash home, or leaving it on deposit in their local banks, the

At bottom, the whole question of the moving of deposits is the one, — who guarantees payment? The shifting of "funds" and deposits amounts to the assumption and release of guaranties by individuals and associations. From the point of view of the pure theory of credit, one must make the hypothesis of a community using credit alone, and never constrained to payment. The restricted use of money, as at present practiced, conceals the simplicity of the system, and allowance must be made for it in illustrations cited.

The intercalation of an additional debtor is necessary in carrying on many financial operations. What is the difference between redepositing in a central reserve bank and "direct" loaning by the provincial bank in the central, reserve city? In the latter case, the outside bank surrenders its control over the central bank deposit to a broker. The borrower does not obtain a new deposit at the central reserve bank, but an assignment of the deposit held there by the broker of the country bank. This peculiar arrangement may be a source of greater profit to the outside bank and regarded with jealousy by the reserve city bank. But when funds are returned, deposits will fall at the central reserve city, it makes no difference whose.

Apart from actual movements of money, movement of funds, or in other words, assignment of purchasing power, whether between corporations or individuals or banks, will be noted in fluctuation of deposits in

[1] Cf. note, § 5, *supra* (p. 107).

[2] Credit spells control. "Good" credit is the control which results from legitimate, business activity, from so-called "social services." "Bad" credit is that obtained purely for sake of control. For example, control of goods obtained by accommodation paper is presumably on bad credit; control of a "string" of banks by successive hypothecations of their stock, is also on bad credit. Such control does not directly attack the wealth of the country, but it intercalates unnecessary promises which are dangerous, because they relate to no additional production.

"Western" capitalists will apply the New York deposits to settle for the stock. Payment is obviated by the offsetting of the debt of "Wall Street" to the depositors by the debt of the latter for the securities. Distant claims on the financial center are renounced to the extent that depositors purchase securities of national importance; the central banks possess, at last, credit to counterbalance their debt, with the addition of a handsome profit or unbalanced claim in their own favor.

Credit flows ever farther as it is saturated with more guarantics.

Investments, like international payments, are accomplished by agency of the "circular" flow of promises. Credit paper traveling to the money centers accumulates purchasing power on the way. It can finally be employed for the launching of great enterprises; and thereafter is applied to the distribution of the various participations in them among persons who, vicariously or directly, have forwarded deposits, and who had previously entrusted them to local banks. This liquid credit may now be said to be absorbed by the corporation and merged in a permanent form, namely a continuing title, and an inextinguishable, uncancellable, perpetual producer of value.[1]

local banks, — unless, indeed, the parties succeed in arranging their affairs without the employment of general purchasing power, and without entering any general market, whether for goods or credit. In 1884, withdrawal of bank credit from New York did not involve a corresponding movement of specie to the West, because the New York loans from the Western Banks were cancelled when paid, *i.e.*, when "funds moved West." (Cf. O. M. W. Sprague, Crises under National Banking System, p. 118.) And the effect on deposits as a whole is the same, whether the withdrawals be of banker's deposits or of "direct" loans called. *Id.*, pp. 126 n, 127, 148.

[1] The way in which purchasing power is collected and again dispersed is similar in the cases of sale of stock and of large corporation loans. The following quotation gives the common sense explanation:

"Just what influence the issuing of new securities exerts on the money market is a question which is being widely discussed at the present time. That the sale of say $1,000,000 of new bonds by some railroad does not 'lock up' or take out of the market $1,000,000 cash is obvious — at the same time the issue of new bonds does produce an effect which at a time

Thus, the same surplus which has at first increased the loaning facilities of the country bank, has later augmented the underwriting power of the central. It is at the option of the former, and particularly of its customers, to approve or disapprove of the promotion and underwriting. In the former case, they surrender their virtual redeposits, by crediting them in exchange for proportional titles to risks, which they assume in the hope that they will turn out favorably. In the latter, they cancel the redeposits by withdrawing them, decreasing to that extent the resources of high finance, while leaving the participators in the venture still liable for the securities underwritten, or at least, for the outlays involved. Since the operation of promotion often succeeds, there is good evidence that, notwithstanding the modern concentration of wealth, the surplus is largely in the hands of the miscellaneous public.

The fortunes of promoters are in the hands of local, often provincial, investors.

7. A title to capital is a statement of the fixed obligations of persons engaged in a permanent business. The articles of incorporation constitute their charter of settled relations, which become binding upon the contribution of tested and properly accredited purchasing power. The enterprise is now intrusted to the men of technical industry. But, up to this point, the bank reserve has been the only material guaranty, except in so far as the underwriters may have already contributed plant. But their action is a detail, an

Material reserve is not an item in the process of banking, but is held for a contingency.

like the present is worth noting. That effect is the *fixing of capital*, the transfer of credit at bank from the account of the individual depositor to the account of the corporation which is borrowing the money. As it affects the general situation, the great difference is that as long as the money remains in the individual depositor's account it is available for any purpose to which the bank may want to put it. *It is liquid so to speak. But let the money be transferred to the credit of some corporation* which has borrowed it in order to spend it, and the money is apt to become widely scattered and in small amounts. Sooner or later most of it will find its way back into the banks, *but in the meantime the banks have had just so much less to lend.*" Franklin Escher in Harper's Weekly, Nov. 13, 1909. The italics are the writer's.

important one, in organization. The essential nature of the banking business consists in the exchanging of promise for promise, by the purchase of a time note with one on demand, or with a deposit. It is perfectly possible, theoretically, to open a banking business by writing out deposits in a book, or handing over notes, and by taking in the individual notes of customers in exchange. No "economic" capital is involved. The essence of banking does not exact tangible plant. The capital is contributed for the purpose of additional security, in case the bank cannot collect against borrowers. This fund is put into the form most available to enable the bank to meet the deposits or bank notes which it may have passed by novation to others, whose claims it cannot offset with the individual notes in its portfolio. It is the business of the bank to meet this practical situation, and it prepares by investing a part of its capital in readily collectible promises or obligations, and part in tangible, metallic reserve.[1]

A bank does not loan its material capital but keeps it intact.

Reserve is practically obtained with capital. In the banking business, then, at least, economic capital is of very little direct account; for banks are not dealers in material goods. An army without a reserve lacks an element dictated by strategy; and yet battles are won without bringing up the reserves. And a bank without a reserve would not be sound, and yet the main theory of banking is concerned with those operations which do not involve its employment. A "reserve," as the word implies, forms no part of a bank's active forces.

The "ownership" of a manufacturer in his machines and goods is a neces-

Nor in other businesses do tangible things possess the "capital" importance often attributed to them. A manufacturer buys raw materials. He gives his notes for them, which fall due when the production periods are fulfilled. The materials pass through his factory, and are sold. Pru-

[1] Dunbar, *op. cit.*, p. 23.

dence demands that he be able to dispose as fast as he buys; that he have his business so organized that the wants of the community shall be supplied at the proper rate. From the public point of view, he is one of the parts of the great productive machine[1] which is generating *en masse* the goods that are being enjoyed. The notes that he has given, as well as those that he receives, are the means of regulating the flow of the share of the joint output for which he is responsible. The material-capital possesses only technical importance. Social housekeeping is chiefly concerned with the responsibilities involved in the *promises* with respect to the supplying of men's wants. It is possible to regard him as affected by a social trust. In that reposes the economic significance of his activities, rather than in his legal rights. These apply with respect to specific lots of concrete commodities; but his social duties, defined in titles to enterprises and in credit documents, are disconnected from the goods and sanction his general conduct. The usage which extends the application of the term "capital" beyond the technical tools, so as to cover the subtended social obligations, is rooted in an unconscious popular appreciation of the latter. The term cannot be confined to the bounds set by treatises which systematically describe the outer environment.

sarily conceded control.

The material-capital is important for technique, but not for the science of social economy.

8. The "property," on which the law lays stress, is a connecting link between the goods and the general power of control which belongs to credit. The socialists have seen a half truth. In order to carry on business, the term "property" has very properly been invented. But its use has drawn after it the popular vogue that there is some peculiar virtue in the exclusive ownership that a responsible manufacturer enjoys of the goods which he has enmeshed in an industrial process. Socialists claim that such "absolute"

The term "property" is subject to misinterpretation.

[1] Cf. J. B. Clark, The Distribution of Wealth.

rights *ought* not to exist. Economists should assert that they *do not*. Evidently, the only peculiar thing about "property" is, that goods are intrusted to his care for a time, and that he must have rights with respect to them, else he could not carry them through to completion. He must be free to control his materials and apparatus, and to exclude idlers and tamperers. He has *rights* therefore, for the purposes of socially useful control. But medieval logic of the bench, of the forum, and of the hustings, treats "property" as absolute. The socialist objection to *all property rights* is equally medieval. The practices of credit measure fairly well the institution of private "property." The essence of it lies in the public recognition of the contracts which enterprisers of various descriptions mutually [1] undertake.

Socialists condemn private property because they erroneously read into it the same mistake which lends to it otherwise popularity and approval.

Evidently, therefore, the "capital" is imminent in the contracts and the power of control that they give; it is not in the goods. It does not at all infringe upon individualistic predilection to make that concession, because experience has shown that it is useful to concede that amount of authority to *individuals*, for it is indispensable in order that industrial processes may proceed in an orderly manner. The burden of proof, therefore, lies upon those who come forward to say that a less amount of power should be granted to individuals,

The importance of "property" for evil and for good, is exaggerated both by socialists and by individualists.

[1] For a list of property rights, with the property on which they are based, see Fisher, Capital and Income, pp. 26, 27, ch. 37. "These forms are not all commonly viewed as forms of credit, but the line between those which are and those which are not is hard to draw from the point of view of finance: It is not uncommon thus to have, between a property right and the wealth underlying it, several layers of property. A man who owns an ordinary foreign bank note has a claim upon the property of the bank. But the bank's property consists, for the most part, not of tangible wealth, but of promissory notes and other claims on merchants. These notes represent a part right in the wealth (including persons) of the community; consequently the holder of a bank note quite unconsciously owns a claim upon the dry goods, groceries and other wealth of merchants, which make good the debts of these merchants to the Bank." Fisher, Capital and Income, p. 32, cf. p. 325.

if that were possible, or that the control should be shifted forcibly from certain individuals to others, presumably political favorites, in whom it has not already been located by the course of evolution. The contracts entered into for and about production, are gauged and distributed exactly up to the point and in the proportions determined by competition, present and historical. The agreement that such a man shall have control of such goods, for such a time and to such an extent, is ascertained by and through the system of undertakings with respect to industry and commerce. That arrangement itself, is, in turn, definitely established under the influence of the sciences and arts that are applied in production, combined with the social nature of man, and the necessity that he has for a certain independence, origination, and initiative. As conditions are altered, authority necessarily shifts. It is placed by evolution, and hence cannot be by election. The network of undertakings follows closely the development of industry. The mass of these social obligations, looked at from another side, expresses private rights; and hence it is no perversion to say that *the real capital is in the credit.*

It is socially useful that power over goods be lodged in individuals.

It will probably be answered that a manufacturer needs enough tangible capital to carry him through his first production period. But, if he can buy his first goods on his note, he certainly needs none. The reason why he may be argued to need circulating capital under more permanent tenure, is neither more nor less cogent than that why the banker needs it. The latter may be constrained to pay his demand notes, while he is unable to collect on the time notes which he holds. And the manufacturer of cotton goods may be pressed to discharge the notes which he has signed for the purchase of raw materials, while possibly events may so shape themselves that he has not been able to turn over the finished goods. But the surplus, circulating capital of the

There is likeness, in their conceptions of credit and property, between the banker and the manufacturer.

manufacturer is not material. It consists in a credit for profits left with the banker. The curious result emerges that the latter is the one of the two, who, perchance, owns a partly material reserve. The plant and real estate of the manufacturer hardly come in question for purpose of discharge of debt. Material-capital is not needed, except to make good the possibility of a falling through of the complete operation of the set-off system. All in all, *the only material liquid capital is the reserve.*

The purchasing power of credit arises from confidence in future production;

9. Two positions regarding the nature of capital ensue: one is, that it consists of the promises for the production of future goods, or credit. The other, that it constitutes the business organization of the country. Those things are really the same.[1] The half dollar with which one buys a bushel of potatoes is, to that amount and for those reasons, the general promise of the realization of future values.

but men are highly unconscious of that.

A promoter puts upon the market the stock of a certain corporation, which he has obtained to be underwritten and which may be supposed to belong to a going concern. The stock is listed on the exchange and attains to a high quotation. It passes into the hands of investors, who, in the course of further transactions, procure loans on the strength of it, as collateral. A loan is thus made at a high valuation, at a margin of fifteen per cent under the market price. The deposit received in exchange, commonly called "money," possesses purchasing power of the highest degree. If he takes a dollar of that loan into West Street, and buys potatoes with it, is it not literally true, that he has bought them with the promise of the future production of, — rubber overcoats?

10. It is a startling announcement that purchase with a document, even a bank bill, is really effected with a promise of future production. Knies[2] wrote: "I have already said

[1] Cf. ch. III, §§ 11–12, *supra.*

[2] Der Credit, vol. I, 243.

that when the debtor obtains goods without paying money for them on the spot, I am not ready to concede to him an independent purchasing power entirely separate from the sum of money payable in the future." He recognized the truth of the proposition that the purchasing power is founded upon goods or material money which are to be delivered or paid at the due date. He continued: "Naturally, when the creditor is paid later on, he gets, in the money or goods, articles possessing a certain amount of real exchange or purchasing power." He perceived that purchasing power is connected with specific future goods, but did not penetrate further to the close connection of general purchasing power with credit instruments and with contracts for production.

Since large classes of the promises of guaranty are exhausted in the acquisition of completed goods, their value must be equal,—if allowance be made for the factor, rapidity of circulation, since totals which are exchanged are necessarily of the same value. Again, if any estimate has been made as to what is the value expected to be realized from the goods that are unfinished and in course of production, as a whole, that is also to be attributed to the same promises, for they were entered into with respect to the unfinished, and not to the finished, goods. And if, as is natural in a progressive community, that estimate is in excess of the subjective value of the present goods, it follows, then, that the whole of the mass of promises must be discounted down to the present time, unless two simultaneous values are to be attributed to them. Such is the practice of business. The promises standing for the goods which are expected to be marketed at a future time (and, for the sake of argument, one may logically assume that contracts are made for production maturing at a definite date, although goods are advancing through the technical stages at an even rate), the discount must be the difference between the value of the

Present goods are purchased with future.

Notes and bills are discounted by the seller, if not by a bank.

present goods and that which the future are expected to attain.

The practice of utilizing contracts for the delivery of future goods, in the exchange of present, is eminently consistent. The circulating goods lend present value to them, while the awaited completion of the immature, attributes another, an expected value. They are thus doubly valued, and the discount is the difference between the two determinations. Engagements entered into for the future title to goods and services, are a most fitting general tool of circulation. They are an organic manifestation, for exchange is, in last analysis, appropriation of present goods to future uses, according to the letter of the contracts, though the latter were not undertaken concerning the lots that happen to be sold. Debts spring from a purpose to produce or to consume, and transfers of goods are referable to the same motives. That men are coöperatively transforming stuff for economic ends, unavoidably involves exchange; and the *contract* by which present goods are to be applied in that way *amounts virtually to the fact of the exchange of the goods.*[1] Such contracts, therefore, taken quantitively, are the necessary means of setting present goods, in general, at work towards the creation of future. Thus they become the circulating medium. When the purpose is consumption, the case does not differ. Contracts solely for the appropriation of goods to future consumption are socially useful and personally binding. And so far as credit is entered into for that purpose, it naturally would be the means of exchange.

To say that goods are purchased with credit amounts to saying that they are made capital by contracts for transforming them into final products.

The same promise covers the contract for the production of goods and that for the passage of property in them.

If astronomers were to announce that the Earth would be demolished, a year hence, by collision with some vagabond planet, and the prediction obtained general credence, then

[1] The term "credit" includes the ideas both of capital property and of capital value. For these terms vid. Fisher, Capital and Income, cf. pp. 67, 326.

the large markets for goods would disappear, for lack of a medium of exchange, except so far as barter or fiat money might offer a lame substitute. For contracts of manufacture and future delivery would cease to be drawn. While awaiting the catastrophe, men would learn, from dire want, that general purchasing power had resided in the guaranties of future production.

11. Credit acts as a stimulus to industry, and the banks, as a stimulus to credit. Similarly, a delicate electric throb may set in motion a powerful electric motor. In one sense, perhaps, the bank adds nothing to credit. For instance, when "A's" note, in diagram I, came back to him to be "paid," he liquidated it with deposits at the same establishment where he had discounted it. The offset of the individual note cancelled it, and, at the same time, the indorsement of the deposits back to the bank, cancelled them. Or, if they did not happen to be the demand debts of that bank, then it passed them over to the original obligor, elsewhere, and they were liquidated or "paid" by final offset through the clearing house, or directly out of reserve. So that when the note made by "A" matured, not only was it cancelled, but also the deposits which corresponded to it.

Credit stimulates industry because it is the expression of men's calculations about it;

[1] Concentration of credit sometimes is intimately bound up with the direction of industry. The manufacturing centers, as well as the financial, are efficient to this end, for they support institutions not at the bottom round of the ladder of redeposits. Whether the accumulation appear purely financial, by way of redeposit or rediscount, or commercial, by way of payment for goods through transfer of deposits, the process, in either case, concerns credit alone. If purchase be effected with demand notes, they will largely be deposited. The same institutions watch over credit flowing along both channels, that of finance and that of commerce. "Nor is there any place where balances can be created by the sale of trade paper. That is all we ever need to keep domestic exchanges open. All our cities had plenty of trade paper in 1907. If they could have sold it for book credit, or for credit notes, country merchants could have paid city merchants, city merchants could have paid the manufacturers, the manufacturers could have paid wages, and so have prevented the death of industry." Thornton Cooke, "Financial Coöperation and the Aldrich Plan." The American Economic Review, Fourth Series, no. 3, p. 247.

and banks regulate that stimulus.

But cancellation of specific bank credit does not cause diminution of credit in general, for it is recreated as fast as annulled. A bank's deposits and notes are not all paid at a time. It finds itself proprietor of a flow of credit passing through its portfolios perpetually, and debtor upon corresponding deposits recorded in its books. If there were no new, individual notes discounted, then, indeed, the payment of the existing notes would cancel all of the outstanding obligations. The same result would hold true of the whole guild of banks, and that pivotal business would expire. The paying off of all of the extant commercial paper would suspend banking. But the bank does more than merely write over current credit in a new form: it indorses it. The facility of guaranty by a solid institution is the most powerful incentive to the undertaking of new individual contracts and credit obligations. The bank invites the creation of commercial paper by holding out the opportunity of discount. It offers to the public a continual guaranty of payment. Thus, the business of indorsement stimulates and encourages production and consumption, and enlivens the economic activity of society; while, by scrutinizing carefully the promises which it buys the bank discourages a foolish use of wealth. The mass of the credit passing through banks corresponds to the goods in course of production, and the separate pieces of bank credit are timed to be paid off at a period about equal, on the average, to the length of the technical processes.

The guaranty of a bank is general.

12. The guaranties substituted by banks for individual bills and notes are not individual but general.[1] When "A,"

[1] The bank acts as an intermediary between individual business men, taken separately and successively, and the buying and selling public taken *en masse*. This is the condition under which it gives its guaranty. It is not the business of banking to guarantee payment as between two individuals taken apart from others, although the ultimate effect of its general guaranty is to protect individual holders of notes and deposits. This

at the end of the production period, has sold his goods and realized on them, and settles with the bank, he does not return to it the deposits that he obtained when he discounted his original note or bill, but any bank deposits. For the sake of simplicity, they may be assumed to be due from that bank, but, as just remarked, they might as well have arisen in another. However, it is important to notice that when he pays his individual note, he surrenders an amount of deposit exactly equal to it, in other words, exactly equal to the deposits that he obtained in his own name in the first place (there is no question of interest involved at this stage of the discussion). It makes no difference that he pays back deposits that were obtained upon another man's discount. The important fact is, that the general mass of deposits had been increased so much, but, by this payment, is now in turn decreased by an equal amount.

eral, since bank notes and deposits do not state for what they were "loaned,"

Stimulation would be lacking did not the guaranty serve the public. The condition upon which this social utility depends, lies in the principle that the bank's intervention reduces all individual and corporation credit to general terms. The consequences of this simple transmutation are far-reaching. The generalizing process, permitting the creditors to be repaid as fast as individual notes are to be paid off, is also the one by virtue of which expansion and contraction take place. When individual notes are paid faster than they are made, then the circulating medium of

and hence they are used generally as a circulating medium for

plain rule has been evoked as an argument against the evil of overcertification of bank checks: "No sufficient reason, in the opinion of your committee, can be given why a corporation should place itself without compensation and special security between two parties dealing with each other and become the guarantor of either in transactions *entirely personal to themselves*, simply because one or the other is a depositor in the institution." O. M. W. Sprague, Crises under National Banking System, 99, New York Clearing House Report, November 11, 1878. The italics are the writer's. It may be added that special guaranty between individuals is the business of a surety company or of other special guarantor.

purchase and for liquidation.

the country is said to be contracting; but when they are discounted faster than paid, then it is said to be expanding. Control of this ebb and flow is possible because the deposit, which is the result of the discount, is a general and not an individual debt. It circulates generally; it pays generally. Socially speaking, the bank is but the indorser. The real, economic debtor is the average borrower, which is not very far from saying, the average depositor. This is as true of the guild of banks as of a single one. The influence which the banks exert over the expansion and contraction of industry becomes manifest, when it is understood that virtually all the contracts for production [1] pass through them, and that the banker is he who decides whether or not they shall be discounted, or in other words, guaranteed. Therefore, of all business men, he is the one who exerts the largest influence upon enterprise. He offers facilities, but he does it discriminatingly. He stimulates the community to enterprise, but with care.

The distinction between liquidation, set-off, and payment is necessary to the explanation of the formation and transformation of capital,

13. Now stands out more clearly the distinction between liquidation, offset, and payment. When new individual notes are in course of discount, and the bank is paid back with deposits, and new deposits are continually granted, the ones that are returned not being those originally sprung from the debt that is now being paid, there is continuation of credit by substitution. This is liquidation.

When no new credit is created, so that finally all deposits are balanced against all notes, then there is only offset. Perhaps, however, "A" has been unable to effect sale. In

[1] "Business loans constitute by far the most important class of present indebtedness. Mr. George R. Holmes has estimated that at least nine tenths of the existing indebtedness in the United States was incurred for the acquirement of the most durable kinds of property, leaving not more than one tenth, and probably much less, as a 'consumption debt' or a debt necessitated by misfortune. No theory of interest would therefore be complete which should fail to apply to business loans." Fisher, The Rate of Interest, p. 240.

that case, neither another's note in liquidation, nor offset is possible. The loans were granted upon a rational expectation that "A's" merchandise would find customers. Being unable to obtain credit, he is called upon by the bank to *pay* money. The depositors, also, not caring to purchase, are entitled to demand cash. These are cases of desired "payment."

If such inability to offset is widespread, payment, even by banks, must soon cease, since the stores of money in the reserves are necessarily far inferior to the outstanding demand credit. A crisis is inevitable. The persons who have undertaken either the manufacture or the sale of goods, and those who have assumed the guaranty of the circulating capital, are unable to pay, and failures may be widespread. To the extent that debtors manage to collect money, the case is one of "payment." To the extent that they are unable, it is one for the sheriff and forced sales and final closing out of transactions, at a loss.

and of their relation to crises.

14. The "money power," which is associated in the popular mind with Wall Street, and whose solidarity has been greatly overestimated, is tempered and habitually balanced by the power of the thrifty, responsible inhabitants of the provinces to withdraw deposits. The art of "high finance" consists, to some extent, in calculation upon possible retirements of deposits, as well as upon the means of attracting them to the money centers, and of selling to their proprietors investments which may operate the hoped-for release. The funds habitually "redeposited" are not, by any means, all of them liable to be recalled on demand. For instance, those that are contributed to the insurance companies, and that more than once offered opportunity for scandal as exposed in investigations in New York, are to be withdrawn only when the risks have matured and are due from the companies. Life credit replaces demand! The substitu-

Complaints against the "money power" are not directed so much against banks as against institutions that do not pay on demand.

tion, necessitated perhaps by the difference in the businesses, is not favorable to strict surveillance and close economy.

The banking system is healthy because it leaves in the hands of the producers the function of criticism, a sort of "referendum and recall." For the depositors are able, at any time, to remove the controllers of finance from their high office. Abuses in the insurance business were followed by exposure of precisely the evil that the premiums sent in could not be withdrawn. There was no danger, therefore, to the companies' managers, apart from perfunctory inspection or spasmodic investigation. Their "deposits" are permanent. This exemption subjected them to temptation. They found that they could keep insurance out, and, meanwhile, progressively but tentatively decrease the bonifications and participations which are to be paid pursuant to the various plans. The insurance contracts were most ingeniously calculated to induce persons to invest, by alluring but complicated conditions, so that each expert solicitor could demonstrate that his policy had advantages over others'. By progressively and more or less simultaneously filing away the quota of the earnings to be distributed, the companies brought about a state of affairs where what they disbursed was less than they received from a liberally interpreted employment of the funds in their hands, by more than a customary profit. It is claimed, they failed properly to account for the difference. That was only possible under the system of long contracts, which seems inseparable from the insurance business. The banking system, on the other hand, has proved itself, in the long run, adequate to the concentration of credit for the purposes of investment, and is correspondingly organic and praiseworthy. If the banker succeeds in reaping a rich harvest, it excites less jealousy, for the risk of his operations is more generally appreciated.

15. Abuses, alleged and real, of relations of private or

social confidence by persons intrusted with large funds, form an interesting chapter in ethics. Of such shady origin is the "money power." The use of that term probably arose about the time of the building of the Union Pacific Railroad, and of the operations of the Credit Mobilier, the construction company which was organized by the projectors of the first great interoceanic highway. The affiliated concern managed to transfer to its own treasury, for distribution as profit, an estimated one third of the securities issued. That appeared to be excessive; and yet the common law suffered no severe shock. The difficulty of reaching, by judicial path, the evil of abuse of opportunity, is probably to be solved by a proper understanding of the meaning of the term, "a trust." It was decided by the courts that no betrayal of trust appeared, since the credit mobilier and the company had the same stockholders. They could not be held to have cheated themselves. The former was merely an instrument devised for distributing the profits of the latter. But the director of a company should be held to be a *trustee for the public*, as well as for the stockholders, and for subsequent, as well as present, stockholders. That solution would also answer the difficulties of the insurance cases.

Origin of the "money power" was and is in the use of incorporation as a cloak for violation of trust.

The money power has developed with the growth of credit. Contemporaneously with the scandal of the construction of the Union Pacific, there was a corner in gold in Wall Street, operated by Fisk and Gould, culminating on "Black Friday," in 1869. The overinvestment which caused the crisis of 1873, would have been impossible, without a credit system common to the western world. There was also suffering in the West, on account of speculation in land and overproduction of wheat and corn. The loose management in the construction of the Union Pacific, and in connection with the Erie and other railroads, became well known. The result naturally was that the people of the

West laid the blame upon those of the East, some of whom had been largely instrumental in pushing the lines into the West and had made the settlement of that district possible. From that sectionalism was derived the bogy of the "money power," which presented itself to occidental imagination as a superhuman monster, able to wreak untold havoc in the western country, whose den is located in Wall Street. One result of that devil-worship was the Granger organization; and a second was, undoubtedly, the silver party. The end is not yet. At the present time, encouraged by new excesses in connection with high finance in New York (and there has been a whole series in the interval) the socialist movement attains an importance hitherto denied to it in the United States.

The popular agitations are not to be ascribed to the credit system, but to its abuse. The system cannot be destroyed; the evil may be remedied. Overgrasping on the part of the directors who have had control of the portfolios in the money centers, is an accumulating source of complaint, and accounts amply for the popular disaffection. Treason at the top is soon suspected and whispered about through the whole organization, beginning with the business or institution under culpable leadership. It is imitated by weak subordinates and lames the action of the upright. The leaders are often unable to realize that changed conditions call for more severe standards and for a keener sense of stewardship. There has been much misconception of the function which those persons fulfill. If it were understood what the cause of the trouble was, legislation would be directed towards sharpened responsibility, extended definition of trusteeship, and criminal punishment for betrayal of confidence. Especially would it be sought to reform, reorganize, and perfect the administrative branches of government, and chiefly the boards and commissions charged

Sense of responsibility may be sharpened by criminal law.

with the duty of inspection of credit institutions. Unfortunately, popular agitation asks for legislative decrees, but not for a highly developed and trained administration, since the masses have not learned to look on public officials as friends. They are willing to augment the number of office-holders, in the interest of "spoils," but not to raise their standard of efficiency. The country is treated to wild general declamation against large fortunes; to propositions to limit the amount of money that a person can earn; to cut down the proportion that he can leave to his children; to tax, progressively, "private property" out of existence; to take over the railroads, and ultimately many private enterprises, under government control.

Doubtless, conservative extension of state activity over supply of wants long firmly fixed and highly developed by private enterprise, will depend from a widening of the circle of human interests and an increasing room for the play of individual initiative. Yet proper understanding of the circumstances would recognize the utility and public benefits flowing from the centralization of finance, and decline to bow to radical or revolutionary leadership. It would be seen that what is complained of, in most cases, is such a breach of trust as might occur to the same parties were they affected by more or different regulations, and that a strict punishment of its commission by the person occupying a fiduciary relation, is all that is necessary, in order to maintain the existing order of things at highest efficiency.

16. Fixed capital, on the average, is perhaps not worth much more than the circulating capital it can coöperate to create in a year, and yet property in the former is more commonly suggested by the term "investment" than that in the latter. The capital of fixed or long-time investment is also viewed from two angles which disclose, respectively, material, technical tools, and the obligations which make

title in their usufruct precise. The former has hitherto been more the concern of political economy; the latter belongs to the domain of credit. While it were supererogatory to inquire which is the real capital, it will be possible to furnish good ground for the use of the term in financial circles. The diversity of views and the obstacles to their reconciliation may be made apparent by illustration: under what conditions will a man obtain high or low wages? Cairnes says, the disposition of Englishmen to invest being what it is, they can be relied upon to set aside a corresponding proportion of their income for purposes of reproduction and not to consume it on the spot. Walker maintains that, for a given efficiency, wage-earners can exact proportional remuneration. Mill, on the other hand, lays it down that goods will sell for a price which answers to the difficulty in producing them. Physical circumstances of the technique of production serve to restrict the quantity which comes on to the market, and thus to set a scarcity price upon them. So, it is not entirely true that the distinction between political economy and credit is that the latter deals solely with the mind, but the former with things. The disposition of Englishmen, for instance, is a mental matter. The preference which men display for certain goods is also largely a mental matter; at least it is something that passes through the mind.

The subject matter of credit is more psychological than that of political economy,

Nevertheless, the mental aspect of industry is brought forward particularly prominently in the study of credit, because it brings into strong contrast the distinction between the future and the present. The combination of reckonings ahead, expressed in contracts, determines, practically, the business organization as it exists, and really constitutes the financial capital of society.

because it is primarily concerned with comparative estimates of future and present.

A business man speaks of capital, ordinarily, if he is securing a loan or conducting a bank or making an investment, entirely differently from the way in which economists speak

Credit study starts from an avowedly

of it as *goods* that are devoted to further production. The theory of credit follows practice in regarding capital as the *means of devoting* goods to reproductive ends. The distinction is that between a mental and a material object of curiosity. Indeed, Mill [1] and other economists lay stress upon the point that it is a matter of intention whether certain goods be capital or consumption goods. For instance, coal that is merely used to cook food or to warm a dwelling is possibly a consumption good. But if man decides to put it into a furnace to raise steam, in order to supply power to a train of cars or to a manufactory, then it is called "capital." Hence, capital can often be recognized only after inquiry as to the intention of the owner, and the study of credit is partly of the mental mechanism by which, and of the financial, immaterial environment in which, those intentions are expressed and carried out. They acquire a social objectivity in the credit documents.

psychological point of view.

When credit signifies a capitalistic intention, it is properly called "capital."

The word "capital" is traced to the Latin *caput*, and it has been erroneously imagined that it descended thence indirectly through "cattle," because it was noticed that, in early times, the wealth of primitive people consisted very largely in herds. In the United States, for instance, in colonial days, cattle were used as a means of paying debts, and the same practice has obtained among many primitive peoples who have attained to the nomadic or pastoral condition. But the better view appears to be that the word comes *directly from caput*, and that it means the "head" or principal sum.[2]

The word "capital" has reference to the principal sum, — not to a material store of goods.

The spontaneous logic of language has given to this head, financial phenomenon a term that agrees with the view that it is not materialistic. Whatever materials are con-

[1] Principles, book I, ch. IV, § 1.

[2] Wilhelm Roscher, Grundlagen der Nationalokonomie, 18th ed., book I, ch. I, § 42, n. 1. Eugen *v.* Böhm-Bawerk, Positive Theory of Capital, p. 24.

trolled by contracts for purposes of production are indeed called, by analogy, "capital." Similarly, whatever human activities are so directed, are called "labor." Credit is, therefore, the primary capital, goods the secondary.

17. Definitions soon acquire a broader and a narrower sense. Divergence of this sort was unavoidable in the case of capital. The discussion has dwelt especially upon the credit which flows through banks, and the attempt has been made to show that it represents, relatively, the surplus of the community, rather than the replacement of the current wealth, because there would be a certain hesitation in investing the surplus, whereas the existing wealth is necessarily turned over mechanically and put back immediately into the process of production in which it is engaged.[1] This hesitation or friction, which leaves a large amount of control and directing power, — in short, of credit, — in the banks, creates a fund there waiting for investment. That fund corresponds to the narrower definition of capital; it is essentially capital. On the other hand, he who is proprietor of bonds or stocks in an old established, going corporation, may be called a capitalist in a large sense. In the French language, there is a term which is peculiarly applicable to such a person. He is called a *rentier*, one who receives a fixed income. Securities held by such a person are said to be "*classé*." They are lodged at their destination.

A definition enjoys its intensest meaning in the connection

[1] Fisher shows that the principal fund, being at each maturity reinvested, is immediately "cancelled" from the accounts of circulating capital, whereas those payments which may be regarded as properly income, are reserved for later determination. On his hypothesis, this determination must be consumption. But whether invested or consumed, would seem to be a statistical question, if there is any free-will entering into disposition of the surplus value arising from industry. Anyhow, his view would seem to favor the idea that bank deposits are largely income-surplus, although investments be made through banks. *Vid.* Capital and Income, p. 216.

where practice lays the greatest emphasis. The man who has successfully carried through an investing campaign and is, at last, become a passive *rentier*, is supposed to be henceforth relieved of mental stress. But he who is handling loose funds, the liquid income that tarries in the banks, is still striving to discover a permanent and advantageous lodgment for them. If capital for enterprise be wanted, he is the party appealed to. The promoter does not ask the retired *rentier* to sell old and tried railway stock, worth 400, in order to raise funds for fresh enterprise. Ordinarily, he applies, instead, to free income, to the surplus that is equivalent to credit control over goods that are lying unbought and ready to be used, and asks the creditor to surrender economic property over them, for the purpose of launching a business enterprise which shall become a permanent investment.[1] The man who has credit-disposal over free goods is *par excellence*, a capitalist. He illustrates the narrow or intense definition. This credit may properly be regarded as a fund. It has been, heretofore, alluded to as answering more or less to the profits that are heaped up in a community, in constant danger of bad investment and destruction, but in part surviving and added to permanent wealth. The fixation and perpetuation of only a fraction increase social possessions with rapidity, in those nations which have attained to the credit-capital stage of evolution, notwithstanding the large amount that is sacrificed.

A capitalist in the narrow sense is to be distinguished from an investor, bondholder, or passive capitalist.

[1] According to Fisher, since income includes all realized income, it includes additions to capital. The latter forms part of the fund, therefore, which lies in the banks for division between present enjoyment and capitalization. Capital and Income, p. 238 *sqq.* "We have learned, then, to distinguish between standard and realized income. The one is ideal, the other actual. The one is that income which, if it were received, would leave the level of capital-value unchanged; the other is that income which is actually received and detached from capital, no matter whether that capital, as a result, is increased or decreased. In short, the one is earned, the other realized." *Id., ib.*, p. 235.

Monopoly is relief from competition, and that is what business men severally seek. It is the first and last thought of industrial man.

18. This rescued quota of the wealth of the community seems to correspond to what Professor Patten calls a "monopoly fund." The intense capitalist endeavors to discover a monopoly-opportunity where he may definitively naturalize the free surplus. No one enters business in order to enjoy the luxury of arousing competition. The shopkeeper does not intentionally settle next door to another, established in the same trade, with a large list of customers living in the neighborhood, nor in a line where a rival enjoys unusual advantages in the obtaining of supplies. One launches an enterprise for exactly the opposite reasons. He hunts a location where nobody near by is conducting the same variety of business, or where he is convinced that he has obtained unique possession of an economical source of supply, or when he thinks he possesses an influence through his "lodge," that will attract the vogue in his direction. What enterprisers are all striving to do, when they are blessed with a liquid surplus, is to acquire a monopoly. When they believe they have secured it, they are, indeed, often mistaken. The undeception is complained of as "competition." Disappointed in monopolistic ambitions, they are lucky to find that they have purchased an ordinary investment.

The monopoly fund is the surplus over fixed charges, seeking investment.

The total production of the country, insists Professor Patten, acquires value from the subjective appreciation of it by consumers. Some returns are well ascertained, while others are problematical. Consumers pay out and subtract from the social wealth an amount of dis-value or dis-utility, equivalent to the efforts of producers. In addition, they surrender an equivalent for the advantages which certain producers have over others, differentials which John Stuart Mill treated under the title of "rent," but more exclusively in connection with agriculture than is now usual. Other incomes, permitted by custom or due to various causes, are added to costs. The values that the community enjoys in

excess of an amount sufficient to cover these fixed charges, are in the nature of a surplus, and are superadded to the fixed expenditure. They are movable, can be invested and reinvested and are seeking monopoly. Besides all this income-wealth, there is a third compartment of society's economy, the extra value that is obtained by the exceptional persons who are able to extract more utility out of industry than those who are setting the standards on the lower margins of effort.

Its distribution is apportioned by demand for talent, and is not at the expense of consumers.

"The growth of fixed charges lags behind the growth of value. The lower limit to prices set by the amount of fixed charges no longer equals the maximum limit to prices fixed by the pressure of consumers' wants. Prices, therefore, can be altered, creating a free income to be absorbed by those having the power to control them. This free income is a monopoly fund whose distribution is fixed when certain producers have enduring causes giving them an advantage." [1]

Some monopolists obtain more than others out of the fund, because the whole is fought for between them, and he who can raise his price highest diverts most from those that are not successful. He does not augment the outlay of consumers.

Correspondence of investment credit with material, fixed capital.

19. Credit may be classified according to the different documents which certify to it, and to the goods which they are used to purchase. Bonds and stocks constitute investment credit. The borrower is the corporation represented by the promoter, or the underwriter, until he retires from the scene, and the capitalist or creditor or loaner is the investor who buys them. The produce of their sale is devoted to the purchase of fixed capital, such as land, buildings, and machinery. The credit that is fixed thus corresponds to the tools that are fixed. The term "capital" is habitually used in both connections, but by different sets of persons, the promoters

The value of securities depends on the expected

[1] Simon N. Patten, The Theory of Prosperity, p. 84.

value of product.

and financiers, and the undertakers and technicians. After the artisans, laborers, and other employees, the creditor garners the fruits of the productive process. He is the person who really has control of it. The stocks or bonds that he holds are credit documents,[1] but are purchased with deposits or bank notes, the representatives of the bills and individual notes which compose the essential or intense capital alluded to.[2] Bank credit is cancelled to an equivalent amount when the commercial paper is paid; but the fixed securities survive indefinitely. *Current is thus further socialized and merged into long-time credit,* which is legally equivalent to the title to the business of the corporation. When a banker grants a loan on an individual bill or note, it is drawn for a definite period, and the discount on it is the difference between the expected production and the present value of the "money" that he has loaned. When, however, one buys stock in a corporation, he is paying, not for the present discounted value of the goods involved in a single operation, such as corresponds to the production period for which a note or bill is written, but for the *discounted value down to the present time of all of the production periods up to infinite time* during which it is theoretically expected that the corporation is to live. That is not, however, an infinite sum, since, at the ordinary rate of interest, the vanishing perspective of distant increments comes down to nearly nothing; so that, for instance in England, it is said that land sells for "twenty years purchase." That means that only twenty times the rental is the present value of the land. Beyond that, the additions are too small to be worth reckoning in. The value of any investment may be calculated roughly in the same way, whether it be a manufactory or other productive or enjoyable property. About twenty years' profit will buy the concern out. So the "buyer" of stocks and bonds is

The distinction between the expectations on which the values of commercial and investment credit are founded is that of mutability or permanence.

[1] Recognized by Knies, Der Credit, pp. 190, 191. [2] Cf. § 17, *supra.*

really making a loan payable in installments for infinite time, discounted down to the present, just the same as one is making a loan for 30 to 60 days when he buys a note by discounting it. The financial relation of present to future is the same, except that the actuarial computation is more difficult, in the case of fixed capital, because one is required to estimate what expected goods are to be worth at the end, separately, of each production period hereafter, and again, what is to be the rate of discount in each case, which are rather problematical matters. Nevertheless, such is the process in principle.[1]

Shares of stock are guaranteed and sold like debts.

20. The adaptability of the actual system is illustrated by the complete financial preparations for the direction of surplus wealth into the concern picked out as likely to be profitable. When a loan is made for 30 to 60 days, the creditor becomes a guarantor. For example, it has been seen that a bank loan is effected uniquely by the exchanging of the bank's guaranty for an individual's promise. In the case of the purchaser of stock, however, this loaner of funds for infinite time offers something that is better than a mere guaranty. He pays for the stock. His guaranty is discharged in advance. In a sale of stock, therefore, the buyer, who corresponds to the creditor in other cases, has guaranteed the debt by paying down cash.

Investment merges short-time credit into long-time. Cf. ch. V, § 6, *infra*.

Such "payment," ultimately extinguishing the equivalent credit, is a merging of the short-time credit into the perpetual process; of business promises into industrial titles. It completes the cycle of credit-life in a thoroughly organized system of production. The promise, then, may be said to start its career in the form of commercial paper, to be indorsed from hand to hand, to be guaranteed by banks, to

[1] The method of reckoning present value on investments is explained by Professor Irving Fisher, Appreciation and Interest, chs. IV and V; *id.*, The Rate of Interest, chs. V, XIV.

be utilized in a round of merchant's or other transactions, and to wind up by being resolved into a perpetual investment. Simultaneously, the goods start as raw materials, are worked up into elaborate forms, and those of them that are not consumed directly become machines, which are presumed to last forever, and to throw off products for infinite time, with a deduction for wear and tear.

The careers of credit and goods are parallel.

21. A further difference is to be noted between perpetual and short loans. The investor-creditor does not look forward to repayment, except in the unforeseen event of a dissolution of the corporation, when its assets are supposed, theoretically, to be distributed among the stockholders. Unfortunately, that is not often done, for the very good reason that, if the corporation is a successful one, nobody wants to dissolve it, and if it is unsuccessful, there is no fund left. In the latter case, the stockholder may be charged with extra indebtedness, to any extent the law may decree or allow; for instance, in a United States national bank, to the extent of an amount equal to his stock over again. In that event, it cannot, indeed, be said that he has paid the whole guaranty in advance; but he must be presumed to have diminished his offer according to the risk anticipated.

The stockholder guarantees the corporation, and the stock market goes surety for the stockholder.

In the typical instance of the stockholder in a successful corporation, he collects the title-debt not directly from it, but by selling his stock. The covering-in is operated by way of novation. Another settles in order to become creditor in his stead. The corporation is a social organization, by and through the provision that its stock can be sold. The public tacitly covenants that, at any time, the stock may be cashed, and a stock market is provided, with that intent. The debt is undertaken to be raised by society, on demand. If the stockholder is the guarantor of the corporation to its other creditors, the market is the guarantor

of it to the stockholder. In the case of a corporation credit-title or share, just as in that of a note running for a limited period, there is a real liquidation. Titles to businesses, like commercial paper, constitute industrial assets. They are both, therefore, properly assignable and recoverable in their respective markets. They are equally susceptible of liquidation.

Commercial paper corresponds to circulating capital and to certain temporary services.

22. The most typical credit, undoubtedly, consists in the various kinds of commercial paper. Long-time paper is made characteristically, not by a corporation, but by an enterpriser, the individual who is engaged in some undertaking on his own responsibility. It corresponds, in the time for which payment is deferred, to the production period of materials which it purchases. Whereas, a shorter time credit is constituted by bills of exchange, habitually drawn by merchants and used in payment for goods, and to cover the expenses of storage and transportation involved in wholesale distribution.

Consumer's credit rests upon habitual, customary demand.

23. A naturalistic classification calls for another kind of credit, consumer's, which is especially interesting, because it typically constitutes the most general purchasing power. The late Professor Sidney Sherwood [1] identified consumer's credit with money. But it is preferable to extend the identification to cash in various forms, including deposits and bank notes. It is indispensable in the purchase of commodities for direct consumption; but is habitually used for all settlements where it is not intended that there shall be recourse to the successive holders or debtor-creditors, and hence no indorsements are exacted. In this respect, money [2] resembles demand credit. The convenient term "cash" covers both, for the usual, quiet times of solvency.

"Cash" is unindorsable credit, whether money, deposits, or bills.

[1] "The Nature and Mechanism of Credit," Quarterly Journal of Economics, vol. VIII, January, 1894.

[2] The reader is referred to Introduction, I, § 10, and to ch. III, § 9.

The promise implied in consumer's credit is that, if any one produces vendible wares, they will be bought. Consumption articles are primarily suggested, and hence the name of this class of credit. But the range of its employment is notoriously wider, extending to the limits indicated by the above definition of cash. The existence of an accumulation of demand obligations constitutes a Rousseau-like promise, on the part of the community, in its capacity of purchaser for consumption, that a rational supply will be absorbed. It is not subscribed by any individual consumer, nor does it run to any individual laborer. Goods are finished and put upon the shelves, on the faith of the general consuming power of the public, which is expressed in the demand credit, including the money. If, at any time, that promise is broken, and the public, being in possession of demand credit, does not carry out the undertaking to buy, there is a condition of crisis. The case arises where "A," of diagram I, is unable to pay because either he, or some in the series of debtors, are unable to effect the sales on which they had reckoned in order to liquidate. The bankers are summoned to pay and the reserves are called into play. In case they are exhausted, the depression is transformed into a crisis.

The crisis, therefore, in one of its aspects, consists in the fact that the promise of the community in general to purchase the finished consumption goods with demand credit is not fulfilled. Socialists have wrongly interpreted this aspect. They claim that if there had not been what they call a "capitalistic overproduction," capital would have been more liberally distributed in wages, which the masses would have offered in the market for their consumables. But it does not follow that, if laborers fail to demand, no one will.[1] Whatever may be the ultimately pernicious

[1] Cf. Professor J. B. Clark's introduction to Rodbertus' "Crises."

effects of low wages, the promise guaranty that effects purchase is that of the financier. The doctrine that business makes money, is quite impartial about the person who spends it. "Money" affords purchasing power, whether it be in the hands of laborers or of other persons. The transgression of capitalists consists in overproduction, not so much of goods as of promises.

Money is said to be "cheap" when the demand for guaranty is light compared with the size of the bank or other reserve,

24. Money was "cheap" in Wall Street in April, 1908. Mill's warning[1] comes to mind that cheap money, in a financial sense, is an entirely different thing from cheap money, in the economic sense of value in exchange. The latter means high prices; the former, low interest. Money is not usually, at one and the same time, cheap in the two senses, because high interest, in the long run, goes with rising prices. At the date mentioned, not only sales but manufacturing were greatly restricted. The consequence was that a comparatively small amount of circulating credit of producers, and of exchange credit, were created, and hence there was but slight incentive for persons engaged in the business of guaranteeing to keep a strong fund. They had on hand already a reserve that they had fortified on account of the late money crisis,[2] and there were small calls upon that. The conditions imposed low discount rates. What was really cheap was not money, the repose of which in the safe-vaults was not disturbed, but the virtual, banker's indorsements or guaranties.

since old debts offset each other, but new are not incurred.

There not being a large amount of bills and notes drawn, the number coming forward for compensation was correspondingly small. There was no fear that many depositors would call for cash without, at the same time, an equal number of borrowers offering to satisfy them indirectly, through payment of their loans. There was not, therefore, an expectation that the banks would be called upon to apply

[1] *Op. cit.*, book III, ch. VIII, § 1.

[2] October, 1907.

their reserve, either in favor of the public that holds deposits or of creditor banks that might have taken in checks. Consequently, notwithstanding that the community was in the midst of a commercial depression, and suffering from all of the effects of a crisis and of reaction from the previous financial expansion, that had been spreading in the country for ten years, "money (*i.e.*, debt-guaranty) was cheap in Wall Street."

The example of the crisis of 1907 shows that it was not the amount of business transactions that raised the "value" of money;

25. On the 22d of the preceding October, and succeeding days, money was dear in Wall Street. And yet there was this similarity between the earlier and later occasions, that few sales of goods took place. Both in the fall and in the spring, business was light. At the time of the crisis, few additional pieces of circulating credit were being created, and yet money was high then. But there was a sudden giving way of credit. It was apparent to the business world that dealers would not be able to sell their goods or securities, to meet notes falling due. This was especially true in the case of the speculator; and speculation had spread all over the country. Sales of goods were not more numerous than at the later time, but were effected, if at all, at a sacrifice, while financial circumstances, thus engendered, called for the intense use of guaranty power by the banks. Money was called for so generally that they, as on the outbreak of the Civil War, preferred suspension with full vaults to one with empty. Throughout the United States, they agreed to decline cash [1] payments, for the time being, after those in New York City had suffered a severe run, which had forced several to close their doors. The securities contained in a bank's portfolio are timed to pass through it in a regular succession, falling due at, say, three

[1] In time of crisis it is tacitly understood that demand credit falls out of the class of "cash." A similar elasticity is observable in other economic terms, such as labor, capital, necessaries. Cf. Marshall, Principles of Economics, introduction and bk. I.

months' dates. That inability to accelerate makes it impossible to call for time-paper in amount equal to the demand-paper, which is presented, all of a sudden, at the wickets. Consequently, the guaranty fund at that time, notwithstanding the fact that the manufacturing and mercantile engagements were not greater, and perhaps much less than in the following April, was, in New York City, subjected to a severe drain and the rate of interest rose to a fabulous height. At both dates, the fall of 1907 and the spring of 1908, business was depressed. Nevertheless, solely on account of the inability to offset and the consequent loss of confidence, interest was high at the time of crisis, whereas it was low in the following depression. The cause, however, was *overproduction of securities* and not of goods.

but inability to offset debts sent up the rates for short loans at the time of crisis.

In prosperity, maturing time-paper is counterbalanced by inflowing demand-paper, and *vice versa*. They offset one another and the reserve is not called upon. The banker charges sufficient interest to meet the expense of maintaining the treasure against times of distress. But when the storm comes, the deposits held by the public are diminished, not so much by counterbalance as by presentation for money. They fall into the hands, partly, of a different set of persons, — not those who are redeeming their obligations but those who need cash for special purposes, as for export or to hoard.

The amount of specie drawn out of the banks, during the crisis that followed October 22, 1907, was large.[1] A dollar per inhabitant, abstracted in a populous city, would wipe out a large treasure and cripple the material guaranties for financial operations.[2] But, in the depression of the follow-

In the depression following the crisis, the difficulty of offsetting has been cured by

[1] *New York Evening Post*, March 14, 1908.

[2] The insatiable grasping for money in a crisis should modify the enthusiasm of those who expect great things from some form of legislated guaranty of bank deposits. Cf. the trenchant article of Professor J. L. Laughlin, "Guaranty of Bank Deposits," Scribner's Magazine, vol. XLIV,

the surgery of "weeding out" bad debtors, and now the need is to stimulate a stream of good credit.

ing spring, nothing of that sort was occurring. Creditors were no longer in fear that their short-time holdings would not be honored, for they had long ago protested the bad paper, and thus were affording occupation for law courts and sheriffs, while the good was satisfied. But men were hesitating whether to enter into further engagements.

26. The variety of risks undertaken is as great as the services afforded by enterprise. The special fields of knowledge of the guarantors divide credit-capital into many classes, although the principle of promise guaranty or indorsement, and reserve-requirement, is unique and pervades all. The simplicity of the process of investment is not apparent but calls for elucidation by analysis. The kinds of credit business are so numerous that no one can be acquainted with them all. An individual banker cannot embrace in his purview more than a special phase. And yet, the route by which the most important investments are made may be understood by the tyro who has grasped the fundamental notion that the bottom and top of the structure are compact of promise. Under a régime of free labor, the Suez Canal could only be constructed with the assistance of free capital. In the days of the Pharaohs it might, perhaps, have been excavated with the exertions of slaves under military duress. Socialists yearn for *free* labor employed by *state* capital. The picture of the pyramids, however, is at once suggested. Credit was the moral means of assembling the necessary labor and materials. The persons who had that enterprise in charge issued their titles, called securities, and obtained, in exchange, a fund of purchasing power, directly or indirectly, in the securities market. That was advanced in the form of another

Credit affords facility for the organization of great enterprises.

no. 1, July, 1908; also "Guaranty of Bank Deposits," an address by J. Laurence Laughlin before the State Bankers' Association of Nebraska, at Lincoln, Nebraska, September 15, 1908.

kind of credit, namely, deposits or bank notes, which had been originally created by borrowing on commercial paper of various kinds and in numberless enterprises.

Commercial paper may hail from any country. Wherever civilized industry is active, these guaranty-contracts for production are made and discounted. On the whole, a considerable number of them reach the financial centers, in the form of "redeposits"; or better, of reindorsed "resources." For instance, a Chicago bank purchases a draft and sends it to a New York bank for deposit, so that, virtually, by being one of the depositors in New York, it is one of the guarantors of the New York bank's operations. It has indorsed paper which has gone into the resources of that bank. It now possesses an account in New York. A client of the Chicago bank purchases Canal bonds, and pays (or offsets) for them, with a draft on New York purchased of the bank. Provided with this New York credit, the agent of the Canal Company purchases (or offsets) exchange, which he sends to Paris. The Company collects (by offset) the exchange, in notes or a current account commonly acceptable there. Dependence of the Paris funds on the Chicago guaranty is plain. The support of it by all of the provinces of the West might also be insisted upon; for the purchaser might as well have been located at Pine Ridge, Nebraska, or Medicine Lodge, Montana. Thus, deposits finally are said to "flow" towards the Suez Canal enterprise, with its headquarters in Paris. The fact that they lose the names of the individual depositors does not alter the identity of the space-conquering credit. It takes on the name of a new bank or of a new depositor; it is the same credit, reënforced. The marvelous thing is, that when credit has acquired this general aspect, it may be directed upon any point, for any possible economic end. The financing of a Japanese war loan in New York

The liquidity of credit, or its general assignability, indorsability, acceptability, and facility of reguaranty constitute the distinctive feature of the capitalistic era.

might be similarly explained. The Suez Canal and the Franco-Prussian war indemnity are classic illustrations; but recent capital demands are still more extensive.

Men were producing goods in infinite variety and in numberless localities, the *value* of which was dedicated, by the flow of financially tested resources, to the building of the Canal. It may be that the particular potatoes or stockings for which the commercial paper was originally drawn, were not to be used; but the *value* which was created by distant commercial, industrial, or manufacturing operations was infallibly turned in the desired direction by the process of reguaranteeing. By their sale of securities, M. De Lesseps' company obtained possession of commercial credit which originated in the remotest localities. In this way, they were enabled to purchase tools and supplies, some of them, conceivably, the material basis of the original discounts or loans contributed to the Canal scheme, and now, at last, extinguished by being offset for the very same potatoes and stockings! The persons who furnished him with credit fully liquidated the costs of the Canal by means of their produce and wares, whether the latter entered into the construction or not.

While a given output of goods in the United States may not be used for the construction of the Panama Canal, still the owner of those goods may dedicate the surplus value he controls in them to that purpose, through the guaranty organism.

Credit is one of those essentially vulgar manifestations which, like many in the so-called "organic" world, men have before their eyes all the time, without perceiving or stopping to analyze. The financial structure has been so thoroughly divorced from the industrial, that men look upon the acquisition of credit as a palpable fact, without pausing to reflect upon the wonderfully refined process and the highly developed socialization of the individual, by which they are able to collect abstract economic power. The crowd-mind, naïvely, rushes into investment, now in this direction and now in that. In recent years, the enthusiasm has often been for electrical lighting or transportation. Twenty

Danger lurks in a vulgar complacency about the credit system.

years ago, investors flung liquid funds into the bicycle business; and ten years ago, into automobiles. In 1880 to 1883, in England, the crowd swarmed into shipping, in all its branches. Ships were built to transport grain from exotic countries and from America, to Europe, and iron back to America. Recently, Americans have precipitated themselves on to north western lands, Texas and Kansas petroleum wells, or the wintering of beef cattle.

Credit gives full play to the crowd-mind,

27. Investors are enabled to go in shoals, reasonably or unreasonably, by the wonderful plasticity of the body of credit, which has grown up as a result of the evolution of markets, trade, and exchange. Why should men look further for "some system by which the production of the community may be distributed?" While it would be difficult to invent a more social or efficient principle, upon which industry may accommodate itself to its varying conditions, than the existing credit system presents, there is always need for progress in its details and for improvement in its administration. Reform should be directed towards the remedying of patent abuses, such as those occurring in the management by insurance companies of long-time commitments.[1]

within limits, set by the guaranty system; and also to competition, within those set by monopoly.

28. It is because money is a species of credit that its flow from one country to another is favorable to enterprise. For instance, Knies[2] notices the galvanizing effect upon industry of the payment of the French indemnity to Germany, after the war of 1871, partly with money. It enabled the government of the latter country to lift its floating indebtedness. The capitalists, whose claims were thus liquidated, had occasion to appreciate the irksome truth that discharge of one debt necessitates the incurring of another, which is but a part of the more general principle,

International movement of credit or money stimulates new industry.

[1] The possibilities and limitations of remedial legislation are further discussed in chapter XII.

[2] *Op. cit.*, p. 145.

that the satisfaction of one want gives rise to another. The demand for new investments was lively, enterprise was stimulated, and the crisis of 1873 followed. Even the movement of the general kind of credit called money, from country to country, does stimulate investment and business. Indeed, if each country were isolated, it might prosper for a while, by itself. All of its business could, perhaps, be conducted with capital originating within its own borders. However, its economy would tend to settle into a state of equilibrium, and a condition of stagnation to arise, for home enterprise would finally be exhausted. The importation of goods or of money from outside injects disturbance, which encourages new investments and additional production for the sake of exportation, or for domestic consumption.

Economic life is likened to a moving equilibrium. It is, first and foremost, inclined to reach static equilibrium within a given economy. But that is thrown into continual perturbation through interference from without. Between nations, the derangement may continually be remarked, and the ensuing reaction is designed to restore balance by the movement of goods, or of a satisfactory equivalent, — in a long time, of international securities; in a shorter, of them plus gold; and, in the very shortest, by the remittance of bills of exchange.

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CHAPTER V

INTEREST

1. The relation between interest and prices is fundamental, but can only be disengaged by means of a careful study of the influences which control the rate of interest. These influences are partly material, partly mental, and act and react upon each other. — 2. Men are under a social obligation to spend money; if they do not spend it they lose the advantages that belong to exchange, use, and consumption, for money has no technical utility. — 3. However, if money appreciates, the rise in value is a substitute for interest; it is not added to interest. — 4. So-called "interest" paid to a bank for a loan is clearly a fee or premium paid to the banker for the use of his signature or its equivalent. The same principle applies to any case of a loan of credit. The size of the fee depends on the opportunity-value of the guaranty; and that, of course, is a question of the "economy" of production and exchange. — 5. Stockholders and bondholders are creditors who have actually paid up their (limited) guaranty beforehand. Their loan is finally paid off by the public in the stock-market. The price of securities depends on expected income, while their par-value may be based on past performance. — 6. The purchase of securities cancels *pro tempore* short-time or demand promises, just as, in economy, the creation of fixed capital involves the destruction of circulating. Hence, in financial parlance, short-time and demand promises are called directly, "circulating capital." — 7. Speculators for a rise attribute to principal the expected returns on securities, whereas the par value of securities may express a more sober judgment based on experience: in any case, when the par has once been established by the promoters, future changes in expected returns are attributed to principal. — 8. The public having purchased stocks at a price which yields appreciable income only when profits are very large, is deeply inconvenienced in all the engagements made on faith of those profits, when they fall; for it has availed itself of the expected profits as a guaranty in numberless projects. — 9. Inharmonious production has much to do with fall of profits; it is commonly called "overproduction." This may be caused by too great production of

an article which is wanted, or by production of one which is not wanted. — 10. Since "interest" is used for returns on all kinds of capital, including both nominal and real, the relation of the two divisions demands explanation. — 11. The specific productivity theory of interest of Clark establishes its dependence on material, technical conditions and circumstances. — 12. The marginal utility time theory of interest of von Boehm-Bawerk pays especial attention to the psychological mechanism of adaptation to them. — 13. The productivity theory insists on the self-perpetuation of capital and its unceasing output, while the time theory lays stress on the distributive effect of waiting. — 14. Control of industry through credit is the fundamental capitalistic fact. This is manifested by the correspondence of credit to the "production period." The vital part of this control is exerted on the qualitative margin of production. — 15. "Pure capital" is promises rather than processes. — 16. Law of the adjustment of concrete capitals operates either by a change in exchange value of the principals or in the amount of returns. (Fisher on the latter point.) Objects of such adjustment might be called "competitive capital." — 17. The adjustment of returns on the concrete capital called "gold" was studied by Giffen, as a question, on the one hand, of specific productivity, and, on the other, of conformation of credit returns to it. Gold was treated as ambiguous capital, either concrete or pure.

The study of interest is the high road to that of prices.

1. By the road of interest, the main objective of prices is approached. But the interdependence of the two topics and the reciprocal influence of the two sets of phenomena cannot be rightly estimated without a preliminary study of the reasons for the undertaking of the interest obligation, especially in cases of purely financial loans. Since the agreed acquittances thus periodically falling due cannot permanently exceed profits, it is also imperative to ascertain the connexity of these important categories. In the case, further, of a loan of metallic money, it is worth inquiring why the borrower is held to pay a certain rate. This primitive instance also favors the conviction that the variation of interest exerts a sway over prices. Since the metallic purchasing medium is in reality a promise of future production impressed upon a precious parchment, a veritable "gilt-edged security," the question arises, why is it that *interest is thus simultaneously and identically expressed in*

future and present goods? The circumstances under which capitalists enjoy this species of income are various, and a study of them confirms the view that, through it, there exists a mechanism for regulating the effect of credit upon prices.

Interest on metallic money is a penalty for hoarding it.

2. The "competitive" principle is adequate partially to explain the sought-for nexus. Money is a guaranty that whoever disposes of it can purchase any goods. Otherwise, he can only keep it as a store of value. It thus implies, also, a promise on the part of the community that they will relinquish property in their possession to whoever offers this species of guaranty. It neither is productive nor can it be consumed. Men are *expected to spend* this assurance that everything is purchasable. If they do not, they lose whatever they might have gained, either by the consumption of the goods, or by the use of them in production, and the community loses the social increment of wealth or the social benefits, flowing from the individual satisfactions that would have accrued. The rate of interest is measured by what would otherwise be lost. Men cannot be forced to pay more, for in that case they would decline to purchase. But they can be induced to pay that amount, because the money is the means to the desired end. As the medium of exchange, money has the value of goods; it measures or "represents" the expectations that are potential in them.

Moreover, men often charge themselves with interest on money of their own that they merely hoard, that has not been borrowed but is simply cash on hand, because, while it is a part of their material property, yet it is also an idle title deed, a negative credit, and they collect on it a zero or negative interest, chargeable to lost opportunities. The debit is a penalty inflicted quietly, but with social import, for not using money productively, by bringing it into the market for tangible capital.

3. But money is also a commodity and can be viewed as are others. Like them, it has cost of production, is worn out, or the material employed for further fabrication. But it cannot be consumed, except as it is slowly abraded during decades and centuries. It serves no individualistic or technical purpose, either of gratification or of craft. Unless it constitute a genus by itself, the only way of accounting for its existence is that it partakes of the nature of a promise. The term "tool of exchange" is highly metaphorical. It is not a physical thing, in the ordinary sense of the word, but *a middle term in the ascending series* from land, through raw materials and commodities,[1] up to nominal or credit capital. It is *equivocal capital.* Consequently, it does not pay to hoard it.

Money is a middle term and an equivocal capital.

But here it is proper to inquire, why lose the profit in case money is appreciating in value very rapidly? Certainly not, so long as there is any. Party controversy, in the now historic, bimetallic campaigns of the nineties, in the United States, raged about dear money and low prices. It was claimed that rapidity of rise made hoarding profitable to the capitalist but injurious to commerce. But if the rate of appreciation was only equal to the rate of profit to be obtained from the production of or dealing in goods, it would manifestly not pay, or, at least, would be a matter of indifference. Professor Fisher[2] calculated that the rate of appreciation of gold, during the period of rising gold value which preceded the campaign of 1896,

The incentive to hoard money on account of its appreciation is easily exaggerated and often overstated.

[1] Fisher divides wealth (and hence capital) into: productive land, ways of transit, building land; buildings, improvements on highways, minor land improvements; minerals, agricultural products, manufactured materials; consumables for burning, eating, drinking, or otherwise; durables, as machines, animals, "hard money," clothing and jewelry, furniture and works of art, reading matter; slaves, and free men. The Nature of Capital and Income, p. 7.

[2] Appreciation and Interest, p. 73.

in the United States, was, at the outside, $1\frac{1}{2}$ per cent a year. Under those circumstances, who would hoard?

In order, however, to satisfy the doubts of well-meaning reformers, the extreme case must be decided, which assumes, for example, a current rate of returns on business investments as only 4 per cent, while the appreciation of gold mounts momentarily to 5. The purchasing power of the money metal increases one quarter. When one can buy a correspondingly larger amount of present goods, yielding 4 per cent, with the enhanced value of money, it generally is more advisable to do that than to reserve the money for a still larger future purchase. The appreciation offers no durable motive to decline to buy, as history amply testifies. For, the goods having become so much cheaper, their acquisition realizes the past appreciation of the gold, while they offer, for the future, as promising opportunity-profit as did the exchanged gold. The proffer of goods for gold tends to destroy the opportunity-profits in holding the latter. Thus, even in the case where the medium of exchange is appreciating by a coefficient greater than the current rate of interest, it still is not advantageous, in the long run, to hoard. The permanent effect of the augmenting value is to reduce the rate of interest when measured nominally in money.

Speculation on money unprofitable to others than money dealers.

If the fall in the price of goods takes place quickly, it enables gold-owners to anticipate the whole expected depreciation at the start. In case it does not occur at once, the gain from hoarding is temporary. There are specialists always on the outlook for opportunity-profit in the precious metals, as in other wares. And, in fact, if the appreciation is greater than the rate of interest, he who hoards his gold loses the difference, if he does not take advantage of the fall of goods [1] to purchase, for he is master of no other means

[1] *Id.*, *ib.*, p. 84.

of realizing it. The man who "outstayed the market" is proverbial. The holding of land or of wheat for a rise is often gambling and cannot, as a regular calling, yield more than the rate of returns which commonly obtains. But the decreased price of commodities will soon bring about an equalization of rates, without the withdrawal of much gold from the circulation, thanks to the strategic or "marginal" situation created by the unusual aberration of the gold market.

Money is bound to circulate.

"He would be a poor merchant who should keep more than a minute part of his capital locked up in safes or bank vaults or scattered over a shop in cash drawers. His productive wealth consists in merchandise, fixtures, and claims against merchandise sold and delivered, etc., and yet he instinctively and unconsciously thinks and speaks of it as money." [1]

Interest on a discount is a fee for the guaranty of a debt.

4. Interest on bank credit is partly adjusted to what the borrower can bear. It is a "fee" for a guaranty, not wholly dissimilar to the premium conceded to a surety company which makes itself answerable for the honesty of a clerk. It is an insurance of a special sort, and is worth whatever is to be gained from a strong alliance. The case is again one of competitive values. The "loan" can be worth no more than the detraction to the borrower's activities or enjoyments that would have ensued upon the loss of any goods already possessed and retained. In the alternative case, there is a willingness to forego the utility or profit to have been obtained by keeping or using property. But he prefers to borrow rather than to sell his possessions. And if the discount is obtained in order to buy production goods, it cannot be worth more than the returns expected from the final product, and indeed, will be worth less, because something is expected for the investor's trouble.

The same principle obtains in the case of short-time

[1] J. B. Clark, The Distribution of Wealth, p. 119.

The size of the fee is determined by the opportunities opened for the different kinds of credit.

credit and exchange. Payment is made for the advantage of being able to move, to store, or to fabricate goods. The value of any conjuncture, what will be paid for anything, is determined by the alternative opportunities afforded by its possession compared with that of other things. If there exist chance of profit by investing in a farm, that will measure what will be given for the use of goods or credit. Mill had said that the rate of interest was determined by the rate of profits, because men would withdraw from production and loan their capital if the interest market was higher than the rate of profits in trade and industry; and the other way about, if profits were higher than the interest guaranty. In the absence of alternative courses of action or dedications of material things, it is difficult to imagine a valuation of services or of uses.

Stocks and bonds are a paid-up guaranty.

5. In the case of fixed credit, stocks and bonds and other long-time promises, the lender has surrendered, at the outset, something more than his own guaranty. He has actually advanced the "cash." The guaranty has been paid. By a "cash" payment, however, is ordinarily not meant money, but the promise of a third party. The condition is that the creditor-investor is absolved from indorsement or other responsibility, by providing, in advance, banker's demand credit to the required amount. If the loan be effected with bonds, the capital is, indeed, to be returned after a given date, so distant, however, that the case is practically not different from that of stocks. If it be on stocks, the creditor or investor has actually paid in his contribution, in material form, as already explained, although some stocks are only partially paid for in advance, while others are accompanied by a statutory but limited liability to further calls, in event of failure, in favor of the creditors of the corporation, not stockholders. So there may possibly be some obligation surviving in his guar-

Rate of returns is fixed by market price of capital, cf. § 7, *infra*.

anty. In both cases, the investor contemplates eventual recovery of the parent sum by sale of the securities in the market, no matter what interest he may have meantime received. Consequently, restitution by the general public is looked for, and not by the corporation itself.

The per cent that he will receive upon a long-time investment of this species, is not known *until the price of the bonds and stocks has been agreed upon.* The official is useful as a basis of calculation of the real rate. The latter can be adequately expressed by indicating that, for a share or a bond of a par value of $100, announced to yield 5 per cent, the price is, say, $125, thus reducing the net realization on the actual stake to 4 per cent. One hundred and twenty five dollars is paid, but only what would be the income on one hundred is enjoyed. Change in rate of interest, in the case of securities, is expressed in the market, therefore, by adjustment in the value of capital.

Par value is the outcome of past experience, but market value is an expression of expectations.

The nominal or par rate, that is, the 5 per cent on $100, has been established by experience.[1] That is what borrowers are willing to pay, and what industry will stand. Consequently, a new concern proposing to offer its titles at par, undertakes to pay neither more nor less than 5 per cent. The stock is advertised, promoters attempt to impart to the public a cheerful view of the undertaking, and the price goes up to $125. This means that the public, "wash sales" aside, believes that, instead of 5 per cent on $100, it will receive what is equivalent to that rate on $125. The price that it pays really represents its convictions as to the *future.* When the future arrives, it will be disclosed whether the public or the more conservative persons who founded the corporation were right.

[1] The nominal rate of interest is calculated on the past rate of profits as evidenced in quotations in securities market. Cf. Testis, Le Rôle des Établissements de Crédit en France, p. 109.

This way of looking at the initial rate fixes the blame for inflation and excessive valuation upon bad judgment of investors rather than upon the founders of corporations. The latter do not fairly make, as par valuation of their own securities, one which is in excess of what experience has demonstrated to yield a proper rate of return. It is not meant to assert that they may not accomplish the over-valuation by another route, by issuing a larger number of shares or other obligations than represents the real worth of the enterprise. In that way, if they are able to sell, they practically promise to pay a large return on a small investment. But the promise has no sanction, unless, as often happens, they include themselves as a part of the public. They are responsible for the shares remaining unsold; and the public is expressing its hopes of high valuation by its willingness to buy watered stock. If they expect the large issue permanently to pay, the promoters retain a controlling interest.[1] Favorable attitude of the market is manifestly not furthered by offering low initial or "par" rate of interest, but by encouraging advance in the prices of the principal, although these positions differ chiefly in form. Their effects on the psychology of investors are, curiously enough, diametrically opposite. Low interest is conclusive discouragement to purchasers, whereas only an expert can decide that a price below par is nevertheless high.

Speculation is in prices rather than in rates.

6. Through the paying for fixed securities, there occurs an extinction of circulating credit that corresponds to the extinction of circulating material-capital in the manufacture of fixed.[2] The long-time creditors of a corporation, —

[1] In order to control, it is not necessary to own a majority of the stock. If a majority can be separately incorporated as a "holding company," it is evident that a majority of this majority, or only 25% of the stock, may be decisive. Cf. ch. XII, § 20, *infra*.

[2] Cf. ch. IV, § 21, *supra*.

and by that term are meant, principally, the stockholders and bondholders, — become such by the initial surrender of bank deposits to the corporation in exchange for the shares. Those deposits are now transferred to the credit of the new establishment, on the books of the bank, and the former applies them to the purchase of materials, machinery, land, and labor appropriate for the product it intends to put upon the market. The sellers of the various supplies may be assumed previously to have discounted an amount of circulating financial capital, — in other words, of producer's credit, or of exchange credit, — equal to their value. The theoretically simplified case may be assumed, in which these are the very deposits which are handed by the corporation over to these outfitters and furnishers. The latter, then, absolve their discounts to the banks with the original deposits, which are set off and cancelled against their individual notes returned. On the supposition that there is only one bank, it accepts its own deposits in exchange for the bill or note that was discounted by the producer. They are all cancelled. The shares, however, like the plant, prolong existence indefinitely, while the life of the bonds is a long one.

Purchase, whether of stocks or of bonds, is a merging of short- into long-time securities.

Therefore, it is entirely correct in principle to state, that the foundation of a corporation looking to an uninterrupted career, merges circulating financial capital that had previously been written, extinguishes it, and substitutes equivalent shares and bonds. Then, when the establishment goes ahead with its business, it, in turn, obtains new discounts, draws new short-time paper, creates new credit that is equal to the new products which it throws upon the market.

This rule is not affected by the fact that the stockholder is a guarantor of the bondholder.

Original investment, then, in bonds or stocks, is practically a merging of short and medium into long credit, and involves the consequence of perpetual inconvertibility, socially speaking, of the capital immobilized in the company.

A slight difference is discoverable, in this connection, between the two leading forms of permanent securities. A bond is nominally expected to be repaid; stock never. Therefore the stockholder stands in the position of a guarantor of the corporation to the bondholder. The latter is legally a creditor. The former is, economically speaking, of the corporation. He is creditor only as a term of bookkeeping. Between the two classes of long-time investors, then, there exists a relation of guaranty. In the case of a partnership, a member of the firm supports unlimited liability for its debts, in addition to whatever he may already have at stake in it, whereas a stockholder is either exempt from charge on that account, — a "limited liability," as it is called, — or is answerable to a small extent in addition to what he may have advanced or to what may remain unpaid on his share.

The par rate on securities is a conclusion from experience.

7. The corporation form of investment possesses the theoretical advantage of disclosing in relief the effects on the value of a business of the fulfilling or not of the hopes which had accompanied its inauguration. When bonds are issued at 5 per cent on par, that should mean that reasonably, as a result of experience in similar cases, it is believed that the concern can afford to pay so much. The value of the stock should be based upon a similar rate. It should found upon the past rather than hang upon the future. Consequently, it is proper for the stock to be issued at a rate somewhere about 5 per cent.

In the case of common stock, however, no rate is specified. The prevalent one is a rational basis of computing how much is to be issued, combined with the total surplus or clear revenue foreseen. If $100,000 profits appear to be in sight, then enough stock may be sold so that $100,000 will yield 5 per cent, or an issue of $2,000,000. But it is possible that the public, especially that section in control

of the monoply fund, induced thereto, perhaps, by manipulation of the market, may credit the corporation with a possible surplus of $200,000. In that case, being glad to realize something over 5 per cent, they will bid against themselves and raise the market price up to $4,000,000 or thereabouts, instead of $2,000,000.

The valuing of the stock determines the rate to the individual only in conjunction with the fixing of the par rate by the directors. If the stock cost or be valued at twice as much as before, that reduces the realized rate one half. In case the public be misled by speculators or swept away by a wave of enthusiasm, it is thus competent to establish the effective rate with little regard to experience, captivated by unfounded, undocumented hopes. When one of the determinants is in quiescence, the rate is wholly fixed by the other; when both are active, they coöperate. Consequently, in the case of securities yielding fixed returns, like bonds, the change in rate is effected by the buyers alone.[1]

In a rising stock market, speculative or anticipated interest is an addition to principal; nominal rate is an expression of more conservative experience. In any case changes in expected return are attributed to principal.

8. The integrity of economic individuality depends, not on absolute but on relative revenue. In active business, every asset is counted upon to meet obligations. Pure interest is a financial manifestation, expressing socio-economic expectations in their most general form and relieved of adventitious association of particular industries or charges for superintendence or personal services. There is not likely to occur a widespread industrial crisis without a financial, but the latter not uncommonly occurs without the spreading of the contagion to the market for commodities. Whether it be the one or the other, depends upon the extent to which speculation and investment in new concerns are broadcast. The starting point is generally in the financial centers or, at least, institutions, because the crisis is the

[1] Cf. ch. VIII, § 19, *infra*.

disappointment of the general, socialized promise which has been divorced from concrete undertaking.

The public, having raised the price of stocks two or three times above the calculation that was soberly made as a result of experience,[1] after a while discovers that it is not cashing its vision of $200,000 revenue. Perhaps even, instead of the $100,000 originally counted on by the founders, there is only $50,000 to be distributed among the holders of the $4,000,000 par of securities; perhaps nothing. That defeasance of profits is the cause of economic catastrophe is matter of common observation. General business failure spells crisis. The prices of securities and of wares, however, are the means whereby the common miscalculation is brought home to the individual. The organism by which the result is effected is not apparent but calls for careful analysis. The distinction between profits and interest must be studied. It will be found that prices depend on both, and to catch them in the working, the period of crisis is most favorable. The proper understanding of prices is the essence of finance.

Economic crises are caused by defeasance of expected profits.

If expectations of return are disappointed, the principal value of stock falls. Holders for investment are not seriously inconvenienced, if they ultimately receive their interest or profits, even though their capital be unmarketable. The case is quite different with persons who have not fully paid for this species of property, or have "put up" the stocks again, or, as often happens, occupy simultaneously the positions of debtor and guarantor. They enjoy the income from them, meanwhile pledging them for some further business operation. In that case, the fall in value of principal is a matter of vital importance, when it is con-

The pledging of investment securities stimulates their further creation.

[1] The value assigned by the market to stocks, if it remains high long enough to attract the attention of tax assessors, is known in New York state as "franchise" value. Cf. W. Z. Ripley, Trusts, Pools, and Corporations, p. 122.

sidered that, by hypothecation, industry is pyramided[1] upon industry, that the securities of one are used as collateral in order to launch a second, and perhaps those of the latter to promote still a third. The completed structure is a house of cards. The annihilation of the exchange value of securities by a revolution in expectations, tends to destroy the whole pyramid of guaranties, one under the other. The result is that a large number of persons engaged in manufacture and enterprise is suddenly brought face to face with the unwelcome actuality that they have debts falling due which they cannot meet, and to receive, which they cannot collect.

The crisis is usually manifested, in the first place, as in the autumn of 1907, in the case of the Knickerbocker Trust Company in New York City, by a run on the banks by persons who have credits due from them. For the banker is the guarantor, in the first or last instance, as the case may be, depending on whether the debt-deposit be original or transferred, and his demand credit passes into the hands of the public. Uneasiness and apprehension gain possession of business men, for the excellent reason that the margin on which business is transacted is becoming narrower. They scrutinize their credits more closely every day and become abnormally sensitive about their bank deposits. It requires but a breath of suspicion or criticism to launch the rumor that bank obligations are in danger of not being honored. Panic spreads and the "run" is begun. Often it is preceded by a significant exportation of gold. That, however, is but one of the reasons for attacking the guaranty fund. Men seek the metal either to pay debts or to send abroad to a place of safe investment, or to hoard, that is to say, to keep it idle in a safe.

until the process of loaning and reloaning is brought to an end by a "run" or demand for the material used in guaranteeing.

[1] Thorstein Veblen, The Theory of Business Enterprise, pp. 108, 162, *sqq.*

Fall of profits, or at least, failure of profits, follows misdirected enterprise.

9. At this point, it is proper to anticipate the discussion later on, as to how profits may fall. It may be that the goods produced do not equal the quantity that has been promised by the promoters. The latter usually have advanced the argument, that a new process has been discovered by which the product can be turned out in much larger volume, for the same expenditure. But it is also possible that, while the output of an industry may meet the expectations of quantity, the public may not accept them in combination with the other desirable objects offered. Relative production is inharmonious. Industry may produce too many clothes in proportion to shoes.

There is possibility of overproduction where a society is not sufficiently dynamic to diversify its industry as the latter augments.

The rule of Mill [1] that there cannot be an overproduction is far from being an untruth. But he wisely provided that the production must be of goods that are wanted. He perhaps minimized the danger of miscalculated supply. On the other hand, Professor Patten has properly laid stress on it. It is an important cause of crises. The socialists insist that a proper central authority could be established to determine the proportions of the items of national supply. It is doubtful whether a better one than is offered by a competitive market could be arranged, inasmuch as the public itself does not know what it wants, until venturesome investors, promoters, and underwriters risk experiments on it. The process of economic life and progress is one of experimentation, adaptation, or, in mathematical language, differentiation. If the administration in the socialistic state, upon statistical inquiry, were to edict in what proportions goods should be purveyed, there would be no tempting of the public, no possibility of variation in tastes, nor any progress on the side of consumption, which is as necessary as that of production. The criticism is more correct than the remedy.

[1] Principles, bk. III, ch. XIV, § 2.

The whole industry of a country may be imagined, in an extreme case of overpromotion, to produce non-values. The material commodities may be present, but, instead of evoking value, they provoke disgust. Value consists, essentially, in the appreciation of things, and an income cannot come into existence unless that craving be aroused.[1] The fall of profits, therefore, is partly to be traced to the fact that there is a lack of psychological value emerging and ripening in the community. Business men cannot realize profits because, as a consequence, the exchange system clogs, sales stop, and the very persons who have produced the goods decline to accept them as "satisfaction." That is an extreme result, but it illustrates typically the principle that a defection in psychological value will suppress incomes. Income is nothing unless it consists eventually of things that the owner of credit, the entrepreneur, the laborer, or the artisan wants.

This is the truth about the so-called lack of consuming power on the part of the public,

In that event, stocks and other securities also cannot be sold. A capitalist-investor cannot, by way of stock exchange sale, recover his principal. The social guaranty of repayment of long-time titular obligations, offered by the market for securities, is withdrawn. He realizes suddenly, with overwhelming force, that the value of his goods

and it is this, among the other causes of crises, that is especially to blame for the stoppage of sales or of circulation of goods.

[1] The utilities which are the object of all economic activity are classified by Fisher as follows: "Services of nourishment, services of housing and warming, services of clothing and personal adornment, services of personal attendance, services of amusement, instruction, and recreation, services of gratification of vanity." Capital and Income, p. 165.

"In other words, in order that the external world should become effective to man, the human body must be considered as the last transforming instrument. Just as there is a gradual transformation of services through the farm, flour mill, and bakery, so is there a final transformation within the human body itself. It is a sort of factory, the products of which are the only final, uncanceled income of the consumer. . . . We define subjective income, then, as the stream of consciousness of any human being. All his conscious life, from his birth to his death, constitutes his subjective income." *Id., ib.*, p. 167, cf. p. 317.

consists much more in their power to "move on," by way of exchange,[1] than in their capacity to be stored. Gold is the one commodity the main use of which is to lie still. An investment, as has been seen, is really a loan, for which the public stands sponsor, through its promise to take over the securities in case there arise a need to liquidate. In this respect, an investment stock is superior to an ordinary loan.[2] Perhaps the principal at stake cannot be entirely recovered, but if the investment was carefully made, presumably no serious loss will ensue. It is at once a sound precaution and a recognition of the seriousness of the social guaranty sanctioned by the stock market, that banks are, by practice and legislation, required to invest in securities which, if they be not of that species that is being continually liquidated in a series, like notes and bills, at least are such as can be disposed of in the stock or bond market, at the first pressure for cash.

The stock and bond market is an institution instrumental in the furtherance of a social contract of guaranty.

The losses of investors are social, because the non-values are mistakes of the common industry. If things are produced that nobody wants, the laborers [3] are indeed recompensed, but they have rendered no equivalent. The market for securities fulfills a social contract, by which it has been agreed that the members of society will relieve each other of investments no longer desired, provided that the shares offered carry title to enterprises of social utility. The falling away of this market, in the time of a crisis, amounts

[1] The thesis that "demand for commodities is not demand for labor" was imagined by Mill to be proved by the declaration that, "exchange is not a productive act." It is certainly a very important act in modern economy.

[2] There is also an extensive market for commercial paper.

[3] The part attributable to laboring men in bringing about crises consists in their incompetence and the insufficiency of the work they do. O. M. W. Sprague, Crises under National Banking System, p. 238. Not only does the undue expansion of credit draw into employment the inefficient, but the speculative methods of "high finance" set an example of selfishness and greed which laborers are only too inclined to imitate.

to a breach of this contract, unless it be looked upon as a justifiable reprisal for "anarchy in production."

10. A description of the competitive choices affecting the rate of interest, however, is but a part of the explanation. In this as in other departments of political economy, the limiting conditions must ultimately be established. The analysis must be pushed into the environment.[1] If interest is the whole or a part of profits, then, its relation to profits, and, in turn, the limitations upon profits must be discovered. Mill's statement is, that interest is the profits or surplus over the expenses or outlays of a business, minus risk, insurance, and the pay for the labor of the lender in superintending the investment of his capital. The current theories of interest cannot fail, therefore, to shed light upon the conditions that affect prices through it.

Distinction between nominal and real capital is important to the theory of interest.

The prominent schools of interest are not in such conflict as their disciples seem to think. The glaring contrast between promises and products challenges attention, but has not been fully incorporated into doctrine. Sir Robert Giffen,[2] in his study of the fluctuation of interest or sensitiveness of the money market, caused by the varying supply of gold imported into England, uses the term "nominal" in the sense of "financial" capital. It is pertinent to inquire why usage sanctions the use of the term "interest," in connection with *nominal capital,* on the one hand, and with *tangible,* on the other. The ambiguity in practice is defensible, because men always think of a money value in reckoning interest. But the theory is inexcusable which fails to explain the connection between the efficiency of material-capital and the financial rate. Professor Clark believes that interest is due to productivity of capital. V. Böhm-

The time utility theory of interest may be compared with the

[1] Cf. ch. VII. *infra.*

[2] Essays on Finance, Second Series, II, Gold Supply; the Rate of Discount and Prices.

specific productivity theory.

Bawerk states the principle: "The rate is determined by the surplus return of the last permissible extension of production." [1] The "last permissible extension of production" means, the last amount of capital that has been furnished for production, at the given moment. But this is Clark's doctrine, in one of its "marginal" expressions.

11. According to the latter, the rates of interest and of wages are, respectively, due to "specific productivity" of capital and of labor. If there exist a definite supply of labor, and, thereupon, gradually small additional amounts of capital are successively put at its disposal, the share of capital, even though larger, must necessarily grow proportionally less. On the hypothesis, there will probably be a larger total output engendered by the combined capital and labor, because more factories are at work. Production has, however, increased hesitatingly, by virtue of the solitary accretions of capital. Labor becomes the relatively scarce, capital the abundant, element. Product waxes, indeed, but not so much as it would have done, if labor had been contributed with equal generosity. Under the circumstances, the surplus will go chiefly to the laborers. The capitalists [2] may even suffer a falling off of income. Capital will actually, itself, produce a *smaller physical product.* A surplus of tools is provided for labor, which are manipulated at a disadvantage. Clark has also shown that the additional doses of capital do not stand forth in distinct blocks, but consist in qualitative increments spread through the whole mass.[3]

Interest on loans of nominal capital or credit can

The study of credit concerns, indeed, what Giffen calls "nominal capital," but its revenue must be regulated, in the last appeal, by the returns to material. This conclusion

[1] The Positive Theory of Capital, p. 394.

[2] Alvin S. Johnson, "The Effect of Labor-saving Devices upon Wages," Quarterly Journal of Economics, vol. XX.

[3] Cf. § 14. *infra.*

flows from the rule that the *value of capital as a principal* is ultimately dependent on that of the material variety. The rate is ascertained by political economy on a physico-valuation basis. The revenue should rather be called "profits" than "interest." Absence of definite choice between these terms is not unnatural, in view of the difficulty in distinctly separating the conditions in which they apply; but it will suffice for the present to point out that profits is a compromise or transition appellation, bridging the chasm between interest and rent.

only be understood through a study of profits.

The rule of v. Böhm-Bawerk is expanded by that author to mean that the last investment will serve to prolong the production process. It will occupy more time, and less additional goods will be forthcoming above the rate set by the previous extension. The total product will be increased, only the period of production will be increased also. Every little new dose of capital diminishes the ensuing revenue, below that furnished by the last increment. Accordingly, shrinking marginal productivity of this variety is essentially factored by time. The circumstances of the tentative investments must always be such that the person who makes them is content to receive that smaller surplus return, and that it dominates the situation and competitively presses downwards the returns to all of the previous ones.

The marginal utility time theory of interest,

"All consumption goods which man produces come into existence through a coöperation of human power, with natural powers, which latter are partly economic, partly free. By means of these primary productive powers, man may make the consumption goods he desires either immediately, or through the medium of intermediate products called Capital. The latter method demands a sacrifice of time, but it has an advantage in the quantity of product, and this advantage, although perhaps in decreasing ratio,

or the "round-about" theory of production and interest,

is associated with every prolongation of the roundabout way of production." [1]

paves the way for a more exclusive use of the term "capital" in connection with credit.

This analysis is well called by its author, the "roundabout" process. It has a merit which deserves mention: it disencumbers theory of material capital, to a large extent, by regarding production as the meeting always simply of man's natural powers with Nature's.[2] If the meeting be prolonged, then the process is "roundabout." The forces in play act as naturally as in the direct. Capital is, therefore, time-credit rather than they. It is Credit that labels them as devoted to man's service. That is the distinctive part of the capital concept. Consequently, the financier's use of "capital" in connection with the "money" market is the better one. The materialistic definition of the economists is artificial.

"Thus we get, as a result of our digression, the assured conviction of two things: first, that the productive superiority of present goods assures them not only a surplus in product, but a surplus in value, and, second, that, in this superiority, we have to deal with a third cause of the surplus value, and one which is independent of any of the two already mentioned." [3]

Superior productivity of early investment must not be confused with advantages of a prolonged technical process.

The intense desire for surplus, which possesses industrial and financial circles, enlivens the demand for present goods for devotion to production, and thus raises their value above that of future, or, in other words, causes interest to emerge. Hypothetical tables attempt to show that no matter how much one may discount utilities because they are not yet available and the enjoyment of them is deferred, it will always prove true that, if materials can be invested

[1] Eugen v. Böhm-Bawerk, The Positive Theory of Capital, Smart's translation, p. 91.

[2] The present writer does not intend by this borrowed form of words to commit himself on the scholastic question whether man be a part of Nature.

[3] *Op. cit.*, p. 270.

and entangled in the process of production at an earlier point of time, the harvest will be richer. Five years hence, available wealth will be greater, if one thousand dollars' worth be invested now than if it lie until next year before it be subjected to the technical process, for, in the latter case, there will be only four years left in which it is at work making new goods. Hence, for every thousand dollars, the earlier in the process that value of materials is launched on a capitalistic career, the greater the product that is to be *forever* streaming forth. But that discount of value which is merely due to the deferring of consumption, remains the same, whatever be the time. For five years ahead, the annual rate of discount is the same as for four. But at the former date, the rate of material product *on the whole process* is larger, if the work is begun now than if the capital lie idle until next year and thereby be involved in a shorter process. The rate of "prospectivity" discount being the same, for each and every duration, total values to be discounted will be greater on a bigger than on a smaller product. The waxing productivity broadens the demand for present goods.

Time is not an independent productive force.

It seems strange that an author who had so well succeeded in exploding the mystery surrounding capitalization, by showing, with a trenchant force granted to few, that productivity of "capital" was merely economical use of nature's forces, should immediately have conjured up a new mystery, by attributing the much discussed quality to Time. But Time has never been and can never be regarded as an isolated force, although some philosophers have assigned the concept of it to a distinct and innate category of thought. The cause of greater productiveness lies, evidently, in the *directing will,* which intelligently orders the application of natural powers and manifests itself through credit. Only a study of credit can furnish the essential analysis of capital. Pro-

fessor Fisher[1] insists that the tables of v. Böhm-Bawerk do not at all prove a separate influence residing in Time or in the roundabout process. The interpretation of them by the latter, confuses productivity due to the process with that due to earlier investment. Undoubtedly, it is more advantageous to a capitalist to begin his investment to-day rather than tomorrow. That, however, is not the question, but rather whether, *in a given roundabout process*, the element of time, *per se*, is a cause of discount, apart from the mental inclination to underestimate the future "on general principles." Evidently not, since a process of a given length, whether one of maximum productivity or not, renders the same result, year in and out, and so prior investment offers no basis for discount, other than that contained in the separate mental factor. Fisher elsewhere contends that productivity, *as a source of profits*, also has little or no effect on the rate of interest. But this is a distinct point which will be discussed further on.[2] V. Bohm-Bawerk proves that underestimate is not *the* variable. Fisher retorts by applying the same demonstration to the roundabout process!

The productivity theory of interest.

12. Clark denies that Time augments productivity. Improvements cut in two the waiting for the result. Here, however, is rather a question as to the practical rule. They do not accelerate the career of a concrete lot of materials nor impair the fundamental principle of diminishing returns. The majority of cases substantiate v. Bohm-Bawerk. Inventions and reorganizations are not really exceptions; for they *permanently* save capital and shorten time: for instance, chemical discoveries applied to the brewing of beer or to the tanning of leather. This was not denied by him. The order of productivity of *successive increments* will not be different under the new process from what it was under the old.

[1] The Rate of Interest, ch. IV.

[2] Cf. ch. VII, *infra*.

"It is the nature of the bow to add something to the hunter's product; and, moreover, it is the nature of it to add enough to the product to enable him to take time to make another bow, when the first one is worn out, and still have more game for his own use than he could have had otherwise. The laws of matter, in short, make capital productive. Being productive, it may make over its product to the owner directly or it may make it over to some one else, who will pay the owner for it. Paying interest is buying the product of capital, as paying wages is buying the product of labor. *The power of capital to create the product is, then, the basis of interest.*" Notice that time is left out.

"Professor v. Böhm-Bawerk's view is that short periods are highly productive, that longer periods are less so, and that every addition to the average length of the periods adds less to the products of industry than did the preceding additions.

"In our view, every addition to the quantity of permanent capital in existence adds less to the product of industry than did the preceding additions. In our view, also, the average length of such periods as we are now considering might be made either longer or shorter, without affecting either the quantity of capital in existence or the rate of its earnings; for the period connected with the duration of capital itself cannot be lengthened." [1]

According to Clark, the rate is determined by the productivity of capital,

Clark holds, however, that the question is neither one of inventions nor of time, but solely of quantity of capital. The technical capital of the community is to be looked upon as a homogeneous, material, productive aggregate, — not as special tools for the manufacture of this or that article, but as one big machine which coöperates with labor to supply the wants of society. It makes no difference whether the period of production in this or that manufactory, or

[1] J. B. Clark, The Distribution of Wealth, p. 135.

on the average for all and for all processes, be long or short. He is of those who believe that only when capital was in course of creation, in the first place, were abstinence and waiting and saving required; but that, afterwards, it went on renewing itself. There was, henceforth, no deprivation, for, although the period of production may be long or short, nevertheless, the product is thrown out in a continuous stream, and the surplus or revenue is unceasingly available.

and the length of the production period is of consequence only in the problem of saving, not in that of income;

He enforces that view by the illustration of the planting of a young forest and the waiting for it to mature. "The capitalist who makes up his mind to secure such an instrument of production as a growing forest, a canal, a tunnel, or anything that takes time in the making, has to forego an income in the form of consumer's goods, while the instrument is making. He does not, however, wait for his true income even during that time; and after that he does not wait for consumer's goods or for anything else. The instrument will, of itself, virtually create a new instrument to take its place when it is discarded; the series of capital goods will be self-perpetuating. All the while it will yield a net income, in goods for consumption, to its owners; and this creation of income in this form will go on day by day, as the capital does its work. To-day's work will bring to-day's income, and to-morrow's will do the same." [1]

but saving only takes place at the beginning of capitalization.

He puts material capital on a par with labor. A laborer works from day to day, and so does capital. They both equally replace their wasted substance. There is no lack of real income, from the moment the trees are planted. They are growing all the time, and investors in tree culture are receiving income, although they are not enjoying it in the shape of consumer's goods. They may have to wait twenty years to harvest the timber, but they are treasuring

[1] Clark, *op. cit.*, p. 140.

revenue, in value and property, from the start, although they are not realizing it in consumption exchange.

But, claims v. Böhm-Bawerk, productivity itself depends on the length of the production period, which is the real cause of the separation of interest from wages.

There is little essential conflict between Clark and v. Bohm-Bawerk.[1] The former explains that the laborer who contributes present days' work, is not obliged to wait in order to obtain his wages. After saving has once begun and capital been constituted, then there is a perpetual flow sufficient to satisfy the community, laborers included. The economic environment thus favors remuneration of labor as fast as rendered, independently of the length of the specific, various processes. But that is really a different proposition from the one which v. Bohm-Bawerk discusses. The latter does not assert that laborers should not have the benefit of regular wages, nor that plenty of goods are not currently produced. His contention is, that the laborer's pay is not so high as it would be if he waited until the end of the regular production period, and that the difference between what he receives now, and what he would have received if he had waited, is interest. It is not necessary, in order to show that the specific productivity of capital is responsible for interest, to deny that the waiting due to the production period has an effect in cutting off a part of the result that would otherwise have all accrued to the laborer. What v. Bohm-Bawerk has demonstrated, indeed, is rather the distributive potency of Time than its productive efficacy. The claims of present consumption diminish the anticipated value of product available in exchange. Interest may also well be equal to the difference between the final, undiscounted values and the present wages.

There is no necessary conflict between the time and productivity theories.

The conception of a production period is well worth while, if only for the light it throws upon the circumstances which limit the length of commercial credit, and all that such precision implies for its orderly correlation with indus-

[1] Cf. Fisher, Capital and Income, p. 247.

try, which is especially favored by the discount facilities offered by banks. The nice, regulative oversight which is incumbent upon them, is rendered possible only by the close agreement of the obligations in which they deal with the technical conditions imposed, of which the time involved in executing an order is certainly not one of the least. It is fortunate that the same conception throws light upon the problem of distribution.

Credit controls the operations of industry as if there were but one big factory.

13. On the other hand, the aggregate view of all technical instruments, including land, as one gigantic tool essential for the consummation of the social product, is also helpful in a similar domain. But it is open to the criticism that it is an abstraction. The machines exist, indeed, objectively, but their unique working together is so comprehensive a thought as to arouse a demand for further explanation. *The credit* current in the community is what lends to that complicated plant a claim to independent existence. It incorporates Universal Objective Capital. Professor Clark's consummate generator of goods would be unthinkable in the absence of the social fund of credit. For it is a manifestation or statement of all of the concrete processes that are moiling and toiling for man. Generalized credit is indispensable for the theory of interest and prices, because it constitutes the purchasing power. That is a pivotal fact. It galvanizes the Clarkian automaton into the social instrument that it is. Bank circulation and deposits are especially generalized and best represent the daily working of the mechanical congeries which is ever furnishing income to society.

The production period is an objective fact.

If the output of this totalizator were either faster or slower than actually is the case, there would either be a superabundance of goods and a fall of values, or a dearth and an unusual rise. It makes no difference whether the winnings are emerging in a continuous flow, or it be necessary to wait a month, every time, until the storehouse is opened

and the latest creation withdrawn. The production period controls and conditions, temporally, the mass of credit, under either hypothesis. *Goods cannot be consumed faster than they are produced nor credit certified faster than production proceeds.* A rate is ascertained on every case of production and also on the whole mass.

Marginal doses of capital are severally added qualities pervading capital-goods.

On the other hand, the additions to capital attested in the form of credit, undoubtedly are physically added on the margin of investment.[1] However, the last investment and that which determines the rate of interest, is not confined to this or that factory; it is an addition of a certain quality to the technical means at the general disposal of industry. For instance, it may be supposed that the progress of electrical invention had made it profitable to introduce separate, little, stationary, electrical plants in different parts of factories, instead of conducting the power from a central engine by means of belts and pulleys. In certain locomotive works, the old running gear has been entirely dispensed with, and over their twelve acres of ground, the numerous machine tools are operated by local electric motors, to which the current is conducted by a wire. Such mechanical adaption is a new general quality in manufactories. It is not confined to the business of locomotive making.

Electrical industry affords illustration.

The field for new investment is pervasive.

A quality has been added which affords a place for marginal or new investment, extending through the whole field of capital, which augments most favorably, not by a rush into a single enterprise, but by the widespread introduction of an improvement. Credit-purchasing-power is directed toward electrical betterments. The electrical works will, indeed, receive an extra impetus, but the marginal application is not confined to the industry of building electrical machinery. It is taking place through all other establishments that are introducing the improvement. The process

[1] Clark, *op. cit.*, p. 262.

of qualitative investment through credit has been well illustrated by Bagehot, in his work on Lombard Street: when the iron trade is brisk, iron bills are presented for discount in great number. The determination of financial capital in this or that direction, indicates and fixes the nature and proportional activity of physical industry.

The marginal theory is that of strategic situations.

Marginal investments control the value of capital because they are made at the strategic points, where calculations are intensest as to the relation between outlay and returns. The marginal theory in economics is principally an analysis which discloses where the decisive, competitive contests are located. It is perfectly consistent that, simultaneously, the last investment and the length of the productive process determine the rate of interest, because they are interdependent. "How much time will the process occupy after the new investment?" "In general," answers v. Böhm-Bawerk, "it lengthens." On that hypothesis, he has advanced a theory to show exactly what the proportions must be between the surplus and the labor.

Is "pure capital" composed of machinery or credit?

Such, then, is the economic theory of interest. It attempts to describe the positive conditions which limit the rate and are discoverable in the state of the arts and industries, and of subjective, fixed qualities, such as the desire of accumulation.

The political campaigns of the nineties in the United States, brought forward the further question of the influence upon the rate of interest of the different specific

14. Interest, however, is neither expressible nor satisfiable in money alone. If, however, other goods may be used, the distinction between interest, profits, and rent calls for precise statement. It at once appears that the effect of income on credit volume is not wholly pecuniary. During the silver campaign in the United States, before the dawn, in 1898, of the era of good feeling, the money question assumed the form of a problem in appreciation of gold. It was claimed that crops and commodities were exchanging for gold at increasing loss, that that was a burden upon

the debtor, and that some way must be seen out of the situation. Professor Irving Fisher, in 1896, inquired into the exact foundations for the objections against appreciation.[1] He first took the case of gold and wheat, and supposed that the former was appreciating in terms of the latter. Such, indeed, was the widespread complaint. Silver and wheat kept value-company, but gold was accused of appreciating in terms of both. The specious argument was advanced that the depreciation of these commodities was attributable to the gold, and not to the wheat and the silver. Fisher's interesting investigation resulted in conviction on his part that there had been an appreciation of gold to the extent of about 1 per cent a year, for the previous twenty-five years.

kinds of capital.

The general principle emerged, which might be called "Fisher's law," that, if two standards or recognized mediums of payment are usual, the one appreciating in terms of the other, accruing interest can be paid as well in the depreciating as in the appreciating; that the rate will be higher in the former; and that the ordinary self-interest of competition will be such as to make the payments under the two an equivalent for each other, in the final result, at the end of any given period. Consequently, as to the total value restored, it made no difference which standard was made the basis of computation, or which was owed, or contracted for, *provided* the right forecast had been made at the beginning, as to the rate of divergence or of "appreciation" between the two.

Compensation through interest for fluctuation in exchange values of principals was insisted upon by Professor Irving Fisher.

Concretely: if gold is appreciating in wheat, then, in order to make the "wheat interest" the same as that in gold, it is only necessary to add to the ordinary rate of interest, the rate of appreciation and the interest on the rate of appreciation. The amount will then give the rate

[1] Appreciation and Interest, 1896.

in terms of wheat, and the total payments in wheat will always be the value-equivalent of the total payments in gold. The objection may be made, that that appears to make interest too high in wheat. Let the rate of appreciation be 5 per cent, and the rate of interest also be 5 per cent. Then gold interest would be 5 per cent in gold, one twentieth more gold, and wheat interest would be a little over 10 per cent, one tenth more wheat. Interest on the appreciation must also be included. Thus, approximately 10 per cent in wheat is of the same value to the creditor as 5 per cent in gold, *if* he takes into account, as he must, his loss by depreciation of the wheat principal. He obtains exactly the same value, in the aggregate, when the depreciated principal has been paid. The interest in wheat seems more valuable than that in gold, only if no account be taken of the depreciation of the wheat principal.

A change in the value of a specific kind of concrete capital causes a compensatory change in the amount of interest,

If, however, 10 per cent seems too high a rate to pay, notwithstanding that wheat is becoming so much cheaper than gold, the alternative always remains of choosing gold interest, at a rate equivalent to 10 per cent on wheat. Since the gold is appreciating at the rate of 5 per cent in wheat, it will be necessary to subtract from the 10 per cent depreciation-interest, approximately 5 per cent, depreciation of wheat, plus depreciation of the 10 per cent, in order to compensate for the rising value of the gold. Otherwise, the creditor would be overpaid. Approximately 5 per cent on gold will remain. As gold is appreciating in exchange value, at the rate of 5 per cent a year, the owner of coin is obtaining 5 per cent in wheat, by simply holding his gold, without contracting for any nominal interest at all. If he wants the equivalent of 10 per cent in wheat, he will be finally satisfied with 5 per cent in gold.[1]

[1] For the exact statement of these relations, the reader is referred to Professor Fisher's works, already cited.

and a change in the amount of the income from specific, material-capital necessitates a new valuation of the latter.

It is not only possible but convenient to bring all forms of investments to an equality, through their rates. *The approximation may be effected by adding the divergence either to the principal or to the interest.* The differences between *credit* and *gold* investments may, in this way, be compensated. If promises are depreciating in comparison with metal, then it will be necessary to augment the rate of interest, in order to make up to the creditor who agrees to be "paid" in promises, for that depreciation, or to increase the principal debt, or to arrest and annul the depreciation, in order to restore the equilibrium. There must be an increase, either of the interest or of the principal. Similarly, when there is fluctuation in the relative, exchange value of different instruments of production, it may become necessary to make a corresponding change in the rate of *profits* as compensation, perhaps by raising the price of the finished wares. Or, if it is the latter that has fluctuated, it may be restored by changing the exchange ratio of the principal. In those cases where the principal is nominal and hence of credit, and where the profits are called "interest," the latter operation is not so impracticable as might at first appear. The stock market is perpetually busied in adjusting the values of principals to fluctuations of profits.

The same principle holds true where one of the capitals is nominal.

This rule leads to the solution of the question of general price-level, for that depends, in the first place, upon two expressions of capital, the one in promises and other in metal, and, in the second place, upon the productivity of objective machines. The exchange ratio between these so disparate principal-forms is of deep significance. In a broad way, "capital" might be defined: *Those sources of income whose values are adjusted in order to equalize the rates.* The import of the word "capital," then, may embrace those cases of a principal sum, *whether material or immaterial,* from which income is derived and the exchange value of

Hence, a reciprocal relation is established between the value of the capital-goods and amount of the profits, which might be called: "the rule of capital compensation."

which is exposed to fluctuation, with the view of keeping the rates in agreement. This relation applies between such principals as credit and money. It applies, further, to that brought into play by discrepancy in the returns on machinery, money, and credit. The wages of labor and, further down the evolutionary series, the rent of land must be equated by the same rule. The valuation of a man compared with that of a machine is such as to cause his wages to return a rate equal to the profits derived from the machine. The same principle determines the value of a slave. The man is the machine, and his marketable worth, be it for his own behoof or that of a master, will be adjusted according to the value of his work, precisely as in the exchange of gold with wheat.

The long- and the short-time rates of interest remain for study and the corresponding influences that bear upon the level of prices. The rule of capital compensation obtains throughout.

Giffen noted the "fevering" effect of hesitating gold supplies on the rate of interest.

15. At that critical time when the political world was absorbed with the question of the appreciation of gold, Sir Robert Giffen, in an article on "Gold Supply, the Rate of Discount and Prices," [1] employed the suggestive term "nominal capital," for credit under certain of its aspects. He believed, as Fisher more fully established, that it was useless to deny a certain appreciation; and he investigated the effect of the halting importations of the yellow metal on the "call money" or short-loan rates. England offered a favorable field, because it was the principal gold market of the world, having been almost exclusively and still being, to some extent, the provider of credit-exchange for international usage, and therefore needing gold on that account. It was the place whither the precious metals were brought for sale, from the most distant mines.

[1] Essays in Finance, Second Series.

He came to the conclusion that the supply was diminishing from the behavior of the money market, which showed "feverish" symptoms, as a consequence of the hesitating way in which gold was imported, compared with earlier periods. The rate of interest fluctuated incessantly and apparently in response to the fall and rise in the reserves of the Bank of England, whither importations gravitate. His paper is one of the few places where one obtains some inkling of the double capacity as material-tool and as credit-promise, that money fulfills. When gold is imported, the short-loan rate of interest falls. That agrees with the current notion that "gold is capital." It is the material thing that can be handled. There is, momentarily, a larger supply of it, and consequently the charge for its use becomes less.

He treated gold practically, if not consciously, as a material instrument and the rate of interest on call loans as the measure of the specific productivity of gold.

That view contemplates it as a machine. If additional machines were introduced into an economy, Clark would tell us that the "specific productivity" of the mechanical aggregate was less. Each would contribute less in product and value to the national output than its predecessor. Consequently, the rate of interest that can be based upon machines is less for each new one. Money is handled by Giffen precisely in the light in which Clark views a machine. The more that is available, the less is the specific productivity attributable to each additional ounce, and the rate of interest falls. The point of view is novel in discussions about credit. The money contributed to the reserve of a bank is imagined to form an integral part of Clark's "pure capital," — of the totality of machines that is producing the income of the society. While the material and psychological capitals correspond, still they occupy separate markets, and their modes of operation had not previously been regarded as common.

Giffen further shows that a lowering of the rate of interest, caused by gold imports, lasts but a little while, because of an ulterior effect of the consequently augmented reserves.

But Giffen went further and showed that

changed income on material capital necessitated a change in valuation of nominal capital.

The banks loan more freely. The tendency is thus towards inflation, for the "nominal capital" of the society, the amount of the credit in circulation, is expended and is largely used, in commerce. Nominal purchasing power, therefore, augments. A call is now made for still larger reserves, and, if they are forthcoming, circulating demand credit will not be indifferent to the stimulus. The process, however, is not interminable. Since things proceed in finance very much as in the rest of Nature, by extremes after a series of differentiations, nominal capital will be inflated beyond what is warranted by the amount of the new income of gold. The result will be that the banks will finally restore the rate of interest, in order to decrease the strain of lending, and will thus cause the circulating capital to contract again. So that a perpetual, accordeon movement is superinduced by the incoming flow of material gold. In the first place, a decrease in the rate of interest occurs, and, in the second, when the psychological element of credit has expanded too far, a restoration of the rate. And then, new gold coming in decreases it anew; and so on, indefinitely, in the short-loan market. *Gold, the machine, lowers interest; but gold, the representative of future values, raises it.*

Gold the machine lowers interest, when first supplied to the short-loan market.

The genesis of the Principle of Capital Compensation may be traced.

Giffen, thus, early laid the basis for the principle of capital compensation, by his conception of it in the special case of the relation of gold to credit. Ten years later, Fisher complemented the work of Giffen with the statement of a principle of interest compensation. About the same time, Clark furnished the cement to bind the two propositions, by his really evolutionary theory of specific productivity and of qualitative marginal increments. When all forms of capital are included, the final result may be called the Principle of Capital Compensation.

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PART III

HIGH AND LOW PRICES (CHAPTERS VI–VII)

CHAPTER VI

THE VALUATION OF CAPITALS

1. Fresh supplies of gold in the importing banks are in a strategic position for lowering the rate of interest on loans. Credit follows gold in this case. — 2. If the public does not care to invest, the stimulus to expansion of nominal capital fails, and the rate of discount will not be materially affected. — 3. But if expansion does occur, the general rate of discount will rise either because of a compensation of interest for the depreciation of principal or because profits in trade and manufacture have risen. Future goods must be discounted in order to "represent" or exchange present. — 4. Profits are a long-time influence decisive on the rate of interest. — 5. The preference manifested by some students to view the rate of interest as dependent purely upon psychological conditions unmodified by consideration of profits or cost of production is misleading. — 6. The returns on all capitals are equalized by competition. — 7. Gold being a material good, the rate of interest on credit principal may be determined either by returns on gold or by returns on goods, according to circumstances. — 8. Diagram III introduces the simple hypothesis of three economic environments: credit, quasi-credit, and goods. The psychologic environment. — 9. The intermediate environment illustrated by foreign exchange. — 10. In the materialistic environment, fixed capital goods have the relation of a guaranty to circulating capital. — 11. Each environment incloses a relatively mental constituent. — 12. A thorough discussion of the utility of money shows that it is both a good and a credit document. In its former use it makes good a guaranty, and, in a dynamic community, has for a short time a specific productivity. Increasing interest, however, in such a community, comes from production and credit. — 13. Four distinct periods in the interest problem are as yet in evidence: in the shortest and longest, which are the less important, gold holds the strategic positions; in the intermediate, which are the ones envisaged by business men, credit and production are decisive.

1. It has already appeared that Sir Robert Giffen's statement of the effect of spasmodic or, at least, undulating supplies of gold upon the rate of interest, does not only propound a special case of a productivity theory of interest, but connects it with prices, if one but take into account the reaction of interest upon nominal capital. The implication of credit, not this time wholly as an independently operating cause, but also as a connecting link in the causal chain depending from production, claims further attention.

A greater abundance of gold arriving in a country lowers the exchange value of the yellow metal, as a capital commodity. Under this aspect, and not under that of promise or circulating medium, its specific productivity decreases, since to it can be assigned, just as though it were a machine, a less part of whatever output may be realized. The consequence of that is that interest is lowered, because interest, for the moment, under those circumstances, is looked upon as a specific product of the tool gold, and not of the one other financial machine, namely, credit.

The introduction of gold tends, at first, to substitute it for credit. The value of the latter thus falls, and, momentarily, its volume may diminish. But the further and main result will soon appear of restoring and even increasing credit, the nominal capital, in order that the ratio between it and its returns, namely, the interest on nominal capital, may be the same as that upon gold. The latter, therefore, is, at this moment, in a strategic position, controlling the rate and consequently the volume of the former, for competition must bring about an equality of rates. When gold is in the ascendant, the volume of credit must accommodate itself to the rate. In the case of a lower rate, it must increase correspondingly. There has arisen, as yet, no invidious discrimination between the two chief constituents of the circulation. They are working side by side, both looked upon

The supplies of nominal capital are, in short periods, influenced by the supplies of gold.

as capital, both to be loaned out, both dollars. But since the general percentage has been fixed by the supply of metal, that upon nominal capital cannot conform, unless the latter be increased again by expansion of the volume of credit.

Capital compensation instead of interest compensation usually obtains in short periods,

In this case, then, also, the rate of interest determines the amount of capital, and, instead of it fluctuating to accommodate itself to an alteration in the exchange value of the latter, which would be Fisher's case stated directly, there occurs an application of his theory stated backward [1]: capital is modified in its exchange value. The value of credit, as distinguished from money capital, is adapted to the rate of interest, which has been fixed by the gold. This process has been called that of the adjustment or accommodation or *compensation of capitals.* And capital has been defined as those goods or promises which are subject to such adjustment.

but only if, on other grounds, the public is in the mood for a run of capitalizing;

2. Credit, however, is not a tangible thing. One may be permitted to imagine, for the sake of argument, that gold is a tool of production, because it is a marketable ware itself produced. But it is more difficult to visualize credit as such a tool. And, indeed, this adaptation of the immaterial in a similitude to the material, perchance, may not be effected. For credit is, strictly taken, but a promise of economy, although it is, quite properly, called "capital," in financial circles. It is impossible, therefore, by lowering the rate of interest, through an importation of gold into a country, to expand the volume of credit, *unless men want it.* They are offered the occasion for an upward movement, but they cannot be forced to grasp it, unless the accession of precious metal finds the community in, or surprises it into, a buoyant state of mind and one disposed to undertake ob-

[1] Professor Fisher has adopted a "prospectivity" point of view. Under these circumstances, it would be presumptuous to cite his earlier remarkable essay as authority for the double method of computing either the principal from the interest or the interest from the principal. The former is the only correct procedure, according to his later writings.

ligations. The important thing, in this case, is the psychological diagnosis of the social mind on the subject of investment. If it reveal a depressed condition, the assumed strengthening of the financial environment will mark but a passing incident, the exchange value of gold in credit will not rise, the former will depart as fast as it arrives. The volume of credit will not be distended to adapt it to the rate, but, on the contrary, the fall of interest will at once force the recent gold supplies out again, and the rate will return to where it previously stood.

3. The alternative hypothesis is that the community be discovered in a courageous psychosis and inclined to commercial adventure, or, at least, to industrial expansion or even experimentation. In that case, two consequences will follow gold imports. Interest has been pressed too low by the injection of the gold. How will it be restored? There are two influences at work to raise it. One is the very circumstance of hopefulness and of willingness to undertake an increased quantity of promises, and, by discount or otherwise, to set them afloat and into circulation. The low rate of interest, fixed by the gold influence, would evidently not meet the prevailing optimistic views, when imposed upon the credit-principal, even if the latter were considerably inflated. The rate of interest, both in credit and in gold, will next be raised, in the process of augmenting the compensation to the banker or other loaner of credit, above what it had been soon after the imports of gold. If the speculator is satisfied with more sales of a credit-capital bearing the old rate, the banker puts in his claim for a higher one. Credit is so much augmented in volume, the "future goods" are so abundant, the divergence in value between future and present goods is so positive, that the former must bear a heavy discount, say the bankers, in order to "represent" the latter, among which gold must be reckoned, in this case. The rise

in which case, financial interest or interest on nominal capital, will be raised, under the operation of Fisher's law, since credit is now the depreciating standard; or in a longer period, as a consequence of larger profits.

The interest on gold is readjusted to agree with that on credit.

Large expected future returns must

be proportionally discounted in order that they "represent" present goods.

of interest will revive the inflow of gold, and prevent the exportation, which occurred on the hypothesis of Giffen, under circumstances of an exhausted spurt of expansion that he was considering, as related in the last chapter, § 17. For, a greater reserve is wanted by the banks and the circulation, in order to equip with ready guaranty substance the larger amount of financial business, which is justified now by the prevalent hopefulness.

The rate of interest will, in the long run, be controlled by the rate of profits, no matter what be the temporary state of credit or movement of gold.

4. Then, a second cause will disclose efficiency to raise the rate of interest in the longer period, and hence on longer loans, even if the laws of capital compensation do not come into play as between the two standards, credit and gold.

There is a third standard, which is increased technical output and commercial outlet (*Absatz*). If interest on nominal capital were not augmented by the perspective of greater production, it would be by the existence of a *greater accomplished production* in material consumables, which may be supposed to accompany or precede the supplies of gold. The ultimate principle upon which interest must eventually rest is that it is a function of profits.

It is important to discuss the claim that interest does not depend upon productivity.

It depended, as somewhat theoretically shown above, very momentarily upon that, when the gold was first introduced. For it was then possible to discover *in gold* the exercise of a material effect. That metal, however, not being a technical means of production, but only a potential and quasi-symbolical instrument or tool, could not sustain an independent sway over interest for a long time; and, also, its influence specifically went to depress the rate. But the material, technical, productive environment will utimately prove effectual to raise the rate, if production at all correspond to expectation. In that case, of course, the rate must be lifted anyhow, because profits rise, and because the returns upon the "last dose of capital" are swollen by the increased output and outlet, which it may be permitted to suppose

have accompanied the revival in promises of future production.

A prospective system of political economy is clear but partial.

5. Professor Fisher's system of political economy is perhaps the simplest and most homogeneous yet invented. Not only general prices, but interest, are made to depend on marginal utility of "final" goods, and all other goods are reckoned as "mere bookkeeping" between individuals, struck out on final statement as not influencing the main results, prices and interest. This treatment, combined with a happy lucidity of diction, responds more nearly to the innate longing for simple explanations — those which refer everything to one test — than do its predecessors. Does it also respond to the demand for a comprehensive explanation? Many economists have been disinclined so irrevocably to embark on the *vol plané* of consumption.

Purely psychological, or labor, or present, or retrospective systems, offer, severally, partial advantages, also.

The theory of interest could doubtless also be worked out by mathematicians, on the hypothesis of dislike for present as compared with future *labor*. The dislike of labor is but the obverse of the preference for goods. Since, virtually, present goods are hard to produce compared with future, the price of the former is high in terms of the latter. The rate of interest depending, as it does, on the exchange ratio of present with future, becomes, by this route, a function of "cost of production" or sacrifice or reluctance to exert one's faculties. If those obstacles be serious, present goods are expensive and the rate of interest is high; if not, it is low.

Capital is a future good, in so far as it derives catallactic quality from the awaited value of product. But it is a *present good,* when that attribute springs from disinclination to present exertion. And, it is proper to add, it is a *"past" good* in case circumstances indicate accumulated interest as the fountain of wealth. Or, the formula may be preferred that capital sometimes obtains its value from the less disinclination to future compared with present exertion; but

sometimes from a preference for present enjoyment. However the matter be put, estimate of sacrifice bulks as largely in the rate of discount as does that of enjoyment.

What part does capital play in the establishing of the rate of interest?

It is said that capital is a "cost," and hence cannot influence values which affect the rate of interest.

It is the middle term between exertion and consumption. In the market for capital, the part-producers, who are the capitalists, strive to obtain the highest rewards possible. In principle, the contest is a fair one between equally matched rivals. But no! say certain thinkers, sacrifices properly so called are of no influence on capital value, and hence on the rate of interest, *except as a value derived from products may be imputed to them.* The sacrifice of making steel consists in the food, clothing, and shelter of the laborers, all of which must be independently valued, as well as the steel itself. In consequence, the value of the latter depends on the prior valuation of the constituent items, which is determined by consumers alone.

It is essential that "costs" should be marketed.

It is true that *subjective costs,* — the pains of production, — *must be objectivized* by the reference of corresponding products to a market. Many of the articles thus tested are of an optional character, like coal, which may either be consumed immediately or reinvolved in further stages of preparation. In such cases, valuation is not wholly dependent on that of a further product. Many intermediate goods are useful in a variety of industries, and at different stages of completeness. No matter whether their assessment be direct or indirect, it must occur in some *market* before further utilization or direct consumption. It is not an empty form but a matter of vital importance to the producers.

But the fact that "costs" are thus valued does not prevent

For they exist in a series, in the case of each product. Each subsequent producer must know what he must pay to his predecessor, before he can calculate what he must charge to his successor. The fixing and liquidation of these prior

charges are vital to industrial organization. That all exertions must be objectivized does not defeat the timely settling-up. It neither obviates the requirement of a market for capital, nor diminishes the struggle for high rewards on the part of producers. In selling his half manufactured capital-product, the intermediate producer endeavors to realize such a return as he deems sufficient to induce him to continue work. The value of the final consumption article is thus an *intentional reaction* from its abundance. It is deeply affected by the competitive judgments of the part-producers, enforced in the markets for their several supplies. The preassessment of all "half manufactured" commodities, from the earliest to the last, is an aid to the influence of costs on values, not an obstacle. It is because antecedent exertions are stereotyped in objective values, that the capitalistic process is possible.

them from influencing the valuation process.

The unavoidableness of a market for capital in the process of that comparison of present with future values, which determines the rate of interest, is a patent corollary of the effort to recover costs.

The foregoing conclusion is formally based on the hypothesis of separate proprietorship, at each stage of production. But the objection is readily offered that, in case there be no division of property, but all the processes of production be united in one linear trust, "from the sheep's back to your back," the valuation of the final product, the clothes, depends, apparently, on the estimate of the consumer alone. This statement, however, overlooks the fact that the producer connotes his prospective profit on the whole process, and decides beforehand the output accordingly. It is true, his labors in bookkeeping are complicated, because he does not enjoy intermediate markets in which to ascertain, objectively and positively, the values of his capital at each stage. But he knows his current profit or loss on the whole

A free market for goods at every stage of production should offer a fair contest between producers and consumers.

process, and, if he has competitors, endeavors in every way to cut under their bill of expenses; in any case to roll up as large profits as possible.

The state of affairs thus envisaged does not point to the conclusion that sacrifices or exertions or expenditures or costs have no effect upon the valuation of goods, present or future.[1] One way to approach this subject of exchange value is by the inquiry, "What are *costs*"? It is the vogue, nowadays, to argue that they are those *goods*, which (having been presumably valued) are found to permit of production profitably, at a given price for final product. This definition is one-sided. Another is not impossible: "*Costs are those intermediate goods which must be valued in intermediate markets in order that the entrepreneurs engaged in their manufacture may exert the independent judgment necessary to influence their price, and to exact, in this way, the largest possible return out of the final product.*"

"Costs" may be defined according to their importance as a power in the market.

There is essential identity of interest with profits in their relations to production and consumption.

At each stage of production, the question of profits, as the complement of costs, is raised. The hypothesis of uniform profits throughout industry is admissible here, as in all other cases, except those where the process of reaching them is itself in question. The problem of interest is that of profits under another guise. This is so true that some writers deny the distinctive term "profits" except to the distributive shares arising from luck or monopoly. If, however, profits are the normally accrued excess of future values, when they reach the present, or, in other words, when industry has persisted till it has caught up with what was the future, and the much-dwelt-upon traffic between present and future has reached the stage of completion, and is thus an accomplished fact, then they are a term for realized interest.

[1] Cf. Professor H. J. Davenport, "Capitalization and Market Value," Yale Review, Aug., 1910, p. 135. Per contra, Professor Irving Fisher, Capital and Income, p. 327, cf. p. 189.

It is evident that they cannot have a general character, or be reduced within ascertainable limits, unless there be a large market or series of markets, in which the relations of present to future goods are established. Such markets are constituted by the sales of capitals in various stages of development, from the raw material to the finished capital of consumable wealth. Can it be that the estimates of consumers alone establish the ratio of future to present values, and that the intervening capital markets thus exert no influence on the general rate of interest? The other view is here adhered to, especially since it harmonizes with the gradational organization of the environment of production, as elsewhere explained (introduction; *infra*, § 7; and ch. VII).

It is true that the relation between interest and capital is a nominal one, so far as value of capital is merely a question of general price-level.

It is true that capitalization is usually calculated upon income at the inverse of a rate per cent, the market rate of interest. The explanation runs that the products which realize income are provisionally regarded as marketed, but the capital as not marketed. This method of estimating property is certainly practical, for consumables are much more readily disposed of, and hence subjected to authoritative estimate, than are production goods. But it is provisional or artificial. Upon this view, growth of product swells the value of capital, and falling off as surely contracts it. But valuation from interest rate is the generalization of a record already established from other (marginal) data. It in no wise abolishes the ultimate interaction between the values of capital and product. If this is so, then, in the course of that interplay, the rate of interest must be affected by the withdrawal of funds, either from the loan market or from proprietary exploitation, as the case may be, and by their transfer to the alternate use. It is true that rising prices raise interest, and also that an advance of bank rate tends reciprocally to counteract high level of prices by re-

striction of loans. But this nominal relation of interest to prices, while of undoubted importance to debtors and creditors, is on the surface of the interest problem, and has misled some to believe that value-interaction between capital and product, productivity influence on values, and dependence of interest on that relation, do not exist or are of little importance.

But in determining the market rate of interest, capital-productivity exerts the *substantial* influence.

Professor Fisher says that *the moment* a business is found more remunerative than comports the market rate of interest, its capitalization is *immediately* reëstimated at the (impliedly) old rate. "On the contrary the valuation of the property is immediately adjusted to the new conditions."[1] Is there not a step omitted here? Before the new valuation of the capital takes place, a certain amount of funds has been withdrawn from the loan market for extension of the fortunate branch of enterprise, the rate of interest has been raised, and the price of the general body of capital correspondingly reduced. Perhaps the price of *the* capital, in the prosperous branch, is not sufficiently reduced to raise *its* rate of interest in proportion to the higher profits, and hence they remain attributed to capital rather than to interest. But the effect of a *general* increase of productivity would certainly be to bring the whole rate of interest into line with profits. The nominal circulation of the society has been reduced, thus lowering the price of capital. The substantial thing is the dependence of the rate of interest on the productivity of enterprise.[2]

In the general market for capital, no attention is paid as to whether it be material

6. The rate of profit is substantially a ratio between a surplus and an investment. That their several valuations, upon a practically comparable basis, are fraught with extreme difficulties due to the intervention of a production period, must not be allowed to make men blind as to the

[1] Rate of Interest, p. 199.

[2] Cf., for concession in this sense, Rate of Interest, p. 201.

basic importance of the ratio. The rate of the return upon any nominal investment must correspond, unavoidably. Indeed, if the rate of interest on nominal capital may be supposed to have been raised, by the untoward appearance of an invidious comparison between credit and gold, to a a point *in excess* of the rate of profit which is found to be returned from the productive process, the gain could not be maintained. There must finally be equalization between material or real production, and the nominal and quasi-nominal elements in capital.

or immaterial; competition tends to create equal returns on equal capitals, and equal capitals for equal returns.

Since, in the nature of things, the various employments of the term "capital" are so nicely differentiated that to monopolize it for one of them would be neither practical nor useful, the interest-and-prices problem demands a general solution applicable to all. This is attained through the broader competitive definition: "*Those economic constituents, goods or promises, which equalize the rate of returns by adjustment of their own exchange values.*" By this inclusive conception, it is possible to introduce into the same scheme, both credit and that quasi-credit and quasi-commodity, "Money"; and also, goods and machines, of which the basic, tangible, industrial element is composed. The law of capital compensation operates to equalize the rates and revalue the principals, as between gold and credit; and again, as between credit and real tools. It also induces a like approximation between the latter and gold, the standard. As greater production takes place, there will be accumulation of gold needed to carry on the more numerous and valuable exchanges, or rather, on the hypothesis of a credit system, to keep the reserves filled.

The competitive definition of capital covers all grades of materiality.

7. By a counterbalancing revaluation or capital compensation similar to that just described, whereby increase in the amount of goods to be transferred multiplies, through intervention of motives dependent on the rate of returns,

Money is both a material guaranty and a promise. As a

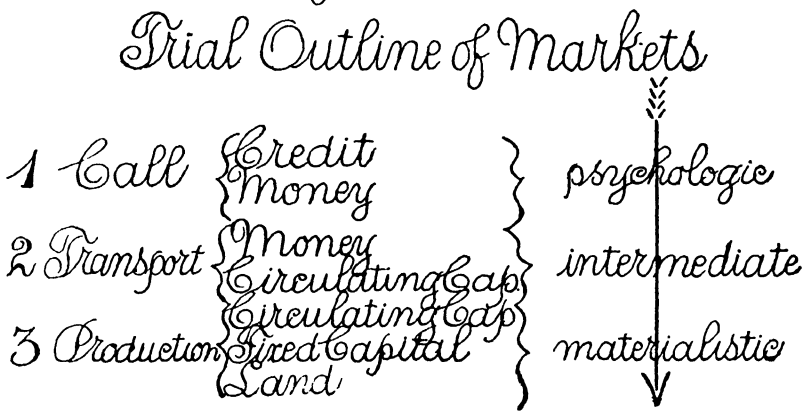
guaranty, it pays bad debts, thus making them good again; as a promise, a loan of it is, in the long run, controlled by credit-interest.

the supply of "money" available for the service of transferring them, an accumulation of metallic money swells, at least temporarily, the volume of credit. The supply of money may be adjusted, very roughly, to the amount of goods, and the credit, more nicely, to the money. But, in the long run, credit plays the leading part, for it is but the commercial shorthand for the business plans which must precede a forward movement. Money and production follow suit. A statistical inquiry which dispenses with the necessity for separate data of volume of credit, on the ground that it closely follows the vicissitudes of the supply of gold, can hardly reach trustworthy conclusions. If boom expectations are disappointed, the volumes of credit and money will be decreased by a natural process. Superfluous promises will needs disappear. Thereafter, money also will seep away, since it is not needed for the guaranty fund. Doubt will be cast upon the demand-credit in the hands of the community, namely, the deposits. They will be "retired." Gold will be withdrawn and hoarded or exported. The banks will contract their loans.

It is common procedure on the part of economic writers, and quite fair as a means of analysis, to suppose, *argumenti gratia*, that gold flows into a community by accident. Logical analysis is agnostic of antecedents, before a chosen point of departure. It is necessary to make the hypothesis of the unaccounted-for disturbance of an equilibrium, in order to furnish a mental fulcrum, and to lend to a subject that mechanical aspect which leads to clearness of vision. The gold may happen to flow into a country and out again, without affecting the body of credit. Its departure will ensue from the failure of the banks to spur borrowing and enterprise in promotion. The low rate of interest will not be followed by a high one. There will be, therefore, no second impulsion to gold, inviting it to stay and more to come. The only

effect of the visitation will have been temporarily to have lowered the rate of interest in the seaports, or the "bankable" places where it first arrives.[1]

Diagram III



8. Diagram III partitions provisionally the industrial world, in a manner serviceable to economic and financial theory. It has long been habitual to regard economy as possessing and working in but one environment, and that materialistic. But the attention paid by economists to evolutionary logic has been hardly sufficient, although much has been said of economic evolution. When the scene is shifted to a less material setting, transitions from environment to environment are made naïvely. The conclusions, if correct, are so, therefore, by grace of chance and common sense, rather than of formal tests. Conscious upbuilding of economic theory along lines of progressive logic is manifestly desirable. A proper appreciation of the importance of finance will assign to economic materialism[2] its prepon-

In the psychologic environment, money is the guaranty fund or materialistic factor.

[1] This point was made by Mill, book III, ch. VIII, § 4.

[2] The term "historical materialism" apparently has reference to an evolutionary view of history. In the text, however, "materialism" specifically contrasts the material with the psychological. That there

derant part, in connection with the cruder static and environmental in industry. In this provisional scheme, in order to introduce the reader to the conception of a naturalistic classification of capital, three environments may be imagined. The upper is the one in which credit is the relatively psychological factor and money the materialistic. In it, consequently, credit is guaranteed by money. If there occur a failure, for any cause, in the fulfilling of credit-promises, money is called upon to make up the deficiency. If it were not to respond, it would fail to make good the condition of liquidation it imposes upon credit. It, therefore, is the environmental or the materialistic factor in this case. The analogy is essentially biological. This corrective process obtains in the common instance of demand-credit, where there is a failure of set-off and the banks are called upon to pay money. It explains, in evolutionary terms, the liberal handing about of money in a crisis.

In the intermediate environment, money is a credit document, and payment is made with goods. The goods are the guaranty of the money.

9. The succeeding underlying environment or market may be called "intermediate." Here money is contrasted with circulating, finished capital or commodities. This case is illustrated by foreign exchange. International balances were chiefly paid, until recent times, and are still, to a large extent, in money. However, if there be a premium on it, the balance may be satisfied with goods exported. But, usually, it will be by money, unless more persistent conditions demand the sending of securities. Hence, in this case, the psychological element, relatively speaking, is the money. It is the promissory document. It is no longer the environing substance, as in the previous case (§ 8), but a relatively psychological and active agent. Commodities now serve the former subtending and assuring purpose of money. It is not transported from country to country

is such opposition will perhaps be disputed; but anticipatory defense is not necessary.

as goods but as promise. The distinction is observed quite implicitly by writers upon international trade, for they agree in regarding exports of money and of gold, theoretically, as different things, recognizing that the former is sent abroad, not for the purpose of consumption, but for that of promising a future consignment of goods. When that takes place, the promise is fulfilled, the guaranty now is satisfied in goods, — is made "good." The parallel between the second and the first environments seems satisfactory.

10. It persists in the third, the productive. Nothing is found there which is not ordinarily esteemed to be entirely materialistic, and yet proper attention to organic and evolutionary principles discloses the salient contrast between circulating and fixed tangible capitals. The former is manifestly more mobile than the latter. It, in turn, assumes a promissory aspect. It is fraught with the promise of marketability, without which the fixed capital, or the enterprise, whatever it may be, embodied in machinery, means of transportation, land, and buildings, would fail of its purpose. There is usually and normally dearth of circulating capital. That is the first axiom of economic science. Hence, the guaranty of its replacement, the fixed, lies at the basis of the economic structure.

In the materialistic environment, circulating capital, if sold, is the fulfilling of the promise of production, whereas fixed capital is the guaranty of production. The sale is a promise of further production.

11. There is dualism in the correlation of the psychological with the materialistic activities, all through the economic field, which is brought into relief by inspection of economic life from the point of view of credit. A larger and simpler view of man's economy is obtained. It may be looked upon, primarily, as a series of connected part-markets for a continuous mass of nicely differentiated capitals, in which the latter can be exchanged for each other and at definite values with respect to each other. In them, also, the relation of the capitals to their respective returns is fixed by adapting

The conception is reached of a continuous series of environments, each furnished with its relatively psychic and materialistic constituents.

the values of the principals; or, quite often, the other way about, by adjusting interest, as equivalent for loss or gain on principal.

Money is likened to credit in that it is loaned out, draws interest, and purchases goods.

12. Nothing could be further from the writer's intention than the chaining of thought to a dry schematism. As a means of hardening an idea until it becomes serviceable, however, a diagram has its proper place. Money comes near the middle of the scheme.[1] It performs a double function. It is both a promise and a good. As a promise, it draws interest, which, in the long run, is regulated by that upon real[2] credit. For the interest upon the latter is that which corresponds to the profits of production, while the interest on a loan of material money is adjusted, in the long run, to that on credit, — not the other way about.

In its materialistic aspect, however, money is the product of labor and a good that can be stored. It has, therefore, a commodity value and is most conveniently accumulated to fulfill a general guaranty. Not being a consumption good, it can serve that object for any credit, for that which may have had its origin in an iron or in a piano transaction. It was unavoidable that some ware should be discovered, of such universal acceptability as to enable it to meet the conditions of general guaranty, equally well for contracts which may have originated in any branch. It is quite natural, therefore, that money should stand midway between the top and the bottom of the scheme.

Money is like a productive good in that its short-time effect on interest is analogous

It is like a good, so far as a fresh supply of it lowers its specific productivity, the special economic effect imputable to it. In that quality, it corresponds to all of the goods inferior to it. However, the effect cannot endure; and that is also true of the other goods. For, in the long run, they are

[1] Better suggested by diagram IV, with ch. VII.

[2] "Real," in order to distinguish it from money, which is itself a form of credit, when used in exchanging goods. Perhaps "pure" credit would be better.

productive. Their output and outlet are normally increasing, and, consequently, the ulterior effect of additions to them is to increase the rate of profits, and also of interest. Or to decrease them only on the hypothesis of "diminishing returns." The supposition of "increasing returns" is preferable, not merely because that renders the contrast more apparent between long- and short-time influences, but also for the reason that the topic of credit treats of the subject of interest and prices, primarily, in connection with a period of inflation. Increasing returns persist, perhaps, five years, perhaps ten, according to the importance of the cycle selected, until the apex of prosperity is reached, and a financial setback is adumbrated in its forerunners, fall of prices, exportation and hoarding of gold, business failures, excessive requests for renewals of notes, or slack demand for goods and securities. During that upward period, it may fairly be assumed that returns to production are gaining, without necessarily controverting the abstract, perhaps more secular, assumption of political economists, that additional doses of capital decrease marginal returns. Enterprise is characteristically based on paying economies. During the moderate *termin* then, which is chiefly interesting to business calculations, it may properly be said that an increase of capital tends to an increase of returns and to a corresponding increase of the rate of interest. The rate on money will follow suit to that on credit, for the latter is accommodated to the real returns.

to the specific productivity of material capital;

but this action of *money*, in a very short period, is merely as a substitute for, or limitation of, material-capital.

Upon inflow, money may decrease the rate of interest. But increase may soon appear, either caused by exaggerated expectations of the future, or derived from adaptation of the credit to an actual augmentation of return on real capital. Its membership in the material side of the capital columns ceases, apparently, with the dying out of the first phase. Apart, however, from its instantaneous mechanical, or

In periods of moderate length, credit is decisive in the question of interest.

"fevering" influence, it subsequently operates as the guarantor of the credit, within a restricted and characteristic environment. It is then maintaining its most appropriate and natural rôle as the one, dependable, material thing that comes in to realize the conditions under which credit can work. If the latter is excessive, or fails to offset, then money presents itself as the corrective, as the limiting material factor. In the absence of metallic money, either industry cannot be carried on, or else men are perfect beings, who only need a credit system because they never enter into any commercial or industrial engagements which they cannot fulfill.

The test of time has ascertained five distinct periods of price influence: in the first and last, gold value controls; in the intermediate periods, credit is decisive.

13. The analysis may be furthered by recognition of five or six periods of interest-and-capital adjustment. In the shortest, influx of money reduces materially the rate. In a little longer, credit is increased, and that expansion will, at first, tend to reduce the rate still further, for, as in the previous case of the gold, there is brought about a disproportion of capital to the returns accruing. Hence the uninterrupted fall of interest. This prolongation of the first period, not hitherto mentioned, is unimportant, but is here inserted for sake of completeness.

The first appearance of inflation continues the decrease of interest begun by the inflow of gold.

If credit is accompanied by speculation or increased production or both, interest will rise.

Then, however, in the third period, gold would flow out again, unless the community was inoculated with the spirit of speculation. In that regularly recurring event, the decisive influence upon interest would again be from the credit, — this time, not to decrease but to increase it. It will be in this third, intermediate, or fairly long period, that the law of adjustment of capitals and interest will come into play, and interest will be raised in order to compensate for depreciation in the nominal capital or credit-principal.

At the culmination of the prosperity cycle,

Finally, a cyclical period, a long-time relation subtending the two factors, credit and money, discloses itself, even to superficial observation. It is commonly supposed to bridge

gold, as the standard of value, is decisive on prices; but its influence on interest is not important.

a chasm of about ten or eleven years. Perhaps, in truth, it would be more correct to take it as one of double that length, from seventeen to twenty. In it, gold reappears as the prime influence upon economic relations and media under discussion, and naturally so, since, after protracted lapse of time, the instant recurs when men are constrained to hark back to the standard of value as the test of the level of general prices. But the famine-prices of money, which momentarily assert themselves, while affording spectacular demonstrations in the laboratory of price-theory, do not persist, and hence are of only occasional import to the man of affairs.

The analysis of the situations arising with respect to capital and interest would reach the conclusion, that the influence of gold is felt decisively in the shortest period,[1] that of momentary importation, and again, in the longest, the cyclical, and generally in opposite directions: in the shortest, to raise prices and lower interest, and, in the longest, to lower prices, and that in response to famine-rates of interest. On the other hand, the influence of credit is felt, decisively, in the two intermediate periods, a shorter and a longer one. In the former, while raising prices, it tends to lower interest. In the latter, it reaches the mass of national capital, and while, through expansion, raising prices still further, works to elevate interest also. But the latter period is separated into two important subdivisions, in one

[1] Idea that the rate of bank interest or discount is dependent upon the expenses of the bank and, especially, upon the amount of the metallic reserve: "The utility of a low discount rate for the commercial welfare of a country is well known. Now, the rate tends to fall when the cash holdings increase, and to rise when they decrease. In short, *it is completely controlled by the holdings.* On the other hand, it would not be correct to say that the amount of *cash on hand* follows the movement of the discount rate." (Maurice Patron, National Monetary Commission, the Bank of France, pp. 28, 55.) This statement utterly ignores the reciprocal relation existing between the supply of money and the discount rate (or rate of interest) in a bank (or in a community).

of which nominal capital is swollen as a consequence of speculation, and in the other, as a consequence of progress in production.

The evolutionary nature of the influence of credit upon prices and interest now dawns in its true colors, and will be made more certain and precise by the further analysis of ch. VII, by the demonstrative illustrations in chs. VIII and IX, and by the résumé of chs. X and XI.

CHAPTER VII

THE MARKET IN ITS RELATION TO RENT, PROFITS, AND INTEREST

1. In comparatively short periods the rate of interest is controlled by the state of credit; and fluctuations from this cause are of especial importance to business calculations. The expansion of credit may raise interest above profits, even when gold is scarce. — 2. Interest is immediately, but provisionally, lowered, after credit expansion begins, because the new credit has the same effect as new gold; it is next raised in order to replenish reserves. Five stages in the problem of interest now appear. — 3. Evolutionary explanation in the dynamics of economics has slowly crept into the science as a by-product of the discussion of the essential differences between rent, profits, and interest. Marshall contrasts rent and profits, and shows that some incomes are on the border between the two classes. The control of credit by gold is like the control of profits by capital. A series of financial environments are superimposed above those of industry. — 4. The several environments are continuous, and are composed of a relatively functional (promise) member and a relatively materialistic (guaranty) member. Some lie nearer the market than others. By market valuation, directly or indirectly, the relation of the functional members to the environmental is everywhere established. But the upper environments may be opposed *en bloc* to the lower, by a general inflation which overestimates production. The result is a breaking down of all markets and a financial crisis — 5. The dynamic problem of environments is an outcome of the rent controversy. — 6. Fetter is struck by the similarities of the different forms of income, and declares that the differences are superficial and merely indicate an unlikeness in the mode of payment, endowed with a factitious importance by the prevalence of one mode or another at different epochs of history. — 7. Patten has included credit or promise funds in the capital series, — 8. and asserted their control by the materialistic or "price-making" forces. These or the goods which bear them are marketable and subject to valuation by consumers, either directly, or indirectly, as land through its products. — 9. The Physiocrats,

from a dynamic point of view, were not in error in the importance they attached to land. — 10. The terms "rent," "profits," and "interest" have embalmed in language the biological view of economy. — 11. The differences in men imply necessarily distinct spheres of activity. — 12. Conclusion.

In relatively short periods, interest, guaranty, and prices present a psychological problem,

1. FOR short periods, the dominant influences in a dynamic society are psychological, while for longer, material conditions bulk more largely.[1] This statement would not imply that the former are devoid of material causes, nor the latter of psychological. Disasters of Nature produce sudden revulsions on the stock market, and ensuing effects upon short-loan rates; while institutions of law and permanent habits, such as the fixed attitude towards the economic future, known as "the effectual desire of accumulation," constitute a constant basis for the determining of investment, which also depends upon the prospects of returns afforded by the state of the arts and industries. Nevertheless, it may be said, with truth, that a business man makes a hundred decisions, with respect to the immediate future, to one, with respect to the remote; and that the industrial processes are, in a hundred cases, taken for granted, compared with one where an improvement in them is successfully instituted.

but, in long periods, the physical conditions gain in importance.

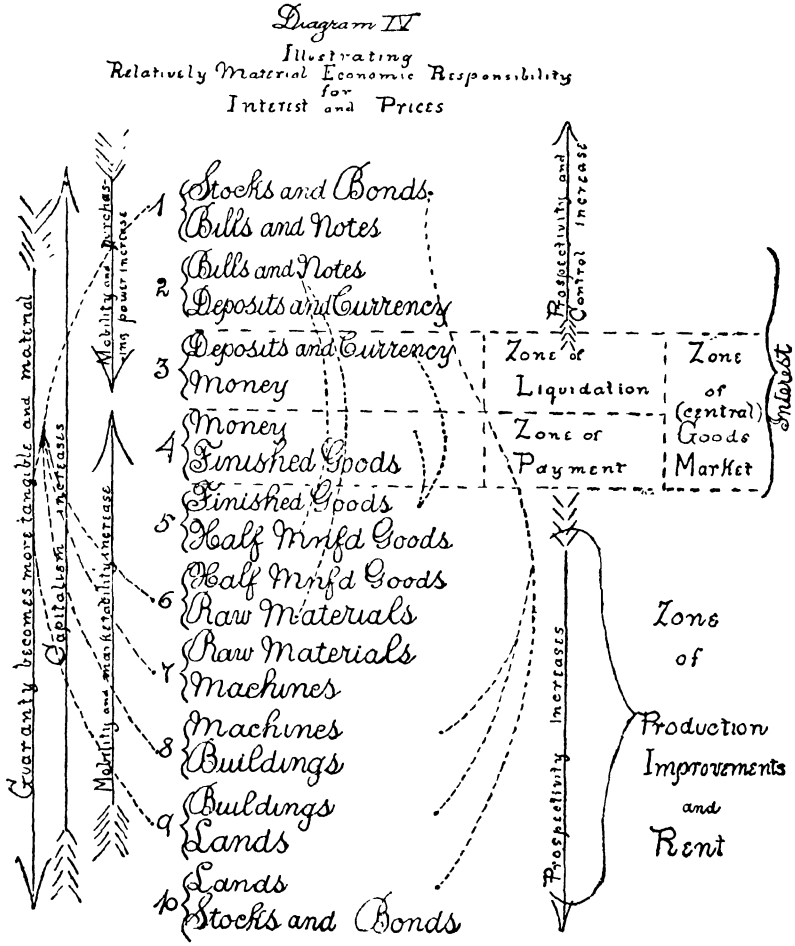
Mobility and adaptability are psychological attributes.

Half-manufactured goods denote a higher stage in the order of evolution than raw materials. They are more marketable, more mobile. A sudden offer of an additional quantity of them (market six) would tend to lower their value, and at once to decrease income by causing loss to merchants having already a stock on hand. However, in the long period, after all adjustments are made, larger supply spells increased profits and, ultimately, rate of interest. In the last preceding chapter, it was found that the length of time allotted for economic provision affects the returns to

[1] Cf. the writer's paper, "The Kinetic Theory of Economic Crises," University of Nebraska Studies, 1897.

nominal or credit-capital, in the same characteristic ways (markets two and three). A momentary increase of the latter decreases the rate of interest. But persistent inflation exacts an increase, by way of compensation for depreciation,

Interest on credit depends



if not for increased productivity. The market for finished, circulating capital (three and four) is the largest one in an economy. In it, consumables are transmuted into values,

partly upon the "supply of credit," *i.e.*, the

disposition to invest, and partly upon the profits of industry.

profits are ascertained, and thus the foundation for a rate of interest is finished. The inferior markets for goods, tools, and land are partly explained by analogy with it.

Throughout the markets in which men are fixing their mutual obligations, the pay for guaranty on the various values in question is settled on a basis fundamental to all. Interest in these turnover-periods on which business is predicated, is controlled by credit. In the long run, it is limited by material elements, viz., by production, through transmutation of products into values in the Central Zone. It is worth while to repeat the admission, that a sudden, direct supply of metallic money has a decided effect upon the rate of interest, which, however, is only momentary. If the supply is fairly regular, then the market for money will not be "fevered," in the language of Giffen, and the rate will not be affected. *The determination of an efficient cause depends upon the circumstance whether the community be in a disposition to expand.* In the latter case, the incoming or newly raised gold will be greeted with a sentiment of enterprise and a desire for investment, and the result will be an increase in credit. Buoyant forecasts will be decisive on the contracts entered into, in the upper markets, which are specifically those for loans, and the views there prevailing will naturally be of overshadowing importance, in cases of loans required in every market. For guarantors will seek the highest fee, so long as enterprise encounters confidence. The *cause* of interest, in this case, then, is the expansion of the credit and not the supply of gold. The latter is merely the *occasion* which suggests expansion or gives a fillip upwards. And this series of events may operate so strongly as to draw after it a further output or import of metal.

Interest (and prices even) may rise in face

It is even possible that expansion may occur, in the face of a diminution in the arrivals of gold. In that case, there may also be "fevering," — at moments, a greater supply,

but on the average, a decrease. When a little more comes in than previously, that may suffice to start an upward movement which will continue, thenceforth, *proprio motu*. The boom that occurred in the ninth decade of the nineteenth century was of this class. At that time, as is now generally accepted, the output of gold from the world's mines was insufficient. In the face of this stinted supply, there occurred a very decided outburst of enterprise, in the last part of the eighties, some fierce speculation, the collapse of the Panama Canal and of the copper syndicate, investments by English and other European capitalists in South African mines, in American cattle ranches, in breweries all over the world, and the tremendous exploitation of the Argentine Republic, largely by England and secondarily by Germany. Those more or less hazardous enterprises were promoted, in spite of a protracted weakening of the available, metallic guaranty.

of scanty supplies of gold.

Their effect will be shown, in the following chapter, to have been positively favorable to expansion, and illustrates the enormous power of the factor which seems to be the more important one, practically speaking, in the topic of interest and of the level of prices, namely, "credit." It may be freely granted that the credit-dollar would have neither significance nor existence, without dependence upon the gold. Nevertheless, the contrast is marked between *a mere patrolling of the frontiers of interest and prices and the controlling of the fluctuations* that make for inflation or contraction. They are the important thing. The subject of prices, however, will be more specially treated in chapters X, XI. Before recapitulation of the interest-determinants which so far have been discovered, it is here convenient to hint an explanation of the well-known manipulation of the bank rate to protect reserves: since they are maintained to guaranty the demand-credit, — the notes and deposits, —

The influence of credit on nominal capital is more important than that of gold, since it covers a period more nearly equal to that for which business calculations are made.

One of the first motives for raising interest after credit begins to expand, is in

order to replenish reserves.

it follows that this regulation of rate is undertaken for the sake of, and hence to be ascribed to, the influence of credit.

2. In the case, therefore, of the usual cyclical expansion, two preliminary stages are to be noted, before the main effects of credit on prices and interest manifest themselves: those produced either because of its abundance, depreciation, and inflation, or because of its conformation to real productivity.

But, up to that point, the increase of credit simply adds to the supply of capital begun by importations of gold, and hence augments the effect of the gold in lowering interest.

The introductory steps are: (*a*) when expansion first occurs, interest falls, since, dollars being just as productive as they were, their abundance makes their usance cheap. The case of new credit is, so far, precisely the same as that of new metallic imports, — it is to be regarded as a productive tool whose hire depends on its scarcity. (*b*) Soon thereafter, however, it is discovered that the augmented loans call for more reserve. Then the banks put up the rate, in order to attract more guaranty material from the mines, from hoards, and from abroad. With insertion of this subordinate, but highly practical, rate-fixing force, the main causes remain, inflation (or *expected* productivity) and *current* productivity.

Six stages or periods of credit cycle, in which distinct causes operate to determine the rate of interest and the correlative price-level, constitute the crisis period.

The analysis of a credit cycle, then, comports six stages, in which various causes modify the rate of interest, successively. They are relatively more or less psychological and correspond, in general, to those which were found to affect interest, in short and long periods respectively.[1] The latter are to be identified with the periods of sustained prosperity or of continued depression.

(1) The starting hypothesis is that of an unforeseen accession of gold, which is followed by fall of interest. An era of prosperity *may* be inaugurated *without* a preliminary, chance arrival of guaranty material. A statement made for sake of analysis does not presume to lay down a law of historical concatenation of events. (2) Credit and nominal capital may then be supposed to increase, and interest to be lowered still

[1] *Vid.* ch. VI, § 13, *supra.*

further. (3) The banks, thereupon, raise the discount rate and import more foreign, or purchase domestic, gold, in order to guarantee the swollen nominal capital. (4) The result of lowered interest reached in (1) and (2) may or may not be repeated and exceeded. A revulsion may occur, at this moment, and interest be lifted, for the business world may begin to suspect that nominal capitalization has been carried too far, and consent to higher interest, as compensation for poorness or cheapness of credit. (5) But if credit be not at once questioned and doubted, the alternative of successful business may, and generally does, for a considerable time, prevail, and interest may be sympathetically elevated. In this case, (5) occurs, historically, before (4). (6) Lastly, the caution manifested in (4) becomes universal and excessive, contraction is rapid, and gold is resorted to as standardizer and long-time corrective of the aberration of price-level. Interest is raised, sometimes, to fabulous heights, in the panic, to meet threatening obligations and uncompensated promises, only to fall to the opposite extreme, during the following (7) depression. This period (6) is called a "crisis."

3. The test of economic advancement and progress is found in the development of the credit institution. And of that, again, in the general quality of the economic promises. The part-markets mount serially from the more concrete to the more abstract. Especially, the banker in the large city deals with industry in the abstract. Financial business is the proper field for transactions which distinctively involve the general principle that underlies all businesses. It is a *special* dealing in *general* purchasing power.

The helpful conception of a series of markets (which is but the economic application of the biological law of environments) seems to be implied in Professor Alfred Marshall's doctrine of quasi-rent. Some persons, indifferent

to the clarifying power of the idea of continuity, and of the grave problems which appeal to it for solution, have differed from Marshall. He said:[1] —

"The shorter the period which we are considering and the slower the process of production of those appliances, the less part will variation of income derived from them play in checking the increase of supply of the commodity produced by them, and in raising or lowering the supply price; and the more nearly true will it be that, for the period under discussion, the net income to be derived from them is to be regarded as a producer's surplus, or quasi-rent. And thus, in passing from free gifts of nature through the more permanent improvements in the soil, to less permanent improvements, to a farm, a factory, buildings, a steam engine, etc., and finally to the less durable and less slowly made improvements, we find a continuous series."

The classical discussion, as to the nature and cause of rent, is but one phase of the larger inquiry, as to the effect of foresight upon incomes, and of the still larger one, as to the nature of a series of markets. The environmental point of view is the dynamic one.

Technical processes may be classified according to the purview they demand. It may sometimes happen that calculations clash, in the turning out of one product; or that one part of the work is amenable to economic forecast, and another not. But, on the whole, it is characteristic of some wares, that calculations upon them are longer, while those upon others are shorter. The reckonings, and hence the contracts and credit-promises involved, are dependent upon the climatic, geologic, chemical, or mechanical factors in the case, combined with the temperament and intelligence of the undertaker, in such a way that they are much more prominent in the bringing about of some economic effects or surplus-bearers than in others. The *time* that they cover is certainly a help to the solution of the problem of *how much* calculation is in any instance involved.

[1] Principles of Economics, 4th ed., p. 495. The passage cited has been omitted in the fifth edition, but is nevertheless typical of its author's thought.

The longer the effective and practicable prevision, the greater the responsibility for the result, of the economic subject, the banker, the promoter, or the manufacturer, and the closer the adaption of the values of the tools to that of the finished article or service. Nevertheless, the process may be so protracted and the supplies of materials, labor, and guaranty so uncertain, that prevision cannot be stretched over the production-period. Thus, it is not uncommon that calculation, for example, in special agricultural operations, may be attempted too far ahead for the exerting of an intelligent influence upon demand. The adaptation may be, also, least in those agricultural processes, or in other cases, where estimates upon momentary demand [1] or supply are inevitably subjected to surprise, and where, consequently, the game is confined to grasping the greatest advantage from the immediate conjuncture. This difficulty obtains in industries which suffer peculiarly from strikes. On the other hand, there is free play for close reckoning, in those cases where the caprice of outer Nature is not in evidence so overwhelmingly as it is in agriculture, but where an environment of machines, buildings, and permanent plant must be built up, so that the product may be turned out steadily, by in-door work. In these cases, however, the multiplicity of details finally surpasses human caution. In the very longest period, laws of the material and mental worlds come into play which man cannot take into account or pretend to use. Improvements, for instance, are quite likely to rearrange the order which different processes occupy, in their claim upon mentality, and thus disappoint the various projects which failed to reckon upon them.

Prevision in agriculture and in manufacture fixes the degree of capitalism and the connexity of profits with interest.

But, after rearrangement, the principle will continue to obtain, that a series can be formed out of contemporaneous processes, according to the degree of economic acumen which

[1] Cf. Marshall's excellent illustration of the fish-market.

they admit. The longer the efficient prevision, the greater the capitalism. The favorable conditions are often united in manufacture, when processes are neither too long nor too short for calculation, as is the case, sometimes, in agriculture. The material limitation by a metallic guaranty is decisive, in the matter of determining the rate of interest and the level of prices, in the shortest and also, so far at least as the latter is concerned, in the longest periods. But the changes in interest and prices that are most amenable to management, the most tractable, one might almost say, are covered by intermediate periods, and are ascribable to the mental factor.

The rent-and-profits discussion is essentially evolutionary.

The relation of man's activities to his environment, so far as they possess economic bearing, has been hitherto worked over chiefly in pursuance of the effort to define the terms "rent" and "profits." Discussion of this topic early brought into relief the principle of unconscious logic, that where a revenue depends on unmodifiable circumstances, it is called "rent." The study of credit demands a further stage of development of the same idea, which now reads, that *the real economic problem is that of the effects, circumstances, and limitations of the voluntary activity of man in his housekeeping and bread-winning.*

Financial environments are distinct from those of industry.

Marshall's series was formed in order to clear up obscurities in the concepts of rent and profits. The addition to human knowledge was as great as it is often permitted to a single student to contribute. Similar methods are peculiarly appropriate in the credit realm, on account of the dependence of interest and prices on profits. Contracts of guaranty are the condition of division of labor and are made for all businesses and industries, be they general or concrete, financial or "economic." They are entered into on the pledge of an expected revenue, which may, according to circumstances, be denominated either interest, profits, or rent. Credit is something more than a dualism, or two-by-

two parallelism of contracts with corresponding economic performances. The former are further generalized and classified, and are separately dealt in, and contracts of suretyship are in turn made about them, so that a series of markets, with their several problems of prices and interest, arises about them, as well as about material capitals and consumables. Credit-markets are indicated in the upper half of diagram IV.

Correspondence of interest in the economic pairs unlocks the essential plan of an enterprising economy.

4. This multiplication, therefore, of markets is germane to a satisfactory solution for the questions of the rate of interest and of the level of prices. The fundamental conception of the relation of mental to environmental determinants, brought into the domain of consciousness by the rent-and-profits discussion, is the key of the whole series. Correspondence persists throughout the column, if classes of economic items, capitals of every sort and their respective outputs or revenues, or promises of revenues, be arranged in order, ascending from the most to the least material (diagram IV). They fall into pairs, and, in each, the upper member is a stage nearer the psychological end of the ladder than is the lower.

The relatively material members of the several pairs conduct themselves similarly. For example, a very little supply of gold, in pair three, lowers briefly the rate of interest, as often heretofore remarked. In pair seven, a momentary supply of machines contracts their rate of returns, because their specific productivity is decreased. In the former again, the expansion of credit that follows is felt in an ensuing rise again of the rate. And so, in the latter, induced augmentation of raw materials put forth, constitutes, presumably, a rise in profits, and will be followed by a rise in the rate of interest.

The pivotal position of the goods

The market for the exchange of finished goods is situated in a middle zone, where money shades over into demand-

market is that it imparts definitiveness to values, profits, services, and incomes.

credit. Consumption-credit and consumption-goods have naturally evolved in propinquity. On the other hand, longer-time credit must seek production goods in their proper markets, as shown by the dotted lines. From bottom upwards, goods increase in mobility, in marketability, in consumability. Again, from top downwards, credit increases in circulating power, in purchasing power, in guaranteeability. *When the market is reached from opposite directions, that position, both of goods and credit is attained, which fits them for exchange.* The goods from all the mimic society are valued in this central market, at least so far as they are sold for "cash," and they have all to be brought there, or else, as happens in the case of capital-goods of the various degrees, the longer credit may come into their part-markets, in order to ascertain, through the value-estimates that ensue, whether the proper profits may be extracted from them. It is by circulating backward and forward, from their respective regions into the larger opportunities of the market, that the goods are valued, profit and interest emerge, and rent can be turned into purchasing power. The market is the kernel of the economic nut.[1]

The market establishes the relation of the functional members to the environmental members of the economic pairs.

Above all, the market establishes individual and social positions of profit or loss.

But the central market may be disorganized, in case the upper or financial environments, as a whole,

The exchanging medium has been shown to be, essentially, the anticipated utility of the goods themselves. *Goods, therefore, when they are brought into market, must realize the anticipatory utility already recorded in credit.* If, when they are introduced to the catallactic center, they do not eventuate in the enjoyable utility that has been expected of them; if, thus, there does not emerge from the lower

[1] A crude, pictorial visualization cannot be mechanically perfect. If *all* goods, both finished and incomplete, are *always* sold in the central zone, then the useful purchase of capital with long-time promises (dotted lines) fails of representation. But it is evident, that the "costs" are often brought to the central market, and bought with cash, as well as the commodities. It is hoped that the reader will indulgently suffer that this imprecision of Nature hover about the visible sketch also.

markets sufficient wealth to cancel, by private sale, the purchasing power forcordained in the upper, the sheriff intervenes with public auction. He thus forcibly seeks to make good the guaranties, promises, and financial obligations with respect to them. Creditors are disappointed by the inadequateness of their grasping-back to fist-law. If the calamity spreads, a financial crisis occurs.

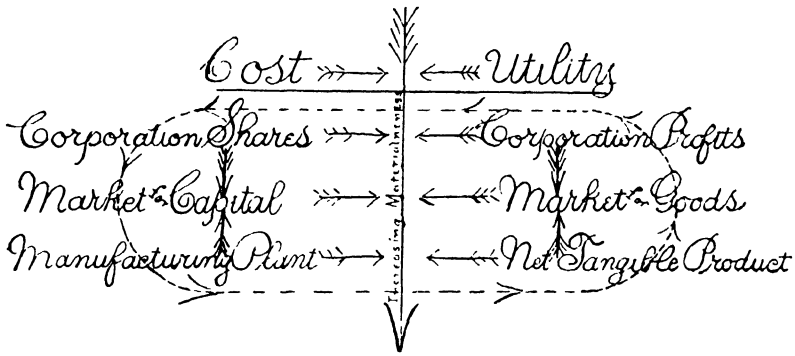
have overestimated the productivity of the lower environments as a whole.

Then a crisis occurs.

An additional diagram (V) will further assist to visualize

Diagram V

Illustrating Cost and Utility Interactions Through Material and Immaterial Capitals



the interdependence of the markets for goods and capital, and the links by which they are united. But two kinds of capitals are opposed to two kinds of incomes. The two series, capital and income, are thus reduced to their lowest denominators. Under the simplified conditions, it will be possible to state the relations which, in the abstract, prevail among these economic quantities, and hence among all others of the same important classes.

It is worth while to pause for a separate study of the interactions of plant, product, profits, and share-capital.

The four values, plant, goods, shares, profits, are in

Without the hypothesis of competition or of a market, no principles of valuation of goods or of services of capital can be reached.

continually disturbed equilibrium. They are endeavoring to reach a stable position; but are implicated in the process of economic progress known as "competition," which prevents subsidence of unstable into stable equilibrium. Monopolies appear momentarily to render it stable. But they prove, in the long run, to be only a slower and bulkier form of competition than men had been used to. Industrial depressions, at times, seem to have reduced industry to the stationary state. But competition springs up again, and, with it, revives disturbance of values, and the reactions are renewed.

The Market is of prime importance to the relations of capital and product.

It is in the Market that prices are put upon things of whatever materiality or immateriality. Economic acts all center about it. Men and materials absent themselves from it, but momentarily. They are ever returning or returned to it, for a new assessment and a new social sanction. Thus capital and product must continually be assessed. The latter, in order that profits may be distributed, and that consumption, really a negative part of profits, and the most important part of distribution, may take place. The former, that investments may be made, that men may enter, change, or retire from business, trusts be begun or ended, estates settled, or enterprises established or extended and improved.

The typical illustration assigns due importance to the independent influences flowing from capital,

To the end that the case may be typical, let it be assumed that the goods, profits, and shares derive from one factory. It is possible that many forms of capital would lie between the plant of the typical factory and the corporation shares, if the diagram were made with even the detail of diagram IV. There would be less cumbersome and more rapid mechanisms, those assisting delicate operations of skilled labor, those depending on chemical processes, and also metallic money in reserves. In the cases instanced above, when change of *capital* form is required by investment,

settlements, retiring from business, etc., these different forms will come into competition and will be valued by comparison.

Correspondingly, there would be numerous and diverse materialness of *incomes*, products intended to be capital-goods, those more fragile, destined for consumption, money incomes, and incomes consisting in time-promises or in demand-promises or in final purchasing power. These may all be exchanged against each other. Their values vary, and, paradoxical as it may seem, the variation serves to render them all continually of equal value, for it indicates, at any moment, how much of them, severally, contains a given value. But the ultimate, typical forces in play will be reducible to those exhibited in diagram V: tangible and intangible capital, tangible and intangible income. **and income.**

The rate of profits depends upon the rate of product, after plant and product have been valued. This rate, thereupon, determines the value of the shares, which serves to correct the original valuation of the plant, looked upon as so much land, buildings, machinery, materials, and specialized skill. These items are taken together in lump. If sold separately, the material part of the plant would often bring not very different price from the substitution-value that it had enjoyed before the sale of products. But the part that was exclusive or monopolized means of production is greatly affected by profits. Of the shares, it may indeed be correctly said that their value is primarily determined by that of profits, and that profits are fixed by rate of product. But it cannot be maintained that value of plant is exclusively or primarily established by value of product. Otherwise, there would be nothing but tenuous, "racial sense of futurity," as a basis for rate of profits. In order to establish that rate, there must logically be, at least, partially separate determinants for capital and **Values inaugurated by material capital react upon it.** **Costs are one of the determinants of the ascending series of values.**

product. On the contrary, the causal chain stretches rather the other way. Product is put upon the market on an estimate of what it will pay *for a given outlay* of money or exertion and waiting. It is unimportant whether economic "cost" or money "costs" be looked upon as outlay. The enterprise, as a mass of plant, talent, and opportunities, has been subjected to a provisional valuation, which is based, not only on the price at which it is expected that the product will sell, but also on the known or estimated outlay necessary to obtain the above-mentioned machines, materials, talent, opportunities, location, land, or buildings. It is true that all of these valuations depend upon consumers, as a source or store of subjective value. But what of that? Demand, to be efficient, depends upon anterior possession of a product, which, in turn, was unthinkable without work, or upon hazard or luck, — uneconomic fortuities.

Otherwise a rate of production is impossible.

The economic world is one of valuation. That is its test. The latter is all-pervasive. It unites the two necessary economic conditions of labor and consumption. They must *both* be present to constitute a real economic instance. The supposition may be made of a society where unseen hands provided the citizens with a limited quantity of consumables. The latter could be exchanged, but the motive to do so would be materially weakened by the abstraction of all production and of most of the wholesale, and perhaps retail, trade. The case would be far from typical of economic valuation. Another society may be summoned to imagination, in which men were always hard at work, but, like convicts, had no disposition over their fabrications. There, it is true, *disvalues* would exist. But, again, the case would not be a fair sample of economy, nor of a market. In real economy, value and disvalue both are present, and, interacting, are mutually determining.

Economic value is defined as a function of both production and consumption.

Since valuation pervades true economy and is typically a dual process, it is not to it that theory should appeal for systematic arrangement of economic influences, or for indications of the direction of the causal chain. But the quality of duality is significant. It is a manifestation of organic law. Evolutionary classification is positive. It states that environment succeeds environment in order of lessening materiality. According to this system, it follows that, in addition to the market equalizations, noted on the two sides of diagram V, there is a circular chain of causation, starting with plant, and passing through product and profits to shares.

Logical analysis follows a biological order of statement.

The enterprise may be admitted to have been of mental origin and to have existed in human purpose, before the plant. On that view, the sale of its prospects or shares in the market determined the initial rate of profits. That, again, fixed the expected rate of product. There is no end of reaction in the economic world. The dominant position of psychological causes, in higher environments, needs no defense. But it is good evolutionary practice to proceed from the lower to the higher causes or "costs," since men know, or think they know, more about materialistic causes, and more often are induced to *reason about the higher by analogy with the lower* than the other way about.

The motive power of progress is psychological.

5. The semicircular dotted lines to the right, in diagram IV, show that, measured from the central market, the credit of the different kinds that are enumerated in the upper part is required for the manufacture and, sometimes, for the purchase, of the respective capitals in the lower. Corresponding credit is created in the course of the making of goods. In order, however, that there may be exchange, as demanded by division of labor, that values may be ascertained, and that it may thus definitively be determined how much the value is that had been con-

The concept of a series of capitals of diminishing materiality is highly suggestive.

jecturally objectified in goods, and whether they are fulfilling the promises that were made, they are generally brought into, or else in some other way, always referred to, the central market. Hence, while there is this identification, between the credit and the goods, in the narrowing circles which embrace the column, the proof of the process is applied, standards are enforced, and profit or loss is determined, by the values emerging in the market.

The diagram also sheds light upon the vexed question, already alluded to, whether there is an essential difference between rent, on the one hand, and profits and interest, on the other. And again, between the latter two.

It broadens the rent controversy into a dynamic problem of environments.

Within the last few years, the independent economic validity of rent has been denied. Mill taught that it should be regarded as one of the three great factors in distribution. But recently the doctrine has been questioned. Later economists have felt profoundly the influence of the Austrian school, which has explained that the value of any good is its product for its future career, discounted down to the present time.

Psychological economics, by its neglect of environmental influences, is helpless to distinguish land from capital.

They have been firmly impressed with inferential identification of rent with profits. They have gone further, and have held that there is nothing peculiar in the nature of land, with which the idea of rent has heretofore been associated; that land is mobile, in the sense that title to it is easily transferred from hand to hand, and that distant estates can be rapidly reduced to possession, by transporting the proprietors to it by ingenious, modern conveyance.

The natural method of measuring the relative importance of the psychological and materialistic factors, is to isolate the

6. The asperities of the problems of credit, interest, and prices impress the necessity of realizing broadly the similarities and differences in economic phenomena. Probably, the ideal of logic can never be fully realized, and any scheme must be looked upon as tentative. The multiplicity of economic conditions of production and distribution, of property rights, and of personal motives, permits no rigid

classification. The one in any case adopted must as much betray the point of view of the observer as describe the absolute differentiations. Nevertheless, such is the constitution of the human mind, that classification, either in pursuit of an unprejudiced conclusion or in defense of a fixed opinion, is inevitable.

concrete cases in which each is manifestly preponderant.

An attempt has here been made to show that, by the ordering of economic items from the most technical to the most psychological, a basis for comparison can be laid. By the further arranging of them in pairs, a similar relation between the upper and lower members is arrived at, namely, that the lower sustain the guaranty relation to the upper. Further, each of the inferior markets, comporting dealings in a "pair," sustains a guaranty relation to each of the upper. On the other hand, certain centralizing phenomena emerge. Toward the middle of the scheme, there is an increasing mobility in the psychological and also in the material divisions of the series, which is characteristic of a highly developed market and necessary for the distribution of goods.

Thus a series of environments is discerned, which may be illustrated by the hypothesis of economic pairs.

The biological groundwork thus sketched lends itself readily to an understanding of the questions at issue, and has affected the views of economists, although not many, like Alfred Marshall, have acknowledged their indebtedness to evolution, a doctrine itself traced to an early economist, Malthus. If rent, profits, and interest are forms of revenue appropriate to different markets, the solution needs little further elaboration in order to be invested with final form. Marshall associates rent with the shortest periods, on the one hand, and with the slowest processes, on the other. The free volitional factors are, consequently, to be found in intermediate periods and processes. In those, there is a direct relation between the solicitude of enterprise and the returns of industry. Whereas, in the extreme cases, there

This topic has heretofore been widely discussed as the decisive element in the controversy as to the difference between rent and profits.

is little or none. There, the relation between costs and profits is elucidated only by comparison with the other and determinable cases. In many respects, it will appear that Professor Simon N. Patten agrees with Professor Marshall. On the other hand, Professor Frank A. Fetter thinks that the distinction between rent and interest is shadowy. He has been led to this point of view, doubtless, by the labors of Professor v. Böhm-Bawerk, who has neatly demonstrated that the value of *any* agent of production is the discounted present worth of the infinite future output attributable to it by anticipation. The same calculation may be made for land, factories, machines, ships, etc. Fetter says:[1] —

Professor Fetter holds that the distinction between rent and *interest* is solely the difference between payment in a lump sum and payment at a certain rate.

"As a necessary result of the distinction between the wealth and the capital aspects of agents, and of the thoughts as to the maintenance of the factors, rent must be expressed as an absolute amount, and interest as a percentage of a principal sum.

"This is stated mainly for formal completeness, but it emphasizes the retention of a feature of the older treatment whose significance was unsuspected. In fact, the expression of interest as a percentage marks interest as the form of income most connected with mobile and salable agents, it makes the interest a 'marginal' factor in price, a fact so much emphasized in the older treatment, it connects interest peculiarly with the element of time, as so many writers have felt it should be. Yet the percentual form of expressing interest is impossible when the income bearer is measured by physical forms, it is practically inevitable when the income bearer is expressed as a capital sum."

The point, then, is made that the only essential difference between rent and interest is, that the former is thought of

[1] "The Relations between Rent and Interest," New Orleans meeting of the American Economic Association, December 29, 1903, p. 20.

as material produce or its abstract value, while the latter is contemplated under the value expression of money, and, consequently, easily reduced to a rate. In the former case, a rate would be impossible to express, if the goods were not sold, since there is no technical ratio possible between goods produced and the machinery that produces them, except one of pounds avoirdupois. "Either mode of expressing income may be logical if consistently employed, and if divorced from the confusing prejudice that the difference is due to the different nature of the factors yielding the two incomes." [1]

Thus, Fetter, as a result of his conviction of the similarity of the incomes, is led to conclude the complete similarity of the principals. In this respect, it appears that he has been carried too far. Natural phenomena present themselves in a continuous series. This logic of Nature is as much a cause for the determination of dissimilarities as for that of similarities. He expresses a better view a little farther down: "What is left in the place of the old rent concept? All that was best in it, freed from error; rent is the usufruct attributable to any material agent." [2] Thus the materiality or immateriality of the agent is a means of deciding, at least, whether one *call* the returns rent or not.

He means that this distinction is nominal rather than that it points to a preponderance of one of the two factors, — mind or matter, subject or object.

Furthermore, Fetter, correctly enough, looks upon interest as historically a later development than rent: "The capital value of a good is the sum of its prospective rents and uses, discounted at a rate that reflects the prevailing premium on the present. Capitalization thus viewed is, logically, a later stage of the problem of value than is rent; and interest first appears in connection with capitalization." [3]

[1] "The Relations between Rent and Interest," New Orleans meeting of the American Economic Association, December 29, 1903, p. 20.

[2] *Id.*, p. 21. Cf. also T. N. Carver, The Distribution of Wealth, p. 116: "Measured on the basis of value and expressed in terms of dollars, land earns a uniform percentage of itself as truly as does capital."

[3] Fetter, *ib.*

He admits that interest has been a late historical development, but virtually denies that mind has recently been more effective upon matter than in early times.

On this point, it suffices, for the moment, to remark that generally, where there is a historical development, there is also a corresponding, contemporaneous classification. Where forms have evolved genetically, it is found, as a rule, that the remnants of the old manifestations still exist, by the side of the new. Biology teems with illustrations of this principle. The career of a fœtus is stated to be an individual reliving of the history of the development of terrestrial animal life. In the highest civilizations, to-day, exist specimens of the rudest beginnings of mankind.

It is noticeable that Fetter makes the comparison rather between rent and interest than between rent and profits. Profits is a middle term and implies a series. But Fetter prefers to reason by contrasts. His only choice lies in the alternative between "all rent" and "all interest."

7. Professor Simon N. Patten's conception of interest is, that it is an ever added and accruing value, which consumers objectify for themselves, by selection out of the more harmonious and, as it were, palatable combinations for utility that they are enabled to compound from the larger bill of fare put before them by producers, as industry gradually diversifies. On the other hand, the acceptance of interest by the latter is a return to them for the use of their capital, in the ordinary sense: "Labor with capital gets an extra return equal to the rate of interest. The payment of interest is no more of a burden than is the payment of rent to a farmer on superior land. There is in each case an extra productivity equal to the cost of the superior instrument of which use is made. Interest is thus a kind of rent." [1]

Professor Patten implicitly recognizes

Patten then proceeds to make the distinction, well known as of his school,[2] that rent is a price-made, while interest is a price-making, income. The rent of land belongs to

[1] The Theory of Prosperity, p. 109. [2] Macfarland, Distribution.

the price-made category. In a static condition of a society, there is no difference between incomes, but "funded income gets its price from the amount of the income, and its value depends upon the rate of interest." [1]

the division of economy into environments, and explicitly, the limitations set by the lower upon the upper.

The difference between the price-making and the price-made incomes and their respective principals appears only in a dynamic state of society.[2] "The distinction has been made between capital-goods, or concrete capital embodied in objects that aid production, and social capital,[3] which includes capitalized income, as well as the concrete aids to production. Land, mines, railroad stock, franchises, and other valuable rights and privileges are capital in this sense. They are all investments, and must be contrasted with capital in the sense of capital-goods, thus giving a clear perception of the difference between the price-making income due to capital-goods and the price-made income arising from differential expenses or from monopoly."

[1] *Id.*, p. 110.

[2] On comparison of nations, civilizations, or very long periods, doubtless, large incomes will be found to cause a high effectual desire of accumulation, and hence a low customary or habitual rate of interest. Cf. Fisher, The Rate of Interest, p. 299. But when incomes are rising or falling, the rate of interest moves with them, that is to say, with productivity. *Id.*, p. 304. (But it is only the change of rising and falling income, that is to say, of prosperity, that is of importance to business men.) Sudden disaster causes a high rate of interest. *Id.*, p. 312. (But this is a very different topic from the question of the effect upon interest of a high rate of productivity. A panic produces quite a different set of motives from those engendered by the prospect of gain. The former motives come into play only very exceptionally, the latter habitually. Productivity is, therefore, habitually associated with high interest in a progressive community.) "The crucial test, however, comes when an income stream of an ascending type occurs where capital is plentiful, or of a descending type, where capital is scarce. If incomes are rising, though capital be plentiful, interest will be high, as in the United States; and if incomes are falling, though capital be scarce, interest will be low." (Fisher, *id.*, p. 317.) The parentheses are the writer's.

[3] This resembles what v. Böhm-Bawerk calls *private* capital. Cf. Positive Theory of Capital, book I, ch. IV.

The rate of profits is habitually determined by those industries whose tools and produce are most marketable,

8. Patten thus includes material and immaterial things in the same category. The income from lands and mines is bound into the same fasces with rights and privileges. If the price-determined markets, those where exchanges are effected at ratios fixed elsewhere, be at the poles, then, the determining elements in the question of interest are to be found in the Middle Zone. There is, on the whole, a substantial agreement between the three eminent authors cited, that *the standardizing conditions are those where the highest adjustability is to be found.* This is naturally so, for the mobile factors are readily brought to market. Their value is constantly exposed to the test of competition and rapidly reacts, in turn, towards an estimate of that of capital.

while land has *always been* distinguishable as, *par excellence*, the guaranty material.

Land is the capital most secluded from the central market. It is most slowly availed of in liquidation. To a less extent, the same thing is true of its products, although modern conditions have made the marketing of produce continuous, during the whole year. Nevertheless, the seasonal period of agricultural produce has not been accelerated by modern improvements, in the sense that it is become relatively shorter than formerly. It is an interesting matter of observation that, during periods of prosperity, investment turns, in the first place, toward the mobile factors of production, but toward land, last. Notoriously, in times of speculation, the culminating phase is devoted to the land boom. After men have been disappointed in other lines of investment, and when other openings appear to be blocked, they naturally turn to land, as the highest guaranty of the preservation of values. They say, "Anyhow, the value of land cannot disappear. I may not realize a profit at once, but my money is safe there in the land, which cannot be destroyed."

Speculation in land comes last.

9. To look at the matter from the standpoint of only a

moderately long period, this recurrent predilection of speculators is mistaken. The Orthodox School of economists correctly laid stress upon the principle that a value is a value, no matter what its origin; and that values are equally produced by the artist and the miner. This doctrine constitutes the essence of their advance over their predecessors, the Physiocrats. It is certainly true that, in the case of market values, as ordinarily understood, land is no more coöperative in directly creating them than is human activity applied to a minimum of materials.

The conception of a guaranty is essentially dynamic.

Nevertheless, to the Physiocrats must be accorded a fundamental validity, in the stress they laid upon *land as the only real creator of values.* On a dynamic view of the case, in the very long run, men come back to the land, as the highest guaranty of productivity and of the satisfaction of human wants. The only criticism upon the Physiocrats is that, since, in the newness of economic science, the distinction between the guaranty element, on the one hand, and that which affords a market and valuations, on the other, could not be drawn, they fell into the erroneous conclusion that land was the sole source of exchange value. Indeed, their school smacked of the nascent materialism. The fact that speculators are tardy in transferring their investments from manufactures to the land, shows that the value of the latter responds to the stimulus of a wave of confidence much more slowly than that of machines.

Such was the Physiocratic view of land.

10. There are substantial distinctions between the ascending environments into which economy is partitioned, due to differentiation in the mobility and marketability of both the tools and the product. For this reason, from the dawnings of economic analysis, a distinctive nomenclature was required. Returns at the bottom were called *rents,* those along the middle heights *profits,* and those along the upper regions, *interest.* It is true that these

The unconscious logic of language has embodied the principle of ascending ingérence of the psychological factor, in the words, "rent,"

"profits," and "interest."

several revenues are not rigorously distinguishable, for some of them contain foreign elements or share their qualities with others. Profits are sometimes defined as embracing items of insurance and wages, while rent is commonly applied, in popular parlance, as covering an element of profits. This association of the surpluses arising in different markets, with foreign constituents, brings about a distraction from the legitimate differentiation of the tools of production. For instance, the value of land, and hence rent, are affected by the desire to own the former for its own sake, which has little or nothing to do with comparison of values made with other tools of production, but limits the price only by the means and taste of the fortuitous purchaser.

In the presentation of a point of view, it is sometimes necessary to introduce a formality which, in the nature of things, the topic does not possess to the premised degree. It must be confessed that the logical severity exists in the mind of the thinker rather than in the object. While land adjusts its value slowly to incomes from general industry, it is, nevertheless, the fundamental source of wealth. In the last appeal, returns to farming and extractive industries are more indispensable to prosperity than are others. Rent is, after all, the most important sort of profit. But much of the produce of land does not have that relation to the market for intermediate goods and tools, which renders it price-making.

It is true that many trading nations, like Tyre, Venice, and Holland, have won economic hegemony without direct advantage from the soil. They have only needed sufficient space upon which to erect their banks, storehouses, and quays. But the wealth in which they trafficked, and a large part of which they appropriated, upon final distribution, was traceable ultimately to fertile foreign soil. In the long run, all incomes, whether price-making or

price-made, tend to adjust themselves to a single ratio, by a reference of products to a central market and by value-equalization of principals and incomes, through the operation of the law of capital compensation.

The series of environments is essential to the welfare of men, who are separated by unmodifiable differences in aptitudes.

11. Division of labor rests upon the biological principle of environments. Men are constituted with unlike tastes, leading them into works of greater or less materiality. Their activities are small, outside of the peculiar level in which they have found their places, although, as members of the common society, they have more or less knowledge, in a general way, of what is going on throughout the commonwealth. A universal economic trust could hardly be injurious, if it took account of all human talents and of all known opportunities. If it neglected important factors, it could not continue its existence, unless by help of the tyranny of a political autocracy. Even though the control of the highest and most generalized powers of finance should fall into the hands of a single capitalist, his influence would soon melt away, if workers of various grades and for various markets should decline to enter into the promises which habitually, freely bind them into a productive total.[1]

The broad result of the discussion is to bring into relief the fundamental influences in industry,

12. In the lower part-markets, the term "productive" needs no explanation. The self-evident things are materialistic. Rents and profits furnish the ultimate test of interest, through application of marginal doses of capital and through realization of marginal products in the central market. Again, in the higher part-markets the multiplication of promises is quasi-productive. It is the only productiveness that can take place which as not material, namely, the manufacture of the promises of future industry. In the long run, it is an activity which regulates investment of whatever materiality or temporality. Credit and

[1] Cf. "Monopoly in Law and Political Economy," Report of Nebraska State Bar Association, meeting of November 23, 1906.

promises set industry in motion and watch over its progress.

In the determining of the rate of interest, there exist two sets of adjustments, one following the supplies of money or goods, as they may come in momentarily, from time to time; the second due to the operation of the law of capital-compensation which brings the rate of profits and the value-amount of product or rent, on the one hand, into agreement with the rate of interest and the expansion of nominal capital, on the other.

the ascertaining and certifying position of the central market,

The central market fixes, primarily, the value of consumption commodities. This standardization, combined with technical productivity of processes, settles finally the amount of profits. But the rate is not ascertained without taking account of costs. It is in this market that the laws of consumption, so thoroughly investigated in modern economics, contribute to certify to the efficacy and success of the technical, material process of manufacture. The price-making and price-made elements, whether distinguished by marginal position or by sacrifices and waiting, are found in all markets.

Dynamically regarded, the rate of profits controls the rate of interest, but, in the long run, rent, looked upon marginally as land-profit, is materially influential upon profits.

and the determining power of credit, in conjunction with the operation of the principle of capital-compensation.

However, on top of this control are minor or temporary effects, due to supplies of gold and to the "state of credit." They act and react upon each other, causing the rate of interest and nominal capital to fluctuate, with united temporary effects upon the rate of nominal profits in all industrial processes, and even upon rents. These last and essentially psychological effects can only be kept within bounds by a financial stringency or a crisis. Profits do not yield what was promised nor even what they momentarily appeared

to be. The redemption of nominal capital in the money guaranty cannot make them adequate. Material conditions, acting through the lower part-markets and the central market, set boundaries to expansion and guide industry back into usual channels.

PART IV

THE LESSON OF HISTORY (CHAPTERS VIII–XI)

CHAPTER VIII

FINANCIAL STATISTICS AND CRISES

1. It is not enough to believe on principle that prices cannot rise in the absence of a wave of enthusiasm for investment; the principle must and can be confirmed by financial statistics. After a crisis, bank deposits augment before note circulation; and demand debts of banks, as a whole, before loans. Restoration of confidence is thus shown by translation of metal and of bank notes into deposits. — 2. Bank loans rise before commodity prices, thus proving that the origin of purchasing power is financial promises. — 3. The stock-market also advances before the rise of loans (and, of course, of prices); in fact, prices are apt to keep on falling since loans are used exclusively in the stock-market for a while. — 4. On the other hand, when prices of goods are falling, total loans keep up awhile, because a large part of them are momentarily incurred for the purpose of stock speculation on a falling stock-market. This support of loans, however, does not prove that fall of commodity prices is not due to lessened commodity loans. — 5. Financial promises ascertain the rights and claims of industrial persons, and are then transmuted into a generalized form of "currency" which expresses the resultant of socio-economic expectations. A crisis occurs, not precisely because profits fall, but because they do not equal expectations. — 6. The price-level is an organic phenomenon. Popular views blame a fall upon speculators, and look on a rise as a godsend. Evil effects of fiat money are numerous. — 7. So far as fall of prices affects general profits, that result is a reaction from more fundamental causes, among others, difficulty in building up a market adequate to the utilization of a preconceived economy. — 8. Price fluctuation is caused by excessive movements of business promises up and down with business. — 9. Analysis of financial statistics of the western world, 1879–1885, shows the influence of credit upon prices, at a period when gold was appreciating.

1. (It has already sufficiently appeared in these pages that rise of prices is frequently, perhaps usually, to be ascribed to expansion of credit. The influence of the quasi or ambiguous credit, called "money," is decisive, chiefly, in the limiting of fluctuations due to credit properly so called. The effect of pure credit is, therefore, the more frequently experienced. (Fundamentally, increase in credit is founded upon more buoyant expectation of future production) frequently supporting and confirming the influence which importations of gold momentarily exert upon the level of prices. In that intermediate period which covers the era of prosperity, there can be no prolonged importations of gold, unless enterprise favors its introduction for use in the reserves, and consequently, the condition precedent of general courageousness, of good credit, and of growing nominal capital, — for they are but varieties of the same thing, — is uniquely the widespread faith of the community in the industrial future. Various circumstances may favor that faith, such as the opening up of supplies of gold, or inventions and improvements in the arts of production. But, at the bottom, the controlling influence, in a period of intermediate length, so far as the rise of prices is concerned, is the state of the public mind. For that matter, it controls in a period of depression, as well as in one of expansion. Since purchase is by credit, and since each item of credit, used in this way, is but a part of the generalized promises of future production, it follows that an increase in those promises must constitute an augmentation of the nominal units offered in exchange for goods.

Notwithstanding the claim of some writers that credit, as an economic topic, has nothing to do with confidence, practically, it is quite dependent upon a buoyant, speculative mood of business men.

The facts in the case claim attention. It is certainly worth while carefully to investigate, whether the influence upon prices attributed to speculation and investment has actually operated in the way theory would indicate. The researches of Dr. M. T. England seem to bear out the theory,

in its general aspects. In Dr. England's "Statistical Inquiry into the Influence of Credit upon the Level of Prices," [1] it appears that after a period of crisis and depression, it is the universal rule in England, France, and the United States, that bank deposits begin to increase before note circulation. This indicates that hoarding has ceased and that money, presumably metallic, is being returned to the banks. Further, the *total* demand credit of the banks, that is to say, the sum of their circulation and deposits taken together, begins to increase before there is any expansion in loans. Does this fact contradict the principle that circulation originates in loans? For loans are one of the various expressions of economic expectations. Loans and demand deposits (the latter constituting purchasing power) ought to expand together. The explanation is the same as above: the bank credit is brought into greater use by a retirement of material bankable funds, *e.g.*, money, in exchange for it, which increase the resources of the banks, independently of new loans. The business community is rising back into the higher or credit environment. It is well known that the relative amount of money paid across the counters of banks increases, during times of crisis, and decreases during good times. There is no swelling of the circulating medium, in the broader sense of the term; but paper tokens are substituted for metallic.

Return of confidence after a crisis is shown, first, by a return of money deposits to the banks and by a reëxchanging of money for deposits and bank notes.

2. The principle of credit-control, however, is conclusively confirmed by a comparison of the time of the rise in bank loans to that of commodity prices. For the United States, England, and France, it is found, by making averages over all the accessible data for crises from 1893 back to 1847, that, in every instance but one, loans began to increase at the same time, or earlier than, prices. The one exception is in the case of France, for the crisis of 1847. Is it, then, a mere

On the recovery, bank loans almost always rise before prices of commodities;

[1] University of Nebraska Studies, vol. VII, no. 1, p. 6.

post hoc ergo propter hoc argument to claim that commodity prices begin to rise because the banks increase their loans?

"Through the extension of loans the purchasing power of the public has been increased; this purchasing power is used to secure commodities, and the enlarged demand for goods causes their prices to rise. *Inflation of prices, then, begins with the increase in the loans of the bank.*"[1]

"The increase of loans, after a crisis, occurs earliest in the United States, beginning at the expiration of one year and five months; in England, at the end of two years and ten months; in France, not until three years and six months have elapsed. The order is what one would have anticipated; the United States, the most enterprising as well as the must speculative, France the most conservative in action, while England keeps the intermediate place."

and the prices of stocks rise before loans increase or commodities go higher in price.

3. Dr. England further finds that loans "do not usually show an actual increase in amount until after *stock-exchange quotations* have risen. In fact, at the time the rise in stocks occurs, loans are contracting. *However, the absolute amount of loan-credit offered for securities at the stock exchange is greater than before, and the loan credit offered for commodities is less in amount, since the total amount of credit in use is the same or less.* Therefore as stock-exchange prices rise, commodity prices fall still lower."

In fact, prices of goods and amount of loans keep on falling, after stocks begin to rise, for the speculation is not in commodities, at first, but in stocks.

There is, then, a period between the rise in the price of securities and that of merchandise, in which the latter together with loans may continue to fall, because less loans are still being made for the purpose of ordinary purchases. After a while, however, the fulfilling of the enterprises which have been launched upon the stock market can no longer be delayed, and, in the pursuance of that object, the financial form of those undertakings, that is to say, the stocks that have already been floated upon the market, will inevitably

[1] *Id.*, p. 8.

be offered as collateral, in order to buy the materials and plant requisite to equip the materialistic or productive end of the enterprise in which they originated, or of some other. The effect is the same in either case. Thus the nominal purchasing power is inevitably raised, as the statistics prove.[1]

On the average, it is not raw materials that first rise in price, but finished commodities.[2] This, however, does not conclusively prove that the expenditure is not for materials. Doubtless a large part of what the manufacturer purchases in order to set his plant going, would be classed by the United States census as finished goods. Fixed capital of all sorts, machines especially, would probably be so catalogued. Later on, the demand for raw materials becomes larger, when the different investors vie with each other for possession of the intermediate products; and especially are the mines stimulated to increase their supplies of ore and of fuel.

On the *fall* of commodity prices, however, the total loans of the banks fall *after* commodity prices.

4. The fall of prices, perhaps, calls for a more intricate interpretation of statistics than their rise. Nevertheless, when carefully considered, Dr. England finds that the theory of credit-control is amply substantiated in this case also. It was ascertained in § 2, that, with hardly an exception, loans increase before commodity prices. Theory would call for a decrease in the former, also, before the corresponding decrease in the latter, since bank loans constitute the specific purchasing power. Shrinkage in bank credit, apparently, must precede that of prices.

However, the fact that bank loans are made for another purpose besides the purchase of commodities, comes in,

[1] An excellent article, in substantiation of this principle, is to be found in the New York Evening Post, Financial Section, p. 1, Jan. 2, 1909: "Stocks and Prosperity."

That commodity prices fall because securities fall, is recognized by Camillo Supino, Le Crisi Economiche, p. 57.

[2] Cf. England, University of Nebraska Studies, p. 28, cited *supra*.

again, as a deflecting factor. In the case of rising prices, it was found that speculation in stocks might for a while cause a rise in loans, without increasing the power for purchasing commodities. In falling prices, the interference of stock speculation in the returns for bank loans is much more vigorous than in rising, for the reason that speculation in a falling market is more active than in a rising, except in extraordinary cases of boom. In the long run, the bears put up a more lively contest than the bulls. The consequence is, that while commodity loans are being restricted, and, therefore, prices are falling, it is possible that the total loans may even increase, on account of unusual animation in stocks. For this reason, the *total* figures seem to contradict the causal order which theory demands: first, fall of loans, then of prices. But, as already explained, the contradiction is only apparent, and flows from the erroneous hypothesis that all loans are made for the purpose of purchasing commodities. Evidently, however, in times of heavy commitments, on a falling market, the loan business is chiefly on stock transactions.

Thus, it appears, incorrectly, as though loans were influenced by prices, rather than the other way about.

There have, nevertheless, been a number of instances in which total (including stock) loans did fall before commodity prices. The crises of 1873 and 1900 in England, and those of 1883 and 1891 in Germany, show the logical order of a contraction of loans before a fall in commodity prices.[1] The demand for commodities *must* fall in order to lower prices.

That the aberration noticed by Dr. England in the other crises has been due to the interference and deflecting influence of stock speculation, may be inferred from a consideration of figures as to the increasing sale of shares on a falling market, in the New York City Exchange, and also from the comparative periods at which clearings on the 4th

The explanation is that loans continue to be made for purchase of stocks, long after

[1] *Id.*, p. 17.

they have ceased for purchase of goods,

of the month and clearings on stock-exchange settlement days have declined in the London Bankers' Clearing House. The New York figures show a rise in total shares sold, at the same time that there is a tendency to fall in their price. Since commodity prices are also diminishing, the apparent anomaly is presented of a rise of loans together with a fall of commodity, as well as stock, prices. On figures taken for 1888–1891, and again for 1903–1904, the London statistics are more decisive. On an average of four crises, 1873, 1883, 1890, 1900, the clearings on the 4th day of the month, the commercial, began to decline six months *before* the crisis, while the clearings on stock exchange settlement days did not shrink until three months *after* the crisis. Clearings on the 4th of the month are for merchantable bills. The plain facts are that the decline in speculation does not take place, on that market, at least, until nine months after the beginning of the decadence in the exchanges of industry.[1] The inevitable conclusion is, in general terms, that speculation, and hence speculative loans, are sustained for a considerable period after industrial loans, the produce of which is applied to purchase of goods, have begun to dwindle. Hence, it might well happen that commodity prices, although forced down by a previous decline of loans to industry, might appear to fall "before the loans," because total loans have been reënforced by speculation. Separate records of industrial loans would surely show that they decrease before commodity prices fall.

and hence it remains a fact that the fall of prices of goods, as well as their rise, is an effect of fluctuation of loans for purchase of goods.

The conclusion is unavoidable that the theory that loans exert a decisive influence upon the contraction of prices, as well as upon their rise, is strictly in accordance with the facts.

5. It is not so much disappearance of profits which causes declension in the price of the securities offered as

[1] *Id.*, pp. 20, 21.

collateral for loans, as it is the failure to realize expected profits.[1] They do not materialize. Actual fall of profits might produce the same result, if preceded by a deceptive rise. It is doubtless true that there is diminution in profits during that of prices, just as there is gain in the opposite case. Such a fluctuation of profits would in itself tend to cause a corresponding fluctuation in the values of securities, in loan discounts, and in consequent purchasing power.

In the accounting for the fall in the prices of securities, there should be observed discrimination between a fall of profits and a failure of profits to materialize.

But the loans are made and the purchasing power is brought into immediate operation, in *anticipation* of profits. The business community does not wait for some profits before it proceeds to discount them. That is the way of enterprise. It must be so, since the persons engaged in economic undertakings must naturally arrange between themselves their respective rights in view of the future. The whole process of promising, therefore, may be looked upon as elaborate social machinery for ascertaining, beforehand, the details of economic rights, privileges, and responsibilities connected with the expected values. Inflation consists in the fact that those expectations are transformed into an extremely generalized form, — they "circulate," and that they are, moreover, excessive. Naturally, the fall in prices is due to inability to meet the engagements that have previously been entered into. The promised distribution cannot take place, because there is a deficiency in the values that had been planned.

Inflation occurs when expectation of high profits is transmuted into the extremely generalized forms known as "circulation" and deposits.

The question then arises as to who shall bear the loss. In such a state of affairs, it is evident that the claims held by the various industrial persons upon one another must

[1] Fortunately, it becomes possible, on revision of proofs, to add a reference to a judicious article on the causes of crises, by Dr. England: "Economic Crises," The Journal of Political Economy, Vol. XXI, No. 4, April, 1913. To this should be joined another, dealing with certain phases of the causal rôle of interest, by the same author: "Fisher's Theory of Crises," Quarterly Journal of Economics, Nov., 1912.

sink very greatly in importance. Legal shadows cast upon the respective rights of the parties affected by the scaling down of the assets, and doubt about the persons on whom the loss shall chiefly fall, may decrease the marketability of the claims, to such an extent that their total will be even less than the objective values physically at the disposal of the industrial world, and prices will fall correspondingly. It is not even strictly correct to say, the fall of prices is due to disappointment. It is more precisely due to inability to keep engagements. Disappointment is a manifestation of its personal effects.

To attempt to revive business by acting directly on prices is a turning of the attention toward symptoms rather than toward organic restoration.

6. It is a popular fallacy that crises would be prevented if only prices could be maintained, which is deeply embedded in the recommendation that government paper issues be made to that end. The public has noticed the habitual upward trend of prices with prosperity, and has been prone to conclude that the remedy consists in supporting them. The question certainly is not unnatural: why should there ever need to be a crisis if prices did not fall? The assumption is that the distress is caused by the fall. It has, indeed, been said by an eminent writer,[1] that the crisis *is* the end of the rise in prices. But that expression is simply meant to voice the thought that the culmination of prices is the proof that there is a crisis and indicates approximately its incidence. But study of remedies demands probing of causes. The whole trend of the argument, so far, is to show that the latter are deeply embedded in the disposition of industrially, and especially of financially, organized persons, and that the movement of prices is merely a symptom or gauge that informs about what the moneyed organization is doing.

Fiat money is the result of an at-

To affect prices without operating upon the collectivity itself, so as to influence its organic action, is as little efficient

[1] Clément Juglar, Des Crises Commerciales, pp. 14, 33.

as to raise steam in a boiler by turning around the dial of the gauge. It might, perhaps, be admitted that crises could be prevented by the keeping up of prices, if they could only be sustained in a scientific way. But the usual recourse is to move the indicators, specifically, to make government issues of paper money, or to found some institution which is given practical immunity for inflation of the circulation. Arbitrary loans of this sort — not founded upon real production and not originating in the economic organism, not consisting essentially of guaranties or other derivative substitutes for documents drawn by industrial persons, as promises to one another — will tend to become distributed more or less widely throughout the community, will pass from the hands of the debtors into those of the creditors, but, on the most favorable statement of the case, will not in any way tend to counteract the disappointment following the fall of profits or of the expectation of profits. So far as concerns production, it will be found that the expenses of the factory will be increased as fast as the price of the product. The ratio between expenses and profits are not likely to be favorably altered by a rise in prices taking place in that way, and therefore, nothing will have been effected toward the counteracting of the failure of expected profits to materialize. That worst of all forms of gambling, betting on the future value of the circulating medium itself, will surely engross the attention of the speculative community, at the expense of legitimate enterprise.

tempt to treat symptoms instead of causes,

Moreover, the payments made by debtors to creditors, just alluded to, being in a depreciating paper, will cause the profits of all persons in the creditor relation, to be less than they otherwise would have been. The effect, therefore, of a rise in prices brought about in this way will be, in so far as it has a bearing upon the relation of debtor and creditor, to increase the loss which already constituted the chief ele-

and aggravates the losses of certain classes.

ment of a crisis. Such an artificial inflation, therefore, augments the disaster. If, then, it is true that a crisis is caused by an absence of supposed profits, it is plain that a further increase of promises, no matter by whom made, can promote no favorable outcome through this cause, but may greatly aggravate the weight with which disappointment bears upon the creditor class. Indeed, the use of government paper, under such circumstances, is only too often intended to have that effect, for it is planned to help debtors to scale down their liabilities generally, under the specious pretext that the obligations were unjustly incurred, or unrighteously swollen. The further contention, that action of this sort can in any way ameliorate *organic* crisis conditions, is a fallacy. Unfortunately, on such occasions, the public is seldom more far-sighted than its leaders, and does not closely question them about the ultimate consequences of a policy of government-born inflation.

The temptation is strong to argue that fall of profits is due to fall of commodity prices caused by overproduction,

7. Undoubtedly, if attention be confined to spontaneous business, *fall in organic prices* does tend to heighten crises, since it accentuates the shrinkage in the expected profits, which, however, does or would take place anyhow. The working of prices here is one of reaction; they do not operate as a cause in any other sense. Superficially, it would appear that a period of prosperity is accompanied by an overproduction of goods, the price of which, therefore, diminishes sharply, and that this contraction brings about loss and the inevitable crisis. But not only statistics but good reasoning show, that this chain of events, so far as it possesses any claim to attention, is operated by secondary phenomena, and does not reach to the main cause. The disappointment does not, ordinarily, come from a falling off in an already established demand, and from a price that is already customary. It follows upon a futile attempt to stimulate demand where there was none previously, and is

ascertained by a divergence from prices arbitrarily or tentatively fixed. A new enterprise is one that lacks a market. Even where there is a customary price and the proposition is to gain additional profit by producing at a lower cost, it is found that there has been miscalculation or misrepresentation as to economies expected from a larger scale of manufacture, from monopolizing a patented improvement, from superior organization, or from reduced expense of marketing or advertising, such as dispensing with traveling salesmen. It is not to be denied, however, that fall of prices, as a direct result of mal-assorted production, and again, fall as an indirect result of balances on the wrong side of the ledger and consequent contraction of loans, are closely connected. They react upon each other cumulatively.

but it is often due to failure to find a market. The economies sold to investors are not economical in the available market. The distinction between overproduction, in the ordinary sense, and the failure to conjure a market, hitherto non-existent, is important for the theory of crises and prices.

However, every case of promotion involves the expectation of finding a *larger market*, whether the product be a new one or not. It is a fact of technical science, often touched upon by economists,[1] that it does not pay to introduce improvements, unless, at the same time, a larger market can be discovered or exorcised. Ordinarily, it is a tactical error to introduce machinery in the place of hand labor, unless a larger product can be sold, and the manufacturer or promoter who insists upon improvements, takes upon himself the risk of stimulating demand. If this is the ordinary course of enterprise, it is perfectly plain that the cause of the disappointment is not the fall in prices, but inability to stimulate demand — a very different thing. Back of the inability lies the attempt; which may be analyzed through all the paraphernalia of promotion, underwriting, stock-market sales, and concentration of provincial deposits into the money centers, which have already been explained in their larger aspects.

Failure to sell constitutes but one of the many items that determine financial loss; and even failure to sell may not be accompanied or preceded by any fall of prices.

8. The rise of prices, then, is due to high expectations

[1] Mill, *op. cit.*, bk. I, ch. VIII, §§ 5, 6; ch. IX, §§ 1, 2, 3.

The fluctuation of commodity prices is, therefore, wholly due to credit and promotion, and has nothing *directly* to do with past business profits, or rent in kind or in money.

of profits. Their fall is due to the undeceiving of investors. The combined upward and downward movement is, theoretically, as independent of past profits as it is of the accidents of value of particular wares. If actual profits had emerged, or so far as they did emerge, their mere disappearance, in the absence of the usual multiplying discouragement, would not probably be adequate to sink prices below an average based upon the metallic standard, for there would be no contraction of credit competent to raise the value of the circulating medium above that complicated line which may be called, roughly, its cost of production. Indeed, there is an increase in real profits during most periods of optimism. It is that which causes the financial newspapers to dwell upon "the solidity of the prosperity the country is now enjoying." They always affirm that *this* boom is not as others were, but that this time the community is in possession of economic advantages that admit of no detraction. Nevertheless, it would almost appear that the larger profits turn out to be, the higher expectations are raised above them, and the lower prices are sunk by the ensuing revulsion. Money attains to a value far in excess of its cost of production. Success had kindled unbounded hope and enthusiasm. The rise of prices occurs just the same, whether real profits emerge or not, when men think that they are winning. The hypothesis of making money induces the hypothecation of stock.

However, a showing of profits sometimes kindles unbounded promotion and speculation.

The influence of promotion upon commodity prices, in face of scarcity of gold supplies for bank reserves, is illustrated

9. In order to illustrate the influence of credit upon the general level of prices, that period of prosperity and expansion in recent history has been selected which has been accompanied by the smallest price-fluctuation, and which was built in the hollow of what is now universally acknowledged to have been a considerable appreciation in the standard of value. The period alluded to extended from 1879 to 1885.

When prosperity first appeared, in the last part of the year 1879 and the beginning of 1880, it was predicted even by statisticians that now, at last, the world would see prosperity without inflation.[1] Indeed, prices did not go up so much as was to be expected, if one only took into account the speculation that was rife, for the appreciation of gold was exerting a counteracting influence. Would it have been more salutary either for gold to have depreciated or for the governments of the world to have entered upon a new era of paper-money inflation? The various national powers were bravely engaged in the effort to put that part of the circulating medium for which they were responsible upon a sound basis. France had just returned to specie payments and stopped coinage of silver. The United States had brought its paper money to par and was entering upon a period of vigorous contraction of bank circulation, through retirement of bonds. The gold standard was spreading rapidly around the world, and governments which had endured financial straits, such as Austria and Italy, were looking forward to the time when they could resume specie payments. Official policies, thus, were not calculated to stimulate inflation. Nevertheless, there was a rise in prices. According to Soetbeer,[2] the index numbers for Hamburg prices fluctuated as follows:—

by the period, 1879–1885.

The movement for the gold standard was unfavorable to higher prices.

[1] "It is therefore a fact that the increasing production and enterprise in 1881 and 1882 *do not rest upon exorbitant prices*, as in the periods of over-speculation, 1872 and 1873, but rather upon *so moderate a price-level* that the salability of goods does not suffer in spite of their enormous production, since it is helped out by corresponding rise in the purchasing power of consumers." V. Neumann-Spallart, Weltwirtschaft, IV, p. 39. The italics are the writer's.

[2] Report made by Edward Atkinson to the President of the United States upon the Present Status of Bimetallism in Europe, October, 1887, p. 255. For Aldrich prices, *vide* J. L. Laughlin, The Principles of Money, p. 217. The fluctuation of English prices ascertained by Sauerbeck showed about the same spread as the Hamburg tables.

Year	Hamburg Prices	Aldrich Prices
	Index Number	Index Number
1879	117.10	95.0
1880	121.89	104.9
1881	121.07	108.4
1882	122.14	109.1
1883	122.24	106.6
1884	114 25	102.6
1885	108.72	93.3

Under the circumstances, the cause of the moderate rise calls for explanation. The rise in Hamburg was less than elsewhere, since Germany experienced little boom. American

Year	Nominal Capital	Effective Capital
	Millions of Pounds	Millions of Pounds
1870	92	80
1871	—	—
1872	151	113
1873	154	101
1874	114	113
1875	62	60
1876	43	42
1877	51	38
1878	59	50
1879	56	47
1880	122	77
1881	189	115
1882	145	94
1883	81	76
1884	109	90
1885	77	77

prices, as shown by the Aldrich report, fluctuated three times as much as Hamburg. English foreign securities lost, in July, 1873, 49,000,000 pounds. In October, 1875, they ex-

perienced a further loss of 157,000,000.[1] In the year 1878, the securities of seven English and seven Scotch banks fell off 10,800,000 pounds. In 1880, the increase of all securities held by Englishmen was estimated at 600,000,000 pounds The rise continued during 1881, but was arrested by the French crisis at the beginning of 1882. The ensuing reaction continued during 1884. The amount of additional securities placed upon the market in England was enormous, as can be seen from the following table:[2]—

There was a brief boom in stocks, 1881,

The new issues in England exceeded those of the former expansion, the wild speculation culminating in the crisis of 1873 in Austria, the United States, and Germany, and the crisis material was even greater in the later period, since the divergence between "nominal" and "effective" capital was greater. The thesis presented, then, is that this increase in the amount of emissions was bound to carry prices above where they would have been, if depending solely upon the standard of value. It is proved by the fact that they did rise all over the Western world, at a period when, according to the investigation of Fisher,[3] gold was appreciating at the rate of perhaps two thirds of a per cent per annum.

which, however, was very intense,

There was a considerable rise in prices in England and the United States, in 1880, but it was short-lived, in England hardly lasting beyond the end of 1881. In the United States it lasted a year longer. In March, 1882, it will be recalled, Mr. Jay Gould exhibited to a committee $53,000,000 of securities locked up in his safe.[4] If he had held the stock until May, 1884, it would have been worth but $30,000,000.[5]

and resulted in a perceptible rise in prices, which did not go further, because the boom in stocks suddenly subsided, and

[1] Van Oss, Stock Exchange Securities, p. xvi.

[2] V. Neumann-Spallart, Weltwirtschaft, 1885–1889, vol. VI, p. lxxiii.

[3] Appreciation and Interest, p. 73.

[4] New York Evening Post, April 14, 1906.

[5] "The Freebooters in American Finance," Blackwood's Magazine, vol. cxxxvi, pp. 114–124.

with it, presumably, purchases of goods.

From the death of President Garfield, September, 1881, until the May panic, 1884, thirty-two of the principal railway stocks of the United States shrank almost one half in value, or from $1,236,000,000 to $647,000,000. In England from March 1, 1883, to March 1, 1884, thirty-one principal securities fell 161,000,000 pounds.

"In the United States, during 1879–1880, the fall of securities since 1873 was quite recovered, and the rise continued through 1881, but by the middle of 1882, a new fall set in, inaugurating deep depression again. In 1883, stocks and bonds fell far below 1873, the losses were enormous; and by May, 1884, a regular panic occurred and all business was suspended, constituting 1884 one of the worst years." [1] Relaxation of enterprise was already noted in the United States, in 1882. In England, in that year, gas shares were much depressed, owing to the introduction of electric lighting. The collapse of the shipping boom, in that country, took place the next year.

Prices fell rather because the speculative boom was arrested than because of the appreciation of gold.

These fluctuations of capital-values amply account, first, for a rise in prices, in the face of what is agreed to have been a material appreciation of gold, and, in the second place, for the fact that it was short-lived. The boom was fleeting. It is possible that the halting advance of commodities contributed to arrest it, and that, therefore, the appreciation of gold had a salutary effect. There was general complaint, however, of lack of sustained enterprise, and of unwillingness of the public to go into large undertakings. In the year 1880, M. de Lesseps endeavored to launch the Panama Canal project, but utterly failed. The purpose has been attained of showing that the boom did take place and had a decided effect upon commodity prices, in the face of strongly opposing forces.

The appreciation of gold undoubtedly was inimical to

[1] V. Neumann-Spallart, *op. cit.*, vol. V, p. 61; vol. VI, p. lxxx.

the advance, and made impossible the rise that otherwise would have occurred. That there were plenty of stocks and enthusiasm among operators, is shown by the colossal record of clearings that took place both in London and in New York. The question presents itself: why, upon the *credit theory*, did not prices rise higher? General commodity prices rose in response to loans for commodity purchases, but it seems as though some obstacle intervened between the high clearings and bank loans for legitimate commercial purposes. That was partly, perhaps, a failure of the general public to sustain the stock-market enthusiasm. It is a psy-

Enormous clearings, at this period, failed to evoke correspondingly high prices. The price-making process was interrupted.

Year	Clearings [1]	
	London	New York
	Millions of Pounds	Millions of Dollars
1879	4,885	25,178
1880	5,794	37,182
1881	6,357	48,565
1882	6,221	46,552
1883	5,929	40,293
1884	5,798	34,092
1885	5,511	25,250

[1] V. Neumann-Spallart, *op. cit.*, vol. V, p. 456.

chological postulate of economic life, that the will to speculate is periodically weakened by fatigue and numbed by disappointment. But the diminishing supplies of gold must finally have made their influence felt.

The clearings of this period were so exceptional that they deserve to be recorded for the purpose of showing that there was a force in presence more potent to influence prices than gold.

The movement of loans corresponds roughly with the London, but is much weaker than that of the New York clearings, as shown by the following statement of the total

portfolios of seven of the principal banks of the world, including the United States National Banks: —

Year	Loans [1]
	Millions of Marks
1879	6,049
1880	6,875
1881	7,834
1882	7,897
1883	8,122
1884	7,883
1885	7,924

[1] V. Neumann-Spallart, *op. cit.*, vol. V, p. 456.

Some practical conclusions may be provisionally inferred from the single instance of crisis.

The conclusion is that the forerunner of change in price of commodities is promotion rather than mere speculation; that the promotion, in turn, does not sustain prices unless it is itself sustained; that the maturing of loans tends to lower them, and that they can only be reexpanded, or sustained at the high level, by new enterprises stimulating new loans; that large variations in amount of clearings are often an index rather of speculation than of business commitments; and that speculation does not directly affect the prices of goods. It has, however, been observed that a fall in stocks is sometimes followed by a lessened demand for the wares, the product of the concern whose securities have suffered. It is regarded as less responsible and buyers are dissuaded from placing orders with it. Discouragement as to the future of an establishment or of an industry thus reacts, through demand, further to cut down possible surplus. But the whole episode, 1879–1884, amply confirms the general principle that, even where the metallic standard is itself admittedly exerting all possible strength for contraction, prices will rise, provided promotion increases, and will attain to a point much higher than the scarcity of the metallic standard would place them.

CHAPTER IX

THE INTERNATIONAL HISTORY OF PRICES

1. The theory which regards credit expansion as the independent variable in the question of prices is, at least, as defensible as that which so regarded gold supply. — 2. There are two main parts of price-analysis: (1) the creation of credit-capital and its influence on demand credit, (2) the effect of the latter on prices. Nominal capital value and interest depend on substantially the same motives: those determined (1) by hope of and (2) by ascertained profit. Capital is the more speculative manifestation. — 3. Prices offered for capital goods prove what expectations men found on their productivity. The volume of capital must be adapted to such prices. But the rate of interest expresses substantially the same outlook. — 4. It is only the price of an individual's securities that varies inversely as the rate of interest. — 5. Comparison of statistics of global issues, portfolios, and loans with national commodity prices, 1878–1885, proves dependence of prices and interest on credit. — 6. In the prosperous era, 1879–1882, and the depressed period, 1882–1885, credit disputes the supremacy of gold, and volume of trade is the "quantity-theory" factor in price-determination. — 7. 1886–1896: agricultural discontent, attributed to financial methods, was really due to overproduction of grain. — The prosperous era, 1886–1892, prevented full effects of appreciation of gold. — 8. The period of depression, 1892–1896, made the influence of appreciation manifest. — 9. Double crisis in the United States, 1893–1896, was, like all others, a reaction from expansion. — 10. Extraordinary persistence of prosperity since 1897 has not been a result of gold supplies. Prices have doubled since 1896. — 11. Expansion preceded and stimulated gold-production. Gold has tended to be more valuable than credit in similar periods. Its production is encouraged or discouraged by the state of business organization which is synonymous with credit, only the effects are tardy, due to timidity of capital. — Could a tabular standard remedy the evil of alternate under- and over-production of gold? — 12. Statistics indicate that high rate of interest corresponds only to excess above the short-time, normal volume of security issues. — 13. There was

a financial table-land in United States, 1900–1905. — 14. The high rate of interest since 1900 has not been the exclusive consequence of high prices. — 15. Industrial issues rather than governmental are the organic source of high prices.

1. THE gold-supply method of accounting for price-level has received the consecration of tradition, which, fortunately, credit theorists and mathematical novators have recently rudely shaken. The latter, however, have only deviated from the inherited learning in the more precise formula with which they have clothed it, for gold supply is still accepted as the decisive variable; while the former have been content, rather to define the conditions under which credit does not affect prices than those under which it does. Still another course remains open, namely, to replace with credit the gold of the ancient rule, and then to proceed as before. The movements of credit and prices are thus assimilated, to the neglect of the yellow metal. Credit-supply becomes the dependable determinant. What that may mean is perhaps not so patent as was the theory which emphasized the abundance of a tangible commodity. That it possesses significance, is beyond question. Items such as securities offered or sold, deposits, circulation, bank loans and rates have been assembled or averaged, as the case may be, for the principal countries, taken together, so that statistical data of finance are not lacking to compare with prices. Under the more primitive type of inquiry, gold was afforded the same parallel. Global prices do not seem to have been worked out. Those cited will be neither more nor less local than in the earlier research. Before presentation of the facts, it will be proper briefly to explain why the new comparison is desirable and how credit does exert influence.

There are two main parts of price analy-

2. The alignment of causes determining prices during short periods should trace the effects of expectation of profits upon credit-capital, and then, of the latter upon prices. The

second chain of inquiries, that concerned with the responsibility of capital for prices, works through the intermediate link of demand-credit, which, manifesting itself chiefly in bank deposits, furnishes the purchasing power of the community. The earlier, relating to the effect of foresight upon credit-capital, affords an inquiry of a more elementary nature, since such capital is but a mode of expressing previsions which themselves are limited by conditions set by the technique of production, on the one hand, and by inrooted habits of saving, on the other. While statistics can hardly be called upon to indicate the concatenation of financial influences, they should not be inconsistent with it. They must be explainable, if a theory of prices is to stand.)

sis: (1) the creation of credit-capital and its influence on demand-credit, (2) the influence of demand-credit on prices.

3. The volume of issues of nominal capital has a close affiliation with the rate of interest. They are both conditioned by the circumstances of speed of production and of permanent under-valuation set by men upon the future compared with the present. The rate of interest is largely under control of that of production. Indeed, it might be called the "future" rate of production, which is certainly very closely under the tutelage of the current. The two are continuous. Nominal capitalization covers the speculator's view of interest. The market for material, objective capital-goods, also, will quite directly affect securities. If profits are large, such goods will be high-priced and the offer of nominal capital in exchange for them will be abundant. Their value stands thus also in intimate relation with past production, the tangible, accomplished fact in industrial history. From two sides, then, through interest and through the market for goods, the volume of capital is strongly affected. Unavoidably is there a close correspondence between interest and nominal capital. The latter may be directly affected by the changing value of capital-goods, while the estimate which forms the motive for that change

Interest and nominal capital depend on substantially the same motives: (1) consisting in expectation of profit and (2) determined by rate of ascertained profit. Nominal capital is the more speculative manifestation.

Interest is the "future" rate of production.

Prices offered for capital-

goods prove what expectations men found on their productivity. The volume of nominal capital must be adapted to such prices. But the rate of interest expresses substantially the same expectations.

will also act upon the former. And so, the parallel between capitalization and interest will be maintained, from whichever point one chooses to regard it, from that of discount or from that of the market for land and machinery.

Possibly, the rate of interest is a little more closely connected with current and past profits than is the volume of capital. The former is more directly under the care of the bankers, usually a conservative body of business men; while, on the other hand, the latter, being exposed to the extravagances of a speculative class, will be more preponderantly influenced by hopes of profits. But, in both cases, the lines between future, present, and past have a tendency to dissolve, and hence the fluctuations of capital and rate will largely correspond.[1] Bankers are gradually convinced either (1) that there is ground for a more cheerful view or (2) that the expansion of speculators needs checking. The high rate on the high capital becomes in either case, impossible, and capital-building is sooner or later restricted.

4. It is patently here a question of rates on securities with variable returns. The rule that price of securities fluctuates with interest-rate, appears to contradict a well-established doctrine which states exactly the opposite: that price of securities varies *inversely* as interest-rate. But the contradiction is due to the suppression, in each statement, of the circumstances under which it holds true. The *direct* proposition is valid for the general markets for securities and interest. The *inverse* holds only for individual cases, and is but an instance of an often-noticed principle (which calls, however, for a special treatment) that effects on individuals appear to be opposite to those on society. If "A" be the holder of stocks or bonds, and the rate of interest go up, then, *other things being equal,* the value of *his* securities is likely to fall. The reason plainly is that the

The principle that rate of interest and price of securities fluctuate together is not a contradiction of the oft-

[1] Cf. § 19, *infra.*

profits on his investments did not rise with those on others'. If they had, is there any doubt but that the market value of his would have advanced correspondingly? This lagging behind of an individual will be all the more manifest, if the documents held are bonds, the profits of which are fixed, and cannot share in the general movement. But new issues of bonds, and conversions (if such occur to higher rates) must yield more or be cheaper and hence larger in amount than if the loan market had not advanced.

stated rule, which should reac that price of *individual's* securi ties varies inversely a: rate of interest.

5. A comparison of global issues and rates with prices of different national markets, by periods, will be helpful, since the movement of prosperity is world-wide and is communicated from country to country within a few months, or a year or two, at the outside.

The first period is from 1871 to 1878, or from the early stages of the most typical boom of the modern capitalistic

1871–1878.

Year	Portfolio of Seven European Banks	International Issues	Average Bank Rate, Seven European Banks	Index Numbers of Prices in England (Economist)	Prices in England, Per Cent Fluctuation
	Millions Marks	Billions Marks			
1868			3.25		
1871		12.5	4.44	2,590	117
1872	6,660	10.1		2,835	128
1873	7,062	8.7	4.99	2,947	133
1874	6,602	3.4		2,891	131
1875	6,572	1.4		2,778	126
1876	6,029	2.9		2,711	123
1877	5,826	6.3		2,723	123
1878	5,625	3.6		2,529	114

era, to the succeeding point of deep depression.[1] The states of the world's prosperity are sufficiently attested by the large

[1] For statistics of international issues, figures of Georges de Lavelaye, found in Calwer, Wirthschaftsjahr 1904, p. 175. Prices in the next table are from Fisher, The Rate of Interest, p. 426. Bank rates are from

issues of securities in the height of the boom, 1871–1872, and by the falling off in the critical year. The crisis took several months to travel about from Vienna, May 8, 1873, through Germany, Russia, and Italy, to the United States, in the autumn, from which country it was propagated, in a milder form, to England. The last mentioned realm had already pretty well fortified itself by high bank rates, — a precaution it had learned while financing the French war indemnity loans of the two preceding years. From year to year, the fluctuation of the bank portfolio corresponds very closely with prosperity. The shrinkage in the portfolio for 1873 is followed immediately by a fall of index number of prices for the first of January, 1874.

1878–1885. 6. The next period lasts roughly from 1878 to 1885.

Year	Portfolio of Seven European Banks	International Issues	Average Bank Rate of Seven European Banks	Index Number	Per Cent Fluctuation of Index Number	Prices		
	Millions Marks	Billions Marks				United States	England	Germany
1878	5,625	3.6		2,529	114	105	87	121
1879	6,049	7.5	3.35	2,202	100	95	83	117
1880	6,875	4.4		2,538	115	105	88	122
1881	7,834	5.7	3.92	2,376	108	108	85	121
1882	7,897	3.6	4.21	2,435	110	109	84	122
1883	8,122	3.3		2,342	106	107	82	122
1884	7,833	3.9		2,221	100	103	76	114
1885	7,924	2.6	3.32	2,098	95	93	72	109

The prosperous era, 1879–1882. The global correspondence of promotion-issues, loans, rates of interest, and prices is sufficiently manifest. The prosperous era was short, from 1879 to 1881–1882. The boom did not start till the latter part of 1879, in England, where

Juraschcck, Uebersichten der Weltwirthschaft, 1885–1889, p. lxviii. Index numbers of prices are from the same, p. lv, completed by those found in the volume for 1883–4, p. 45.

it was encouraged by good crops in the United States and by awaited demand for railroad steel from that country. The new conjuncture generalized the use of Bessemer's invention, on which the next twenty years of economic progress was to depend. The low prices of 1879 are accounted for by the lateness of the boom. The worst crop failure of modern times, on the Continent, also deferred large issues of securities for founding of purchasing power, until the following year. On a view of the three years, 1879–1881, it is plain that large international issues were accompanied by high comparative prices, *in the face of rising value of gold.* After 1881, issues decreased, and with them the level of prices. But the fall of prices was prompt in England, somewhat slower in the United States, and perceptible only after 1884, in Germany. The last-mentioned country suffered from no sudden crisis. In the winter of 1881–1882, France experienced a severe stock-exchange panic, owing to the failure of the Union Générale. But Germany had already been deeply bitten by the crisis of 1873, a consequence of the "Schwindeljahre" and "Gründungen" which followed the Franco-Prussian War, and was dosing (1879) its industry with strong protective duties. France followed the protectionist example, a couple of years later (1881). In the United States, the crops were poor in 1883; and, in 1884, in spite of good crops, the transportation crisis, which had already been brought about in England by the excessive founding of shipping companies (the so-called "one ship" companies), appeared as an acute railroad panic, accompanied by the sensational failures of several New York banks. Hence, American prices experienced a decided fall in that year. The equally marked subsidence in Germany was accompanied by a crisis in the sugar market. Overproduction in that country had been fostered by government subvention of beet sugar, while an unmarketable surplus of cane

The depressed period, 1882–1885, was evidenced both in investments and in general prices.

sugar, in the Dutch East Indies, had been encouraged by loose banking in Holland.

Credit disputes the supremacy of gold,

But the real, global causality of low prices was that the occurrence of widespread failures wiped out expectations, stopped promotions and productive speculation, decreased loans, and in this way lowered general purchasing power. Prices depend most immediately upon bank discounts. The upward movement of the portfolio of the seven national European banks, 1878–1881, evidently prevented the fall of prices that scarcity of gold would otherwise have caused, and was thus the *active agent* in sustaining the price-level. When the increase of discounts ceased, and they remained at a level, then a sinking tendency was observable in prices, along with issues.

and volume of trade is the "quantity theory" factor in price determination.

The trade of the world was increasing all the while. Bowley [1] has shown that England's foreign trade, when reduced to a basis of physical quantities, ascended steadily so far as his investigation went, 1858–1890. Only in the crisis of 1873, does the chart disclose a momentary halt, under the discouragement of financial catastrophe. The same continuous growth of trade by physical standards, probably, may be predicated, at least approximately, for other large countries and for internal commerce also. Consequently, a fairly stationary European bank portfolio like that from 1882 to 1885, would, in face of expanding trade, naturally cause falling rather than steady prices.[2] This evident conclusion may readily be conceded to the "quantity theory." The Bank of England stopped expanding in 1881–1882, and contracted greatly in 1885–1886, although 1884 was an isolated high year for "international issues," due to national loans for armaments, which would not affect the portfolio

[1] England's Foreign Trade.

[2] Prices as well as interest are inclined to fall if promotion stops increasing. Cf. p. 242, *supra*.

materially. The United States National Banks, also, did not expand much after 1881, and fell off a little in 1884.

7. The next cycle of prosperity, 1886-1896, was the one in which the "gold famine" caused greatest complaint, especially in the United States, and paved the way to the now historical "silver" campaign of 1896, in that country. Strange to say, there it was not the mercantile but the agricultural classes that revolted against the appreciation of gold. Distress, also, was greatest in the agricultural districts throughout the world. In those of the United States, the low price of wheat was attributed to demonetization of silver. But the day was even then opportune, if men had been content to take a calm survey of the wheat market, to have discovered that it was due to overproduction of that article. It was equally injurious to the European

1886–1896.

Agricultural discontent erroneously attributed to financial methods was really due to overproduction of grain.

Year	International Issues	International Bank Rate		Portfolio of Six European Banks[2]	Prices		
	Billions Marks	Le Franc[1]	Jurascheck	Millions Marks	United States	England	Germany
1886	5.3		3.34	8,485	93	69	104
1887	4.0		3.56	8,981	94	68	102
1888	6.3		3.63	9,431	96	70	102
1889	10.1	4.05	3.69	10,300	98	72	106
1890	6.5	4.50	4.07	11,196	94	72	108
1891	6.1	4.06	3 77	11,010	94	72	109
1892	2.0	3.53	3 28	11,500	89	68	106
1893	4.9	3.81	3.67	10,287	89	68	102
1894	14.4	3.51	3.30		81	63	92
1895	5.3	3.29	3.11		79	62	91
1896	13.5	3.45			76	61	91

[1] The bank rate is an arithmetical average of average annual rates of five European banks (France, England, Germany, Austria, and Italy). "Ces chiffres sont pris aux meilleures sources et nous en garantissons l'exactitude." A. Le Franc, Les Établissements de Crédit, p. 11.

[2] V. Neumann-Spallart, Jurascheck, Die Weltwirthschaft, 1885–1889, p. 604.

peasant. In years of crop failure, he missed the usual compensation for small crops in high prices, for the "mountains of grain" shipped from America kept them always falling. The period of prosperity must be taken to extend to 1891 or even 1892, with the great decrease of international issues and bank rate in the latter year. It is true, the turning began in England, with the Baring failure in November, 1890, following the South American explosion and Argentine revolution of the preceding July. Hence, already was observable, in 1890, a decrease of securities offered in the world. And in the United States, in the same year, the fall of prices was significant.

The prosperous era, 1886–1892, stayed the fall of prices.

But the disaster of 1890 was not irreparable in England, and was premature in the United States. The Baring insolvency was skillfully handled by a guaranty syndicate, headed by the Bank of England, and by a liquidation committee under the presidency of Lord Rothschild. Good crops sustained the United States through 1892, and German prices kept up in 1891. The international bank rate was notably high, appropriately succeeding the year of great international emissions, 1889. The remarkably steady price-level, in view of the now acknowledged continued appreciation of gold, is a testimonial to the active, positive influence of promotion upon it. This was the period of the first extensive development of South African gold and diamond mines, and of the greatest emigration of capital the world had yet witnessed. England, France, and Germany were vying with each other in the discovery of distant openings for investments. Germany and France were making great efforts to lay heavy hand on all "unoccupied" or unpromoted corners of the Southern Hemisphere, for colonial empires. England was placing funds in breweries and cattle ranches, especially in the United States. Colonial policy demanded strong armaments, for which loans were indispensable.

8. But the Baring failure in England, the sugar overproduction in Germany and the Dutch East Indies, the failures of the Copper Syndicate, 1888, of the Panama Canal, 1889, and of involved banks, in France, and the renewal of railroad building, on the most ambitious scale, in the United States, paved the way for the great world crisis of 1893, the first since 1873 in any way comparable with it. The world's fair in Paris, in 1889, served to stimulate credit somewhat, for that year and country, and to defer the failure of the Paris Omnibus Company. Good crops in the United States, 1890–1891, and a good cotton crop, 1892, delayed the catastrophe in that country, where transportation speculation had revived, in spite of the warnings of 1884. The great crop failure in Russia, in 1891, also helped the United States, for a season. If Russian peasants starved, they were unimportant credit-elements, in a country backward in its financial development. But the Australian land and building crisis, in the early spring of 1893, touched Great Britain to the quick. The "return of securities" to the United States, or "recall of capital," begun in 1890, partly because of British distrust of American silver agitation, was now recommenced, with the additional motive of more pressing necessity for cash.[1] That gold drain set in, which, temporarily stayed by the Bond Syndicate contract of 1894–1895, was not radically cured until, in 1897–1898, the relative foreign and domestic crop situations and the exportation of the new, good, cheap steel, again poured a welcome stream of gold into that land which had previously been producing more of the latter metal than it could, under the circumstances of depression, assimilate.

In the period of depression, 1892–1896, credit and gold conspired to depress prices.

9. The high points of international issues, in the bad times of 1894 and 1896, are to be accounted for by the financial needs of the various states of the world. The

There was a double crisis in the United States,

[1] Lauck, Causes of the Panic of 1893.

1893 and 1896.

United States Federal Government contributed for 200 million dollars, with its Bond Syndicate loans. The truth was that that government, admittedly the most resourceful, was in pressing need of money, not only for the ostensible purpose of defending the public and private circulation, but also to pay current expenses. The crisis in the United States was a double one: the number of failures in 1896 was larger than in 1893, although the total liabilities were much less. The five years, 1892–1896, present an agreement of low interest-rate, of small securities-issues, and of steadily falling prices, which was no chance phenomenon. Is it open to denial that low issues and interest-rate are the statistical measures of low economic expectations? or that small output of "future goods" itself constitutes a weak demand for present goods, in other words, the decisive cause of low prices? The affirmative proposition seems simple and undeniable; and yet it belongs to those elementary statements which cannot be too often repeated.

There have ensued an extraordinary persistence of prosperity since 1897,

10. It has not been difficult, so far, to separate the several periods into a rising or prosperous and a falling or depressed subdivision, with their corresponding high and low promotion and prices. After 1897, the distinction becomes more difficult. It is hardly yet (1912) possible to assert that the years 1896–1907 constitute a complete credit-cycle, in the sense understood by Jevons. The world is still too near the crisis of 1907 to determine whether it was the beginning of a long decline. Certainly, there has been no plunge into bankruptcy and stagnation. Whatever the future may hold in store, the last fifteen years have failed to verify socialistic predictions that the modern capitalistic (*i.e.*, credit) system would involve mankind in ever severer financial catastrophes. There has, probably, been no period of such prolonged prosperity since the dawn of history as that which has been enjoyed since 1897. Ups

and downs, as indicated by the bank rate, have taken place, but promotion, production, and prices have advanced with wonderful persistence. Enormous output of gold, indeed, has helped prices. Many writers have predicted a prolonged and serious depreciation of the standard on that account. Prolonged it may be, but the low value of the circulation, including deposits, will be likely to arrest production sooner or later. The *active* agent in the rise of prices has been credit.

and a doubling of prices since 1896.

The long-time level of prices will remain where the art of metallurgy places the outlay for raising and refining gold. But the almost doubling of them since 1896 could hardly have occurred, without the dynamic and vitalizing stimulus of credit. "These figures, or the dotted curves in the preceding diagram, show that money in circulation (M) has nearly doubled in thirteen years; that its velocity of circulation (V) has increased only 10 per cent: *that the deposit currency has nearly tripled and its velocity of circulation (V) has increased 50 per cent;* that the volume of trade has doubled; and that prices have risen two thirds." [1] This statement is for the period 1896–1909, in the United States. The proportion of bank deposits to "money" circulation, in that country, is as seven to one and a half. And if this composite money-and-note circulation (M) be resolved into its credit and metallic elements, and the former be added to bank deposits, then the fiduciary, circulatory constituent, in the United States alone, is found to be sixteen times the real money.[2]

Stimulus was given by credit

11. In answer to the claim that the rise of prices is due to the credit factor, and that the production of gold is itself partially controlled by readiness to sign documents

[1] Fisher, The Purchasing Power of Money, p. 304. The italics are the present writer's.

[2] Cf. Fisher, *ib.*, 13. But Professor Fisher thinks that gold is the sole, or nearly the sole, regulator of the quantity of deposits. Cf. *ib.*, p. 310.

to gold production.

binding a future payment, it may be objected that higher prices are a discouragement to gold mining, whereas the recent increase in gold supply is epoch-making. The reply runs that the enormous extension of the banking business and the world-wide increase of deposits and notes, have called for a proportional augmentation of reserves, and have *pro tanto* operated to keep up the value of the money metal, at least to differentiate it favorably from that of credit. Hence, the great rise of prices that has occurred may more properly be said to be due to the increase of credit than to lowered cost of production of gold. Credit expansion raises prices. Lowered cost permits ready replenishment of bank reserves, and thus favors the persistence of the high prices. Recent development of gold output was itself in response to the great increase of credit, 1870–1890. Overproduction of gold in the fifties was followed by a reaction. The new and greater exploitation of the earth's yellow treasure is in evident response to the needs of the growing credit structure. But abundance of the money metal may possibly go so far as to discourage credit and promotion in general, and thus to restrict mining again.

Gold has tended to be more valuable than credit in periods of expansion.

Theoretically there are action and reaction between promotion and gold-raising. But credit is the more active and potent of the influences in presence. The great expansion of credit in the eighth decade was inevitably followed by the enormous demand for gold for reserve, in the ninth, which in turn brought about its previously unequaled production, beginning already with the year 1886. But the high value set upon gold, notwithstanding the great collection of reserve, 1880–1890, discouraged the immediate expansion of credit during that period, — at least up to a point of high prices. Gold mining was profitable. Political orators said that "gold took the place of credit." The period was really one of preparation for renewed future

expansion, which has come since 1897, and may conceivably go so far as finally again to discourage the production of gold, by forcing prices very high during a prolonged period.

Its production is encouraged or discouraged by the state of business organization, which is credit, only the effects are slow, due to the timidity of capital.

It is thus perceived that credit may have, according to circumstances, one of two possible effects on gold production,[1] depending upon the level of prices from which the expansion starts. (1) It may raise the value of gold by demand for reserve, or (2) it may lower its value by raising general prices too high. The conditions for the former of these effects may be verified for the period before 1897, by the subjoined statistics.[2] It appears clearly that, after

Year	Metallic Holdings of Six Principal Countries: Banks of England, France, Austria-Hungary, Germany, Russia, United States Banks and Treasury	Net Paper Money and Note Circulation of Same Banks	Portfolio of Same Banks
	Millions Marks	Millions Marks	Millions Marks
1855		812	
1860		2,339	
1866		5,566	
1868			4,214
1870	2,219	5,289	
1873	3,405	6,125	6,490
1878	4,415	5,107	5,574
1880	4,737	4,880	6,777
1883			8,213
1884			7,882
1885	6,428	4,257	7,732
1886	6,523	3,939	8,485
1887	7,081	3,440	8,981
1888	7,454	3,521	9,431
1889	7,634	3,725	10,300
1890	7,812	3,588	11,196
1891	8,324	3,658	11,010
1892	9,761	2,769	11,500
1893	9,180	3,648	10,278

[1] Cf. ch. XIII, § 2, *infra*.

[2] Compiled from Die Weltwirthschaft, 1885–1889, Dr. Franz v. Juraschek, pp. 599, 601, 604.

the seventies, the excess of credit above gold holdings (net paper money, etc.) fell off greatly, while the reserve of the yellow metal rose steadily. The rise was closely followed by the great modern movement of gold production. At the same time, the increase in the bank-portfolio was not proportional to the growth of trade and business which it represented. Credit was struggling against the hesitancy of capital to invest in gold mining, but succeeded, finally, in excess of all prevision. Timidity and rashness of enterprisers, in the domain of the noble metals, are equal inconveniences to business.

Could a tabular standard remedy the evil of alternate over- and under-production of gold?

It is doubtful, however, whether similar drawbacks would not, in turn, arise, were a tabular to replace the gold standard. Its administration would call for extreme prudence and rare uprightness in government officials, and nine tenths of the businesses would not without protest allow the level of prices to be virtually fixed by the remaining tenth.[1] Probably, the solid betterment of existing price evils lies in the greater prudence and readier courage of men of finance.

12. On account of the sustained prosperity which has succeeded the years of recuperation, 1893–1897, the thought will already have suggested itself that it is impossible to partition the ensuing period into a prosperous and a depressed subdivision. Rather is it indicated, to mark off a table-land of good times, 1900–1905, preceded by the years of quick expansion, 1898–1899, and broken by episodes of financial flurry, 1901, 1903–1904, and then to adopt a third division embracing the severe but short crisis of 1907 and the rather prosperous subsequent years.

1897–1900 was a new

In the first subdivision, 1897–1900, the steady growth of promotion and rise of rate of interest and of prices, in all countries, amply confirm a common source for the general movement towards prosperity, in better hopes,

[1] *Vid.* ch. XIV, *infra.*

documented in those agreements to coöperate in production known collectively as "credit." The sequence of motives

boom period.

1896–1900

Year	World Issues	Rate of Five European Banks	Prices			Sales of Stock, United States[1]	Deposits, United States	Rates of Interest, New York[2]
	Billions Marks	Le Franc	England	Germany	United States	Shares	Billions Dollars	
1896	13.5	3.45	61	91	76	55	2.71	5.8
1897	7.8	3.53	62	92	76	77	2.86	3.4
1898	8.5	3.95	64	93	78	113	3.22	3.8
1899	9.2	4.38	68	111	86	176	3.88	4.2
1900	9.6	4.42	75	110	92	138	4.24	4.4

1901–1905

1901	8.0	3.64	70	103	91	266	5.13	4.4
1902	17.8	3.60	69	99	95	189	5.40	4.9
1903	14.8	3.82	69	104	96	161	5.73	5.5
1904	11.6	3.80	70	104	96	187	7.77	4.2
1905		3.95	72	107	98	263	6.54	4.3

1906–1909

Year	Rate of Five European Banks	Prices		Deposits, United States	Sales of Stock, United States	Rate of Interest, New York
		England	United States[3]	Billions Dollars	Shares	
1906	4.35	77	93.2	6.81	284	5.7
1907			93.2	7.13	196	6.4[4]
1908			90.3	6.54	197	4.4[4]
1909			100	6.68	215	

[1] United States deposits are copied from Fisher, The Purchasing Power of Money, p. 304; and sales of stock from *ib.*, p. 479.

[2] Fisher, The Rate of Interest, p. 420.

[3] Prices, U. S., are not continuous with preceding, but are copied from Fisher, The Purchasing Power of Money, p. 479.

[4] Fisher, The Purchasing Power of Money, p. 271.

runs from promotion and bank-rate, through deposits or other purchasing media, to prices. In 1896, the high rates

of the United States are to be distinguished from the low European. The former are caused by the crisis of 1896, and are famine rather than productivity tariffs. The high, world issues are governmental. For purpose of price-study, global figures of capital are open to correction, since the regular promotion shares, which chiefly influence prices, must be distinguished from bond and governmental, which do not; at least, not in the same degree.

Statistics indicate that high rate of interest corresponds *only to excess above* the short-time, normal volume of security issues.

13. Consultation of the rate of interest since 1889, reveals the influence on it of the successive increases in the level of issues. The effect of new promotion dies out so soon as a given annual quantity becomes habitual or "normal." It is, then, the *fresh increments of credit* that advance interest and prices. Thus prior to 1896, in those years when issues remain below the five-billion-marks line, the rate of interest is under 4 per cent, and higher only when they are above, except for 1894. When trade has grown up to previsions, then new and additional expectations alone find expression in that barometer, the interest-rate. It is not demand for old capital, but for new, that exerts this stimulating effect. A mere conversion of old capital replaces itself. It expresses past plans tried out, if not expectations gratified, except so far as a new element be introduced by promotion methods, new organization — trust or "agreement" — or new inventions. But the new "capital" is yet to be materially created. It at once sends up the market price of existing capital-goods in terms of itself — promise-capital.

There has been a financial tableland in United States, 1900–1905.

In harmony with this principle, in the period from 1896 to 1900, inclusive, European interest surpasses 4 per cent only when world calls for capital exceed nine billions of marks, while, after 1900, still greater promotion is necessary to produce a like result. In the United States, with rapidly growing sales of stocks (1896–1900), occurs a still more regular increase of deposits and interest. From 1901 to

1905, prices in that country rise gradually, notwithstanding the irregularity in the enlarged stock-exchange operations. But deposits go up only till 1904, and interest, till 1903. The fall of interest, in 1904, brings about a fall of deposits, in 1905, although stock sales increase. Compared with the previous subdivision (1896–1900), this (1901–1905) is a table-land gradually rising toward the mountain of 1909. In the previous, United States prices rise 16 points; in this, but 6. Promotion is enormous but irregular, rate of interest stationary, while deposits rise steadily, with a set-back in 1905. The increase of deposits must, of course, be divided by increase of trade.

14. It has been pointed out that, during the period of boom, 1896–1900, the rapid increase of securities was accompanied by sharply rising prices and by a high rate of interest. This was true both for global and for the United States local statistics. The theory that the rate of interest is a function of prices, requires that they be rising. If they remain at a high level, the rate must recoil. Doubtless, the conclusion is sound, involving, as it does, solely one branch of the dynamics of credit, that of the influence of prices upon interest. But there is a second and complementary branch, that of the influence of interest upon prices! After 1900, prices did not advance so rapidly as in the preceding five years. But the rate did not fall back, as the price theory of interest would seem to require.[1] On the contrary, it remained at an unprecedentedly high average level, both in the European and New York banks. There must have been something else to sustain it. The missing potency is found in the abundant supply of nominal capital,

The high rate of interest since 1900, has not been an effect of high prices.

[1] A comparison by Dr. M. T. England of bank rates and prices for three crises in Germany shows that in two cases the "compensation" or adjustment of rate to prices was excessive. The relative magnitudes would seem to place the cause of prices in interest, rather than the other way about.

Year	Rate of Discount of German Imperial Bank	German Prices
Crisis of 1857		
1851	100.0	100.0
1852	100.0	101.6
1853	104.9	113.5
1854	109.0	121.0
1855	101.9	124.0
1856	123.3	123.1
1857	143.8	129.8
Crisis of 1883		
1879	100.0	100.0
1880	114.6	104.1
1881	119.8	103.4
1882	122.6	104.3
1883	109.2	104.3
Crisis of 1891		
1887	100.0	100.0
1888	97.4	100.0
1889	107.7	104.0
1890	132.6	106.0
1891	111.1	107.1

which, although irregular, persists far above that of preceding periods. The interest rate is, in fact, a direct expression of expectation of high profits, which is collaterally reflected in voluminous appearance of securities. The combined movements of issues and rates reacted upon each other and made for large and rising discounts, and a permanent increase of business, as shown by the deposits column in the above table. Unless production far exceeds expectations,— and when did that ever occur? — or there be a prolonged scarcity of gold, the result of large sales on the world's bourses must be a rise of prices. The expansion continued until the crisis of 1907. The recovery was already

marked, in 1909, when commodity prices reached the highest point until that year.

Industrial issues rather than governmental appear to be the organic sources of high prices.

15. The slackening in average rapidity of advance of world-prices, after 1900, is partly accounted for by an analysis of capital offerings, into those which are for industrial purposes and those which are for states. It is evident that government bonds, and even renewals of private stocks or bonds, will have less effect on loans, deposits, and prices than will new industrials. In a comparison of the less efficient emissions, however, the private reissues will claim more weight than national obligations. In the following table,[1] the falling off in the proportion of railroad and industrial offerings in the world, after 1899, and the corresponding increase of governmental, will account partly for a slower progress of prices, while the increase in conversions indicates a power still existing to keep them from falling back.

"Out of the total amount of issues there was devoted percentually to the money needs of: —

	1897	1898	1899	1900	1901	1902	1903	1904
"States, provinces, and cities . . .	22.58	19.38	22.10	40.44	52.19	26.84	16.05	39.97
"Credit establishments	9.20	13.39	13.37	11.85	7.04	3.60	7.26	9.29
"Railroad and industrial companies .	61.08	51.67	58.97	47.71	40.77	30.89	28.94	38.05
"Conversions" . .	7.14	15.56	5.56	——	——	38.67	47.75	12.69

The causal chain in economic life is wrought of human links. Statistics are helpful in tracing its course, only so far as they are typical of individual relations. Little can be directly proved as to the latter. Sound reasoning

[1] Calwer, Wirthschaftsjahr 1904, II, p. 176.

will serve the purpose better than exclusive dependence on mass measurements. It is not pretended that the view of causality advocated in these pages is established by the preceding study of financial statistics; but they do not seem unfavorable to it.

CHAPTER X

THE CAUSES OF CRISES

1. Global statistics of prices, portfolio, interest-rate and promotion, 1870–1910, explain how prices of commodities rise in good and fall in bad times. — 2. From a scientific point of view, the important thing about prices is not their justice or injustice, but the economic significance of their fluctuations. — 3. The psychology of the community and the supplies of gold are matters outside of the field of inquiry, and must be taken for granted. — 4. The quantity theory of prices is insufficient. — 5. Inflation may be aggravated by renewals, "kiting," accommodation paper, and other subsidiary causes, which become most active after the main cause, overpromising, has begun to operate. — 6. If profits equaled expectations, inflation would be cancelled. — 7. Image of the way in which financial disappointment works, afforded by a storehouse. — 8. Inflation may start in country as well as city banks. *Moratoria*, private and political, are not usually in the public interest. — 9. It is not increase of credit but excessive increase that makes inflation. — 10. The price of securities depends upon their expected returns. The whole scheme of speculation hangs on this fact; whereas past profits determine current rate of interest.

In the popular view, the evils of indebtedness and of monopoly are laid at the door of "unjust" prices.

1. THE level of prices has, in popular discussion, acquired an importance that it hardly deserves in connection with the evils complained of. It is not unusual to assume the imperative necessity, in the relations between debtor and creditor, of the keeping of general prices constant. Students of finance have too often encouraged this futile tendency, by the devotion of their energies to recommendation of remedial legislation for the same purpose. But prices do not offer so broad a field for reform as was supposed during the political campaigns in the United States, England,

and other countries, in which the relation of creditor and debtor was insisted upon.[1]

Undoubtedly, the theoretical importance of the price level is very great, especially in the study of the nature and working of credit. There occurs much fluctuation between good and bad times. It is notorious that in good times prices are high, while, in bad, they are low. Economists have statically tried to explain away this correspondence, as due to "speculation," and have disparaged the latter, as abnormal. But since the coincidence recurs with persistent regularity, it is highly improper to allege accident as an estoppel upon investigation. The rational view of the universe must be accepted, if at all, without reserve. Under the orthodox explanation, it was just as possible to enjoy prosperity at one level of prices as at another, for the statement ran that any quantity of money could perform the exchanges for any commerce of goods,[2] and that, hence, the volume of money was a matter of no consequence. On their limited premises, the economists were perfectly correct. But theory should be able to explain everything, not excepting organic fluctuation of prices. It is a common occurrence of great importance, although the prejudice to debtor or creditor from this source has been exaggerated.

Fluctuations of prices occur habitually, and hence cannot be called unnatural.

2. The price-level has generally been looked upon as chiefly and primarily under the influence of the standard money, and, further on (ch. XIV), in connection with the topic of the ethics of indebtedness, the argument may concede the artificial hypothesis that it is entirely subjected to that influence. However, it is quite apparent that the price-level is influenced very strongly from the side of credit; and, with every possible concession to popular notions,

The question of prices is one as to the mechanism of the interaction between credit and the standard material.

[1] For further discussion of the general principles of monetary legislation, see chs. XII–XIV, *infra*.

[2] Mill, *op. cit.*, bk. III, ch. VIII, § 2.

it is not going too far to postulate that the nominal purchasing power loosely subsumed under the term "money," can be viewed as the result both of determinants arising from the side of credit, and of others emanating from the standard of value. This proposition established, the new subject for consideration must be the *interaction* between the influence of credit, on the one hand, and that of the supplies of materialistic money, which embrace the standard, on the other. This reciprocity has been studied in the chapters on interest. It remains to treat of its bearing on prices.

The circulating medium is credit,

What, then, is the relation of prices to the two constituents of the circulating medium, namely, credit and money? As to credit, it may be said, in a summary way, that it is the purchasing medium commonly used, and that the level of prices is affected by the amount of the purchasing medium. The double proposition excites no opposition, and, so far as it goes, is not unfavorable to the "quantity theory" school. The supply of credit is determined, somewhat, by the stimulus that it derives from the accession of gold into the circulation or the reserve. When more gold arrives, there will be encouragement to more credit. Under exceptional crisis conditions, however, the former may be superficially regarded as a substitute for the latter.

and the supply of these promises is *encouraged* by abundance of the standard material, but *caused* by expected profits.

But it receives a more substantial stimulus, when the ratio of profits in the community is higher than the rate of interest that obtains upon loans. Then, in order to keep the ratio, that is the rate of returns, upon a loan of credit the same as that upon ordinary, material capital, it will be necessary to increase the amount of the former. First nominal capital or the capitalization of income is increased, and then loans rise, with the greater "value" of the security.

However, it has been found that an expansion, at first encouraged by the importation of precious metals, in order to keep, by the principle of capital compensation, the rate

on nominal capital equal to that on real, cannot attain a noticeable development, unless the community is in a confident mood, willing to make investments on the faith of future returns, hopeful, and courageous. Fundamentally, therefore, the condition of the expansion of credit is, that the public be in one of those psychological phases when it is willing to take risks. The plain cause of the increase is the mood as to investment. Therefore, without repetition of connecting links, it may properly be said that that state of the social mind is approximately evidenced by the fluctuation in prices. The influence noted is all from the side of credit, excepting in so far as there may be some slight, very short-time effects, from little accessions of gold into the bank reserves.

This expectation belongs to the domain of psychology.

3. The subject must be approached from an entirely opposite point of view from the materialistic. The latter is not a safe basis for conclusions, as a society in which nothing but money is in circulation is rare. On the materialistic hypothesis, the level of prices will be directly in proportion to the quantity of money, and the value of money in inverse proportion. But where credit is also employed for "money" use, there one may still be inclined to cling to the quantity theory, and to argue that the level of prices is determined by the proportion of credit to goods to be exchanged, in precisely the same way in which it was determined by the proportion of money to goods, before credit was introduced.[1] That is, however, merely tweedledee and tweedledum. Undeniably, the ratio of exchange of any two kinds of things is unthinkable in the absence of a knowledge of the quantities of them exchanged. This principle is as unilluminating in financial science as it is indispensable.

The quantity theory explains little in the case of a community which has developed a credit economy.

[1] But cf. Frederick R. Clow, "The Quantity Theory and its Critics," Journal of Political Economy, vol. XI.

However, an explanation is what is wanted, not a truism. The point to be settled is, *why* is there a certain quantity of credit or of money? *why* is *this* exchange relation established? From a more practical basis, from an everyday position, the question imposes itself, how is it that more credit gets into circulation, apart from the psychological mood of willingness? There may be more promises entering into the common uses of trade, in proportion to the amount of goods produced, than there were before, numbered in dollars. Conditions may arise in which promises may have a greater nominal value, for each specific quantity of goods to be exchanged.

Inflation is disclosed by lack of set-off, by renewals

4. After goods have been manufactured, there may not be a complete set-off. Credit may not be retired, when commodities are finished. Normally, the debtor comes to the creditor and says, "Here are your demand notes, give me back my time note. I have collected these demand notes, by sales of my wares, and I am ready to take up my individual note now." On the contrary, he may say, "Please renew this note of mine. It is true I am not going to produce anything else on the strength of your loan. I have already manufactured the goods; but I have not been able to sell them just yet. In the meantime, and until I am able to tide over this stagnation, be kind enough to extend my credit." At the same time, perhaps other undemanded production is going on. Such occurrences impress upon the common sense of the business world the conviction that inflation is taking place. New loans are all the while also being made on the strength of new production, and, on this account also, prices are rising. For, while the increased industry is legitimate, it is ever being valued, in anticipation, at a higher rate, so that accommodations on it are expanding. The new promises that are being created are not as the old. They lack a "two by

two" correspondence with goods. In other words, more promises are made than goods. And if, further, it be supposed that goods retain, perhaps, only the same satisfying power that they had in the first place, and that their utility has not been increased in proportion to promises, — a very reasonable hypothesis, — inference again points toward inflation. Prices rise. In one way or another, the ground-swell on which they are carried up is the infectious over-expectation of what is to be perfected and enjoyed in the future.

forced by a defeasance of the expected objective values.

5. The exchange medium is the *circulator of the present* and the *representative of the future goods.* The latter, even if they turn out, ultimately, to objectify all the expected value, could not possess it at the present time, because there are only the former to exchange against them, and an advantageous barter against a monopoly, or the bare hypothesis that the latter are more valuable, would be highly absurd. To be perfectly correct, theoretically, it may be said, that, as the business community moves up to the future time, the future possessions more and more approximate to present, until finally they may attain to the value that was expected of them. Such a process, even if resulting finally in full realization of promises, would, on the bare quantity theory, cause a rise in prices at the start. But it would not do to characterize such a rise in prices as an inflation. It would be simply a normal and unavoidable fluctuation. The continuous fulfilling of expectations about future values would furnish a supply of goods that would habitually *deflate their own inflation,* for new production periods are continuously opened. The combined effect of completed and renewed production is a steady level of prices, at which future goods are at a discount, but which cannot, for that reason, be characterized as inflational.

Prices are habitually raised by high expectations. This could not occur if the expected values were continually appearing: they would cancel the inflation.

The systematic satisfaction of expectations of value results in a uniform price-level.

If, however, the future goods should not realize the expected values, then the capitalizations that have been made upon the hope of acquiring them would turn out erroneous, and that would be an instance of real inflation. These two cases, however, would not ordinarily be found apart. It never does happen that calculation as to the value of future goods turns out wholly correct. The expectation is usually more or less excessive, and consequently, for the purposes of the analysis, disappointment arising in this way may be regarded as regularly recurrent.

Imaginary illustration of the cause of a prevalent inability to pay debts.

6. In order to obtain a better idea of the meaning of the eventual overvaluation of future goods, although they are normally undervalued in comparison with present, it will be useful to imagine that they are locked up in storerooms. A warehouse may be assumed, in which they are distributed in different apartments. On the door of each is posted the year when it will open. A time lock prevents tampering with the commodities, before their successive maturities. Outside, a crowd of capitalists is betting on how much value is stored. In proportion as the expected value is high or low, a corresponding addition is made to the nominal purchasing power or promise-dollars in general use. As time goes on, the rooms open, one by one, and the gamblers rush greedily in, to find out whether the expected objective values are there. In most cases, deficiency is discovered and disappointment ensues. The result is a fall in prices.[1]

(1) Fall in profits or in supposed profits, then, leads to (2) shrinkage in the valuation of securities. That determines (3) a diminution in bank loans and discounts, which, in turn, decreases (4) nominal purchasing power, with the result that (5) prices are pulled down. This order of events is the fundamental condition under which, normally, a

[1] Cf. the writer's paper, "The Influence of Credit on Prices," Yale Review, August, 1906.

general crisis takes place. If these circumstances are absent, it cannot occur. There may be, however, isolated "runs" on banks, in the commercial centers, due to mismanagement by particular financial interests, which are local instances of this general principle. Disappointed expectations may spend their force within a little area. They are always occurring within particular businesses, and may spread only through a single section of a community or through certain businesses in it. In those cases, there is no general, widespread crisis.

Local business embarrassment depends on the same principles as widespread crisis.

7. In the country and in manufacturing districts, the industries are of such a nature that they can be closely watched by the bankers who grant loans to them. In this circumstance exists, apparently, a material safeguard that is not found in the financial centers, where loans are made upon intangible securities, assessed upon the evidence of stock sales and trade reports. There is considerable difference between the businesses carried on by city and country bankers. The former, who often are not closely in touch with material industry, might be inferred to be prone to create inflation. The financiers in the "money centers" see the general scheme of promotion and of promises for future production, in its larger aspect, but are not hand-in-fist with the actual, tangible work, and hence not technically critical. On the other hand, special classes of bankers at the financial ganglia, materially aided in their judgments by the market for securities, which is often claimed to estimate at its true worth all technical information, are enabled to spread their investments over a wide field, for they command an intense purchasing power. Moreover, the habit of creating accommodation paper and of extending loans beyond the production period, may get a good start in a country community, even before that practice has attained headway in the city.

Relative security of country and city banks.

The interdependence of financial interests demands a wholesome state of opinion, which insists upon prompt payment of debts. The kindness of granting delay is generally misplaced. No discouragement should be offered to the benevolent creditor who can afford, with discrimination, to nurse into vigor the sickly enterprises of an unfortunate but capable debtor. Prorogation of date of liquidation, however, produces a discord between production and credit periods, which it were better for all persons concerned to avoid. The debtor, certainly, can gain nothing by the lapping over of old credit upon new production. What, however, is generally true in personal relations holds universally for legislation. The lawgiver cannot possibly play the rôle of the discriminating creditor. He would, therefore, better not interfere, by *moratoria*, with enforcement of rules of payment which are the result of organic evolution. It is not for the benefit of any one to be encouraged in getting into deeper water. Shifty measures of mercy are but palliatives, and unkind, in the long run, to society.

Concessions made by creditors may be at the expense of the health of the community's industries.

8. While prosperity is always accompanied by expansion and rising prices, the classical economists were justified, on their static method of viewing the money problem, in laying down the principle that the *mere* increase in the quantity of business transacted can have no effect in raising prices. Expanding affairs create, as shown in a previous chapter,[1] an additional amount of circulating medium. Every further transaction is coupled with new guaranties which enter into the general circulation. If they are not conceded under conditions of soft-heartedness, but in pursuance of the usual inducements, simply as additional business, with no qualifying motives, there can be no influence making for inflation. It is a pure case of additional goods and credit to correspond. The usual employment

"Business makes money."

[1] Ch. III, §§ 10–13.

of credit does not involve inflation, if by this be meant the mass of habitual credit which would be created anyhow, even if industry were in a static condition. This conclusion has often been reached by students of credit.

but inflation is a dynamic disturbance of price-level, which normally returns at irregular but well ascertained periods.

But, in a progressive, industrial society, a portion of the credit is kinetic and tends to affect the price-level. This portion can be estimated only through an appreciation of the evolutionary circumstances which, in an advancing type of economy, call for rhythmic efforts, and all that they mean for human foresight and inter-relationship. The task is to understand how credit, with or without additional business, may fluctuate in reference to the valuations of goods brought into exchange. The proposition holds true, however, when safeguarded by proper provisos, that "business makes money." [1] Under a credit system, one needs never be concerned lest there be not enough money available to transact his business An amount of circulating medium (which has been called "money" here, in a popular sense) will be forthcoming "sufficient to carry on the exchanges of the community."

9. Credit may be looked upon, graphically, as "future goods." Upon the values and quantity of these promises depends the level of prices. The various manifestations of the former may profitably be restated, before a general review of the co-working of credit with money. The promoting and speculative industry creates the "future goods" that are to form the basis. The current rate of interest is the result of the past rate of profits, which recorded experience as to the returns that are to be obtained from investment and production. If one were to reason on all fours, from the past to the future, one would say that the expected rate of interest would be determined by the awaited future rate of returns. But that is not wholly so. It

[1] J. Laurence Laughlin, The Principles of Money, p. 77 *et passim.*

depends, not only upon the amount that is promised to be paid in as dividends, but upon that at which the capital is estimated, because the rate of interest is the *proportion between two quantities*. The persons who are making and disseminating rosy calculations as to the future, do so, generally, not in order to draw interest as it accrues, but in order to sell out and cover in the capitalization of the interest. The consequence of that professional disposition and habit is, that the future returns upon the predicted business are accounted, not to interest but to capital. The total price of any business is the capitalization of all its future returns. They are reckoned as principal. Their present value is obtained by discounting them, year by year, down to the present, at the rate that has been established by past experience. The history of the rate of profits is the broad basis on which future profits are discounted down to the present time, but the rest of the future profits are attributed to principal and go into the pocket of the promotor, if he be successful.[1] That arrangement was necessary in order that the speculator should be able to trade in futures.[2]

The rate of interest is more influenced by past or current profits, but expected profits fix the prices of securities.

This is necessarily so, since it is only in a principal-price that dealers in future profits, or promotors, can realize their present profits.

The rule stands, therefore, that future returns are attributable to principal; past are the accepted basis of income. These coming yearly increments, this higher expected "discount," are not looked upon as interest at all. They are spoken of as principal, and, in fact, constitute the chief value of any capital,— they *are* capital. They can be taken to the banks and discounted at the current rate. The important consequence, for the study of prices, is that the banker only lops off the old rate of interest, or a little above it, whereas the speculator, having turned the rest of the future profits into principal, realizes that for himself

Hence, the banker and the promotor are compelled to divide the expected income between them, when the securities are sold.

[1] The rate may well be different for the different future years. Cf. Irving Fisher, Appreciation and Interest, ch. V and ch. XII, § 4.

[2] Cf. ch. V, § 7, *supra*.

in exchange or by sale. That is a weighty distinction. Otherwise, it might be inferred, interest being regarded as the whole expected returns, that when the "security" is taken to the banker to be discounted, then the latter (since bankers take interest) ought to claim the whole value for himself, on the ground that it is but the sum of the future payments of interest. In that case, nothing would be left over for promotor or speculator. It is easy to imagine how disastrous would be the neglect of this discriminating principle.

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CHAPTER XI

MONEY AND CREDIT AS MUTUAL SUBSTITUTES

1. It seems difficult to understand how gold and credit circulate side by side, and yet gold, all the while, be used as a guaranty fund for credit. — 2. But in ordinary times redemption is only exercised by money dealers and foreign bankers, while the premium is not worth the while of other business men. In times of crisis, the latter also demand redemption, and prices are consequently forced below an imaginary, hypothetical, gold-value price-level. — 3. Sometimes credit and sometimes gold is active in influencing prices, and hence an apparently alternating standard. — 4. After the break of gauge between credit and money, the latter enters more into circulation than is usual. — 5. This return to a less elaborate system of exchanges is decidedly a retrogression. The general promise to buy, documented on metal, is inferior to a credit circulation, in that it is not an expression of the pure capital, the complex of industrial contracts, of a society. Whatever circulates is, in a sense, a short-period standard; but the long-period standard is metallic. — 6. The amount of credit extant at any moment is not deeply affected by the supplies of gold, but so far as it is, that occurs in a way contradictory of the claim that the supply of credit compensates for a deficiency of gold. In long periods, "credit economies" allow business to expand, but this cannot be called a "substitution" for gold. — 7. There is a slight range of competitive indifference between different forms of circulating medium; but, in long periods, credit expands not by supplanting money, but by calling forth business which never could have flourished with a solely metallic circulating medium. — 8. Redemption of credit with gold is not in essence a substitution of gold for credit, but the making good of a guaranty. It may, of course, inaugurate a temporary gold-using period; but this biologically means a retrogression rather than a substitution. — 9. Money is the store of value. — 10. Inflationist fallacy in not recognizing the separation of the value-storing from the goods-circulating functions of money. — 11. The value of the metallic standard fluctuates in unexpected ways, — it forms no practically ascertainable base-line from which measurements can be taken. — 12. There is nothing harmful in a moderate fluctuation of prices: it is a symptom of dynamic activity.

1. In the unavoidable discussion of the influence of production upon the rates of profits and interest, the ulterior effect upon credit has not been neglected. The subject of the level of prices, as a function of credit, has thus already gained a certain color and consistency. It has become apparent that, while the output and costs of the standard metal exert a limitation upon the aberrations of prices, the output and costs of all other marketable goods enforce a similar, limiting, and definitive control upon the volume of credit. The preliminary postulate of financial science has been shown to be that, in practice, goods are exchanged by promises. To the exchange medium, as thus defined, a large influence upon the level of prices could not be denied. It would naturally needs be restricted to certain circumstances. For credit and money are both dollars, and each plays its part in price-level determination. The final statement of the *law of prices*, therefore, will affirm it as one of the *power of promises relatively to the barrier of the standard of value*. The action now excludes both the moments and the cycles in which the latter alone is decisive. The contest is between guns and armor.

If the so-called "banking principle," that over-expansion cannot occur when there is the right of redemption of notes and deposits on demand, were literally applicable, then organic rise of prices, from this source,

It would not be surprising if it has occurred to the reader to ask the question: "The thesis has been propounded that the level of prices may be elevated, during considerable periods, by the inflation of credit. And yet, in almost the same breath, it has been laid down that gold is needed as a guaranty fund, brought into use for the redemption of credit, from time to time, and thus should regulate the value of the latter. Moreover, it is occasionally applied to the purchase of goods. But the proposition now entertained is, that the level of prices has been raised in such a way, apparently, that a dollar in credit is no longer worth one in gold. Is it possible for the two to circulate, side by side, each called a dollar, at different values?" Of course not. The situa-

tion, however, is rather a practical than a theoretical one. When it is properly appreciated, the prices question will offer no further difficulties. This will be evident, if one but notice that, when prices fall, one important reason is that the *time is come when credit is brought into an active comparison with gold.* When the subsidence begins, men are actively questioning whether the credit is worth so much as the gold.

could not occur.

2. The unuttered assumption of the old "banking school," that credit is always being brought into comparison with gold, is exaggerated and misleading. This proposition, that cash redemption prevents inflation, implies continuous pressure for payment. But it is, in practice, only occasionally exerted to the extent necessary to test the value of the demand circulation. It is evident that a current redemption which is more or less uniformly succeeded by redeposit of the guaranty material, makes no additional call upon the miners or importers of the metal. Indeed, abundance of credit is, at first, and for a considerable time thereafter, a cause of *diminished* application for redemption. The value of *the guaranty material will*, therefore, be inclined to *fall in sympathy with* that of *promises.* While it should not, perhaps, be said that gold is indifferent to the usual credit movement, the effect is confined to exports and imports, which are generally going on, to some extent, without attracting attention outside of the guild of foreign bankers. The inertia of habit is undisturbed, and the two constituents of the exchanging medium circulate side by side, without question. Indeed, after a while, gold may begin to travel quietly out of the country. But there is, as yet, no difference between its value and that of credit perceptible to the general, trading public. The persons who are dealing in it alone notice minute changes. They are the first to be informed that prices at home are rising in it, as

The apparent inconsistency of over-expansion of credit, in the face of a legal right of redemption, is explained by the fact that the disposition to expand at certain times is more widespread than that to redeem. This is the

purport of the so-called "currency theory," which is thus seen to be more dynamic than the "banking theory."

well as in credit, but that the former will buy more in a foreign country, the latter, less. They scrutinize carefully the rise of securities and momentary fall of interest, and conclude that they can give the metal better employment abroad. But the person who is not dealing in it, the ordinary merchant or banker, pays no attention to slight discrepancies in the exchange value or fluctuations in "the price of gold." The difference of a tenth of a per cent does not bulk with him. He is solely concerned with the special, exchange value of goods, to the exclusion of their general range of prices. He will, therefore, continue to accept a bank deposit more readily than coin. He prizes the former for its superior convenience, even if he casually is made aware of a slight deviation from par. It is not his business to deal in gold. His "capital" is otherwise invested and his faculties otherwise absorbed.

The contemplated, incipient, organic inflation may not exceed a tenth of a per cent. Indeed, the premium on gold might perhaps mount to a half a per cent, without its being felt in the ordinary exchanges, within the community. The dealer in gold, the seller of coins, the foreign banker, can make profit by buying gold with credit, in large quantities, for export, upon slight fluctuations in their market, exchange rate, which are not taken account of, in ordinary affairs.

It may, then, properly be stated, that there habitually recur periods, whose length differs, however, according as the particular business involve more or less of the financial element, in which most persons do not question the value of credit. Hence, the few who happen to own gold continue to pay it out as readily as credit. International merchants, indeed, occupy an intermediate position. Their profits partly depend upon the rate of foreign exchange, and they sometimes import or export the metal, on their own account. Minute premiums in the gold market would have, perhaps,

a more immediate effect on its value, throughout the land, in terms of credit, were it not that specie is not used for purchase of goods, except in a very small range of transactions. Herein lies one of the advantages of the credit system. There is no daily incentive to make the comparison. The guaranty fund is safely ensconced in the vaults of the banks. The slight fluctuation in its exchange value is perceptible chiefly to cambists, in the large centers. And often, the advantage to them of the inchoate inflation is counterbalanced by a momentary appreciation of credit from other causes, say in international trade, the one influence obscuring the other.

Afterwards, however, when the time of crisis comes, when the disappointment at lack of profits is complete, when creditors exact the pound of flesh nearest the heart by enforcing the guaranty that has all along been made a part of the contracts of industry, and when the defection of profits is become widespread, then demand for the guaranty fund rises quickly and becomes universal and impetuous. Prices fall far below the "gold level," so that a negative effect of credit is displayed. As it, positively, lifts prices above the gold standard, so, negatively, does its sudden collapse decrease the amount available for exchange and sink them below. Gold was only kept as a fund for the payment of ordinary balances, left over from daily and more or less average comparisons of accounts. Importation of it from abroad is slow, compared with demands for it at home. It is at moments entirely cut off by the unsalability of bills of exchange, even of those which are normally considered "gilt-edged." And prices shrink to a point indicating an exchange value of the metal, in commodities, far above its cost of production and exceeding that which would have obtained, if only other determinants than credit had come into play.

Afterwards, the disposition to demand redemption becomes urgent, and prices descend below where they would have been, if the community had continued to employ credit, but without over-expansion.

It is inaccurate to say that prices fall below the gold-level, for the hypothesis is that the community uses credit.

3. The theory of average prices is an alternating one,

The standard is an alternating one, in the sense that sometimes the active cause of prices is credit, and sometimes it is metallic money.

When the "natural" value of credit equals that of gold, is hard to determine.

which states that, under usual conditions, the immediate element in moving the level, sometimes upward and sometimes downward, is credit; that, in periods of stringency, gold comes in as a more active influence; and that there is, thereafter, a moment when what might be called the "natural" values of gold and credit correspond. For the contraction of the latter, in passing from a period of inflation to one of depression, raises its value and carries the gold along. If one could determine *where prices pass the pure gold line*, from the upper to the lower price side, one would have that as the place at which the credit and the gold corresponded in their value. It certainly would not be fair to take, as that line, the value of gold, after credit has vanished from circulation. If, however, average, normal prices be chosen, then it is plain that they depend upon the normal volume of credit, and that the value of gold also depends upon it, so far as the value of any commodity is influenced by the breadth of its employment.

The various constituents of the circulating medium satisfy partly different uses,

4. Study of the relation of credit to money calls for clear distinction between the latter and other things that fulfill partial money functions, and conduces toward placing in proper light the different parts of the so-called "circulating medium." In their ordinarily indifferent employment for the purchase of goods, little distinction is observed between them. Men seldom stop to inspect what kind of paper money they accept, among the multifarious denominations that enjoy currency. They know that they can, in any case, pass it on. The question of forgery hardly enters, nowadays, and it is a matter of indifference whether the token be metallic or a note. One may, perhaps, be averse to metal, on account of its weight and the inconvenience of handling it, or, on the other hand, have special use for it, such as may arise on a trip abroad, or because one is in the banking business. But it is a notorious fact that current redemption

has so gained men's confidence that they have, long ago, ceased to inspect or question the habitual brands of demand credit.

In crises, however, discrimination is made between the different kinds of "money." A crisis marks the break of gauge between money and credit. Then money becomes again, in the modern system of trafficking, the circulating medium, to a considerable extent. For the sake of exposition, it may be assumed to be, for a while and exceptionally, the sole, circulating medium.

but, in time of crisis, are, to a certain extent, able to do duty for one another.

It is needless to repeat that, under these circumstances, it passes as a temporary substitute for the customary medium, credit. Much gold came into circulation, in the fall of 1907, immediately after the crisis of October. In the severe crisis of 1893,[1] it was, in many places, the common means of exchange. Men handled it with surprise, and the more so since, in the calamity and degree of poverty and despair of financial resources, in which they found themselves, they had no alternative but to accept gold from the occasional, solvent debtors or purchasers. The *sacra fames auri* seemed to be gratified, at the moment of deepest despair.

Gold is, therefore, more than usually in evidence, at such a time, and is freely imported.

5. This yellow deluge may be said temporarily to bring back a primitive environment. The period is one in which the promises of future production fail to sustain their current purchasing power. The untoward disappointment indicates, on principles which have been studied, dissolution of the system of contracts, by which all production is normally cemented together. It is a delicate and highly evolved structure, which only coheres by virtue of coöperation, social harmony, and oneness of purpose. Its disunion precipitates a return to a more haphazard régime. Merchants are left in the dark as to how much of their wares will be

The substitution of gold for credit denotes the substitution of an indefinite promise to purchase, for the network of contracts to produce, which had given certainty to industry.

[1] "Increased Use of Gold in the Crisis of 1893," Note, Quarterly Journal of Economics, VIII, 106.

taken off their hands, or how large orders, consequently, they will be able to place. Therefore, it suddenly becomes highly desirable that they dispose of a universally acceptable commodity, which they can store, even at loss of interest on capital, in order that they may have by them the wherewithal for cash purchases of supplies.

Theoretically, the metallic standard was the circulating medium in early epochs. The hypothesis is, at any rate, useful in explaining specialization of financial functions.

In a certain sense, the standard of value is whatever circulates at the moment, whatever men can purchase goods with, now and here. Its value is positive even though evanescent. The act of circulating makes the "money" the standard. In early times and in a primitive community, when coin could perhaps have been called *the* circulating medium, it habitually combined this standardizing power along with that of exchange. It was entirely natural for men to infer that these functions were inseparable. The exercise of them has subsequently been differentiated. Credit documents have been elaborated into the common medium of exchange, while gold retains its original quality, that which imparted to it the primitive, provisional attribute of circulator, namely, the storing of value.

In modern credit-economy, a partial rotation of functions has supervened. Inflationist fallacy confuses circulation with guaranty.

The sway of the credit system in the world market does not always remain undisputed. Occasionally, it may properly be said that the standard is an alternating one: at times it is credit and at times, gold. Sometimes the one standard comes into use and is the actual means of circulation and of setting the range of prices, and again the other. The inflationist heresy arises from a confounding of a long-period standard with the circulating medium.

6. The angle of vision which bounds the consecrated discussion of a topic, is frequently recorded in an Homeric phrase, which must not be overlooked in the severer treatment, for it shelters an acceptable explanation. The thesis *whether credit be a substitute for gold*, has claimed much attention in political argumentation. Orators, in recent cam-

paigns, endeavored to answer the proposition of the opponents of the then appreciating gold standard, that its dearness was injurious to the "debtor class," with the airy generalization that "It is of no importance whether the supply of gold be plentiful or not, because *credit can always be substituted.* The latter is abundantly able to carry on the exchanges, so that, if validity be conceded to the quantity theory, dear to the inflationist party, appreciation of the circulating medium can barely take place. The amount of 'money' in the society, therefore, is always sufficient."

Claim of political orators that credit is always substituted so as to make up for a deficiency of gold is an error.

But it has been seen, in the first place, that little deficiencies in the supply of money tend to *contract* credit, because they put a break on the disposition of bankers to loan; and, in the second place, that the volume of credit depends upon the buoyancy of the community with respect to investment and to the future of industry. That, again, would perhaps be discouraged through the refusals of bankers, induced by lack of metallic supplies, and encouraged by excess. But, in the long run, probably it is not deeply affected one way or the other by the guaranty material, when once men's reckonings have adjusted themselves to a lower level of prices. Hopefulness is bound to put in its appearance, even though all gold should vanish. The employment of credit depends upon the organization of industry, that is, upon the division of labor, and upon the making of contracts between different individuals for the production of every particular portion of the common, social product. It is, therefore, doubtful whether there is any organic law by which credit is substituted for money by tale, in case there be a deficiency of the latter.[1]

Credit depends upon enterprise, and only occasionally upon gold supply, and then not in a way to encourage substitution.

That which determines the volume of credit, instead of

[1] This point has been alluded to by Professor Laughlin in his Principles of Money, p. 102.

The spread of the conveniences of a credit-economy looks like the substitution of credit for money, but is a very different thing.

being lack of money itself, is the development of the credit institution. It is a long-time problem, intimately interwoven with the historical growth and the crystallization of the usage of merchants, something quite removed from the fluctuations of the supply of gold or of the balance of foreign trade. This secular point of view has little in common with that of the hustings. The assertion of an automatic supply of credit or of gold may easily be entertained, if long enough time be allowed in the premises, but as an argument that money is never responsible for changes in general prices, it lacks substantiation.

Substitution theory of Professor Kinley covers the application of the "marginal" principle to money and credit.

Rise in the marginal value of gold cannot call a body of credit immediately into existence, but may stimulate the adoption of permanent gold-sparing devices.

7. Substitution theory has received attention from Professor David Kinley, who values the formula that increase in the marginal value of money encourages its replacement with credit.[1] But this denotes a change of institutions, is a slow operation, and can hardly be a readily responsive process of keeping the circulation adequate, as the same author concedes.[2] There are classes of affairs in which the various kinds of currency may be used with indifference, either the multifarious issues of government, or of banks (including deposits), or coin. These transactions coming on regularly, if there be a deficiency, say of the gold habitually required, there will be, in order that payment may not fail, a momentary call for an alternate and related kind of circulating medium. The demand is "marginal," that is to say, its intensity is measured by the most urgent instances. So, approaching the question from the point of view of substitution of the cheaper tool for the dearer, he finds that, at times, there is a tendency to substitute credit for money. But there is nothing to show that such subrogation is effectual to prevent fluctuation of prices. Institutional substitution, on the other hand, develops so slowly that fluctuations are rather encouraged, since it can be effective only

[1] Money, p. 161.

[2] *Ibid.*, ch. VI, §§ 4, 5, 6.

over extended averages, and actually requires money stringencies as stimulus to its progress.

But the institutional hypothesis is an unnecessary concession. There is, in history, no such thing as compensatory substitution of credit for money. The growth of credit accompanies that of business. Modern industry and commerce never could have been carried on with money, because they require credit contracts to maintain the framework of affairs steady and solid. The creation of additional credit, in this institutional way, as time goes on, is in no sense an alternative or shifting substitution of it for money. It is a permanent improvement in the approved methods of doing business. Dynamically considered, it is a replacement only if that be understood as depending on more highly developed financial habits, and not on a momentary, habitual adoption, under old usage. In the new period, the money itself is not employed as it was in the old. Then, it was a medium of exchange, *along with* its other function of storing value. To-day, the "additional" credit is performing a separate function of exchange, and the money is performing a special duty of guaranty in the reserve, and of storing value for that purpose. This institutional change, therefore, cannot be looked upon in any immediate sense as a substitution.[1]

But neither the development of credit institutions nor a temporary inflation can be regarded in the light of a substitution of credit for gold.

Again, expansion and inflation cannot be looked upon as substitution. In the period of expansion, promises are set

[1] Evidence of money economy is obtained by comparison of reserves and deposits at different periods. Thus, the reserves of the Reichsbank, 1880–1909, increased from 522 to 915 millions of marks, or 75%, while deposits in the banks of one million marks capital or over, increased from 813 millions to 7 billions, 51 millions of marks, or 923%. "The percentage of reserve (of United States National Banks) in June, 1873, was almost exactly that of the banks in July, 1908, when, on account of generally inactive business, the banks held far larger reserves than is now customary." O. M. W. Sprague, National Monetary Commission, History of Crises under the National Banking System, p. 10.

in circulation because there is nothing else to do with them. They are good for nothing unless to buy present goods. On account of the faith that has sprung up between man and man, and of courageous hopes for the future, a smaller relative amount of guaranty commodity is required in the reserve. But that comparative easing of the strain on the metal is not a substitution in any sense. It is a changed relation of things. The total reserves are not necessarily decreased as a result of expansion of credit, and never, in consequence of its historical growth.

The theory of substitution thus holds only within a limited area, and is in danger of abuse when used for political argument. A farmer, for instance, prefers to "pay" his "hands" in bank notes, and to carry a bundle of them in his pocket for the purpose, because they are the most convenient tool, under the conditions in which he finds himself. But he can keep a check-book, instead, if necessary; and he may also be persuaded to acquire a small stock of silver or gold. Some manufacturing corporations paid their workmen in gold, for a while, after the crisis of 1907. These instances illustrate the feasibility of change, within a narrow range of transactions, from one medium to another.

Again, redemption of credit with gold is in no sense a *substitution of gold for credit.*

8. On the other hand, however, the employment of gold by banks, at a time of crisis, to pay their creditors, when they have been unable to effect a set-off against the demands on them by demands on each other and on individual note-makers, is, indeed a retrogression, but not a substitution of gold for credit. The disbursement of coin, in that case, is not made in order to facilitate the daily business of exchange. It is the affectation of a guaranty fund to make good a guaranty, which is an entirely different function. It is the application of a specially dedicated commodity, and is not the routine induction of it into the usual course of manufacture, production, transportation, or exchange. It

is not accomplished for the sake of circulation of goods but for the redemption of promises.

In times of prosperity, the circulating medium is *future goods;* in times of crisis, *past goods.*

In ordinary times, *credit,* which is *future goods,* is employed for the circulating of *present goods, including gold,* which is also to be looked upon, in that case, as a present commodity. When the Austrian government decides to return to the gold standard, it buys gold in New York for that purpose, with bills of exchange. Thereby it circulates the yellow metal with the promises of future goods. But, in a time of crisis, when gold has been imported to make good promises, or in other words, to "pay" them, then it may be said, exceptionally, that *past production* is now applied to the circulating of goods *and* promises. In ordinary times, then, future goods circulate present goods, including gold. But in the extraordinary pressure of a crisis, gold, the past, the realized good, circulates promises and wares.

Money has always been, essentially, the store of value.

9. Evolution has separated the functions of credit and money, and expressed or objectified them in different substances or symbols, whereas, in primitive epochs, those functions had been common to one, which was called "money," although enlightened prevision might well have baptized it "credit." [1] The duty of insurance which money now performs, it has, indeed, always sustained. That of exchange, which credit now fulfills, it also always has done. Originally, money, by the storing of value, also facilitated

[1] "Official mintage is a great service rendered to commerce by political institutions. As Aristotle justly remarks, 'Men are in this way saved perpetual measurings.' (Polit. 1–6, 14–16.) The authority of the State guarantees at once weight and fineness, it gets rid of scales and the touchstone. It thus imparts *that quality of credit-value which is essential to all money,* even the best, and that allows of the setting up of a legal state of acceptability which could not obtain for the unguaranteed bars of the preceding period." M. Hauriou, Principes de Droit Public, p. 292. The italics are the present writer's. The "quality of credit-value" does not come from the state, but only begins when, after mintage or coinage, the money is sought for circulation. Anyhow, it is expressed on the coin; and that is the important thing.

exchanges. Under the modern banking system, it serves the same end, for it is stored in vaults for the unique purpose of possessing in "reserve" the supply of material value found indispensable, in presence of the widespread employment of documentary credit. The functions are identical. Its primitive usefulness embraced also direct exchange; it was passed from hand to hand. In the lapse of time, there has occurred a differentiation. The credit certified by coin, which was, originally, chiefly of the kind which Professor Sherwood called "consumption," that is, the promise of everybody that he would accept money for his goods, has won a distinct entity. Instead of being conventionalized as an attribute of the metal, it is now printed separately upon a slip of paper, and is circulated alone, while the money is garrisoned in bank casemates, as undistracted force in reserve, the Swiss Guard of finance. Recognition of the persistence of the original, storage utility equips theory with a symmetrical system.[1] The guaranty and the standard functions are both corollaries of this historical employment.

Is it a secure store of value?

Since money is important for the laying by of property destined to the honorable service of redemption, the public is ever putting more stress on the important question as to whether during the period of inactivity, it preserves continually unchanged exactly the same value. Men are becoming sensitive on the point, whether the storing of value is not merely roughly adequate but is precisely equitable. Social service demands that a topic which has been so earnestly and often bitterly insisted upon, at the hustings, should not be passed over in silence, in the lecture room.[2]

Inflationist schemes are born of ignorance that the functions

10. The different functions of money have been amply noticed by standard authors, but the public has not been sufficiently impressed with their significance. In the United States, a great obstacle to enlightening the voters during

[1] Cf. ch. VI, § 12, *supra*.

[2] See ch. XIV, *infra*.

"educational campaigns," and to creating a sound public opinion on the subject of the standard, has been that the public, instead of recognizing that credit and metallic money fulfill different functions in the general system of circulation, exchange, and guaranty, has been prone to believe that each form of "money" embraces all of the functions. The confusion is quite natural, in an unprepared mind, especially since a certain capability for substitution, in short periods, must be admitted. Accordingly, a dangerously large contingent has believed that, if paper money is adequate to circulate goods, therefore, it is fit to be the standard of value. So it is, when organically coordinated with the metallic standard.

of money have been specialized.

Undoubtedly, the prime fallacy of the inflationists, with which sound-money advocates have had to contend, has been precisely the inability to grasp and hold the truth that the paper and the real money have, in the long run, parted company and are actually rendering complementary services. The incomprehensibility is augmented by their periodical alternation; for it is obligatory to retain the corollary that the diverse duties may be reunited in the metallic money, in a moment of crisis, or that, on the other hand, those of the metal may be taken to be assumed by the paper in times of credit expansion or even of contraction. Such fine distinctions are evidently out of place in the common-sense views of busy persons, preoccupied with their own affairs, who thus easily fall victims to cheap, moral obfustication which says: "If this piece of paper is money, it ought to perform all of the functions of money." This is probably the critical point in the inflationist psychology. It is, at any rate, good evidence that men do not understand their mental environment, as admittedly they do not their physical. The conclusion is imposed that a material standard of deferred payments exists as a product of evolution.

Various theories are rife among economists as to the possibility of an ideal standard.[1] Certainly, material is requisite to store value. As to the conserving of the precise amount, that was hotly discussed twenty years ago, and not without results. At any rate, human activities must take account of the physical and moral environments. They are futile or noxious unless based upon both. The question between the gold and the suggested commodity standards, is one as to whether modern economy shall accept the one selected by historical evolution, or shall voluntarily choose certain materials other than the precious metals and affect them with a conventional computation.

The measure of inflation or the reverse, by the "price of gold," is a rough expedient.

11. In measuring the fluctuation of prices caused by credit, it seems important to isolate it from the gold-value level. The orthodox practice of measuring the direction of the change from the metal, has led to the erroneous conclusion that the exact variation also was thus ascertained. When prices fall, it is readily perceived that the previous high level had been the result of expansion. At times of crisis, as heretofore remarked, they frequently fall so far as to raise the purchasing power of a dollar beyond or above what is sometimes roughly called its gold value. And yet, "gold value" is a difficult thing to determine. In the days of Tooke and Lord Overstone, the so-called Banking School of theorists claimed that demand credit could not effectively diverge from gold value, since the cashing of notes or the exportation of gold would correct the aberration. There is no difficulty in establishing the fact that gold is at a premium, or, in the case of revulsion after a crisis, at a discount, in paper. But that is not the problem. The real difficulty is to find a theoretically absolute level of prices, unaffected by credit fluctuations. This might be sought in a gold currency. But since the supply of gold is everywhere deeply

[1] Cf. ch. XIV, *infra*, Justice to Debtors.

affected by the state of credit, it is impossible to estimate where it would stand under the hypothetical abstraction of credit. Moreover, if such a gold level were discovered, it would vary from other causes. The difficulty would appear to be remedied by the "tabular" standard. But it is not, partly because practical considerations necessarily limit the variety of commodities to be included.[1] The test of inflation remains the demand for redemption.

A gold-value level of prices is an extremely hypothetical notion. It is said that prices fluctuate about gold level. But the value of gold is momentarily more influenced by demand than by cost of production; and the demand for gold is itself constantly fluctuating, being extremely strong at the moment of crisis, and weak, for a while, during the subsequent depression.

Contraction of the current credit, at time of crises, increases the demand for gold for monetary purposes, and, if prolonged, elevates its value markedly. The common-sense formula runs, that contraction of the currency pushes prices down. But when it is said, *below something*, difficulty arises, which is not obviated, although it may be concealed, by the mention of the metallic standard. A more deliberate statement lays bare the complexity: "below what prices would have been, in ordinary times, influenced by habitual cost of production and supply of gold, and by the ordinary demand for it, including such as depends upon credit."

The English Bullion Report of 1810 suggested the price of bullion in currency, or the price of foreign exchange in currency, minus the cost of transporting gold, as the measure of inflation. Roughly, this will do, but it is not accurate, since the demand for bullion, especially in an isolated society, may have been exceptionally affected by the expansion of credit. Gold value, at the time of crisis, cannot be taken for the standard, although, at that point, the circulating medium become gold. It has been pushed to a great height (*i.e.*, prices are deeply depressed) by the defection of credit. At this moment, the active factor is the *absence* of credit, just as, in the high period, the active factor, again, is its *presence*. In the former period, however, gold resumes its archaic, circulating function, which, in the

[1] Cf. ch. XIII, § 19, and ch, XIV, § 1, *infra*.

latter, it renounces. It has been seen in what sense there may be said to be a substitution of credit for gold in circulation, in a time of rising prices. But to adduce that the occurrence is because of merely a fluctuation in the marginal value of the credit relatively to the gold, does not carry the explanation far. More satisfaction is obtained by going into the motives which at one time create credit and, at another, destroy it. The ability to import or export gold, and to deposit or withdraw it from deposit, is undoubtedly a reason for commodity prices not departing, in extreme cases (where there is not a forced currency), more than, perhaps, five per cent from *some* gold level. That is certainly true, even though it be impossible to assert that the extent of the aberration is measured from the cost of production of gold or from any absolute, standard price.

It is desirable that prices should fluctuate moderately,

12. But contemplation of alternation of price determinants teaches that fluctuation of prices is an entirely natural thing. Human mentality has reached the stage where, the moment a class of manifestations is recognized as "obeying a law," then they are welcomed as "natural." Previously, they stood under the ban of the "abnormal." It is just as "natural" for general prices to fluctuate as it is for the relative exchange value of different commodities. If it is not abnormal for potatoes sometimes to go up with respect to overcoats, then it is not for promises of future production to go down with respect to potatoes *and* overcoats. The one disturbance of relation is precisely as normal as the other. Explanation of any occurrence is realized simply in discovering that it happens in the regular course of events. That makes it normal, in contemplation. It is not to be inferred that it is not desirable to grasp measures to minimize value-fluctuation of promises, if that takes place in an inordinate degree. The same motives, however, obtain for regulating the relative value of potatoes and overcoats.

Moderation is the test of sane administration; and it is patent that, in a living society, there must ever be matters calling for administration, and, among them, a habit of the price-level to move up and down, sometimes within reasonable limits, but, again, to a dangerous extent.

in order that an organic standard be maintained.

Hurricanes overwhelm forests, and should be guarded against. But the pressure of the usual winds moves the leaves, branches, and even trunks of trees and so encourages healthy circulation of the sap. The evidences of the organic tendency to test the value of credit in terms of gold are of common knowledge, although they are not generally explained as biological or natural phenomena. The fact that men are, at a given moment, no longer looking upon credit as exactly good, but that they are a bit anxious as to whether a dollar in paper is really worth as much as a dollar in gold, is to be found manifested and measured in that feverishness of the gold market or of the foreign exchanges, that Giffen laid stress upon. Tightness in the money market and exports of gold indicate that there is an impending break of gauge between credit and money. From the symptoms it may be inferred, either that the community is steadily progressing or that ambition disregards deeply rooted limitations.

Biologically viewed, species that are only slightly differentiated allow of limited replacement by one another,

The different phenomena of life present series, and the most closely related agents may be, in extreme cases, substituted for each other. Specifically, credit and money may be mutually substituted, momentarily, to a moderate extent. Men can use something that is out of fashion, for a while, if they have not the thing that is in fashion. Similar reasoning applies, all the way up and down the economic gamut.[1] A crisis, in a financial environment, is a condition

[1] The application to the choices among capital-goods is admirably given by Professor Alfred Marshall, Principles of Economics, under Complementary Goods, and in many other parts of that work.

but there is always danger of superinducing a violent opposition and a crisis.

of things in which possibility of peaceable substitution is largely destroyed. Promises and funds that were harmonious are now brought into opposition, and conflict arises between them. Instead of the genteel coöperation and conventional compromise which ward off disaster and secure progress, there supervenes that selfish, hard, exacting attitude, which belongs to lower environments. Gold drives credit from the field. The conclusion is, that the operation of standardizing credit by comparison with gold cannot proceed uniformly. If it did, there would be none of the "anomalies" of fluctuation to explain. It is because of the periodicity [1] of the contest between different elements that are regarded as substitutes for each other, that the difficulty in explaining the effects of credit arises.

[1] Prices are the thermometer of industry. Camillo Supino, Le Crisi Economiche, 144.

PART V

CREDIT AND SOCIETY

CHAPTER XII

NOTES AND DEPOSITS. THE ORGANIC IDEA IN FINANCIAL LEGISLATION

1/ Governments interfere in the private credit system partly by their issues of paper money and partly by regulation of banking. Government paper money appears to save interest for the public treasury. — 2. It has been shown by a long series of writers to be a most expensive mode of borrowing. It seems, however, to be an unavoidable expedient in certain political crises. A country badly in debt may possess a sound circulation. — 3. Government paper money encourages erroneous views, but stimulates discussion of them. — 4. The chief objection to it is its inelasticity: by this is meant its artificiality. — 5. Its inability to pass from country to country deranges the internal circulation. — 6. It has been defended by the mistaken argument that "money represents goods." — 7. Losses to government and to citizens arise from paper money. — 8. In recommending a policy to legislators, students must remember that they are to be guided not only by what they understand, but also by what the public understands. This maxim holds especially with respect to legislation directed to control of private finance. — 9. There is frequently popular confusion of promises with guaranty fund, and consequent ambiguity of the word "money." But this haziness is surpassed by that surrounding the word "deposit." — 10. Bankers adopt materialistic views as a result of business practice and of legislative interference. — 11. It is not entirely out of line with the trend of public policy to require banks to insure each other's acts. — 12. Early appreciation of the organic idea in the English Bullion Report. This idea is now known, in restricted form, as the principle of "elasticity" of the currency. — 13. Peel's Act professed to follow the Bullion Report, but failed in grasping completely the organic idea. It is impracticable to put up pledges for the full amount of notes and deposits. — 14. The United States bank acts have had the merit of treating deposits with salutary neglect. — 15. Two inconsistent

tendencies in financial legislation to-day are: (1) to restore elasticity to note issues; (2) to extend inelasticity to deposits. —16. Banking on bonds is not banking at all. This limitation is tacitly recognized as to deposits by the United States National Bank Act. — 17. It was affirmed at the Baltimore and Indianapolis monetary conventions, — 18. and has been persistently advocated in Congress by the Hon. Charles N. Fowler. While perhaps unfavorable to private enterprise, the safety fund project is a part of the general movement toward consolidation. — 19. Bank and other corporation legislation is a good example of the evils incident upon regulative legislation: rules cover cases and produce effects not intended, and thus endless patching of laws is the destiny of attempts to govern and especially to administrate too minutely. — 20. The separation of capital ownership from business control, as a result of the process alluded to (§ 19), makes it desirable that courts of law enforce responsibility upon persons responsible in the eye of economic analysis, whatever be the legal fictions involved in organizing corporations for production. — 21. Gradual improvement of administrative methods in the United States favors legitimate enterprise. The commissions, the Aldrich plan for a reserve association.

Legislative topics now abandon the hypothesis of a credit system evolved solely by competition, and self-sufficient, without government interference or control.

1. Up to the present point, the principles of credit have been studied on the hypothesis of free competition. It has been assumed that the employment of credit had been developed in society by the usage of business men, that an evolution in methods had taken place, reaching back into immemorial time, which was intimately bound up with the increase in wealth, in productive processes, in means of transportation and communication, and in the markets.

However, rulers have sought to regulate and monopolize, not only the money of communities but also their credit. It is a noteworthy further proof of the absorbing position of credit in the financial world, especially as compared with money, that, notwithstanding the efforts of states to control the credit system or to seize it for the selfish purposes of potentates or of parties, they have been able to break down and destroy, or assimilate and appropriate, but a small part of the fiduciary activity. In Oriental countries, it is true, enterprise is throttled by taxation, which is the surest means

to that end; but in a nation where the employment and recording of documentary promises are well developed, the authorities are compelled to face the fiscal problem in a spirit of scientific impartiality. The highly developed credit system of the United States will force that republic into rational methods of garnering the public revenue.

Government paper money is a promise to pay.

Nevertheless, precisely through the channel of taxation, civilized governments have learned to use their own credit in a way which is especially open to the abuses which have been seen to inhere in a period of highest expansion, and thus to inoculate business credit with the fiat contagion. Administrations seek to pay their expenses, or rather to obtain acceptance of their debts, by issues of paper money. Probably, no government paper money was ever sent forth which was not expected to be redeemed in full value, at some time, although that might be distant. Such a thing as fiat money has, it would appear, never existed, as a proposition embodied in serious legislation. Nevertheless, the issues of government money that have not been redeemed, or the payment of which has been either formally or tacitly renounced, have been very numerous, and the term "fiat money" has been attached to them. A brief statement of the arguments for and against the use of government credit will be presented, to be followed by discussion of the regulation of banking.

Advantage of government paper money is supposed to consist in saving of interest and in uniformity of issue.

Among the advantages of paper money, has been mentioned the saving of interest for the treasury, since by that means it is able to place a loan gratuitously, whereas, if it borrowed upon bonds, it would be constrained to pay interest. But this advantage may be far outbalanced by the swollen debts [1] incurred in depreciated currency, which really amount to a high rate of discount. It is also stated that

[1] Professor W. C. Mitchell estimates the loss of the United States Treasury from this source, during the Civil War, at over one fifth of the war debt. History of the Greenbacks, p. 419.

such money is everywhere of the same value, and avoids multiplicity of issues by different banks. But the answer runs that it has been found feasible to cause private banks to reduce their issues to uniform appearance and denomination, and that government guaranty of private bank notes lends them an unique exchange value, if the government be a solvent one.

Paper money is an ingenious but expensive method of borrowing by needy governments.

2. It is true that, in times of war, finance ministers have frequently resorted to issues of paper. The argument has been made that it was necessary, and this was advanced with especial cogency at the beginning of the Civil War, in the United States. Here and there a rigorous logician of the orthodox school, like Professor Simon Newcomb, the economist-astronomer, raised his voice in protest.[1] It was claimed that the credit of the government in the form of paper money was no better than in that of bonds, while the former, by virtue of its legal tender quality, caused circulation and prices to fluctuate with violence and brought an unnecessary uncertainty into business. This, indeed, is the strongest indictment. It is worthy of note, however, that governments accustomed to the employment of experts in their treasury departments, have been able to restore the standard or preserve a good medium of exchange, even when the credit of the country was heavily strained. For instance, the Russian, Italian, and Austrian governments, without any notable reduction of the public debt, have, in recent years, established their money systems on a fairly sound basis.

Nevertheless, at the moment of catastrophe, when means of somehow coming to a temporary understanding with a vast body of creditors, that have suddenly sprung up as if from the dragon's teeth sown by Cadmus, seems to be im-

[1] A Critical Examination of Our Financial Policy during the Southern Rebellion, Appleton, 1865.

peratively demanded, it has been found impossible to avoid a temporary issue of paper money. This was the experience of the French government, at the time of the Franco-Prussian War. It is to be remarked, however, that the French paper money was issued, not directly by the fiscus, but as notes of the official state bank. It is simpler, under such circumstances, to offer visible receipts for the services performed by contractors and soldiers, than it would be to keep a book account of such endless debts. It is incumbent upon the treasury to fund the receipts or warrants as quickly as possible, in order that the evil effect of their use as circulating medium may be speedily terminated. Accordingly, the French finance minister began payments to the Bank as early as the year 1874, thus enabling the latter to contract its issues; and resumption of specie payments was soon effected,[1] January 1, 1878. The United States did not resume until a year later, payment of debts that had been put into form of paper money ten years before the Franco-Prussian War.

It was maintained by Professor Newcomb [2] that the national banks, as a means of borrowing by the issue of paper money, did not offer an improvement upon direct fiscal loans, since their credit would depend upon that of the government, so long as their reserves contained the official paper rather than specie. In time of war, however, if the exigency of the moment is very great, finance secretaries resort to diverse expedients, and, in the United States, a great many different forms of money have been invented in order to avoid the appearance of an over-issue of any one kind. This has been as truly a means of cajoling the public as many resorted to by promoters of private schemes.

Paper money is a perverter of

3. One of the greatest disadvantages of government money issues is that, in the present state of public knowledge

[1] Dunbar, History of Banking, p. 143. [2] *Op. cit.*, ch. VIII.

public opinion, but stimulates the progressive elements of the community to "campaigns of education."

on such matters, they cater to a popular misconception as to the nature of money, namely, the idea already alluded to,[1] that if anything can be made to work as a *circulating medium*, it must, *eo ipso*, also be an efficient and trustworthy *standard of value*. The public is quite willing to be deceived as to the circumstances in which the function of a circulating medium may be separated from that of a store of value. It is to be hoped that this fateful error may be gradually remedied by education.

A bank circulation, even if the bank be controlled by the state, is preferable to direct issues by government of irredeemable or partly redeemable notes.

Another disadvantage, of more immediate import to the national economy, is inelasticity. Even where banks are compelled to deposit bonds as a guaranty for their circulation, there is usually some provision for expanding or contracting the currency, though adaptation may take place tardily. Where the government establishes a state bank and interferes in its operation merely through appointment of officers, as in France and Germany, the circulation may be highly elastic. But where the treasury directly issues paper money to pay for supplies and services, accepting it again only in payment of taxes or of certain kinds of taxes, there is no possibility of expanding and contracting it according to the needs of business. It has been, indeed, proposed that the currency should be systematically pulsated in harmony with the price of gold.[2] But it will be noticed that the changes in the volume of currency effected by this artificial manipulation could not take place until *after* the price of gold had fluctuated. Consequently, some divergence in the value of the circulating medium would occur *before* measures could be taken to restore the disturbed parity between the paper money and the gold. The maintenance of health is based upon the hypothesis of chronic disease.

[1] Ch. XI, § 10.

[2] Chs. XIII, XIV, *infra*, are devoted to the discussion of this and other similar propositions.

4. But the whole fallacy of the proposition lies in the simple fact that it expresses an attempt to supplant a private by a public circulation. This, in the nature of things, can never succeed, for it has already been demonstrated that the *circulating medium consists in the guaranties accompanying private business contracts.* Those guaranties are positive and must be forthcoming to do the work imposed by division of labor. They cannot be excluded, except by stopping exchange of services altogether, or, at least, by abolishing the creation of the congeries of contracts which is necessary to uphold the structure of business. In order to carry on business without such contracts, it would be necessary that every particular act of production, down to the smallest, should be directed from a central bureau. Such a state of affairs would amount to a prohibition laid upon private arrangement and private contracts, or in other words, to an abandonment of all organic thinking or responsibility on the part of the people. There is nothing too absurd for the imagination of scheme-makers. In the United States and other countries, where government money circulates, it has been found impossible to prevent dealing in deposits or entirely to exclude the use of bank notes.

A government issue, from its inorganic nature, cannot supply the place of a private issue of credit.

The government is not properly a producer of industrial values, in the ordinary sense of the word. It is not to be denied that it does assure the social values of security, of the administration of justice, and of public recreation. It also does subvention some quasi-industrial utilities in the shape of light-house protection, regulation of rivers, building of highways, and, sometimes, the construction or ownership of canals and railroads, and even of theaters. But one can readily perceive that these undertakings will not be pushed forward at periods which will correspond with rising waves in private business. Indeed, public works are avowedly carried on in periods of depression, in order to give work to

the unemployed. However beneficent such charitable activities may be, it is not, perhaps, for the good of commerce that attempts should be made to expand the circulation at a moment when the healthy reaction of the business organism demands contraction. Moreover, the product which the government elaborates, is not sold in the market for goods. It is apparently given away. Payment comes in the form of taxation. Ordinary business credit is taken up, when merchandise is sold,[1] and inelastic bureaucratic credit is substituted. If the nation seems to pay for these good things with paper money, that must be redeemed, some time or other, by means of taxation. The replacement of a system of payment by means of taxation for one by means of sale and liquidation with organic credit, is like the mixing of oil and water. The movement of official credit does not correspond with that of private and is a decidedly disturbing factor.

It discourages liquidation and encourages speculation.

5. For instance, during the inflation of private credit preceding a crisis, it is highly desirable for specie to be exported, in order that bankers and other debtors may be stimulated to exert a pressure upon those who, in turn, owe them, and thus, throughout the whole credit structure, responsibility be encouraged and bad business weeded out. The crisis should thus be, in large measure, averted by its early precipitation. *Similia similibus curantur.* In a country, however, even with such a small proportion of fixed issue as has the United States, it has been found that this has left the reserves of the banks and wandered to the seaboard, in attempts to cross the ocean, but, like migrating insects and rodents, has been stopped at the shore. There, caged in the tills of banks in the great seaport, it has encouraged speculation, at a moment when that should have been discouraged. The bears in Wall Street readily seize a period of depression, combined with easy money, to hasten a catastrophe which,

[1] For liquidation of credit, cf. ch. III, §§ 14, 15; ch. IV, § 23, *supra*.

otherwise, might have passed over with a moderate and reasonable season of liquidation.[1] The disadvantages of government money that flow from its depreciation and the consequent ruin of creditors, have been so often exemplified in history and have been dwelt upon so extensively, that they hardly require further discussion.

Probably one thing that induces the electors to vote for it, is the idea that government is better than private credit. Undoubtedly, in time of peace, the national credit is good for more dollars than is that of a very large corporation. But it certainly is not better than that of the whole business community, whose enterprise, as has been seen, is generalized in the circulating medium, so that each portion of the latter depends upon the solvency of the whole.[2]

The fallacy that money "represents" goods has been an argument for inorganic inflation.

6. The popular fallacy, then, which has supported the policy of government paper money, is the total misapprehension as to the organic origin of money. This mistake is unavoidable, since the perception of the truth in this matter requires no ordinary acumen and education. It is a point, like excessive protection, on which progressive men perforce must resign themselves to wait for the growth of public opinion. It is popularly supposed that money "represents" present goods, and that it acts as a circulating medium for this reason. Hence arises the whole brood of propositions that have been made and sometimes attempted to be enforced, from early times, to "coin all the production of the country into money." It has been looked upon by several party conventions, in the United States, as a self-evident proposition, that the money of the country "represented" its produce, and that, therefore, the "value" of the produce should be coined in order to circulate it. It was not sup-

[1] F. M. Taylor, "Do We Want an Elastic Currency?" Political Science Quarterly (vol. 11), March, 1898.

[2] Dearth of "money" *a result*, not a cause, of suspension. Cf. O. M. W. Sprague, Crises under National Banking System, p. 197.

posed that a proposition of that sort needed the slightest demonstration. It was not deemed necessary to pause for a moment, in order to attach a precise significance to the word "represent." This is a point that even students of political economy have not squarely met. The recent development, however, of the theory of subjective values, facilitates the deduction that *money does not represent present but does future goods*, and consequently the inflationist's argument, so far as it is founded on a false quantity theory and neglects the natural, organic genesis of credit, in unexecuted contracts, falls to the ground.

Inflationists argue that if x money represents y goods, then $2x$ money must represent $2y$ goods. But that is only true if some one is under contract to manufacture the goods.

7. Another objection to government money is, that, while there is a gain in non-payment of interest, the usual depreciation of it puts upon the shoulders of the government, when the day of reckoning arrives, a burden far out of proportion to the values received. For instance, it is estimated that the United States has paid much more than the Civil War should have cost, on account solely of the depreciation of the paper money issued.[1] Private parties lose either the depreciation of money on hand, or the high interest they are compelled to pay in order to make up to the creditor, who expects to be paid in such money, for the depreciation of his principal. Creditors also lose, in so far as they have not foreseen the extent of depreciation. Merchants lose because they cannot induce customers to repay the higher money costs. Curiously, when paper money begins to depreciate, the argument is always made that more should be issued, in order to lower the rate of interest. Doubtless, before the depreciation becomes very pronounced, a small additional issue of money will have a temporary effect to moderate the rate, in the locality where it is conceded. But, when the depreciation is rapid or has gone far, probably no effects of this sort would be noticed.

Heavy losses both to government and to citizens result from paper money issues.

[1] Cf. p. 297, *supra*, note.

Finally, an issue of paper money is a confession of bankruptcy on the part of the government. It probably tends to debase national credit more rapidly than the issue of obligations in any other form. It is astonishing what a vast quantity of bonds can be absorbed, if only some time be allotted in which to market them, whereas the field for paper money is strictly limited.

8. Government regulation of private credit now claims attention and, more specifically, that of the most prominent credit institutions, namely, banks. The following is a short account of the development of credit theory, as applied to bank control; of the growing appreciation of it by officials and by bankers; and, in general, of the attempts to bring bank regulation into conformity with the real needs of banking. It will be perceived that these questions, like many others, presuppose a knowledge of the facts before men can proceed to intelligent discussion, and that, when the facts are once known, the hardest parts of the task have already been accomplished.

Government control of private credit should presuppose acquaintance with the facts of industry and finance, and also with public misapprehensions as to them.

What is known as "theory" and often condemned as such, is really but an attempt to arrive at the facts. To a person that has not made this attempt, it appears to be unnecessary, because they are supposed to be self-evident or to depend simply upon observation. On the contrary, facts are not self-evident; and they depend upon an observation, which, to say the least, cannot be made with the outer eye. The facts once agreed upon, the measures of government to be taken will depend upon abuses that have been suffered, but also upon the popular conception of what the facts are. The regulations adopted to remedy imperfections or cover evils connected with a particular form of social service, such as banking, are never the same as they would be, if the people at large had a different or a more correct idea of what the facts were. A law is a compromise

Legislation for control must make some concession to those misapprehensions, since

the public is the power behind the throne.

between the popular error as to what the facts are and what would otherwise be the logical conclusion from the facts themselves.

The question of banking laws is really one of the education of legislator and constituent upon organic banking.

Misconception as to the organic nature of credit has afforded ground for discussion concerning the elasticity of the circulating medium, and especially of bank money. The clearing up of this situation has depended upon the working out and popularizing of the idea that "business makes money." In England, Professor William Dunning McLeod, and in the United States, Professors Charles Franklin Dunbar and James Laurence Laughlin, are especially to be thanked for the prominence they have given to this principle. It has been, however, extremely difficult to bring it into a clean-cut form, even with the help of catchy phrases. The supposed exaggerated distinction between notes and deposits has been the stumbling block in the way of a clear conclusion. For the theory of banking does not contrast them with each other, but both with reserves. The popular, materialistic preference for notes and the perverted term "deposit," have led to endless confusion.

Confusion of promises with guaranty fund arose at the very beginning of the practice of banking, and is illustrated by ambiguous use of the word "money."

9. Originally, a banker was also a dealer in coin. He sat behind a table or "bank," guarding his treasure, and was, apparently, little more than a money changer. The way was open for him, however, to do business in exchange, in other words, to buy and sell money for future delivery. He was thus led to grant loans. But these operations were looked upon purely from the materialistic side. The notes and deposits that he learned to give as evidence of the loans were soon, also, called "money." The financial world has always been obsessed by the tyranny of verbal confusion between the bailment of material money, in a case of hire, analogous to the hiring of a livery horse, and the making of promises for future delivery of money. It has not kept in mind that the latter were not meant to be carried out literally, but were

simply used as guaranty for the fulfillment of business contracts. Money theories have clung as closely as they could to popular, materialistic lines. They have treated notes and deposits as money, and regarded their value as subject to the same laws as those which commodities obey. Among the inflationists, the fallacy persists in a crude form, "that money is what money does," that is to say, if the circulating function is established, the standard-of-value function will take care of itself. And the further fallacy persists, that a bank "deposit" is practically money, because it is supposed to *represent* money deposited in a bank, whereas the literal deposit is but a survival of an ancient and superseded business, out of which banking, indeed, sprung.[1] However, so far as application to-day is concerned, the notion is as fallacious as is the other that a laboring man is a slave because, in ancient times, labor was done by slaves, and because it may be historically true that the laboring class is evolved from the servile.

"Bank deposit" is another ambiguous term, leading to the incorrect idea that a bank loans out money "again."

Following this trend of popular thought, everyday language calls a bank loan, a loan of "money," thereby assimilating it, as above remarked, to the hiring of a livery team. The banker is popularly supposed to be a dealer who takes persons' money on deposit, that is, for safe-keeping, and loans it out *again*[2] (lay stress upon "again"). Observation shows that there is no more than the slightest grain of truth in that idea. One would think that the introduction of the business of the safe deposit company, the facilities of which

[1] Cf. ch. II, § 14, *supra*.

[2] "The commercial portfolio of the credit establishments is in fact nothing but the money of the public temporarily turned into drafts." Lysis, Contre l'Oligarchie Financière en France, p. 204. Excellent illustration of the capacity of emotional writers to put the cart before the horse. "In fact," it is the discount of the banks which furnishes money to the public. Correcter view is taken by Testis, Le Rôle des Etablissements de Crédit en France, p. 110. Also, by A. Lefranc, La Liberté du Commerce et les Établissements de Crédit, p. 78.

are often taken advantage of for secure storage of specie, would cause inquiry as to the difference between this revived, old deposit business and the modern guaranty business. But when a form of speech is once rooted in the language, it is almost impossible to eradicate the fallacies that may cluster about it. Students of the political sciences are often constrained to show that new meanings have attached themselves to old terms. It is most curious that the misapprehensions here again alluded to prevail, in the presence of the modern fact that almost everybody deals with a bank. He knows that part of his deposits come from his borrowings in his business. Why should he not draw the natural inference that the checks of others, which he deposits, arise also from loans obtained previously by them? There is crying need for economic, and especially for financial, education. Although banking business has been developed, in practically its present form, for two centuries, the popular theory is still that of the money changer on the Rialto. And yet the economist is perpetually met with the question whether there is any practical application of economic theory!

Legislative blunders have miseducated the banker himself.

10. While the banker has accepted some of the false conclusions of nominalistic reasoning, he has rejected others, and is gradually emancipating himself from the rest. Under the misdirection of arbitrary legislation, he opens his profits-and-loss account on notes separately from that on deposits. He looks upon his notes as issued, not for loans, but for bonds, in the United States, in the face of the obvious fact that he buys his bonds with his capital. On the Continent, where the deposit business is little developed, he looks upon deposits as a special warehousing business, although he takes the right view there of his notes. And he is only now, after years of false conservatism and confused timidity, receiving his education on the similarity of the note

to the deposit, through the efforts of a few statesmen, in-influenced by academic models, like the Hon. Charles N. Fowler of New Jersey.

Rôle of the phrase, an "asset currency," has been political.

As was to be expected in a campaign of education, it has been necessary to lure the banker thus far, by inventing the new and again inaccurate expression, "an asset currency." This phrase has taught the bankers of the United States that bank notes are merely issued in exchange for individual notes, in precisely the same sense as deposits, — a point that was fully explained by Dunbar and McLeod, thirty and forty years ago. It remains to enlighten the banker and the public as to the guaranty that this exchange involves.

Academic analysis slowly spreads through the community.

In legislation on the subject of banking, one hopes to discover some progress, and, as already intimated, not without realization. Distinctly, the discussions of the nineteenth century have led to clearer ideas and to some improvements in legislation. The influence of professors of political economy and of closet students of finance has been, of course, quite indirect. Even what college undergraduates have learned on this subject, in the last twenty-five years, has not been clearly retained by them, in the later hurly-burly of life and under the pressure of the practical needs of the moment. They have too often lost the general bearings of what they had been taught. Clearer ideas on any public topic involve a revision of ideals, and this concession, in turn, leads to a course of conduct more in conformity with actual conditions. These fixed circumstances, as already implied, consist not only in the physical plant of modern life, but also in habits and customs which, whether they be reasonable or unreasonable, are even more slowly modified than the conceptions which have just been shown to be undergoing change.

Is the banking business so

11. One such environing form of thought is as to the special nature of the banking business. It has been es-

important as to be singled out for state control?

teemed much more important than any other, doubtless by an unconscious recognition that it involves control of all. While the view is correct enough, the emphasis is laid in the wrong direction. Is that calling so different from others that all the demand liabilities of the bank should be warranted by the state? It has been customary for some governments to guarantee the note issues of their banks, or to provide, in banking legislation, that the national bank shall itself put up a *guaranty fund for the notes rather than for the deposits*. From this precaution, the step seems easy to the setting apart of a guaranty for all of the demand obligations, that is to say, for the deposits also. It has not been customary to compel banks to surrender to the state a guaranty fund covering deposits. Some countries, like France, do not guarantee even the note circulation. It is significant that the Bank of France, which already has the largest note circulation and whose business is practically entirely a note business, is subject to no legal regulation of its demand liabilities, except a nominal upper limit of issue, while it carries the largest reserve of any such institution in the world. In other words, without legislative provision, it takes unsurpassed precautions to safeguard its demand obligations. It is only fair to concede that the Governor of the Bank is appointed by the government, and that there is moderate play here for benign administrative interference.[1]

But the business of raising potatoes is a business of public interest. Everybody consumes potatoes. They are needed even more than bank loans. Why should not government tariff the selling price of the potato crop? The suggestion to guarantee an export price of wheat is not new to political circles. The proposition for the state to indorse bank deposits is repugnant to the principle of private enterprise. But the modified proposal to encourage banks voluntarily

[1] Dunbar, Chapters on Banking, 152.

to organize themselves into a guild for the defense or insurance of their notes and deposits, may be a reasonable one, in the present state of public opinion on finance and in the present tendency of businesses and classes toward separatist organization.[1] Such a scheme should not be one of "free banking." The guild should pass on its own membership.

So long, however, as the notion generally prevails that a deposit is evidence of money given to the banker, and that the latter loans out the money deposited, and also the other inconsistent fancy, that paper money, whatever be its source, is a long-time standard of value, those misconceptions will necessarily influence legislation and furnish an excuse for restrictions which hinder rather than further business. It is impossible to obtain scientific legislation in advance of the movement of popular opinion. This is a wise provision of an over-watching Providence, which has put the welfare of the whole people above that of any particular institution, such as banking, and which decrees that the imperfections shall not be wholly removed until the population has been educated to grasp fundamental principles.

"Elasticity" has been the form taken by the organic idea within the banking circle.

12. There have been two main reforms to work out in banking legislation: one as to the elasticity of the currency, and the other, subordinate to the first, as to the assimilation of notes to deposits. In early times, notes were used almost exclusively, the deposit business came in gradually, and for a long time it was not considered that it was really banking. When the question of the influence of credit upon crises first arose, bank credit was almost entirely in the form of notes. During the suspension of specie payments in England, at the time of the Napoleonic Wars, an investigation

[1] For an account of the workings of the Oklahama deposit guaranty, *vid.* W. C. Webster, "The Depositors' Guaranty Law of Oklahama," The Journal of Political Economy, vol. 17, no. 2, Feb., 1909. Thornton Cooke, Quarterly Journal of Economics, vol. XXIV, pp. 85, 327, "Insurance of Bank Deposits in the West."

into the operations of what was known as the "bank restriction act" of 1797, whereby the Bank of England was allowed temporarily to refuse payment on its notes, and in consequence of which the price of gold and of exchange rose considerably, led to the making, on June 8, 1810, of the famous Bullion Report, which is one of the most carefully considered documents that ever issued from a legislative committee.

The Bullion Report is mainly taken up with a convincing argument that the rise in foreign exchange and in commodity prices was due to inflation of Bank of England notes, as a consequence of the exemption of the Bank from the obligation to pay specie on demand. The keynote of the Report is that financial legislation is interference, and that "sound money" is furthered by leaving the banker exposed to his natural obligation as a debtor. But the Bullion Report saw clearly the need of loaning according to the demands of business; in other words, that business makes money, that the amount of loans is practically parallel to the amount of business. And it went further and indicated that deposits performed the same function as notes. This statement, coming at that early period, is so remarkable that it deserves quotation: —

The Bullion Report clearly perceived the organic nature of the bank loan, and partly indicated the economic identity of the deposit with the bank note.

"The effective currency of the country depends upon the quickness of circulation, and the number of exchanges performed in a given time, as well as upon its numerical amount; and all the circumstances, which have a tendency to quicken or retard the rate of circulation, render the same amount of currency more or less adequate to the amount of trade. A much smaller amount is required in a high state of public credit, than when alarms make individuals call in their advances, and provide against accident by hoarding; and in a period of commercial security and private confidence, than when mutual distrust discourages pecuniary arrangements for any distant time. But, above all, the same

amount of currency will be more or less adequate, in proportion to the skill which the great money dealers possess in managing and economizing the use of the circulating medium. Your committee are of opinion, that the improvements which have taken place of late years in this country, and particularly in the district of London, with regard to the use and economy of money among bankers, and in the mode of adjusting commercial payments, must have had a much greater effect than has hitherto been ascribed to them, in rendering the same sum adequate to a much greater amount of trade and payments than formerly. Some of those improvements will be found detailed in the evidence: they consist principally in the increased use of bankers' drafts in the common payments of London; the contrivance of bringing such drafts daily to a common receptacle, where they are balanced against each other; the intermediate agency of bill-brokers; and several other changes in the practice of London bankers, are to the same effect of rendering it unnecessary for them to keep so large a deposit of money as formerly." [1]

Peel's Act misinterpreted the Bullion Report,

13. The Bank Act of 1844, known as Peel's Act, professed to be founded upon the principles of the Bullion Report, which, however, in some respects, was profoundly misinterpreted by the Act. The Bullion Report was infused with the spirit of freedom that prevailed at the time when it was written, whereas Peel's Act endeavored to restrict the issues of the Bank within the narrowest limits. The former understood that notes were issued in response to the needs of commerce, whereas the latter looked upon the notes as money. It, therefore, regarded them as a standard of value, whereas the former appreciated them only as a means of circulating goods.

[1] "The Bullion Report," Sound Currency, vol. II, no. 14, p. 23: found also in W. G. Sumner's History of American Currency, Appendix.

The Act fell into this error, doubtless, also through the influence of the materialistic reasoning of the economist, Ricardo, whose doctrines, correct as they are in many respects, nevertheless gave a wrong turn to analysis of money and credit. In endeavoring to account for the level of prices, he had arrived at the apparently obvious, but clearly too broad, conclusion that the contraction of the amount of paper money affects the level of prices *in the same way* that it is affected by the similar movement of coin.[1] Peel's Act, accordingly, sought to make every paper pound in circulation as good as a gold one. It required that for every five-pound Bank of England note issued, corresponding five pounds of gold should be put into the reserve. Doubtless, the effect of this legislation was to accelerate the use of deposits, since no genuine note business could be done under a statute of this sort.

by a futile endeavor to make every pound as good as gold.

In order to drive this legislation to its logical conclusion, let it be supposed, for instance, in the United States, that a "popular" policy should command the banks to hypothecate with the state a dollar of gold for every dollar of *deposits* that appeared upon their books. Unless some new financial expedient were immediately discovered, whereby business guaranties could continue to be independently made, it is little exaggeration to say that business enterprise would come to a standstill, and that the lawyer would be constrained to make his own shoes, and the shoemaker to plead his own cause, until, at last, the anterior money system could be resurrected. But it is not probable that any such extravagance will be enacted, for the logic of events is more powerful than that of the street corner. *Business must have its organic guaranty,* no matter what the politicians, or the legislatures, or the statute books, think about the matter.

Deposit guaranty could not go to the extent of a pledge for every dollar of outstanding deposits.

[1] David Ricardo, Principles of Political Economy and Taxation (E. C. K. Gonner, ed.), p. 125.

It is claimed that government guaranty of deposits is calculated to weaken free competition, and hence, responsibility in banking. It affords the politician-banker an advantage over the tried, experienced banker, and discourages the latter. However, the bankers will doubtless seek compensation in consolidation and a common understanding — a result not popularly desired. They will try to ostracize the politician-banker.

Peel's Act attempted too much in the way of discouraging undue inflation, and naively ascribed inflation to bank notes alone.

The Bullion Report produced little more than an academic effect, and Peel's Act was, after all, a beginning of legislative reform. It is admitted to have effected the good result of stimulating the Banking Department of the Bank of England to guard a larger reserve for time of crisis, and thus, indirectly, it brought into greater prominence the difference between the circulating and guaranty functions. The Act also recognized that inflation comes through credit, although it made the mistake of thinking that undue commitment arises solely from expansion of notes. For it attempted to prevent crises by restricting the issue of notes alone. The banking department, consequently, was caught with an insufficient reserve against deposits, several times thereafter, until it learned its lesson from experience.

The first and second United States Bank Acts ignored the deposit business.

14. The first two United States Bank acts, those of 1781 and of 1816, recognized the resemblance of notes to deposits to this extent, that they did not mention the distinction between the two in limiting the amount of obligations into which the bank might enter to twice the capital, together with the reserves. However, as already mentioned,[1] deposits were, in those days, insignificant in America as well as in Europe, and probably were not thought of especially in the framing of that provision. The present National Bank Act, of 1863–1864, made, formally, a backward step, by restricting the application of its guaranty fund to redemp-

The third act, the National Bank Act of 1864, tried to secure the

[1] On slow growth of deposit business, cf. ch. II, § 14, *supra*.

solvency of banks by limiting and securing the note issue, but unwittingly did business the service of leaving deposits free from regulation.

tion of the notes loaned. Of course, it could not have guaranteed deposits by a dollar-to-dollar fund. The mention of notes at all is a symptom that deposits were, by that time, 1864, becoming more important. But the act made advance in only limiting the amount of notes loaned to the capital, and in thus allowing obligations in the form of deposits to be increased indefinitely. Finally, in 1894, under the stimulus of the general financial discussion that was going on in the country, a plan was presented at the annual meeting of the American Bankers' Association, held in Baltimore, which proposed to do away with the deposit of government bonds as security for the notes, but to defend them by a guaranty fund to be raised by a tax upon the bankers as a guild.

15. This idea is bearing fruit and has thoroughly permeated recent, general, intelligent discussion of the banking question. Men are beginning to ask, further, why should bank notes be absolutely secured? especially when deposits are not and cannot be. It is true that reformers of the more popular order, taking the other horn of the dilemma, are demanding that bank deposits be made just as safe as bank notes. In general esteem of thinking persons, the "banking principle," not viewed as a doctrine about the causes of inflation, but as one which puts promise and guaranty fund in their proper relations to each other, is now gaining the upper hand of the "currency principle." The movement is not confined to this country. "The proposition to make a rigid requirement to invest deposits and reserves in absolutely good securities, is not a new one; but it is impracticable. Among other bad effects, it would completely paralyze a bank which desired to make a judicious investment of the resources that it had acquired from third parties. Good bills of exchange, drawn by solvent persons, are preferable to a portfolio full of stocks and bonds,

There are two inconsistent movements before the public; one to render the note issue elastic, and the other to extend note guaranty to deposits.

subject to the fluctuations of the stock exchange and which could not be sold on a falling market, in the case of a crisis. Almost all banks invest temporarily in government bonds, but the English banks have learned to their cost the disadvantage of holding English Consols, for the last two years. Those banks have been compelled to change their investment in order to stop the effect of the depreciation of 'the best security in the world,' which had fallen in a few years, from 114 to 91." [1] Raffalovich shows plainly the evils of banking on bonds, and, *a fortiori*, of a dollar for dollar metallic or other guaranty fund.[2] The same point has been made by Juglar.

The former is more in line with principle.

16. It may be noted, in passing, that the object of American legislation with respect to banks has been slightly different from that of English. In the latter country, it has been sought to prevent crises by making inflation impossible. In the former, the intention has been more democratic, namely, to provide absolute security for the circulation. It has been supposed that notes are more used by the common people, and hence more deserving of protection. Security of this sort, however, has been accompanied by inelasticity. It would appear, at first sight, that the small circulation in the United States, compared with the business done with deposits, would render the question of elasticity of the circulation of comparatively little importance.[3] There is much truth in this view, and perhaps that is one reason why that country has been so behindhand in obtaining better legislation upon the circulation. Nevertheless, as Dunbar aptly remarks,[4] one cannot tell how large the circulation

A bond-secured circulation is necessarily inelastic.

The comparatively small importance of circulation in the United States is not a sufficient reason why its need of elasticity should be overlooked.

[1] Arthur Raffalovich, Marché Financier, 1901–1902, p. 62.

[2] Banking on bonds is not banking, André Liesse, History of Banking in France, pp. 104, 72, 63. Cf. Maurice Patron, National Monetary Commission, The Bank of France, p. 9: "The bank note tends to become nothing more than a token representing money."

[3] An elastic currency is not a cure-all for crises. O. M. W. Sprague, Crises under National Banking System, p. 213.

[4] *Op. cit.*, p. 75, *sqq.*

might be if it were not restricted by the requirements of bond guaranty. The inference is not amiss that legislative regulation, dabbling in notes alone, like that contained in Peel's Act and in the National Bank Act, has stimulated unnaturally the growth of the deposit system. Is it to be inferred that, when legislators thoroughly interest themselves in deposits also, the banking business will be finally destroyed? However, everything points to the view that the deposit system must increasingly preponderate over the circulation. So long as the latter is wanted, however, it should be properly regulated, if regulated at all, and not in such a manner as to derange the level of prices and the rate of interest, or to stimulate stock speculation.

The National Bank Act of the United States favored elasticity of deposits but rigidity of circulation.

The law of June 3, 1864, under which the existing National Banks of the United States were organized, constituting really the third national bank in the history of that country, abolished the limit of indebtedness that had been set for the first and second banks. This change may be looked upon as a distinct advance in the line of elasticity of bank obligations and, in view of the restrictions imposed on the circulation, as a decided favoring (or salutary neglect) of deposit business. On the other hand, it sanctioned the prevailing fashion, in concentrating the regulating and paternal care of government upon the circulation, following, in this respect, the so-called "free banking system" of New York, as well as Peel's Act. The inconveniences connected with this fussy preoccupation with notes were keenly felt by the business world, at the time of the rapid repayment of the national debt under Secretaries Manning and Windom, in the ninth decade of the last century. As the indebtedness was raised, the bonds deposited were rapidly retired, and much needed circulation vanished with them.

After the Civil War, retirement of government money by Secretary McCullough was cut short by act of Congress, but subsequent retirement of bank-note circulation by Secretaries Manning and Windom was allowed to proceed.

17. Consequently, in 1894, the convention of bankers in Baltimore sketched a new scheme, thenceforth known as

the "Baltimore Plan," which paid homage to the so-called "safety fund system," also of New York, the central idea of which was the formation of a fund to secure the circulation, through a tax upon the banks. This proposition, of course, marked a step toward more ideal conditions, for it removed the government guaranty, to that extent placed the circulation more on an equality with the deposits, and gave it freedom of expansion. But it was merely a project, and, as such, was the starting point of a long agitation, the end of which has not yet been reached. This movement was followed by the Indianapolis Convention of January, 1897, which discussed thoroughly the principles of monetary finance from a scientific point of view, and made progressive recommendations.[1]

The Baltimore Plan proposed to remove the cause of the inelasticity of notes, — the bond deposit.

The Indianapolis Convention favored elasticity of note issue.

After the strenuous monetary political campaign of 1896, and in view of the then impending campaign of 1900, Congress was compelled to take action upon the question of the currency, and passed the Act of March 14, 1900,[2] which is a monument of timidity. The first object of the act was to secure the gold standard. This end it sought to effect by increasing the treasury reserve against government notes, and by conceding to the United States Secretary of the Treasury enlarged authority to borrow. A better plan, however, would undoubtedly be to abolish government paper money altogether, and to enforce strictly redemption of bank circulation by the banks themselves. But it was not felt that the country was ready for such a radical liberation from financial swaddling clothes. The labors of a long series of monetary reformers were neglected. So the act made a slight move toward greater note elasticity, by allowing the banks to issue notes up to 100 per cent

The gold standard act of 1900 recognized the need of greater elasticity of issues by some concessions in that direction.

The Suffolk, Scotch, and Canadian plans of note redemption offer a good model.

[1] *Vid.* Report of the Monetary Commission of the Indianapolis Convention, 1898, by J. Laurence Laughlin.

[2] Taussig, F. W., "The Currency Act of 1900." Quarterly Journal of Economics, XIV, pp. 394, 450.

of the bonds deposited, instead of the 90 per cent theretofore permitted, and to reissue notes immediately after they had retired them, instead of observing the period of delay which a law of 1882 had prescribed, and by reducing the tax on circulation. At the same time, it lowered the interest on the bonds deposited as security. Action of this sort is noticeable, in the present connection, chiefly as showing that the question of elasticity of the currency was under actual discussion, and that the legislature, although reluctantly, was compelled to acknowledge the pressure of enlightened ideals.

18. The Hon. Charles N. Fowler, of New Jersey, has, in a series of often amended projects, offered to the country a measure of real reform, and may be regarded as one of the leading educators of public opinion found in political circles. Even his bills do not go to the full extent of complete freedom of issue, but are largely influenced by the German model. He proposes to remove the bond guaranty; advocates the safety fund; and, until his last bill, wished to tax surplus or "reserve" note issues at an increasing rate. For some reason, he has supported, in his latest version, a uniform tax on all issues.

A safety fund assessed on the banks themselves, to guarantee both deposits and notes, would seem to be politically expedient.

The safety-fund principle would appear to be in accord with the *political* movement of the time. The tendency now is for all interests to unite, each in its own domain, thus founding separate guilds or economic classes. The consolidation of the laboring classes into national trades unions, on the one hand, and of almost numberless manufacturing interests into national and international trusts, on the other, is an evidence of this spirit of the age. That legislation should help the banks to combine into one national guild is not surprising, although seemingly inconsistent with the protestations of legislators that they are deeply concerned to maintain competition, which is understood

by them to mean "small businesses." The law recently passed by the United States Congress,[1] facilitating the union of banks in different sections of the country, is quite along this line, and in this political sense, indicates a movement in advance. But the requirement of deposit for guaranty of the private notes purchased with the emergency circulation, is retained. These local associations, however, cannot bulk largely in the financial world, as they only have authority over the emergency circulation, which is to be taxed ten per cent per annum. Mr. Fowler had also proposed that the banks should assume the redemption of the United States notes, and had provided that the latter should finally be paid off by them without expense to the treasury. But this very sensible clause has also been dropped.

Banks, like other corporations, were early encouraged by general legislative acts permitting incorporation.

19. This brief sketch of legislation on the subject of notes must suffice, for it is designed less for information about the various acts mentioned than to afford some notion of the extent to which the organic conception of finance is gaining a foothold. History of banking legislation is but one phase of that of corporation legislation in general. Corporations were orginally chartered in order to insure the benefits that would accrue to a large number of persons of moderate means who might, by laying their capitals together, create a fund adequate to the size of the enterprises of exploration and trade which the growing markets of the modern world invited. Indeed, it has generally been permitted to do this. The first encouragement from governments consisted, however, in privileges of monopoly and of the exercise of police and judicial powers in foreign parts, which made it seem more attractive and safe for these large partnerships to be constituted. Subsequently, the principle of charter was extended to the more modern business enterprises of manufacturing and banking.

[1] Approved, May 30, 1908.

There ensued a separation of management from investment, and consequent abuses,

It was found that the associates often suffered seriously from legal responsibility, to which they were subject with respect to enterprises over which they had little or no control, and with which they had no connection, except the important fact that, under the corporation sanction, they had contributed to them their capital. The idea that responsibility for management was all too strictly associated with shares in funds, was awakened by the circumstance that many of the subscribers were women and minors, persons that were not supposed to be fully competent in business matters, and therefore deserving of the protection of the law. Consequently, a general course of legislation was entered upon in all countries, tending to render the associates in a business enterprise free from responsibility for failure or mismanagement beyond the sums which they had severally paid in or promised, or, as in the United States National Banks, beyond a limited multiple of such sums.

Thus, the legislative encouragement toward the laying together of capitals was followed by a separation of economic interests from economic trust and confidence. But out of the consequent weakening of individual responsibility sprang up bad management, incapacity, flagrant abuse, and peculation. The attempt to cure the second series of evils was not met by removing the original cause,[1] namely, the privileges and immunities whereby the associates were induced to come together. Doubtless that could not be done. The world needs large capitals, and, in the event of the failure, say of the United States Steel Corporation, it would seem ridiculous to sequestrate the little remaining

[1] Parallel with this remedying of the evils of limited liability of stockholders by a system of checks and balances, is the remedying of the evils of note inelasticity by a mechanical note-redemption enactment. The requirement of a pledge of bonds made the notes inelastic. The radical cure lies in the repeal of the requirement, as proposed in the Fowler bill. Cf. n. 2, § 20, *infra*.

property of a man of small means, merely because he owned a share or two in that corporation.[1]

which were sought to be remedied by elaborate checks and balances, *i.e.*, further legislation;

However, enlightened legislation should look partly in that direction. If the responsibility of the shareholders were greater, men would be more careful about putting their means where they can exert little influence in the management of them. While the amount of capital brought together might be somewhat less, with that lessening the growth of monopoly would be checked and the tendency would be to make management more conservative. But modern legislation seeks to cure the evil, not by removing the cause, but by an elaborate system of palliatives, by "checks and balances," by inspection, by registration, by sworn prospectuses, by prescribing the substance and form of the organization, and the duties of the officers, by official valuation of the assets, and finally, by administrative consent to indebtedness and to nominal increase of capital.[2] Perhaps, in view of the state of public opinion, this is the best that could be done. Certainly, there are ways of doing this well and of doing it ill. European countries have been more thorough in this detailed legislation than the United States, although the latter country is moving rapidly in the direction of minute and complicated legislative prescriptions. It is to be noted that the European laws, excellent as they are and frequently formulated by mixed commissions of legislators and economists, after protracted inter-parliamentary sessions, have been unable to prevent cases of flagrant abuses of trust on the part of officers of banking and other institutions. The involving of the Leipziger Bank in the failure of the Cassel Trebertrocknung concern was one of the most notable cases of this

[1] Limited liability an outcome of the corporation method of business. Fisher, Capital and Interest, p. 83.

[2] An idea of corporation control legislation may be gained from W. Z. Ripley's Pools, Trusts, and Corporations.

sort, in recent years. "In Germany, the great banks take a very active part in industry and commerce. Naturally, the risk is very great, if the directors and officers are unable to resist temptation. This is the price that must be paid when financial institutions make industrial investments." [1]

20. Banks, along with other corporations, have gone through all of the stages of attempts to cure the results of bad theories of paternalism with more paternalism,[2] and to favor competition by regulation of the form of business, rather than (what is the manifest duty of legislation) by the simplifying, expediting, and sharpening of remedies, between man and man, for wrongdoing. Democratic tenderness at the possibility of offending a citizen who is a voter, has played its part in this misdirected law-giving, which has erected, in the corporation, a man of straw who can be clubbed when evil occurs. Thereby the sense of justice is sought to be appeased, for the moment, at least, under the erroneous impression that a transgressor has been punished.

but it is open to question whether sufficient effort has been made to hold the individuals economically responsible, up to the highest ideals of trusteeship.

The object of legislation should be to recognize a clear distinction between *organization for the purposes* of *production*, on the one hand, and *individual responsibility*, on the other. The former should not be allowed to interfere with or to obscure the latter. The fact that stockholder's responsibility is qualified, should not destroy the amount of *personal responsibility* to be *located somewhere*, in connection with an enterprise. Some one must always be found who completes the full, original amount. Apparently, the proper person is the corporation officer. In case he has small pecuniary interest in the concern, and possesses no other attainable property, obviously the only way of

[1] Raffalovich, *op. cit.*, p. 54.

[2] Dependence on legislation is bred by excessive legislation. Cf. O. M. W. Sprague, Crises under National Banking System, p. 273.

enforcing responsibility is by *criminal process* against the person. No organization for production should be allowed to stand between the wrongdoer and his punishment. The official who loots the stockholders through the fiction of a corporation, unearned services, or a construction company or similar misuse of the purposes of the corporation form, should not be protected. The capitalist who sets up directors of straw should be considered to have done whatever they do. The courts have heretofore assumed a weak attitude toward evil doers of this stripe, not because they were blind to the offense, but because they could not see their way out of the corporation legislation.

The fiction of a corporate person or entity has, quite plausibly, in the minds of men of the legal profession, overshadowed the plain economic undertaking, which is unthinkable unless located in natural persons. If, however, they had recognized from the first, that incorporation was *primarily for the purpose of production*, and that, *when it comes to a question of responsibility for wrongdoing* (a department of distribution), *there is no such entity as a corporation*, perhaps they could have given a better turn to the law. Such, indeed, is theoretically the teaching of the law of equity. But Equity has a clearer vision when reënforced by Economics and Finance. Candidates for the bar should be required to study political economy and finance, in the United States, as they are in Europe.

21. Recent years mark improvement in the American standard of lawgiving, which might seem a partial return to the more primitive, parliamentary dignity of the ante-caucus and ante-boss era. The public, however, now pays more attention than formerly to the universities, and less to legislatures The movement is away from inconsiderate action and toward reasoned deliberation. It is evidenced in the increased tendency of lawgiving bodies to accept

Improvement in government through specialized administration, affects corporation methods.

expert advice; in the appointment, in the several states, of permanent commissions on taxation, railroad, and corporation control, and on other subjects previously a prey to the haphazard raids of the legislative caucus, itself the offspring of campaign buncombe; in the closer connection of the legislative with the social experiment, statistical, and pedagogic branches of the state governments (the last culminating in the state universities); and, most notably, in the appointment, by Congress, of the two permanent commissions on finance and on the tariff. Nor must the extension of the powers of the Interstate Commerce Commission and the erection of a Court of Commerce be omitted from the account of administrative regeneration. An impediment to reform, perhaps, but also a spur to official efficiency, is found in the rapid infiltration into the population of recent elements from abroad.

Influence of universities grows.

The National Monetary Commission has begun its work by the preparation and publication of a series of reports covering the fields of domestic and foreign banking, embracing detailed statistics and calculated to afford a world-view of state activity in the matter of social aid to the organization of private finance. The public having thus been enlightened upon the limitations and possibilities of government interference and coöperation, a plan has been presented to the commission by Senator Aldrich, intended to combine, in the wisest way, the dictates of theory and universal experience with a due regard for the traditional, national prejudices.

The National Monetary Commission of the United States is permanent.

The Aldrich plan for a Reserve-Association seeks to control elastic issues by reserve associations, at uniform rates of discount within the district of each.

Thus, he proposes to concentrate the bank-note control into a Reserve-Association, with elastic power of issue, but forbidden to deal in the unpopular Wall Street collateral loans, and, perhaps unfortunately, hampered by the rule of uniform discount rates. It is to deal, both directly and through local, subordinate associations, with the banks

of the country, so as to afford them ample elasticity of loan and deposit, in times of pressure and crisis. The underwriting business, so much practiced in Europe, and, as experience shows, essential to the completion of the banking structure, is to be recognized sufficiently to bring it within the national control, through the creation of a separate class of nationally chartered trust companies.

The attempt is along the lines of development traced in this chapter. It contemplates a further definition of social function, and thereby a greater activity, adaptability, and sureness in individual enterprise, which is socialized while intensified. Business promises will be made more freely, while pernicious epidemics of the crowd mind will receive their needed prophylaxis.[1]

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CHAPTER XIII

BIMETALLISM AND OTHER MATERIALISTIC STANDARDS

1. The "standard of value" is partly a fiction of the ethical imagination. The influence of credit on prices, when understood, removes some ethical objections to the gold standard by showing the difficulty of creating an artificial one. Nevertheless, subject for discussion may be evoked by the hypothesis of an all-potent, material standard, like gold. — 2. A brief review of the relations of credit to the guaranty material, *e.g.*, gold, shows that lack of gold may stimulate credit economies, while lack of credit may stimulate gold mining; but, again, growth of credit also stimulates gold mining, since it requires a continually larger reserve or guaranty fund. — 3. Gold discoveries are hardly the causes of eras of prosperity. Gold and credit, long- and short-time causes, are all simultaneously in action. — 4. Deferred payments may be investigated objectively and individualistically, or subjectively and socialistically. But both methods lead to inquiry as to an ideal objective or objectified standard. — 5. The proposition to create a standard of unchanging value is theoretically complicated. Scarcity of gold does not cause so much injustice as is supposed, partly because the parties to contracts are not ignorant, and partly because hoarding is uneconomic. — 6. Credit has always been in use. Money material has passed through an historical evolution. Government monopoly of coinage is of selfish origin. — 7. Governments have never forbidden freedom of contract concerning what should be the money or guaranty material, but have enacted or, through their courts, decreed, the guaranty material for cases not provided for by private contract. The bimetallic proposition thus came to light as a compromise station on the road from the silver to the gold standard. — 8. The power of custom to fix standards is greater than that of legislation. — 9. Bimetallism is founded on the theory of composite supply. A natural bimetallism is in presence when different nations use different standards. Legislative bimetallism intensifies natural bimetallism. — 10. Legislative bimetallism is transformed back to natural when one of the metals has been quite superseded by the other. In order to avoid the trivial importance assigned to legislative bimetallism by such lapses, the untenable assumption

has been made that the fluctuations of gold and silver regularly alternate. — 11. Inflationist claim of unlimited demand for silver is inconsistent. — 12. The disturbance of the foreign exchanges by fluctuations in the market value of the standards of monometallic countries, some using silver and some gold, has for effect a redistribution of those metals. After this is accomplished, the disturbance ceases. There is no "perpetual" encouragement to exports without equally prolonged fall of standards. — 13. The fall of exchange is discounted by exporters and importers and thus loss is avoided. — 14. So far as the cheap standard country increases its exports by the fall of value of the standard, it loses in relative purchasing power in international commerce. The limited power of the falling standard to stimulate exports is shown by the increased imports of India. The large exports of India are ascribable to the balance of payments due from it as a tributary nation — a political, uneconomic influence. Moreover, the people of India manifest an uneconomic fondness for the precious metals. — 15. India Council bills prevent export of silver to India and hasten its fall in England, — 16. thus further and artificially encouraging imports to England from India. — 17. Symmetallism breaks the fall or rise of the coin without affecting the relative demand for the coin-metals. — 18. Joint-metallism facilitates frequent changes of ratio. — 19. The tabular standard assumes that commodities conserve constant utility value. — 20. The multiple standard assigns to government the task of artificial manipulation of price-level on the false assumption made by the tabular standard. — 21. It favors the commodity (corn, iron, etc.) to which is assigned the greatest weight in the standard ton of commodities. The intervention of governments complicates the forecast of business contractors. The latter prefer to use their own judgment. — 22. Uniform price-level cannot prevent crises. — 23. The recently introduced gold exchange standard has suggested an international tabular standard.

Standards of deferred payments are either materialistic or psychological.

1. THE organic theory of the standard has been studied. The legislative theory is superimposed upon the organic, is additional to it, and requires separate treatment. This branch of financial science comprises a considerable group of topics, which may be divided into two general classes, namely, the proposed materialistic and the proposed psychological or ideal standards. The former are monometallic, bimetallic, symmetallic, joint-metallic, tabular, multiple, and "gold-exchange." The latter consist in *rules* of *administrative finance,* to be adopted only after investigation into

the principles upon which justice may be meted out as between debtor and creditor. The repayment, as is implied in the very nature of a debt, occurs at an appreciable interval after its incurring.

For the sake of vividness, the discussion as to the materialistic standard is partially conducted on the artificial hypothesis that the "standard of value" regulates prices.

As to the materialistic standards, it would be well, first of all, to bear in mind the preceding discussion about the influence of credit upon the level of prices. Its prolongation into this chapter blends insensibly with a separate topic, which has usually been treated on the hypothesis that the level was entirely determined by the metallic standard. Consequently, at the outset, a certain embarrassment is encountered, since it has been discovered that prices, during periods that are of any real importance to business men, and to debtors and creditors, are very largely under the domination of credit.

Nevertheless, in long periods, they do revolve about the metallic value. That itself is difficult of determination on account of credit reactions.[1] Hence, discussion as to proposed materialistic standards of debt-absolution may be held to be pertinent, only in so far as any material standard may affect them. The reader is warned that in treating prices as though they were wholly fixed by metallic determinants, one is committing the error of artificial assumption, and is introducing a false simplicity into the discussion. Partly, perhaps, because of tradition and habit, it has seemed impracticable, however, to separate the method to be pursued in this part of the study of credit, from the *preliminary hypothesis* of independent determination of prices by a precious metal. Consequently, the new topic takes as its point of departure this concession of an extent of influence inherent in it which really does not exist. Credit will not, for the present, be studied in its *organic relation* to the level of prices, but, on the contrary, the popular

[1] Chs. VIII, § 10, IX, § 6, *supra*.

view will be provisionally adopted, which is riveted solely upon changes of level as an argument for *administrative interference* with the status of creditor and debtor.

and on the further and false hypothesis that moderate fluctuations of prices are injurious.

It is only a rough approximation to say that, in very long periods, the standard of value is established by the legal coin. On the other hand, on the average, the age of farm mortgages "now in force" is only about two and one third years, in the United States.[1] City mortgages are often made for one year, not with the expectation that they will be paid within that space of time, but for the purpose of allowing the interest rate to be readjusted, by mutual agreement between debtors and creditors, according to the rates prevailing at the end of consecutive years. If, in conformity with conclusions reached earlier in this book,[2] the interest rate is mutually adjusted to the fluctuation of the level of prices, and both are the result of the state of credit, variations in the market price of the metallic standard of value, however that many find expression, can have but an indirect effect upon that level, within any such short period. Nevertheless, it will provisionally be assumed that every creditor and debtor is exposed to immediate prejudice by pulsations in the markets for the precious metals.

Abundance of credit constitutes a demand for gold, and lack of gold is a stimulus to credit economies.

2. It is not to be denied [3] that there is some compensation between the movement of credit and the supply of gold, or that credit may be, to a certain extent, substituted for gold. But those are financial details. Nor is it to be gainsaid that, in very long periods, there may be, in a sense, an influence of gold upon the amount of credit, for an incentive to credit-economy may arise from lack of that metal. Undersupply of it may stimulate saving

[1] Fisher, Appreciation and Interest, p. 83.

[2] Chs. VI, VII, *supra*.

[3] Cf. ch. XI, §§ 3, 6–8, for a separate statement of principles contained in this paragraph.

methods in finance and in the loan organization. But there is no adequate compensation between the amount of gold going into the supplies offered for money or for other uses, and the bulk of credit.

In fact, if there is a reciprocal influence between gold and credit, determining the quantity of the two with respect to each other, it works rather the other way. Gold is principally wanted under the modern money system, not for the purpose of carrying on exchanges, but for the filling up of the reserves and as a guaranty fund. The extension of the market and of business organization, which creates additional loans, calls for corresponding metal for storage in the idle cash, so that the credit is the chief determinant in the demand for gold. That which is applied in the arts constitutes less than one quarter of the total raised.[1]

In a sense, perhaps, there is a compensatory action between credit and gold, for, when the former is contracted steadily, and there is a prolonged fall in prices below what might be called, if it could be determined, the natural [2] value of the latter, then there is a stimulus to the production of the metal, investment in its mining is active, and an apparent attempt is developed to compensate for the contraction of credit by additional production. In the long run, the supplies arrive in a pulsatory manner. They are pumped up, as it were, by the recurrent contraction of credit.[3] That effect was very noticeable in the recent history of the production of gold, in the year 1885, which was the moment when prices had reached their lowest level, and when credit had contracted to its utmost, after the expansion of 1880 and 1881. That was the very time when the first large investments were made in the South African mines. There-

However, lack of general credit is a stimulus to gold mining. Revival of prosperity often appears in that way.

[1] In 1905, for example, 18,211,419 ounces of gold were raised, and 14,151,000 ounces of that were coined.

[2] Cf. ch. II, *supra*.

[3] Cf. ch. VIII, §§ 9, 10, *supra*.

upon, a period of boom in gold mining supervened. In 1889, it reached a tremendous scale and the amount raised became very large.[1] There was a slump after the Baring crisis of 1890, but, subsequently, when prices reached the bottom again, about 1895, there started up a new boom in the South African gold mines. The inference is natural that the influence of contraction of credit in stimulating supplies of gold is important, and that, if anything of the sort is true, it is that gold is forthcoming in order to compensate for lack of credit, rather than the other way about. The new supplies of metal tend, temporarily, to lower interest and increase nominal capital.[2]

Gold discoveries are important for prosperity, but must be clearly distinguished from the real cause — enterprise.

3. It is often said that the great gold finds at the end of the Middle Ages, following the discovery of America, were the cause of the tremendous expansion of commerce and industry that took place after that event. The probability is that the causal impulse ran in the opposite direction. It was not new gold, but thirst for it, that sent Columbus on his voyages. In a lecture entitled "The Present Monetary Situation," [3] by Professor W. Lexis of Goettingen, delivered at Dresden, in 1895, he said, speaking of the Californian and Australian finds, and of the great activity in business that followed them: "The discovery of gold did not call forth this activity but served to accelerate and to further it." Again, speaking of the recently found treasure, he said: "Neither has the new supply of gold in any way operated as a stimulus in the business world at large; it has only served to increase the stores of gold lying idle in the cellars of the banks." [4] At most, then, the gold supply may cause reaction, but not action.

[1] Van Oss, Stock Exchange Securities, civ. The first considerable returns from the Rand were in 1887. Raffalovich, *op. cit.*, year 1893, table, p. 325.

[2] Cf. VI, §§ 1, 2, *supra*.

[3] American Economic Association, Economic Studies, vol. I, no. 4, p. 254.

[4] *Id.*, p. 238.

The amount of credit determines what shall be the gross demand for the gold needed to be put into the guaranty fund. That alone, of course, does not settle what shall be the value of each piece of coin nor the level of prices. The latter depends upon the value of gold as well as upon the demand for it. Demand tells the miner and mill-owner how much is wanted. The cost of production is the test for them as to how much they will furnish.[1] The value of the gold, then, is determined between the demand of the banker for reserves and the answer of the miner as to how much profit he can realize. Since the state of credit is what persuades the former, it is easy to perceive what a large part it plays in fixing the value of gold.

Importance of credit in fixing the price-level has been underestimated.

The influences noted, the action of gold coming in momentarily and stimulating credit, that of credit, in a little longer period, raising prices and calling for a larger amount of gold, are simultaneously at work. There is no single moment when only credit is asking for gold, nor one when only gold is encouraging credit. These forces have been assumed as operating in isolation, in order clearly to separate their duties. As a matter of fact, they are active, in different degrees, at the same time. The two elements of the problem, credit and gold, are exerting their different short- and long-time effects, largely simultaneously, but in varying degree, sometimes more and sometimes less energetically.

4. The way is now cleared for the preliminary discussion of the topic of deferred payments, which is one of importance in connection with that of the standard of value, since further development of the latter is affected by conclusions as to the former. There are two points of view that may be assumed in any economic discussion. The one

The popular discussion of deferred payments is obscured by a falsely ethical tone, which is quite unnecessary,

[1] For the principle of this analysis of value, cf. S. M. Macvane, "The Austrian Theory of Value," Annals of the American Academy, vol. IX, November, 1893.

is the purely scientific. By this is meant that which attempts to establish what is being done, what the facts are in the case. The other is the moral. It is the more popular and involves economic discussion only on the side. What ought to be done, what are the moral obligations under the circumstances?

The former point of view, the objective-scientific, is also rather the individualistic. It asserts that, while money is something certified to, as to weight and fineness, by government authority, every man must determine, upon his own responsibility, what he will do with it, how much he wants to take or is willing to give. This freedom of individual action is as important in the case of a "debt" as it is in the case of the cash sale of goods.

And again the objectivity of the former *should* lead over into an objective treatment of the second or moral point of view. Is there not some *rule positively enforced by society*, by which the relation of the debtor to the creditor is practically and organically regulated? It may properly be assumed that the government leaves them free to determine between themselves, in their private capacities, how much money is to be paid at the future date. Has *society*, as such, not set up any rule *positively and outside of legislation?* Here, again, the appeal would run to individualistic economy. If society has set up such a rule, it must work out somehow through the relations of individuals with each other, for the hypothesis is that the government does not interfere.

...nd accompanied by idealistic demands incapable of fulfillment.

The unobjective point of view concerning the moral situation, is socialistic or at least legislational. It says, in the first place, that "society" *should* guarantee to the debtor and creditor that, in the future, whenever debt is incurred, only the same value shall be paid back again. "*Society*" should look out for it, no matter how mistaken

an individual's calculations may be, in contracting, say, to pay $1000 in the future, and should guarantee to him, that he have only to pay back the value, not the dollars, of the loan that he received. Then the field is opened wide for surmise, of what does pure value consist, in and of itself? There is an obstacle that the persons who agitate these moral conundrums underestimate. They too frequently suppose the nature of value to be self-evident. The ensuing attempt to demonstrate that men organically strive to return equal values, leads again, by a roundabout route, into an objective, individualistic inquiry as to exactly what the facts are.

The situation can be cleared only by an objective and individualistic inquiry.

5. The pointed questions come up, then, as to whether it is possible to find out exactly what the same value consists in, as between to-day and a year from now; and whether there is any means of imposing that value upon the creditor or debtor, depending upon which way prices have moved. And again, if there *is*, whether it be right or politic to do so. When popular orators demand the return of the same value to the creditor, they are putting a question of mock simplicity, as when an infant asks who God is, or how the world was created. The study of money, so far, has been kept free from ethics, but cannot avoid it to the end.

The debtor does not contract in ignorance of the expected fluctuations of the value of money.

The usual assumption has been that a fall in prices is injurious to the debtor, because, in selling his goods, he now receives in return less than their former price, whereas he has convenanted to pay a sum of money calculated at the earlier level of prices. He can no longer rely on an income, at the old higher prices, from which to pay his creditor. Fisher, however, points out, in this connection, that, in practice, that is not what he covenants to do. If prices are falling, the creditor and debtor both know it,[1]

[1] Appreciation and Interest, ch. I. The consequences of unequal foresight of debtor and creditor are stated, ch. X, § 13.

and, consequently, adjust the rate of interest, if not the prices, in view of the future. The complaint, right at the beginning, usually makes a false assumption, or one too narrow to give a fair basis for argument. The statement that the debtor contracts to pay back on the basis of the market prices in force when he sold, is false. He could not carry on business for any length of time, if he did so.

nor can hoarding proceed so far as to cause scarcity of money.

If gold is appreciating, and it therefore pays to hoard it, men generally overlook, in arguments for inflation, that a hoarded dollar's worth of goods as surely brings loss as a hoarded dollar of gold brings gain. The appreciation of the standard does not have that effect in discouraging trade which is assumed, because persons who hold goods want to get rid of them as soon as possible in order to avoid the depreciation from holding them, as much as persons who have gold want to hold on to it. In a little while, the very cheapening of goods anticipates the gain that is to be derived from hoarding, so that the latter no longer offers a profitable alternative. The future rise in gold is soon anticipated. A very moderate amount, taken out of circulation, tends to throw prices down to a point where all of the expected gain is anticipated.[1] The moral questions involved in the relation of debtor and creditor are as easily presented for discussion on one, as on another, of the hypotheses as to the causes of price-fluctuation. It is little wonder, then, that the wrong but tangible premise of a metallic cause has usually been selected.

6. From the dawn of history credit has been circulated.[2]

[1] Fisher, *op. cit.*, ch. VI; cf. also *supra*, ch. V, § 16.

[2] Cf. ch. XI, § 9, *supra*, on the point that it is the credit, not the metal, in coin, that equips it with purchasing power. As to the antiquity of the recognized credit documents, copies of Egyptian-Hebrew contracts, bills of indebtedness, and bills of sale are to be found in *Sachan, Publication der Generalverwaltung der Königlichen Museen, (Berlin) Verlag von*

Bills of exchange have always been employed between highly developed commercial states and probably at earlier epochs than generally supposed. Nevertheless, for domestic exchanges, the world relied more upon money in early periods, since goods were not so generally manufactured under definite contracts as they are now. As time went on, more and more valuable money material was used, because more goods were to be exchanged. The market was widening, and the most enterprising merchants were doubtless complained of as "trust magnates." Primitive people used hides, cattle, tea, salt in pressed cubes; the Romans advanced to iron, copper, and silver; but it is not until modern times that gold has been used as the standard of value. Silver has been the legal means of payment, until within a century, throughout all the more civilized history of mankind.

Evolution of money material has favored that of which the most general use could be made.

That fact has naturally furnished one of the chief arguments of bimetallists. They lay emphasis on the recent introduction of gold and charge that it was the result of a conspiracy. To say that it was class legislation might not be so far amiss, since most legislation arises in that way. But all class legislation is not necessarily bad. The truth is, probably, that the use of gold has come in because the merchandise values and the contracts to be dealt in, have become so large. Again, the disuse of money as a means of exchange has turned the scale in favor of gold, the metal better adapted for reservation in the banks. It became more convenient to use gold than anything else, because it is that precious metal which contains the most value in the smallest bulk. It can be transported for least expense. It can be stored in the smallest vault. Inquiry of the express companies discloses the fact that it costs

J. C. Hinrichs, Leipzig, 1911. These instruments belong to the fifth century, B.C.

less to ship a hundred dollars in gold than in silver. Probably these are the chief reasons why the former is become the standard of value.

Monopoly by governments of the manufacture of money, was not meant, originally, as a benefit to commerce.

As to the interference of the government with that standard, it is true that there have been mints, during almost all history, after nations became organized territorial states, and the authorities have issued the metallic money. In early times, there was a selfish interest on their part. They hoarded large treasures, as do oriental potentates to-day. For war, especially, they needed to guard a stock of something that would buy supplies at a moment's notice. They found that the precious metals were best suited for that purpose. It was a convenient thing for them to control the mintage.

Another selfish motive was that, by jealously holding the monopoly of the mint, it was possible for them to debase the coin. A "pound" of money was originally a pound avoirdupois of silver. The French franc or the Italian lira was of that weight. But they are become now little coins worth about twenty cents. The reason for the shrinkage is that unscrupulous rulers have gradually decreased the quantity of metal in the coin. They have borrowed of their subjects, and have then paid them back in a coin of a less value, but bearing the same name.

The question now arises, how far should governments stand between debtor and creditor?

7. That is bad enough, but it is worse for the government to decree that, where a *private* debt is owed, the debtor is not required to pay the previously stipulated measure of usual or customary, concrete goods or metal, but may substitute another designated thing or measure. That laxity is a necessary corollary of debasement. Legal tender and bimetallic legislation involve essentially the same exercise of questionable sovereignty by the state. No government, probably, has ever gone so far as to say that the debtor and creditor should not freely contract

with each other to repay in any unusual material they choose, — in bushels of corn, or in gold, for instance.[1] Subjects have always been permitted to "contract themselves out" of the habitual, legal tender material of repayment. Governments have, however, presumed to say that the debtor might take liberties with the creditor, to the extent of paying him in either silver or gold at a fixed ratio, *in case there was no express contract to the contrary.*

The English government early changed outright from the silver to the gold standard.

Modern legislation upon creditor's and debtor's relations may be said to have begun in 1774, when the English government enacted that silver should only be a legal tender, by count of coins, up to twenty-five pounds. But that was in case there was no contract between the debtor and creditor. In 1798, it stopped coining silver altogether. These steps toward a gold basis were rendered necessary by the broadening of the modern market. Thus was enacted what practice had already consecrated. Shortly before, in 1797, the suspension of specie payments by the Bank of England on account of the Napoleonic Wars, occurred. Resumption was not effected until 1821, a longer period of "restriction" than was endured in the United States, after the Civil War. After 1821, gold came into general circulation in England, as a result of previous legislation.

The French and United States governments introduced gold into the standard on a parity with silver.

In France, the minister, Calonne, attempted, in 1785, to bring the two metals simultaneously into circulation, when the ratio of 15½ to 1 was adopted; and that legislation was reenacted under the Directorate of 1803. Hence, gold was brought into circulation under the bimetallic law in France, at the end of the last century, and, under the monometallic law, in England, at almost the same time.

[1] In 1890 it was common in the Eastern States of the United States to draw up contracts with a clause providing for payment in gold, in view of the prevalent fear of the country "going over to silver."

Recently, the movement toward the single gold standard is become world-wide.

The United States adopted bimetallism at the founding of the government. Gold came more and more into use, and, finally, by the "crime of 1873," it was made the sole standard, more than half a century later than in England. About the same time, that standard was introduced into numerous other countries. It is now in course of adoption in the Orient. It may, at last, be said that, in this epoch of the greatest wealth, the most valuable of the available metals is the universally adopted standard.

Those who object to the gold standard say that this course of history indicates that silver is the genuine and true money of mankind. It is one thing to illustrate principles from history, but quite a different thing to praise the revival of specific practices of a former age. Arguments of that sort, however, can do little harm. If the facts are known, every person is at liberty to draw his own conclusions.

Legislation on the standard of value is a good example of the principle that many laws are merely a codification of usage.

8. A metallic standard is, then, more or less a matter of usage. Governments have not directly prescribed what their subjects and citizens should employ as a means of exchange, but what they should use as a "legal tender." The medium most usually sought for payment of debt, where there is an absence of previous special agreement between the parties as to the material to be applied, has been selected. What they should devote to the payment of taxes has also been prescribed. In making regulations of this nature, governments do but enact, for special cases, the employment of the instrument already generally consecrated by usage. If, however, the statute precede the general usage, the latter might then be a consequence of the former, in the sense that the absence of the practice of special agreements would show that men were contented to accept generally what had been prescribed only for the possibly exceptional cases. But it is not only through the legislature that government can mold the law of legal

tender. The courts are equally efficacious to that end. If a debtor fail to pay his creditor, the latter goes to the judges, and, in substance, asks them, in what shall the debt be paid? But they follow the custom of merchants, or of the locality. Hence, the legal-tender regulation silently enacted by society and embedded in custom is sanctioned by the bench.

Legislators make a mistake when they feel warranted in passing a bimetallic law simply because both silver and gold are in use. Contemporaneous usage is not necessarily substitutional usage.

Bimetallism steps outside of the bounds set by custom. It has its origin, not so much in judicial decrees, as in attempts on the part of parliaments to enact remedial legislation. It says that the debtor shall be entitled to pay the creditor, in either gold or silver, at a fixed ratio, say 16 to 1. If a certain amount by weight of gold is a dollar, then sixteen times that weight of silver is a dollar, for purpose of payment, at the option of the debtor, in the absence of previous agreement between debtor and creditor as to the material to be used. This provision has been so far justified by experience as it was a fact that gold and silver were both used in circulation. But it has not been customary to use gold or silver indifferently for the payment of debts of all sizes. As the world has grown wealthier, gold is become necessarily the standard, because a standard metal has been needed to be treasured in the reserves of banks and to be transported from country to country, which should contain a considerable value in small compass. Gold has been found best adapted to that purpose. Silver has continued to be used for small transactions and for small change. Not inappropriately, in the "silver campaigns," the silver dollar has been called "the poor man's dollar."

Usage makes the standard.

International bankers have, during much of the world's history, maintained gold payment. Silver, in modern times, has not been good tender in international exchange. And yet, there is no super-government lording over others, to enact what shall be legal means of absolution. The practice

is by the consensus of the international, credit-using society. American domestic banks have also preferred to pay gold on balances. That was well illustrated in 1882. The New York Clearing House Association had passed a statute to that effect. The law of 1882, continuing the charter of the United States Banks, specifically mentioned that such a provision of the statutes of a clearing house was illegal. A law of 1878 had enacted that silver was as much a legal tender as gold. Therefore, it was not permissible that a clearing house, whose membership was, moreover, composed of banks chartered by the United States, should prohibit its use. The clearing house rescinded the regulation, but went on receiving and giving gold on balances as before. Not even a "gentleman's agreement" to that effect was required. In California, during the Civil War, the gold standard was sustained, in spite of the suspension of specie payments throughout the rest of the United States. These episodes show a preference on the part of persons having large transactions for dealing in the more valuable money.

Bimetallism is founded upon the principle of composite supply,

9. Bimetallism, therefore, is an attempt to *force men to use*, in *transactions of all sizes*, the overvalued metal, whereas they may prefer to use it only in the smaller. It is founded, in theory, upon a simple principle of political economy, which is called by Professor Marshall, "composite supply." [1] Whenever a certain utility prominently emerges and is practiced in the way of consumption of goods, or of their application to production, various tools or materials will be offered, and, of course, that one will be adopted which is the cheapest. It happens frequently that when that utility has been satisfied by one material up to a certain point, then the price of the latter will rise, so that another, in view of the price at which it is sold, will be the more eco-

[1] Principles of Economics, fifth ed., bk. V, ch. VI, § 5.

nomical, and so on. There can thus be a list of materials that will simultaneously satisfy a given want.

This is also the principle of bimetallism. One material is brought in to satisfy the utility or service of exchange, when another becomes too expensive. This, be it noted, is *an organic law which does not arise from legislation.* If a man feed oats to his horse, and the price of that grain rise, he will then feed it corn, perhaps. If corn, thereupon, also rise, he will feed barley, and so on. He substitutes one fodder after another, so as to produce the most economical result, taking into account the different, technical efficiencies of oats, corn, and barley, for the nourishment of horses. If silver went down, in the absence of any bimetallic legislation whatsoever, it would nevertheless be found that there were classes in the community which chose to use more of it. Considerable groups could use it or gold indifferently, preferring, perhaps, gold, but able to get along with the white metal very well, just as the horse might thrive better on oats, but could still do good work on a corn diet.

which manifests itself organically and without assistance from legislative enactment.

Moreover, if silver declined in value, certain nations accustomed to its use would absorb more. This consumption would have the natural tendency to stop its fall in the market by the application of *spontaneous bimetallism.* After it had satisfied a certain demand, no further would arise, because it would then have ceased to be the shorter road to the utility for which it had been wanted. It has been pointed out by Sir Robert Giffen,[1] that this natural bimetallism has always been in operation. Different nations, according to their grade of civilization, or other circumstances and opportunities, prefer different standards. Thus a market for both metals is offered, which is more active for the one momentarily cheaper.

Bimetallic legislation intensifies the process of substituting the cheaper means of payment.

The passage of a bimetallic enactment is plausibly scien-

[1] The Case against Bimetallism.

tific. It is calculated to intensify the natural, bimetallic law, by creating a wider margin of common cases, where silver or gold may indifferently be demanded. If the enactment provides that debts may be paid in the ratio of 16 to 1, no matter what they be, whether incurred at the grocery store or on a contract for railroad supplies, the field for the substitution of the falling metal is increased. For, if silver drops so that 17 ounces may be acquired with 1 of gold, in the open market, then every debtor, whether he be the railroad or the citizen with the account at the grocer's, will buy silver with his gold at the rate of 17 to 1, and then will pay his creditors with 16 ounces of silver, and have 1 ounce left as profit. The effect of debtors' general seeking of silver for payment is to stop its fall more promptly than would have been the case under the natural bimetallism already described.

Bimetallic legislation is of no efficacy after the dearer metal has been driven out; and, in the meanwhile, it cannot be said that both metals circulate.

10. Apart from any question of the honesty or dishonesty of such a proceeding, — of the prescribing that a metal shall be used for payment of debts, which was not the intended and customary standard of value and means of payment in the market in which the obligation was contracted, — there are other drawbacks to the bimetallic institution. An objection ordinarily made is that there can be, practically, no such thing as bimetallism, in the sense that the two metals circulate at the some time. The claim is but partly valid. The bimetallic hypothesis is, that one or the other metal is always falling and consequently being substituted. If the circumstances are such that that can always occur, then they are favorable to bimetallism. But, in that case, only one metal at a time is actively influencing the standard. *It is the standard,* while the other is passive. Such a standard would better be described as "alternating monometallism." But while the one is going out of circulation and the other coming in, the expectations from the

It is more probably an alternating monometallism.

bimetallic law are satisfied. It is working so far as it can. But it is, even then, inexact to say that both metals are *equally* in circulation. However, when substitution has proceeded so far that there is but one metal left, the law ceases to operate. As soon as the dearer metal has been wholly excluded, there remains no more basis for application of the legislative law. The state or society is thrown back upon the *international working of the organic law of bimetallism*.

In the enactment of bimetallism, it is expected that, at the start, the legislators will adjust the ratio at a mean position, the one metal neither too high nor too low with respect to the other. If one of them falls in the bullion market, and the other is, consequently, being excluded from circulation, the effect of the statute will be to arrest the fall and thus prevent the second from being further disused. Thereupon, the law contemplates that, perhaps, a fall takes place in the latter, which would partially drive the first, in turn, out of circulation. Thus there would be a perpetual see-saw, the legislative law acting always as a means of preventing such violent fluctuations in the fall of whichever of the two metals happens for the moment to be in circulation, as would otherwise have taken place.

Bimetallism presupposes an alternate fall of the two metals;

But the hypothesis of alternate fall of the two metals unduly favors this species of paternalism. During the history of the precious metals, it has been silver that has been predominantly falling, or gold rising. There has been no dependable see-saw backward and forward. It is true that the gold discoveries of the forties caused the yellow metal to shrink in value, while the decline of silver followed in the seventies. Bimetallists have assumed that this special case was to be the general rule; at least their theory involves that assumption. It was the deep drop in the value of silver after the first fall in the value of gold, that broke up the

but they may not

be so accommodating.

European bimetallic union of 1866. The "Latin Union" was never formally dissolved, but the treaty powers ceased to coin the depreciating silver. They found that they were losing their gold, and did not relish a possibly permanent cheapening of their money and degradation to the then existing standard of India, the Orient, and Mexico.

With the exception of the single see-saw mentioned, there was no other of any importance within the last century. The production of silver was enormous. Recently, the output of gold has more than kept pace with advancing wealth and industry:[1] but silver has failed to rise.[2] It is futile to predict what is going to happen: whether silver or gold is destined to go down at any particular time. Hence, it is useless to pass a law on the supposition that the metals are fated to be produced in such alternating abundance as to cause the much admired hide and seek in their exchange values. In order to make bimetallism work continuously, and to prevent it from degenerating into monometallism, it would be necessary to enact a new ratio, from time to time, for "silver legislation" enormously stimulated the supply of silver. Instead of 16 to 1, the nations would now need to adopt the ratio of, perhaps, 38 to 1.

No unlimited demand for silver is possible.

11. The claim has been put forward, in political circles, that there would be no difficulty in keeping up the value of silver, under bimetallism, because there would be an "unlimited" demand[3] for it. This pretension is cited in order to point out a certain contradiction in the desire of some advocates of bimetallism to maintain a high level of prices. In the background of their consciousness, in the

[1] Cf. ch. IX, §§ 10, 11, *supra*.

[2] There was a temporary rise, 1903–1906, in the gold value of silver. E. W. Kemmerer, "The Recent Rise in the Price of Silver and Some of its Monetary Consequences," Quarterly Journal of Economics, vol. XXVI, no. 2, February, 1912.

[3] Coin's Financial School, p. 27.

"silver campaigns," was the wish to raise the level of prices. Inflationism masqueraded as bimetallism, which was also advocated by some students and teachers who earnestly sought an impartial standard. The political support of bimetallism, however, came either from the mine owners, who were interested in selling what they were producing, or from the populace, which desired cheap money. The selfish interests of these two naturally inimical classes could hardly coincide. It was a solemn jest to promise that bimetallism would raise the value of silver, and, in almost the same breath, to preach the doctrine of high prices. The willingness to carry the country over to the silver standard was ill-concealed. Behind the ostensible campaign, sober citizens perceived an unsound theory which was willing to go to the length of government paper money inflation. Mr. Harvey said, in effect, "The government can maintain the price of cavalry horses at $60 apiece," with the further implication, "just as long as vendors offer horses to the army." [1] But more silver thrown on the market, if it were the standard, would mean a fall in its *value*, more surely than an increase in the offer of cavalry horses would be followed by a restriction of the *price*. The military purchasing agent *could* keep up the price of remounts, but not of horses generally. The Treasury *could* support the value of silver for a limited use, as money, but not its value generally. The creatures who enjoy the contract privilege of furnishing horses, and the favorites who supply silver for coinage (if the Treasury pays the full money-value to them) will be equally beneficiaries, at the expense of the public. But this species of emolument cannot be sown broadcast over society. The argument, however, suited the mine owners. That its consequences were, on their own platform, evil to the "debtor class," did not occur to them.

The desire to raise prices in general is inconsistent with the desire to raise the price of silver.

[1] This is not quoted: but cf. Coin's Financial School, p. 47.

Bimetallism would have little effect in steadying the foreign exchanges, for the fluctuations are largely due to credit.

12. Another argument advanced in favor of bimetallism is that it would "steady the foreign exchanges." The reader must here again be reminded that most of the fluctuations of prices are to be ascribed to the state of credit. For this, and other reasons, the deviation of foreign exchange from par is also due to credit influence, and not to changes in the value of the metallic standard.[1] But it has been said that the silver-standard nations have an advantage in international trade. The fall of the value of silver has stimulated exports decidedly, if certain theorists are to be believed. Silver orators asserted that, for this reason, the United States should go over to their standard. Since 1875, it can hardly be said that American exports have needed a spur. Such weakness as they may have shown previously to that time has been tenfold repaired subsequently, without the aid of bimetallism.

The export argument for the silver standard was made in the several countries of the western world. The English silver party claimed that Englishmen were prevented from exporting their cotton from Lancashire to Bombay, by the fall of the value of silver and by the consequent fall of silver in ratio to gold.

When two nations have different standards, the effect on foreign exchange of a change in their relative value is soon exhausted.

The people of the silver-standard nation, said these reformers, being accustomed to a certain range of prices in silver, satisfies its wants for commodities, at the usual level, until some outer force enters tending to alter it. In a country like India, the price of commodities is fixed by immemorial usage: so much for a pair of shoes, since the time of Buddha. In the United States, also, the farmer is possessed with the idea that wheat is "worth" a dollar a bushel, and is not satisfied unless he receives for it something that is called a "dollar." In the outer market, somewhere outside of the silver-using country of customary prices, as

[1] Cf. ch. III, § 7, *supra*.

Professor Nicholson, himself a bimetallist, has argued,[1] the ratio of silver to gold may be assumed to be so disturbed that it takes more silver than formerly to exchange for a given amount of gold. This means that, in the silver-using country, in order to bring the ratio between silver and gold to the same proportion as prevails in the outer market, the stock of silver must be increased. In a gold-using country, for the same reason, the amount of gold must be decreased. Because gold has gone up in value with respect to silver, there will be a tendency to export it for purchase of silver, until equilibrium is restored.

Equilibrium is restored by international transfers of goods and precious metals.

Nicholson's formula means, briefly therefore, that the ratio having been altered in favor of gold in the outer market, in order to make it the same, in the silver-using country, silver must be imported. It is obtained in exchange for exported goods. A typical proprietor of gold, in the gold-standard country, exports it to buy silver in the outer market, takes that into the silver country, buys goods with it, and brings them home to the gold country. That is what took place within the British Empire. India, being a silver-standard dominion, the fall in the ratio, in the outer market, forced an export movement of commodities, in order to obtain silver and thus adjust the domestic ratio of silver to gold. A corresponding export of gold from England occurred, with which to buy silver in European money centers.

India.

United States.

If the United States went over to the silver basis, by the bimetallic road, it would be put in the same position as India. Its exports would be momentarily encouraged. The same thing has happened in the relations between Germany and France, countries that have adhered to the gold standard on the one hand, and the grain-producing and poor-standard lands surrounding them, — Italy, Austria, and Russia, — on

[1] J. Shield Nicholson, Money and Monetary Problems, case II, p. 367.

the other. The cultivators of Germany have complained bitterly at the encouragement to importation of grain from Austria and Russia, on account of the falling *valuta*, or standard of the latter two nations.

If the falling standard is due to bimetallic legislation, which makes those states adopting it a "dumping ground for silver," the stimulus to their exports cannot last forever. The fall is anticipated by higher prices (that prevents loss), and the national ratio of the metals is soon equalized with the external. Hence, the premium ceases. It is questionable whether it is worth while for England and the United States to go over to a bimetallic standard, merely in order to obtain a temporary and alleged benefit during the period of adjustment. Bimetallic legislation hastens the leveling process. Otherwise, the stimulus to exports of goods would last longer.

Who loses from fall of silver? (See also § 14.)

13. The fall in the rate of foreign exchange is, to some extent, compensated to the exporter from the gold-standard country, by the fact that he anticipates the amount of the decline in silver that is about to take place in the immediate future. Not being able to raise the price of the goods in silver, he adopts the immemorial weapon of competition in countries of customary prices, of degrading their quality. This resource failing, he spreads the loss over his partners in social production,— the manufacturers, laborers, and other prior producers. The fall of silver in the eighties [1] was not entirely foreseen or discounted. The miscalculation was as to the fall of silver rather than as to the rise of gold, and affected the English exporter more than the world's agriculturist, who had repeated on a gigantic scale the time-worn error of overproduction. The following citation indicates the severity of the shock: "Until lately the English bankers were ready to buy the bills of their customers in

Bankers take the risk of the exchanges.

[1] On the rise of gold, cf. ch. VIII, § 9, ch. IX, § 5 *sqq.*, *supra*.

advance, but the fall of silver of late has been so rapid and so extreme, that the bankers were afraid to continue this kind of business, and consequently, the whole risk of further fall is thrown on the exporters. The exporters are less able to calculate the changes in the market in this particular respect than the Indian banks, and therefore are bewildered and paralyzed by the uncertainty in which they are placed." [1] A quotation could hardly be found intended to be more adverse to the gold standard and more favorable to bimetallism than the above. At the same time, the admission is plain that, *ordinarily*, the banks dealing in Indian exchange were able to diminish loss to Lancashire exporters in cotton goods to India, arising from the appreciation of gold. The case contemplated in the citation is admittedly an extraordinary one.

Treating the relations between France and Germany, on the one hand, and Russia, Austria, and other countries with a more fluctuating and uncertain standard, on the other, a similar potency of the foreign bankers for steadying the exchanges is noted by Raffalovich: "We must not lose sight of the fact that, to a certain degree, exchange operations for a time more or less remote are a thing that is essentially legitimate and useful. *They allow the business man to make himself sure of the rate of exchange* [2] at which he will pay or cash in the product of his importations or of his exportations." [3]

14. While, momentarily, the exportation of goods in the Indian trade will be encouraged from the country that has the falling standard, viz., India, on the other hand, that country suffers loss, in the markets of the world, by accepting payment in the metal which is falling in value. If the

The gain on foreign exchange to the cheap-standard nation is outbalanced

[1] The Saturday Review, vol. LX, p. 448.
[2] The italics are the writer's.
[3] Arthur Raffalovich, Le Marché Financier, 1892, p. 85.

by its loss in the international goods market.

American importer, under the silver standard (assuming that it would be the result of bimetallism in the United States) is content to accept, all the while, a silver dollar and not the gold dollar at all, from his domestic customer, he will soon find that the former will buy only fifty cents' worth, when offered in exchange for imports from England.

The bimetallic scheme, then, would persuade the American workman to welcome lower wages, while he is plausibly entertained with the idea that he is receiving higher. That is the way the silver standard worked in India. The ryot, drawing his traditional wages, was unconsciously receiving a rupee which was sinking in the world market. Some statesmen insisted that the American workman should imitate his neighbor, the Mexican peon, in adopting the silver standard dollar. But Mexico has since changed to gold. It is better to settle up, "on the spot," losses incidental to fluctuating values of national standards, to suffer any little inconveniences that may accrue to the exporter, and to hasten the adjustment of the local standard to the world-ratio, rather than to invite a perhaps permanent degradation.

English exports to India were growing in the face of the complaints of the Lancashire manufacturers.

There was more smoke than fire in the alarm of the English. This has been pointed out by Lord Farrer,[1] who shows, from statistical data, that during all the time that the Lancashire cotton manufacturers were complaining, exports to India were increasing more rapidly than ever before in the history of that international trade. The trouble was that they were selling at very low prices, but threw the blame of small profits entirely upon the gold standard. They could easily have found other enemies to accuse. That was the particular time when cotton manufactories were being widely introduced into countries whose industries had not hitherto been modernized. Eng-

[1] Studies in Currency, p. 217.

land was suffering the most severe competition, not from the silver standard, but from foreign enterprise, the most legitimate rival. The Continent altogether, at that time, had reached a point where it possessed nearly as many looms as England, which was ceasing to be the "workshop of the world." What is more, cotton manufactories were starting in India, where they have existed ever since, in spite of a vicious excise, imposed at the instance of the English manufacturers.

England was suffering from international competition.

Was not all that enough to put the price down to the Lancashire manufacturer? He could not control the number of establishments on the Continent. But he limited those in India, and then appealed further to remedial legislation, hoping, through it, to manipulate the international exchanges to his benefit. Frequently, remedial legislation is but truce of economic interests, which strive to recoup themselves for financial losses arising from unsuccessful competition, by taxation of the community. It is, at bottom, undignified alms-taking. An advantage, at least, of legislation over war, is that it is a peaceable means of extortion. English bimetallism was the long-abandoned protectionism reappearing under a new garb.

Again, Farrer points out, that instead of the balance of trade being in favor of India, it was in favor of England. The former country is ruled by English proconsuls, with the assistance of a large civil service and the support of an army, partly composed of Englishmen. They are paid out of taxation of natives. When the Britons break down in health or reach the age limit, they are pensioned and return to Europe to spend their old age in England, or in the cheaper, quiet residence towns of the Continent. But India still continues to pay their allowances, which count as a perpetual, unfavorable balance. The Hindoos, however, having an especial fondness for silver, do not send it on balance,

but goods, raw cotton, straw plait, spices, and, spasmodically, wheat, and other products. Consequently, the importation of silver into India is not at all caused by the balance of payment being in favor of that country, for it is the other way, but by the preference of the Hindoos for silver as an import. It is an additional expense to them to retain the silver they have while procuring more to flow in. What they appear to gain on the exchanges, they lose again in the diminished purchasing power of their products, in foreign commodities.

India had an unfavorable balance of payments in its trade with England, and naturally preferred to pay in goods;

One reason that is alleged for their great demand for silver, is their habit of hoarding. The gold standard has not been introduced into India, because the banking system is undeveloped. The people stick to their ancient customs. They acquire all the silver they can to bury, or to make into bracelets, earrings, and other jewelry, to be worn by their wives. The amount that is absorbed in that way is very large. Hence, it is evident that whatever that possession does export, must be in the shape of goods, and that it must send a large amount in order to pay the tribute to England. It is also plain that bimetallism could not change that state of affairs. It is determined, on the one hand, by India being a vassal state, and, on the other, by this unquenchable thirst for the precious metals, but principally for silver. Both determinants, especially the latter, are corollaries of an arrested civilization.

in fact, it could hardly do otherwise.

India Council bills represent roughly the tribute of India,

15. A word remains to be said about the significance of India Council bills, in connection with the proposition to introduce bimetallism into England, the central market for precious metals. The English colony of India is ruled by a board, situated in London, through the Governor General in India. The finances of the colony are managed by it from London. Naturally, the India Council has very large payments to make in England, for causes already

mentioned, viz., supplies, and the pensions of retired and returned civil service servants. In order to raise this money, its funds being situated in India, it is obliged to sell bills of exchange upon the branch of the Indian treasury located there. The produce of these bills represent, in part, then, the tribute that India pays to England, that is, the surplus of imports into England in the trade with that colony.

which, by offsetting the debts of England, which would otherwise cause the export of silver, lower its value in England.

But the sale of the bills has a restrictive effect on the trade in silver. The people of India, cherishing the preference noted above for the precious metals before English commodities, and especially for silver rather than gold, the cheapness of exchange thus freely offered by the India Council not only puts a premium on imports into England from India, but also erects a dam, as it were, to prevent the outflow of silver thither. For if exchange in this form were not available for the English importers, they would be obliged to pay their debts in silver, and the Indian exporters, instead of cashing council bills remitted by their English debtors, at the government finance offices in Calcutta or Bombay, would import silver from England. The council bills decrease the demand for silver and tend still further to lower its value in England [1] and to intensify the eagerness of the Hindoos to acquire it.

16. Monometallists have therefore said that the "disturbance" in Indian exchange was not due to the fact that there existed a silver standard in India and a gold one in England, at the same time, but was caused by the surplus of imports into England being paid for in Indian Council bills. There seems to be considerable force in the argument. It reduces the inconvenience to be laid to the door merely of the difference in the standards, and the effect of the

[1] J. Laurence Laughlin, The History of Bimetallism in the United States, p. 132; Report made by Edward Atkinson upon the Present Status of Bimetallism in Europe, Ex. Doc., no. 34, chart VI.

claim that great loss would be obviated by the introduction of bimetallism.

The council bills, the hoarding of gold and silver in India, the excess of tribute from India, are independent of the standard of value and could not be affected by any change of standard.

Under bimetallism, there would still be the same sale of India Council bills as under monometallism. There would exist the same preference of the Indian people for the precious metals, the same burying of them in the ground, or carrying of them about in the form of ornaments, and a large excess of exports from India to England over exports from England into India. Those facts, apparently, account for the principal disturbances of the exchanges. In the long run, so much as is due to the fluctuation in the relative exchange value of the different standards must reach speedy compensation, since the ratio between the metals in the two countries must be brought to the same level with that in the world's market. The continued fall of English bills on India, however, was due to the silver standard there, and has been arrested by the gradual introduction of the gold standard, since the closing of the India mint to silver, in 1893.

17. Other materialistic standards, which, however have not entered an experimental stage like the test given to bimetallism by the Latin Union, are symmetallic, joint metallic, tabular, and multiple. *Symmetallism* has no less a sponsor than Professor Alfred Marshall. A practical suggestion from such a source should receive the attention which it deserves. He proposed that debts be paid legally with a coin which should consist of gold and silver, united physically at a certain ratio by weight,—say 32 to 1. The coin would, therefore, be "a picture of gold in a frame of silver." The result would be that, in paying a debt, one would be compelled to use the two metals in that proportion

Symmetallism, or gold and silver in one coin, avoids the principle of substitution in favor of that of compensation.

The principle differs considerably from that of bimetallism. The latter strives, as the market for, say silver goes down, to create a new market for it so as to raise it

value again. Moreover, it restricts the market for gold, so as to lower its value, in order to bring the two to a "parity" again. This operation may go on until the silver, in the case supposed, is entirely excluded from the circulation.

Under symmetallism, there is no attempt to influence the market, and no substitution of silver for gold. The equilibration or the making up for fluctuation here consists uniquely in assuring the public that there is in the coin an amount of the appreciating metal which, to start with, was equal in value to that of the depreciating. The composite coin will enjoy the appreciation of the gold in the open market, as well as suffer the depreciation of the silver. Moreover, as the depreciating metal becomes cheaper, it will exert continually less effect upon the value of the standard, because its value-share in the new, standard coin is proportionally less. A diminution of the smaller part makes progressively a less diminution in the value of the whole. So, bimetallism attempts to maintain the standard by acting upon the market, but symmetallism, by fixing the ratio, physically, in a self-compensating, bimetallic coin. It is not necessary that such a coin should circulate any more than coins do now. It could be held as reserve in the banks and paper money could be "based" upon it.

Joint-metallism allows of easy change of ratio.

18. *Joint-metallism* is the invention of Mr. Anson Phelps Stokes. He proposed that the government mint silver and gold coins in an exact ratio by weight, so that it be always possible to make a payment, in multiples by weight, in one coin or the other. Without change in the coinage, therefore, one ounce of gold could be paid instead of 16 (or 32) ounces of silver. The equivalence depends upon legislation, from time to time. His proposition is, thus, to have a ready means of changing the ratio. It is a sensible annex to symmetallism, which, like bimetallism, will make necessary on occasional change of ratio

and a readjustment and tearing-up of the relations of creditor and debtor every now and then, in order to afford the promised benefits during the intervening periods. Mr. Stokes desired, then, that debts be authorized to be paid, at choice, in a certain proportion of the two metals, only, instead of their being fixed together in a standard coin, it is to be decreed that the debtor shall pay a certain proportion of his debt in silver and a certain proportion in gold, by weight. The deviation of this plan from the preceding is in details only.

The tabular standard assumes that commodities always preserve the same utility.

19. Unlike bimetallism, the *tabular standard* does not attempt to interfere with the existing circulating medium. It asserts the theory that fluctuations in its value will be found by ascertaining the variation in the average price of commodities. Its belief in this theory is its sufficient ground of action. In other words, instead of proposing a new kind of money, it offers an official rule, by which all men may measure the extent of fluctuation. When the change in the average of general prices is calculated, thereby the fluctuation that is due to the standard has been established. They are identical. Such is the assumption. Its correctness will be discussed in the next chapter.

The next step is to affect debts, since it is supposed that the *injustice has been measured.* By decree, a corresponding change is made in the amount of coin that can be demanded in payment of outstanding debts, at any given time. Thus is repaired the "injustice" that may have been done to debtor or creditor through fluctuation of commodities over against coin. That really in this way unsteadiness in *prices* due to the circulating medium has been exactly corrected, to the *individual* debtor or creditor, is more than doubtful. It is equally doubtful whether the variation in *values* has been scientifically adjusted.

20. The *multiple standard* is arrived at by a supple-

mentary change in the tabular. It goes a step further and proposes that the circulating medium itself be contracted or expanded by the government, according as prices have expanded or contracted. It will not be necessary to issue a decree, from time to time, declaring that debts due to-day are to be scaled down one half of one per cent, or must be augmented by two per cent. Instead of that, the government will itself create a mechanism by which the circulating medium will vary in volume, so that each dollar will correspond to the same amount of commodities at one date as at another. Debtors will continue to pay, as now, according to the tenor of the contract. That, thought J. A. Smith,[1] could be done by putting a slight premium in gold or silver, on the notes, when the currency should be inflated, as shown by the fluctuation in the official price of the standard list of commodities, and by buying in silver or gold, by putting a premium upon it in notes, when prices should fall too low and it should be thought necessary to "inject" more of the paper money into the circulation. Professor Smith admits that his system would necessitate some taxation, as the people at large would have to be charged to make up the amount of the loss to the persons who held money that was depreciated, whether it were the precious metal that fell, or the paper money which would be issued by the government under the proposed régime.

Under the multiple standard, the government attempts to keep prices at a level by direct regulation of the circulating medium.

21. A *commodity standard* is necessarily made up of a limited list of articles. Each variety admitted on the Smith proposition, will be so "weighted" as to influence the average in proportion to the amount of it produced and dealt in. Such an average is supposed to indicate the change of prices more fairly than an unweighted one, because it attributes to each commodity an importance pro-

The commodity or multiple standard favors the commodities that are chosen to form part of it.

[1] "The Multiple Standard," Annals of the American Academy, March, 1896.

portional to the number of transactions that take place in it. Regarded, however, from an individualistic point of view, the expedient of weighting fails to afford complete satisfaction. It disposes of the individual commodity after a fashion.

But the individual man claims attention also. Each article will affect the average according to the amount of it dealt in. Consequently, the standard will be adjusted favorably to a corporation or monopolist in a staple, so as to correct the aberrations in his product more than in anybody else's. That (natural or artificial) person will be able to calculate on a more steady level of prices than others. Reformers of the multiple-standard school are playing into the hands of monopolists. If A deal in a commodity which is not included in the list (*ex hypothesi*, $\frac{999}{1000}$ of the sales in a society are of articles of that description), his merchandise has had no influence at all upon the level of prices. He must reconcile himself to the fiction that, by means of a standard composed of a limited number of *other* commodities, exactly the fallibility that is occasioned by the circulating medium has been extirpated from *all* prices — the price of *his included*. No dealer, the price of whose wares had sunk, would admit the justice of having his bills payable raised by one per cent, because the "standard" had risen. When men realized how a tabular standard worked, it would provoke an insurrection. The multiple standard is more crafty than the tabular, but could not permanently quiet complaint.

and increases uncertainty rather than decreases it, for all others.

The interference of the Tabular Standard Bureau is unsatisfactory, in that it is *ex post facto*. It announces: "The fluctuation in prices *has been* so and so." That is, perhaps, for the benefit of the debtor. But when a merchant makes his calculations, he is concerned about what it *is going to be*. He is not only a debtor or a creditor or both, but is engaged

in legitimate speculation, buying and selling goods and manufacturing them. If this "reform" is instituted, he is not permitted undisturbed to calculate what is to be the divergence, either in the level of prices or in the price of his wares, but must also conjecture what change the *government experts, following a statutory and hence artificial rule of computation, will have agreed has occurred* in prices, and how that may affect dealings in his commodity. Instead of simplifying business, it is to be feared that it will complicate it. The whole community, then, will be gambling upon what the government bureau is going to announce has been the gain or loss.

Government interference increases uncertainty for all dealers.

The plain citizen would rather take his risk under free competition. If he loses, he takes the blame cheerfully on himself. Only in case of widespread disaster do scheme-makers obtain a hearing. He does not like to feel that some official is continually standing over him with a club to decide, apparently arbitrarily, how much his property is to be scaled up or down. Injustice is usually the result where officials attempt to interfere with the metes and bounds that have been created by evolution and competition. It is a mistake to suppose that an average correction of price fluctuation can be worked out, which is destined exactly to deal out justice through the whole business community. Exaggerated organic changes are a bad thing, undoubtedly, but the cure by theoretical rule is apt to be disastrous.

22. Another argument advanced in favor of this proposed standard is, that crises are the result of fluctuation in prices, and, if the latter can be eliminated, the former will be also. That notion is a pure case of taking the symptom for the cause. If there is speculation and enterprise, there always will be inflation of some sort. If it can be apparently banished by superficial, topical treatment, it is bound to break out in some other place. If it is removed by a

Artificially level or unvarying prices cannot guarantee profits and hence prevent crises.

lotion from the surface of the body, it will gather internally. If the amount of circulating medium is artificially regulated, the expansion will take place in deposits, for no one has yet had the inspiration to regulate deposits. But why be so anxious to suppress price fluctuations? They are among the most healthful phenomena. If not extreme, they are the organic sign of progress. Common sense shows that good times and high prices go together, and low prices go with bad times. Prices are a mere symptom of what is going on, and entire disappearance of it would testify that the community was in a state of economic coma.

The international tabular standard is the gold-exchange standard applied to the tabular.

23. Another corollary of the tabular standard is the proposal to apply to it the idea of the "*gold-exchange standard*," by international agreement. The gold-exchange standard may be stated as the practical measure to which American and English colonial authorities and Mexico have resorted, of keeping the local currency at par with that of gold countries, by buying and selling foreign exchange. Professor Irving Fisher would have the tabular standard adopted internationally, and some nation chosen as common agent to maintain the circulation at par with it, by purchase of coin with bullion when prices are too high, or sale, when they are too low. The objections offered by Professor O. M. W. Sprague[1] are: 1. That the prices of other countries would not be quickly readjusted to the level of the corrected prices of the fiscal agent country. 2. That the artificial process "would seem to subject the business of the world to a never-ending succession of abrupt changes." 3. "Once limit the coinage of gold, and the value of gold coin and gold bullion may diverge to an indefinite extent."

[1] O. M. W. Sprague, "Fisher's Purchasing Power of Money," The Quarterly Journal of Economics, XXVI, p. 140, Nov., 1911.

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CHAPTER XIV

JUSTICE FOR DEBTORS. IDEALISTIC STANDARDS

1. The commodity standard is theoretically and practically a weak basis for remedial legislation. A psychological standard is as objective as a materialistic one. — 2. The question is one of the value contained in commodities compared with that contained in the circulating medium. The utility test of value is useful for the comparison. — 3. Marginal utility offers a still more exact test. The total value of a stock of goods is a definite psychological quantity, which may easily be incorporated into goods if their marginal utility be only known. — 4. A psychological standard is of social and ethical importance. — 5. The payment of interest includes both the payment of the accretion of wealth due to the principal as a productive tool and a plus or minus compensation for fluctuation in the relative value of the principal. But compensation may be directly credited (or debited) to the principal itself. — 6. But since the rate of interest is fixed in the money market, it establishes an equivalent fair to individuals on the hypothesis that control by a market is fair in the abstract; if so, the conclusion follows by virtue of the time-honored hypothesis of the "economic man." — 7. Low prices stimulate gold production. Thus is offered an automatic guaranty against long-continuing low prices; but it does not follow that the action is quick enough to prevent debtor's loss. — 8. Debtor and creditor are as free and responsible in making their agreements to lend or pay as persons in any other relations of life. All economic contracts involve the relation of debtor and creditor. If they err, they suffer the natural consequences. A high rate of interest is no greater grievance than a high price of shoes. An artificial law scaling debts cannot operate equitably. — 9. The organic price-level is not unjust. — 10. Remedial legislation is subject to serious theoretical and practical inconveniences. — 11. The field of charity must not be confounded with that of competition. — 12. The imagined total utility standard of deferred payments is complicated by a failure to stand by the agreed test of "value," but — 13. the real objection to it is that debts as well as sales are individual arrangements and are incurred on precisely the same marginal utility principles. — 14. The marginal theory of deferred payments

is an outcome of the difficulties encountered by the proponents of the old labor theory of value.

1. THE term "idealistic" may be employed to designate the attempts to find out what is, in the abstract, an equal return by the debtor to the creditor. This species of speculation is to be set down to the credit of those who are not satisfied either with existing monetary laws and practices or with the propositions for materialistic standards. They say that, as a matter of experience, an equal amount of commodities does not spell the same value. The return to the creditor of an amount of money which will buy the same number of bushels of corn and wheat, pounds of iron, ounces of pepper, spring bonnets, and quarts of milk, is not a scientifically correct restitution. For it may happen that, if Easter Sunday is a rainy day, spring bonnets will not have so much value as if the weather were good. If there is a good crop of potatoes, they will not have the utility, economically speaking, that they would if the crop were bad. The effort to produce a ton of iron, five years from now, may be one half what it is to-day. The substitution, in the arts, of aluminium for iron, may render the latter metal ineligible as a member of the standard group. Consequently, the selected heap of commodities will bear very different *value*, at the due date, from what it had when the debt was contracted. These considerations, exaggerated a little for the sake of argument, seem to weaken every proposition for bimetallism, or other materialistic means of allaying recurrent insurrections of the debtor class, by an intelligent operation upon the circulation.

The commodity standard must be abandoned in the search for one which will insure an "equal return."

At first thought, it would appear that an investigation into the restitution of pure values might be looked upon as less objective than one into a return of actual commodities. In one sense, this is true, for it is patently a more psychological study than is the other. It is no longer a question

as to what articles are most appropriate to be included in the standard. The assumption is out of court that they can replace the lost utilities. Now, the inquiry is shifted to general considerations of economic psychology. *Values* of goods fluctuate in *men's minds*. The psychological point of view predominantly involves investigation into *typical* valuation; and that is justification for the term "idealistic."

The question is partly one of the future value of commodities, and also one of expressing or objectifying value in commodities.

2. A study of this sort is concerned with estimates reaching into the future. What value will producers and consumers obtain from commodities in the future as compared with the present? The inquiry involves, further, the methods of so expanding or contracting the circulating medium at will, that it command a correspondingly less or greater number of commodities per dollar, according as the value of commodities, taken dollar-wise, have gone up or down. A rational solution is possible, with the help of the modern doctrine of value known as the "marginal" theory.

A debt or deferred payment is presumably a contract for an exchange of present against an equal amount of future utilities. They must appear equal to buyer and seller, separately. The estimates of the two parties are not necessarily comparable. This hypothesis of enlightened foresight is the only possible basis for a theory. The utilities themselves, unavoidably, are objectively embodied in goods. The enjoyment and estimation of utilities take place in the minds of the persons who are producing or consuming them.

The modern view of valuation states, at the outset, that goods are, primarily, not gauged in the market according to the efforts in producing them. Notwithstanding all the elaboration of the doctrine of cost of production, it is very likely true that it is, in many cases, much harder to find the amount of labor or effort that has gone into a given good than to measure the satisfaction which it affords. The history of the former reaches back, perhaps for years, into an

account of the materials that were used to produce the materials. Consequently, while the statement of the cost-of-production theory of value is simple, the tracing of it out in actual life is extremely complex. The "marginal" theory of value, however, enables one to arrive at a measure, from the side of the consumer, who is a person more easily reached then the producer.

The marginal utility theory of values affords a basis for a psychological and idealistic comparison of the respective welfare of debtor and creditor,

3. The "marginal" theory states that any mass of goods is valued in proportion to the utility of the last portion consumed. If one suppose that equal doses [1] of goods are offered for consumption, he must note a diminishing satisfaction from each successive one, until satiation, all lapse of time or other variation in circumstances being eliminated from consideration. What a man is willing to give, under these conditions, for any dose, is what he will give for the last, because any other, if taken last, would have given the same satisfaction as the one actually selected. It does not make any difference which comes last. One is bound to be the last; and, since any one may be last, he will not pay for it more than he would for the last. The utility of the last dose, therefore, and the paying for the producing of it, establish the value for all. It is not necessary to go so far as to maintain that it measures the price for the case when all the doses are united into one and sold in a lump. In that event, one big dose is substituted for the preëxisting little ones, and it is estimated and valued anew. But the marginal fixes the value of any and every dose, if the commodity is sold dose-wise. What valuation means, then, is that all of the items that make up the stock of the market are appreciated according to the utility of the last dose. This is a more refined way of saying that value stands in some inverse ratio to the quantity of goods thrown on the market.

[1] The term "dose" has been consecrated by Mill, Marshall, and other writers.

The marginal law states the relation of supply to value more exactly.

for it affords a practicable way to arrive at the total value of a stock of goods.

The *total value* in a stock of goods is the number of doses multiplied by the utility of the last dose. There is no more value left in the stock, because, if any one unspecified dose is sold from it, that will not produce any more utility than any other. What it will afford will be only just the utility of the last. Consequently, the value of all of the stock, under this definition of value, is a rectangle equal to the product of the utility of the last dose by the number of doses, which is equivalent to saying, by the physical mass of the stock. Creditors expect to receive back, in the future, the same total value with which they have parted. They want to be restored to their former situation, where they can sell any one of the doses, and, presumably, in the open market, all of them, and receive back the same original value.

If, at a future date, goods become easier to produce and hence more abundant, a dose of goods will have a smaller marginal utility. How many goods must be received or given in order to restore the same value that was loaned? The creditor must demand back enough so that, if he multiply their marginal utility by their quantity, he will come into possession of an area of utility equal to the surface of value he parted with in the first place. The required number of new units is found by dividing the original value-area by the new marginal utility. Thus is obtained the number of goods receivable in the future, as competent to replace subjective value parted with. It is evident, under the realization of these circumstances, that prices must have fallen in proportion to the decrease in the marginal utility of goods. The same amount of money returned should buy more goods in that ratio.[1]

Consequently, prices should fluctuate as marginal values fluctuate.

[1] This theory of price restitution is due to the late Dr. S. S. Merriam, "The Theory of Final Utility in its Relation to Money and the Standard of Deferred Payments," Annals of the American Academy, vol. III.

The question of deferred payments is essentially one of values.

4. Before examination of the questions involved in the counter-proposition of the total-utility theory, it may be well to pause a moment to attempt to obtain the exact relation of a discussion of this sort to social conclusions. How far is an idealistic standard objectively social and not merely an imagined case of individual valuation? And also, what is the helpfulness of such a psychological standard in solving the question of justice? It is opportune to recall the distinction between the materialistic and idealistic standards. The former seek a mechanism whereby equal commodities, not in value, but in their material form, may be returned to the creditor. The latter would vindicate an integrity of valuation, and, while less tangible, are really more objective, for the reason that the topic under consideration is essentially not material quantities, but mental, namely, values. "Objective" means what is. In other words, the psychological standard must, if the reasoning be correct, come closer to a statement of actual facts, for the end sought is essentially mental, the satisfaction of wants.

A psychological standard is of social and ethical importance.

Practically, anticipated change in value of principal is compensated either through interest or through prices.

5. Fisher proved that contracting parties could, theoretically, always adjust the rate of interest so as to compensate for fluctuations in the value in the commodity in which they were interested, as consumers, dealers, or producers. They could thus make an arrangement whereby both or all would be satisfied that the amount paid back was equal to the debt contracted. The analysis, however, only went to the point of equalizing the differences between capitals, including all possible expected fluctuations of capital values.[1] But it had been shown by v. Böhm-Bawerk,[2] that *interest* is equal to the difference between the present and expected values of capital.

[1] Appreciation and Interest; cf. ch. V, § 16, *supra*.
[2] Positive Theory of Capital; cf. ch. V, § 12, *supra*.

If interest, then, evens the difference between present and future values, and also between the valuations of different concrete capitals, what claim remains for further compensation to debtor or creditor? what injustice can be perpetrated upon them that has not already been guarded against, in the market for goods and for capital? Interest is, then, the difference between the present and the future valuation of capital. If utility of the principal suffers modification through the vicissitudes or ravages of Time, that one divergence, also, is balanced by a corresponding one in the rate of interest. It is not, on this theory, therefore, necessary that the level of prices should be changed artificially, since such a change would interfere with the equalization already privately or individually agreed upon as to compensation by way of interest.

The theory of deferred payments is simplified by the hypothesis of compensation by prices alone.

However, it is doubtless true, that parties to contracts do agree to the repayment, at times, of a larger or smaller *principal in money*, in the expectation that the purchasing power of money will be smaller or larger. In this case, also, interference of government, by manipulation of prices, is injurious. The theory of deferred payment, founded upon utilities, has generally been worked out upon the supposition that the compensation for the fluctuation in the value of commodities should be made through the principal, rather than through interest. The discussion, then, of the ideal standard, may be understood upon the hypothesis that the whole of the compensation is attributed to the principal,[1] whereas Fisher's analysis, driven to its logical conclusion, teaches that it is effected through interest alone. In both theories, it is necessary to make the hypothesis of knowledge beforehand, only, in the one case, the principal is made to increase or decrease, and, in the other, the interest.

6. The marginal utility theory, as already described,

[1] Cf. ch. V, § 16, ch. VI, § 6, *supra, et passim.*

requires that the same total value be returned by the debtor as that which he received from the creditor. The valuation contemplated was either that of the debtor or creditor, or one privately agreed upon between them. The question immediately presents itself, is an individual debtor free to make a contract which will allow him to return exactly the same value? The rate of interest is more or less of a social matter, and the level of prices is essentially so.

Under this hypothesis, freedom of individual action must be reconciled with the further hypothesis of the "economic man."

On the assumption that the compensation, on account of principal, is to be made through a change in the level of prices, it is quite evident that the reasoning does not hold good for an individual who varies from a type or social standard. If the market value of commodities is expected to decrease, the understanding must also be, that the decrease will hold good for all persons, and equally for them all. If potatoes are expected to be cheaper, it must also be understood that the cheapness will reduce the utility of potatoes equally to the rich and to the poor, and, indeed, for persons of all appetites. Hence, the conclusion holds rather for a typical instance, and, as usual in such discussion, it reduces itself to the case of the "economic man." All persons in the society must be supposed of similar tastes and similarly affected by more abundant provision, in order that an increase in the amount of money should benefit all equably, and thus just measures be designated to prevent creditors from sequestrating the whole advantage accruing to society from overflowing income. The reasoning is typical precisely in that its object is, professedly, to discuss the propriety of general enactments which shall work uniformly. The analysis is discouraging to attempts of this nature, since it discloses, only too plainly, that all men are not equal, and that legislative and administrative measures cannot mete out justice to each individual.

7. In passing, it is worth while to advert to the question,

Trade depression, of the typical sort, stimulates the supply of gold, but not in time to prevent debtor's loss. If the depression continues, the stimulus will not last.

whether there do not exist, in the economic organism, an *automatic* provision, whereby "money will be so increased as to attain to the contemplated object, of raising prices sufficiently to dispense a share of the benefit of increased production of goods to the typical debtor. In the previous discussion [1] of the standard of value, it has appeared that a fall in prices stimulates the production of gold and tends, therefore, to increase the amount of money, and hence ultimately to raise prices again. Here is found, perhaps, the germ of an organic system, which may ultimately become completely satisfactory. But, at present, the stimulation to the production of gold from low prices does not work rapidly enough to remedy the supposed evil. The slowness may conceal social benefits, in other directions from that which comports with the question of the standard. Aberration of the argument, on this account, will be perceived to share the fallibility of all human analysis.

The stimulation, be it noted, comes from the effect of the depression. There could be none, unless there were *antecedent* low prices. They must previously have persisted long enough to have caused the supposed injury to the debtor, before they can yield profit to the gold industry, and, through it, ultimately benefit the debtor again. Moreover, fluctuation in prices is, primarily, due to the state of credit, which is more or less independent of the supplies of gold. Prices may, conceivably, be reduced sufficiently to injure the debtor, on a rising supply of gold, as happened subsequently to 1885. Nevertheless, in the long run, bad trade and the accompanying fall of wares, by exerting a stimulating effect upon the supply of gold, tend ultimately to restore prices to the higher level. This influence is to be thanked for the general rule that that supply is, and always has been, in the main, adequate to the needs of the reserves.

[1] Ch. VIII, § 10, ch. XI, § 10, *supra*.

The *social process* of equalizing future with present is objective. The conduct of the "economic man" is representative of what is generally taking place. It is a fact that debtors habitually make their contracts, not with reference to the return of an equal quantity of goods, but with an eye single to a value surplus, commonly called a profit. They are at liberty to stipulate for an equal value, accounted to principal or to principal and interest. The ordinary way of making usurious bank loans, is for the debtor to acknowledge a *larger principal* than the one that he receives. But actual (commodity) usury may exist in the absence of any interest. If the money to be returned in the future will have a greater purchasing power, the restitution of a smaller principal than that received might be perfectly "just." Or, a rise of the market rate of interest, during the life of private debt, may cause the creditor finally to lose a part of his (commodity) principal.

Sometimes the borrower has the upper hand over the lender, in the bargaining.

8. Is legislation desirable to effect justice between creditor and debtor? Is it true that continual injustice is done, because the general level of prices fluctuates? It has sufficiently appeared that a large latitude exists within which debtor and creditor may make mutual arrangements, predicated upon their views of the prospects of the commodity transferred. At the same time, a certain pressure may be exerted, sometimes to the advantage of one party and sometimes to that of the other, in the making of the bargain. It is popularly assumed, indeed, that the pressure is always from the side of the creditor, but that is not so. In times of expansion, contrary to popular prepossession, it is the creditor who is seeking to loan his money. The coercion is then directed toward him from the borrower, who exacts a low rate of interest and pockets the benefit that comes from the rise in prices, or what other profits may attend the borrowing of money in the time of active speculation.

The ethics of the situation may be tested by the hypothesis of a debtor and creditor who have calculated entirely erroneously as to the course of prices and as to the fluctuation of the commodity in which the debtor, for instance, deals. The consequence of this miscalculation may be assumed to be that one of the parties to the bargain is grievously prejudiced, while the other receives an unexpected acquisition of wealth. The naïve theory which undoubtedly is present in the mind of the man who votes for cheap money, and of the professor who offers a fine-drawn mechanism for keeping the price-level even, is that, under the circumstances, a grave injustice has been done.

A mistake of an individual, in a matter under organic control of society, cannot be twisted into a case of injustice.

However, in sound morality, nothing of the sort is true. Men are social beings, living under the institutions of society, and free to act within certain limits. The rate of interest, undoubtedly, is a prevailing fact, and so is the price of potatoes. A dealer in potatoes can neither obtain nor be forced to give a price departing widely from what is known as the "market price." When potatoes are $1.00 a bushel, the housekeeper doubtless feels aggrieved. But that does not constitute a case of injustice, from any social point of view. The potatoes were cultivated under circumstances that were looked upon as fair. Their high price was probably due to a short crop. If the railroad company has suddenly put up the tariff on potatoes, that may be unfair. But, in the absence of some anomaly of this sort, there is nothing unjust in the mere fact that the rise in potatoes will curtail the expenditure of the housekeeper in other directions.

The market price of goods and of capital does not deprive the business man of all

But that is the proposition of the "reformer" in the matter of prices. According to him, the fluctuation of prices, in and of itself, is unfair. But a law of the legislature scaling debts is also unfair, because it applies indiscriminately to all debtors and creditors, no matter what their relative con-

ditions. And still more, because it is an arbitrary interference with the calculations that men make, both socially and individually. The rate of "money" interest, it is true, individuals cannot affect to a very great extent, since it is a result of social action, namely, of the competition of lenders and borrowers in the money market. Each has had his share in this contest, and the organic law of society is, that each must take the consequences, along with the rest. Such a rate of interest, therefore, is not unfair, for it is the result of normal competition, just the same as the price of potatoes.

self-determination in respect to *his* wares and *his* interest payments.

9. The existing level of prices, on the hypothesis of an entire absence of government money and government financiering of the circulation, is a "natural" matter, the consequence of competition. It is mainly the effect exerted, by the creation of credit, upon the amount of the deposits in the banks, and, through a tardy process, of the supplies of gold from the mines.[1] In view of all the circumstances, is the level created in this way unfair? Is there anything inequitable in the leaving of individual business men to their own devices, in those eminently natural situations which may accrue to them from variable readings of the price-gauge, which are the results of the manifold influences, the description of which has been attempted earlier in this book?[2] Is there any more reason why a *deus ex machina* should intervene to relieve the debtor from the evil effects of miscalculation, whether wholly his own or partly that of his competitors, than why the same Providence should make good to the housewife for the high price of potatoes, or to the creditor for the low rate of interest? Happily, in mod-

The level of prices, like the rate of interest, is an organic phenomenon, and cannot possibly be altered or affected, except by way of protection against the "friendly" legislation.

[1] Chs. V and VI, *supra.*

[2] Villefredo Pareto, Cours d'Economie Politique, II, 297, cited with approval, Maurice Patron, The Bank of France, 115, Publications of the Monetary Commission, to the effect that the idea of suppressing crises, the concomitant of fall of prices, is unscientific.

ern times, administrative interference in these directions is less common than it was in earlier ages. The inappropriateness of the attempt of government to act in a sweeping manner upon an economic category like rent, interest, wages, or prices, is well shown by a *reductio ad absurdum*. Any change of price-level, made at a given moment, will exactly compensate for losses, if at all, only to those debtors or creditors who entered into their contracts at a given date. For those of an earlier or later date, somebody will gain and somebody will lose more than the law intended.

Remedial legislation is peculiarly exposed to abuse. Its benefits appeal to touch-and-go sympathy, while its evils are not of the obvious sort.

10. It is not surprising that general schemes for financial regeneration should appear from time to time. The chief school of the human race is found in the checks which Experience is always administering to attempts to remedy adverse conditions by changing phenomena, instead of by going to the source of miscalculation, in ignorance and in defective power of connecting cause with effect. Similar mistakes, in principle, are made in matters affecting material phenomena, especially in hygiene. But there the demonstration of the error is tangible. It can be proved by laboratory experiments that men cannot "enrich" their blood by drinking red wine.

But society is never left free to go its own way. There is always agitation on foot to remedy its pains (which are bad enough) by some opiate. The evil is real, the remedy almost always contains a measure of truth, but the degree of applicability is seldom accurately calculated. Free trade contains the most appropriateness of any of these schemes, for it proposes to abandon regulation, but in a domain where the latter is so customary as to be almost an organic part of the social customs. Few persons, outside of England, are disposed to deny that the former has worked fairly well in that country, with the modifications it has admitted there. Laws against "futures" and "options" seem to have given

little satisfaction in the countries that have adopted them. Government money has always been, economically considered, a dismal failure, except that, occasionally, it has been of temporary convenience to government itself, looked upon as a corporation which is interested in its own welfare, apart from that of society.

Single tax, government guaranty of the price of wheat, export bounties on wheat, free silver, abolition of usury, regulation of freight and passenger rates, anti-trust action, government ownership, eight-hours for labor, homestead and preëmption privileges, pure food inspection, guaranty of bank deposits, child-labor regulation, prohibition, — all of these and many other propositions, a part of them already enacted into law, contain different elements of usefulness, but are too frequently offered as panaceas, and, in the forms enacted, may do more harm than good. When the reformer is brought face to face with legislation, he is luckily compelled to take into consideration circumstances which he had not previously duly weighed or publicly acknowledged. State accident insurance, for instance, is provided for by taxation, not of wealth generally, but principally of the workmen themselves both directly and indirectly through their employers. This inevitable source of funds is certainly no recommendation of the law to the former. A badly drawn child-labor law may harm children and their parents more than it benefits them.

Dangers from remedial legislation are, either that the benefits are miscalculated or imaginary, so that enactments really do directly more evil than good, or that it interferes with the *energy of society*, as a creative, advancing organism. However, it is by errors of this sort that the human race receives some of its most important lessons and comes gradually to know itself. Legislation punctuates the eternal discussion which, in academic shades, in parliaments,

in the pulpit, in the press, and in a thousand other places, makes for human progress. The duty of society to succor the wrecks of social struggle is imperative and direct. But the very natural desire to "render competition milder" is misleading. There is reason to believe that progress elevates competition, even if it does not otherwise render it less acute.

It is almost impossible to enact reform legislation that does not cover cases not intended,

11. Competition, then, is better calculated to do justice than unripe legislation. It is difficult to regiment systematic, social activities in such a way as to treat individuals justly, since interference unavoidably will be sweeping, arbitrary, and by general rule not adapted to individual cases. The *law* can seldom lend that "helping hand" which is the blessing of *private* benevolence. Undoubtedly, misfortune is happening to business men, all of the time. Miscalculations are constantly made, and often by intelligent persons. Many fail who have committed no errors of judgment, but have been swept off their feet by "general disaster," — by conditions over which they could have had no control, or which they could have avoided, perhaps, only by retiring, cowardly, from the field. Even trustees, with their trust funds, are not infrequently innocently involved.

or to combine charity with competition. To observe high business standards is not charity; it is honesty.

However, it is not to be inferred that the machinery of business will be brought to a standstill by misguided legislation, nor does opposition to the latter, in the slightest degree, involve hardheartedness or denial of the virtues of magnanimity. The domain of charity is clearly a distinct one from that of legislation. It leads into a broader and a better field than that of economics. The lesson of the foregoing considerations is, that charity should not be confounded with competition. It cannot be promoted by meddling with the organic laws of trade. General, eleemosynary measures may undoubtedly be taken in favor of the unfortunate, but they should be such as supplement and do not

embarrass that open contest which is industry and finance. Estimable persons meet with disaster or slowly sink under burdens, to which they are unequal. They generally are and best may be, assisted privately by friends. For the large classes that have no friends, uniform measures of relief may be, and often are taken, fortunately, both by public and by private benevolence. The first concern of the charity worker, however, is to find the needs of *each individual case.* The principal precaution in the exercise of charity should be that it should not block the active world of business competition. For instance, the raising of laborers' wages by public grant, directly or indirectly, has been found to be injurious equally to laborers and to employers.

The analysis of justice between debtor and creditor, so far, affirms that the question is one of utilities rather than of goods.

12. So much for the academic discussion as to whether, without reference to the rate of interest, justice is done to debtor and creditor by a return of equal utilities of some sort, involving a simple operation upon the level of prices. The analysis of the obligation in a case of deferred payment, has been made, so far as to say that the debtor, in obedience to social organic law, does tend to return to the creditor an equal value,— equal because privately and "freely" agreed upon, and also equal because deeply influenced by the normal calculations of the "economic man."

Right on this point, however, a difference of opinion arose, at the time of the "free silver compaigns," when discussion was rife among economists, as well as politicians, upon the question of debtor's rights. Naturally, students who were most closely in sympathy with the bimetallists, desired such an issue of theoretical discussion as would *raise* prices most, while those who stood more closely in touch with the gold-standard contention, tried to work out a plan which should raise prices as *little* as possible. But the question of theory is itself entirely independent

from political motives, and must be looked upon as any other piece of abstract reasoning. The principle of the return of *equal values* has already been sufficiently extended. In opposition, appeared the theory of the return of *equal utilities*, by which was meant *total utility* and not marginal utility.

The case for the total-utility standard is defended by a denial of imputation of value, by a questionable emphasis on consumer's rent, and by the assumption that society sells its goods in a lump.

Three points were made by Professor Edward A. Ross, in his clever presentation of the theory of total utility.[1] *First*, the marginal theory applies to a case of imputed value alone. The ordinary case of the market is one of imputed value. The whole of a stock of goods is valued according to the price obtained by the last amount sold. That price is "imputed" to the whole. But where the whole of the stock itself is parted with, in one sale, according to Professor Ross, the case is not one of imputed value. The whole utility of the stock must be compensated. Undoubtedly this statement is correct. It may be intelligently interpreted. The application alone is disputed. The Dakota farmer would charge more per cord for his whole wood-pile than for a single cord sold out of it. The owner of a well would be glad to give away a cup of water, but perhaps would not sell the well for all the money in the world, and so on. The *second* point was, that the utility to the consumer is different from that to the buyer. That will be shown to be practically the first point in another guise. The *third* was, that legislation calculated to remedy a mistaken level of prices should be based upon the hypothesis that society was parting with its goods as a whole.

As to imputation; there can be none in absence of division:

In the first point, illustrated by the sale of cord-wood, the question really raised is as to whether the marginal principle applies to all cases of sale. The question of deferred payments is undoubtedly one of sale. In the

[1] "Total Utility Standard of Deferred Payments," Annals of the American Academy, vol. IV.

extreme case put of parting with the whole stock at once, it is true that the sale would not be made for less than the total utility of the merchandise. But this is not a refutation of the applicability of the marginal theory. That theory states that the valuation of the total amount of goods is set by the marginal quantity or "dose." In the illustrations adduced, *the whole quantity becomes of itself the marginal dose*, and hence the total utility becomes the marginal utility. No difference is left between the total and marginal utilities. They are identified. But confusing illustrations do not destroy a principle. If it were possible to imagine anybody selling the whole of the present goods of the world, in return for the whole of those expected to be produced at a future time, it would make little difference whether he desired to receive back again the total utility of present goods or not. He would, from the nature of the case, be constrained to estimate equal returns from marginal utility, precisely as if he were buying peaches in a market. The marginal theory, in its operation, depends partly upon the extent to which the article brought into the market for sale, is subdivided. If it is not capable of subdivision, then there is no such thing as total utility, as distinguished from marginal. To offer a case of non-subdivision as a refutation of the marginal theory, is inconclusive.

but the case is still marginal.

The second argument is that the passage of goods from the market into consumption raises their "value." This loose use of the term "value" is decidedly misleading. Value is a very distinct thing from utility. It is a special conception, an estimate based upon the quantity of an article that is supplied, or supposed to be available. Total utility, on the other hand, is quite unmodified by additional supplies, for, *ex hypothesi*, "late" doses do not affect the utility of "early" doses. Total utility includes consumer's rent, which is a sum due to the absolute utility of the goods. It

As to consumer's rent; that is not a question of quantity; but value and sale are essentially questions of quantity.

comprises the rent and value of the goods together. It can in no way be influenced by further supply of goods, except as they may increase it arbitrarily or adventitiously. Hence, it cannot enter into a trade of any sort. It is not a business or mercantile conception.

And as to selling goods in a lump, — no amount of sociological anthropomorphism could possibly make us imagine such a thing!

13. Evidently, the brunt of the discussion turns upon the third point, that the principle of deferred payments depends upon the valuing of society's stock of goods as a whole. If it is true that society itself, in this way, exchanges the whole of present for the whole of future goods, it must do so as a trader, upon marginal principles. But it does not. The question is not one between society and society, but between debtors and creditors. The creditor parts with a certain total value. He contracts to receive back again an equal total value, or what, at the time of contract, is expected to be such. The parties take into account present and future wants and provisions for want. The contract is made with open eyes as to what the utilities may be to consumers. But the marginal method of computation is the only one that gives a rate per unit of goods, and hence is the only one that can be used. The burden is upon the advocates of the total-utility standard to show that business can be carried on in any other way, and that the conduct of it, according to the type presented by the marginal theory, is immoral or unfairly competitive.

The conclusion fairly follows that the modification of prices must be such as to return equal *values*, as between debtors and creditors. If all goods were taken away from society, as the total-utility hypothesis supposes, then their utility would be infinite! Their cost would remain the same, but, as the stock was reduced toward zero, their price would rise toward infinity. Hence, *on the hypothesis of trade en bloc, no ratio of values could possibly be established between present and future goods.*

But present and future goods *are reciprocally valued in the transactions of individual debtors and creditors.* The sum of those transactions takes into view, not all future goods that may be created, but only such as are proposed to be founded on borrowed money; and not all present goods, but only such as a loan of present money will buy. The sale of present goods for future, or the loan, is made precisely on the same principle as a present sale for money, namely, by the valuation of the goods exchanged, according to their marginal utility. The fact that the marginal utility of future goods is less than that of present, apart from any other considerations that may affect their valuation, is an additional reason why it is unavoidable that the marginal method should be applied in this sort of a deferred exchange of goods.[1] Hence, if the marginal principle of valuation be accepted at all, it must be made of service here. The chief weakness of the total-utility argument is that it professes to accept the marginal-utility theory of value in general, but rejects it in this instance, and thereby commits the confusion of tongue of calling the total-utility theory a process of valuation.[2]

Idealistic theories of debt are derived from the marginal theory, but that, from the old labor standard.

14. The refinements discussed, quite naturally, do not enter into the more popular agitation of the question of justice in deferred payments. In argumentation, more is heard concerning the commodity and the labor standards. The former of these has already received treatment in the chapter on materialistic standards.[3] But the latter, while in itself, perhaps, material, has paved the way to the conception embodied in the idealistic standards.

[1] Alfred Marshall, Principles of Economics, book III, ch. V, paragraphs 3 and 4, fifth ed.

[2] See the writer's article, "Values Positive and Relative," in the Annals of the American Academy of Political and Social Science, vol. IX, no. 1, p. 100, *sqq.* for further objections.

[3] Ch. XIII, §§ 19, *sqq.*, *supra.*

The thought that equal amounts of labor are always worth the same, has long been a favorite one. Adam Smith showed a decided liking for it. A difficulty is, however, that no two men's labors correspond in sacrifice, even if they do in force. Further, what was the use of talking about equal labor, unless it was embodied in objective goods? Hence, the more refined, utility theories of value.

The search for an objective measure was for a long time directed by rule of thumb. "Exact" writers are not exact in all things. At best, they must assume many premises neither previously subjected to scientific test nor within the scope of immediate inquiry. But it would seem as though a labor measure *was* within the field of economic theory. The best Smith could do was to guess that a bushel of wheat always is worth the same amount of labor: "Equal quantities of labor will at distant times be purchased more nearly with equal quantities of corn, the subsistence of the labourer, than with equal quantities of gold and silver, or perhaps of any other commodity." [1]

The labor standard was shunted on to a similar side-track to that of the silver dollar.

Manifestly, this is a rough estimate and is worth as much now as when he wrote it. But, in vulgar appreciation, such a phrase becomes, first, a byword, and then, a superstition. Recently, in the United States, the popular fetish has included silver, and it has been firmly believed that a bushel of wheat ought always to be worth a silver dollar, doubtless with crude implication that they both cost or were worth the same amount of labor. A similar difficulty is experienced in attempting to compare the returns of the soil in different places and times. They must be measured by equal outlays. But to find a measure of equal outlays is almost impossible.[2]

Finally, the doctrine of imputation has pointed to a more

[1] Wealth of Nations, bk. I, ch. V, p. 35 (Bohn's ed.).
[2] Cf. Marshall, Principles, fifth ed., bk. IV, ch. III, § 8.

satisfactory solution. It has gradually, but dimly, been perceived that justice, humanly considered, consists in allowing men to work out their own destiny. If the contracting parties freely agree to impute satisfactoriness and finality to their arrangement, they may fairly be held to abide by the same.

Marginal reckonings, under free imputation of equality, attain to social justice.

In theory, it is easy to conceive circumstances under which the parties can be held to have made this imputation. If they will give just as much of one commodity (it might be money) for just so much of another, that is proof that, *for the purposes of the trade*, they are satisfied to treat each part of each stock as equal to every other part of the same, and thus, also, as equal to the exertion or sacrifice involved in bringing it forth. Further, they regard aliquot parts of the two stocks exchanged as equal. Certainty is arrived at in the matter, by seeking exactly how much of one stock the owner is *finally* willing to surrender for a given quantity of the other, under all the circumstances of want and provision for want, including exertions, sacrifices, labor, alternative opportunities, and whatever may enter into his feelings or calculations. Ample scope is given for the motives arising from the labor involved, without the necessity of stopping to consider whether one man's labor is abstractly equal to that of another, by the simple expedient of accepting the imputation which the parties have made in their contract of sale or exchange, — that, *for economic purposes*, they mutually accept their labor, whether for more or less hours, respectively, as exchangeable or equal in value.

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INDEX

Abnormal credit, 93.
"Absolute" property, a man of straw, 114.
Act of March 14, 1900, 331.
Agricultural, discontent, 261 sqq.
  credit, 90.
Agriculture and manufacture, their relation to rent and profits, 213 sqq.
Aldrich plan, 338.
Anticipation of funds, 29.
Antinomies of redemption, 289 sqq.
Antiquity of "circulation," 352 n.
Appreciation, of gold moderates boom, 251.
  and interest, 151.
  till 1892, 262.
  1896, 176 sqq.
Arbitration of exchange defined, 78.
Argentine revolution of 1890, 262.
Artificial manipulation of currency, 313.
  price-level undesirable, 41 sqq.
Atavism in financial science, 318 sqq.
Atkinson, Edward, 15.
Australian crisis of 1893, 263.
Austrian school, 2.
Average prices, theory of, 291 sqq.
  prices and standard, 374.

Bad and good credit, 109.
Baltimore plan, 328, 331.
Bank, acts (U. S.), 1781, 1816, 1864, 327, 330.
  of England, Baring syndicate, 262.
  restriction act, 324, 355.
  of France, guaranty regulation, 322.
  rate and central bank, 80 n., 2.
  rate fixing, 210.
  city and country, and inflation, 282.
  failures, 1890, 262 sqq.
Banker and speculator, 187.
Banker a guarantor, 32.
  and interest, 256.
  and speculator partners, 285.
  views not always scientific or social, 320.
  influence, 122.
Bankers' and merchants' clearings prove control of credit over prices, 240.
Banking, its importance, 321 sqq.
  a master trade, 321, 322.
  characterized, 62, 63 n.
  a healthy system, 124.
  school, 289, 304.
  principle in relation to guaranty, 328.
  principle, how superior to currency principle, 328.
  legislation (corporation acts), 333 sqq.
  not safe-depositing, 320.
  on bonds, 329.
Bills and notes, their range of circulation, 71.
  payable to banks, 101.
Bimetallic ratio subject to change, 362.
Bimetallism, its meaning, 357.
  defined, 358.
  inconveniences, 359.
  substitution limited, 360.
  natural, organic, 361.
  motives of some advocates of, 363.
  disadvantage to American consumer, 368.
  is protection, 369.
Bochm-Bawerk, v., 15, 389.
  on interest, 165, 167 sqq.
Bond syndicate contract, 80, 253, 264.
Bonds, vary inversely to market rate, 257.
  proposed removal of their guaranty of notes, 332.
Boom in the early eighties, 247 sqq.
  indispensable to expansion, 196.
  conditions, 235.
  not specially caused by gold discoveries, 348.
Borrowing, expedient of governments, 310 sqq.
Bowley on trade of England, 260.
Breach of trust, remedy, 126.
Break of gauge between money and credit, 293.
Bullion Report of 1810, 303, 324, 327.
"Business makes money," 78, 284, 318.
"Buyer" and "seller," *names* derived from *grade* of purchasing power, 27.
Buyer holds general purchasing power, 28.

Cairnes, wages fund, 45, 128.
California adhered to gold standard, 358.
Californian and Australian gold discoveries, 348.
Call money, affected by gold supplies, 180.
Calonne, 355.
Campaigns of education, 321.
Capital-compensation, 277.
spells control, 115.
as credit, 15, 112 sqq., 168.
defined, 179, 195.
as a financial category, 15.
goods market affects interest, 255.
and income, 219.
and interest, 190.
and rate of interest parallel, 255.
a middle term, 190.
new, affects rate, 270.
nominal, a speculative quantity, 255.
nominal and tangible, how equated or compensated, 178 sqq.
origin of, 129.
as past, present, future goods, 189.
is psychological, 115.
works forever, 172.
Capitalism and individualism, 114.
Capitalist distinguished from *rentier*, 131.
Capitalization of interest only a part of the process, 7.
Caprice value of land, 230.
Career of credit, 53.
Cash business, 86, 89.
Cash defined, 137.
payment, 154.
Causes of crises, 281.
of interest (v. Boehm-Bawerk), 167.
Cell of credit, 5, 14.
Central, bank deposits, 103.
market, 216.
market the test, 223.
reserve bank loans, 107.
Centralization, beneficial, 127.
Certainty afforded by credit, 87 sqq.
Chain of economic causation circular, 221.
Character and credit, 50.
Charity is individualistic, 398, 399.
"Cheap" money, 139, 104.
"Checks and balances," 335.
Circulating medium, its value specially determined for business purposes, 8.
medium, its composition, 292.
vs. standard functions, 319.
Circulation, of goods unavoidable, 153.
illustrated, 67.
undue attention to, 329 sqq.
manipulation of, 375.
City banks, how they insure, 282.
Clark, J. B., on interest, 165.
Class legislation, 353.
Classification of credit, 133.
Clearing House excludes silver, 358.
Clearings and inflation, 251.
Clews, Henry, on "return" of money, 107.
Clogging of sales, 93, 95.
"Coining the production of the country," 315.
Collateral, abuse of, 160.
Colonial policy, 262.
Commercial paper, 137.
Commodity standard, 375.
Common stock, rate unspecified, 158.
Compensation, of capitals, 177 sqq.
of capitals, genesis of, 182.
of capitals, in relation to interest, 195.
of credit capital, 186.
of credit, insufficient, at times, 392.
in principal or interest, 179.
Competition, an engine of justice, 398.
gold and credit, 308.
and monopoly, 132.
necessary, 162.
perpetuates market, 218.
Competitive, definition of capital, 195.
field, 180.
Composite supply, 358.
Compulsion to use credit, 55.
Conspiracy, gold, 353.
Construction, companies, 125.
company fiction, 337.
Consumers' credit, 137, 300.
Consumption demands competition, 163.
Continuity, of conditions, 229.
of markets, Marshall, 223.
unbroken objectively, but broken subjectively, 231.
Contract, sacredness of, 354.
Contraction and expansion, 121.
of government money, 247.
Contracts, freedom of, 355.
for production necessary, 241.
Contrast, as means of analysis, 17 sqq.
of material and immaterial economies, 218.
Control of merchant by banker, 32.
Conversions affect rate little, 270.
Cooke, Thornton, banks make a market for trade paper, 119.
Corporation, legislation, origin of, 333, 334.
legislation, its supposed principles, 335.
legislation in Europe, 335.
abuses, their origins, 334.

Correlation of credit with contracts of production and sale, 85, 88.
Costs, defined, 192.
effect on value of goods, 219–220.
in the market, 190, 192.
and profits, 192.
of production, 2.
Council bills account for fall of silver, 370 sqq.
Country, bankers technically critical, 282.
depositors, 106, 107.
Court of commerce, 338.
Courts' influence on standard, 357.
Credit, bad, illustrated, 68.
better than gold, 72 n.
classified, 133.
constitutes demand for gold, 347.
career and circulation of, 110.
controls production, 236.
control, 232.
effects on gold value, 266.
effects multiplied, 235.
establishes level of prices, 346.
fresh, affects rate, 270.
and goods contrasted, 218 sqq.
and gold interactions, 346.
guides trade, 79.
hypothesis, 22, 37 n., 1.
in crises, 291.
in separate environment, 216.
is in business taken as capital, 129.
is capital, 114.
its elusiveness, 144.
kinetic, affects prices, 283.
market, 197.
method of prices theory replaces gold method, 254.
a necessity, 24.
when non-pecuniary, 176.
when not repaid, 136.
organization, 174.
a positive influence, 266.
preliminary effects, 210.
and prices, 264 sqq.
a private category, 308.
is purchasing medium, 277.
statistics, 1896–1909, 269.
as substitute for gold, 296 sqq.
system permanent, 126.
the decisive variable, 254.
varieties, 142.
volume estimated, 1896–1909, 265.
volume regulated by business outlook, 295.
Credit Mobilier, 125.
Creditors damaged by fall of prices, 244.
"Crime of 1873," 356.
Crisis, caused by inability to "pay," 123.
causal chain, 281.
from clogging of sales, 138 sqq.
credit effects, 291.
cure by government issues, 242.
events leading up to, 210.
importance to theory of credit, 201 sqq.
management of, 25.
originate in credit, 159.
conditions, 160.
how precipitated, 217.
local and partial, 282.
not wholly evils, 43
of 1907, 140, 264, 273.
of 1873, 258.
of 1882–1884, 259.
of 1893, 1896, 264.
provokes healthful contests, 61.
stopped by loans, 36.
is useful, 232.
Criticism is evolutionary, 12.
Crowd mind encouraged by credit, 144 sqq.
Currency, Act of 1900, 331.
bills, 332.
principle in relation to guaranty, 328.
school, 290.

Debasement of coinage, 354.
Debtor's debtor, 37.
Debts, defined, 386.
are they evils? 56.
purchase goods, 91.
scaling down, is unfair, 394 sqq.
are exchanges of present with future goods, 403.
are sales effected, 403.
Definiteness of the topic of credit, 14; cf. 144.
Degrees of credit, 71.
Demand, credit, its relation to money and goods, 70.
right, 108.
stimulated, 244.
Democratic tenderness, 336.
Demonetization of silver in United States, 251.
Dependable determinant in credit, 254.
Deposit business in early times, 327.
Deposits, circulate widely, 75.
guaranty, 322 sqq., 328.
guarantee notes, 76 sqq.
danger from legislation, 330.
historical, 325.
increase before circulation, 236.
are loans, 57.
similarity to notes, 324
stand for profits, 99.

Deposits, uncollected, 102.
unduly developed, 330.
what they prove, 86.
Depression, gold, and retrogression, 38 sqq.
Diagram, I. General case of novation, 67.
II. International exchange, 67.
III. Outline of markets, 197.
IV. Economic responsibility, 207.
V. Cost and utility interactions, 217.
Differentiation of money use, 300 sqq.
Disappointment causes contraction, 241.
and fall of prices, 281.
Discount compared with exchange, 82 sqq.
Distribution, between banker and speculator, 285.
and time, 173.
Distributive power of credit, 48 sqq.; cf. 50.
Division, of labor, 231.
of labor and credit, 295.
Dunbar, Charles Franklin, 78, 318, 321.
on effect of note guaranty, 329.
Dynamic, conditions in price-level, 304 sqq.
funds, 102.
Dynamics in credit, 46.

Economic man, 14, 391.
Economics is political, 4.
Economics, effects when not realized, 245.
Education, of masses, 317.
its influence, 321.
Educational campaigns, 301.
Elasticity, 323.
concession to, 331.
encouraged, 339.
favored by national banking law, 331.
Emergency circulation, 332.
Endorsement by bank virtual, 120.
England, Dr. M. T., statistics of price determinants, 236 sqq.
articles on crises, Ch. X.
England as "workshop of the world," 369.
Environment, primitive, using gold, 298 sqq.
of crisis is primitive, 293.
question of gold and promises, 288.
demands a distinct department of economic logic, 3.
Environmental limitations, 231.
Environments, in finance, 196.
in political economy, 215.
or markets, their utility, 192.
"Equal returns," difficulties of, 385.
Equilibrium disturbed by credit, 145.
Errors of public as to banking, 321.
Escher, Franklin, 110 n.
Ethics of the reserve, 55.
Evolution, in its application to economics, 3.
not a materialistic doctrine, 3.
or dynamics? 3.
of money, 299 sqq.
Evolutionary, classification, of economic conditions and influences, 221.
conditions of economy, 196.
economic series, 179.
Exchange, conditions favorable to, 216.
effects of low and high, 79.
importance of, 163, 367.
interest, 153.
Exchanges naturally affected by credit, 64.
Expenses and profits separated, 99.
Explanation, must be "natural," 15, 305.
of money by credit, 39.
Exports, and silver standard, 364.
stimulus, questionable policy, 366.
Exposition, Paris, 1889, 263.
Ex post facto effect of artificial standards, 376.

Failures, cause of, 160 sqq.
frequency of, 50.
in the seventies, 248.
Fall, of isolated stocks directly affects prices, 252.
of prices, 238.
of prices aggravated, 242.
of prices an injurious reaction, 244.
of silver discounted by bankers, 367.
Farrer, Lord, 368, 369.
Fashion value of land, 230.
Fee as interest, 153.
Fetter, Frank A., on rent, 224.
Fevered money market, 208.
Feverish symptoms, 180.
Fiat, fallacy encouraged by governments, 311 sqq.
money, 92, 309.
money a confession of bankruptcy, 317.
money causes losses to all classes, 317.
Finance responsible for crises, 159 sqq.
Financial, environment, 60 sqq.
legislation censured, 324.
Financiers *vs.* enterprisers and inventors, 62.
Finished goods, their importance, 207.
rise before raw goods, 238.
Fisher, on gold exchange standard, 378.
on interest and income, 227 n.
on volume of credit, 265.
Fisher, Irving, on appreciation, 151, 389.
capital varieties, 151.

Fisher's Law, 177.
classification of utilities, 163.
Fisher's system, 189.
Fixing of capital, 110 n.
Flow, of credit, 120.
and plasticity of credit, 142 sqq.
Fluctuation of prices, natural, 304.
wholesome, 378.
Foreign, bankers' province, 290.
exchanges and bimetallism, 364.
Foresight and crises, 216.
Forest, Clark's illustration, 172.
Forfeit named in many instruments, 99.
Fowler, Charles N., currency bill, 332.
Free, banking system, 330.
competition, 308.
surplus, source of investment, 132.
Freedom and finance, 325.
Freewill, in economy, 214.
of debtor or creditor, 391.
French money in war, 1870–1871, 311.
Function of money, 84 sqq.
Future goods, 284.
a claim on present, 29.
are credit or coin, 299.
their representative, 280.

Gauge in prices, 41.
General, credit, 120 sqq.
exchanges arise from specific contracts, 118.
purchasing power, 116.
Generalization of credit requires separate market, 215.
Generalized credit, 137.
promises the test of buying, 27.
"Getting in debt," 86, 89.
Giffen, Sir Robert, on nominal capital, 165, 208, 359.
Global cause of prices, 260.
Glutting of circulation, 93, 95.
Gold, automatic supply of, 392.
Gold, and credit, when do they compete? 292.
and credit, problem of simultaneous circulation, 292.
in crisis, 37, 293.
its specific productivity, 185.
exchange standard, 378.
international standard, 357.
a machine, 181.
and prices, 265.
production and prices after the seventies, 266 sqq.
production, 347, 348.
standard in the United States (1873). 356.
standard, blamed for losses due to competition, 368.
Gold, as tool and as promise, 187.
level of prices, 302, 304.
line, 291.
movement controlled by credit, 187 sqq.
supply, 180.
value, 303.
value, how established, 349.
Good and bad credit, 50.
Goods, environment, 199.
supply, effect on interest, 206 sqq.
Gossen, 2.
Government, interference with standard, 375.
issues, allowance for, 270.
issues, influence on prices, 273.
money encourages the bears, 314.
money, its inorganic effects, 314.
money, its guaranty function, 12.
money prevents healthy contraction, 314.
money *vs.* debts or bonds, 310.
vs. private credit, 315.
works, 313.
Governments lose from paper money, 316
Grading of credit and goods, 53, 54.
Groups of businesses, 9, 11.
Grundungen, 259.
Guaranty, virtual, by bank, 119.
of circulation, in United States, 329.
of deposits, hypothesis, 326.
and promise contrasted, 195 sqq.
by gold, 12.
fund, 85.
fund, for deposits, 328.
fund, notes or deposits? 322.
fund, when not called upon, 290.
contracts and sales, 64.
of bank to public, 86.
of deposits, 326.
organic, 326.
prepaid in case of stocks and bonds, 154.
Guild of banks, 332.

Harmony of production, 162.
High bank rates in Europe, low in United States, 1896, 270.
High finance, 80 n.
Hindoos and silver, 369 sqq.
History of prices, 254.
Hoarding unprofitable, 151.

Idealistic standards, 385.
Impersonal credit, 52.
Imports affected by exchange and interest rates, 79.
Imputation of value, 190.

Imputation of value, less extensive than marginal theory, 401.
a waiver of damages, 405.
Imputed values apply to debts, 401 sqq.
Increasing returns hypothesis convenient for money analysis, 201.
Indebtedness, socialistic and individualistic views of, 350.
India, its losses from bimetallism, 367.
Indianapolis convention, 331.
Individual origin of credit, 56.
contrasted with bank credit, 120.
Inelasticity of government money, 312.
Inflation *vs.* appreciation, 208 sqq.
bimetallic, 363.
conditions of, 186.
cycle, 210.
deflated, 280.
1886–1890, 209.
due to credit, 235 sqq.
from stoppage of circulation, 93 sqq.
heresy, 295.
how it occurs, 279.
how consistent with redemption, 290.
its nature, 242 sqq.
a necessity? 247.
is organic, 43.
viewed as a normal occurrence, 280.
not substitution of credit, 297.
Inflationist fallacy, 301, 315.
Inorganic interference of government, 242.
Institutional source of credit, 296.
Insurance credit dangerous, 123.
Interest, on bank credit, 153.
a cause of capital and prices, 11.
and consumption, 226.
and issues react on one another, 272.
and marginal productivity, 7.
as means of doing justice to debtors, 389 sqq.
and profits, 166.
causes prices, 271.
depends on past profits, 284.
is future rate of production, 255.
historically later than rent, 226.
its dependence on "racial temperament," 7.
rate with low volume of credit, 139.
saved for treasury, 309.
possible systems of, 189.
International, bank rate, 1889–1892, 261.
exchange, 46, 69.
exchange defined, 70.
securities, 80.
trade affected by credit, 78.
Interstate commerce commission, 338.
Inventors, 62.
Investment, 103.
Investment, and merger of credit, 142 sqq.
is a paid up guaranty, 135.
made by offset, 109.
required from banks, 164.
repaid only from sale, 136.
Issues, advantage of uniformity, 310.
and interest rate, 270.

Jevons, J. Stanley, 2.
Joint metallism, 373.
Judgment at law, 94.
Justice, to debtors, 389.
to debtors through principal or interest, 390.
measure of injustice, 374.

Kinley, David, 79.
on substitution of credit, 296.
Knickerbocker trust crisis, 1907, 161.
Knies on purchase with credit, 116.
Kuhnast, 15.

Labor standard imperfect, 404.
Laborers, how responsible for crises, 164.
take precedence in pay, 164.
Land, not pricemaking, 230.
speculation and crises, 228.
"Last dose," 387.
Latin Union, 362.
Laughlin, J. Laurence, 78, 318, 331.
guaranty of bank deposits, 141 n.
substitution of credit, 295.
Law, organic, 359.
Lawson, W. R., on support of market by public, 108.
Le Franc, A., 319.
on savings, 100.
on bank rates, 261 n.
Legal environment, when lower, 94.
Legislation, English, on standard, 355.
an imperfect means to the end of justice, 393.
not organic, 359.
principles of, 336.
recent tendencies, 337.
its scope, 20.
remedial of corporation abuses, 335.
Lexis, W., on gold discoveries, 348.
Liesse, André, 77.
Limited liability, 158.
Liquid capital, 110 n.
Liquidation, 122.
defined, 60.
effected through banks, 36.
in general, 74.
favored by credit, 57.
of stocks and bonds in market, 155.
quickened by banks, 60.
with deposits, 93.

Loan as a sale, 61.
Loans, at center, 106.
fall apparently after prices, 238.
gratuitous, paper money, 309.
in form of stocks and bonds, 135.
notes, deposits, erroneous views, 15.
rise before prices, 237.
Logic, naive, characterized, 197.
Logical explanation may distort, 349.
Long and short credit markets, 216 n.
Longe, 2.
Losses to governments from paper money, 316.
Luxury and waste tested by credit, 50.
Lysis, 319.

Macfarland, 226.
McLeod, William Dunning, 15, 318.
Margin, physical, nature of, 174.
Marginal, substitution of credit, 296.
theory of values, 387.
Market, central, 208.
central, relation to crisis, 216 sqq.
central function of, 232.
for credit, 61, 215.
importance of, 218 sqq.
objectivizes values, 190 sqq.
supported by public, 107.
Markets, 47, 54, 196.
repeat contrast of promise and guaranty, 196, sqq.
reason for, 223.
series of, 215 sqq.
Marshall, Alfred, 6, 358.
and biology, 223.
continuity of markets, 212, 214.
definitions, 140 n.
on symmetallism, 372.
Material capital varieties, 151 n.
Materialism, defined, 3.
in economics, 44 sqq.
about notes, 33.
Materialistic, standards of payment, dissatisfaction with, 385.
and idealistic standards, 389.
Materiality of credit, 51.
Mathematics of credit, 63.
Mechanical explanation inadequate, 4.
Mechanism of exchange illustrated, 66.
Mental, causes efficient, 208.
factor, 45.
Merger of short into long credit, 81, 110, 134, 135, 156 sqq.
Merriam, S. S., 388.
Metallic money, usual view of, 276.
standard awkward in theory, 345.
standard an artificial assumption, 345.
Mill, John Stuart, cost of production, 128.
"demand for commodities not demand for labor," 164 n.
on interest, 165.
on parallelism of credit with contracts, 87.
on overproduction, 162.
on wages, 45.
Mind, and environment in credit operations, 214.
and Matter, relation to Time in economy, 206 sqq.
Mistakes are not torts of others, 394.
Mobility, and mentality, 222.
and standard, 228.
Monetary Commission, National, 338.
Money, abnormal for exchange, 64.
a commodity, 68.
affects volume of credit, 196.
ambiguous term, 318 sqq.
as the standard of value, 19 sqq.
a store of value, 85.
circulates with or against goods, 70.
equivocal capital, 181.
double function, 198.
functions of, 292.
historical changes of use, 297.
in crisis, 293.
in short and long periods, 201 sqq.
interest on, 150.
is a technical guaranty, 10.
is environmental, 39, 198, 202.
is equivocal capital, 151.
and loans, 319.
raison d'être, 200.
paper, a war measure, 310.
"represents" what? 280, 316.
sufficient supply of, 284, 295.
"power," 123, 125.
Monopolists unduly favored by artificial standard, 376.
Monopoly a time form of competition, 218.
Moratoria a bad policy, 283.
Movement of funds, 107.
Multiple standard, 375.

National Bank Act, 1863–1864, 327.
Naturalness of price-level, 395.
Nearest creditor and debtor, 83.
Negotiability of promises, origin of, 72.
Neumann-Spallart on prosperity, 247 n.
Newcomb, Simon, 310.
Nicholson, J. S., 365.
Nominal capitalization, bearing on prices and interest, 10 sqq.
Nominal capital and gold supply, 182.
capital conceals rate, 155 sqq.

Normal, and abnormal prices, 276.
is not average but natural, 304.
Note guaranty, its importance, 327 sqq.
Notes and checks, 34 sqq.
a circulating medium, 292.
circulate by proxy, 75.
vs. deposits, 33, 318.
and deposits increase after crisis before loans, 236.
of government, reserve against, 331.
as standard, 325.
why not redeemed? 33.
Novation, 66.

Objectiveness of ideal standards, 385.
Official banking, 312.
Offset, 95, 122.
as means of investment, 109.
Oneship companies, 259.
Opportunity profit affects rate, 152.
Order, manufacture on or not, 89 sqq.
Organic guaranty of business, 325.
Organic money, 313.
Organization, credit, capital, 115.
(legal) defeats responsibility, 336.
Overproduction, 93.
gold or credit, 266.
not due to underconsumption, 138.

Pairs, 215, 223.
Panama Canal, 250, 263.
Panic, 140.
Parachute theory, 361.
Parallelism, of credit with production, 58, 64, 74, 77.
of credit with material capital, 135, 157.
of credit and goods, 174, 222.
Part-markets, 216.
Past goods, when coin, 299.
Paternalism, 336.
in "free banking," 330.
Patron, Maurice, 78.
Patten, Simon N., on monopoly fund, 132.
on overproduction, 162.
doctrine of consumption-interest, 226.
"Paying" without money, 86.
Payment, 122.
and liquidation, 92.
Peel's Act, compared with Bullion Report, 325.
its effect, 327.
its object, 326.
Periods, of capital compensation, 201.
long and short, materiality, and immateriality, 206.
of prosperity since 1897, 268.
Period, 1886–1892, 262.
1878–1885, 247, 258.
1886–1896, 261.
Physiocrats on values, 229.
Plant, how valued, 219 sqq.
Political economy, the Great Problem, 214.
Political sympathies of students, 399.
Politics mold financial legislation, 332.
"Poor man's dollar," 357.
Portfolio active cause of prices, 260.
regulated, 32.
Positive and subjective contrasted, 350.
Power of credit, 142.
Present goods, bought with future, 87, 116.
their purchasing medium, 280.
Price-made income, 227.
Prices, absolute level, 304.
advance in spite of appreciation of gold, 249.
affect nominal more than real interest, 193 sqq.
are not causes, 246.
two causes of their fluctuation, hopes and capital, 255.
causal chain, 269.
affected by interest, 270.
depend on interest and profits, 150.
evils of manipulation, 377.
is their fall injurious? 351 sqq.
normal defined, 304.
how kept steady, 280.
normal fluctuation, 280.
their utilities, 42.
reform and bad theory, 275.
rise injures creditors, 244.
rise slackens after 1900, 273.
steadily sustained by new promotion, 252.
Production, of *goods* and *gold*, 289.
period and credit, 173.
as well as consumption objectivized by market, 190.
and interest, 188.
outweighs other determinants of interest, 170 sqq., 194, 231.
Productiveness of banks, 119 n.
Profits, effect on interest through capitalization, 193.
divided between speculators and banks, 285.
increase during inflation, 246.
in form of credit, 99.
lie in banks, 130.
a compromise term, 167.
rate of, how established, 219.
Promises, of the essence of banking, 112.
and guaranties, 16.

Promoter, 105.
promises of, 162.
responsibility of, 156.
Promotion, expects larger market, 245.
not always successful, 105.
Property, its bearing on credit, 9.
a qualified control, 112 sqq.
Prosperity, recent prolonged, 264.
sustained since 1897, 268.
Protection, 1879, 1881, 259.
Psycality of credit, 128.
Psychological theory, historical bearing, 16.
Psychology, of investors, 156.
of value problem, 386.
Punishment of dishonesty, 337.
Purchase with promises, 116.
"Pure" capital, 89 sqq., 171 sqq.
capital really credit, 174.
"Pyramiding," 161.

Quantity theory, extended to credit, 278.
in politics, 43.
view of level of prices, 277.
of Ricardo, 325.

Racial temperament in the interest problem, 7.
Rae, 2.
Raffalovich, Arthur, 367.
on guaranty, *i.e.* on "currency principle," 329.
and banking on bonds, 329.
Railroad speculation, 363.
Rand opened, 262.
Rates, before and after 1900, 270.
determined by fresh issues, 270.
real and nominal, relation to past and future, 150.
sustained by growing issues after 1900, 272.
Ratio of 15½ to 1, 355.
Reality of economic theory, 4.
Recall of deposits, 107.
Rectangle of value, 388.
Redemption, 291.
of notes, 33.
is periodic, 290.
neither circulation nor substitution, 300.
Rediscount, 101 sqq.
Reënforcement of credit, 100.
Reënforced credit loaned, 106.
Regimentation of money, 356.
Reguaranty by banks, 100.
Regulation of credit, 317.
Remedial legislation criticized, 396 sqq.
Renewals, 93.
Rent and interest identified, Fetter, 226.
Rent, and profits, 222.
problem, 212 sqq.
profits and interest, 167, 229 sqq.
questioned, 222.
Reserve, association, 338.
of banker and till money of merchant, 30 sqq.
Bank of Amsterdam, 55.
in crisis, 37.
its fundamental explanation, 84.
most important material-capital, 116.
notes to be taxed, 332.
serves a primitive utility, 85.
subordinate in theory of credit, 111.
Responsibility, weakened by legislation, 334.
is personal, 336.
fixed by credit, 49.
Resumption in France and United States, 311.
Retrogression, crisis, and gold, 38.
Return of money, 107.
Ricardo, 2.
his error, 326.
on notes, 326.
Rise and fall of prices, causes, 245 sqq.
Ross, E. A., on justice to debtors, 400.
Roundabout process, 168.
Rouvier, speech on credit, 72 n.
Run on banks, cause of, 161.
Ruskin on basis of credit, 91.
Russia, crop failure, 1890–1891, 263.
Ryot of India and peon of Mexico, 368.

Safety fund, 332.
and politics, 332.
system, 331.
Sale of credit, 25.
Satisfaction at law, 94.
Savings, in banks, 99.
in hard times, 17.
and interest, 172.
Schwindeljahre, 259.
Sectionalism and finance, 125.
Securities, in excess clog clearing, 140 sqq.
price directly or inversely to returns, 256 sqq.
return of 1890, 1893, 263.
Selective function in sale and loan, 28.
Series in economics, 51.
Settlement hastened by bank, 60.
Shares, how valued, 219 sqq.
Sherwood, Sidney, 300.
on consumer's credit, 137.
Short-time, fluctuations of interest and capital, 182.
and long-time credit, 134.
merged into long time credit, 143, 157.

Silver, agitation, 263.
standard, 353.
Small business *vs.* trust, 333.
Smith, Adam, on labor standard, 404.
Smith, J. A., 375.
Social, conclusions, their validity, 391.
vs. legislative standards, 21.
and private interests confounded, 20.
Socialization of credit, 53, 134.
Socialism abolishes business, together with credit, 89.
misunderstands credit, 144 sqq.
and inharmonious production, 162
Socialist predictions of bad times, 264.
Sound money is organic, 324.
Source of credit, 56 sqq.
Specie payment resumed, 247.
Specific productivity, theory of interest (Clark), 165 sqq.
of gold, 181.
Speculation, affects price, not nominal rate, 155 sqq.
and the banks, 63 n.
excited by profits, 246.
interferes with apparent action of loans on prices, 237 sqq.
and prices, 1871–1878, 257.
Speculator's profits are part of future interest, 285.
"Spoils" system, 127.
Spontaneous bimetallism, 369.
Sprague, O. M. W., 378.
tying up of securities, 77.
blocking of trade, 78.
movement of gold, 82.
movement of funds, 108.
on labor in crises, 164.
Stages of credit cycle, 210 sqq.
Standard, alternating, 294.
grows dearer throughout history, 353.
ideal, 302.
of values, gold or credit? 294.
of values defined, 294.
of values, part of question of prices, 345.
test of, 360.
in theory, 344.
Statistics, their value, 255.
of government and private issues, 1897–1904, 273.
of German rates and prices, 1857, 1883, 1891, 272.
Statics and dynamics illustrated, 46 sqq.
Stimulus of credit, 119.
Stock, boom thwarted by appreciation of gold, 251.
rate determinants, 153.
market, its utility, 136.
Stockholders compared with bondholders, 158.
Stocks, and bonds credit documents, 134.
are credit documents, 51.
rise before loans, 237.
Stokes, Anson Phelps, 373.
Storage, of value, 85.
of value by money, 300.
Strategic position of gold, 185.
Subject and object contrasted, 16.
Substitution, effect through differentiation, 305.
of credit a long-time problem, 296.
of gold for credit before 1897, 268.
of money and credit, 289.
theory in bimetallism, 358.
Sugar overproduction, 263.
Germany and Holland, 259.
Surplus, collected in bank, 57.
gravitates to center, 102.
how employed, 104.
social economic, 132.
Symmetallism, 372.
Symptoms in prices, 41.

Tableland of prices, 1901–1905, 271.
Tabular standard, 268, 374.
Taussig, F. W., 331.
Taxation refined by credit use, 309.
Technical (environmental) guaranty for production, 10 sqq.
Termin of business, 201.
Test, of credit, 52.
of influences is in central market, 222.
of competition, 228.
Testis, 319.
Thornton, 2.
Thunen, von, 2.
Time, as criterion of rent or profits, 213.
granted to debtors dangerous, 282.
deposits, 123.
not a source of interest, 169.
and space characterize credit, 83.
Tool of exchange, 151.
Tooke and Lord Overstone, 302.
Total, utility not a mercantile conception, 402.
utility theory illogical, 403.
value, 388.
Trade, manufacture for the, 89.
growing, portfolio stationary, prices fall, 260.
Trading nations, their source of wealth, 230.
Treasury, obligations, 311 sqq.
reserve, 331.
Trusts, in law, 126.
relation to market, 191.
universal, economic, 231.
effect on values, 191.
Tying up of securities, 77 n.

Uncertainty increased by artificial standard, 377.
Underwriting, 105.
Union Générale, 259.
Unlimited demand, 362 sqq.
Upward movement, 186.
Utilities, and credit, 279.
  the more direct test of value, 386.
  dosewise or lumpwise, 387.
Utility valuations practical but not radical, 192.

Valuation, defined, 387.
  unites economically labor and consumption, 220.
Value, and utility, 162 sqq.
  original theory of, 2.
  its nature confused with its cause, 5 sqq.
  static and dynamic views, 2.
Venice and Tyre, 230.

Wages fund theory, 45.
Walker, Francis A., on efficiency, 128.
Warehouse simile, 281.
"Weighting" of standard articles, 375.
Wheat, dollar, 364.
Will and environment in credit, 214, 223.
Willingness to invest, effect on prices, 277 sqq.
Withdrawal, of deposits, 107.
  of funds, 109.
Written credit, is abbreviated, 99.
  is collateral, 89.
  names forfeit, 99.

Zone, central, 208.

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