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THE DOLLAR

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A Study of the "New" National and International Monetary System

By

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TO

JOHN CHARLES

More to be desired than gold

—than much fine gold.

PREFACE

It is sometimes said that our monetary order has recently passed through a rapid evolution, or indeed revolution, and that a new national and international monetary system has emerged. Whatever the accuracy of these terms, their purport is noteworthy, and a study of the change, in terms of the dollar, seems worth undertaking. In an era of such ferment in monetary concepts and of such spectacular shifts in currency systems nearly the whole world over, it is scarcely to be denied that the role of the dollar is important if not stellar. This suggests, then, an examination of dollar policy, some reference to monetary theory, and, especially, in the light of these an objective analysis of monetary behaviour, viewed internally and, perhaps of particular interest, internationally. For its chronological extent, such a study may usefully adopt the period beginning with the partial suspension of the gold standard in early 1933 and running through devaluation to the international monetary understanding of late 1936. From devaluation to stabilization, one might say, inaccurately but conveniently. As time goes this is a short period. But it has been so filled with quick and striking changes in both events and notions that it becomes, perhaps, one of the highlights in American and even in modern world monetary history. Interesting as of the present day, in the future also it will doubtless be looked back upon as significant, whether as a brief and foolish interlude or as a turning point introducing a new epoch of monetary practice—or, some might venture to say, of monetary science. But if there is in it something of the dramatic, then it becomes all the more desirable to appraise it as carefully and impartially as possible.

Several slightly fuller prefatory comments may be made concerning the nature of the problem and the scope, methods, and difficulties of its study. If the problem has much significance within the national economy, probably no argument is needed to indicate, first, that it also has at least as great if not greater significance internationally, and, secondly, that the internal and external aspects are related and interactive and that it cannot be fully comprehended except in terms of both. The case becomes, therefore, an obvious demonstration of the truth that the study of economics

is never complete without considering it in its world scope. Even if a country is relatively self-contained, economic forces flowing from within have repercussions upon other countries; and since the converse is also true, economics must properly embrace what has come to be called world economics. The external factors influencing the adoption of the American monetary policy, and the subsequent international repercussions of dollar behaviour and policy, are good illustrations of this point which is so obvious but which is not always sufficiently realized.

But to emphasize the national and international significance of the subject does not quite indicate the task and the objective of this study. The fuller purpose is to combine the descriptive, the theoretical, and the empirical methods, with emphasis as far as possible upon the last named. That is, monetary measures are to be described, and some consideration is to be given to monetary theory. Then the important job is to endeavour inductively to analyse the effects of the measures, to see if they worked as may have been intended and incidentally if they bear out given theoretical hypotheses. The results in many respects may not be satisfactory. But perhaps only through an ultimately long series of efforts can there be final approach towards true monetary science. Surely there is already an abundance of literature on money, including many writings purely theoretical. Many of these are extremely interesting and valuable. While some of them make no pretence of being adaptable to purposes of formulation of monetary policy, others do furnish working hypotheses which may be employed to check factual data or in turn may be checked against and verified or modified with such data. On the other hand, there are many writings on money that are purely descriptive, and these also have their uses. And again, these days there are large quantities of statistical materials relating to money behaviour. Amongst all of these, with full appreciation of the value of both deduction and induction, sooner or later monetary truths must be gradually discovered or verified as endeavours proceed, in case after case, to see how policies and hypotheses work out in their actual effects. These observations will suggest the purpose and methods in mind for the present study.

There are ample difficulties in such a task. At the outset, monetary policies are not always clear-cut and consistent, and at best

they are mingled with many other policies in such a fashion that it is often impossible to isolate the several causes, much less to be sure of cause and effect relationship. Again, monetary theories, classified among the several schools of thought or even individually, are so different, if not at times so confusing one with another, that any conclusions reached in a given case almost necessarily become controversial. But if the controversy comes to centre round actual effects rather than abstractions this alone may have some ultimate value; and even inconclusive, or negative, or perhaps even conflicting, observations are not always useless. Finally, despite the existence of abundant masses of data, it is not always easy and sometimes it is impossible to discover among them statistical series and formulas which yield final and definitive results. This is especially true when the period is very short.

However, the difficulties of the field of study should not deter students from approaching it. It may indeed be hoped that out of the current controversies in monetary theory and practice there may slowly emerge some clarification of an institution in our economic system which has become intricate but whose function should be essentially simple. For, regardless of the different beliefs concerning the functional origin of money, the thesis is not untenable that money is not an end in itself but rather a service vehicle intended to facilitate the basic economic processes of production and consumption and the distribution of wealth. If it has grown to be an unduly complex and unwieldy, as well as unpredictable and even uncontrollable, feature of the present-day economy, then it is the duty of economists and administrators, by further analysis, either to reduce it to the role of a passive, colourless, well-behaved medium or to discover much more precisely how to adjust it to the several, possibly quite different, active ends which conceivably it may serve. Such is, broadly, the problem.

Before proceeding to consideration of the manipulation and devaluation of the dollar and subsequent measures, and to their possible significance and consequences, a few further remarks should be made regarding the general aspects of the question, and the manner in which its treatment will be undertaken in these pages. It would conduce greatly to clarity and precision if the dollar devaluation of January 1934 could be treated as an isolated measure, and the analysis confined to an effort to trace the im-

mediate and direct effects that might appear, or not appear, to flow therefrom. But such a treatment would become almost meaningless. No approach to the true significance of the devaluation measure of that month can be made without recognizing it as an integral part of the monetary policy developed, practically from the outset, by the present governmental administration. It is thus impossible to dissociate the formal measure of January 31, 1934 from the evolving monetary policy of which it was a part, so that the (governmental) causal aspect of the problem becomes not a measure but a series of measures. So also is it impossible, by the very nature of the problem, to confine the attempted analysis of possible effects, inductively to a single direction or statistical series, or deductively to a single hypothesis, such as, for example, the assumption that the relationship is a simple one between amount of money and height of price level. To do so would simplify the problem but it would over-simplify it. Such over-simplification is one of the greatest dangers, and perhaps one of the commonest errors, in ordinary discussions of money. On the empirical side it becomes important to turn to at least several statistical series, representing a variety of economic phenomena, some of them very different in character from one another, in order to formulate even the most tentative conclusions concerning the repercussions of the monetary measures upon the economic processes. This is true despite the inadequacy of really satisfactory statistical data of just the right type, and despite the fact that the combined results of the analysis may thus contain many negative, or even possibly contradictory, conclusions.

On the theoretical side the same methodological principle holds true. In earlier periods it may have seemed sufficient to deal only with money and the price level. But the role of money has come to be subtle, and the dynamics of economic processes is increasingly recognized even among economists chiefly devoted to the concept of equilibrium. Some mention, therefore, must be made of the possible relationships between monetary fluctuations and the whole range of other economic changes, in volume, velocity, and time ratio as they affect not merely commodities but also such things as the 'factors of production' and their 'prices.' Indeed the question leads on into near-by realms and some of these various related problems must be touched upon, very briefly, even at the

risk of rendering the conclusions still more inconclusive. For it is only in this way that the possible ultimate significance of the monetary measures can be suggested. For example, brief attention must be given in rather general fashion to the body of thought on business cycles, for the reason that some cyclical theories hinge in greater or less degree upon the role of money and many of them involve monetary functions.

The behaviour of the dollar, as we have observed, has both internal and external significance. To those who are chiefly concerned with international or 'comparative' or 'world' economics, the external aspect is doubtless the more interesting and significant one; and, in any event, the larger view lends better perspective to any such problem. But for the reasons indicated it will be necessary, in order to deal intelligently with the problem of the dollar in the world at large, to consider first the dollar at home, inasmuch as the internal aspects are both important in themselves, and at the same time partly essential features influencing and being influenced by the external results.

Finally, it is well to remark that the legal and ethical aspects will be minimized or excluded as far as possible.

If the general observations about the problem tend to emphasize the difficulties of its solution, this is both necessary and desirable. The imperfections of monetary science are probably exceeded only by the common failure to recognize them, in popular and even in some scholastic discussions. A wholesome realism, if not scepticism, is needed if the elements of validity common to the various points of view are ever to be sifted out and made the basis for further advance, at a time when monetary theorizing and monetary experimentation are rife.

The order of procedure in this study may be outlined here. After brief attention to definitions, and to some distinctions regarding types and purposes of devaluation and stabilization and related phenomena, the principal monetary measures adopted in the United States since 1932 will be sketched, along with suggestions as to the motives and objectives which may have been involved. Then, the internal effect of these measures is studied. After some leading theories have been briefly recalled and discussed, the attempt will be made at such empirical analysis as is warranted by available statistical series which are not too remote from the

problem, along the lines of currency, credit, commodity prices, cost of living, 'prices of the factors' in production such as wages, securities market, debtor-creditor relationships, and national income. Attention will then be turned to the external aspects, with consideration of the international backgrounds, theoretical hypotheses, foreign exchange, commodity prices and foreign trade, gold and capital movements, and other chief features of the balance of international payments, and of the new international stabilization arrangements and the world outlook.

A group of statistical tables appears in the appendix, these having been drawn from various official sources in the United States. These suggest the possibility of various charts which would more graphically indicate trends in individual series and especially comparisons between monetary and other economic behaviours in which degrees of correlation or lack of correlation would be quickly apparent. A complete set of such charts, however, would become too extensive, and the trends and comparisons are reasonably obvious from the figures themselves. Where these statistical tables are interpreted in the context, no footnote references will be made to the original sources, which are indicated in connexion with the tables. On the other hand, where other statistics, such as those of the League of Nations, are utilized, they are not reproduced in the appendix, but footnote references are made at appropriate points in the chapters. The statistics usually begin at some point previous to 1933 and end just after the international stabilization arrangement of September–October 1936.

Special attention should be called to the fact that this is the period *inductively* covered in the present study, namely from the spring of 1933 to the autumn of 1936. Any selection of time is, of course, somewhat arbitrary. One or several decades would lend greater perspective, but would not permit so close an analysis. Again, since this study was completed, indeed in the past few weeks, there have been certain fairly rapid developments in the fields of prices and related matters. These changes may indicate a new trend or they may be primarily temporary. But in any event they do not alter the fundamental observations set forth in the following chapters; thus a further price rise now would not show a planned effect of the original 'reflation' measures, even by way of lag, and, on the other hand, would tend to support the suggestion that

currency management has yet to prove its efficacy in checking the upward course of 'inflationary' movements.

This study began as a brief account of the devaluation of the dollar and its early effects, and as such was published, in much shorter form, at the request of the Institut für Weltwirtschaft, in that organization's special volume, issued January 1, 1936, *Typische Formen der Devalvation, Ursachen, Verlauf, Auswirkungen, in Elf Ländern*, to which one writer from each of the following countries contributed: England, Denmark, Norway, Sweden, Union of South Africa, Australia and New Zealand, Japan, Chile, Czechoslovakia, Belgium, and the United States. Although the study has been much expanded and almost completely rewritten, the author acknowledges with appreciation the permission of the Institut thus to develop the original article into the present volume.

Thanks are due to various friends, among them government officials and experts, for fruitful suggestions and the benefit of informal discussions of some aspects of the problem; to Mr. Charles Weaver for skilful research assistance and statistical compilations; to various government offices for courtesies in making materials available in as nearly desired forms as possible; not least, to my mother, my father, and my wife. The responsibility, not inconsiderable in so controversial a field, remains the author's.

It may or may not be that some new light has been thrown upon several aspects of the problem, such as the relation of currency depreciation to merchandise exports and other international economic processes. However, since undue technicalities and abstractions have been avoided, and an attempt has been made to present the recent situation of the dollar objectively and impartially, and in the setting of restatements of elementary concepts, it is hoped that students of the monetary problem may find the book useful in obtaining a perspective of what, as said before, some observers choose to call the 'new' national and international monetary system.

JOHN DONALDSON

Washington, D. C.
April 1937.

CONTENTS

PAGE

I. MONETARY TERMS 1

PART ONE. NATIONAL

II. MONETARY POLICIES 19

III. MONETARY THEORIES 54

IV. EFFECTS ON THE INTERNAL ECONOMY 86

PART TWO. INTERNATIONAL

V. INTERNATIONAL BACKGROUNDS AND THEORIES 121

VI. EXTERNAL AND INTERNATIONAL ECONOMIC EFFECTS 164

VII. INTERNATIONAL STABILIZATION 193

APPENDIX. STATISTICAL TABLES 211

LIST OF STATISTICAL TABLES 264

INDEX 267

OUTLINE

I. Monetary Terms

A. *Money*

B. *The Monetary Standard*

C. *Devaluation*

D. *Inflation*

E. *Stabilization*

PART ONE

II. Monetary Policies

A. *Influencing Forces*

B. *Gold, Silver, Currency, Credit, Foreign Exchange*

C. *Other Measures*

D. *Federal Reserve Policy under the New Banking Act*

E. *The International Arrangement*

F. *The Gold Sterilization Plan*

III. Monetary Theories

A. *Functions and Value of Money*

B. *Purchasing Power of Money*

C. *Theories and Control of Money*

D. *The Quantity Theory of Money*

E. *Money and Cycle Theory*

IV. Effects on the Internal Economy

A. *Gold*

B. *Currency*

C. *Bank Credit*

D. *Prices and Other Indices*

1. Prices
2. Cost of Living
3. Production, Sales, Capital Issues
4. Employment
5. Price of the Factors—Cost Structure
6. Income and Savings

E. *The Problem of Credit and Capital*

PART TWO

V. International Backgrounds and Theories

A. *The International Background of the 'New' Dollar Policy*

1. Brussels and Genoa and the Breakdown of the Gold Standard
2. The Gold Delegation
3. The Lausanne Conference
4. The Commission of Experts
5. The London Conference
6. Currency Blocs and the American Position

B. *Some Theories on Money and International Processes*

1. International Prices
2. Gold Flows
3. Goods Flows—'Foreign Trade'
4. The Balance of Payments: Capital Flows
5. Cycles and the International Processes

VI. External and International Economic Effects

A. *Dollar Exchange Rates*

B. *Prices*

1. Dollar Exchange and the Price Index

2. Export and Import Prices

3. World Prices

C. *Comparative National Price and Cost Structures and Exchange*

D. *Foreign Trade by Countries*

E. *The Balance of International Payments*

1. Gold

2. Merchandise

3. Services

4. Capital Movements

VII. International Stabilization

A. *The International Entente*

B. *The Readjustment of Other National Monetary Systems*

C. *The 'New' World Monetary System*

THE DOLLAR

A Study of the 'New' National and International Monetary System

THE DOLLAR
A Study of the 'New' National and International Monetary System

CHAPTER I
MONETARY TERMS

A STUDY of dollar policy, behaviour, and theory necessarily involves the use of such terms as money, monetary standard, devaluation, inflation, and stabilization. It should therefore begin with some examination of these terms. It would be desirable to define them precisely, as textbooks sometimes do. But it is impossible to go very far with precise definitions. If this is the case it becomes all the more important to observe briefly the variety of meanings such terms involve, and especially to consider the different *types* of such institutions and phenomena, and as far as possible, their recent evolution.

MONEY

Although there are many meanings given to the term money, unless otherwise indicated the word will be used here to mean (1) currency in the sense of all regularly recognized circulating media of hand-to-hand exchange (such as coins, national bank notes, Federal Reserve notes, and Federal Reserve bank notes), plus (2) credit, in the form of bank deposits. There are certain disadvantages in this definition when one comes to consider such things as annual increments in capital formation and such concepts as 'forced savings,' but the usage is commonly accepted and is the most convenient one for purposes of the statistical measurements. undertaken in later chapters. However, the term currency, tho in the narrower sense confined to hand-to-hand media of exchange, for certain purposes has come to be used interchangeably with the term money, especially as in referring to 'the currency of a nation,' or 'a nation's currency policy.' Consequently this usage, except where expressly or by implication otherwise indicated, will also be employed, as in the discussion of the international aspects of the dollar.

The functions of money and the theories concerning its nature and value, as related to the object of the present study, will be considered in a later chapter.

MONETARY STANDARDS

It is unnecessary to deal here with all the different monetary standards or systems which in monetary history have been used or advocated, such as gold, gold exchange, silver, bimetallic, symetallic, limping, fiat, tabular.[1] But one observation concerning the monetary standard, and especially regarding the gold standard, is important to bear in mind. There is a common tendency to consider, without qualifications, that a certain country is on such and such a standard. Thus it is said a country is entirely 'on gold' or it is completely 'off gold.' This can be the case, but very often it is not, and in recent years it has become increasingly necessary to use such terms with caution. In other words, the monetary system nowadays prevailing in a certain country may often comprise a considerable mixture of characteristics. For example, the full gold standard as it existed in many countries before the World War,

1 Gregory,T.E., in 'Money,' in *Encyclopædia of the Social Sciences*, Vol.X, pp.601–613, presents a refined 'classification of monetary systems.' He states that 'by a monetary system is meant an organic complex of types of money.' The value relationships of these types have both formal and substantive aspects. The formal aspect has to do with the relation between the types of money in the system and the basic unit of account of the systems. The substantive aspect has to do with the practical possibility of maintaining the formal relationships in the face of disturbing influences, i.e., with the problem of internal parity, and also of maintaining the value of the unit of account in terms of some index or standard external to the unit of account. The formal classification hinges on existence or non-existence of linkage to such an external measure and the method of such linkage. It therefore becomes: Subsidiary units linked through the unit of reference to: I. No External Value [1. Freely issued inconvertible paper. 2. Pure limping metallic standards]. II. Some External Value. A. Another Currency [3. Exchange standards]. B. One Metal. [4. Metal freely minted into freely exportable and meltable coins (monometallism). 5. Amount of currency limited to assure equivalence of unit of account with the amount of metal it represents (*de facto* monometallic stabilization). 6. Currency convertible into metal on demand and in unlimited amounts (metallic exchange standards)]. C. Two or More Metals [7. Both metals freely minted into exportable and meltable coins, neither being legal tender (parallel currencies). 8. Both metals freely coined, but mint ratio periodically revised. 9. Both metals legal tender (bimetallism)]. D. Objects Other Than Metals. [10. Currencies whose value is managed through limitation of issue (index standards)]. 'In effect, however, each of these currency systems falls under one of four main heads: free standards; index or isometric standards; monometallic standards; multimetallic standards.' Such classifications are useful in clarifying functions. But they should not obscure the fact that the actual monetary system prevailing in a given country may contain more than one of the various characteristics.

possessed not one but several characteristics, all of which were essential for its true maintenance. These essential characteristics have been variously enumerated, but they may be stated as follows, whether they exist by law or practice: (1) The basic monetary unit must be defined in terms of a fixed amount of gold of specified fineness; that is, there must be a definite 'gold content.' (2) The monetary authorities must provide for 'free coinage,' that is, must be prepared to purchase for monetary use at the fixed mint ratio all the gold presented to them for sale. It is sometimes said that the readiness to purchase is sufficient, but if the coinage feature is completely omitted, a limitation is immediately placed upon the standard. (3) All official media of payment of the country must be redeemable in gold or claims on gold at the fixed ratio. This characteristic is sometimes qualified by saying that it is necessary 'at least for purposes of international transactions.' But if this qualification is introduced there is again a lessening of the essence of the full gold standard, as it was formerly known. (4) Gold imports and exports by any who wish to make them must be unrestricted. These are all essential whether the definition runs in terms of a national or an international gold standard.

Now as will be seen more fully in the present study, and especially in the chapter on international stabilization, in recent years various nations have often maintained one or two or even three, but not all four, of these features, and they are sometimes said to be on gold or off gold, depending upon the point of view of the observer, and the terminology begs the question. Obviously then, either the full gold standard has existed to a very limited extent since the pre-war period, or else the term has come to have no precise meaning. Certainly the phrase now calls for more qualified forms. The term gold bullion standard, indicating maintenance of the importability and exportability of gold without preservation of all the other features, and dating back to Ricardo, is useful in this manner, but names for other combinations of one or more, but not all, of the characteristics mentioned have not been invented. This comment is made, not primarily as a matter of terminology, but to emphasize the fact that in practice varying combinations of features are employed, and to show that choice of monetary policy is not necessarily a simple one between two clear-cut alternatives.

This suggests the matter of the tabular standard, or 'commodity

dollar.' Nowhere has any country gone fully over to a real tabular standard, flexing the value of its currency, on the basis of a price index, to keep it constant in terms of the prices of the goods and services it buys rather than in terms of gold. But the price index as at least one of several criteria tends to be increasingly taken account of in monetary policy. Even in the decade 1920–30, when the United States was otherwise on a full gold standard, the price index was apparently a factor of at least some importance, at times, in the current determination of credit policy by the Federal Reserve system. Later, the League of Nations Gold Delegation Report, although recommending that all nations 'return to gold' as soon as possible, definitely suggested that the price index be utilized as one factor in monetary policy. At the present time, indeed, the concept of price and cost structure, both internally and internationally, is an important part of such policy in many if not in most of the important countries. All this goes to show that a monetary system is no longer a simple, one-type phenomenon, and that it is misleading to think of it as such.

This fact in turn suggests the term currency management. It seems to be often assumed that currency management is a definite and distinct monetary system, presumably based wholly or in part upon the price index concept. For example, it is sometimes asserted that when the United States suspended the principal features of the gold standard in March 1933, and especially when the gold purchase plan was followed in the autumn of that year, the dollar was managed, but that after devaluation in January 1934 it was not managed. It does not appear, however, that after January 1934 price objectives were abandoned, at least in the credit policy; and certainly the external position of the dollar was deliberately influenced through the ensuing stabilization fund. Even the stabilization agreement of September 1936 obviously involves management. In one form or another, therefore, the dollar has been managed in this whole period, and remains so today, and the management represents an evolution from earlier and lesser forms. But in the light of what has just been observed, it will be realized that currency management is also a matter of degree. Indeed, it is after all impossible to conceive of any modern monetary system that is not to some extent managed, positively or negatively, since the system can exist only as a result of govern-

mental creation and regulation. All that can properly be said, therefore, is that at present there exists in every principal country a high degree of money management. This does not mean that the term should not be used. It is an extremely convenient and significant one, and as such implies the new techniques and high degree of development. But that it does vary in degree and in implication should always be borne in mind.

Above all, however, it is important to note that thus in recent years there seems to be throughout the world an evolution toward modified or new monetary systems, distinguished by their greatly increased reliance upon management. How long this situation will last and to what it will lead cannot be predicted. But it lends special importance to an examination of one of the outstanding cases of monetary change, such as that of the dollar, viewed both internally and in its relation to other important currencies.

DEVALUATION

If ideas about the purposes and effects of devaluation have undergone a considerable change, this fact is partly reflected in the very definition of the word. Devaluation has been defined as 'a term applied to a series of legislative enactments by which a new legal value is assigned to a depreciated monetary unit and a new settlement is decreed for all contracts in monetary terms.' [2] Such a definition is not entirely satisfactory, especially for purposes of present-day economic discussion, as it is obviously somewhat legalistic, is based primarily upon earlier devaluation cases, and tends to ignore dynamic purposes and effects. It may be sufficient, however, since it may conduce to clarity to think of devaluation in as narrow a sense as possible, in order to distinguish it from various broader inflationary measures.

Some attention to further statements in the article just quoted is useful as a point of departure for a fuller understanding of the nature of devaluation and for an appreciation of the importance of recognizing the growing variety of types. It goes on to say: 'Generally devaluation involves a reduction of the bullion content of the monetary unit in order to insure approximate equality between the open market value of the metal and the actual purchasing

2 Balogh, Thomas, 'Devaluation,' in *The Encyclopædia of the Social Sciences*, Vol.V, pp.114–116.

power of the monetary unit, and aims at a resumption of the redemption of money in specie, i.e., restoration of the metallic standard of the currency.' Further on it says: 'Devaluation is a method of currency stabilization. It must be preceded therefore by measures designed to remove the factors responsible for the breakdown of the currency system. Among them the most important are budgetary deficits covered by paper money issues, unwise economic and social policies leading to extravagance in expenditures and natural catastrophes.' It also remarks that 'the new mint standard must be fixed with due regard to the eventual stabilization of the currency on the basis of actual purchasing power of the money,' measured either externally or internally, although it recognizes some deviations above or below such a level, for example at a lower level than that of purchasing power. In the latter case there may be assistance to the liquidation of the public debt, allowance for further 'printing press' currency until the budget is balanced, and for a stimulation of exports and a consequent lessening of the difficulties in the balance of international payments. It may be noted also that the same article proceeds to stress governmental measures, often associated with currency devaluation, which provide specifically and in exact detail for debt adjustment or debt valorization beyond the general shift in equities more loosely involved in the currency devaluation itself.

Now of course certain elements in the definition and description just mentioned are present in the recent dollar devaluation. But the significant point to be noted is that other elements are not. The important thing, therefore, is not to find fault with any particular definition of devaluation, but to observe the great variety of ingredients contained in any given devaluation plan, to emphasize the increasing necessity, in recent years, of distinguishing between *different types of devaluation*, and, finally, to call attention to the distinctive features of the dollar devaluation. It is just this, indeed, that must be one of the purposes of the present analysis.

To take the article quoted above as a point of departure, it may be noted that it recognizes different types of devaluation, even though the classification of them seems inadequate. The three types given are as follows: (1) The old monetary unit is retained, bullion content is fixed *de novo*, and redeemability is re-established. Recent examples: Czechoslovakia 1925 and 1929; Italy 1927;

Poland 1927; France 1927. (2) A new monetary unit is introduced, with a fixed bullion content, plus redeemability. Recent examples: Russia (nominally) 1924; Germany 1924; Austria 1924; Hungary 1925; Belgium 1926. (3) A new monetary unit is adopted, but with no fixed bullion content and no redeemability. Older, pre-war, cases are cited.

Now obviously a more detailed classification could be set up on the bases of various combinations of the criteria involved above, i.e., various combinations of new vs. old units, redeemability or irredeemability, fixed vs. no fixed bullion content, and so on. Or, further criteria could be taken into account, such as *de facto* (France 1926) vs. *de jure* (France 1927), the degree to which the newly proclaimed value might be judged to approach, before or after the fact, the supposed purchasing power level, and the like. Again, if the devaluation be considered in connexion with the various characteristics of the gold or non-gold, or silver, or bimetallic standard, with which subject devaluation is blended, one could add also these criteria just mentioned, plus permissibility or non-permissibility of citizens to own, export, or import gold, and doubtless still other features. Moreover, all of the above criteria are somewhat mechanical, and quite different classifications could be arranged on the basis of economic purpose, such as production stimulation through increase in commodity price, readjustment of all or various types of debtor-creditor equities, or temporary export stimulation. Or divisions could be made even on the basis of actual effect, if the analysis be made long enough after the fact to permit the measurement of effect. To attenuate this matter of classification too greatly would become a not too fruitful pursuit. But it may be worth while to give a list of some of these factors which can be used as criteria; this will serve as a basis for classifications which the reader himself may wish to draw up, and, what is more important, call attention to (1) the almost infinite variety of types of devaluation which must now be recognized, and (2) the distinctive, if not unique, character of the recent dollar devaluation:

Criteria for Types of Devaluation

1. The old or a new monetary unit
2. Bullion content assigned or not assigned
3. Redeemability or irredeemability

4. *De facto* or *de jure*
5. Permission or non-permission to citizens to own bullion (or bullion certificates) (the government may acquire the bullion)—
6. —to import bullion, with or without licence—
7. —to export bullion, with or without licence
8. Gold, silver, or both, as the metallic base, or other metallic arrangement
9. The 'new' currency flexibly managed or not
10. The policy directed chiefly toward internal or chiefly toward external effects, or equally toward both
11. If internal, the purposes varying, to obtain, directly or indirectly, such things as an alteration or confirmation of existing debt-creditor relationships, or, through rising prices and temporary widening of the gap between cost and price, a stimulation of production. If external, varying objectives such as export stimulation, or protection from outward drains of gold or of long or short-term capital
12. Devaluation to stop, recognize, or further promote depreciation

Some of these distinctions arise out of the differences in the functions of money, others out of the increased complexity of the modern currency and credit system. Other criteria will occur to the reader, especially if he should venture to extend the classification, through currency, into credit: and these criteria can readily be subdivided into various combinations or groupings. It should also be recalled, in passing, that the *reverse* of *de*valuation can occur in monetary policy, as when the United Kingdom in 1925 attained a restoration of sterling to its former gold parity; this might be accurately called *re*valuation, although the term revaluation is sometimes used in the United States as a synonym for devaluation.

Now if the post-war cases of devaluation be placed against the background of the various characteristics, several preliminary observations may be made. The cases occurring in 'the twenties,' i.e., prior to 1930, tended to differ as a group from the familiar pre-war types, and also tended to differ one from another. The still more recent cases also have differed from the preceding ones and from each other. One broad trend would appear to be an in-

creasing tendency for the monetary policies of the various nations to interact upon and influence one another. This is obviously demonstrated in the series of related national moves made by a number of governments in the autumn of 1936, following the agreement concerning the franc and the pound and the dollar. On the other hand, there would seem to be increasing need of distinguishing between different types, or indeed between individual cases. It is no longer possible merely to speak of devaluation and assume that it is always the same thing.[3]

But probably the most significant question at this point is whether the Government of the United States, in devaluing the dollar in 1934, intended to stop, or further promote, internal dollar depreciation. It could not have intended the new bullion ratio as a recognition of an *existing* level, in the usual sense, since the dollar had not undergone a steady decline, succeeded by a steady levelling off. Curiously enough, so mixed are many political motives that the 59.06 ratio to the previous mint par probably was expected both on the one hand to promote internal business confidence by suggesting at least a tentative stability, and on the other hand to act as a further downward pull upon the currency, i.e., upward pull upon the price level, which had not yet reached its often cited 1926 status. But the latter purpose was doubtless the dominant one. This is much confirmed by official announcements and comments made at that time, and considerably supported by the legislative act upon which the proclamation was based, for the legislative act permitted a still lower point, namely 50%.

The striking fact in all this is, however, that the dollar was at the time under no particular, direct economic pressure *of the kind usually accountable* for such a measure. This was obviously true abroad, where this currency still had a persistent and notable strength. It was probably true at home, where there was no immediate indication of necessity for, say, currency inflation of the budgetary type, despite whatever judgment may be held regarding the possible future monetary effects of the rapidly growing public debt—a debt which was continuing to move rather rapidly in the direction of potential bank credit expansion.

3 *Vide Weltwirtschaftliches Archiv*, Sonderheft: Typische Formen der Devalvation, Ursachen, Verlauf, Auswirkungen, in Elf Ländern, 43 Band, Heft 1, Januar 1936, for a comparative analysis of various cases.

On the whole it must be concluded that the devaluation measure of January 1934 was largely voluntary and anticipatory. Contrary to some interpretations, it cannot be said that the Government tried to arrest the dollar in a downward plunge and peg it there. After endeavouring, through other previous measures, to *entice* the dollar downward, it now tried to *thrust* it downward, with promises of further thrusts if necessary. This bold action was the 'new way' of 'reflating,' on a managed currency basis. Altogether, the case tended to be unique in modern monetary experience. It is true that the British had led the way in the new type of currency management. But, though they had apparently planned this somewhat in advance, they were in fact more or less forced into their new policy when they abandoned gold in 1931. The United States, on the other hand, entered upon its new policy more deliberately. The American policy therefore became another highlight in the introduction of a possible new era of more conscious currency management. Above all it is important to avoid a legalistic interpretation of the term devaluation. Thus the dollar was legally and formally devalued in January 1934. But in fact it was literally being devalued some months before that.

However, too much emphasis should not be given to the point just made, for reasons among which the following are important: (1) the full effectiveness of the policy even yet remains to be seen; (2) it is still true that currency is a small part of total money, that even money (including credit) is by no means the only factor in 'inflation' or 'deflation,' and that the whole monetary policy, plus in fact certain related policies, must be examined before final conclusions can be drawn.

INFLATION

If devaluation is no longer the simple, clear-cut, one-type phenomenon it was formerly often thought to be, the same is even more true of 'inflation.' If there was, some time ago, a tendency to regard inflation as merely a marked depreciation of currency reflected in a marked rise in commodity prices, this by now has been succeeded by not simply a fuller recognition of the role of credit as a part of money and of things such as security prices as measures of increase or decrease, but by a now current habit of referring to almost any increase in the quantity or velocity of any economic

process or function as inflation. Indeed, the term has fallen into such loose and varied popular usage, with connotations of merit and demerit, that it is of questionable service to economic terminology except for very broad purposes, and it may be best to employ it sparingly.[4] Occasionally, nevertheless, it is useful to speak of a broad distinction between such things as currency inflation and credit inflation.

It is important to observe that the term inflation is necessarily a relative and not an absolute one. Some period is considered *relatively* 'low' or 'high.' There is usually the implication that some base period is 'normal' or 'desirable' in regard to such things as relationship of one price group to another or of, say, prices to wages, or of market value of farm land to market value of farm products. Similarly there is often the inference that steps should be taken to move some 'low' to some previous 'ideal' 'high' when, in retrospect, it seems that all was well with the economic world. The term, here again, is relative, and involves arbitrary assumptions. It therefore often becomes somewhat of a snare for the theorist, and is always a problem for the careful statistician who must choose, with whatever lack of satisfaction, a base period for a figure series.

Perhaps no further discussion of inflation or its types is necessary, except to illustrate by remarking that the United States has experienced various types of inflation, such as: the 'currency inflation' of the greenback period; the 'credit and commodity stocks inflation,' with incommensurate 'securities market inflation,' in the period reaching a peak in 1919–20; and the enormous 'securities market inflation' ending in 1929, with not much correlation in commodity price movement. It is sometimes said at the present time that this country is undergoing or may undergo a 'credit inflation' of the 'budgetary type.' In these respects the term does have a broad usefulness, especially when, by a rough division of types, it is the more clearly discernible that all types of money do not necessarily increase equally in volume or velocity, despite possible governmental measures designed to make them so behave, and that all corresponding market values do not rise equally.

4 For an extended discussion of the word and its many usages, *vide* Willis,H.P., and Chapman,J.M., *The Economics of Inflation*, Columbia University Press, 1935. This book also contains a collection of student essays, some of which are of interest.

These facts in turn point to one of the several disadvantages of inflation, a disadvantage which is usually stressed much less than others. That is, the effects may be diffused and unequal.

STABILIZATION

The word stabilization is also very broad and is used with different connotations. The term economic stabilization, employed frequently in recent years, involves the idea of obtaining a certain balance among a large group of economic phenomena, and is sometimes associated with the concept of economic planning. Monetary stabilization is a narrower but none too precise term. Formerly it was likely to be used to indicate the fixing and subsequent maintenance of the metallic 'content' of a currency unit. It thus tended to be synonymous with successful accomplishment of devaluation or revaluation, especially following a period of currency disturbance sometimes involving inconvertible and depreciating paper. But if there is an insufficient metallic stock, a country sometimes uses other reserves, such as foreign exchange on or balances in another country which has, especially internationally, a presumably stable currency, usually on gold. In the post-war period when most countries were endeavouring to stabilize on a gold basis a number of them which did not possess sufficient metallic stocks resorted to the gold-exchange standard. But this tended to create even greater international currency instability when the system could not be maintained in the face of emergency; thus the world financial crisis of 1931 led to sudden withdrawals of balances in London and introduced new currency disturbances there and elsewhere. Also, a country is sometimes able to stabilize its currency when, lacking sufficient bullion reserves for the metallic standard, and even sometimes lacking any large stabilization fund, it is able to 'peg' it to a fairly stable currency of some other country, i.e., to use a certain other currency as a criterion and to manipulate the exchange market so as to maintain a given ratio between the two currencies. This practice is in use among a good many lesser countries today. Manipulation of the exchange market through pegging for the purpose of maintaining certain exchange rates, predetermined or determined from day to day, also becomes the essential device of the external phase of the new forms of currency management now in vogue in several

leading countries, even if and especially when metallic reserves are ample. This latter is the 'intervention' system, the system of the 'stabilization' or 'equalization' funds of the leading countries, such as the United Kingdom, the United States, and France at the present time. Usually here the purpose is to prevent the currency from rising too high on the foreign exchanges. The 'exchange controls' which have become so conspicuous since 1931 are not at all the same thing as such market manipulation devices; they involve rather the direct purchase and sale of, or regulation of permission to nationals to buy or sell, *all* or a large part of the supply of foreign exchange in amounts and at rates and for purposes decided by the authorities, and are used for a variety of objectives. There are the 'rationing' types, usually in fact designed to keep a currency from falling too low on the foreign exchanges. But they often have currency protection as a principal goal, and they add to the many instruments which can be used for one or another sort of currency management or stabilization.

Further distinctions and even contrasts must be noted in connexion with the broad term monetary stabilization and with the increasing complexity of the economic phenomena and governmental measures suggested by the term. Thus there are distinctions between internal and external stabilization, and between fundamental concepts which may, generally speaking, stress on the one hand the currency itself or on the other hand the measurements of the currency in terms of either prices or exchange ratios.

From the internal point of view, monetary stabilization is often considered to involve the fixing of the metallic content or value of the currency unit, plus usually the pursuit of a complementary central bank policy which will correspondingly adjust the bank credit part of the monetary structure, at least if the country is an economically advanced one where such bank credit is an important phase of the money. But there are wide divergences of views, and even opposite meanings in this respect may be given to the term stabilization. Thus the advocates, in this country, of a return to the old, free, automatic gold standard argue for 'stable money,' with *prices not* stabilized but permitted to fluctuate. This is essentially in accord with the implication of the 'classical' theories. On the other hand, the supporters of the price index or tabular standard urge a flexible currency unit which, through its periodic

adjustment, would have a constant purchasing power, and they refer to this as a real stabilization. Actual monetary policy may, paradoxically, involve both of the ideas, which are thus, in some ways, essentially conflicting with regard to the nature of monetary stability. But present-day currency management tends to stress the adjustment of money to prices or given price objectives; i.e., to emphasize purchasing power at an existing or desired level.

From the international point of view, a country may stabilize its currency in terms of the internal price level or of foreign exchange rates; and obviously the two objectives are not the same although theoretically they could coincide. Back of the exchange rates lie the other currencies, and back of them their respective purchasing powers as measured in the price levels in *their* countries. Since the respective purchasing powers of the foreign currencies, in fact, do not fluctuate in unison with that of the country concerned, it is thus theoretically possible for policy to look toward relatively stable purchasing power with unstable exchange rates, or stable exchange rates with fluctuating internal purchasing power of the currency; and still other combinations are possible.[5] Consequently monetary stabilization from the international, as from the na-

5 Cf. *Encyclopædia of the Social Sciences*, Vol.X, pp.591–595, on 'Monetary Stabilization.' In that article F.D.Graham, predicating the assumption that exchange rates accurately reflect the internal purchasing power of the currencies (which of course may or may not be the case at a given time) suggests four possible 'relationships' for a currency: (1) stable internal purchasing power and stable exchange rates (i.e., all currencies stabilized); (2) stable internal purchasing power and unstable exchange rates (i.e., the other currencies are not stable); (3) unstable internal purchasing power and stable rates (i.e., all the currencies are unstable but fluctuate in unison); (4) instability of both internal purchasing power and exchange rates (in which case the exchange rates of the currency will tend to fluctuate proportionately with the internal purchasing power if the other currencies are stable, and disproportionately if they are not). Since no currency has ever had an unvarying purchasing power, he points out, the first two cases are unattained ideals. The third case is approximately that which was supposed to exist under the pre-war international gold standard. Referring apparently to recent conditions, he says: 'The problem of monetary stabilization, in the narrower sense, arises with respect to one or more currencies of the type indicated in the fourth category and resolves itself, in the modern world, into the resumption of the gold standard, or some approximation thereto, as a means of securing some degree of stability in purchasing power, with absolute stability in exchange rates on gold standard countries, and thus of escaping from monetary chaos.' But see later portions of the present study regarding the idea of obtaining external and international stability through the flexible adjustments of currency management (as in the agreements of the fall of 1936), and compare Graham's own later article, in the *American Economic Review*, September 1934, cited later in the present study.

tional, point of view may have different or even conflicting objectives, and this conflict is accentuated if the monetary policies of the several nations have different, or at times competitive, purposes. Barring a return to the former automatic international gold standard, under ideal circumstances the several nations through management might work toward a common goal, namely a running correlation of their stabilization policies in such a way as to bring and keep their respective monetary purchasing powers 'in line.' What the 'in line' ratio should be might be determined theoretically, but only theoretically and without naming the figures, by certain 'classical' concepts of an international equilibrium with its ratio of interchange, which may be rather far from the rate of exchange. Practically the determination of the ratio is an expedient process of trial and error, in which each management, employing national cost and price structure data and various other statistical guides such as figures on foreign trade and capital flows, endeavours from time to time to attain the most workable rate compatible with what are deemed to be the best economic interests of its own country, a rate at which the purchasing power of the respective currencies may be best equilibrated. Where gold is in use along with the management, the purchase and sale of gold, as well as of exchange, may be used in greater or less degree to contribute to the purpose. This may or may not be conceived as a transitional step toward restoration of the gold standard. If so it is probably not in present practice toward the free gold standard of the pre-war type, but toward one modified to correct its weaknesses and to retain the benefits of later monetary experience. Thus emerges the new form of currency management co-operation which seeks to attain the new form of international currency stabilization.

Meanwhile, however, it is clearly apparent that the term monetary stabilization may be used with different meanings, and may take on both different forms and different objectives. Consequently, it becomes decreasingly possible to define or generalize too simply and broadly concerning these phenomena, and increasingly desirable to examine actual experience, in order to try to arrive at the real significance of the problems of both devaluation and stabilization.

PART ONE: NATIONAL

CHAPTER II

MONETARY POLICIES

BEFORE coming to the theoretical and empirical analysis of the dollar measures it will be helpful to outline these measures somewhat carefully. This is, indeed, necessary, in order to have in mind the composite policy which they constitute, and to try to correlate their chronology even roughly with the subsequent phenomena. Suggestions may also be made regarding possible forces, both economic and political, which may have motivated the measures.

As for the currency itself, it will be recalled that this country had undergone a variety of experiences in its earlier history, as in the financing of the Revolutionary War considerably by means of the 'Continentals' and of the Civil War in part with 'greenbacks,' but that for some decades [1] it had remained more or less firmly on the gold standard, conceived as a largely rigid and automatic thing, and that during this modern period it had maintained the same gold parity. From the strictly historical point of view it does not matter particularly why this was possible, whether, for example, through America's own financial strength and stability or through, perhaps, the financial dominance of London and of sterling as a sort of world standard. Indeed, when the currency disturbances occurred in nearly every country during the World War, and again in the post-war period ending about 1929-31, the

1 Some writers consider that 'the United States had virtually been on the gold standard since 1834.' Experiments with silver monetization continued in one form or another. In 1861 the banks and the government suspended specie payments and in 1862 the issue of 'greenbacks' began; the greenbacks did not reach a parity with gold until two weeks before the resumption of specie payments on January 1, 1879. The Act of 1873, which revised the coinage laws and under which 'silver was dropped from the list of coins that could be manufactured at the mint,' is considered by some to be the point after which the United States was definitely on the gold standard, and it has been pointed out that this measure only gave legal recognition to an existing situation, so far as gold and silver were concerned. But the greenbacks were retired only gradually, and those remaining did not reach gold parity until late in 1878; and on January 1, 1879 specie payment was resumed. The Silver Purchase Act of 1890, providing for redeemability of silver-backed treasury notes in gold or silver coin, caused difficulty in the depression which followed it when the Government, despite external drains of gold, did not fall back upon its discretionary authority to redeem in silver and instead redeemed in gold on demand; an act of 1893 stopped the silver purchases authorized by the Sherman Act. In 1896 the 'free silver' movement was defeated. The gold standard 'was first formally and definitely recognized by law in 1900' with the passage of the Gold Standard Act. (Quotations are from Ely, Richard T., *et al.*, *Outlines of Economics*, 5th revised edition, Chapter XIII.)

dollar generally remained, internationally, the one most 'stable' currency among all the leading nations. During the World War and early post-war period it came to the rescue at times, directly and indirectly, of other currencies. Thus at one time Federal Reserve credits supported sterling. The rehabilitation of the German mark, made possible partly through the Dawes and Young Plans and attendant capital flows to Germany, did not officially or directly involve dollar policy, but would not have been possible if the dollar had not had a strong position. The American nation and other nations came to regard the dollar internally and externally as a sort of 'rock of ages.' This had not precluded fluctuations in the price level, booms and depressions, or even the financing of the country's part in the World War and of its stock market boom of 1928–29 by means of 'credit inflation,' assisted somewhat perhaps by the new features of the Federal Reserve System created in 1913. But all these things occurred within the framework of the 'old gold dollar,' preserved at steady gold parity.

INFLUENCING FORCES

It took the world financial crisis of 1931, its concomitant results in the national money, production, trade, and exchange controls in other countries, the advent of a political administration with a rather distinctively new economic, and economico-social, philosophy, and the emergence of new monetary ideas and techniques, to bring an alteration in the course of long-time policy.

The relative importance of these larger movements and forces, as well as of lesser and more immediate political and economic pressures and motives, is not easy in all fairness and accuracy to appraise. Certainly it cannot be denied that they all played their part; a narrower and more dogmatic assumption, however neat in logic, could represent only a mistaken perspective.

If attention be turned, however, to the more immediate causes of a kind familiar in other instances of devaluation, a slightly closer speculation may be attempted. Internally the collapse of the banks had generated a fear that had to be overcome, and paradoxically enough, public confidence was at least temporarily restored by taking the dollar off gold in some respects, rather than by maintaining it in the fullest, freest sense. But the case was unique, and such restoration of 'confidence-psychology' might

have been difficult had the public not felt that, despite irredeemability, there was a more than abundant gold stock in the country, and that the mobilization and conservation of this supply strengthened what was in some respects still a gold standard. This was a general factor. A specific, partly political, factor was probably the attitude of particular groups, especially the farmers, many of whom had experienced a decline in either absolute or relative income, and who, incidentally, were inclined to blame 'Wall Street' for stock market losses and the bankers for losses of deposits. Some agricultural areas had been for decades areas where the 'cheaper money' idea had found considerable comfort; and if many farmers were mistaken in their belief that 'cheaper money' would solve all their problems, they were not mistaken in asserting that their farm mortgages were harder to pay off, and certainly not in pointing out that, compared to pre-war and especially to 1919 and early 1920 periods, the price of the things they sold had strikingly failed to keep pace with the price of things they bought.[2] But politically it did not matter so much about what they were or were not mistaken. To these voices were added those of the silver producers, powerful and eloquent voices politically, so that here was a further specific economico-political factor. Against these, the advice of the 'financiers' now had little effect, for the 'bankers' were considered discredited in the eyes of many. Partly rising above these factors and partly symbolizing them, was the social philosophy of the 'New Deal,' with its ideals or political expediency (depending upon one's party sentiments) taking the fairly specific form of promises to readjust the debtor-creditor relationships more equitably, as well as the New Deal's evident belief that rising prices would generate general business recovery.

As between the internal economic and economico-political forces, and the external forces, again no mathematical measurement of relative importance may be made. Psychologically, the assertion may be ventured that the people of the United States are necessarily less internationally minded than are the peoples of Europe; and it must be remembered that the President had indicated in his inaugural address that his first consideration would be for internal affairs. But turning from very general, political, and psychological forces, to somewhat more immediate economic matters, it may be

2 Fuller attention will be given to this question in the next chapter.

suggested that the previous economic pressures suggested above, especially the subtler ones that had their effects but were not commonly recognized, if indeed measured at all, were perhaps more international than national, and that these made up the more real if less conscious part of the background for the monetary change. For example, with the advent of the bank crisis the technical position of the dollar had shown some weakness; and, though this is difficult to measure or perhaps even to demonstrate, it is more than probable (a) that in 1928-29 a great deal of foreign capital had moved into the speculative internal markets for securities and commodities such as cotton and wheat, some of it 'going home again taking its profits with it,' and (b) that after the great short-term-capital-drain of London in 1931, large masses of such 'flight capital' had sought refuge in the United States, only later, at the time of the banking crisis of the spring of 1933, to begin a sharp outward movement which really threatened the dollar more seriously than statistics might show. The rapidity with which such movements can take place is now, since 1931, more fully realized, and some observers have blamed such external forces entirely for the so-called plight of the dollar and the American banks in late 1932 and early 1933. These are only sample illustrations. But they tend to show that, despite the enormous gold holdings here, the dollar was probably somewhat more vulnerable internationally in late 1932 and early 1933 than might have been supposed, and this fact was doubtless known to the Government. It seems possible, then, that external economic forces had no small place, and, as immediate causes, conceivably a somewhat predominant place in forcing the formulation of the New Deal monetary policy. This of course refers especially to the spring of 1933. It is not so easy to carry the same argument very far forward chronologically. But once the idea had been established in the administrative mind, it probably did not fade, and may well have carried through, with the aid of arguments of some of the economic advisers, to the rather spectacular refusal 'to be trapped into stabilization' at London that summer, to the gold purchase experiments beginning in October 1933, and to the devaluation of January 1934. The Administration indicated by public pronouncement, on the other hand, that it had adopted the view that internal price restoration must come *before* external dollar stabilization.

One further point should be clarified. In some countries export and production-for-export groups have much influence and this influence has helped materially to account for certain devaluation programs of recent times. Such groups have looked, correctly or incorrectly, to depreciation of their currency for export stimulation, and to a perhaps lesser extent domestic industries may have looked to it as an additional protection against competitive imports. Interestingly enough it would scarcely appear that *as a specific factor*, this held true in the American case. Exports, large in world trade, are not an extremely large percentage of total production; many of the exports even yet are agricultural products rather than manufactures; some of the more powerful manufacturer-exporter groups have minimized exports by the establishment of branch plants abroad; and those manufacturing-export groups which are vocal in national policy formulation do not appear to exert any predominant pressure in the field of monetary policy. Moreover, there seems to be a rather prevalent, if not almost universal, opinion among exporters that dollar depreciation is harmful rather than helpful.[3] Oddly enough, therefore, it is probably true that little, if *any*, demand for devaluation came from this group, and that the Administration's desire to prevent the dollar from rising unduly in terms of foreign currencies has been based on broader, 'over-all' grounds. But this does not lessen the significance of the external forces in the devaluation, and certainly not in the stabilization, policy—even if the avowed objective was mainly internal.

With these descriptive and partly speculative suggestions in mind concerning forces influencing the devaluation, one may turn to the specific devaluation and related measures.

Since many of the monetary measures other than those specifically changing the gold 'content' of the dollar have had similar and related purposes, such as reduction of the dollar's market value, liberalization of bank credit, and the increasing of commodity or other prices, it is practically impossible to deal with them as isolated matters. Some of them may even be regarded as steps in a progressive series of devaluation, followed perhaps by a series tending toward some degree of stabilization, or at least toward maintaining and controlling the results attained. From one point of view it would be desirable to classify the measures, functionally

3 Note the press releases of the National Foreign Trade Council during the period.

at least, into a few large groups, say under separate headings: gold, silver, currency, credit. But they are so intertwined that this method is neither convenient nor ultimately satisfactory. Consequently, mechanical though such a treatment may appear, the principal measures of the types just indicated will be traced below chronologically. This has the added usefulness of showing the evolution of the policy. There may then follow brief reference to still other measures which do not properly belong under such headings, but which have had very great influence upon bank credit, prices, and purchasing power.[4] Since this treatment is chronological, it is well to bear in mind the main threads, which are only partly distinct, such as currency and gold, currency and silver, Federal Reserve System and note issue, and Federal Reserve system and bank credit.

It is recognized that not all of the measures outlined below are strictly concerned with currency, but since some of them affected the credit machinery and policy, and all of them affected the monetary situation, in the broader sense, it will be desirable thus to trace the evolution of the monetary system in this highly significant period.

GOLD, SILVER, CURRENCY, CREDIT, FOREIGN EXCHANGE

In 1932 some mild currency liberalization of special type had already been introduced, during the previous administration, especially when the ordinary devices of discount rate and open market operation policy of the Federal Reserve System had proved inadequate.

Glass-Steagall Act, February 27, 1932.—This amendment to the Federal Reserve Act, had, in Section 3, authorized the use of United States obligations as collateral for Federal Reserve notes until March 3, 1933, and on February 3, 1933 this was extended to

4 This summary is based primarily upon the texts of the laws and executive orders, proclamations, and explanations thereof, to be found in the *Annual Report of the Secretary of the Treasury on the State of Finances*, for the fiscal years ended June 30, 1933, and June 30, 1934, respectively; the *Annual Report of the Federal Reserve Board*, for the calendar years 1933, 1934, and 1935, respectively; and the *Federal Reserve Bulletin*, monthly issues January 1933 to November 1936. Specific page references will be unnecessary in this connexion. The data in these official publications are presented in partly chronological and partly topical classifications, and rearranged in the present text. Unless otherwise indicated the dates of laws will be those when the legislative acts were given formal executive approval.

March 3, 1934. The act also permitted the Federal Reserve banks, under exceptional conditions, and with limitations, to make special advances to member banks. Also the Federal Home Loan Bank Act of July 2, 1932, in Section 29, had extended the circulation privilege for three years to all United States bonds bearing interest at $3\frac{3}{8}\%$ or less per annum.

Bank Holiday, March 6–9, 1933.—Many banks were closed by March 4, 1933, and the new President proclaimed a four-day bank holiday, March 6–9 inclusive, and proceeded (a) to deal with the bank and money crisis through emergency decrees, later validated by specific legislation, and (b) to call a special session of Congress to deal with the problem. Noteworthy were the provisions of the bank holiday proclamation prohibiting the paying out, exporting, or earmarking of gold or silver coin or bullion, or currency, or dealing in foreign exchange. Thus 'the gold standard was suspended' and all foreign exchange was placed under control.

The Emergency Banking Act, March 9, 1933.—In addition to its more strictly banking provisions, providing for the 'orderly' reopening of the banks, this act broadened the basis for Federal Reserve bank currency issues. (1) Amending Section 18 of the Federal Reserve Act, it authorized, during the emergency, the issuance of circulating notes of Federal Reserve banks (the 'Federal Reserve bank notes') to be secured by any direct obligations of the United States; this might be considered to be the legislative beginning of the basis for the potential budgetary inflation. (2) Such bank notes could also be issued against the security, and up to 90% of their value, of any notes, drafts, exchanges, or bankers' acceptances acquired by the said Federal Reserve banks, thus omitting gold backing.

The act contained many other provisions, but it is our purpose here to avoid all details having to do with purely banking features rather than monetary aspects, however much the general nature and condition of the bank structure may react upon the currency and credit situation. Significant were provisions permitting special emergency advances of funds, under more lenient conditions, by Federal Reserve banks to (1) member banks, and (2) individuals, partnerships, and corporations on promissory notes secured by direct obligations of the United States.

It must be especially noted also that the act here mentioned also

gave the President arbitrary emergency powers to control foreign exchange transactions, and external gold and currency movements, as well as banking transactions.

An Executive Order of March 10, 1933 limited foreign exchange operations to 'normal requirements,' and continued in force the prohibitions which had already been provisionally placed upon gold payments by banks and upon export of gold or gold certificates except under licence. Since it was this order that established the foreign exchange policy, the further steps in that policy may be observed here. While, as noted, the bank holiday proclamation had temporarily stopped all foreign exchange transactions, it is to be remarked especially that the order of March 10, 1933, though it gave the Secretary of the Treasury the power to control foreign exchange by licensing and otherwise, specifically allowed foreign exchange transactions (a) for legitimate and normal business requirements, (b) for reasonable travelling and other personal requirements, and (c) for the fulfilment of contracts entered into prior to March 6, 1933. Substantially the same provisions were contained in the executive orders of April 20, 1933, August 28, 1933, and January 15, 1934. An order of November 12, 1934 granted a *general* licence for all foreign exchange transactions, though still requiring, with some exceptions, the reporting of such transactions. Throughout, however, the foreign exchange control, unlike the control of gold shipments, was largely nominal, a control held in reserve, apparently, against speculation and possible emergencies.

An Act of March 24, 1933 amended the act of March 9, 1933, and, until ended by proclamation, but not to run later than March 24, 1934, authorized Federal Reserve bank loans to State banks or trust companies not members of the Federal Reserve System; notes representing such loans were made eligible as security for Federal Reserve bank notes issued to Federal Reserve banks.

An Executive Order of April 5, 1933 required, with very limited exceptions, the delivery of all gold to the Federal Reserve banks.

An Executive Order of April 20, 1933 again prohibited gold or gold certificate export except under licence. As it appears that from this date actual release of gold from the stocks of the Government and the Federal Reserve banks was terminated, this order is sometimes referred to as one converting a temporary gold suspension into

a 'permanent' one, and, consequently, as the measure initiating the downward course of the dollar on the foreign exchanges.

The Thomas Amendment, so-called, formed Title III of the Agricultural Adjustment Act of *May 12, 1933*. This amendment constituted the original legislative authorization of *devaluation of the dollar*. The Gold Reserve Act, approved January 30, 1934, repeated and modified the authorization, and subsequently has often been thought of as the principal act for this purpose; but the original devaluation authority lies in the Act of May 12, 1933. The first paragraph of Section 43 of Title III, indicating the conditions under which the President could devalue and take other steps regarding currency and credit reads as follows:

> Whenever the President finds, upon investigation, that (1) the foreign commerce of the United States is adversely affected by reason of the depreciation in the value of the currency of any other government or governments in relation to the present standard value of gold, or (2) action under this section is necessary in order to regulate and maintain the parity of currency issues of the United States, or (3) an economic emergency requires an expansion of credit, or (4) an expansion of credit is necessary to secure by international agreement a stabilization at proper levels of the currencies of various governments, the President is authorized, in his discretion—

The devaluation clause, permitting reduction of the gold content of the dollar by not more than 50%, reads:

> (2) By proclamation to fix the weight of the gold dollar in grains nine tenths fine and also to fix the weight of the silver dollar in grains nine tenths fine at a definite fixed ratio in relation to the gold dollar at such amounts as he finds necessary from his investigation to stabilize domestic prices or to protect the foreign commerce against the adverse effect of depreciated foreign currencies, and to provide for the unlimited coinage of such gold and silver at the ratio so fixed, or in case the Government of the United States enters into an agreement with any government or governments under the terms of which the ratio between the value of gold and other currency issued by the United States

and by any such government or governments is established, the President may fix the weight of the gold dollar in accordance with the ratio so agreed upon, and such gold dollar, the weight of which is so fixed, shall be the standard unit of value, and all forms of money issued or coined by the United States shall be maintained at a parity with this standard and it shall be the duty of the Secretary of the Treasury to maintain such parity, but in no event shall the weight of the gold dollar be fixed so as to reduce its present weight by more than 50 per centum.

Thus this legislation provided a broad basis for devaluation and related action, and envisaged among other things, adverse effects upon the foreign commerce of the United States resulting from depreciation of other currencies, and an ultimate international stabilization agreement. It is apt to be forgotten that this provision was made as early as May 1933.

Other provisions of the act were significant. In Section 45 it authorized the President, for a period of six months, to accept silver, at a maximum price of 50 cents per ounce, from foreign governments in payment of principal or interest due on their indebtedness to the United States Government, and required issuance of silver certificates against any silver so acquired. (Payments on account of amounts so due, June 15, 1933, totalled approximately eleven million dollars.) This was the beginning of the new silver policy, in itself, in practice, of a somewhat devalutionary nature.

The same act also gave broad powers to the President, under certain conditions, to cause the Secretary of the Treasury to arrange with the Federal Reserve Board and banks for the purchase of additional United States obligations in the amount of three billions of dollars, and to compel, under given conditions, the issuance against these of United States notes, not more than three billion dollars worth of which were to be outstanding at any one time. This was a further legislative step in what is broadly phrased 'budgetary inflation,' although one not yet utilized to the time of this writing. The act also liberalized the provisions under which the Federal Reserve Board might permit changes, upward or downward, in the required reserve balances maintained by the member banks against demand or time deposits. It furthermore

liberalized requirements regarding security for advances to member banks, permitting, for short periods, the use of farm loan bonds issued by Federal land banks for certain purposes.

It should be noted that many of the liberalizing features injected into the Federal Reserve System, as discussed both above and below, were conditioned upon the 'existence of an emergency' or otherwise limited in language, though not necessarily in fact, since to a certain extent the President could decide if the emergency had persisted.

A Joint Resolution, approved *June 5, 1933*, declared the inclusion, in dollar obligations, of provisions for payment in gold or in any particular type of currency to be against public policy, forbade such inclusion in the future, and provided that all obligations, whether contracted in past or future, should be payable in whatever coin or currency may be legal tender at time of payment. This was 'to assure uniform value to the coins and currencies of the United States.'

The Banking Act of 1933, approved *June 16, 1933*, made many changes in the Federal Reserve System. Some of the more important features, for the purposes here, were: (1) A provision for closer supervision by the Federal Reserve Board of Federal Reserve bank credit, so as to check any unsound credit expansion; this apparently showed realization of the need for what might be called 'upper limit' as well as 'lower limit' controls, that is, controls of 'undue inflation.' (2) Divorce of 'investment banking' from banking. (3) Various provisions, such as the creation of a Federal Open-Market Committee, tending to introduce a much greater centralization of control over banking and bank credit expansion or contraction. Incidentally, critics claimed to see in this and other earlier and later measures a dangerous centralization and a subordination of the Federal Reserve System to the Treasury and to the possible whims of political administrations. The further changes, made in the Banking Act of 1935 mentioned below, are to be noted in this connexion.

In July 1933 the refusal of the United States to enter into an international stabilization agreement was announced.

Executive Orders of August 28 and 29, 1933, the first again confirming earlier orders regulating the acquisition, holding, and export of gold, the second authorizing the Treasury to receive newly

mined gold, for transmittal to persons licensed to acquire it for legal uses, as in the arts and industries, or for export to foreign purchasers. The Treasury was to sell at what it considered 'the best price obtainable in the free gold markets of the world.' Substantially similar provisions continued to be confirmed from time to time subsequently, as in Executive or Secretary of the Treasury orders of December 28, 1933, January 11, 1934, and January 15, 1934, requiring all gold, with certain exceptions, to be delivered for the account of the Treasurer of the United States.

The Gold Price and Gold Purchase Plan.—This plan was introduced with the design of manipulating the dollar value of gold in order to manipulate the commodity value of the dollar, on the concept of the gold price version of the quantity theory of money. The intention was to bring about a *de facto* devaluation. The order of August 29, just noted, providing for consignment *sales* of gold, was the first step in the general scheme, and from September 8 through October 24, 1933 the sales were made at prices ranging substantially above the old statutory figure of $20.67 per ounce. An *Executive Order of October 25, 1933*, commonly regarded as the beginning of this experiment, actually initiated gold *purchases*, the price thereafter being frequently changed upward. The Reconstruction Finance Corporation was authorized to acquire gold recovered from natural deposits in the United States which had been received on consignment by a United States mint or assay office, and to hold, earmark for foreign account, export, or otherwise dispose of such gold. The Reconstruction Finance Corporation simultaneously announced that it would receive subscriptions for its debentures maturing on February 1, 1934, payable in newly mined gold recovered from natural deposits in the United States. Certain foreign gold imported after November 1, 1933, was also authorized by the Reconstruction Finance Corporation to be received by the Federal Reserve Bank of New York in payment for the notes of the corporation. Apparently gold purchases from *abroad* actually began October 29.

An Executive Order of January 15, 1934 continued the purchases (this at the time when formal devaluation was being planned); and upon formal devaluation on January 31, 1934 the plan was again continued, at $35.00 per ounce, the Federal Reserve Bank of New York acting as the fiscal agent, in purchases of both

newly mined domestic, and imported gold, for the Treasury itself, effective February 1, 1934, thus converting an attempted *de facto* into a *de jure* devaluation.

The daily price quotations for newly mined domestic gold in the United States [5] from September 8, 1933 to January 31, 1934, rose rapidly. Prior to October 25, 1933, the price, per fine ounce, had already ranged from as low as $29.10 to as high as $32.25 (on September 20), and was $31.36 on October 25. After October 25, it rose, rather regularly, upward, to $33.56 on November 14. It remained there from November 14 to November 18. On November 21 it was placed at $33.76 and so remained till November 27. From December 1 to December 16 it was kept at $34.01, and from December 18 to January 15, 1934 at $34.06. It was then placed at $34.45, on January 16, and so held until the end of this phase of the experiment on January 31, 1934. As noted the proclamation of January 31, under authority of the law of January 30, 1934, fixed the price at $35.00 per troy of fine gold. This was in contrast to the original value of gold, at the old parity, of $20.67.

The theoretical and statistical aspects of this matter will be discussed later in this study. At this point, however, the question of policy may be raised as to whether the Administration was using this device with the expectation that it would be sufficient for devaluation purposes, and found that it was not, or merely using the gold purchase plan as a temporary expedient to move toward the formal devaluation which followed. Some indications, descriptive and statistical, point to the first assumption.

The Proclamation of December 31, 1933, under authority of the act of May 12, 1933, meanwhile directed the mints to receive domestically mined silver, and deliver therefor equivalent silver dollars in face amount equal to the silver dollars which might be coined from 50% of the silver so tendered—a kind of 50% seigniorage. The price paid for the silver was fixed, on this basis, at approximately 64½ cents per fine ounce.

Devaluation, and The Gold Reserve Act of 1934, approved *January 30, 1934*. This striking act laid the basis for formal devaluation. It vested title of all gold coin and gold bullion of the Federal Reserve System, including the Federal Reserve banks and Federal

5 *Annual Report of the Secretary of the Treasury*, for Fiscal Year Ended June 30, 1934, p.205, Exhibit 26.

Reserve agents, in the Government. Under this authorization the Government took the spectacular step, subsequently the subject of much economic as well as legal and ethical controversy, not only of thus acquiring title to all the gold in the Federal Reserve System, into which had been forced most private gold, but, as well, of crediting to itself a 'profit,' of about $2,800,000,000, out of which was established a two billion dollar 'stabilization fund' subsequently used to manipulate, as far as possible, the external market value of the dollar and also to peg the internal market for its own (governmental) obligations.

Whereas the act of May 12, 1933 had authorized devaluation to not less than 50% of the existing gold 'content,' the present measure set an *upper limit of 60%*. In Section 12 it provided that paragraph (b) (2) of Section 43, Title III, of the previous act just referred to, should be amended to read, in part, as follows: 'Nor shall the weight of the gold dollar be fixed in any event at more than 60 per centum of its present weight.' Thus the President was given a fairly narrow range within which to devalue. The gold 'content' of the dollar could be reduced to not less than 50% and not more than 60% of its existing amount, although the decision to devalue was to be the President's.

The present measure also provided, in Section 10, for the establishment and operation of the stabilization fund as follows:

> (a) For the purpose of stabilizing the exchange value of the dollar, the Secretary of the Treasury, with the approval of the President, directly or through such agencies as he may designate, is authorized, for the account of the fund established in this section, to deal in gold and foreign exchange and such other instruments of credit and securities as he may deem necessary to carry out the purpose of this section. An annual audit of such fund shall be made and a report thereof submitted to the President.
>
> (b) To enable the Secretary of the Treasury to carry out the provisions of this section there is hereby appropriated, out of the receipts which are directed to be covered into the Treasury under section 7 hereof, the sum of $2,000,000,000, which sum when available shall be deposited with the Treasurer of the United States in a stabilization fund (hereinafter called the

"fund") under the exclusive control of the Secretary of the Treasury, with the approval of the President, whose decisions shall be final and not be subject to review by any other officer of the United States. The fund shall be available for expenditure, under the direction of the Secretary of the Treasury and in his discretion, for any purpose in connection with carrying out the provisions of this section, including the investment and reinvestment in direct obligations of the United States of any portions of the fund which the Secretary of the Treasury, with the approval of the President, may from time to time determine are not currently required for stabilizing the exchange value of the dollar. The proceeds of all sales and investments and all earnings and interest accruing under the operations of this section shall be paid into the fund and shall be available for the purposes of the fund.

The act also included important provisions regarding transfer of gold, note issues, redemption, and other matters, which, together with the devaluation feature, were summarized by the Federal Reserve Board: [6]

Transfer of gold of Federal Reserve banks to the United States.—The Gold Reserve Act of 1934, enacted January 30, 1934, vested in the United States all right, title, and interest and every claim of the Federal Reserve Board, the Federal Reserve banks, and the Federal Reserve agents to all gold coin and bullion, and in payment therefor established credits being payable in gold certificates. Gold in the possession of the Federal Reserve Board, the Federal Reserve banks, and Federal Reserve agents was required to be held in custody for the United States and delivered upon order of the Secretary of the Treasury.

Amendments relating to Federal Reserve notes.—Section 16, of the Federal Reserve Act was amended by the Gold Reserve Act of 1934 so as to make Federal Reserve notes redeemable only in lawful money; to eliminate the authority for the use of gold (but not gold certificates) as collateral for Federal Reserve notes; to require that reserves against Federal Reserve notes be maintained in gold certificates instead of in gold and that reserves

6 *Twenty-First Annual Report of the Federal Reserve Board Covering Operations for the Year 1934*, pp.46–47.

against deposits of Federal Reserve banks be maintained in gold certificates or lawful money instead of in gold or lawful money; to require the redemption fund of each Federal Reserve bank maintained on deposit at the Treasury of the United States to be in gold certificates instead of in gold; to make deposits of Federal Reserve banks and Federal Reserve agents with the Treasurer of the United States repayable in gold certificates only and not in gold coin; and to make other corresponding amendments in other provisions of section 16.

Conditions as to acquisition or transportation of gold.—The Gold Reserve Act also required the Secretary of the Treasury, with the approval of the President, to prescribe conditions under which gold may be acquired, held, and transported (a) for industrial, professional, and artistic use, (b) by the Federal Reserve banks for the purpose of settling international balances, and (c) for such other purposes as in the Secretary's judgment are not inconsistent with the purposes of the act.

Redemption of currency in gold.—The act prohibited the redemption in gold of any currency of the United States except as permitted in regulations prescribed by the Secretary of the Treasury, with the approval of the President; but the act also provided that gold certificates owned by the Federal Reserve banks shall be redeemed at such times and in such amounts as in the judgment of the Secretary are necessary to maintain the equal purchasing power of currency of the United States; that the reserve for United States notes and Treasury notes of 1890 and the security for gold certificates shall be maintained in gold bullion equal to the dollar amounts required by law; and that the reserve for Federal Reserve notes shall be maintained in gold certificates or in credits payable in gold certificates maintained with the Treasurer of the United States under section 16 of the Federal Reserve Act.

Reduction in weight of the gold dollar; stabilization fund.—The Gold Reserve Act also amended the act of May 12, 1933, which empowered the President under certain conditions to reduce the weight of the gold dollar by an amount not exceeding 50 percent. The Gold Reserve Act provided that in any event the weight of the gold dollar should not be fixed at more than 60 percent of its previous statutory weight. It was provided that the increase

in the value of the gold held by the United States which resulted from any reduction in the weight of the gold dollar should be covered into the Treasury as a miscellaneous receipt. The sum of $2,000,000,000 resulting from such increase was appropriated to be deposited with the Treasurer of the United States in a stabilization fund, under the exclusive control of the Secretary of the Treasury, with the approval of the President, to be available for expenditure for the purpose of stabilizing the exchange value of the dollar and also for the purpose of investing or reinvesting in direct obligations of the United States any portions of the fund not currently required for stabilizing the exchange value of the dollar. It was provided that the operation of the stabilization fund should terminate 2 years after the date of enactment of the act, but the President was given authority to terminate the operation of the fund at an earlier date or, by proclamation, to extend the period for not more than 1 additional year.

The Devaluation Proclamation. The proclamation of *January 31, 1934* put the Gold Reserve Act into effect, and in so doing it fixed the weight of the gold dollar at $15\frac{5}{21}$ grains of gold, nine-tenths fine. This in effect reduced the dollar to 59.06% of its former content and gave to gold a corresponding (dollar) value of $35 an ounce. Numerous orders, regulations, and announcements accompanied the proclamation. The Treasury Department made an announcement providing for sale of gold (at $35.00) for export to countries on the gold standard whenever United States exchange rates with such gold standard currencies should reach 'gold export point,' and explaining that such exports were to be to foreign central banks which buy and sell gold at fixed prices. It was also provided that Federal Reserve banks could acquire such amounts of gold (by redemption of gold certificates) from the United States, and could acquire gold abroad, and import or export or earmark for foreign or domestic account, in such amounts, as 'are necessary to settle international balances.'

An Act of January 31, 1934 re Farm Mortgage Bonds amended the Federal Reserve Act to permit fifteen-day advances by Federal Reserve banks to member banks on security of Federal Farm Mortgage Corporation bonds, and made some of such obligations eligible for purchase and sale by Federal Reserve banks.

An Act of April 27, 1934 made substantially similar provisions regarding Home Owners Loan Corporation bonds.

The Securities Exchange Act of 1934 approved *June 6, 1934*, among other things, looked toward the prevention of excessive use of credit for purchasing or carrying securities, and accordingly gave the Federal Reserve Board greater supervision over Federal Reserve bank credit in this respect. Again preparations were apparently being made to safeguard against an undue stock market inflation.

Act of June 19, 1934 re Industrial Credit. The act nationalized silver bullion in the country, and substantially liberalized the Federal Reserve System in permitting Federal Reserve banks, under regulations of the Board, to extend credit directly to industry and commerce by making loans to or purchasing obligations of such businesses.

The Silver Purchase Act, June 19, 1934. The act declared it to be the policy of the United States to increase the silver proportion of the monetary bullion stocks, ultimately to one-fourth, as compared with three-fourths gold, or to buy silver until its open-market price reached a certain point per ounce equal to the existing monetary value.[7] The Treasury was directed to purchase silver to that end, but at a price not to exceed 50 cents per fine ounce (the approximate market price just then prevailing) for silver situated in continental United States on May 1, 1934. The previous measures regarding silver and its ownership and export and import, and the issue of silver certificates, were continued and reinforced.

A Treasury Order of June 28, 1934 subjected exportation of silver to licence. Issuance of silver certificates against silver receipts from foreign governments on their debts had been begun on January 13, 1934, and the Gold Reserve Act, mentioned above, had authorized issuance of such certificates against other silver held by the Treasury. It was now decided to consolidate the several series of silver certificates. Thus, without adopting bimetallism, the United States was now embarked, legislatively if not to a great extent in practice, upon one type of remonetization of silver. It would appear, however, that the practical application has not run nearly so far as the legislative provisions. It is sometimes asserted that the Administration has delayed full enforcement of the legislation as far as

7 $1.2929 per ounce.

possible. Meanwhile it has been subjected to protests, as from China, where the increased price of silver made Chinese silver bullion money dear; silver drained out; the price changes apparently thus retarded exports from, and increased costs in, that country. China protested to the United States, and later nationalized her silver, apparently sold silver in the silver market created by the American price, acquired some gold, and adopted a kind of managed currency. Meanwhile, though the American governmental purchases have not succeeded in raising the market price to $1.29, they have set prices apparently substantially above what might be termed world market prices. On this score and others the whole American silver purchase plan has been adversely criticized by some observers, as simply a subsidy to silver producers and those abroad who can sell to this Government. However, the silver question (including the International Silver Agreement of 1933) will not be explored in this study, since the silver policy has probably had a minor effect upon the total situation of dollar policy and behaviour. It may only be added that in the latter part of the period here considered, the volume of purchases of foreign silver apparently has been reduced.

A Proclamation of February 14, 1935 extended for two years beyond March 3, 1935 the provisions of the Glass-Steagall Act concerning the use of direct obligations of the United States as security for Federal Reserve notes.

Supreme Court Gold-Clause Decision, February 18, 1935.[8] Decisions upon the question of gold clauses in contracts were handed down by the Supreme Court, in several different cases which had come before it, on February 18, 1935. Since the majority of the Court, with vigorous dissenting opinion by the minority, upheld devaluation as affecting such clauses, and since the opinions contained largely legal rather than economic reasoning, no analysis is needed here. However, one distinction that was drawn may be noted. In substance it was held that the voidance, through devaluation, of the gold clause in private contracts, was constitutional, while, on the other hand, the Government had no right to repudiate the gold clause in its own contracts, namely in its bonds, but that, in this latter case, the plaintiff was without proved loss and without

8 *Vide Gold Clauses in Obligations: Opinions of the Supreme Court of the United States*, printed as Senate Document No.21, 74th Congress, 1st Session.

remedy.[9] The net result, then, was to uphold the monetary policy of the Congress and the President; but the latter point just made is of some significance, as indeed is the emphatic dissent of the minority.

The Banking Act of 1935, approved *August 23, 1935*, constitutes a comprehensive revision of the Federal Reserve System, the most fundamental revision, in fact, since the adoption of the original Federal Reserve Act in 1913. This revision retains some of the principles of the basic act, combines various features that had been evolved not only before 1933 but especially since then, and adds further features of its own. The Federal Reserve Board, hereafter to be known as the Board of Governors of the Federal Reserve System, summarizes it as follows: [10]

> . . . It incorporates into law much of the experience acquired by the System during the more than two decades of its operation. It reflects a broader conception of the System's functions in the country's economic life than existed at the time the System was established; it defines more clearly and fixes more firmly the responsibilities of the Board in Washington and of the regional Reserve banks; it permanently removes from the operations of the Federal Reserve banks and the member banks some of the restrictions which at critical times prevented them from effectively rendering the services to the country for the performance of which they were established; and, finally, it clarifies and simplifies a number of features of the administration of the System.
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> . . . . . .
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> Under the act there has been a concentration of responsibility for national credit policy, with the governing board of the Federal Reserve System having greater authority. Open-market operations will be under the control of the Federal Open Market Committee consisting of the 7 members of the newly constituted

9 In the case involving government bonds the Court said: 'The validity of the public debt of the United States, authorized by law, . . . shall not be questioned,' and 'We conclude that the joint resolution of June 5, 1933 . . . went beyond the Congressional power.' But it said also that the plaintiff could recover no more than the actual loss he had suffered, and that he did not necessarily suffer any loss, since, gold having been withdrawn from circulation, the equivalent in gold could not be ascertained except in terms of the basis of money now in circulation—a rather devious piece of legal reasoning.

10 *Federal Reserve Bulletin*, Vol.21, No.9, Sept. 1935, p.559.

Board of Governors of the System and 5 representatives of the Federal Reserve banks. The Board of Governors has authority over the other major instruments of credit control; namely, changes in discount rates, in member bank reserve requirements, and in margins to be prescribed for loans on securities. The new law preserves the local autonomy of the regional banks in their dealings and relations with the member banks in their respective districts but places the ultimate responsibility and the main burden for national credit policy upon the Board of Governors in Washington.

The actual provisions, interestingly enough, move generally in the direction just indicated, that is, toward concentration of credit control, but in part they also set up checks upon the possible 'governmental control' feared by the opponents of the act; this is probably due to the fact that the final bill was somewhat of a compromise between groups of differing opinion in the Senate.

Individual Reserve banks cannot refuse to participate in a policy adopted by the Open Market Committee of the System. Purchases by the Reserve banks of Government securities may extend beyond direct Government obligations to other such obligations if they are fully guaranteed. The discretionary power of the Board is greatly extended with regard to discount rates and reserve requirements.[11] The lending powers are much broadened, both with respect to discount of paper by Federal Reserve banks for member banks and in regard to advances to member banks on notes secured by either Government obligations or eligible paper. Real estate loans are liberalized. State banks may be brought into the system under new provisions. Computation of member bank reserves carried with Federal Reserve banks is made more elastic. Definition of demand, time, and savings deposits, instead of being fixed in the law, is largely left to the Board.

With all the new powers given the Board, an effort is made to render the Board more independent, by means of higher salaries and longer terms of office with no reappointment permitted.

11 As early as 1931, the Report of the Committee on Bank Reserves of the Federal Reserve System (1931) had said: 'Since the volume of member bank credit needed to meet the legitimate needs of trade and industry depends on the rate at which credit is being used as well as on its aggregate amount, it is essential for the exercise of a sound control that legal requirements differ in operation between highly active deposits and deposits of a less active character.'

Throughout, the discernible objective is to make the system not only a more centralized and powerful one, but also a more flexible one, and to give it the opportunity, if not the duty, of controlling extreme fluctuations, *upward or downward*, in the currency and credit of the nation. This is in keeping with the trend toward both the policy and the machinery of a well developed 'managed money' system.

The Presidential Proclamation of January 10, 1936. The provision of the Agricultural Adjustment Act [Paragraph (b) (2) Section 43 of Title III] which had empowered the President to reduce the 'weight of the gold dollar' by as much as 50%, and which had been confirmed in the Gold Reserve Act of 1934 (and given an upper limit of 60% on the then existing weight) (Section 12), and also the provision of the Gold Reserve Act of 1934 (Section 10) which had authorized the establishment and operation of the stabilization fund and had allocated the sum of $2,000,000,000 for the purpose, would have expired by law two years after the passage of the Gold Reserve Act, namely on January 30, 1936, had the President not declared that an emergency still existed and on this basis extended these powers for an additional year.

The Proclamation of January 30, 1936 declared that an emergency still exists: 'Such emergency . . . had not been terminated by international monetary agreement or otherwise, but, on the contrary, continues and has been intensified in divers respects by unsettled conditions in international commerce and finance and in foreign exchange. . . .' Accordingly the provisions mentioned were extended for one further year, namely to January 30, 1937.

As this would exhaust the time limit allowed by the original legislation, it may be noted that in the fall of 1936 the Secretary of the Treasury publicly expressed the opinion that these and related monetary provisions should be still further extended by new legislation, and as a result of the elections of November 1936 it appeared most probable that the new Congress would re-enact all such measures as might be requested by the Administration.

Two further major measures were adopted before the end of 1936, namely the international agreement of September 1936, together with its implementation of October with regard to gold shipments, and the gold sterilization scheme of December 1936. These will be mentioned in subsequent sections of this chapter.

Meanwhile, in order to present the evolution of the American monetary policy in reasonably chronological order, it is important first to refer to non-monetary measures tending to have monetary effects, and to observe the development of Federal Reserve policy under the Banking Act of 1935.

OTHER MEASURES

Any full exploration of non-monetary measures would be beyond the scope of the present study. But it is essential at least to allude to just a few of the more typical of the numerous other economic devices and policies of the present administration that have a bearing on the problem of currency, credit, and prices, if only through the increase or indirect redistribution of purchasing power. If prices are used as one of the important criteria by which the results of monetary policy are quantitatively measured, it is then important to remember that still other things can affect prices; and among these other things are any possibly governmental activities which affect the volume of purchasing power.

The Reconstruction Finance Corporation has extended large amounts of credit to many branches of business, such as railroads, and at times to the banks themselves. The National Industrial Recovery Administration, during its existence, tried to raise ('stabilize') certain prices and wages. The Agricultural Adjustment Administration endeavoured, with some success, to raise the price of certain basic agricultural commodities, and by making crop-retirement payments to farmers and by purchasing cotton, presumably added to the money stream of purchasing power. The various farm and home mortgage schemes have increased directly the volume of credit. The Public Works Administration, the Federal Emergency Relief Administration, and the Works Progress Administration have dealt out huge funds which obviously must have increased to some extent the volume of purchasing power. Finally, the very great increase in the public debt has represented, on the one hand, surely some influence on immediate purchasing power, and on the other hand certainly the issuance of a great volume of government obligations which have found their way into the banking system, with an attendant widening of the potential credit base.

FEDERAL RESERVE POLICY UNDER THE NEW BANKING ACT

Since bank credit is so large a part of money, and since the Act of 1935 represented such a comprehensive revision of the central system for bank credit control, it is interesting to examine briefly the policies of the Federal Reserve System under that Act. This may properly include some mention of official comments on the current situation, which reflect the basis upon which such policies have been formulated.[12]

Summarizing for the period here considered, the comments and the policy changes concerned principally: (1) prices and various indices of general business activity; (2) gold imports and the inflow of capital; (3) bank deposits; (4) member bank reserves and excess reserves; (4) reserve requirements.

In the matter of *prices* and of *indices of business activity*, the Board noted general increases. These were not regular, and both upward movements and recessions were observed, but the upward trend was the outstanding feature commented upon for the period.

The Board frequently referred to the continuance or increase, for many portions of the period, of *gold imports*. It spoke of the effect of these in increasing member bank deposits and bank reserves. Thus in November 1935 it referred to such deposit increases as 'reflecting principally the influence of gold imports and of disbursements by the Government of funds raised through the sale of obligations to the banks,' and in the previous month it had remarked: 'Under existing practice, as under previous custom, gold imports result in an equivalent increase of the reserves of member banks, since they receive credit in their reserve accounts when they turn the gold over to the United States Treasury.' Of perhaps even greater significance was the frequent comment upon the reflection in the gold imports of an *inflow of capital from abroad*. Thus in October 1935 the Board said: 'This heavy movement of gold does not reflect an excess of payments due to the United States on ordinary transactions with the world. During 1935 this country's merchandise exports have exceeded its imports by only a small amount. It is estimated that this small excess together with net

12 This summary is based upon, and all quotations are drawn from, the monthly *Federal Reserve Bulletin*, to and including the issue for November 1936.

income from foreign investments has been more than balanced by tourist expenditures abroad, immigrants' remittances, and freight payments to foreign vessels. The inflow of gold has been caused by a heavy movement of capital to this country, offset in part by purchases of silver abroad by the United States Treasury. During the crisis in the gold-bloc countries last spring, the movement of capital was largely in the form of short-term balances. Speculative funds were being transferred from these countries to New York. . . . There was also a large return of New York funds from London, where the discount on forward sterling made the continued holding of balances unprofitable. During the summer forward quotations on sterling and gold-bloc currencies continued to be at a discount, and there was little return to Europe of funds that had come here in the spring crisis. There was, in fact, a considerable net inflow of short-term indebtedness to the United States and a movement of balances to this country from Latin America and the Far East. In addition there was a large movement of European funds into the New York security market. Purchases were mostly of American rather than foreign securities.' Again in July 1936 extensive comment was made upon the same point, this time mentioning also the purchase of American as well as foreign securities in the American market: 'Advantage was taken of the reduced cost of the dollar in 1934 and of the low quotations of many foreign dollar bonds to buy back the bonds from American holders. . . . The sustained movement into American securities did not get under way until the spring of 1935. During the summer it grew in volume and in the last quarter of the year attained its maximum rate. Buying has continued active in 1936.' The Board also said: 'Nearly two-thirds of our total receipts of gold and silver reflects the known movement of capital to this country.'

This great inflow of gold and capital into the United States will be the subject of fuller comment later in this study. But the point to be stressed here is that the monetary authorities in the United States were definitely cognizant of it and its influence upon the internal monetary situation.

The increase in bank deposits during the period here considered was mentioned from time to time by the Board. As already noted, two of the important causes to which it attributed this were imports of gold and 'disbursements by the Government of funds raised

through the sale of obligations to the banks.' Occasionally the *lag of credit velocity* is mentioned. Thus, in November 1935, there is a reference to 'an increase in the idle funds held by banks,' and the statement that: 'The increase in debits . . . had been somewhat slower than the growth of deposits, and therefore the rate of deposit turnover has decreased slightly.'

Almost constantly the Board refers to the striking *increase in bank and excess reserves*, especially when the latter approached and finally exceeded the three billion dollar point in December 1936. The Board was thus obviously fully cognizant of the situation thus created, but apparently was reluctant for a time to adopt restrictive measures, for fear of 'impeding business recovery.'

In the fall of 1935 an interesting interchange of opinion occurred between the Board and the Federal Advisory Council to the Board of Governors of the Federal Reserve System. The Council inquired concerning the desirability of open-market operations looking toward contraction. The Board answered that it recognized the importance of the factors suggested. The Council replied on November 21, 1935. It commented upon the great increase in excess reserves, to 'the unprecedented total of more than 3 billion dollars, which may well be considered as a base upon which additional bank credit can be extended to the extent of at least 30 billion dollars.' It expressed the opinion that: 'The constant pressure of the very large excess reserves of the member banks creating a plethora of the available supply of bank credit has a very distinct tendency to foster and encourage speculative activity, increase prices, and raise the living cost of the population.' It further believed that 'even with the practically complete elimination of excess reserves, the banking system of the country would still be prepared and ardently desirous of meeting any and all legitimate and proper demands for bank credit'; and, it added, 'The Council is strongly of the opinion that, in order to obviate the probability of an undue and dangerous credit inflation, it is desirable from every point of view to eliminate or at least greatly reduce the excess reserves now being carried in the System.'

The Council recalled that 'since the enactment of the Banking Act of 1935 there exist two methods by which this can be accomplished: (1) The selling or "permitting to run off" of a portion or all of the System's holdings of Government securities; (2) raising of

reserve requirements.' The former method it recommended 'as strongly as possible.' It said: 'The controlling reason for this is the indisputable fact that so long as Government bonds are held under the ownership of the System, either the currency of the country or the reserves of member banks, to a corresponding extent, are dependent entirely upon a Government obligation. The world history of currency and banking has demonstrated the dangers inherent in such a system or policy too many times to make it necessary for them to be elaborated upon in this communication. There is, however, another reason for preferring the first method, namely the ease and flexibility with which it may be administered. Under that method Government security holdings may be permitted to run off or may be sold, rapidly or gradually, as in the judgment of the open-market committee may seem feasible or desirable. If at any time the effects seem to be too severe it is possible to suspend or even temporarily to reverse the policy.'

Changing the reserve requirements, the Council believed, would provide a rigid rather than flexible method of control, and if the changes were made too frequently would 'create a chaotic condition in planning for the future by member bank management.'

Accordingly the Council, remarking upon the discontinuance, more than two years previously, of open-market purchases by the System, strongly recommended a return to open-market operations as a means of *reducing* excess reserves and controlling the situation.

However, on December 17 and 18, 1935, the Board of Governors and the Federal Open Market Committee held a meeting and issued a statement to the effect that the primary objective continued to be a furtherance of recovery and that there was no evidence of over-expansion of business activity or of the use of business credit. The statement read:

> The Board of Governors of the Federal Reserve System and the Federal Open Market Committee have given extended consideration to the general business and credit situation and to the recommendation of the Federal Advisory Council and are of the opinion:
>
> 1. That continued improvement has been made in business and financial conditions but that the country is still short of a full recovery.

2. That the primary objective of the System at the present time is still to lend its efforts to a furtherance of recovery.
3. That there is at the present time no evidence of over-expansion of business activity or of the use of business credit.
4. That the present volume of member bank reserves, which have been greatly increased by imports of gold from abroad, continues to be excessive, far beyond the present or prospective requirements of credit for sound business expansion.

Therefore, the special problem created by the continuing excess of reserves has had and will continue to have the unremitting study and attention of those charged with the responsibility for credit policy in order that appropriate action may be taken as soon as it appears to be in the public interest.

On March 18 and 19, 1936 the Federal Open Market Committee, reorganized under the Banking Act of 1935, held its first meeting and adopted certain regulations. These regulations were largely definitions of terms, techniques, and jurisdiction as already prescribed by the act. For example they provided that all purchases and sales of Government securities must be made in accordance with policies adopted by the Committee, that no Federal Reserve bank would be permitted to engage in open-market operations except in accordance with the Committee's directions and that such banks would not be permitted to decline to engage in such operations as directed by the Committee.

As the excess reserve problem abated somewhat in the spring of 1936, the Board apparently continued to feel that no corrective measures were necessary. In May it remarked: 'Changes in reserve balances of member banks in the first four months of 1936 reflected largely the effects of Treasury operations. The growth of these balances through gold imports, which was continuous in 1934 and 1935, was halted last December with the cessation of the heavy flow of gold to this country.' But later gold imports and excess reserves increased again.

On July 15, 1936 the Board *effected a major change of policy by increasing by half the existing member bank reserve requirements*, as follows: on demand deposits at banks in central reserve cities, from 13% to 19½%; at banks in reserve cities, from 10% to 15%; and at 'country' banks, from 7% to 10½%; on time deposits at

all banks, from 3% to 4¼%. These changes were made effective after the close of business on August 15, 1936. This was done under the authority of Section 19 of the Federal Reserve Act as amended by the Banking Act of 1935. The amendment authorized the Board to change the reserve requirements 'in order to prevent injurious credit expansion or contraction.' This could be done without the necessity of the President's declaring that 'an emergency exists by reason of credit expansion,' and the change could be made for member banks not in reserve or central reserve cities, or for all member banks. But the affirmative vote of at least four Board members was required for such a change, and the reserves required of a member bank as a result of such change could not be less than the requirements on the date of enactment of the act of 1935 nor more than twice such requirements. The decision of July 1936, therefore, utilized one half of the extent of increase permitted.

The Board publicly commented at some length upon reasons for this decision and the expected results. It referred again to the great growth of reserves and excess reserves, which at the time were $5,900,000,000 and $2,900,000,000 respectively. This increase, it remarked, had begun in 1929, and from that date until 1933 had largely resulted from Federal Reserve bank purchases of United States Government securities, but open-market purchases had been discontinued in the autumn of 1933, and 'since that time the principal source of additions to member bank reserves has been importation of gold abroad.' The Board made it plain in its opinion, on the one hand, that the existing reserves were far more than needed, and, on the other hand, that easy-money conditions would still prevail. It also expressed its opinion that the excess reserves remaining after the change would be controllable by the Federal Open Market Committee.

Some of the Board's comments were as follows:

> This action eliminates as a basis of possible injurious credit expansion a part of the excess reserves, amounting at present to approximately $3,000,000,000 and expected to increase to nearly three and a half billions by the time this action takes effect. These excess reserves have resulted almost entirely from the inflow of gold from abroad and not from the System's policy of

encouraging full recovery through the creation and maintenance of easy money conditions. This easy money policy remains unchanged and will be continued. .

The part of the excess reserves thus eliminated is superfluous for all present or prospective needs of commerce, industry, and agriculture and can be absorbed at this time without affecting money rates and without restrictive influence upon member banks, practically all of which now have far more than sufficient reserves and balances with the other banks to meet the increases. Furthermore, by this action the remaining volume of excess reserves, which will still be larger than at any time in the System's history prior to the recent large inflow of gold, is brought within the scope of control by the Federal Open Market Committee which, as constituted by the Banking Act of 1935, consists of the members of the Board of Governors and five representatives elected regionally by the Federal Reserve banks.

. . . By the present action required reserves will be increased by $1,450,000,000, or from $2,900,000,000 to $4,350,000,000. This will leave excess reserves of approximately $1,900,000,000. Therefore, even after the increase in reserve requirements has gone into effect, member banks will still have a larger volume of excess reserves than at any time prior to the recent large gold imports. . . .

The portion of existing excess reserves, which will be absorbed by the Board's action, if permitted to become the basis of a tenfold or even larger expansion of bank credit, would create an injurious credit expansion. It is for this reason that the Board decided to lock up this part of the present volume of member bank reserves as a measure of prevention on the one hand and of further encouragement to sound business recovery and confidence in the long-term investment market on the other hand.

The present is an opportune time for the adoption of such a measure. While there is now no excessive credit expansion, since the excess reserves have not been utilized, later action when some member banks may have expanded their loans and investments and utilized their excess reserves might involve the risk of bringing about a severe liquidation and of starting a deflationary cycle. It is far better to sterilize a part of these superfluous reserves while they are still unused than to permit a credit

structure to be erected upon them and then to withdraw the foundation of the structure.

Thorough surveys made by the Board show that the reserves are so well distributed that practically all member banks are in a position to meet the increased requirements either by utilizing their excess balances with the Reserve banks or by drawing upon their excess balances with correspondent banks. . . .

The reduction of excess reserves to an estimated level of approximately $1,900,000,000 brings them within the scope of control through the System's open-market portfolio which consists of $2,430,000,000 of United States Government securities. Frequent changes in reserve requirements of member banks should be avoided because they affect all banks regardless of their reserve position. At this time an increase can be made equitably because reserves are widely distributed. Unless large additional increases in reserves occur through gold imports or otherwise, no occasion for further adjustments in reserve requirements is likely to arise in the near future.

For current adjustments of the reserve position of member banks to changes in the credit situation the Reserve System should continue to rely on the traditional methods of credit control through discount policy and particularly through open-market operations. By the present action excess reserves will be reduced to within the amount that could be absorbed through open-market operations, should such action become desirable. Conversely, should conditions develop requiring expansion of reserves, they could be increased through open-market operations. The Board of Governors believes that the action taken at this time will give assurance for the continued encouragement of full recovery.

The questions concerning Federal Reserve bank credit policy which remained after this change in reserve requirements of midsummer of 1936 were: Would the more traditional devices of open-market operations and rediscount policy be sufficient thenceforth, especially since reserves continued to increase, or would a further increase in reserve requirements or some other action become necessary? If the latter, would the remaining 50% allowed by the law be sufficient? That is, would the existing power of the

already stepped-up credit control machine be adequate, and would it and could it be exercised wisely? On the other hand, how long would the factors contributing to a potential credit inflation, such as gold imports and governmental borrowing and expenditures, continue to operate on so large a scale? In short, what would be the future of the internal monetary policy?

THE INTERNATIONAL ARRANGEMENT

Meanwhile, attention was soon spectacularly shifted from primarily internal monetary measures and policies to primarily external ones. On September 25, 1936 the United States Treasury announced the conclusion of an understanding with France and Great Britain, which might be adhered to by still other countries, by which the monetary authorities of these nations would definitely co-operate in the maintenance of 'equilibrium in the system of international exchange'; and this was followed by an announcement of October 12, 1936 regarding gold flows for that purpose. Gold would be released for sale to the stabilization funds of countries reciprocally co-operating. The tripartite understanding was a very limited and a very flexible affair. Its effects upon the monetary policies of many other countries were striking, and these will be seen further on in the present study. Its internal effects were less clear. Some observers hailed it as involving a reversal or at least a halt in the internal monetary policy of expansion. In any immediate sense this was at least an exaggeration, although the implications are interesting. But for purposes of convenience, if not of great accuracy, the event marks off an interesting period in the history of the American dollar, an approximately four-year period that might be roughly characterized in the phrase 'from devaluation to stabilization.'

THE GOLD STERILIZATION PLAN

There remained, however, the problem of large net inflows of gold and their possible effect upon the internal monetary system. All of the previous measures failed to solve this problem. True, all of the gold coming into the country became the property of the Government, but this did not insulate against its influence. For example if a Federal Reserve bank received gold from abroad it had to transfer it to the Treasury, which in turn issued gold certificates against

the gold it so bought. While these certificates did not enter into circulation the gold inflows thus continued to widen the credit base.

The English system, though not so much troubled with large gold inflows, had substantially solved this problem of insulation or offsetting as between the external gold and exchange transactions and the internal credit structure.[13] The exact transactions of the Equalization Account are kept secret, but its technique of operation is now fairly familiar. Taking a case, for example, even before the international arrangement of September 1936, when the demand for sterling was strong, the Account would sell Treasury bills for sterling and with this sterling would buy francs, which would be converted into earmarked gold at the Bank of France. The sale of the Treasury bills took funds out of the market and prevented short-term capital inflow from increasing bankers' balances. Gold might be bought or sold in London in order to influence the price of gold. A double effect could thus be obtained—an influence upon the exchange rate and the price of gold, and an influence in the desired direction upon the internal credit situation. From time to time the Bank of England would buy gold from the Account (which is under the Treasury) or in the market, in order to increase bankers' balances or to provide a basis for increase in note circulation; and the reverse could be done. The amounts of gold held by the Account not so absorbed by the Bank of England for internal purposes were earmarked by the Account as reserve against future outflow of capital funds. Thus through the instrumentality of the Account and the Bank of England, *control could be exercised over the foreign exchange* (and the violent short-term capital movements affecting the exchange), *and* at the same time *over the internal currency and credit, in either direction, through purchase or sale of Treasury bills.* The essence of the technique, therefore, was to provide a more adjustable use of a secondary gold reserve, to accomplish desired purposes with respect to both foreign exchange and the internal monetary situation, and in doing this to set up a *flexibly controlled buffer between the external and internal processes.* It was a somewhat similar device which was now added to the American monetary machine.

13 Cf. Hall,N.F., *The Exchange Equalization Account,* London, 1935. Also, League of Nations, *World Economic Survey,* 1935–36, Geneva, 1936, p.271; and Bank for International Settlements, *Sixth Annual Report,* p.14.

On December 22, 1936 the following announcement was made: [14]

'The Secretary of the Treasury, after conferring with the Board of Governors of the Federal Reserve System, announces that he proposes, whenever it is deemed advisable and in the public interest to do so, to take appropriate action with respect to net additional acquisitions or releases of gold by the Treasury Department.

'This will be accomplished by the sale of additional public debt obligations, the proceeds of which will be used for the purchase of gold, and by the purchase or redemption of outstanding obligations in the case of movements in the reverse direction.'

The President had already made reference to the need of doing something to prevent 'hot' money from threatening the American monetary structure. With the announcement of the new plan, the monetary authorities were reported to have pointed out that they were still pursuing an 'easy' money policy for purposes of continued economic recovery, and that, in case of further danger of undue credit expansion through excess reserves, they still had the power, without further legislation, (1) to increase by a further 50% the reserve requirements, thus 'sterilizing' about two billions of dollars of reserves—which, it was indicated, they were likely to do in the near future, and (2) through open-market operations to sell the $2,430,000,000 of government obligations held in the System's portfolio. But, it was remarked that the new plan means 'that further gold imports and newly mined gold will no longer become excess reserves,' and that '*gold exports*, acquisition of newly mined gold, *and gold imports*, can be undertaken *without repercussions in our domestic credit system*.' It was remarked that before August the upper limit of actual credit inflation had been about thirty billions of dollars (at a ratio of 1 to 6 or at most 1 to 8), and that now this figure would be, at most, about sixteen billions of dollars, and that, through the new gold sterilization plan, the credit structure could be protected against undue expansion resulting from increases in the gold stock—or, of course, in the as yet very unlikely event of a large *outflow* of gold, could be regulated in such a way as to prevent undue credit contraction.

Thus evolved the new American monetary machine, with greatly increased features for flexible control of both external and internal processes. With throttles and brakes, with high, low, and reverse

14 Treasury Department, Press Service No.9–20.

gears, it differed considerably from the old monetary horse-and-buggy contraption. But it had a large proving ground, and the portion of this which it had already traversed can be examined somewhat.

Looking back over this period of great innovations, if not experiments, in dollar policy, the next question which arises is therefore—what have been the actual results of the policy? Does such a policy have the anticipated effect, or little or no effect, or does it lead toward a too extreme effect? And meanwhile what are the theoretical hypotheses which may lie behind such a policy or which may be suggested by it, and which must be borne in mind in considering effects? Consequently the next step is to refer somewhat to monetary theory, whereafter some empirical analysis may be undertaken—with principal reference to the internal situation. After that the study can move on into the larger international backgrounds and theories and effects, and into the whole question of international monetary relations, including possible stabilization.

Chapter III

MONETARY THEORIES

In addition to the various rules governing the technique of operation of a monetary system there are of course many 'pure' theories of money. These undertake to explain the nature and functions of money, although they do not necessarily endeavour to say how money *should* function or to indicate what policies will best permit natural functions of money to express themselves. To examine in detail the great variety of theories of the nature and functions of money would be interesting enough, but obviously is not the purpose here. Rather the purpose is to turn to the field of monetary theory and to notice only briefly some of the principal types of concepts to be found there, especially in their less abstract forms, in order to see what bearing they may or may not have upon monetary policy in general, and in particular upon the policy which is the subject of the present study.

This is not an easy task. But, if some of the existing body of monetary pure theory may seem to have little or no direct bearing, in a positive or a negative way, upon existing monetary practice and especially upon the striking current changes and experiments in money, then either they must contain an element of unreality, or, what is equally possible, there is a considerable degree of failure on the part of those who expound the doctrines or of those who fashion the policies, or both, to provide a desirable nexus between the two. Such a conclusion alone would be a useful one and might suggest further efforts looking toward a more fertile union of theory and practice. There is an important place for pure theory; but if, in a field such as this, it remains too remote from realistic demonstration it tends toward intellectual recreation; while, on the other hand, practice fails if it does not, in greater or less degree, benefit from the discoveries of 'pure truth.'

Moreover, it will probably be admitted that after all in current monetary policy some fundamental concepts are immediately or remotely, sharply or vaguely, in mind; and this must be especially true when great changes are made, even if the changes are experimental. But of course it is another matter to ascertain which concepts these are at a given time.

Some of the major obstacles to trying to discover a relationship

between monetary theory and monetary policy are thus apparent. One is the problem of applicability of theory to practice. Another is the difficulty of discovering what single concept or perhaps what several different concepts are in mind or even implied in a given policy. A third is not only that so many of the concepts are controversial or even contradictory one with another, but that different theories stress different functions of money—and the same may be true also of policies.

For general purposes it may be sufficient to say simply that money does have different functions. But for present purposes it becomes necessary, not to explore this question at length, but to notice briefly the principal categories of monetary theory from the functional point of view, in order to see what relation they may or may not have to policy formulation, expressly or by implication.

FUNCTIONS AND VALUE OF MONEY

The general functions of money are quite familiar. They are, to serve as: (1) a medium of exchange; (2) a common denominator of value ('unit of account'); (3) a store of value; (4) a standard of deferred payments. At the very outset, the objectives of a given monetary policy may involve different ones of these functions. For example, lowering the value of the unit of account in order to restore a former ratio in long-term debtor-creditor relationships is one thing; whereas trying to increase prices in order to increase profits and thereby stimulate production is quite another thing. These two cases are mentioned because they both seem to have been involved in the dollar experiment.

It does not here matter particularly which function of money was the original one, nor, perhaps, whether some of the functions are historically derivatives of others. But it is important to observe that a good many differences in the *theories of the value of money* turn on the question as to which function is the fundamental one—especially as to whether it is the medium of exchange one or the unit of account one.[1] The medium of exchange theories have been classified to include (a) those that view money as primarily a valuable commodity which has its value because of its 'intrinsic content' and which came then to serve as a medium of exchange,

1 The classification of theories followed here is that of Gregory, T.E., in 'Money,' in *Encyclopædia of the Social Sciences, op. cit.*

and (b) those that attribute value to money because it was selected to serve as a medium of exchange. The unit of account theories have been divided into three groups: (a) those which see in the embodiments of the unit of account a value independent of its function as a denominator of value (a kind of intermediate view); (b) the 'claim theories,' or 'debt theories,' which consider that money is an objective representation of debts and of means of paying them, and that it derives its value as a quantitative ratio between itself and such claims (Cassel, Schumpeter, Hawtrey); (c) the state theory of money, associated chiefly with the name of the German economist Knapp, which views money as an instrumentality of the state and as possessing value as such. It would appear that increasing emphasis has been placed in recent times upon these unit of account theories, including the state theory. The last-named is of special interest in the present connexion, and is a theory which possesses, up to a certain point, at least a considerable validity. The modern state issues currency, can change the unit of account, can determine legal tender of coins, can make legal (sliding scale) adjustments in debtor-creditor relationships during a period of currency change, can influence the value of the material content of money such as gold, and often goes far in regulating the volume of bank credit money. On the other hand, the concept is often attacked on the ground that real monetary results are determined by the nature of the monetary acts of the state and not by the fact that they are acts of the state. This theory is of some special interest in connexion with present-day monetary experiments, suggesting, to the extent of its validity, not the purposes of the experiments, but the formal degree of their possible extension.

PURCHASING POWER OF MONEY

Theories may be further classified according to how they explain *the purchasing power of money* and changes in that power. For this purpose they have been divided into three categories: (1) cost theories, which relate the (labour or other) cost of production of the money material to the purchasing power, and which are often blended with quantity theories; (2) quantity theories, which have the purchasing power of money vary inversely with its amount or supply—that is prices vary directly with the quantity of money.

In its simplest form such a theory is derived from general supply and demand theories of value. But it has been objected that money is not like other commodities, in that the objective value of other commodities results from their subjective value, while money, having no utility except its ability to purchase other commodities, can have a subjective value only derived from its objective value. Consequently some writers have placed money in a separate category from other commodities, without any marginal utility. (3) There are also the marginalist theories, which include the 'cash balance' or 'holding' theories (von Mises, Marshall, Pigou), and the various forms of 'income theories' (von Wieser, Hawtrey, Keynes). These theories allow for (or assume) a marginal utility for money; money would then have a demand as well as a supply function. These latter theories vary greatly in their form and terminology, and at the present time are undergoing a great deal of speculation and reformulation at the hands of different writers, some of whom (such as Keynes) differ greatly from others in their beliefs regarding other aspects of monetary theory. For example Keynes attacks the gold standard and others support it. But the general nature of the income theories may perhaps be fairly well illustrated by the familiar version of Hawtrey. Without, by the way, divorcing the quantity concept, this version terms the total of money incomes 'consumers' income,' the total of money expenditures out of this 'consumers' outlay,' and the difference between the two the 'unspent margin.' The unspent margin does not include savings because savings are viewed as investments and thus as expenditures, not of course for consumer goods, but for fixed capital. The unspent margin is 'the total stock of the means of payment in the hands of the community,' the aggregate of currency and bank deposits. Generally speaking, under the cash balance and income theories the price level may change either as a result of changes in the supply of it or as a result of changes in the desire to hold money; and, accordingly, an increase in the amount of money may not necessarily affect prices but may be neutralized by such changes in money holding. Among the objections to such theories are the arguments that there can really be no such thing as elasticity in the demand for money, and that, in versions where this is assumed, money savings do not necessarily correspond to real investment in the sense of addition to capital wealth.

THEORIES AND MONETARY CONTROL

From still another point of view, however, the different monetary theories may be placed in two broad categories according to their implications regarding monetary policy. The first category assumes that if money performs as indicated it will automatically serve as a balancing agent, or play its part among various balancing agents, in restoring an equilibrium among the various economic factors and forces—and such equilibrium is (or was) assumed to be never *very* greatly disturbed, because of the quick action of the restoration process. In such a view, in its barest form, nothing needs to be done about money, except to set up a money system and to let natural forces govern its operation. This view, at least in Anglo-American pre-war thinking, especially assumed the quantity theory of money in its passive form, and the use of the gold standard as the key to the automatic maintenance of the equilibrium. Occasional disputes arose over problems of note issue and central bank policy, but these were minor problems, and could be left largely if not entirely to the correcting influences of free gold.

The second category includes those theories that discard the automatic mechanism, and call for an active monetary control. These theories vary greatly in the degree of monetary control called for, and in recent times they have evolved rather steadily in the direction of what is now called money management, and, many of them, away from the automatic gold standard. Interestingly enough this classification cuts across the grouping of theories of purchasing power. Thus the quantity theory of money, often an essential part of the automatic theories, here frequently becomes an essential basis for the managed system. Perhaps the most important feature of the active-money-policy theories is the belief that economic change does not consist of minor variations round a static, or perhaps dynamic, equilibrium, but runs in terms of major disturbances and fluctuations which will not correct themselves but must be consciously corrected. This does not necessarily involve an assumption of business cycles but it moves strongly in the direction of what are ordinarily considered cycles—whether they be really cyclical or not. This in turn raises the further fundamental question whether these major fluctuations and disturbances are considered to be caused by monetary factors,—the 'money

cause' school. If the former, the whole problem of money tends to resolve itself into a 'cycle' or, more accurately, a major-fluctuation problem. There is a considerable tendency at present to view the problem in this way.

These questions being as significant as they are, it is important to examine a little more fully: (1) the quantity theory of money in its active form as a proposed basis for stabilizing prices through regulating money; and (2) business cycle theory as it involves monetary explanations and possible monetary remedies.

Meanwhile the question arises as to the relation between the purely theoretical treatment of money and the gold standard, a standard against which there has been such a steady trend in recent years, and over which the greatest possible controversy has been raging. As a matter of fact this relationship is not so fundamental as might be supposed. The point might be expressed somewhat as follows. Thought about money might be classified into: (1) Pure theories undertaking to *explain the value of money*. (2) Pure theories undertaking to explain its *purchasing power*. (3) Ideas about different *monetary standards* and their respective merits. (4) Ideas, or rules evolved, concerning the *operation* of a monetary system, as for example concerning reserves, and central discount policy and open-market operations where bank credit is an important part of a monetary system—as it is in the leading nations. (5) Ideas as to what are the proper or desirable ends of monetary policy, such as the stability of the money, the stability of prices, the use of money to restore a former prosperity or perhaps, indirectly (it is supposed) the redistribution of purchasing power among different classes. Of course these purposes, as suggested above, would fall into two groups: (a) negative ones, on the assumption that if the proper system is in existence all processes would be self-adjusting; (b) deliberately positive ones where there is no such assumption.

This is not to say that these categories of ideas are not interrelated. In traditional thinking they are usually interwoven, especially perhaps with regard to the second and third types mentioned. Indeed, the so-called classical theory, especially in its earlier versions before the war, linked together certain ideas about prices, the purchasing power of money, and the gold standard; and in it free gold was so essential that if this was removed from

the reasoning the whole scheme, theoretically as well as practically, would fall. But this theory and its application to policy can best be viewed in its international entirety, and will be so examined in a later chapter.

However, as an illustration of the fact that certain theories concerning money value or purchasing power do not necessarily involve certain given ideas about operations and purposes, it may simply be remarked that the quantity theory of money has served as a part of the reasoning of those who favour an automatic gold standard and also has been recommended as providing a tool for the accomplishment of a tabular or highly managed system.

It is difficult to discern just what monetary ideas, of different kinds, have been present in the dollar experiment. Certainly it would be impossible to appraise the exact extent to which they have influenced the various measures outlined above and here the subject of analysis.[2] Moreover, the theories and degree of influence no doubt have shifted somewhat throughout even this brief period of monetary experimentation. Broadly, the background of the monetary measures might be summed up as follows: (1) Regardless of any precise reference to theories regarding the value of money, a general belief that monetary policy should and can be used as an active agent of recovery and perhaps also reform. (2) An apparently well-supported conviction, in the beginning, that the familiar older methods of central bank credit-control, such as regulation of discount rate, open-market operations, and liberalization or otherwise of the terms and types of loans, had become at least temporarily inadequate to relieve the depression. (3) Assumption of the quantity theory of money in some form or version that would not point to governmental inactivity but rather would justify the deliberate use of monetary change as a positive and active device. (4) Some use, experimentally for a time (during the 'gold purchase plan'), of the idea of close correlation between price of gold, value of money, and commodity prices. (5) Some cognizance, perhaps in mixed and random form, of various ideas derived from different

2 For a great variety of views by various American economists and officials concerning the gold and monetary problem, *vide The Annals of the American Academy of Political and Social Science*, an issue devoted to 'Banking and Transportation Problems,' January 1934; and *Proceedings of the Academy of Political Science*, an issue devoted to 'Money and Credit in the Recovery Program,' vol. xvi, No.1, April 1934; *vide* also *Publications of the Academy of World Economics*, issue on 'Gold: A World Problem,' December 1, 1932.

business cycle theories—this taking expression less in the monetary measures and more in the supplementary measures (such as public works) designed either to affect bank money indirectly or to assist heavily in bringing the results sought by the monetary devices themselves. (6) A renewed appreciation, more recently, of the possible usefulness of the familiar central bank theories mentioned above, but with modifications and adaptations looking toward still greater and still more centralized and arbitrarily flexible devices for their implementation. (7) A willingness to move as much away from the gold standard, at least in its old form, as might be necessary. A good many other ideas, such as remonetization of silver, were probably not an integral part of administrative thinking, but were rather incidental or in some cases injected into the administrative monetary actions as a result of political expediency. Throughout, of course, ran the theme of managed money. Also throughout runs the unanswerable question whether the changes were to be permanent or temporary. Most of the evidence indicates that there was no decision on this. The matter was literally a monetary experiment.

Obviously some of these ideas, such as some of those having to do with bank credit policy, were based more upon practice than upon pure theory. But the quantity theory of money, the gold-dollar-price concept, which in a sense is part of the quantity theory but in somewhat distinct form, and the scattered elements of cycle theory which may have been present, deserve some attention in this connexion.

THE QUANTITY THEORY OF MONEY [3]

Without exploring this theory exhaustively, a few basic comments may be made. This is an aspect of economic theory which presents

3 Professor Fisher's version of the quantity theory of money is probably the most widely known one in the United States and also the one upon the basis of which he and other writers have advocated the 'stabilized dollar' or 'tabular standard,' and (not necessarily the same thing) 'currency management.' It is curious to note that, despite the place of the quantity theory in 'classical thought,' many 'laissez-faire' economists have rejected Fisher's version (with its 'equation of exchange,' derived from Newcomb, of $MV + M'V' = PT$), and also that he himself, though consistent in advocating a 'stabilized dollar,' has apparently changed his mind concerning business cycles—once believing there are cycles, and latterly denying their existence. *Vide* Fisher, Irving, *The Purchasing Power of Money*, N.Y., 1911, as against his 'Our Unstable Dollar and the So-Called Business Cycle' in *Journal*

several paradoxes: (1) The quantity theory is, in one form or another, an essential part of the general body of 'English classical' thought, the whole practical purport of which is 'laissez-faire'; thus the natural, automatic equilibrium restoration cannot occur without it. But certain versions of it, curiously enough, here become the fundamental basis and asserted justification of 'governmental interference' in the form of money management. (2) What is in a sense the same point, the pure quantity theory assumes that money is a passive and colourless medium, and yet when it is adopted as a basis for money management money is necessarily assigned a role of control, frequently an active and positive role. It does not matter greatly in this connexion if some assert that their purpose is to 'make money follow, not lead' in making the monetary adjustment to the needs of the economic process. Money is still, in such a scheme, an agency of governmental adjustment. (3) It is, not alone in practice but in theory as well, impossible to exclude, or conceive of the exclusion, of some governmental activity, since currency must be issued by the Government or under its direct auspices, to say the very least. Broadly speaking, then, and without the need of any closer analysis, here are fundamental inconsistencies, which in turn no doubt help to lead to the great amount of confusion in monetary discussions, and this without criticizing the still more fundamental aspects of automatic equilibrium theory, such as the concept of economic processes as natural and political ones as artificial—which fundamental aspects, by the way, are too often obscured by the attenuated mental speculations arising out of primarily arbitrary, and debatable, major premises. Thus, in all common sense, the advocates of complete non-governmental activity in monetary matters are in the position of advocating that which is both practically and theoretically impossible; and the problem becomes in last analysis one of degree and type of monetary policy rather than one of no monetary policy at all. True this does not serve to simplify the problem, but it does leave it open to

of the American Statistical Association, vol.xx, June 1925, pp.191–198; also his *Stabilizing the Dollar*, 1919, *The Money Illusion*, 1928, and *Inflation?* 1933.

Note criticisms of the equation of exchange, for example: (1) by Mitchell, Wesley C., in his *Business Cycles, the Problem and its Setting*, N.Y. 1928, pp.116–154, who points to the time lag between the different items in the equation and (2) by Anderson,B.M., who, in an article which will be mentioned below, makes a computation attempting to prove that statistical facts do not conform to the equation.

more realistic, if perhaps to more difficult, treatment. Nor do all the various refinements introduced from time to time, such as the recognition of the part of currency velocity and credit velocity, alter these fundamental aspects of the problem.

The concept of the exact correlation between gold supply and money supply and prices [4] is perhaps not open to any entirely distinct basic criticism beyond the ones just mentioned concerning the quantity theory, of which the gold-money-price idea is in such a version essentially a part. One may recall, however, that a relatively small part of the money used in present-day credit economy is currency, and that the influence of gold upon credit money, while existent, is not and cannot be exact, since bank credit is also subject to central bank policy as well as to other influences.

Further related difficulties in the establishment of a basis for money management exist, especially when one moves from theory toward technique. Here the familiar 'equation of exchange' of Irving Fisher may be taken as a point of departure; this is a matter of convenience, and it should be borne in mind that Fisher, though advocating a 'tabular standard' thus favours a 'passive' rather than 'active' money management. That is, he apparently favours adjusting money currently to stabilize it in terms of price, but this is not the same thing as making sweeping changes in money so as to *drive* prices toward some particular level. The equation, it will be recalled, is $MV + M'V' = PT$, where M = currency, M′ = credit (bank deposits), V = currency velocity, V′ = credit velocity, P = price (level) and T = volume of trade. Ignoring all the difficulties of actually measuring V and V′ and T, attention may be directed to P. It is obviously this factor which is either (a) very important in verifying the equation, or (b) similarly important if one seeks a 'passive' management which will cause money to conform to trends in P and/or to needs of T, or (c) peculiarly important if one undertakes a basis for an 'active' money management wherein money leads and business follows. Some of the difficulties both in arriving at P and/or in employing it as an exact

4 For one of the fullest treatments of this assumption, by authors who defend it, *vide* Warren, George F., and Pearson, Frank A., *Gold and Prices*, N.Y., 1935. These authors, and especially Dr. Warren, had written on the subject previously, but this is their latest and doubtless more complete presentation. Dr. Warren was an adviser to the administration during the operation of the 'gold purchase plan,' and is generally considered to have been the author of that plan.

tool for money management are: (1) The technique of commodity price index construction is as yet imperfect (e.g., the problem of assigning weights for the relative importance of different commodities). (2) P is a composite, and the various commodities which enter into it may, and as shown by statistics do, vary greatly in their behaviour; and the variation is not only by commodities but also by place. Critics have even called the general price index 'a mere mathematical expression.' [5] Consequently money management so based cannot assure an *even* and *regular* effect upon different industries or different economic processes (e.g., some prices more directly affect equipment production, some consumers' goods, etc., or e.g., differences between imports and exports, etc.). (3) Thus far, in practice P is merely an all-*commodity* price index, and does not take into account the prices of services, or such basic things as the prices of the factors in production, e.g., wages, interest, etc. The price index is thus very incomplete. On the other

5 This difficulty has long been recognized. Ricardo wrote: 'It has indeed been said that we may judge of the value of money by its relation, not to one, but to the mass of commodities. When we consider that commodities are continually varying in value, as compared with each other; and that when such variation takes place, it is impossible to ascertain which commodity has increased, which diminished in value, it must be allowed that such a test would be of no use whatever. . . . To determine the value of a currency by the test proposed, it would be necessary to compare it successively with the thousands of commodities which are circulating in the community, allowing to each all the effects which may have been produced upon its value by the above causes. To do this is evidently impossible.' (*Ricardo's Works*, McCulloch edition, 'Proposals for an Economical and Secure Currency,' p.400.)

J.S.Mill expressed the same thought (*Principles of Political Economy*, Book III, Chap.24, paragraph 1):

> Not only has this fixed idea of the currency as the prime agent in the fluctuations of price made them shut their eyes to the multitude of circumstances which, by influencing the expectations of supply, are the true causes of almost all speculations and of almost all fluctuations of price; but in order to bring about the chronological agreement required by their theory, between the variations of bank issues and those of prices, they have played such fantastic tricks with facts and dates as would be thought incredible, if an eminent practical authority had not taken the trouble of meeting them, on the ground of mere history, with an elaborate exposure. I refer, as all conversant with the subject must be aware, to Mr. Tooke's *History of Prices*. The result of Mr. Tooke's investigations was thus stated by himself in his examination before the Commons Committee on the Bank Charter question in 1832; and the evidences of it stand recorded in his book: 'In point of fact, and historically, as far as my researches have gone, in every signal instance of a rise or fall of prices, the rise or fall has preceded, and therefore could not be the effect of, an enlargement or contraction of the bank circulation.'

For a recognition of the same point by an expert in economic statistics, *vide* Snyder, Carl, 'Commodity Prices versus the General Price Level,' in *American Economic Review*, vol.xxiv, No.8, September 1934, pp.385–400.

hand if it could be and were enlarged to include all non-commodity prices, such as those of the factors, the question would arise whether a formula based on it might become a mere truism, neither throwing any light on money function nor offering any key to money control, since those managing the money would be unable to single out those parts of the formula which they wished to influence. (4) A further difficulty arises regarding T, a difficulty which has not been sufficiently recognized. Trade, like money, has a velocity as well as a volume. Some economists, realizing this, have said, however, that this is impossible to measure. One writer [6] has rather vehemently condemned economists who so state, and has confidently put forward as a basis the ratio between physical volume of sales of goods and physical volume of goods intended for sale. But this seems to miss the point, because the real object is to see not how much of the goods for sale is actually sold but rather the *turnover* of goods; and a further almost insuperable difficulty is to ascertain this turnover in total (or average) as obviously the turnover is much greater for some goods than for others. (5) If the formula be used for positive control,[7] say to restore U.S. 'prices' to their 1926 level, it must be assumed that the inter-relationships of the relative equities within it were 'normal' or 'ideal' at the some one time (say 1926) toward which the positive control decides to move. But the relationships at that time or at any time, may not have represented a true 'equilibrium' in the 'classical' sense or an 'ideal' in the ethico-economic sense. For example, this difficulty affects any attempt, on such basis, to alter the propor-

6 Marget,A.W., in *The Quarterly Journal of Economics*, vol.xlvii, No.1, November 1932, pp.1–35.

7 It would not be very useful here, in considering largely short-time phenomena, to explore fully the various aspects of the ideas and estimates concerning the long-run ratio between gold production and prices and 'normal increase in trade.' Those who believe in the validity of this correlation usually estimate a 'normal' annual increase of 2% to 4%, or, frequently, 3%. For discussions of this matter, *vide* Warren and Pearson, *op. cit.*, and League of Nations, *Final Report of the Gold Delegation*, also Phinney,J.T., 'Gold Production and the Price Level: the Cassel Three Per Cent Estimate,' in *Quarterly Journal of Economics*, vol.xlvii, No.4, August 1933, in which this latter writer critically reviews the ideas and estimates of Cassel, Sauerbeck, Kitchin, Keynes, Lehfeldt, and others. Some think that if the long-run annual increase in the need for money is 3%, this should be reduced to say 2½% because of the increasing use of substitutes (e.g., credit) for gold money. Relative velocity also would affect the problem. But this whole question has little use in the present study because one is here dealing with the special problem of recovering from a depression, and also because of the great extent to which gold has now been unharnessed from its money function.

tionate shares of national income received by the various 'income groups.' [8] Also, if price inter-relationship *were* ideal in the 'ideal period,' one cannot move back to that 'equilibrium' without disrupting the newer price inter-relationships which have grown up subsequently and without thus doing further damage.

Before leaving the questions considered above, a further reference should be made to the velocity function. Money velocity in the past has been usually thought of as 'exchange velocity,' or 'transactions velocity,' and was so used in the equation of exchange just discussed. Thus bank credit might have an annual turnover of, say, some 20 or 30 or 40 times. Recently, however, some attention has been given to a quite distinct concept, namely the rate of turnover of money against national income, (a turnover rate annually of say 2 or 3 times) which is sometimes referred to as the 'circular velocity' of money,[9] or 'income velocity.' [10] Some estimates of income velocity in the United States will be noted in the next chapter. Angell considers the average circular velocity as the average number of times (in a given period, say a year) the money stock passes from consumers to producers and, through production and exchange, back to consumers, i.e., serves the national income process; it is the money volume of general economic activity. He distinguishes between active money (money currently used in producing and exchanging goods and services), and idle money or idle balances; the idle balances probably increase at least relatively in times of depression. Statistical estimates covering a considerable period, beginning in 1909, suggest that the annual fluctuations in

8 An interesting attempt to show, very precisely, the inaccuracy of the equation of exchange, by examining the phenomena 'after the fact' was made by B.M.Anderson, in an article on 'Commodity Price Stabilization a False Goal of Central Bank Policy,' in *The Chase Economic Bulletin*, issued by the Chase National Bank of the City of New York, vol.ix, No.3, May 8, 1929, pp.22–24. By taking Fisher's equation of exchange, and applying it to statistical facts for the period 1919–28, and using 1919 as a base year, he concluded that, whereas by the formula P should have been, in 1928, 128.5, it was actually only 70.4. But, while Anderson explains carefully his methods of constructing the indices, these methods are open to controversy. For example he apparently assumed a constant velocity for currency, which some would refute, and his construction of T is open to criticism, especially in that apparently it does not allow sufficiently for trade velocity. The methods are probably too debatable to use as a check against the recent monetary policy.

9 Angell,J.W., 'Money, Prices and Production: Some Fundamental Concepts,' in *Quarterly Journal of Economics*, November 1933, and *The Behavior of Money*, N.Y., 1936, Chapter 5, and subsequent articles.

10 League, *Money and Banking*, 1935–36, Vol.I, pp.30–38. The term 'income velocity' seems more expressive of the concept.

the national money income correlate more closely with the quantity of circulating money than with its circular velocity. The implication seems to be that the money quantity is more determined by (or is more of a determinant of?) economic fluctuations than is the circular velocity. If the reasoning (not traced here) admits a place for monetary control of general economic fluctuations, such control would therefore stress volume—a point to bear in mind in the consideration of money and cycles in a subsequent section of this chapter. But velocity, of both the exchange (transactions) and the income (circular) type, is still considered by most observers to be important in the fluctuations problem, and this will be considered statistically in the next chapter.

Returning to the question of prices, their failure to correspond accurately to deliberate changes in volume of money made by the present administration will be shown in the following chapter. An important point in this connexion is that the administration found it possible to expand the total supply of money, at least to widen the base for its creation, but did not find it possible to increase the velocity. An argument—and this would constitute a political excuse as well as an economic argument—has been advanced that the monetary control was not begun at the right time. The depression had already run too far. It is just possible that if monetary management can and is to solve a depression problem it should begin at the start of the decline and not several years later, or better, one might say that the management should operate over a long period in order gradually to get the phenomena, throughout both upswings and downswings, adjusted to the control.

At this point, then, the need is to draw some tentative conclusions regarding the quantity theory and its usefulness for money management. These may be suggested as follows: (1) The quantity theory of money has a paradoxical place in general economic theory, being accepted by 'classicism' but rejected by it when presented as a basis of money management. (2) When converted into a formula to serve as a basis for monetary policy, of either active or passive type, such a formula both (a) encounters many difficulties in concept and technique and (b) finds itself beset by important and in some respects vital limitations, not alone with regard to accuracy, but also with regard to objectives which may be obtained. (3) It especially fails to meet the problem of relation-

ship of equities within the price and debt structure. (4) At the same time, as scarcely any one would or could advocate a complete absence of monetary policy, it serves as a point of departure in experiments in monetary control. (5) The formulas to which it has led may perhaps be subject to further refinement in future. (6) In control practice, of all the difficulties, that of regulating or even influencing velocity of money by monetary measures is probably the greatest, and this difficulty might conceivably be partly overcome by devices yet to be discovered. (7) Although this point robs the theory of its very essence, it may be suggested that, in effecting an active monetary policy, *price may not be so important as has been assumed*, and if one looks beyond price to the real ends sought it may conceivably, for some purposes, be eliminated and emphasis be placed simply upon a sufficient supply of money. For example, if the objective is to bring about a greater volume of business—more production and/or more consumption, *per se*, does this hinge on price? If not, one would still have a general concept of money and an end to be reached or pressed toward, and thus, at least roughly a general mode of approaching the problem. If currency and credit volume be controlled, as it probably can be, at least roughly, and if some method be discovered for controlling its velocity, this might conceivably serve to affect trade (T in the formula) without a variation in price—although this would of course lead to a new formula. Is there, after all, any ultimate reason why trade, and all that lies behind it, *must* move up or down with price change, once the concept is abandoned that the whole economy is ruled by price in an inevitable way?

The most fundamental question in the whole problem of money and price is whether and how price changes are desirable. Is the stability of money in terms of prices, or the stability of prices in terms of money, the desired goal? About this point there appears to be a good deal of unnecessary confusion in discussions of stabilization. The real contrast between the two should be clear enough. In the classical theories and under the older monetary system the essential doctrine was that prices should be permitted to fluctuate in order that the automatic adjustment of the equilibrium could always be taking place, and that money should not fluctuate. A further debatable argument is that price flexibility is necessary in order to permit technical progress. The essence of the opposite

idea is to stabilize price (i.e., the price level) and to control money so as to give it constant purchasing power. But a third idea arises in the recent monetary experiment. The idea is one of control of money, but this is an active rather than passive control. The idea is not to stabilize prices but to change them, to restore them to a certain level deemed to be desirable. True, after that level were reached, then the objective might be to maintain it. But control to change is different from control to stabilize. Moreover, the possible effects of increasing prices must be borne in mind. The well-known tendency for 'the price of the factors,' at least of wages, to lag behind that of commodities introduces the familiar increasing of the profit gap, which in turn tends to stimulate production. This may be, temporarily, a definitely desired end. But if carried too far *on such a basis* there is the danger that it may be temporary, may spiral, and lead to another reversal. Thus a control of the price level looking toward a substantial change in it could properly be at best only a temporary policy in overcoming an existing depression, and should envisage a real and permanent stabilization as soon as the change has been effected. Meanwhile, the question arises, from the internal point of view at least, whether there should be any upward change, or any change at all, for the following reason. An increase of the price level may be considered a desirable purpose in order to stimulate profits and thereby production—and thus to bring recovery. But it may also be argued with equal validity that low prices will stimulate consumption and thereby production—and thus bring recovery. This problem cannot be fully viewed except in the light of the external as well as internal situation; the appraisal of the purchasing power of a money involves measurement in terms of commodities internally and also measurement externally in terms of other currencies. But the difficulties and limitations of control of prices through monetary policy are apparent, both as a means of recovering from depression and as a means of preventing further depressions.

This suggests the final problem. Is monetary control of the price level the proper *major* control in recovery? Is there too much emphasis upon price? If the all-commodity price level is conceivably perfectly adjusted and stabilized—and the imperfections of this instrument have been seen—are the final ends necessarily achieved? Monetary ends cannot be the final ends. Money manage-

ment may bring an improved vehicle, but the final goal must be a well balanced and progressive system of production and consumption, and of distribution of wealth, although the latter becomes, under a controlled system, subject to ethico-social criteria. If a wholly or even partially controlled economy be assumed, then should not the major controls have to do with production and consumption, without primary regard for money and price, and with volume of money (especially bank credit) adjusted to serve the needs of an expanding volume of such production and consumption?[11]

As for economic fluctuations, only if their causes are primarily monetary can the monetary policy be considered the central policy. This is not to say that if the chief causes are primarily non-monetary there is not still need for monetary control, for monetary factors may be secondary yet powerful in their disturbing influences. However, this leads on into the question of business cycles and the place of money in their explanation and possible prevention.

MONEY AND CYCLE THEORY

If the problem of money begins and ends with price, in a simple relationship, then no further theoretical considerations are necessary. But money is assigned an important role in several of the cycle theories, and it is worth while to give brief attention to this question.[12] A few elements may first be recalled.

The time of emergence of cycles in the history of economic organization is open to question. Mitchell says:[13] 'Trade crises must be as old as trade itself.' This may be true, especially if cycles hinge mainly on non-monetary phenomena. But it seems reasonable to contend that they had their major emergence in the money economy and their large-scale development in the credit economy

11 The paragraphs above were written before the author had read Moulton's *Formation of Capital* and *Income and Economic Progress* (referred to below), in which the desirability of price increase is questioned.

12 The terms 'business cycle,' used in the United States, 'trade cycle,' used in England, and 'crisis' in France, are probably not as satisfactory as the German term 'konjunktur.' The first two seem to imply (even though they do not, in the mind of the careful student, necessarily involve), periodicity, and sometimes it is even assumed that all cycles are in all ways the same. The term 'konjunktur,' if roughly translated, avoids any possibility of such popular misunderstandings, and suggests merely 'conjunctures' in the sense of given combinations of circumstances at different times, each of which may be different from the other.

13 In *Encyclopædia of the Social Sciences*, Vol.III, pp.92–107.

era, or in any event that they have come forth more pronouncedly and severely in the credit economy. Certainly this would be true if they are to be ascribed, as in so many theories, to monetary causes. As defined by Mitchell,[14] upon the basis of incisive empirical experience, there are four main 'economic time series' discernible, namely (1) secular, (2) cyclical, (3) seasonal, and (4) random, and there may be also (5) long waves and (6) secondary trends, weaving in and out, and of course all these series are interactive. In types there are also (a) the specific (e.g., for one industry) and (b) the general, or the true business cycle. The cycles are recurrent but not periodic; they tend to average, according to the stage of development of the economy, about 3 to about 6 or 7 years. The same writer also offers a convenient classification of the theories, the gist of which is: (1) Physical (e.g., Jevons and Sombart). (2) Psychological (e.g., John Mills and Pigou). (3) Institutional, i.e., traceable to the workings of various economic processes, such as (a) Banking (e.g., at one time Hawtrey), (b) Savings (e.g., Hobson), (c) General Overproduction (e.g., Aftalion), (d) Specific Overproduction (e.g., Spiethoff), (e) Income (e.g., Lederer, Foster and Catchings), (f) Profits (e.g., Veblen and Lescure), and (g) Innovation (e.g., Schumpeter).

For present purposes reference will be made to only a few of those theories which turn primarily or secondarily upon money [15] or upon the flow of money income.

14 Cf. Mitchell, Wesley C., *Business Cycles: the Problem and its Setting*, N.Y., 1928, which is one of the outstanding and altogether most useful works on the subject in English; sensibly eclectic in theory, the book contains, aside from convenient summaries of different concepts, an invaluable series of chapters thoroughly covering the results of the author's many years of work in description and statistical analysis. Some of the summary of types of cycle theory given here is based on Mitchell's, as are some of the references. For other general works, especially on the history of the theories, *vide:* von Bergmann, Eugen, *Die Wirtschaftskrisen: Geschichte der national-ökonomischen Krisentheorien*, Stuttgart, 1895; and a little book, Hansen, A.H., *Business Cycle Theory: its Development and Present Status*, N.Y., 1927. No comprehensive series of specific references to cycle theory will be necessary in the present connexion.

15 It may be that the 'money cause' theories, as contrasted with the so-called 'real cause' concepts, have gained as much ground as they have because in the older (supposedly) laissez-faire system money was one of the few things in the economic order which nearly everyone necessarily admitted had to be regulated, in *some* degree, at least negatively if not positively; it was less repugnant to classical thinking, perhaps, to admit the place of monetary change as a factor producing major disequilibria and thus as a proper subject for further control, than to acknowledge violent disturbance-causes in the more basic aspects of the system itself and to make room for still further controls of other types.

In the *generalized overproduction* treatment,[16] the trouble is often assumed to lie in consumer goods industries. It is supposed that as prices rise after a depression current demand for consumer goods outruns current supply at the old prices, and manufacturers progressively order more industrial equipment, which becomes tardily but ultimately too greatly augmented; but finally there is a decline in marginal utility of consumer goods, prices for such, and then other, goods decline, and general overproduction leads to a crisis, after which the reverse process sets in. In all this price is important, but it is questionable whether the theory necessarily points to a monetary solution.

The *specific overproduction* idea [17] is best illustrated in the construction industry, which is sometimes assumed to lead other industries. When costs of construction are low much building is generated, and the industry expands; but this expansion outruns need, costs of labour and raw materials become too high, and building declines and carries down other industries. Here again no particular monetary problem is indicated, although it may be noted that in the recent economic experiments in the United States, following somewhat certain ideas of Keynes, much emphasis has been placed upon the desirability of stimulating construction, especially through public works. The purpose apparently has been to obtain whatever stimulus may thus be had to industries dependent upon construction, as well as to increase consumer purchasing power through public works expenditures. This, then, has been related to the monetary policy, though it is not a part of it. (The stream of purchasing power must always be taken into account.)

If the cycle theories just mentioned view currency and credit as simply mechanisms through which the other forces work, or at most as secondary accentuating influences, other theories give a central place to money. The simplest of these is the *banking* theory.[18] In one version, at the beginning, bankers consider that there is not

16 *Vide* especially Aftalion, Albert, *Les Crises périodique de Surproduction*, 2 vols., Paris, 1913.

17 *Vide* Spiethoff, Arthur, 'Krisen,' in *Handwörterbuch der Staatswissenschaften*, 4th ed., Jena 1925, vol.vi, pp.8–91, in addition to his earlier writings in Schmoller's *Jahrbuch für Gesetzgebung* in 1902, 1903, and 1909; and Hull, George H., *Industrial Depressions*, N.Y., 1911.

18 For example *vide* Hawtrey, R.G., *Good and Bad Trade: an Inquiry into the Causes of Trade Fluctuations*, London, 1913. In his *Currency and Credit*, 2nd ed., London, 1923, he maintains that banking systems diminish the violence and facilitate the control of cycles, but still stresses their monetary nature.

enough credit in use, in relation to their cash holdings, and lower the interest rate to encourage borrowing; this stimulates production, prices, wages, retail demand, and so on, until bankers raise their rates and depression ensues. Another version [19] stresses the idea that expanding bank credit increases nominal but not real purchasing power, because of the increase in prices, that it also redistributes purchasing power, and that it finally contracts sharply. Here, then, are definitely monetary theories of cycles, and they have the virtues of simplicity, of emphasizing credit (rather than currency alone) in an economy dominated by credit, and of offering a possible solution through central bank policy.

The *income flow* treatment,[20] reminiscent of Sismondi, in its simplest form assumes that wages make the largest part of modern income and that during prosperity they lag behind the total value of goods produced; purchasing power therefore fails to keep up with market supply of consumer goods. Various versions introduce refinements regarding prices of various types, and so on. Probably not essentially a monetary theory, this concept could have had considerable influence on monetary policy in this country. Indeed some of its advocates have so definitely outlined corrective governmental action to be taken during the depression phase, that one of them should be quoted here: [21]

> The first step will be for the Government, acting in agreement with the banks, to increase buying power how, when, where and to what extent the best available information shows to be advisable, until unemployment is reduced to its minimum. From that time on the Government and the banks will endeavour to adjust the additions to the community's buying power so that it shall always be exactly sufficient to provide an adequate market for the goods offered for sale. Their guide in this will be the price level. If the price level falls, the natural indicator of a lack of markets, they will pump in additional buying power

19 Hansen,A.H., *Cycles of Prosperity and Depression in the United States, Great Britain and Germany*, Madison, 1921.

20 *Vide* May,R.E., *Das Grundgesetz der Wirtschaftskrisen und ihr Vorbeugensmittel in Zeitalter des Monopols*, Berlin, 1902; Lederer, Emil, 'Konjunktur und Krisen,' in *Grundriss der Sozialökonomik*, part iv, sec. i, Tübingen, 1925; Foster,T., and Catchings, Waddill, *Money*, 1923; Hastings, Hudson B., *Costs and Profits*, 1923; Foster and Catchings, *Profits*, 1925; and others.

21 Martin,P.W., *The Limited Market*, London, 1926. *Vide* also his *The Flaw in the Price System*, London, 1924.

until the lack of markets is completely obviated (as shown by the price level regaining its former position). If prices rise, the signal of inflation, additions to buying power will be made more slowly (if necessary buying power will be drained out even), until the price level is brought back to 'normal,' until, that is to say, all symptoms of inflation have been totally eliminated. These measures will be applied by special offices using the best knowledge and most scientific instruments available. Supporting their efforts at every turn will be the automatic action of the psychological factor in industry, tending to be, not as now, an inflationary agency during prosperity, a depressing agency during depression, but an automatic stabiliser of both prices and markets.

This reads almost like a summary of part of the plan followed in the United States recently.

The emphasis on *profit-making* [22] deals with the expansion of demand, prices, etc., with profit-making anticipations outrunning reality. Costs rise and profit margins narrow, to the point where over-capitalization finally collapses.

There remains the *savings and investment* and *structure of production* approach,[23] to which increasing attention has been given very recently. In one version, there is a difference between loan funds and capital invested in production. The loan fund comprises total savings of individuals and business enterprise. In depressions the savings of enterprise and wage-earners decline, but those of fixed income receivers (e.g., bondholders, landlords) proportionately do not, but even rise. Consequently saving continues during depression and at least does not decline as much as investing; so that depression creates a large uninvested loan-capital fund, reflected in large bank reserves, and low interest and discount rates. But if the rates finally fall low enough, business begins to borrow, and the flow of money into investment begins. The reverse process

22 Veblen, Thorstein, *The Theory of Business Enterprise*, N.Y., 1904; Lescure, Jean, *Des Crises Générales et Périodiques de Surproduction*, Paris, 1923.

23 Tugan-Baranovski, Michel, a treatise in Russian in 1904, revised and translated in various forms from time to time into German and French, e.g., *Les Crises Industrielles en Angleterre*, Paris, 1913; Hobson, John A., *The Industrial System*, London, 1909, and *Economics of Unemployment*, London, 1922.

The reader may at this point refer to the mention of income theories of the value of money earlier in this chapter.

ends in crisis. Some believe that none of this alternation would occur if income were better distributed, especially through wages, since it is said, the bulk of savings comes from the larger incomes which are principally returns on investment.

The 'oversaving' theory evolves out of the savings and investments approach. Hobson develops this with emphasis upon the concentration of wealth in the hands of the few, whose income in prosperity rises more rapidly than their consumption, and is therefore necessarily saved, by investment in production, to the point where production outruns mass purchasing power and brings the crisis.

Some writers contrast 'savings' and 'investment.' But Hawtrey, as mentioned earlier in this chapter, makes them synonymous. It is, to him, 'unspent margin' (consumers' income minus consumers' outlay, the latter including investments) which is important. Being the amount of currency and bank credit outstanding, this provides a basis for, in part, a 'banking' theory of fluctuations—bank lending increases the supply of money; and the banks should be careful not to lend too much or too little.[24]

Keynes, in his most recent work,[25] considers current income to be the value of current output, current investment to be that part of current output not consumed or the 'addition to capital equipment which we call investment,' and in the beginning assumes an equivalence of savings and investment. But he goes on to speak of 'propensity to consume' and 'propensity to save' and 'propensity to invest,' and emphasizes the 'liquidity-preference' of capital, and *hoarding*. He views interest as the reward not of 'not spending' but of 'not hoarding' and notes 'a chronic tendency throughout human history for the propensity to save to be stronger than the inducement to invest.' It is this emphasis, in his writings, that is significant in the present connexion, and the implications are obvious. Incidentally, he minimizes what he calls the 'vaguer ideas' associated with the phrase 'forced saving.' [26]

24 *Vide* his *Currency and Credit*, already referred to, his *Monetary Reconstruction*, and his *The Gold Standard in Theory and Practice*, various editions. Apparently wise banking policy can stabilize.

25 *The General Theory of Employment, Interest and Money*, N.Y., 1936, in which he modifies or revises some of the propositions advanced in his earlier *Treatise on Money*.

26 For a controversial discussion of the true nature of 'saving and hoarding,' *vide* notes and memoranda by J.M.Keynes, R.G.Hawtrey, and D.H.Robertson, in

The 'forced saving' idea has been elaborated by some writers. Forced saving is sometimes spoken of as inflation in the form of producers' credits. That is, bank credit expansion during inflation increases savings, in investment form, without the voluntary saving action of individuals.

A special version of the forced saving idea has been blended lately with ideas of the modern Austrian school of thought.[27] This is perhaps best known in *some* of its versions as the 'neutral money' theory. As in the cases above, only very brief reference can be made to it here, and the various steps in its evolution must be ignored.

First of all it should be noted that in the savings-capital discussions there appear to be two generally opposite beliefs, (1) that capital is formed through ordinary investment saving, (2) that this is not rapid enough, or possible as a sufficient explanation, and capital is to be accounted for by forced saving. But in some versions forced saving does not become real, or at least not permanent capital, and in depression it disappears. Forced saving may thus lead to booms and depressions.[28] Rapidly sketching this theory through from its background to the 'neutral money' conclusion: (1) Von Hayek, elaborating upon Böhm-Bawerk and von Mises, posits the structure of production and the roundabout or lengthened process of production. The lengthening runs between the 'higher' stages of production (industries making what are ordinarily called producers' goods) and the 'lower' (or consumers'

the *Economic Journal*, December 1933, with reference to Robertson's article on this subject in the September 1933 issue of the same journal; this elaborates the discussions in Keynes' *Treatise on Money*, N.Y., 1930, Hawtrey's *Currency and Credit* (1923) and his later *Art of Central Banking*, and Robertson's *Banking Policy and the Price Level* (1926).

27 Böhm-Bawerk, E. von, *Positive Theorie des Kapitales*, 4th ed., Jena, 1921; Wicksell, Knut, *Geldzins und Güterpreise*, 1898; Hayek, Friedrich, *Geldtheorie und Konjunkturtheorie*, Vienna, 1929, *Monetary Theory and the Trade Cycle* (a translation of the former), *Prices and Production*, London, 1931, 'Saving' in the *Encylopædia of the Social Sciences*, vol.xiii, pp.548–552, 'Paradox of Saving' in *Economica*, vol.xi (1931), 'Capital and Industrial Fluctuations,' in *Econometrica*, vol.ii, April 1934; also various background works not necessarily advancing the same propositions, on capital formation, e.g., Harms, B., *Kapital und Kapitalismus*, 2 vols., Berlin, 1931, parts ii, v, vi, and many other books and articles, e.g., 'Das intertemporale Gleischgewichtssystem der Preise und die Bewegungen des Geldwertes' in *Weltwirtschaftliches Archiv*, July 1928, and 'Kapitalaufzehrung' in the same publication, July 1932.

28 For a partial critique of this subject, *vide* Schumacher,E.F., 'Inflation and the Structure of Production,' in Willis,H.P., and Chapman,J.M., *The Economics of Inflation*, N.Y., 1935.

goods) industries, and involves technological improvements' increasing the productivity of the original factors of production. Thus goods for immediate consumption will be given relatively lower values than future goods and the difference in these values will be set by the marginal productivity of roundabout production, i.e., by the productivity of producer capital. (2) There is also posited a 'subsistence fund,' as the total of all intermediate goods, and this fund takes care of consumption needs from the beginning of the production process until further goods become available for consumption, and its size consequently determines the length of the production process; the average length of the period of production and the amount of capital per head of the working population correspond. All this, as is well known, stresses the time and 'timing' element as it had not been stressed before; it also raises the question of the role of money. (3) The conclusion might seem to be that forced saving brought about by a positive money management (at the time of depression) which increased bank credits and injected fresh increments of capital (on the basis of some yet-to-be-devised timing formula) into the structure of production in such a way as not to interfere with, or perhaps to augment evenly, the production flow, would be highly desirable, and that this might prove to be one of the greatest and most scientific goals of modern monetary policy. Indeed, it is sometimes so argued. But this is not the conclusion of this school of thought. By adopting the idea that forced saving does not lead to *permanent* capital formation and disappears during the depression, they conclude that such forced saving is undesirable and disruptive. It overstimulates producer goods, which draw more of the factors of production away from making consumer goods; a shortage of consumption goods appears, and the crisis involves a loss of the price advantage of the higher (producer goods) over the lower (consumer goods) stages of production. Consequently the 'ideal' answer to the problem would be a neutral money, a money that would permit the order to function essentially as in a barter economy. The inference might be that banks could control the situation by proper regulation of credit and by not reducing the interest rate below the equilibrium level (natural rate). But this school apparently offers no formula for attaining a neutral money and denies immediate practical application of its theory.

This theory is controverted by others.[29] It is contended, for example, that if the difference between barter economy and money economy is that in the former contracts, and therefore costs, are in fixed units of real goods, and in the latter in money, then the barter economy is not greatly different from a money economy with a stabilized price level; and again, that the neutral money theory applies to static conditions of equilibrium and not to a dynamic situation. The true neutral money, it is argued, would be one which would permit money economy to perform as does barter economy; in the barter economy, real capital must come from voluntary saving, but in the money economy money funds (income fund and business fund) are needed to care for goods turnover. Increment of funds through money creation may logically be provided in proportion to the increase in enterprise resulting from an increasing supply of factors of production. So reasoned the production-structure-forced-saving concept, like so many other neo-classical concepts, would fail to recognize either the differences between barter and credit economy or the dynamic nature of the economic processes; and in such a view it would not necessarily preclude corrective monetary measures.

The most recent elaboration of money cycle theory is somewhat distinctive, and, in a sense, eclectic. Neisser [30] begins with the sim-

29 *Vide*, Neisser, Hans, 'Monetary Expansion and the Structure of Production,' in *Social Research*, vol.1, No.4, November 1934, pp.434–437, and 'Kreislauf des Geldes' in *Welwirtschaftliches Archiv*, vol.xxxiii, 1931.

R.G.Hawtrey, in reviewing Hayek's *Monetary Theory and the Trade Cycle*, in the *Economic Journal*, vol.xliii, No.172, December 1933, pp.669–672, attacks the latter's position, some of his points being: (1) that the price margins assumed between the different classes of capital goods 'are a mere fiction'; (2) that Hayek assumes too readily that increased bank credit becomes fixed capital rather than working capital; (3) that, in a growing community, one cannot attribute the cycle to the constant lowering, by banks, of the interest rate below the equilibrium level, because this would presumably operate continuously rather than periodically; (4) that Hayek, though insisting upon a monetary explanation of cycles, finds it necessary later to introduce non-monetary causes. Note also Keynes' *The General Theory*, pp.79–85, where he says, *inter alia:* 'Thus "forced saving" has no meaning until we have specified some standard rate of saving. If we select (as might be reasonable) the rate of saving which corresponds to an established state of full employment, the above definition would become: "Forced saving" is the excess of actual saving over what would be saved if there were full employment in a position of long-period equilibrium. This definition would make good sense, but a sense in which a forced excess of saving would be a very rare and a very unstable phenomenon, and a forced deficiency of saving the usual state of affairs.'

30 Neisser, Hans, *Some International Aspects of the Business Cycle*, Philadelphia, December 1936. Some of the phrases in the summary here are verbatim. The international aspects will be mentioned in a later chapter.

ple criterion of overproduction (in an industry producing a homogeneous type of goods) as a condition in which, for some producers, total costs (including 'normal interest on owned capital') are not covered by receipts. 'Partial overproduction' may arise in one industry, but this does not necessarily remove the 'equality' between costs and receipts; and in fact this process, for some particular industries, is going on during all phases of the cycle. But partial overproduction in a 'whole sphere' (say, consumers' goods industries, or producers' goods industries) does disturb the cost-receipt ratio. Both undersaving and oversaving, sometimes counterposed, in this version are particular forms of this (whole sphere) type of partial overproduction. In the case of undersaving, or 'capital scarcity,'[31] the supply of capital goods, it is argued, is greater than the demand for them at cost price; this demand is displayed by the savings flow (and, so far as replacements are concerned, by the business fund); a greater part of the current net income (earnings in the production of all kinds of goods) is used for 'spending,' i.e., to purchase consumers' goods, than corresponds to the portion of consumers' goods in current net output. The possible causes of the discrepancy include technical progress which concentrates the investment flow into capital goods industries, or changes in distribution of income or in scales of taste that alter the 'direction' of demand. Also, it is asserted, one of the causes could be forced savings' creating a discrepancy between production structure and expenditure structure 'in the direction of undersaving!' In the case of oversaving, the discrepancy between the structure of production and the structure of expenditure arises, but here of course the spending of income on consumers' goods is proportionately smaller than the consumers' goods output. (This blending of both oversaving and undersaving into one theory, both being forms of partial overproduction, is of peculiar interest.) Once partial overproduction becomes a relation between the 'spheres' (producers' goods and consumers' goods) whether as under- or oversaving, the 'overproduction' would be *generalized* by *deflation*, which, therefore, represents not only an accidental disturbance of the economics system due to political events or to an institutional scarcity of purchasing power,' but is an inherent characteristic

31 But this seems to be different from 'capital scarcity' as used in some other theories.

of some phases of the business cycle. ' . . . general overproduction is essentially a monetary phenomenon arising from absolute or relative deflation.' Meanwhile, however, Neisser has raised, at the beginning, some very fundamental questions which are peculiarly important from the present point of view. He admits that in the structure of production concept the line between producers' goods and consumers' goods industries is very thin, and is arbitrary. More significantly, he asks what are the distinguishing characteristics of the different phases of the cycle. He points out that it is often assumed, in present-day writings, that unemployment is a major feature of depression. This emphasis may exist because unemployment is a very great practical problem of today. Or it may be because the older static theories of economics assumed an equilibrium, which would always restore itself through self-adjusting processes, and an essential part of which was full employment—of labour and all the other factors. Neisser believes that this is not a criterion, that even in greatest prosperity there may not be full employment. His own criterion, the balance between receipts and costs in industry, has already been noted.

But this raises several further basic questions regarding all money and savings cycle theories that are important here. (1) Is this, so-called dynamic, theory essentially different from the older body of static theory, the latter modified only to allow for larger and longer disturbances of the equilibrium? Much of it does indeed take over many essentials of static theory, or at least of the *moving* equilibrium type of theory. This leaves the question whether after all the equilibrium, if it exists, can restore itself, or whether governmental policies are necessary or desirable. Probably, however, in most cases the answer would be, that if corrective policy is desirable it is only to restore some equilibrium. But what phase of the cycle is to be taken as the desired equilibrium? Hardly 'boom,' certainly not 'crisis,' nor 'depression.' Perhaps 'recovery.' Perhaps prosperity. But this is arbitrary. (2) And what criterion for the determination of this? Just a high point for some general index of economic activity? Or full employment? Or receipts equal to or greater than costs? Again the answer must be arbitrary. (3) Are cycles inevitable and self-perpetuating? Does one invariably lead to another, as is claimed in some of the theories? If so, such versions are incompatible with any program, monetary or otherwise,

which undertakes deliberately to control these major fluctuations. (4) If there is a policy designed, say, to bring recovery out of depression, and this is possible, is it possible to stop the over-reaching process? Even the older equilibrium theories had come to allow for a small and steady increase in economic activity, say to allow for the so-called natural increase of the population and for gradual capital accretion. Some monetary theories have even gone so far as to require a steadily larger advance, say to increase economic activity always more rapidly than population, so as to increase the standard of living. Can *completely* dynamic theory have an equilibrium? This finds particular illustration in an idea that monetary devaluation should occur not just at some particular juncture in order to correct a severe maladjustment, but that it should be made a more or less progressive affair; and, whether this is correct or not, it is true that monetary history tends to show that devaluation is always the easier process, whereas efforts at deflation are painful and difficult to adopt and maintain in practice.

One of the greatest weaknesses in some of the types of theories just mentioned is the assumption that expansion of bank credit goes only, or very disproportionately, into higher capital goods equipment. Without drawing too many distinctions as to what *is* capital, it may be pointed out that many fairly durable goods are consumers' goods, and that real capital consists of goods used only in making consumer goods. True, the succession of higher and lower stages of production is finely graduated. But how can it be assumed that additional bank credit will go solely or largely into highest or even higher stages? Such credit, in actual fact, directly and indirectly, apparently gets into the structure of production and *consumption* at *various* stages.

This suggests one further attack upon the cycle problem which should be given special attention, because it is recent and in some ways novel. It is found in the Brookings Institution's series of four studies on the distribution of income in relation to economic progress,[32] and especially in the volume by H.G.Moulton on

32 Nourse, Edwin G., and associates, *America's Capacity to Produce*, 1934; Leven,M., Moulton,H.G., and Warburton,C., *American's Capacity to Consume*, 1934; Moulton,H.G., *The Formation of Capital*, 1935; Moulton,H.G., *Income and Economic Progress*, 1935. The studies are partly theoretical, but are supposed to be chiefly based upon a very extensive collection of data, such as can be assembled and arranged, incidentally, only by a research staff.

The Formation of Capital. The first two studies indicate, not simply for the recent depression but for a longer period, a steady failure of America's production to utilize the nation's resources fully, of production to keep pace with actual productive capacity, and of capacity to produce to keep pace with the capacity to consume. They also indicate an uneven distribution of the national income, leading to the diversion, it is argued, (and this is reminiscent of Tugan-Baranovski) of an increasing percentage of the income from consumptive channels into savings—and so to a *chronic* state of under-consumption by the great masses of the people. The flow of the national income is statistically analysed, so as to show that funds for capital expansion are derived increasingly from financial markets. Denying that savings and new capital are the same, savings are said to be at times if not always in excess of capital formation. This 'excess money,' in the United States, may be invested abroad, as during the war and in 1925–29, or stagnate in bank deposits, or finance government deficits, or, as in 1918–29 it may be absorbed by the stock market, where it leads to security inflation, raising the prices of existing plant and equipment, somewhat as commodity prices might be raised, and then wasting away in the collapse. The roundaboutness of the structure of production, of certain theories, is not denied, but some of the recent reasoning concerning it is. It is statistically indicated that *capital formation and expenditure for consumption rise and fall together*, rather than alternately, with perhaps some tendency, at crisis, for the demand for consumption goods to fall off first—but the order of this slight difference is not deemed important. The dilemma is posed: under certain other theories expenditure for consumption must decline in order to accumulate savings; but in the light of present data if capital goods industries are to expand profitably, expenditure for consumption must increase, as demand for capital goods is derived from that for consumption goods. It does not matter if curtailment in the capital goods industries (capital goods being defined in the narrow sense) comes first; the demand for consumption goods is pivotal, and its decline will bring an even proportionately greater decline in the demand for capital goods. The solution of this dilemma, at least in much modern American experience, *is found in creation of bank credit, which promotes both types of demand.* While this *may* go too far, in the main it has not made for disturbance.

And it has not amounted to making something out of nothing, for the simple reason that productive capacity is never fully utilized. Consequently the idea that bank credit expansion always creates a maladjustment (say through a forced and spurious and unenduring saving) is discarded. Moreover, it is argued, with statistical citations, that the effect of such credit expansion is not necessarily any *great* increase in prices; prices may go up somewhat during recovery, but the *main effect of the credit expansion is a direct and important increase in the flow of money income available for expansion of both consumption and capital formation.*

As in so many other writings, the remedies are not entirely made clear. In this case, it is suggested that there should be a more even distribution of the national income among the classes, but it is not indicated how this should be attained. One very definite recommendation is made, namely that producers should *lower* their prices. It is perhaps thought that this would make for the more even distribution just mentioned; it is at any rate indicated that it would stimulate consumption. As for monetary policy at least bank credit expansion is largely exonerated as a cause of maladjustment, and largely praised as a means of making consumption 'catch up' with productive capacity. And: 'It remains possible that through collective action—either under private auspices or through the instrumentality of government—recovery might be generated by developments in connection with the capital goods industries. The problem of recovery is to get a forward movement of substantial proportions started *somewhere*.' Again: 'The primary need at this stage in our economic history is a *larger flow of funds through consumptive channels* rather than through more abundant savings.'

This theory, or set of conclusions from collected data, is obviously at variance at many fundamental points with contemporary neo-classical thought—and it will be recalled that by now a good many cycle theories have evolved out of such thought or at least have attempted a harmonizing with it. It is also particularly distinctive in its pragmatic realism, its optimism, its move away from a 'closed circle' type of reasoning, its emphasis upon economic growth and the possibility of future growth—in fact some of its aspects are rather more secular than cyclical. As for its bearing upon monetary policy, it would seem by implication to provide one of the strongest supports (though not necessarily the strongest

of all the theories—see above) for the policy of at least moderate monetary expansion, the policy so widely advocated in practice here and in various other countries—but this without attendant increase of prices. More money flow, prices not increased by money management and if possible reduced by producers, expansion of both consumption and capital formation, and this to facilitate secular growth as well as to bring recovery—these might be the conclusions regarding monetary and related objectives.

It becomes obvious that monetary and related theories remain controversial. Some of them offer suggestions for monetary policy, and at the same time indicate limitations. The exact correlation between price of gold and volume of money and commodity price level is questionable, especially in the light of the intervention of modern bank credit controls. Volume of currency may be regulated, but currency velocity, without the interjection of non-monetary devices, does not necessarily respond. The same is at least as true of bank credit. If policy combines gold price, currency volume, and credit volume control, the commodity price level may be influenced, but with what effectiveness and precision is open to question, especially if limitations are found in the quantity theory, as say in trade velocity and all that lies back of it. In no event can money policy control individual prices. By the same token it cannot separately control group prices, say of producers' goods or consumers' goods—a distinction so important in many of the cycle theories. Similarly, if it be granted that credit volume can be largely controlled, the difficulty, if not impossibility, of directing its flow in any given proportions into the different stages of the production (or the expenditure) structure is apparent. Again, as for price level, it is not even universally admitted that it should be controlled upward for recovery. From this point of view emphasis might be placed upon volume of money in its relation to volume of economic activity, without dominance of the role of price; but this would involve either an assumption of complete or almost complete invalidity of the quantity theory in actual practice, or direct, non-monetary price controls, or perhaps both. And it would still have to reckon with the problem involved in the relationships between prices and rigidities in the cost structure, from the national and especially the international view. Nevertheless, it is difficult to escape the simple logic, at least for secular if not cyclical purposes, of the desirability

of increase of volume of production and consumption (with appropriate adaptation of wages and all other costs as long as the cost-receipt relationship allowed a sufficient profit ratio), and with volume of money adapted to such ends, without resort to the two-edged and partly uncontrollable device of manipulating prices through money. From the viewpoints of secular progress and of increasing the standard of living, such a purpose could be more important than the objective of increasing prices. On the other hand, the cyclical point of view tends to make monetary price control a significant purpose for a given situation, with price increase for recovery, followed by price steadying for the later attempt at stability and prevention of subsequent inflation and depression. Finally, theory may offer monetary explanations of disturbances and depressions without admitting the place of monetary remedies.

By and large, however, the trend of recent thought has apparently run toward giving money an important or central place in major economic fluctuations; and consequently toward assigning a significant and positive role to monetary policy in the attempt to control such fluctuations, toward a higher degree of monetary management for this purpose, and toward price adjustment at least for the recent problem of recovery from depression.

The various theoretical aspects may be borne in mind as one turns, in the next chapter, to an attempt to observe actual internal effects. Also to be borne in mind are the various currency and credit measures outlined in the first chapter, and the general official purpose of adjusting prices upward to help bring recovery from the last depression and then of stabilizing them to try to prevent future inflations and depressions. The simple and ambitious declaration of 1933 was: 'The revaluation of the dollar in terms of American commodities is an end from which the government and the people of the United States cannot be diverted . . . the United States seeks the kind of dollar which a generation hence will have the same purchasing and debt-paying power as the dollar value we hope to attain in the near future.' The question remains whether this goal was attainable.

Chapter IV

EFFECTS ON THE INTERNAL ECONOMY

The principal policy features of the dollar experiment have now been outlined, and the field of monetary theory has been briefly reviewed with special reference to concepts which may have been involved in the experiment or which are suggested by it. The next step is to try to see what may be the actual internal effects. In turning to such an examination of statistical and other facts,[1] it is important to bear in mind both the actual monetary measures and at least some of the monetary theories, because only in this way can the attempt to ascertain the results be made really significant.

Obviously such an approach presents some serious difficulties. But even if some of the obstacles are insuperable, it is significant to observe that they are, and thus to indicate the limitations of both policy and theory in the way of verifying the hypotheses or relying precisely upon their results. As might be expected, in the case of the more abstract and intricate theories, such as some of those relating to the cycle, the statistics for checking and analysing are usually inadequate or non-existent. It is necessary therefore to undertake the empirical analysis with considerable caution, and with the hope of obtaining at most some broad generalizations. Several points should be emphasized and borne in mind throughout. First, obviously a negative conclusion may be as useful as a positive one. Secondly, there is the familiar, but too often neglected, truth that when an increase or decrease does not appear there might have been a decrease (in the former case) or an increase (in the latter case) had it not been for the influence of the causative factor which is being verified—in such a case the statistics fail to show 'what might have been.' Thirdly, the well-known difficulty of isolating cause and effect is nowhere more conspicuous than in monetary analysis. To take but one or two examples, the commonest and perhaps simplest measurement of monetary effect is that of price behaviour, but of course many other factors may influence price. Such factors are familiar. In the present case, for example, the Government has employed industrial and agricultural policies to

1 All of the statistics employed in this chapter, except as otherwise indicated, were drawn and adapted from statistical publications of branches of the U.S. Government, as outlined in the Appendix.

influence certain prices directly. Or again, within money itself, it is impossible to assign any exact weights to the effects of reduction in the gold content of the dollar on the one hand, and on the other hand to the various measures having to do with volume, and possibly the velocity, of bank credit. Fourthly, there is always the question of lag. If there is not an immediate correlation between a selected cause and a selected supposed effect the assumption involved in the search for correlation is likely to be in some measure invalidated; but if results lag but nevertheless do occur, the causal relationship is not necessarily disproved.

In making the analysis it may be well to bear in mind some distinction, as far as possible, between some of the different aspects of policy causes, such as: (1) suspension of most features of the gold standard in the spring of 1933; (2) the gold purchase plan used in the fall of 1933; (3) the formal devaluation of the dollar, of January 31, 1934; (4) the bank credit (Federal Reserve) policy pursued over the whole period. The analysis itself, in turn, may be grouped somewhat as follows: (1) Gold and gold price. (2) Measurements of amount and performance of currency and bank credit, as in figures for currency in circulation, deposits, debits to individual accounts, reserves, and excess reserves. (3) Banking and budgetary features of the general policy, such as discount rates, bank investments in governmental obligations, and, more indirectly, governmental expenditures. (4) Possible effects of the total currency and bank credit policy, as in figures on such things as the wholesale price index, cost of living, various indices of current business activity, and national income.

One further point may be made regarding the technique of the analysis. With the possible exception of the case of the price index, where the administration often spoke of getting this back to the 1926 level, the monetary policy apparently did not set up any precise single goal that could be measured statistically. Indeed to do so would probably not have been in keeping with the also declared general purpose of flexibility and even of experiment. However, in dealing with the actual figures it may be of interest to adopt some very arbitrary over-all index of attainment, and for want of a better one this may be thought of as one of 40% change, i.e., the approximate amount of the devaluation of the dollar. However rough and arbitrary this may be, it will at least serve as a norm or

criterion for tentative checking, in some instances, the quantitative results. For example, the question might be put: if the dollar was devalued 40%, did this and other monetary measures increase, by 40%, the price level and other indices of results possibly held in mind in making the policy?

GOLD

The employment of the 'gold purchase plan,' in the fall of 1933, in an effort to bring depreciation of the dollar by paying more dollars for a given quantity of gold, suggests figures on prices for gold, and on gold stock. The average price paid (U.S. Treasury) for gold rose from $30.77 in September 1933 to $35.00 on January 31, 1934, and has since remained at the latter figure. A more detailed account of this was given in an earlier part of this study. The gold stock, although very large, fluctuated surprisingly little from August 1933 to January 1934, and its rise in February 1934 is of course largely to be accounted for on the basis of the mere change in its nominal dollar value on January 31, 1934, although it continued to rise thereafter. On this score, therefore, it would appear that government purchases of gold were not great in the first part of the period mentioned. But it must be recalled that under the plan the government could purchase gold *on consignment*, for passing on into use in industry and art and into export. Consequently, it was not necessary for the government, in this respect, to add greatly to the monetary gold stock in order to influence, or rather to endeavour to influence, the market value of the dollar. In fact, when one turns to statistics on gold receipts at the mint, considerable fluctuations are found. Such receipts were high in January 1933, fell off in February, rose again in March–May, were lower in midsummer. But in September 1933 they increased substantially and continued to do so in October–December, and they were still large in January 1934. From then on, when gold purchase was succeeded by outright devaluation, they fluctuated greatly. It would appear, therefore, that the 'gold purchase' plan may have been connected with a greater amount of gold purchase than suggested by the net increase in gold stock. But at the same time such volume purchases were not spectacular when compared with some of the previous and some of the subsequent months. This raises the questions (1) whether such actual purchases were sufficiently large to have,

by volume, the desired influence upon the dollar, and (2) whether *any* limited degree of purchase could have been expected to force depreciation. That is, could the government, with a limited amount of gold purchase, depreciate the dollar by thus merely 'setting the pace' or 'establishing a gold price'? This question cannot be fully answered from the statistics, but it may well be argued that the government could not have expected to be able to do this, without so much heavier purchases as to make far more dollars actually enter into such transactions. (Later, of course, the gold imports were enormous.)

Furthermore, the fixing of the price of gold at $35.00, from January 31, 1934, and even the formal reduction of the gold content of the dollar from that date, fail to show correlation in the subsequent statistics of other phenomena, with the possible exception of the foreign exchange rates, in such a way as to prove the expectations of this aspect of the policy. If this be the case, it would appear, so far as *internal* effects are concerned, that under such circumstances it is essential at least to supplement devaluation with a corresponding bank credit policy.

Imports and exports of gold will be dealt with in a later chapter, in connexion with the *external* behaviour of the dollar. It should be noted here, however, as before, that the great increases in bank deposits which took place were in considerable if not principal part to be attributed to the large net imports of gold. Further reference will be made to the possible effects of the gold price plan in the subsequent section of this chapter on prices.

CURRENCY

The figures on United States currency *in circulation* show: (1) The usual predominance of Federal Reserve notes in the total of hand-to-hand money. (2) The failure of such notes in fact, despite the enabling measures, to undergo any consistent or striking increase for some time, although after the spring of 1934 they remained above 3 billions and rose to over 4 billions in September 1936. (3) The decline of gold certificates and disappearance of gold coin, which had to occur. (4) Especially noteworthy, the steady amount of the total currency until the middle of 1935, this amount being somewhat over $5\frac{1}{2}$ billions at the end of 1932 and a little less in July 1935, the only steady and substantial increase occurring after

the latter date, up to over 6¼ billions in September 1936. It is seen, therefore, liberalization of note issue to the contrary notwithstanding, that the amount *in actual circulation* responded to the policy only in a very lagging manner at best.

There is no satisfactory statistical method of accurately calculating *currency velocity*. Some analysts have apparently assumed such velocity to be approximately constant,[2] but this assumption is open to serious question. Conclusive results cannot be obtained in the absence of measurement of this function.

In any event, currency *in circulation* by volume or velocity, does not lend itself to control, in any measurably direct manner, if at all. Here, then, is a gap in the practicability of the dollar policy.

BANK CREDIT

Obviously bank credit may be more important than currency in circulation. In this connexion, and especially since many American observers are inclined to attribute great skill in central bank policy to the banking authorities in London, it is interesting to note here a recent English view.[3] The writer there compares the quantitative importance of different types of money in various countries, points out that in the United Kingdom and the United States currency makes up only ⅛ to ¼ of total active money, which is less than in many other countries, and concludes therefore that money management may be the more readily and successfully attained because bank money can be regulated far better than currency. Quoting: 'From the point of view of the practice of monetary management the vital difference between currency and bank balances is this: the volume of currency outstanding varies according to the demands of the public, whatever the reasons—trade fluctuations, variations in price levels, ups and downs of public confidence—actuating an increase or decrease of those demands; the total volume of bank balances, both sight and time, however, is governed ultimately in any advanced monetary organization by the action of the central bank in its pursuit of either an expansive or contractive policy . . . the fact is that the central bank can act deliberately and positively upon the volume of bank balances outstanding,

2 *Vide* reference above to a computation by B.M.Anderson.

3 An article, unsigned, on 'The Supply of Money and the Scope of Monetary Management,' in the *Midland Bank Monthly Review*, July–August 1935, pp.1–3.

whereas it is powerless to effect directly either a growth or shrinkage of currency outstanding.'

The choice of instruments obviously turns in part then from those affecting gold price and currency in circulation toward those dealing with bank credit, at least when internal effects are the principal ones in mind.

The traditional use of *discount* (or rediscount) *policy* is familiar, and the consolidation of authority in this respect has been noted in an earlier chapter. But little need be said of discount rates during the dollar experiment. As is well known, an 'easy money' policy was adopted even before the advent of the present administration, and was further pursued after 1932. It early became apparent that this policy alone was inadequate for purposes of stimulation, as was probably also true, at least for the time, of the traditional *open-market operations* device. Indeed, it was partly the realization of the limitation of these instruments which led to the development of other measures. It may be added, however, that the possibilities of the open-market operations process, especially under the revised Federal Reserve System, may not yet be exhausted, and might well be utilized more fully in future, especially since contraction (or at least prevention of much further expansion), rather than promotion of expansion, has tended to become the dominant theme in current policy. In considering the prices of the factors in production, it must of course be recalled that discount rates do not necessarily constitute an index to interest, although bond yields and other indices also indicate low interest rates for the period considered. In this connexion the desire of the Government to keep interest rates low may have involved not only the hope of stimulating industrial revival, but also a desire to keep down the cost of government financing.

Deposits increased slowly but substantially. 'Deposits of all banks in the United States exclusive of interbank deposits,' as high as 55 billions at the end of 1929, and over 45 billions at the end of 1931, declined to about 38 billions at the end of 1933, but rose thereafter to about 51 billions at the middle of 1936. The question of inclusion of savings deposits is debatable; broadly they constitute a part of the volume of money funds, but they are more sluggish and probably mostly pass through demand deposit accounts before entering into use.

Demand deposits therefore are more significant for certain purposes. The figures for these, for reporting member banks for a given number of cities, have been most commonly used as reflectors of bank credit volume. There is some difficulty in using this Federal Reserve series for the period considered, for two reasons. First, in the table used, from January 1929 to October 1935 these figures are for 90 cities, but beginning in that month they are for 101 cities. Secondly, beginning in the latter month the figures are not for *net* demand deposits, as before, but for 'adjusted demand deposits.' Net demand deposits showed deposits previously subject to reserve requirements. The Banking Act of 1935 required that reserves be carried against United States Government deposits, previously exempt, and certain other technical changes were made which altered the deductions from gross demand deposits. Consequently, effective August 24, 1935, the Federal Reserve statistics began carrying figures for 'adjusted demand deposits,' which exclude U.S. Government deposits, interbank balances, and reported 'float' (cash items in process of collection). The Board stated: 'When allowance is made for changes in Government and interbank deposits and in the float, a figure is obtained that represents the demand deposits of individuals, partnerships, corporations, and the like. . . . The figure for adjusted demand deposits is a more significant figure than that for net demand deposits heretofore shown. . . .'[4] This prevents strict comparability for the figures before and after August 24, 1935. But the difficulty is not insuperable.

The *net demand deposits* had been about $13\frac{1}{2}$ billions for January 1929, a little more for January 1931, but only about $10\frac{3}{4}$ billions for January 1932, and a little over 11 billions for January 1933. Considered quarterly, they declined somewhat in 1933, but rose thereafter to 16 billions for July 1935. The figures for adjusted demand deposits also increased during late 1935 and 1936.

Debits to individual accounts are sometimes taken as a rough indicator of the degree and even the rapidity of *use* of bank credit

4 *Federal Reserve Bulletin*, Vol.21, No.10, October 1935; also later issues, e.g., for November 1935. In the Bulletin for September 1936 the Board also introduces a new series showing 'gross demand deposits': 'These figures, which are collected primarily for the purpose of computing required reserves of member banks, take the place of those previously published showing net demand and time deposits for the same group of banks.'

money and therefore of bank credit *velocity*.[5] These figures fluctuated greatly, but do not show any consistent trend, for the period considered. Thus on the one hand, with 1929 as a base, the index for demand deposits was 83.9 in January 1933, 83.0 in January 1934, and, taken by quarters, rose thereafter to over 100 in October 1934, and to 119.7 in July 1935, and still higher in 1936. On the other hand, the 1929-base index for debits to individual accounts was over 43 for January 1932, a little over 31 for January 1933, nearly 35 for January 1934, and fluctuated irregularly during 1934; it fluctuated on a slightly higher level in 1935 and 1936. But for January 1935 it was only 38.5, for January 1936 was only 45.5, and was less than that for September 1936.

In other words the potential bank credit (the credit base—see below) increased greatly during the monetary experiment, becoming very much larger in the fall of 1936 than it had been, on average, for 1929, but bank credit, the actual credit money, responded very slowly, and the use of bank credit continued sluggish, running at much less than one half the 1929 average, even as late as 1936. The bank credit horse can be led to water but it cannot be forced to drink.

The importance of this problem of velocity of money, and particularly, in a country such as the United States, of velocity of the bank credit portion of it, can scarcely be over-emphasized. Viewed in one way it becomes a question of the efficiency of the use of

5 Clearing figures are sometimes used to arrive at velocity, but are not so satisfactory; for example they do not show the turnover of accounts in the same bank. Debits to individual accounts, in relation to demand deposits, are probably the best statistics available. Care must be taken to use the figures not in an absolute but in a comparative way. The demand deposits (or, to use the English term, 'sight' deposits) are adopted by the League of Nations as indicating the amount of bank money, for purposes of comparing the situation in the various countries. *Vide* League of Nations (Economic and Financial Organization), *Money and Banking, 1935–36*, Vol.I, *Monetary Review*, Vol.II, *Commercial Banks*.

For a penetrating empirical discussion of 'the monetary mechanism,' including currency, credit, velocity, and the equation of exchange (as well as of 'flow of money income' and its relation to purchasing power, saving and investment, and cycle theory) *vide* Mitchell, Wesley C., *Business Cycles, the Problem and its Setting*, N.Y., 1928, pp. 116-154. Mitchell endorses earlier estimates that bank credit formerly constituted 80% to 85% of total money. As for former bank credit velocity, he reviews earlier estimates and apparently approves a careful investigation and computation by Dr.W.Randolph Burgess, indicating a bank credit turnover, which varied greatly in various cities, but for the nation averaged '25 to 35 times per year, probably under rather than over 30.' The cyclical changes ranged (by cities) from 22% to 68% of this average. Mitchell questions some ingenious estimates by Irving Fisher which indicated a much greater velocity.

money; obviously a small volume can do much work if it has a rapid turnover. This in turn suggests that the problem is one of the greatest in practical monetary policy. The government may increase the basis for quantity of money (or perhaps even money) indefinitely, and if the velocity lags the expansion purposes will not be served. Contrariwise, should the expansion run to great lengths, the government might contract the volume of money greatly, but to little avail should the velocity run high. Since it is extremely difficult, to say the least, for government to control the velocity—certainly it has no direct and precise devices for the purpose—this becomes, then, an extremely important limitation upon monetary management.

The point being so significant, in both theory and practice, it is interesting to note some observations concerning it, made by the economic staff of the League of Nations, regarding the situation in the United States and throughout the world.[6] The League distinguishes between 'income velocity' and 'transactions velocity' —a concept already discussed in the preceding chapter. To arrive at the former it undertakes to measure the rate of turnover of money in the United States by comparing the national income with the total money supply available. It adds net demand deposits (of member banks subject to reserve) and money (i.e., currency) in circulation, and divides national income paid out by that total. The result it calls 'income velocity,' and of course carefully distinguishes this from the 'transactions velocity' ordinarily thought of in connexion with the term velocity. It holds that in transactions velocity, any act of spending has an equal weight in the final result, but that in income velocity, intermediate transactions are excluded except in so far as they yield net income—'what is measured is the rate of turnover of money against final incomes—i.e., wages, dividends, interest payment, etc.' It arrives at the following income-velocity figures for the United States: 3.32 for 1929; 2.42 for 1932; 2.27 for 1933; 2.24 for 1934. It is significant that according to these figures the decline in the income-velocity in this country after 1929 continued through 1933 and even through 1934.

Turning to transactions velocity the same publication, drawing conclusions from its survey of monetary conditions and policies in

6 League of Nations, *Money and Banking 1935–36*, Vol.I, *Monetary Review*, Geneva, 1936, pp.30–38 (on U.S.) and 53–59 (on world situation).

various countries, points out that during the depression the general trend was toward a greater decline in velocity than quantity of money. This it explains by observing that business men and individuals preferred cash to investing or spending it, and, seeing prices fall, hoped to gain by delaying spending until they reached still lower levels, thus in fact accumulating liquid resources and withdrawing funds from active circulation and thereby contributing to the reduction of prices and incomes. It emphasizes the difference between money volume and money velocity behaviours, and the problem thus created for monetary management, pointing out that monetary policy can control the volume, or at least the potential volume, but has difficulty in controlling velocity. The velocity, for example, may be influenced by interest rates over short periods, but also by many non-monetary factors, including optimism and pessimism.

The League study also undertakes a contrast between the United States and the United Kingdom, with regard to money and its relation to other conditions during the depression and the period of up-turn: 'In all countries where production and other economic indices have improved, the improvement was accompanied by a rise in the total demand for goods in terms of money, but the means by which this demand became effective were not uniform. In the United Kingdom, for example, the increase in monetary demand which occurred after 1932 was the result of a rise in both the volume of bank deposits and (later) in their average velocity of circulation; in the United States, the recovery of April–July 1933 was financed entirely by an increase in the rate of turnover of bank deposits; but, on the other hand, the increase in production beginning in 1934 (after the relapse of August–November 1933) was financed chiefly by a rise in deposits, with the average rate of turnover remaining at a very low level.' In making further contrasts between the two countries, indicating a greater increase in production, in proportion to price increase, in the United Kingdom, the survey states: 'The essential monetary difference between the two countries lies in the differences in the rapidity of circulation of the monetary medium; the medium itself was abundant in both cases.'

In any event, regardless of opinions as to conditions in other countries, it must be obvious that money velocity remains one of the major unsolved problems in dollar policy.

This leads to the question of the credit base, and here, the problem of *excess reserves*. This is so familiar, and has been so much mentioned in describing dollar policy in an earlier chapter of this study, that what is said at this point becomes a re-emphasis. Figures for member bank excess reserves show their enormous rise, from 1929, and especially from the time of the bank crisis in the spring of 1933, to more than 3 billions in early 1936 and again in the first half of August 1936. Despite the desire of the Government for general expansion, the concern in almost all quarters over this great increase has been previously outlined, as has also the decision of the Board of Governors of the Federal Reserve System, acting under the authority of the Banking Act of 1935, to increase the reserve requirements, beginning August 16, 1936. But it is significant that even after this the figure remained at a level unknown before the recent period, being over $1\frac{8}{10}$ billions (monthly average) for September 1936. If this excess be looked upon as unnecessarily 'idle,' i.e., 'inefficient' money, the problem is great enough. But if it be thought of as a potential basis for a possible future credit expansion, the problem is still greater. Since the change in reserve requirements does not alter the *total* reserves, the first problem is essentially unsolved, and remains so after the 'gold sterilization' plan and would so remain if a further change were made in reserve requirements. And the question also remains whether the second problem has been solved. This will turn on the ability with which the revised central banking machine, the new Federal Reserve System, can meet whatever situation may arise. Until very recently there was no great indication of any *sudden* inflation, despite a moderate rise in prices and general business activity. But the outlook is shifting and if a great upsurge occurs it will doubtless provide a severe measure of the adequacy of the new system to exercise downward as well as upward control. It remains to be seen whether the excess reserves remain so large as to be unmanageable in case of a speculative boom, or whether the new powers will be adequate. The test is yet to come.

As for the alternatives of the monetary authorities in these respects: (1) The increase of reserve requirements has already been tried. (2) 'As the banks are free of debt to the Federal Reserve system, the raising of the discount rate would have little more than symbolic value.' (3) In the matter of open-market

operations, the sale, if possible, of all or part of the great volume of Government securities held by the banks might have the effect of increasing interest rates, which apparently has not been desired by the Government, for fiscal as well as general economic reasons. Moreover, it is highly questionable whether the market could absorb any large part of these holdings without strain. (4) The effectiveness of the gold sterilization plan of December 1936 remains to be seen. Rather clearly it should serve to check the *results* of *further* increase of gold imports, but so long as the gold flows in it serves, at least temporarily, to increase governmental borrowing. The process is very costly, and it does not solve the fundamental problem of the huge inflow of gold itself.

But if the problem of control of currency and credit velocity and the related problem of control of excess reserves are important, the problem of government deficit financing is at least as great. Statistics show the great size of Federal spending in recent fiscal years, the total general expenditures ranging from about 3 billions in fiscal 1934 to more than $5\frac{1}{2}$ billions in fiscal 1936, and the grand total including emergency and recovery expenditures running from about 7 billions in 1934 to more than $8\frac{1}{4}$ billions in 1936. As is well known this leads to large deficits which are financed by borrowing, and the *Government obligations* are absorbed largely by the banks rather than being assimilated by the public at large. (Only the new 'baby bonds' tend toward digestion by the general public.) Incidentally, a few current points may be made concerning this financing: (1) It has been accepted with remarkable readiness, many issues being greatly oversubscribed. (2) It is at present carried on, both financing and refinancing, at reduced interest rates. (3) Its form has shifted greatly in recent years, from a high proportion of long-term bonds, in the direction of relatively larger proportions of short-term obligations in the form of bills and, especially, notes. (4) At the present writing the prospects are apparently not favourable for a balanced budget in the immediate future. (5) It is to be recalled that legislation authorized the use of the fund obtained by the Government from devaluation for purposes of 'stabilizing,' i.e., pegging, the market for government obligations.

The place of these government obligations in the bank situation is apparent in statistics on *loans and investments* of reporting member banks. The total loans and investments rose from about $18\frac{1}{2}$

billions on January 25, 1933 to about 22½ billions in October 1936, a fairly substantial increase. But there was no material increase and at times some decrease in total loans from April 1933 to October 1936; and of the increasing investments, *investments in government obligations* rose from less than 62% on January 25, 1933 almost steadily to more than 76% in October 1936, when about 10½ billions of such obligations, of direct and fully guaranteed types, were held. Under present banking legislation the banks 'could convert these into cash by the simple process of borrowing against them at the Federal Reserve banks.' This technically enhances the possibility of expansion of bank credit beyond what is suggested by the figure for excess reserves.

Turning to the possible effects of the *governmental spending* of the amounts so obtained, the results are not subject to measurement. Since much of the spending has been on relief and public works it is debatable whether it could have very great stimulative effect directly upon private industrial activity, and might even retard rather than promote it. Indirectly, the public works activity might stimulate some private production, such as that of construction materials. As for the effects upon the stream of purchasing power, some of the beneficiaries may have used their receipts to pay off loans, and business has been slow to reinvest fresh funds; the governmental expenditures may have helped to increase bank deposits. On the other hand, it would appear likely that the expenditures have increased the stream of private spending, in some statistically immeasurable amount, or at least prevented the stream from shrinking as much as it might otherwise have done. Consequently, the actual and potential relation between governmental borrowing and spending, and the monetary situation, is a mixed one. But the budgetary deficit cannot continue indefinitely without repercussions, and this financing meanwhile provides a further ultimate test for the revised machinery of monetary control.

PRICES AND OTHER INDICES

PRICES. The statistical phenomena considered above may be viewed as primarily causative factors, although they are also partly effects. Turning to *prices*, one comes to effect, and to what is considered by money management to be desirable effect if the prices are demonstrably controllable.

As already mentioned in the treatment of theory, and as is also a familiar commonplace, much of the result of the monetary measures, or all of it, is supposed by many to occur *through* price change —in the present case through a hoped-for price increase to approximately the 1926 level, as suggested in official statements, after which presumably prices would be 'stabilized' permanently. But price raising objectives in specific fields have not necessarily been 1926 levels; in agriculture the announced goal was, never the 1919 high, sometimes the 1926 level, sometimes a pre-war price level, but this was to restore agricultural prices to a previous *relationship* to other prices. Figures for the all-commodity wholesale price index, and farm price index, show that the all-commodity price level has not, during the period considered here, attained the 1926 point, although there was a considerable advance. On a 1926 base, the index reached an annual low of 64.8 in 1932 and, viewed monthly, was down to 59.8 in February 1933. But even in March 1933 it was a shade higher, and it climbed more or less steadily to 80.1 in April 1935. Subsequently, it has levelled off and fluctuated very close to 80, being 78.6 in May 1936, and 81.6 in September 1936—still far from the 1926 average. More recently the outlook has been for a sharper rise.

It is significant that an increase in the general price level, from its position at the time of devaluation of the dollar to its average for the year 1926, would have been about 40%, i.e., about the same percentage increase as the approximate percentage of devaluation. A 40% increase in the index of 70.8 for December 1933 would have come to 99.12, in the index of 72.2 for January 1934 to 101.08, on the 1926 base. The announced objective of a return to the 1926 price level was thus a very precise one if it was assumed that the devaluation would give precise price results. It is equally significant that such results were not obtained, and that not even a 20% increase was derived, up to the time of the international stabilization understanding of the fall of 1936. The only remaining question would be whether still later price increases could be attributed to the devaluation or even to other monetary measures. If so, correlation could be claimed only at most with a lag so protracted as to leave the matter highly debatable. Broadly, then, the policy apparently has been successful to a very limited extent in working toward its price goal, and the theoretical money-price relationship

has been *far* from confirmed; although the movement has been in the *direction* sought. Also the question remains whether the advance was caused wholly or partly in this way or by other governmental or even non-governmental and non-monetary factors. Here as in so many other aspects of the study it is impossible to isolate cause and effect and relate them empirically. It is obvious that non-monetary factors entered in, and it should be noted once more that even if only the monetary factors counted, and if the quantity theory operated perfectly, still a devaluation and an increase of volume of both currency and credit, without attendant velocity increase, might not bring a certain predicted rise in prices.

Turning to the earlier question of the actual effect of the gold purchase plan, it is observed that the wholesale price index (Bureau of Labor Statistics) was 71.2 in October 1933, fell slightly in November, and again a little in December 1933; it was in January 1934 that the gradual increase set in. It is possible of course to argue that it took a while for the gold purchase plan to have effect. But even after the actual, formal devaluation at the end of January 1934 the lag of the rise in the index has been noted. There is, therefore, no statistical evidence that the gold purchase plan or even the devaluation effectively accomplished its objective through price—and that was the way in which its objective was supposed to be accomplished.

Indeed it may well be argued that the gold purchase plan could not have been expected to work. Even admitting the gold-money-price assumption, which, in the light of the mechanisms of central banking itself, is questionable, it is difficult to see (a) how the device could work without a free gold market and redeemability, and (b) how merely offering more (note) dollars for some very limited amount of gold, in a few transactions, could succeed in cheapening the vast mass of all dollars, unless it was supposed that offering a price in a few transactions would somehow 'set the pace.' Nor did the governmental control of gold movements suffice to eliminate the influence of external, world factors bearing upon the price of gold in other countries. It is small wonder that, in a policy determined to restore price to higher levels, this particular device, obviously narrow and faulty, was discarded in favour of formal devaluation, and the limits of the latter have been seen. At the same time the empirical as well as the theoretical analyses demonstrate the limita-

tions of even the formal devaluation (of January 31, 1934) in producing a given effect upon prices. Obviously, the role of gold, however important, is no longer what it was once conceived to be. Not even in gold currency is the solution to be found. Credit and credit velocity are the factors which count heavily in the internal credit economy, and this should be increasingly apparent in the light of the recent monetary experiments.[7]

Thus is seen the imperfection of *all* the known devices if they are to be viewed at all as precision instruments. And, just as the failure to obtain exact upward effects is seen, so there remains the question whether, now that effort is being made in some respects to check rises, any precision will be attained in the downward or levelling off function of the machine.

There is also the question of change in the *component parts* of the general *price level.* Properly, this is a question as to whether all the individual prices conform to the general price trend which in the aggregate they compose. To examine statistics of such individual

7 Hardy,C.O., in *Is There Enough Gold?* Brookings, 1936, has made one of the most recent attacks upon the gold-price relationship assumption, theoretically and statistically. He believes that in the long-run view the quantity-theory is 'unobjectionable,' but that in the short-run it does not hold, for three principal reasons: that the volume of trade is much affected by actual or anticipated changes in the price level; that velocity changes are often the result of quantity changes; that the relationships between volume of bank deposits and the total volume of money, and between money turnover and bank deposits, are subject to important changes not originating in the quantity of money or the price level. He concludes that, 'for purposes of short-run analysis it is impossible to make any real use of the familiar generalization that "all other things being equal" prices vary with the quantity of money.' And he draws this distinction between long- and short-run, *under the gold standard of the past:* 'The world gold supply sets the upper limit to the currency supply of the world, and the gold supply of a country sets the upper limit to the monetary supply of that country. Ordinarily there is a considerable slack in the system, and an increase of gold tends in the short-run to increase the slack rather than to bring about a proportionate rise of the money supply.'

He undertakes specific disproof of the Warren and Pearson version, and presents statistics showing the lack of correlation between the price of gold and the wholesale price index (B.L.S.) through 1933 and 1934. He notes that Warren and Pearson have used a different index for their demonstration, namely the *N.Y. Journal of Commerce* 'Commodity price index,' but that this is a so-called 'basic commodity' index. He concludes that 'their own evidence gives strong support to the contrary position.'

However, in apparently admitting that the correlation between gold price and the 'basic commodity index' seems evident he resorts to an assumption in this regard which is often made but which probably calls for further analysis. He speaks of 'the effect of the revaluation of foreign currency on the prices of commodities with international markets.' Attention will be given to this question in the chapter of the present study on 'External and International Effects.'

prices would lead this analysis into too great detail, but it is well known that the prices for many individual commodities have been at wide variance with the general trend. So long as this is the case, a further and still greater limitation is placed upon the possibility of precision in monetary control of prices. Presumably one of the objectives of such control is during depression to stimulate general business activity, but another objective in the present case has been stated to be the restoration of former equity-relationships among different producing groups. It thus appears difficult to accomplish the former equally, and the latter at all, and new inequities are introduced.

That is, one of the important problems of price is one of price *relationships*. This suggests the question of farm price. Agricultural prices, on a pre-war base, had been well above the all-commodity line in 1919, but had declined greatly and had not shared proportionately in the general price increase of the 1920's. If this was due to non-monetary factors, this does not alter its significance. On a 1926 base, which was thus in a sense 'unfair' to agriculture, the price index of farm products again rose above the combined index in 1928 and 1929, but sank to the extreme low of 48.2 in 1932, as against 64.8 for the combined. It was one of the chief promises of the new administration to restore farmers' prices, even more than other prices. The index rose, irregularly, in 1933 and 1934, and to 79.3 in August 1935, at which point it was almost the same as the all-commodity index. In September 1936 it was 84.0 as against the all-commodity 81.6. Yet this not only failed to get farm prices back to the 1926 level, but especially failed to get them to a point appreciably above the all-commodity level. And if non-monetary New Deal measures had their influences upon price this was probably particularly true in this case. The administration had been 'aiding' agriculture in other ways, as through crop-reduction benefits—which incidentally was an economy-of-scarcity paradox in a regime pledged to an economy-of-abundance. Such measures were probably much more influential in the rise of farm products than were the monetary ones, and it would seem surprising that these prices did not rise even more than they did, except perhaps when it is remembered that they were at a much lower point at the start. Again the limitations of monetary management *of the price type* appear.

COST OF LIVING. The cost of living index, which is constructed in such a way as to apply more to the lower rather than higher income groups, and incidentally is in other ways admittedly crude statistically, did not advance as rapidly as the wholesale all-commodity price index, as is usually true in times of rising prices. On a pre-war base it was 175 for 1926, 134 for 1932, 132 for 1933 (yearly average); it was 135 in December 1933, 139 in November 1934, and reached 140 in March 1935, and 143.6 in September 1936. To the extent that it could be claimed by the monetary authorities that they had created the wholesale price rise and also prevented the rise in the cost of living—which is extremely doubtful to say the least—the authorities could claim a benefit for the 'ultimate consumer' as such. In any event this lag would tend to ameliorate slightly any lag of wage increases behind price rise.

Here, however, as elsewhere in the analysis, there should be noted the wide variation in different sections of the country, and the variation in the cost of living among different income groups, since the index construction emphasizes family budgets in the lower income brackets. But the correlation with money and price is far from precise.

PRODUCTION, SALES, CAPITAL ISSUES. There is the question whether the monetary changes stimulated production, trade, capital flotations, and so on. Indices of industrial production and of building contracts awarded, on a 1923–25 base, show an increase after 1932. But in both these cases the movements have been very irregular. The former rose from 65 in January 1933 to 100 in July the same year, fell sharply, rose, fell to 71 in September 1934, and was 88 in August 1935, but thereafter rose to 109 in September 1936. The latter was 22 in January 1933, reached 58 in December 1933, and was 37 in August 1935, but rose rather sharply to 61 in September 1936. In case of building contracts non-monetary governmental measures may have had an influence. Department store sales rose more than 40% from January 1933 to September 1936, but correlation with money seems remote. In the flotation of new securities (and figuring the substantial rise in security prices) the total advance was great, but highly irregular. The amount was 64½ millions in January 1933, there were outbursts in mid-1933 and roughly the last three quarters of 1934,

with a high of over 216½ millions floated in July 1934; the amount was 151½ millions in August 1935, after which a comparatively high but irregular level maintained. Again a correlation with money is not possible beyond the mere statement that the total showed an advance for 1933 and a very large advance for 1934, for late 1935 and for 1936. The matter of flotation of new securities again suggests the theoretical question of saving and investment, but these and other statistics afford no formula. It can be said only that substantial dollar funds were apparently flowing into industry. Whether these funds went largely into repairs and replacements, as seems somewhat likely, or became fresh additions to the amount of real capital, cannot be empirically ascertained. Apparently many of the flotations were for refinancing and these would represent no capital accretion. Except for such limitations and the limitation that during the depression the corporations were beginning to build up cash reserves as much as possible (at the expense of dividends) this increase in securities flotations might suggest the savings and investment ideas of the cycle, but it seems impossible to attach it to any single one of those differing ideas. For example, the saving might be voluntary or (if connected with the slight bank credit expansion beginning with 1935, which is not so likely) forced, depending upon the interpretation, and it would remain to be seen whether or not it became oversaving in a later period.

Indices of general business activity are of even less usefulness in studying the monetary problem, because more remote and more influenced by a very great variety of economic and politico-economic factors. The *Annalist* 'index of business activity,' with 'estimated normal = 100' [8] reached a very low point (below 60) in the spring of 1933, and then rose sharply to nearly 90 in the middle of that year. This rise might suggest some rough relation with the monetary changes of that quarter, but this would be an unscientific guess. After the middle of 1933 the index fluctuated greatly, but reached a point of about 95 at the end of 1935.

EMPLOYMENT. The question may be raised whether the monetary change stimulated production and in turn increased employment. National employment figures are not available, and unemployment figures are estimates which apparently are so rough as to be

8 League of Nations, *World Economic Survey*, 1935–36, pp.46 *et seq.* (The *Survey* conveniently assembles summary data for various countries.)

scarcely significant scientifically. An index of employment in manufacturing industries, 1923–25 base, stood at 58.8 in March 1933, and rose rather steadily to 82.4 in March 1935, and to 86.0 in June 1936. Correlation with monetary policy here seems particularly remote.

PRICE OF THE FACTORS-COST STRUCTURE. It is unfortunate that statistical data are highly inadequate for purposes of ascertaining trends in the 'prices of the factors' and therefore in national cost structure, because the ratio of prices to cost is of course a fundamental aspect of the problem of price effects of monetary measures both nationally and internationally. A few clues are available.[9] As for wages, an index of hourly earnings in the United States (National Industrial Conference Board, 1929 base) was 84 in 1932, fell to 83 in 1933, rose to 99 in 1934 and to 102 in 1935, and incidentally resulted in an estimated index of real wages well above 100 for all these years. A similar index for weekly earnings was 60 in 1932, rose to 62 in 1933, to 71 in 1934, and 78 in 1935. But for various reasons these obviously offer no measurement of the place of wages in the American cost structure, and national computations and international comparisons made on this basis are likely to be misleading.[10] All that it is safe to say is that American wage rates have clearly risen in 1933 and, especially, since then. As for interest, this is also difficult to deal with for present purposes. It is generally known that both short-and long-term rates have remained relatively low, as suggested by rediscount rates (of limited significance for present purposes), general bank rates maintained under the 'easy money' policy, rates and yields on government obligations, and, perhaps most significant, yields on non-governmental bonds of various kinds. If the 'general emergence' of profits was slow, it became apparent by 1935.[11] But, by the nature of the figures available, only a general qualitative conclusion may be reached, and a cost-structure index, to compare with the price index, cannot properly be undertaken.

INCOME AND SAVINGS. If full statistics were available in exactly suitable form concerning national income, they would afford a partial basis for one of the most interesting types of analysis, namely an empirical treatment of those cycle theories of a monetary type which hinge on the income flow and the savings functions.

9 *Ibid.*, pp.141 *et seq.* 10 *Ibid.*, p.277. 11 *Cf. ibid.*, p.98.

While they are not available, considerable progress has been made in estimating and analysing the national income in the United States.[12]

The question might be raised whether in figures on volume of funds in savings accounts, or from other points of view on these and loans and investments of banks, flotation of new securities, corporate surpluses, etc., some empirical clue might be found as to amount and function of economic savings, and effect on production from the standpoint of cycle theory. But this would be both difficult and misleading, for various obvious reasons. One cannot trace, for example, the ultimate destination (in the structure of production) of individual money savings, nor the size and time and functional behaviour of funds belonging to corporations which may rise or fall or may weave in and out among either capital goods increments or capital goods replacements. Neither is it possible to adduce from the various statistics reviewed above clues as to whether capital formation has occurred, in the period considered, more or less rapidly than expenditures for consumers' goods.

As for statistics of *national income*, the officially estimated figures are now available for 1929–35, inclusive, in such form as to warrant some examination.[13] The proportionate relationships are, of course, more significant than are the absolute figures.

12 One of the earliest analysts of income of recent times is Professor Wilford I. King. His latest book on this subject is *The National Income and Its Purchasing Power*, National Bureau of Economic Research, N.Y., 1930. While this comprehensive work presents a wealth of statistical detail, it does not throw much light on the problem being considered here. Meanwhile studies have been undertaken by the (U.S.) Department of Commerce under the direction of Simon Kuznets, Robert F. Martin, and Robert R. Nathan, and (subsequently) by the National Industrial Conference Board, under the direction of Robert F. Martin. *Vide* Martin's article in *Survey of Current Business*, February 1935, and his book, *National Income and Its Elements*, 1936, and articles by Nathan, in the same government periodical, August 1935, and July 1936.

13 U.S. Department of Commerce, *National Income in the United States 1929–35*, 1936. In these estimates 'income produced' 'is arrived at by adding "positive business savings" to, or deducting "negative business savings" from, income paid out,' except for agriculture, where income produced is estimated directly. If income paid out is less than income produced there are said to be 'positive business savings'; if the reverse, the term 'business losses' was formerly used, the term 'negative business savings' now (a term apparently almost as misleading as the former one). 'The "national income" produced may be defined briefly as the net value of goods and services produced in any one year, and represents the value of all commodities produced and services rendered, less the value of the stock of goods in the form of raw materials and capital equipment, which has been consumed in the processes of production. In the production of these goods and the rendering of these services, the individuals of the Nation contribute productive efforts or services in the form of labor, management, and the furnish-

The total national 'income produced' in 1935 was $52.9 billions, as against 81.0 billions in 1929; there had been a steady decline for 1930–32, but an increase thereafter. The same trend appeared for 'income paid out.' 'Business savings' had been 'positive' in 1929, being plus 2.4 billions then, but reached a negative as high as minus 8.8 in 1932, which was reduced to minus 0.6 in 1935, business presumably thus still paying out income partly by means of a draft on capital and surplus, although here was an approach to a balance between income paid out and income produced. But it is open to question in what sense the 'business savings' spoken of in these estimates represent real savings; in some usages of the latter they would not be additions to capital equipment.

Each type of 'income paid out' (rent, dividends, etc.) shared in the 1935 gain, except interest, and in general the gains were greatest in the industries and types of payment which had declined most, relatively, in the depression. The result was that the proportions among the various functional categories generally speaking were more nearly like what they had been in 1929 than in the intervening years, except for a lower proportion for interest and dividends, and a higher one for total compensation of employes. (some have called this a 'better balance,' but this of course is an arbitrary conclusion).

The cost of living index is not very suitable for bringing out differences between money income and real income, as it covers only urban wage-earners and fails to include other groups, and as it covers only commodities and no services, and has other defects partly indicated previously. Nevertheless, it throws some possible

ing of capital. The payments to, or receipts by, individuals in the form of wages, salaries, interest, dividends, entrepreneurial withdrawals, and net rents and royalties for these services comprise what is termed the "national income paid out." If the income produced in any one year is in excess of the income paid out, then the business enterprises have retained a portion of the net product and this excess is termed "business savings," or, more precisely, "positive business savings." If, on the other hand, the income produced is smaller than the income paid out, then the business enterprises of the nation have maintained income payments by drawing upon their capital and surplus and these drafts are termed "negative business savings." Both income paid out and positive or negative business savings are estimated directly, whereas income produced is determined by adding positive savings to, or deducting negative savings from, income paid out.'—from 'Expansion in the National Income Continued in 1935,' by Robert R. Nathan, in *Survey of Current Business*, July 1935. But whatever the limitations, such efforts are in the right direction in offering some hope of ultimate statistics which can be treated in terms of 'pure' theory regarding real income and perhaps savings.

light on the influence of the price level upon income. 'Since the national income is measured in current dollars, it is important to recognize the fact that changes in the price level are important influences in determining the changes which take place in the estimates. Unfortunately, the available price indexes are not sufficiently representative to justify their use in correcting the income estimates for price changes. The Bureau of Labor Statistics index of wholesale prices represents only commodities, whereas the estimates of income produced include the value of services rendered as well as the value of commodities produced. The Bureau of Labor Statistics index of the cost of living covers only urban wage earners, and can hardly be considered as representative of the index of the cost of living of all persons. These two series do, however, provide some general idea of the influence of the price level on the income estimates. Both the national income produced and the Bureau of Labor Statistics index of wholesale prices reached their lows in 1932, whereas both the national income paid out and the Bureau of Labor Statistics cost-of-living index continued to decline in 1933. While income produced declined 51% from 1929 to 1932, the wholesale price index fell 32 percent. During the next 3 years income produced rose 34 percent, while the index of wholesale prices increased 23 percent. From 1929 to 1933, income paid out decreased 43 percent, whereas the cost-of-living index dropped 24 percent. In 1935 income paid out showed a rise of 19 percent over that of 1933, and the index of the cost of living increased only 6 percent. The figures indicate roughly that in terms of constant dollars the maximum depression decline in the national income produced may have been approximately 30 percent, and in the national income paid out the decline may have been approximately 25 percent. It may be further stated that the levels of income produced and income paid out in 1935 were approximately one-fifth and one-sixth below their respective 1929 levels after adjustment for price changes.' [14] 'It is evident from the figures shown . . . that there was a marked contraction in the quantity of goods and services produced and distributed in 1932 as compared with 1929, and a substantial increase thereafter.' [15] Thus, if the assumptions be

14 *Ibid.*, p.25. Note also pp.233–234 for notes on the difficulties in the estimating of income produced, caused by *disproportionate* (and unascertainable) changes in money and price.

15 Nathan, Robert R., *op. cit.*

assigned validity, it is suggested: (1) That real national income (whether measured as 'income produced' or 'income paid out') fluctuated less than the money figures would indicate. (2) That even as late as 1935 *there was a draft upon funds accumulated as 'business capital and surplus' in favour of the stream of spending for other purposes, but that this draft was diminishing after 1932.* If the national income clearly declined during the depression years and rose thereafter, but perhaps less than the money figures would indicate, then the behaviour of money *may* have had an influence on the movements. Only conjectures can be made. During the downswing, there was much less monetary control; during the upswing, there was more monetary control and a control looking, for a time, toward price increase. The price increase *may* have tended to retard the disproportionate increase in real income. If 'business savings' were being drained out less during the upswing than during the downswing, thus preventing the stream of 'income paid out' from declining more than it did, this income paid out *may* have, relatively, enhanced the stream of spending for consumer goods, especially as wage income was increasing while interest and dividend incomes were relatively declining during the recovery. But this is not proved. And 'business savings' decline would not indicate decrease of addition to capital equipment, except potentially on the assumption that if not drained out they might have been used for this purpose. Incidentally, it is sometimes assumed that the government has believed that one essential of recovery was to retard the accumulation of 'idle' business capital and to force an increase in the stream of consumer spending,[16] and if so, the above figures for the 1932–35 period would scarcely seem to suggest accomplishment of the purpose.

The statistics of national income include figures of income by industrial groups. The breakdown of these figures is not much adapted to analysis from the standpoint of 'higher' versus 'lower' stages of production. The separation is among the following items: (1) agriculture; (2) mining; (3) electric light and power and gas; (4) manufacturing; (5) construction; (6) transportation; (7) communication; (8) trade; (9) finance; (10) government; (11) service;

16 The more or less arbitrary nature of the distinction between producer and consumer spending is recognized. Note, incidentally, recent governmental tax policy calculated in part to cause corporations to distribute more surplus funds in the form of dividends.

and (12) miscellaneous. Nor is it any more possible here than in the banking statistics treated above, to discover how a *group proportion* entered into real capital formation. For example, again, some manufacturing is that of highly durable producers' goods and some is of immediate consumers' goods. Any attempt conclusively to analyse the above divisional proportions and their relative change, with a view to obtaining a precise empirical treatment of savings-capital-and-structure-of-production would be unsatisfactory and might be misleading. The following passage, based not alone upon the published figures but also upon further primary statistical data from which they were compiled, and referring to income paid out rather than to income produced, is interesting: [17]

'The data for 1933 show the greatest declines from 1929 to have taken place in the producers' or durable goods industries. The construction industry, which was already slackening activity in 1929, has fallen off the most, with a decline of 76%. In the mining industry, which produces mainly fuel and raw material for industrial consumption or further industrial processing, income paid out showed a total decline of 64%. In the manufacturing industries the greatest declines were registered in the heavy goods branches. The industries which have shown the smallest falling off in incomes paid out since 1929 were those that serve consumers directly, and especially those of a monopoly nature whose revenues were protected from full competitive pressure.'

Considering income produced: 'Income produced was larger in 1935 than in 1934 for each of the 12 major industrial groups into which the data have been classified. Gains of 10% or more occurred in the construction, manufacturing, finance, agriculture, and service industries. Although the gains tended to be relatively larger in those industries which had suffered the greatest declines, nevertheless the net declines from 1929 to 1935 varied considerably from one group to another. In 1935, relative to 1929, income produced ranged from 30 percent in the construction and 47 percent in the mining industry to 72 percent in the communications industry and 74 percent in the electric light and power and manufactured-gas industry. From the low point in 1932, income produced in agriculture more than doubled, and regained more than half of the previous decline. In manufacturing, also, the net value of

17 Martin, Robert F., *Survey, op. cit.*

products more than doubled from 1932 to 1935, recovering 42 percent of the drop from 1929 to 1932.' [18]

In so far as these figures suggest any distinction between producers' goods and consumers' goods industries, it may be conjectured that the partial recovery, in income *produced*, was greater in the latter, again suggesting the possibility of recovery diversion to consumer expenditure. But if so it would be difficult to trace this to monetary policy or behaviour.

Turning to national income paid out by (functional) types of payments, the highlights are: (1) The high place and relative inflexibility of labour (about $\frac{2}{3}$ of the total income); (2) the small place of interest, and its performance contrary to the general trend, the proportion rising steadily from 1929 to 1932 and declining steadily through 1935; (3) the small place of dividends, and their irregular performance, rising from 1929 to 1930, then declining to a low in 1933, and then beginning a very small rise in 1934 and 1935. Here again not much may be argued regarding effects of monetary measures. The 'easy money policy' may have helped to depress interest rates, and therefore *possibly* the interest proportion of national income; or the fear of 'inflation' may have retarded 'investment' in interest bearing securities especially of the non-governmental type. The probable further rise in dividends (and prices of dividend bearing securities) in 1936 does not come within the time scope of the above statistics. The greatest recovery rise of wages in proportion to total income paid out, as compared with the proportionate decline of interest and the proportionate lag of dividends, again suggests a possible shift to consumption expenditure, that is, on the assumption that wages are likely to go more to consumption purposes while interest and dividends chiefly provide for further investment. But again the relation to monetary behaviour is not shown, nor are the proportions of savings going into the *various* stages of production.

Obviously, existing statistics on national income, however significant in themselves, are of little use in verifying monetary cycle theory, and in the light of this, in attempting inductively to appraise recent monetary policy. They are fundamentally figures for income *paid out*—the estimates of income produced being derived from those for income paid out. They are not adjusted for money

18 Nathan, *op. cit.*

and price change, although, on the other hand, they may embody some causal relation to money or price, or both. They cannot be correlated accurately with price and money, unless it be assumed they varied with or in response to relative price change (which is at least debatable), or unless one looks for repercussions through disproportionate variations in the fluctuation of *different price groups*, which variations are largely if not entirely *beyond monetary control*. It is difficult to relate them to the question of saving, unless it be assumed that an increased income in one group (say producers' goods) resulted from an increase in capital equipment in that group, and vice versa, and that income paid out in wages goes more to consumption expenditure and that in interest and dividends more to investment; and even then, to repeat, it is impossible to correlate this with any fine gradation among the *various* stages in a very roundabout production process, or in turn to correlate this with monetary statistics. If it be assumed that the relative decline in income in the producer goods industries during depression had its origin in a prosperity-period-forced-saving (due in turn to undue increase in bank credit) which caused such industries to run too far ahead of consumer goods industries, then there might appear to be a possible support of the production-structure-forced-saving notion, probably in its negative form, that is, with the addition not a permanent capital increment. But there was no great expansion of bank credit before the depression, and since 1933 there has been an expansion of potential credit base, partly as a result of government policy. But it has already been seen how relatively inactive this large supply of potential bank money is, so that it cannot be viewed, at least as yet, as having greatly increased either consumption expenditure or investment in capital equipment.

Few attempts have been made to estimate the extent to which various portions of national income are saved.[19] Mitchell,[20] writing in 1928, cites King's estimate of about 14% per year for 1909–18 (a generally prosperous period) based on increase in national wealth and Ingalls' estimate of about 15% per year, noting that the latter obtained an estimate of only 7% or 8% for 1920–22. Mitchell

19 Although some reference may be made to the recent publications, Moulton,H.G., *The Formation of Capital*, 1935, and Moulton,H.G., *et al.*, *American's Capacity to Consume*, 1934, of the Brookings Institution.

20. *Op. cit.*, pp.151–154.

consequently estimates that the total stock of 'man-made equipment on hand' is equal to about 3 or 4 years of total national income, or to a value equivalent of annual average savings over 20 to 30 years. King concluded that of the total annual saving about 20% came from wages, 12% from agriculture, and 68% from other 'business men and property owners.' These and other recent estimates are admittedly very rough, and are unsatisfactory for present purposes. One fundamental difficulty here is to distinguish between rate of saving in the alternate periods of 'boom' and 'depression.' Further difficulties, from the point of view of trying to relate money and economic saving, empirically, are to be noted. The savings process, leading to increase of producers' goods, takes place to a considerable extent within the corporate structure itself, without direct reference to bank credit. King estimated that 40% or more is taken out of profits; this was during a time of prosperity. From 1930 to the present time corporate losses of accumulated funds (not necessarily economic savings) as seen, have probably predominated. So far as the corporate structure is concerned, where the corporate form of enterprise predominates, it is a familiar fact that the corporations do not distribute all net profit to shareholders but reinvest part of it, 'plow earnings back in.' Whether they themselves *must* do this or do it by *choice* is another question, although it may well be argued that they are *induced* to do so by rising profits during prosperity, as a result of rising prices. In an immediate sense, they do it by choice, and are not forced to do so. There are indications that in the several years just prior to 1929 such corporate 'savings' occurred at the rate of about two billion dollars a year. It is still another question as to how much of this was reinvested in productive equipment; probably a good deal of it was thus 'plowed back,' but it must also be recalled that during the stock market boom of 1928–29, when the demand for, and rates available upon, loan funds for stock market speculation were so high (call loan rates went as high as 20%) industrial corporations were placing a considerable amount of their surplus funds in the call money market. This indicated a certain amount of otherwise inactive business funds. On the other hand, for recent years the apparent draining off of these funds has been seen in the national income figures.

Returning to the question of interest and credit and investment,

it has been observed: [21] 'It has become evident that, at least in the short run, there is no automatic regulator maintaining equilibrium between the credit not consumed and the demands for new enterprises. It has been generally assumed that, in the long run, such an equilibrium is maintained by adjustments in the ruling rates of interest [equilibrium or natural rate]; but even that assumption has lately been challenged. In the short run, it is obvious that there is no necessary coincidence between the savings made by different individuals and institutions and the effective demand for new capital investments. Much of the savings or credit accumulations in recent years have been hoarded, crudely by withdrawal of gold or banknotes from circulation or more subtly by being held in extremely liquid form, such as cash balances at banks, the turnover of which has been slowed up.' But the place of monetary policy has remained questionable, for: 'The transfusion of new credit into the circulatory system, or its dilution, has not always restored equilibrium. Indeed . . . the result of new credit creation by Government policy has in many cases failed to restore the velocity of circulation.'

The same source,[22] however, viewing the world situation *including* the United States, observes and stresses an increased consumption of durable goods, not so much as yet of the producer, but rather of the consumer type, and implies that this is one of the stages in the upward swing of cycle versions centring on shifts in spending for consumption to effective investment:

'Recovery from the depression has, since the middle of 1932, taken the typical cyclical course. Food consumption, measured in monetary values, has not fluctuated greatly, though there have been shifts in demand according to price changes. Sales of less urgent articles for current consumption have, in most countries, increased at a cumulative rate. The level of current consumption during 1935 in many countries was higher than in 1929. But the greater part of the recovery has been in the expanding demands for articles of durable consumption. As these demands have expanded, they have increased the profit expectations of those responsible for the organization of industry. For a time, existing

21 League, *op. cit.*, p.260. The statement covers the situation in various countries, but includes the United States.
22 *Ibid.*, pp.123–124. Italics the author's.

plant and resources proved equal to the production demanded and, when the need for improved or increased equipment became evident, it was possible to provide for such investment without calling upon the public for new capital by utilising credit resources that were available. Orders for machine tools have risen rapidly in the United States, for example, before any great increase in capital issues has been found possible or necessary. *The definite enlargement of capital equipment by diverting purchasing power from current consumption comes at a later stage in the development of the cycle.'*

THE PROBLEM OF CREDIT AND CAPITAL

The American monetary policy thus in many respects finds mixed and unprecise results upon inductive examination. But the detailed consideration of various statistics, and the difficulty of finding in them a minute and exact sustenance of this or that monetary theory of the cycle, or through these of arriving at some highly refined conclusion regarding the monetary behaviour in the period considered, should not be permitted to obscure the chief features of the recent developments. *These outstanding features are*: (1) *potential credit*; (2) *government borrowings*. These are not necessarily commodity price functions, but the first is definitely an integral part of the monetary problem, and the second conditions it. Both of these factors have been the subject of abundant comment, but there has been, at least in the case of the latter, insufficient appreciation of them with regard to their chief significance, namely their *effect upon spending and saving.*

The potential credit already has been suggested statistically in this chapter, in the form of bank reserves, especially including excess reserves. True, the actual volume of bank money after 1932 did not appreciably respond until 1935, and then not greatly, compared with 1929. Thus if the demand deposits previously noted be taken as an indicator of this, the index on a 1929 base was only 83 in January 1934 (a trifle less than in January 1933), and was only 105 in January 1935. Relative to January 1933 only a moderate increase occurred in 1934. True, bank reserves, excess or otherwise, are not (credit) money. But this is the very point. The potential money base was expanding greatly, without a corresponding increase in money. The failure of exchange (or 'transac-

tions') velocity, as noted earlier, to show any consistently important upward trend, when compared with these volume figures, is definitely significant. The income velocity, also noted earlier, is by its very nature a small figure, so that the seemingly slight changes in it superficially fail to reveal the real magnitudes of its increase or decrease; but these magnitudes are also of definite significance, and some observers may miss the point when they minimize these changes. To repeat, the estimates shown indicated an income velocity of 3.32 for 1929, and thereafter not only a decline but a steady one through the very years of so-called recovery, to 2.24 for 1934 (1935 unavailable in this series). In other words, assuming the validity of the concept and the calculations, the money turnover in terms of the national income of the United States steadily declined during the very years when the governmental monetary policy was most actively expansionist, and in 1934 had fallen nearly 33% from 1929. Consequently, the slow rise of bank money volume and the decline of currency and credit velocity, during the period when the monetary policy looked most toward expansion, stand in marked contrast to the very great growth of potential bank credit. This probably does not represent 'hoarding' in any of the various recognized usages of that term; nor does it necessarily indicate 'idle balances' in some of the senses in which this term is used. But it points in the same general direction, and indicates *a marked retardation in the utilization of potential credit and thus on the banking side, despite easy money rates, a probable retardation of the rate of private capital investments.* If the individual investors were slow to make new private investments, so were the banks. Individual investors may have been tardy because of low rates and yields. As for bank portfolios, the complete sluggishness of volume of bank loans and the steady but not spectacular rise of bank investments may be compared with the hope that was held that low rates would stimulate their growth. In any event the low rates dominate the situation. If the policy looked toward consumer expenditure it also looked toward greater utilization of bank credit to some extent.

This leads, however, to the other principal point suggested above, that is, the place of the Government in the capital market. The huge growth of the public debt as a budgetary problem is in itself of no immediate concern in the present question, but the vast

governmental borrowings, during the period considered, are. These have already been mentioned, and their low rates have been remarked. The point here is that this increasing volume of government issues must necessarily have absorbed a considerable portion of the available supply of capital funds. The flow has shifted from business toward government. It might be argued that the low rates at which these obligations were offered would have made it easier for private issues to compete, with offers of higher rates. But as a larger portion of the government issues has been taken by the banks, under the new policy, and has thus remained undigested by the mass of individual investors, the situation is unusual as compared with most previous periods. This in turn suggests that far more investments might otherwise have been made in private issues, and therefore more or less in the accretion of capital equipment. As noted previously, it is impossible to trace the use of the funds thus acquired by the Government. Some of them may have gone into capital equipment, as in the case of public works, but this often becomes, not private capital, but social capital, which thus alters the proportions of the private capital structure. Much more of the governmental expenditure, as in relief programs, has pretty clearly gone into the stream of spending for consumers' goods and services, and this has obviously been the principal governmental purpose. Thus the monetary policy in the narrower sense cannot be appraised except in the light of policies surrounding it.

In perspective, then, the chief features of the situation become—the sluggishness and smaller place of private capital and interest, and the growing place of governmental operations in the capital market—with the implications noted for money, income, spending, and savings in the structural flow. This bids fair to dominate the ensuing phase of major economic fluctuation.

There remains the question of the external and international setting, causes, and effects. It should not be supposed that the internal and the external phases are separate and distinct. They are closely interrelated and interactive, and it is impossible to consider one without the other. But it is convenient, and no doubt conducive to clarity, to move from the national to the larger, international phase. Only too often in dealing with this and other economic matters the latter is either ignored or treated as inciden-

tal. But only from the international point of view can the full picture be seen, and the analysis made.

What was the international background against which the dollar policy was formulated? What have been the effects of the policy upon the nation's foreign commerce and finance and thereby upon other countries? What of international stabilization, a certain measure of which has rounded off the experiment studied here? All this becomes the larger and ultimate problem. In short, what of the new place of the dollar among the currencies and economies of the world?

PART TWO: INTERNATIONAL

CHAPTER V

INTERNATIONAL BACKGROUNDS AND THEORIES

WHEN one turns to the external aspects of the dollar problem, the matter becomes in some ways simpler, in some ways more complicated. It is more complicated in that it then comes to involve not only all of the internal repercussions, and controversial theories concerning them, within the country itself, but also the interrelation of these and the corresponding repercussions within all the other countries with whom this country carries on trade and other economic transactions—an interrelation commonly though inadequately expressed in terms of the ratio between price-cost structures of the several countries. It is simpler in that, in one sense, all of these interrelations are, at least hypothetically, supposed to be expressed in terms of a single phenomenon, namely the exchange rate, or at most the relation between the exchange rate, or external 'value' of the dollar, and the internal price level, i.e., the supposedly internal value of the dollar. In this event the problem becomes, on the face of it, more fully a price-problem. However, care should be taken not to over-simplify the question, for there is the interaction of internal and external influences and results, and, furthermore, the much too often neglected interaction of the different types of external economic processes one upon another, as reflected in the balance of international payments.

Consequently, attention must be given to the hypotheses usually involved, and to the empirical results as far as they may be measured, after first referring briefly to the evolution of policy regarding the relation between the dollar and other currencies [1] in the period here examined.

THE INTERNATIONAL BACKGROUND OF THE NEW DOLLAR POLICY

Post-war world monetary history is too well known to require detailed narration here, but it will be well to recall, in a word or two, a few of its highlights. The currency disturbances of the war

1 In dealing with the external aspects the term 'currency' will be used in a different sense from that usually employed in the earlier sections of this book. As now used, the term is broader, and refers to the whole money of the country, although of course this is expressed, internationally, in terms of the dollar proper (rather than of hand-to-hand money and credit money).

period, accompanied by exchange control measures even more extreme than those in vogue since 1931, were succeeded by further instability, in which rapid depreciation occurred in several countries. The truism tended to be borne out that currency disturbances follow wars. In some countries the abandonment of the gold standard (really if not always nominally) was attended by such unbalanced budgets that severe 'inflation' took place in the form of 'printing press' money.

BRUSSELS AND GENOA AND THE BREAKDOWN OF THE GOLD STANDARD. The concomitant disturbances in international trade and production were so great that concerted efforts were made to restore the national and international gold standard, in the belief that the latter would smooth out the former. At the international financial conference at Brussels in 1920, the monetary question was explored, and though various views were expressed, there was much recommendation of gold restoration. The same thing was very definitely recommended at the Genoa Conference in 1922, although with 'gold economy' in mind, with suggestions for the gold exchange standard as a supplement. In 1924 a new German mark was set up at the old par. In 1925 England returned to gold at her former parity, a move later generally considered unwise by many observers in England and elsewhere, as creating an 'over-valuation' of the pound which imposed hardships upon English production and export. In 1926–27–28 most of the other leading countries devalued and stabilized at the devalued level. But in so doing, although they had largely 'written off' their 'over-valuation,' they left many unsound features, such as insufficient gold reserves and too great reliance upon the international gold-exchange standard. To a considerable extent this gold-exchange standard concentrated reserves in London in the form of short-term obligations, which finally rendered both themselves and London vulnerable, as was discovered in the autumn of 1931. In that year there began the international financial crisis, which drained London of reserves, forced the pound off gold in the autumn, and caused many other countries either to follow this example or set up such extreme exchange controls and similar mechanisms for the protection of their currencies that the effects were, in some respects, at least internationally, the same. Finally, by the end of 1932, only a few countries remained on gold at all, in any real sense.

This background, though now familiar, is sketched here in order to contrast the position of the dollar and most other currencies up to 1931–32. The dollar, although temporarily threatened in the autumn of 1931, by reason especially of the short-term balances held in New York, remained seemingly invulnerable. But, despite the extraordinarily large gold holdings, the conditions underlying the dollar, such as the banking situation, became more difficult, the competition or supposed competition of sterling and other currencies was felt, and political uncertainties probably played a part. There ensued in the United States the bank collapse just prior to March 4, 1933, the bank-holiday, the calling in of gold, restrictions upon gold transactions, and the whole series of measures and events traced in preceding chapters of this study, especially notable being the gold purchase plan of October–December 1933, the devaluation and introduction of dollar management, on January 31, 1934, with the 'stabilization fund' as a feature, and the supplementary currency and credit measures following along in 1934 up to the international stabilization understanding of late 1936, and to the present time.

THE GOLD DELEGATION. Meanwhile special mention should be made briefly of certain international studies and conferences which had a bearing upon the formulation of the new dollar policy. The 'Gold Delegation of the Financial Committee' of the League of Nations, which included in its membership some leading economists from several countries, and which had been studying the gold-currency-price problem for several years and had already issued an *interim* and special reports, published its Final Report in 1932.[2] Although this report recommended return to the gold standard by the various nations, it introduced other ideas and arguments, spoke at some points of the desirability of the employment to some extent of price index numbers, and altogether, even aside from the minority dissent and discussion, may be said to have advanced its gold stabilization proposals with much less dogmatism or even conviction than had previous international conferences, such as the one of Genoa in 1922. The delegation, despite its gen-

2 League of Nations, *Report of the Gold Delegation of the Financial Committee*, Official No.: C.502.M.243.1932. II.A., Geneva, June 1932.

For a list of other publications of the Delegation, *vide* Donaldson, John, 'The World Monetary Problem,' in *Weltwirtschaftliches Archiv*, 37 Band, Heft 1, January 1933, p.242.

eral conclusion, had developed some good arguments against immediate gold stabilization.[3]

THE LAUSANNE CONFERENCE. Also in the summer of 1932 the Lausanne Conference was held. It dealt mainly with the international financial problems of Central and Eastern Europe, but it proposed the World Monetary and Economic Conference, which was held at London in the summer of 1933.

THE COMMISSION OF EXPERTS. A committee soon met to prepare the agenda for the coming London conference.[4] Its report, published in January 1933, dealt with monetary and credit policy; exchange difficulties; the level of prices; and the movement of capital; and also with related 'economic' questions, such as tariffs and trade barriers. In the committee discussions much divergence of views appeared regarding both (a) gold, and (b) prices. (a) As for the gold standard, some members urged its abandonment, arguing for a stabilization of the price level (rather than a stabilization of foreign exchange), which would make debtor-creditor relationships more equitable and would offer protection against cyclical disturbances; others urged immediate restoration of the gold standard, arguing the impracticability of currency management and its particular inability to stabilize individual prices as contrasted with the price level. A middle-ground group viewed both systems as acceptable, the managed currency system being theoretically preferable, and considered that unless the various nations were willing and able to restore certain other economic conditions, such as closing of the gap between costs and prices by raising prices, removal of foreign exchange controls and severe trade barriers and settlement of war debts, technical reforms in the gold standard, including central bank co-operation, etc., it would be desirable or necessary to have currency management. This third (middle) view was particularly expressed by the English representatives, who thus favoured the re-establishment of an international 'equilib-

3 For a fuller summary and critique of the Gold Delegation Report, *vide* Donaldson, John, *idem.*

4 *Vide* League of Nations, Monetary and Economic Conference, *Draft Annotated Agenda*, submitted by the preparatory commission of experts, Official No.: C.48. M.18.1933. II., Geneva, January 20, 1933. For a concise statement of the various views expressed in the discussions and report of the committee, and also for a concise summary of the London Conference, by an advocate of international currency stabilization on a gold basis of the type existing before, *vide* Pasvolsky, Leo, *Current Monetary Issues*, Brookings Institution, Washington, 1933, especially Chapter II ('Geneva') and Chapter IV ('London').

rium' before re-establishment of gold could be considered. (b) The question as to whether price recovery should precede currency stabilization or follow it (or at most accompany it) was the central issue before the commission. The former view was presented by the experts from Great Britain and other non-gold countries; they particularly felt that reduction of costs would be more difficult (through reductions in wages, etc.) than the raising of prices, although they advocated reduction of one cost item, namely interest, and favoured a policy of cheap and plentiful credit. Those (experts from gold countries) who felt that price recovery should follow currency stabilization, feared that unco-ordinated national price-raising measures would interfere with re-establishment of international credit relations, and felt that currency management would lead to foreign trade warfare through progressive currency depreciation, which would make such trade especially difficult for the gold countries by forcing them to reduce the prices of their exports.[5]

The final report of the commission (i.e., the draft annotated agenda) was, necessarily, vague and indecisive on most of the main problems. They advocated restoration of the international gold standard only in an oblique and somewhat equivocal manner, saying: 'The restoration of a satisfactory international monetary standard is clearly of prime importance. The World Conference, *in the absence of another international standard likely to be universally acceptable*,[6] will have to consider how the conditions for a successful restoration of a free gold standard could be fulfilled.' Their statement regarding the role of prices was even more equivocal: 'In our view, among the essential conditions are the restoration of equilibrium between prices and costs and, in the future, such a reasonable degree of stability of prices as the world measure of value should properly possess.' Thus they left the way open to the coming conference to adopt almost any type of resolution or agreement concerning the role of price in the monetary question. They proceeded to make recommendations regarding measures in related fields

5 Some observers have read into the discussions of the commission the assumption that currency management *per se* involved economic nationalism. This does not necessarily follow, as will be seen, for example, in the later effects of the British Equalization Account and the American Stabilization Fund, which tended to work toward considerable stability between sterling and the dollar even before the international understanding of late 1936.

6 Italics the author's.

which might be adopted in order to assist in solution of the international monetary problem, including such trite subjects as balanced budgets, removal of trade barriers, settlement of intergovernmental debts, and even 'the solution of major outstanding political problems'—a pious wish indeed! They concluded that all these problems should be attacked at the same time: 'Action in the field of economic relations depends largely upon monetary and financial action, and vice versa. Concerted measures in both fields are essential if progress is to be made in either.' Their only truly clear-cut recommendation was against bimetallism. Such inconclusiveness on the part of a group of experts, added to the already existing divergence of national policies, could scarcely conduce to definitive settlement of the international monetary problem at London.

The ensuing events in 1933 may be mentioned still more briefly, since they were, from the standpoint of international agreement, still more inconclusive, nor did they serve to throw any further scientific light upon the problem. On the other hand, from the national viewpoint, they involved still more independent national action. The departure of the United States from certain features of the free gold standard began in March 1933, followed by many related measures, as described in an earlier part of this study. Between April and June 1933 the President of the United States held informal conversations in Washington with high officials of several other countries. Optimistic political statements were issued; but these discussions were exploratory only and were supposed to lead up to the London Conference. The Presidential proclamation of March 6, 1933 spoke of 'continuous and increasingly extensive speculative activity abroad in foreign exchange,' which had 'resulted in severe drains on the nation's stocks of gold.' True, the decline in the gold stock in February and the first three days of March had been less than in some previous periods (e.g., September–October 1931), but the banks experienced a crisis and in a few weeks prior to March 4, 1933 the reserve ratio of the Federal Reserve banks fell sharply, until it was barely above the then legal minimum. The gold reserve and exchange position of the dollar soon steadied considerably, but meanwhile the other forces and legislative measures, previously described, were injected, and the American policy of price-raising, through monetary

(as well as other) action was definitely established. It became increasingly apparent that the United States, to say the least, would not go to the London Conference prepared to stabilize the dollar at its old parity, unless it could retain considerable freedom to raise prices and do certain related things—and these American objectives were scarcely possible if such a stabilization were to be immediately effected.

One provision of the Thomas Amendment was especially significant and is worth requoting. It specifically gave the President the authority to expand currency and credit and to reduce the gold content of the dollar, if he should find: (a) 'the foreign commerce of the United States is adversely affected by reason of the depreciation in the value of the currency of any other government or governments in relation to the present standard value of gold;' (b) 'an expansion of credit is necessary to secure by international agreement a stabilization at proper levels of the currencies of various governments;' (c) 'in case the government of the United States enters into an agreement with any government or governments under the terms of which the ratio between the value of gold and other currency issued by the United States and by any such government or governments is established.'

THE LONDON CONFERENCE. The World Monetary and Economic Conference, which convened at London on June 12, 1933, needs only brief attention here, because it did not develop any really new doctrines concerning the monetary question, and because, with the possible exception of the concomitant world silver agreement, it ended without any definite accords and in what amounted to confusion regarding currency relationships. From the point of view of this study, the most significant fact concerning it is that, surprisingly to many but as might have been anticipated in the light of preceding events, it was the occasion for a sort of declaration of independence in international dollar policy.[7]

7 It is unnecessary to consider in detail the various documents of the conference. One may note, however, the following: (1) League of Nations, *Report of the Monetary and Financial Commission of the London Conference*, No.: C.435.M.220. 1933.II.; (2) League of Nations, *Journal of the Monetary and Economic Conference*, containing the detailed proceedings; (3) the *British Imperial Declaration on Monetary Policy*, signed July 27, 1933, by the representatives of Great Britain, Canada, Australia, New Zealand, Union of South Africa, and India; and (4) the *American Declarations of Policy at the London Conference*, introduced by the American delegation on June 22, 1933. (The League document, Information Section, entitled *The Monetary and Economic Conference*, is, by title, misleading; it only

A few highlights of the Conference were as follows. There was failure of the separate, 'currency truce' negotiations in which the United States, Great Britain, and France had already discussed the possibilities of a temporary stabilization of their currencies. These discussions had involved the questions of what ratios would be thus temporarily set for the dollar and the pound in terms of the (gold) franc, the ratio between the dollar and pound and what range of deviation would be permitted, and what central bank arrangements might be made to minimize speculative exchange fluctuations. In the light of events of late 1936, it is significant that the Americans, in these discussions of 1933, were disposed to favour a tripartite equalization fund, and a narrowing of the pound-dollar disparity, while the British favoured a wider gap and separate though co-operative equalization action. The French argued for keeping the disparities within the gold points and against an American inflation policy. There was a slight rise of the dollar on the exchange on June 15, accompanied by some price breaks in the United States. The President of the United States ordered discontinuance of the negotiations, and the American delegation issued a statement on June 22, saying that the American Government found that even temporary stabilization would be untimely, believed that its effort to raise prices was the most important contribution it could make, and considered that 'anything that would interfere with these efforts and possibly cause a violent price recession would harm the conference more than the lack of an immediate agreement for temporary stabilization.'

The Monetary and Financial Commission was divided into two subcommissions, the first to deal with credit, price, money, exchange, debts, etc., (Subcommission I: Immediate Measures for Financial Reconstruction); the second (Subcommission II: Permanent Measures for the Re-establishment of an International Monetary Standard), to deal with functions of central banks, coordination of their policies, monetary reserves, and silver. (There were also discussions of commercial policy, the final reports on which also stressed the need of settlement of the monetary ques-

presents the Draft Annotated Agenda, already discussed, and a description of other previous economic and financial work of the League, such as the Brussels Financial Conference of 1920 and the World Economic Conference of 1927.) For a clear, short description of the discussions at the Conference, cf. Pasvolsky, *op. cit.*, Chapter IV.

tion.) The second Subcommission (II), dealing with background and technical aspects of the monetary question, did not need to make recommendations for immediate action (except for silver), and was able to reach agreement on a good many points. It recommended: that international monetary stability be attained as soon as possible; that this be based on gold; that each nation be free to decide when to return to gold and at what gold ratio; that gold be used, not for internal circulation, but for central bank reserves and for international settlements; that gold cover ratio requirements be reduced to not more than 25% (instead of $\frac{1}{3}$ or $\frac{2}{5}$), to give to the gold standard greater elasticity; that central banks cooperate with each other, with the aid of the Bank for International Settlements. It also recommended certain standard rules for central bank policy. It further recommended an agreement among the principal silver producing countries and countries which hold large silver stocks, in order to stabilize silver prices. All these were mere resolutions, although, regarding silver, an agreement was actually concluded during the conference.

The first subcommission (I) dealing with the more immediate aspects of the monetary question, became the centre of the real debate, and was unable to report any agreement on essential aspects of money, credit, and prices. But this failure must be noted a little more fully, since much of it centred on the American dollar policy and throws considerable light upon subsequent American action. In this respect there were, roughly, three groups at the conference: France and the other gold countries; Great Britain and her Dominions (with perhaps some tendency for the other 'sterling areas' to follow); the United States. The gold countries largely favoured gold-standard retention, rejected price-raising as the key to recovery, did not even stress money greatly as the real basis of recovery, and particularly feared currency and credit inflation. The British group was much nearer to the American position, endorsing the importance of price-raising and favouring cheap and abundant credit, although not emphasizing the desirability of public works, and opposing unbalanced budgets.

The United States, of course, favoured price-raising through monetary measures, as a primary means of recovery, as well as credit expansion, and wished to have exchange stabilization postponed until price-raising had reached its desired national level.

The progressive crystallization of this position is indicated in several very significant American statements.

The President of the United States, in rejecting a draft declaration submitted to him from the conference, sent the following message to the conference on July 3, 1933:

> I would regard it as a catastrophe amounting to a world tragedy if the great conference of nations, called to bring about a more real and permanent financial stability and a greater prosperity to the masses of all nations, should, in advance of any serious effort to consider these broader problems allow itself to be diverted by the proposal of a purely artificial and temporary experiment affecting the monetary exchange of a few nations only. Such action, such diversion, shows a singular lack of proportion and a failure to remember the larger purposes for which the Economic Conference originally was called together.
>
> I do not relish the thought that insistence on such action should be made an excuse for the continuance of the basic economic errors that underlie so much of the present world-wide depression.
>
> The world will not long be lulled by the specious fallacy of achieving a temporary and probably an artificial stability in foreign exchange on the part of a few large countries only.
>
> The sound internal economic system of a nation is a greater factor in its well-being than the price of its currency in changing terms of the currencies of other nations.
>
> It is for this reason that reduced cost of government, adequate government income, and ability to service government debts are all so important to ultimate stability. So, too, old fetishes of so-called international bankers are being replaced by efforts to plan national currencies with the objective of giving to those currencies a continuing purchasing power which does not greatly vary in terms of the commodities and need of modern civilization. Let me be frank in saying that the United States seeks the kind of dollar which a generation hence will have the same purchasing and debt-paying power as the dollar value we hope to attain in the near future. That objective means more to the good of other nations than a fixed ratio for a month or two in terms of the pound or franc.

Our broad purpose is the permanent stabilization of every nation's currency. Gold or gold and silver can well continue to be a metallic reserve behind currencies, but this is not the time to dissipate gold reserves. When the world works out concerted policies in the majority of nations to produce balanced budgets and living within their means then we can properly discuss a better distribution of the world's gold and silver supply to act as a reserve base of national currencies.

Restoration of world trade is an important partner both in the means and in the result. Here also temporary exchange fixing is not the true answer. We must rather mitigate existing embargoes to make easier the exchange of products which one nation has and the other nation has not.

The conference was called to better and perhaps to cure fundamental economic ills. It must not be diverted from that effort.

Again on July 5, 1933 the American delegation transmitted the following emphatic message:

The revaluation of the dollar in terms of American commodities is an end from which the government and the people of the United States cannot be diverted. We wish to make this perfectly clear: we are interested in American commodity prices. What is to be the value of the dollar in terms of foreign currencies is not and cannot be our immediate concern. The exchange value of the dollar will ultimately depend upon the success of other nations in raising the prices of their own commodities in terms of their national moneys and cannot be determined in advance of our knowledge of such fact. There is nothing in our policy inimical to the interest of any other country and we are confident that no other country would seek to embarrass us in the attainment of economic ends required for our economic health.

(There is probably no significance in the fact that these messages were transmitted the day before and the day after the Fourth of July.)

Currency Blocs and the Position of the United States. Following the London Conference more or less definite steps were taken towards consolidation of 'currency blocs.' This included:

(a) the formation of the 'sterling area,' especially the 'British Imperial Monetary Alliance' indicated by a formal declaration on July 27, 1933; (b) crystallization of the 'Gold Bloc,' expressed specifically in a declaration of France, Italy, Belgium, the Netherlands, Switzerland, and Poland, on July 5, 1933; and (c) further crystallization of the American dollar policy.

The President then needed to choose his instruments of policy. He could immediately devalue the dollar by 50% or less, as authorized in the Thomas Amendment, and in this and other ways work toward restoring prices to, say, the 1926 level. Or he could adopt a gold-purchase plan, which, if it proved effective, *might more gradually* work toward that end, and perhaps without too violent disturbances and speculations. He first chose the second course, and described it in a radio address on October 22, 1933, certain passages from which may be cited here for their significance with regard to the *international* position of the dollar:

> It is the government's policy to restore the price level first. I would not know, and no one else could tell, just what the permanent valuation of the dollar will be. To guess at a permanent gold valuation now would certainly require later changes caused by later facts.
>
> The object has been the attainment of such a level as will enable agriculture and industry once more to give work to the unemployed.
>
> It has been to make possible the payment of public and private debts more nearly at the price level at which they were incurred.
>
> It has been gradually to restore a balance in the price structure so that farmers may exchange their products for the products of industry on a fairer exchange basis.[8]
>
> It has been and is also the purpose to prevent prices from rising beyond the point necessary to attain these ends.
>
> Because of conditions in this country and because of events beyond our control in other parts of the world, it becomes increasingly important to develop and apply the further measures which may be necessary from time to time to control the gold value of our dollar at home.

8 How this could be done merely by increasing the price level was not explained.

Our dollar is now altogether too greatly influenced by the accidents of international trade, by the internal policies of other nations, and by political disturbances in other continents.

Therefore the United States must take firmly into its own hands the control of the gold value of our dollar. This is necessary in order to prevent dollar disturbances from swinging us away from our ultimate goal, namely, the continued recovery of our commodity prices.

As a further effective means to this end, I am going to establish a government market for gold in the United States. Therefore, under the clearly defined authority of existing law, I am authorizing the Reconstruction Finance Corporation to buy gold newly mined in the United States at prices to be determined from time to time after consultation with the Secretary of the Treasury and the President. Whenever necessary to the end in view, we shall also buy or sell gold in the world market. My aim in taking this step is to establish and maintain continuous control.

This is a policy and not an expedient.

It is not to be used merely to offset a temporary fall in prices. We are thus continuing to move toward a managed currency.

The gold purchase plan was then inaugurated October 25, 1933. On January 31, 1934 this was succeeded by the devaluation plan. The degree of devaluation was a trifle more than the minimum degree authorized by the Thomas Amendment. The President made it clear, then and on various later occasions, that the new ratio was not fixed for all time, and that he would make further adjustments in the gold content of the dollar if it became necessary. These and the other American monetary measures have been described and analysed in preceding chapters.

Thus are seen, in brief, the international events leading up to the American devaluation of 1934. It remains to consider more fully the theoretical hypotheses underlying the move or suggested by it, after which it will be in order to deal with the actual results as empirically viewed, and to conclude with a chapter on the international stabilization understanding reached in the fall of 1936 and the striking results which followed among a large number of the currencies of the world.

SOME THEORIES ON MONEY AND INTERNATIONAL PROCESSES

There are different theories and schools of thought regarding the nature of international economic relations, some of them so different in approach that they are not essentially debatable as opposites one to the other. It is, however, the so-called English classical theory of economics which, in one of its branches, offers the most familiar modern attempt to explain the international relationship of gold, money, price, and foreign exchange, and the supposedly resulting behaviour of international trade. This is variously referred to as the 'classical theory of international trade,' or, more significantly, the 'classical theory of international prices.' The essentials of this theory apparently were first clearly stated by Hume, at the time of the decline of the doctrines of Mercantilism, and the concept has been restated and modified by a considerable number of subsequent writers down to the present time. Some of them have moved it rather far from its original position, and some versions (such as Goschen's) have developed it more particularly as a theory of foreign exchange than as a general theory of international trade.[9] It is unnecessary in this study to present an extensive elaboration or critique of this familiar theory.[10] But it is important to refer very briefly to some of its essential features, as well as to a few of the criticisms of it, and to consider its bearing upon present-

9 For a good history of the theory, with exhaustive bibliographical references, *vide* (1) Angell, James W., *The Theory of International Prices*, Harvard University Press, 1926, who also, in his own treatment, tends to stress the exchange and balance of payments aspects. For other recent book versions: (2) Taussig, F.W., *International Trade*, N.Y., 1927 (an orthodox version); (3) Ohlin, Bertil, *Interregional and International Trade*, who endeavours to make the theory an aspect of general trade theory, and who introduces in it the mutual interdependence theory of pricing. *Vide* also (4) Iversen, Carl, *Aspects of the Theory of International Capital Movements*, N.Y., 1935, with emphasis upon the feature suggested by the title; and (5) von Haberler, G., *The Theory of International Trade*, N.Y., 1936, who offers no essential modification but comprehensively and stoutly defends the theory, even against some of the modifications of contemporary neo-classicists, and expounds somewhat more fully than usual the familiar applications to foreign commercial policy. The *purchasing power parity* doctrine is in a sense a version and development of this theory, but in some forms moves especially far from the original position; *vide* the works of Cassell, Gustav, e.g., his *Money and Foreign Exchange After 1914*, London, 1922.

10 For a critique with special reference to gold and money, *vide* Donaldson, John, *op. cit.*; and 'Gold and International Trade,' in *Gold: A World Problem*, Academy of World Economics, 1932.

day international monetary relations and especially upon those of the dollar.

Although all of the essential features of this theory are logically an integral portion of one doctrine, it may be divided, merely for convenience in the present analysis, into several aspects as follows: (1) the theory of international prices, proper; (2) concepts regarding the international role of gold; (3) ideas concerning the effects of currency depreciation upon foreign trade; (4) the operation of the different forces in the whole balance of international payments, including not only gold and goods, but also other items such as capital movements.

INTERNATIONAL PRICES. The essentials of the classical theory of international prices need little explanation here. It is sufficient to recall the following main points in their simplest form: (1) It is posited that there is a normal price and trade 'equilibrium' between any two nations, based upon territorial division of labour and consequent comparative cost (i.e., absolute *or* comparative differences in real cost), and involving internal functional division of labour, the quantity theory of money, ideal international distribution of gold, and, somewhat curiously in an otherwise cosmopolitan theory, internal mobility and fluidity of labour and capital as contrasted with international immobility and lack of fluidity of these factors.

This permits each country to produce those commodities for which it has a natural advantage (absolutely or comparatively lower cost), and society as a whole is thus benefited. Any fundamental alteration of this division of labour and attendant differentiation of costs is prevented by the assumption that capital and labour do not move freely from one country to another. (2) This equilibrium includes an equilibration of the price and cost structures of the two countries assumed in the reasoning, and a supposedly normal flow of trade between the two. (3) When price disturbances occur in the equilibrium, this equilibrium will be restored by exceptional flows of trade and reverse flows of gold—this is the 'price-goods-specie-flow mechanism.' For example, if, say through some artificial forces outside the economic process, prices rise in one country, this will attract greater imports, and these additional imports will have to be paid for by exports of gold; but the exports of gold, through the consequent reduction in

the quantity of money, will reduce the price level in that country to its old position, and the equilibrium is restored. Or, if prices fall exports will be stimulated, gold will flow in, and again there will be restoration of the equilibrium price level. Similarly, if a country finds it necessary to make unusual payments abroad, such as war debts or reparations, it is even contended by some that this will be quite possible, because the extra payments can take the form of good exports (although with repercussions upon the real income), such export being facilitated by the exchange disparity which occurs. (4) There have been various refinements and modifications. For example, J.S.Mill allowed for reciprocal demand as at least a short-run determinant, and exceptions have been made for non-competitive trade. Ricardo had a labour cost version, but later the abstinence theory of capital allowed the introduction of capital cost, and Ohlin has applied the mutual interdependence theory of pricing. Cairnes' adaptation to cover international capital movements was significant: the loans begin to flow as gold, but later take the form of goods as a result of the price effects of the gold flow, and the process runs from a capital export stage through to a capital import stage. Cassel has given emphasis to the purchasing-power-parity idea: the ratio between two currencies reflects exactly the ratio of their respective purchasing powers. Contemporary writers have admitted friction in the automatic adjustment process: Pigou speaks of the real ratio of interchange (the equilibrium rate) and the rate of exchange between two countries; for the latter to adjust itself to the former, friction may be necessary, as in the difficult shift of capital and labour to export industries in one of the countries. And so on.

The whole theory has been subjected to various criticisms. These range all the way from the denial of the validity of the naturalistic and individualistic philosophy underlying it, that is, refusal to believe that what economic individuals as such do is more natural and efficient than what may be done by them collectively through government, to arguments that the theory does not work in practice. For example, international trade is not simply the result of individual profit-motive actions but it is moulded by the organic and structural natures of the various national economies, and is influenced or even determined by social costs, in any country and especially in certain countries such as Russia at the present time.

Territorial division of labour is limited by transportation costs and other factors. The reasoning for two countries and two commodities is not, it is said, shown to apply to many. No country can or does trade only on the basis of perfect natural advantage in each product. Non-competitive trade conditions are outside the reasoning. Labour is not immobile, nor capital lacking in fluidity, internationally; these can sometimes move with even greater freedom internationally than nationally; large migrations have occurred in modern history, and international capital flows, short and long term, become enormous and commonplace—they are going on before our eyes. And so on. But the argument that the theory does not work in practice is difficult if not impossible to resolve inductively, because the theory has two eternal if evanescent escapes: (1) results can never be expected except in the long-run, which becomes an indeterminate period of time; and (2) if it does not work this is because of 'artificial interference' by governments in the otherwise natural process, and these are always occurring.

GOLD FLOWS. If some of this rapid review of a few of the principal features of the classical theory of international prices, and of the discussions concerning it, has seemed to lead somewhat away from the problem at hand, it must be recalled: (1) that all the features of the theory are interrelated and bear upon the problem of international gold flows and price and money relationships; and (2) that this doctrine is the only one which provides a *fundamental theoretical* basis for the pre-war automatic international gold standard —without such a foundation the question of what international monetary system should or can be used becomes a superficial one of convenience and workability. If the philosophical support of a given international monetary system is not sustained, the system of necessity must be worked out upon the basis of empirical conclusions and practical technique.

This leads back to the question of the place of gold and the quantity theory of money in the automatic mechanism of maintenance of international price and trade equilibrium.[11] Certainly in

11 The present study is not concerned with the question of the adequacy of the world supplies of gold for a return to the gold standard. In the twenties this subject was much discussed, and the League's Gold Delegation gave it considerable attention. A good deal was said of the need for 'economizing gold,' but in view of the increasing gold production and of the evolution of monetary systems, it would seem that the problem is not serious. One of the latest treatments of this subject may be found in Hardy, C.O., *Is There Enough Gold?* Brook-

the earlier versions, the role of gold was paramount if not pivotal. As seen, the gold, in its flows, was the precise balancing agent. Naturally flowing as needed and thus distributing itself as needed among the various countries, it was the key to the mechanism. Working as posited by the quantity theory of money it had exactly the needed effect upon price. But if such gold performances of this type have largely ceased to exist in recent times, and also if the quantity theory falters, the question arises whether this phase of theory of international money-price relationships fails to hold good. Recent supporters have endeavoured to show that this does not matter, that the gold link is not essential in the chain. For example, Taussig argues that under conditions of irredeemable currency in the two countries involved (and in the always simplified illustration) the final results of the adjustment process will be the same, although the process will be different; only goods move, the situation is more like that of pure barter, and the exchange rate fluctuates and brings the adjustment. Angell places some much needed emphasis upon the balance of international payments as a whole and endeavours to reformulate the theory in the light of it, and this leaves more room for sustaining the theory regardless of the currency basis—whether gold or inconvertible paper—in the two or more countries involved. But here there is the danger of reducing the theory to an almost meaningless truism that exchange rates are merely the product of the interaction of the supply of and demand for bills of exchange, unless of course this reacts sufficiently upon internal price. Haberler takes somewhat the same position, stating that under paper currencies the exchange rates will be determined by their supply and demand, and indicating that the international adjustments will occur through shifts in this rate. Incidentally, he attacks what he calls the balance of payments theory (at least in one form) as assuming such balance of payments to be a fixed quantity, with rigidity in at least the

ings, 1936. Dr. Hardy surveys the earlier estimates and discussions by Cassel, Kitchin, and others, and after further analysis concludes that there *is quite* enough gold, and also tends to minimize the effects of international maldistribution of gold.

The present chapter of this study is, of course, concerned with the *function* of *international gold flows*. However, the question of maldistribution of gold is a problem of some importance. No matter how refined the system of international central bank relations, barring perhaps the realization of some ideal attainment of the Bank for International Settlements, past experience indicates the seriousness and magnitude of this problem for the future, in a very real way.

dominant items; but no proper balance of payments theory could assume such fixity—it is the very essence of a true balance theory that it is not rigid. To say that the balance must always, *per se*, balance, and that all the items tend to be interactive, is not to say that the balance is fixed. Various items (goods, services, capital, etc.) may be constantly influencing each other. At the same time each item is also constantly subject to non-balance, basic influences, and as they expand or contract from these influences, the whole total may constantly expand or contract. In any event there is a flexible relationship among the items within the balance.

Meanwhile, however, if neo-classical modification of the classical theory must discard what were formerly essentials of its mechanism in order to adapt the theory to existing conditions, especially to currency conditions, and must move toward a version where not much more can be said than that exchange rates are determined by exchange supply and demand, then the strong colours of the old theory tend to wash out, and the golden hue to fade. True, it might be argued that if gold is not a necessary link in the theoretically self-adjusting mechanism of international prices, and that the mechanism will work just as well under paper, this still does not justify currency management, since such management might interfere with the mechanism. But paper currency by its very nature can scarcely be conceived of without some type of control. This is another way of expressing the dilemma that in any modern monetary system, and especially in any one where bank credit is an important part of the total money, there necessarily must be control. The question therefore comes to be one of the degree and type of money management, and any theory that adapts itself to suit any combination of standards within the various countries and claims a mechanism that will work without the gold standard, can scarcely in strict logic, offer any fundamental objection to the elimination of the international gold standard.[12]

On the other hand, it should be borne in mind that in the present-day situation international gold flows are highly significant. If the

12 *Vide:* (1) earlier portions of the present study; (2) Donaldson, John, *op. cit.*; (3) same author, 'The International Balances: Some Theories and Policies,' a paper read before the Academy of World Economics May 17, 1933, and published in *The Annals*, vol.170, November 1933. For a non-technical and semi-popular treatment of the flaws in the international gold standard, cf. Morgan-Webb, Sir Charles, *The Rise and Fall of the Gold Standard*, N.Y., 1934.

dollar in several essential respects is 'off gold' it still has a nominal gold content and the Treasury has a gold-price policy. Sterling in 1931 abandoned even a nominal gold content, but the British monetary authorities also have a gold-price policy. There are gold reserves. International gold flows, if they are highly irregular and no longer have precise 'balancing' effects, are very heavy, and affect the base for bank credit—even though they do not necessarily affect the velocity of money, and general prices. Under these circumstances such flows tend to have disturbing influences, which become a problem for the monetary authorities.

All of these theoretical and practical difficulties taken together raise the question whether the abandonment of the old gold standard as a basis for automatic international adjustment would not, if carried to its logical extreme, come ultimately to abandonment of all connexion with gold and the complete substitution of currency management.

The following quotations from contemporary writers are interesting. With reference to the international gold standard, Keynes,[13] after criticizing the mercantilists, remarks: 'But intellectually their realism is much preferable to the confused thinking of contemporary advocates of an international fixed gold standard and laissez-faire in international lending, who believe that it is precisely these policies which will best promote peace. . . . Never in history was there a method devised of such efficacy for setting each country's advantage at variance with its neighbours' as the international gold (or, formerly, silver) standard. . . . The part played by orthodox economists, whose common sense has been insufficient to check their faulty logic, has been disastrous to the latest act. For when in their blind struggle for an escape, some countries have thrown off the obligations which had previously rendered impossible an autonomous rate of interest, these economists have taught that a restoration of the former shackles is a necessary first step to a general recovery. In truth the opposite holds good. It is the policy of an autonomous rate of interest, unimpeded by international preoccupations, and of a national investment programme directed to an optimum level of domestic employment which is twice blessed in the sense that it helps ourselves and our neighbours at the same time. And it is the simultaneous

13 *The General Theory of Employment, Interest, and Money*, N.Y., 1936, pp.348–349.

pursuit of these policies by all countries together which is capable of restoring economic health and strength internationally, whether we measure it by the level of domestic employment or by the volume of international trade.'

Cassell [14] after tracing the downfall of the gold standard, also becomes emphatic, and in a way goes further. He speaks of 'the illusion of a return to gold' and says of such a restoration of the international gold standard: ' . . . nothing could have more dangerous and destructive effects on the world economy.' He does not favour even provisional stabilization, pointing out the dangers of further devaluations, and asks the rhetorical question: 'What in heaven's name is the sense of linking our currency system in any way to gold?' [15]

GOODS FLOWS—'FOREIGN TRADE.' [16] The general theories mentioned above have to do with general international monetary relationships and their significance in terms of national price structures and international trade, and look toward some sort of international balance or adjustment either automatically maintained through such a thing as the former fixed gold standard or deliberately attained and controlled but flexibly so through a partly or completely non-gold standard currency management.

The question of the relation to foreign trade must be examined a little more closely. It is frequently said that 'a country with an over-valued currency had to devalue in order to prevent its exports

14 *The Downfall of the Gold Standard*, Oxford, 1936.

15 It is unnecessary to point out here, despite the increasing questioning of the gold standard on theoretical grounds, and the so-called abandonment of that standard by practically all nations at the present time, that gold is still closely related to existing currency and credit systems, and remains a large factor in the national and international situation. In this connexion, the League's *World Economic Survey 1935–36*, pp.244 *et seq.*, comments on the gold situation at present. It points out that, in addition to use in industry and arts, there is a strong demand for gold for private hoarding and for use by stabilization funds (especially for regulation of short-period exchange fluctuations by the British Exchange Equalization Account). In discussing the relation between the world supply of gold and price trends, it suggests a prolonged rise of commodity prices (if gold is used as in the past) and it refers to the increasing world supply, stating: 'Since 1929 the annual quantity of gold produced in the world has increased by 50%. Measured in terms of the new depreciated units of account, the dollar and sterling, the value of annual production has increased by 150%.' The South African production amounted in 1929 to $\frac{1}{3}$ and in 1935 $\frac{1}{4}$ of the total. If the U.S.S.R. produces ten or eleven million ounces from 1940 on, the annual world output after 1940 would be over forty million ounces, the *Survey* indicates, as against thirty million ounces in 1935 and twenty million ounces in 1925.

16 Devaluation and currency management, although not the same thing, are here discussed together, because in case of the dollar they have been associated.

from further declining,' or, 'in order to prevent its excess of imports from increasing and thus further endangering its currency reserves and its general currency position.'

The broader theoretical question probably needs no further discussion here. But attention must be given to the idea that by devaluation a country can obtain some benefit in its competitive export trade and can engage in what is sometimes, inaccurately, called 'exchange dumping.' Generally speaking it might not be supposed that this could take place. Devaluation would cause prices to rise within the country, and, if the correlation were exact, the depreciation of the currency on the foreign exchanges would correspond to the internal depreciation as measured in terms of internal prices. In the fundamental reasoning, if the internal and external depreciation of the currency proceeded at the same pace, the long run result should be simply to put the prices 'more in line' with those in other countries, where prices had perhaps already risen more than in that country, while temporarily imports would increase until the equilibrium was restored. The internal advantage would lie primarily in the relationship of cost and prices; for example a country might have or even wish to maintain a high cost structure due to such things as rigidity of wages, and since it would be difficult or impossible, or be considered undesirable, to lower such costs, the purpose is to bring prices up to or beyond them. Or, from the point of view of *all* the countries, the ideal is to 'reflate' so as to stimulate 'recovery' through a general price rise which widens the cost-price difference. In the international relation between the countries, the country with the 'overvalued currency' has to sell at what amounts to a higher price because foreign purchasers have to pay more of their own currency to obtain a given amount of the currency of that country with which to make their purchases, and the devaluation is supposed to have the effect of reducing export prices, in terms of exchange and, at the same time, of increasing import prices in the same terms. The country which had an 'overvalued' currency and devalues, may then have greater exports again, as the result of the adjustment. All of this is familiar. But the point is that the external aspect of the devaluation, the depreciation of the currency on the foreign exchange, is not in itself an end, but is rather a means to an end, *the end being the adjustment of the various internal cost-price structures.* It may be added that

even devaluation alone, is still a rather rigid thing, and that it is only in the employment of the more flexible features of the currency management, such as the so-called equalization or stabilization funds, that the adjustments can be obtained in the current exchange rates and thus, through them, in the respective cost-price structures.[17] It also follows that the success of the money management must depend upon a proper correlation of the internal cost-price effects with the external or international effects of the monetary policy.

The final problem for the currency management lies in its lack of a rigidly fixed criterion for gauging what is a proper adjustment. This it must judge by keeping a constant eye upon various indices at home and also abroad, so that it goes without saying that the management must exercise much intelligence with regard to the current effects. But the great merit is in the flexibility of adjustment. On the other hand, once a reasonable adjustment is obtained, there is no reason why very great further changes need be made in the exchange rate for a considerable period, in the absence of policy deviation of other countries or of any events greatly altering the internal structures at home and abroad. Thinking of management on a non-gold basis, after all its real objective can become somewhat similar to that which the former international gold standard was theoretically supposed to attain, but since the war apparently has not. A consciously arranged equilibrium can be substituted for a supposedly automatic one, with national freedom to prevent the former shocks and maladjustments. However, there is also room for autonomous action within the country, in respect of wages, interest, etc., to the extent desired.[18]

17 Hawtrey (*The Gold Standard*, 3d ed., pp.158–159) observes: 'Perhaps the keeping up of the exchange value of the currency is sought as a desirable object in itself. . . . Like all popular beliefs this has some foundation. A tendency for exchange to rise (unless it be due to increased imports or diminished exports of *capital*) is a sign of increased exporting power or economic strength. . . . But . . . in so far as a high exchange is attained either at the cost of depression and unemployment or through a limitation of imports, it is not a sign of economic strength at all. When a country has been driven to suspend the gold standard by a fall in the world price level, that means that at the world price level its export industries are unremunerative. They become underemployed. . . . The suspension of the gold standard relieves the strain; it raises the equivalent of the world price in terms of the country's currency. If the currency is allowed to depreciate to the point at which the world price level becomes normally remunerative, the relief is complete.'

18 'The unprecedented shrinkage of foreign trade in recent years can scarcely be attributed to fluctuating changes. It is chiefly a reflection of the course of trade

Moreover, if this review of the matter has run in terms of international trade, it is also extremely important to bear in mind the other international flows which affect and are affected by the monetary relationships. For these, the reasoning is in some respects essentially the same. The very large international flows of both long and short term capital in recent times should be especially stressed, with their disruptive tendencies in respect of the capital supply, bank credit, and comparative interest rates in the respective countries. The importance of this aspect, at one time largely neglected, can scarcely be over-emphasized. In this case there are special problems, such as the rapid shift of short-term funds from one country to another, especially at times when the countries are adjusting their currency positions and the shifts create special difficulties, both internal and external, for currency management. These difficulties are so great that they may call for further meas-

in general, accentuated by the extension of direct restrictions on international trade, such as tariffs, quotas, and exchange controls. The causal relationship is more typically, it would seem, the opposite of that ordinarily assumed. Instead of the abandonment of gold—or the accompanying exchange rate fluctuations—causing a shrinkage of trade, it is more apt to be a shrinkage of trade that leads to the abandonment of gold. The sharp decline in the value of exports, while fixed interest obligations remained as great as before, was a primary cause of the numerous departures from the gold standard after 1929. Moreover, the fall in trade was greater before than after exchange relationships became unstable.

'. . . There seems, therefore, to be no reason to believe that the operations of any business man, much less that business as a whole, will be disturbed by scientifically controlled exchange rates altered in the national pursuit of monetary or economic stability in an unstable world. . . .

'With flexible exchange rates scientifically controlled, there is, on the other hand, the potentiality of preserving a horizontal trend in the value of money, or the pursuit of any other desired monetary policy, without regard to or influence upon the different and otherwise conflicting policies of foreign nations; without any disturbance of the price structure and economic life in general in the home country; or without disturbance, arising from the pursuit of the national monetary policy, in business abroad. A national monetary policy is no bar to the smoothest operation of international trade and finance. . . . '—Graham,F.D., and Whittlesey,C.R., 'Exchange Rates, Foreign Trade, and Price Level,' in *American Economic Review*, vol.xxiv, No.3, September 1934, pp.401–416.

Certain other types of countries which do not have currency management in the English or American sense, but which abandoned gold and control their foreign exchange, present special aspects.

'From a consideration of the experiences of Argentina, Brazil, and Australia in recent years it seems correct to conclude that *any* nation, largely exporting raw materials and having substantial debts abroad, will find the functioning of the gold standard imperiled by a considerable decline in world prices or by a cutting off of its usual supply of new loans from abroad, and that when both of these factors are present at the same time a complete break-down of the gold standard within its borders is inevitable.'—Smith, Lawrence, 'The Suspension of the Gold Standard in Raw Material Exporting Countries,' in same issue of same journal.

ures directly, beyond the immediate operation of the monetary control itself. At least, government needs to record and observe their type and extent as it has not done in the past. But in some degree their effects can be adjusted through the currency management; though it cannot be contended that currency management is a substitute for all other kinds of measures, in either internal or external policy. Indeed, this is a further illustration of the familiar fact that goods trade is by no means the only item which composes the balance of international payments, and that in external monetary policy, as in other foreign economic policy, not only goods and capital but all the items in the balance of payments need to be taken into account. This point will be discussed further below.

Reverting now more specifically from the *general* external aspects of devaluation and currency management to the question of immediate trade effects, it is necessary to give more careful attention to the specific notion, mentioned above, that devaluation gives *peculiar* stimulative advantage to a country's exports. This idea is so universally prevalent and apparently has so much influence upon actual monetary and indeed other foreign economic policy (e.g., anti-exchange dumping measures) that it needs fuller exploration. The idea is not necessarily in itself incorrect. But its corollaries and its limitations are usually not completely appreciated.

Clarification and criticism of the assumption involve several points.[19] (1) Such stimulation is essentially temporary, as it can occur only while the external depreciation (e.g., the fall of the dollar on the foreign exchange) is progressive and is currently outrunning the internal depreciation (e.g., internal rise of dollar prices) or if the external process of depreciation has stopped, until the presumably lagging internal depreciation has closed the gap by bringing the internal cost-price structure up to the new currency parity with other currencies. For if export producers' costs have risen proportionately their peculiar advantage has disappeared. As a matter of fact, the gap period *is* likely to occur for some time, as seems to have been true in England in recent years, where

19 These points have been covered by the author, not in published form but in unpublished documents (e.g., 'Memorandum on Currency Policy and Foreign Trade,' May 24, 1934: 'Memorandum on Foreign Exchange Control,' July 5, 1934; 'Memorandum on Currency Devaluation and Foreign Trade,' April 26, 1935); and in lectures in earlier years.

the internal price-cost rise, after the currency management began, apparently tended to lag behind the external fall of the pound. The same has tended to occur, with respect to price level and exchange, in the United States. But further qualifications are important, especially if one considers, as one must, not simply the effect upon the price average but upon individual prices and costs and industries. (2) The price effect may conceivably occur without change in the trade volume. The exports may go to other countries and set a new, lower price there; but this may not necessarily induce, depending on the demand, further shipments from the country of depreciation. If this effect occurs sufficiently, the total value of exports may be no greater than before devaluation except in terms of the currency of the devaluing country. (3) It is theoretically possible that the reverse of export stimulation may take place if the external depreciation of the currency, instead of outrunning the internal depreciation (as expressed in prices and costs), lags behind it. This has probably taken place in some instances in monetary history, although recent experience has shown a considerable tendency toward more rapid external depreciation. (4) It is sometimes forgotten that if the more rapid external than internal depreciation tends to cheapen and stimulate exports, then the converse must also be assumed, i.e., that imports tend to become, in exchange terms, dearer, and so to be retarded. This raises the whole question whether the government is more eager to promote exports or to permit imports. (5) Speculative buying and selling of either goods or exchange may retard or accelerate the export or import effects. (6) Related to this is the fact that foreign buyers anticipate further devaluation, or further depreciation resulting from the original devaluation, and may delay their otherwise increased purchases in the expectation of making them at a still cheaper currency rate. The reverse offset might similarly hold for the import retardation. (7) Contrariwise, the cheapening of the exports may so rapidly stimulate the demand for them that the demand outruns the supply, and the prices quoted for exportation may accordingly rise enough or more than enough to offset the export advantage. (8) Or, owing to already prevailing conditions in the supply-demand situation, the exporters may, in some cases, be in a position immediately to raise their prices enough to offset the exchange-rate gap. The reverse can be true regarding imports.

(9) If imported raw materials enter heavily into the production for export, as is often the case with an industrialized nation, the increased cost of the imports may go far, in the internal cost-structure, toward offsetting the export advantage. (10) Even if the raw materials are domestically produced, if some of the same are also exported, their drawing off for export purposes as such may increase their price and thus increase the costs of the producer for export. (11) Too much emphasis can scarcely be placed upon the need of distinguishing between different industries or types of industries. To mention but one example, decreasing cost industries may be in position to profit from the export stimulation here considered, while those of increasing cost may not. Thus throughout the present analysis one encounters the question of comparative national cost-structures, not in the simple, generalized form in which it is so often expressed, but in a way that calls for case by case treatment; only in such a way could one ever arrive at the actual specific results. Meanwhile several more points should be made along these lines. (12) Monopoly conditions, as in any price problem, can offset money-price measures and forces. (13) As for the purposes of the government in the dollar policy, it has already been seen that such purposes were avowedly more internal than external. The most that could be said of the external aspects is that 'defence' of the dollar was probably taken into account but not with an aggressive objective of 'currency warfare.' Moreover, to the extent that the internal price-level-raising process was the main objective, then to that extent an aggressive export policy could not have been contemplated; for obviously as soon as the internal prices (and costs) would be raised to the same degree as the external level of the dollar was lowered, then, broadly speaking, with the exceptions mentioned above, export stimulation could not be expected. (14) Retaliation or nullifying policies are often established by other countries against the export stimulation of the devaluing country; one need mention only 'anti-exchange dumping,' or equivalent measures as leading examples.

One or two points remain to be considered. They have to do with the effect of monetary change upon the so-called terms of trade, and upon real income.

One part of the English classical theory of international trade has been the concept of barter terms of trade. That is, if a country

specialized in the production of a certain commodity and traded by exporting it, then in a barter economy the ratio between this commodity and the imported commodity expressed the barter term of trade. The country would gain more or less according to the ratio between its export commodity and its import commodity. If the ratio of the country's product to the imported product was relatively high, it gained more from the trade than did the foreign country, and vice versa. It has been argued that this is the essence of international trade, as contrasted with internal trade, where (under the law of normal cost, etc.) the division of gain is supposed to be equal. The point contributed a good deal of reality, because, at least within the outside limits of the cost concept, it left room for one of the obvious aspects of any trading, namely some bargaining, some interplay of supply and demand at any given time. And where competition is imperfect or absent, such an interplay of supply and demand forces, as contrasted with cost relationships, takes on very great or even paramount importance. This concept was then broadened to cover various commodities and to allow for a monetary system instead of a barter one. Under such a system it was concluded that the country would gain relatively more from trade if its money income (e.g., money wage under a labour cost assumption) were higher than abroad, and vice versa. This suggests the relation of this concept to the external aspects of currency management.

Regardless of the more speculative aspects of this problem, it is clear that if the prices of a country's exports rise in proportion to the prices of its imports its real income will tend to increase, and vice versa; i.e., anything that cheapens its exports in proportion to its imports will tend to lower its real income, so far as this income is derived from foreign trade. For example, during the depression, when the prices of raw materials declined more than those of finished products, certain countries exporting raw materials suffered a proportionately greater loss than others; and more recently when the prices of raw materials in certain cases have been rising more rapidly than those of finished products, the raw material exporting countries have benefited proportionately. Consequently it is often said that when a country's export prices are rising more rapidly than its import prices, the terms of trade are turning in its favour, and it stands to increase its real gain from foreign trade.

But, ignoring for the moment the possibility of a more rapid external than internal depreciation, it is difficult to see how monetary policy, which presumably has its effects on prices *in general*, could deliberately and *directly* cause export prices to rise more than import prices. This could happen indirectly, however, if, in addition to the internal depreciation, the depreciation so cheapened the exports in terms of other currencies, that the rising demand for these exports would increase their real price out of proportion to the import prices. There is some evidence that this tends to occur. In *such* a case then the terms of trade of the country could improve, and its real income relatively increase.

To simplify the case, suppose the dollar depreciates on the foreign exchange and does not depreciate internally at all. (As seen, it is just conceivable that this could be managed, by use of stabilization fund operations externally and other measures internally.) In this case the foreign buyer could obtain more dollars with a given amount of his currency and in this way find American exports a bargain. But assuming this did not cause such an increase in the foreign demand as to raise the basic export prices, the American exporter would receive the same number of dollars that he did before for the same amount of goods, and these dollars internally would be worth no more and no less to him than before. On *this* score, then, the American exporter would derive no advantage from the external dollar depreciation that was unaccompanied by internal depreciation, except that his goods would theoretically be easier to sell, and except of course if the increase in the foreign demand for them would increase their real price, as mentioned above, and also unless he were able to increase his price by the amount of the exchange depreciation. (But this would depend upon the condition of the foreign demand.) On the other hand, when he turned to the import market (suppose he is an importer of raw materials) he would have to pay more dollars for a given quantity of currency with which to pay for a given import, and here he would have a disadvantage. Thus pressing the dollar down on the foreign exchange without pressing it down internally would bring no gain in real income, from the export trade, and some loss from the import trade. In short, there would be no increase in the net gain from the foreign trade which could be derived simply from an external depreciation without an internal

depreciation, and, similarly, from a greater external than internal depreciation.[20] There is thus suggested the desirability of synchronizing the internal and external monetary performance. This point is probably of less importance for a country whose foreign trade is a lesser part of its total business than in the case of other countries. But it is of significance, and serves to fortify the point that the principal objective of the monetary policy (at least in the United States) is an internal one and is not primarily to obtain any *special* export stimulation.

To summarize regarding the external-internal relationship of currency adjustment: (1) If a country has an 'overvalued currency,' i.e., a currency which has remained high while others have been devalued or otherwise depreciated, the country would not necessarily be adversely affected if it retained its existing currency position, so long as its consequently necessary deflationary process (fall of both prices and especially costs) could readily proceed to the point where this would offset the high value of the currency in terms of other currencies. The internal liquidation being sufficient, foreign buyers would still have to pay the high rate in terms of their own money for given quantities of the country's currency, but with this could obtain more of the country's goods because of the decline in the price of these goods. (2) But this in fact is usually difficult if not in practice impossible because of the rigidity of the country's price-cost structure. The deflationary process within the country is difficult and painful and may have adverse effects upon internal activity, either lowering internal prices in their proportion to costs, or thereby also putting downward pressure upon wages and interest and thus retarding economic recovery from the depression which had accompanied the currency maladjustment. (3) Consequently, the country has the two general choices, (a) flexing the whole internal cost-price structure and endeavouring to maintain a rigid exchange position of the cur-

20 'A country . . . might attempt to cure unemployment by depreciating the exchange value of its currency by more than was necessary to offset any rise in its internal prices and incomes, in order thereby to increase its exports and to restrict its imports so that it obtained markets at the expense of foreign countries.' But if it does succeed by this means, 'there will be an unnecessarily large fall in the . . . real wage-rate.' For the method consists in raising the price of imported goods by depreciating the exchange value of the currency 'without any primary rise in its own money incomes to offset the rise in the price of imports.'—Meade,J.E., *An Introduction to Economic Analysis and Policy*, Oxford, 1936.

rency—which is difficult both because of the internal rigidities mentioned and because it is not entirely easy to dissociate internal and external money management—or (b) flexing the external position of the currency. In the former case it must be borne in mind that the internal rigidity may be either involuntary or voluntary, or of course partly both. For example, labour unions may be so strong as to make it practically impossible to reduce wages (and strikes in case of wage reductions may still further reduce production), or it may be the policy of the government to control these items, say to raise wages during a depression or to maintain low interest rates for recovery purposes free from the danger of an external capital drain—although in the recent dollar case there of course has not been a capital outflow thus far (i.e., not since devaluation), owing to other factors in the situation. A too rigid system of international exchange therefore becomes an impediment to this type of process of adjustment. The task is accordingly one of readjustment and of instituting a currency management which thereafter will allow for constant adjustability. Once the adjustment is properly obtained and currently maintained, the trade should flow as before the maladjustment occurred, i.e., as determined by other, basic, non-monetary factors. (4) At this point it may be argued that the purpose should be only to correct a major maladjustment, and then to permit, without control, the functioning of the new equilibrium. In other words, a devaluation might be justified as merely an exception to a non-managed system. But the same reasoning that justified it leads inevitably to the instituting of a continuing flexible management, so as later to repeat the adjustment or to adjust in the reverse direction as necessity arises. Consequently, little remains to be said for a return to the rigid automatic gold standard of the old type, and if the inter-relation of the currency managements of various countries presents difficulties, the path lies toward a certain degree of autonomous and flexible co-operation among them rather than toward a return to the system the breakdown of which apparently necessitated their introduction. (5) During the process of a major adjustment such as that of devaluation, a *special* 'advantage' may conceivably accrue to the exports of the devaluing country, because the external depreciation may outrun the internal, but this is in any event temporary, and, as noted, there are various

reasons why it may not occur at all, and also why it may not be truly beneficial. (6) In the absence of this the temporary effect would be the originally assumed one, of possible import increase. (7) Nor should anything obscure the view of the basic economic conditions themselves—of the fact for example that after a depression a general recovery may increase both imports, because of increasing total national purchasing power, and exports also. Perhaps the chief point, internationally, is the implication, under appropriate conditions, of co-operation of the several currency managements. If it is sometimes argued that, when nations' destinies are interwoven by their international economic transactions, there can be no national prosperity without world prosperity, it can be said with at least equal force that there can be no world prosperity beyond the sum total of national prosperities—or, to put it in current phraseology—of full and efficient employment of the factors within the nations.

Throughout all of this reasoning it must be clear that the monetary factor is important, that it may contribute to maladjustments and may be employed to correct them. But it must also be clear that it does not follow that the basic factors determining the total economic structures are monetary. In fact, as a matter of common sense, it must be plain that these remain non-monetary—are geographic and demographic, are matters of fundamental resources and simple or technological skills and their development. But meanwhile the monetary factor takes a large or major place in the problem of fluctuations, national and international.

A final general question regarding money and foreign trade is this: does the importance of the relationship vary with the extent of the importance of foreign trade to a given national economy? In the pure classical theory presumably it would not. In fact, however, it may. The foreign trade of the United States, while exceedingly and vitally important to certain agricultural and manufacturing industries, is not in extremely large proportion to the total national trade. In view of the functional and sectional varieties and rigidities within the national economy, therefore, the impact of international price relationships through the foreign trade, in practice may have some very important limitations—although one major commodity, say cotton or automobiles, may cause tremendous repercussions upon the whole internal situation. On the other

hand, the international flow of gold and of capital obviously must be of the very greatest significance in the monetary and general financial and therefore total economic, structure. In any event it is not sufficient to consider the external aspects of monetary policy alone in terms of their foreign trade functions. The whole of the international economic transactions must be borne in mind.

THE BALANCE OF PAYMENTS: CAPITAL FLOWS

That goods and gold flows are not the only types of international economic transactions is indeed a most elementary and obvious fact. Yet in the past this fact, curiously enough, has been only too little emphasized in the formulation of theories concerning the international economic processes, and in the discussions of the external aspects of monetary matters, as of other questions of foreign economic policy. At one time such items were rather vaguely dismissed as 'the invisibles,' and that they were largely invisible, that is, not recorded, helps to account for their neglect. There has been growing attention given to them, especially since the computation of increasingly accurate 'estimates of the balance of international payments' in several countries.[21] Even yet, however, their significance is often overlooked.

In the development of the classical theory it has been remarked above that Cairnes developed a corollary to cover international lending, and recently Ohlin has stressed the international interaction of 'the price of the factors' as well as that of the price of merchandise. But these concepts have more to do with the long-term investments previously familiar, than with the large and rapid flows of liquid, short-term funds of today.

The items in the balance of payments other than gold and goods of course are numerous, and include various services, tourist expenditures, and so on. It is not the purpose here to explore the subject of the balance of payments. But it is important to observe that monetary policy must take the whole balance into account, and in this connexion to make a few references, (1) to one or two now well-known principles concerning the balance itself, and (2) to the matter of international capital movements and relations.

21 *Vide* the balance of international payments computed each year by various governments for their respective countries; the collections of these published by the League of Nations; and Lewis, Cleona, *The International Accounts*, on their construction. Also Donaldson, John, *op. cit.*

If the increasing study recently given to these balances has done anything at all, it must at least have served to show that the old-line reasoning which ran almost exclusively in terms of goods and gold, and at best made rather vague reference to 'the invisibles,' must now be revised to take into full account these 'other items,' and that gold, though it remains an often convenient and rapid, and sometimes dangerous and disturbing vehicle, for the international transmittal of values, (a) no longer plays the pivotal role it once did or was supposed to do, and (b) in its repercussions is just as likely to affect these other items as much as the mere goods trade. Gold is no longer the single 'balancing item'; all items are shown to be, in a sense, balancing items. One recalls the principle of 'promotion and detraction,' i.e., that all items are always tending to influence each other, on both sides of the balance. No precise and certainly *no fixed* relationship between one item and another, on either the debit or the credit side, can be assumed to exist. Each must be examined to discover its behaviour at a given time, and its reaction upon other items. This might be accepted as a truism. But it needs much more emphasis than is usually given it. Indeed, it is surprising to note that sometimes experts who claim much acquaintance with the subject, while the first to insist that international transactions and policies be viewed in the light of the balance of payments, are also at times the first to insist upon considering only the interaction of goods trade and gold flows, one upon the other or each or both upon further goods and gold behaviour, or even to argue for a mere interaction within the goods item alone. Thus, in the discussions on trade, there seems to be little realization of the true importance of both the long-term and the short-term capital flows. For example, it will be argued with naïve conviction that increase or decrease of goods exports or imports in one direction is bound to be offset by decrease or increase of such goods trade in another direction; and all other possible reactions are set aside as independent variables, even though they are not at all in the nature of outside influences, but fall very definitely within the range of the interaction of the various items in the balance of international payments itself. Any analysis of the balance, or of currency behaviour and its possible repercussions among the international transactions, would be short-sighted and lacking in understanding of the simplest princi-

ples if it confined itself to merchandise trade and failed to take account of other phenomena within the range of the balance.

The significance of this with regard to international money and price relationships is considerable. Some recent writers on this subject, as noted above, have tended to modify the older theories accordingly, and such modifications contain much validity. Only the question remains whether all the items can be combined, and as such be said not only to determine the exchange ratio but also by price reactions to bring the neat, automatic readjustments of the international equilibrium that had been supposed to occur through the flow of gold, or goods.

This particularly raises the question of international capital flows. Once debarred from the very premises of the classical theory, these flows have been very great, indeed enormous, in recent times. Aside from the question whether their transfer has to take the form of goods flow—and it does not have to do so—the question remains whether, in long-term investment form, they do not tend constantly to alter somewhat the fundamental differentiation of production conditions, and costs, among the countries.

The short-term and liquid capital flows for some time have presented particular problems in the monetary field. An older practice among central banks was to endeavour to offset an undue inflow by lowering the discount rate, and, if an inflow was desired, to raise the rate. But this sometimes presented a dilemma, since if the inflow was obtained, say in order to stimulate economic activity, the high rate impeded the employment of funds for such activity. Moreover, the maintenance of a low rate does not necessarily serve to prevent a very great inflow, as in the recent case of the United States.

In fact this inflow can become one of the serious problems for currency management. It apparently can be caused by a number of factors; for example in recent periods it has often represented in part a flight from unstable currency conditions in other countries. But if, as a part of monetary policy, the buying price of gold is greatly increased, or there is an exchange advantage, there can be little doubt that liquid foreign capital, not even necessarily of a flight type, can be attracted to 'ride in,' in the form of gold inflow. Furthermore it has become obvious that once inside the country these large short-term balances, instead of bringing a restoration

of equilibrium, may go into speculative activity and bring the danger of a stock market inflation, and may also run out of the country, suddenly and rapidly, contributing greatly to a general financial collapse. This becomes one of the most serious problems in modern international monetary relations, and properly receives growing attention by currency management.

The question of international capital flows in relation to monetary policy suggests one further problem, namely the effect of devaluation upon a previous debtor or creditor position. If a nation is a large creditor and then devalues its currency, this may very materially affect the position. The devaluation theoretically lessens the indebtedness of the other countries in terms of their own currencies, and facilitates the reduction of the debt. This may occur with regard to governmental debts, though this will depend upon the decisions of the governments. But it may also greatly affect the private debts. Foreign securities may be repatriated on a large scale, and domestic securities may be bought up, because of the 'bargain' thus made available. Indeed this may occur instead of a theoretically expected increase of merchandise exports. In consequence, devaluation, under certain circumstances, may serve to reduce a nation's creditor position, and currency management could theoretically move in either direction according to whether it was pushing the currency upward or downward.

Clearly then, a country's monetary policy may have far-reaching effects upon *different* ones of its external economic processes, for example upon its foreign trade *or* upon its capital flows. And it may thus materially react upon economic conditions in other countries. But only in an examination of the facts of a given case can it be seen what will be the actual external and international effects of the monetary policy.

Cycles and the International Processes. A final question has to do with the bearing of international monetary relations upon the international aspects of major economic fluctuations. If a static view of the economic order be abandoned, and one moves fully into the so-called field of dynamic theory, the question arises: *what is the international nature of the cycle, and what is the place of money in it?* This is undoubtedly a most significant question, but it is pretty generally recognized that present knowledge, in theory or otherwise, provides no scientific answer. If cycle theory, of either

monetary or non-monetary type, has not come to very great agreement, and if it is difficult if not almost impossible with the statistical series as yet available to subject such theory to satisfactory inductive treatment, this is particularly so in the international aspects of the problem. No subject could be a more important one for further investigation, since it is a tenable assumption that final understanding of cycles will be not reached without comprehending their international behaviour.

Some preliminary approaches are significant.[22] It would appear, as might have been expected, that there is at least a rough, non-quantitative correlation between the 'business annals' of a number of countries, and that this correlation despite some definite divergences, has tended to increase noticeably in recent periods. The following are some of the principal points as developed by Mitchell [23] (his annals ending with the year 1925): (1) Opinions have included these: (a) Competition for foreign markets and investments makes one nation's gain another's loss. (b) Small countries, such as England, with a very large foreign commerce, are particularly sensitive to world trends, while nations, such as the United States, with a 'continental spread' are more self-contained and less concerned with world trends. (c) Business enterprise has been quietly building up a 'world economy.' [24] These, of course, are general concepts, and do not undertake to show precisely how a cycle phase generates and spreads. (2) *The importance of the cyclical activities varies in proportion* to the degree of business organization of a country, *and the number of its people who live by making and spending money incomes.* (3) *Great financial crises seem to be particularly international.* (4) But the cycles do not

22 (1) Thorp,W.L., and Mitchell, Wesley C., *Business Annals* (of seventeen countries), National Bureau of Economic Research, N.Y., 1926. (2) Mitchell, Wesley C., *Business Cycles: The Problem and Its Setting*, N.B.E.R., N.Y., 1928 (including summary of the findings in the earlier publication). The first-named relegates theory and the latter considerably so. Both contain large collections of descriptive, factual data, (e.g., *re* 'depression,' 'prosperity,' 'recession,' etc.) excellently arranged, but the latest year covered is 1925. (3) The League's periodical *World Economic Survey* increasingly contains comparable economic statistics for the various countries; these series thus afford a comparative national view, and suggest a basis for possible future use in obtaining an international view of this problem.

23 Some of these points are verbatim quotations or nearly so.

24 Cf. Donaldson, John, *International Economic Relations: a Treatise on World Economy and World Politics*, N.Y., 1928, especially chapters on international extension and affiliation of enterprise, showing some trend in this direction and chapters on the concept of national and world economy.

run a parallel course in any two countries. (5) English cycles have shown the most correlation with those in other countries. (6) If a sort of international pattern be sketched, from 1890 to 1925, no country studied has had fewer cycles than indicated in the pattern, and most of the countries have had one or two 'of their own.' (7) The countries which correlate best with the international pattern are mostly those with highly developed industry and trade and finance; those which correlate least are largely agricultural with less highly developed business organization. (8) There seems to be a rough parallelism between the degree to which a country experiences cycles and the degree to which it has attained a 'Western European type' of economic organization. (9) The network of business relations has been growing finer as well as covering wider area. (10) The occurrence of a given phase (e.g., depression or prosperity) tends to spread to other countries amenable to the influence. (11) There are many divergences, and reasons for them, but some causes do not create as much divergence as might be expected. Thus the World War had at first a unifying effect upon conditions among the several belligerents and among neutrals, though later the effects were less uniform.

It would be interesting to see, if these annals were brought to date, the effects of the 1925–36 period, of the growth of economic nationalism—especially of the somewhat 'closed-economy' of Russia, and of other recent developments. Generally speaking it would seem probable that this latest crisis and latest recovery have conformed more than ever to the trends Mitchell has discovered. But this does not give a specific answer to the current question: can a nation, through a national policy or through the developments of a greater degree of economic nationalism, lessen its vulnerability to international cyclical movements? Probably only an analysis of the 1925–36 period, made some years from now, can give any real clue to this question.

Meanwhile, further questions arise. Important are these: (1) Does a phase of a cycle generate in one country only and then spread to others? Or, can there be a simultaneous generation? Mitchell's evidence tends to point to the former but does not prove it conclusively. Of perhaps even greater interest is this: *while the economic conditions themselves must exist within countries, is it possible that the changes may be partly generated in the economic*

relations, the processes, between the countries? Is it not conceivable that maladjustments between the national economic structures—for example, lack of adjustment in monetary relations or in the flow of capital between two or more countries—*may at least contribute to the fluctuations?* A good deal of general evidence indicates so. If this is the case national monetary management needs to take it into account.

Turning to a closer analysis of the exact processes of the cycle, these can be examined by reference to comparative national conditions, and this has been undertaken apparently by only one writer.[25] A few of Neisser's highlights, rather scattered in *this* respect, seem to be as follows: (1) International capital movements are usually associated with international movements of goods and services. Gold movements are usually too small to take care of much migration of capital, except during depression when sudden debt payments are necessary. (2) But not all international flows of capital *goods* are associated with international flows of capital, and international investment is not always associated with trade in capital goods. If one country be considered a 'capital goods sphere' and another a 'consumers' goods sphere,' then the trade may be an exchange of capital goods for consumers' goods. This can be fitted in with the *general* theory (of that author). (3) A country producing, say, only wheat (and assuming wheat to have a small elasticity of demand) may have a bumper crop, an overproduction of wheat; costs are not covered by receipts; the flow of purchasing power in excess of the inflow of purchasing power coming from the export of wheat, is directed to foreign goods, which, however, have to be acquired by increasing exports; there is a loss of purchasing power. This has been used by some as the basis of an agricultural theory of the cycle; loss of purchasing power creates a depression in the industrial countries. But an amount of purchasing power equal to the

25 Neisser, Hans, *Some International Aspects of the Business Cycle*, just published in December 1936, and referred to in an earlier chapter. This very interesting version of cycle theory in fact largely makes its contribution by reformulating *general* theory. Certainly it does not put forth any full-blown international theory of the cycle. But in a rather casual and fragmentary way it does attempt to apply some general concepts to the external aspects, and it refers to certain countries. It thus offers the first definite theoretical step, as far as the present author is aware, toward a treatment of such an international concept. The summary of points given in the context above is necessarily postulated upon Neisser's general hypotheses, and is of course subject also to the present author's interpretation. Some of the points do not seem clearly defined.

loss in the agricultural countries might be devoted by consumers in the industrial countries to buying industrial goods previously exported to the agricultural countries. And the agricultural theory does not find support in the national and international facts of 1925–29. (4) Empirically, two outstanding causes of the collapse of 1929 were: (a) the end of German capital imports; and (b) the collapse of the American stock exchange boom. (5) Capital goods industries may be concentrated in certain countries, and partial overproduction there can become general overproduction. Consequently a change in the international flow of capital may cause disturbance. This is not so difficult in the case of the 'colonial countries,' which during their long period of development are likely to receive much of their import capital in the form of capital goods. But if capital imports flow into a country such as Germany which has numerous capital goods industries and which had ordinarily been a capital exporting country, much disturbance may arise. The capacity of the capital goods industries could be employed in the usual degree, and national income and current net output could increase correspondingly. But much of the increased income is spent for consumers' goods, equilibrium is destroyed, and the breakdown of the capital goods market occurs. (6) In the German case, the 'undersaving crisis of 1926' was temporarily overcome by very large capital imports, but disturbances in the structure recurred, and the later great decline in such capital inflow led to the collapse of 1929–30 and after. (7) In the British case, 1925–29, the currency stabilization of 1925 did overvalue the pound, but the failure of credit to contract correspondingly was not, for cycle theory purposes, the same as a too great credit expansion, for only an absolute increase of volume of purchasing power could generate forced saving; the falling prices did not create a discrepancy between savings and investment; the effects of overvaluation could only work out through (a) altering the income distribution in favour of the lower-income classes, and (b) influencing the volume of foreign trade. The decline in purchasing power of other countries and in world prices acted unfavourably on British exports. The British depression is thus attributable to the international depression. (8) If the German crisis was one of undersaving, influenced by the heavy import of capital and the later cessation of this import, and the English crisis

was caused by repercussion from depression elsewhere, working through the English foreign trade, the American case was different. The American crisis was characterized by the stock market crash. But basically there is evidence that it was a case of oversaving, and was associated with the termination of capital exports to Germany. The United States was the centre of the recent world-wide general deflation. (9) A depression spreading from a principal centre could affect the other countries: (a) by a withdrawal of loans from them; (b) by reducing the demand for their goods of all kinds; (c) through the reduction of the domestic market, by increasing competition in the world market and thus forcing down the world price level. The pressure through trade competition (c) would be direct and not necessarily reflected in the balance of payments. The collection of debts (a) makes a change in the flow of goods or gold, although there are many practical impediments to the deflationary effects in the debtor country of gold exports to the creditor country. (There is an extensive discussion of various possible effects upon trade and money.) (10) While the perpetual underconsumption dilemma involved in the neo-Marxist theory of imperialism must be discarded, there is a dilemma of capitalism from the international standpoint, which is in brief: the supply of new capital must provide additional stock of capital for absorbing the unemployed workers in *both* industrial countries *and* raw-material countries; one investment is not profitable without the other; the choice for the one country is to split current savings between foreign and domestic investment so that all capital will be best employed, or by national policy to concentrate domestic investment in forms best adapted to the demand structure, so that, despite lower productivity per unit, unemployment can be reduced more rapidly. (11) As for the recovery process, deflation can be stopped by autonomous national policy. But this applies only if the deflation was 'autonomous' (as in the United States?) and not 'imposed,' as in Germany. Also the overcoming of overproduction by investment is difficult because of the international division of labour, and is particularly difficult for non-industrial countries, which produce only a few (raw material) commodities as against a varied consumption schedule. The difficulty for such countries is increased because they are usually debtor countries, and a flow of gold from them to the creditor countries might improve their liquidity but

might not bring them lasting recovery. *The main recovery task of a country is to resist deflationary pressure from other countries*, although this is almost impossible for any single country unless it is as nearly self-sufficient as Russia and the United States. (12) As for monetary policy the reasoning is mixed and inconclusive. In practice the British devaluation of 1931 seems to have been very successful, but it is not entirely clear that it was the fundamental cause of British recovery. Devaluation obviously assists a country in escaping some of the effects of world-wide deflation, although the deflation has caused a decline in real income which may still limit the demand for the devaluating country's exports even at lower prices. In respect of international commodity movements, there are some good theoretical arguments for the international gold standard, but *in practice fluctuating exchange rates do not seem to interfere greatly with the revival of international trade*, and there are some further reasons that explain this; for example, the return to utilization of existing facilities for production of foodstuffs and raw materials does not depend upon return to stable exchange rates. With regard to international capital movements, a *purely theoretical argument* can be made *against* the necessity for return to the *international gold standard*. For example, raw material countries usually are not capital exporters, and the utilization of their resources as much as before the crisis depends upon full utilization of industrial capacity in the industrial countries; this could be accomplished as well by domestic as by foreign investment. There are no simple explanations (of cycles and their monetary aspects), but 'return to the international gold standard is not likely to exercise a marked effect on international recovery.' These, then, seem to be the highlights of the money-and-income aspects of the most recently published version of cycle theory, as applied to the international situation. They scarcely present a distinct international theory of cycles, but rather consist of some international applications of a general theory. But they suggest the possibility of further development of an international theory; and they are perhaps especially significant in the emphasis placed upon the international flows of capital as contrasted with only commodity trade.

It is not the purpose at this point to subject such ideas to a critical appraisal, still less to undertake the formulation of an international monetary cycle theory. Some observations will be

made in the next chapter dealing empirically with the external behaviour of the dollar. Meanwhile a few general remarks may be made concerning the drift of current theory: (1) From the international as from the internal point of view, the case for the international gold standard and against flexible exchange rates is, at least, not so strong as it was once considered to be, and there emerges a case for the reverse. (2) It is surely no longer sufficient for international monetary theory to run wholly or largely in terms of commodity trade. Capital movements are of much importance. (3) Whether the objective is world prosperity or simply national prosperity, it is increasingly apparent that national policy must take the external factors, both commercial and financial, into account. Thus in the case of the United States, even if the foreign trade is not as important as it is for many other countries, the type of economic organization and the possibility of disruptive flows of capital, confirm this point. If crises arise within one country and spread to others, or if they arise in a maladjustment among the international economic processes themselves, the point is still important. (4) If a deflationary situation may contribute particularly to a crisis, it would seem to follow that flexible monetary policy offers possibilities of contributing to recovery and to maintenance of a reasonable adjustment thereafter. It remains to consider the actual external dollar behaviour.

Chapter VI

EXTERNAL AND INTERNATIONAL ECONOMIC EFFECTS

Empirical consideration of the external aspects of the dollar problem suggests exchange rates, foreign trade in its total and its unit value, export and import and so-called world prices, prices and costs in the different countries, gold flows, and some of the principal other items, such as merchandise and capital movements, in the balance of international payments. Statistics were drawn from American official sources except as otherwise indicated, and are outlined in the appendix.

DOLLAR EXCHANGE RATES

Figures are shown for dollar exchange rates, for the years 1920–32 and the months from January 1933 through November 1936. The monthly figures therefore cover the period which included partial abandonment of the gold standard, the gold purchase plan, the devaluation, and the ensuing operation of the stabilization fund, and also a very short period after the Franco-British-American 'stabilization' understanding of the autumn of 1936. The figures do not cover all cases; a number of countries were selected because of various characteristics, such as gold standard at old par, or managed currency position, or exchange control of the rationing type, or position in trade. The yearly figures are annual averages and the monthly figures are averages for the months. Fluctuations, even of a minor character, over shorter periods do of course cause reactions in trade and otherwise, but for the broader point of view of this study the periods adopted are probably sufficient and in some respects preferable in obtaining a perspective of the general trends.[1] A few running observations of different types of cases may be made.

After the introduction of the British currency management the *dollar-pound* rate had risen as high as 350.61 for 1932. The dollar fell during 1933, to 511.59 in December. During 1934 it fluctuated

1 As the rates are quoted in American cents per unit of foreign currency, a rise in the figure of course indicates a decline in the exchange value of the dollar and vice versa. No account is taken here of seasonals.

considerably, remaining 'lower' than 500 till August, then rising again somewhat, to 494.58 in December. It averaged about 504 for 1934, fluctuated considerably again in 1935, for which year it averaged about 490, and thereafter it stayed below the pre-1931 level, being 503.63 in September 1936. No direct correlation with devaluation or the other dollar measures appears. But over the whole period from January 1933 the dollar did decline markedly from its previous high. The decline set in before devaluation and even before the gold purchase plan. After the devaluation and the inauguration of the dollar stabilization fund the tendency was roughly toward some degree of stability. After the international understanding of the autumn of 1936, the dollar rose to 489.72 in November. Meanwhile, the existence of both British and American stabilization operations, among other factors, must be taken into account, as well as their interaction, whether of a partly competitive or partly co-operative nature.

A rough similarity in the cases of *some* of the other currencies in the '*sterling area*' may be noted. The case of *Canada* is somewhat distinct, Canada being influenced of course by its peculiarly close relation to sterling, and also by a close commercial and financial relation to the United States. The United States dollar for some time had been above the old par, especially after 1931, the average for 1932 being 88.09. In late 1933 it tended to fall considerably. In 1934 it did not respond to its devaluation, but rose somewhat. Later in 1934 it fell a little, to 100.55 in December, but never to anything like the new par of 169.31; and thereafter it rose a little, and remained around 98 and 99 and was 100.2 in September 1936. Thus there was a marked exchange depreciation of the U.S. dollar during 1933, but thereafter a tendency toward stability around the old rather than the new gold par. There was no marked change for November 1936.

Germany had continued on the gold standard at its old par, and did so even after the tripartite agreement of autumn 1936, but as is well known has an exchange control in the special form of an elaborate series of different kinds of controlled marks. The old par had been 23.8. The dollar averaged 23.75 for 1932. During 1933 and 1934 it fell, being 37.2 in December 1933 and 40.19 in December 1934, but after the autumn of 1934 remained fairly steady, and was 40.08 in September 1936. No particular correlation with de-

valuation or other dollar measures can be traced, but the dollar decline, setting in previously, and the later relative stability are noted. No important change occurred in November 1936, after the Franco-British-American understanding.

In the case of the *Japanese yen* the dollar for some time had been much above the old par of 49.85; it was 28.11 for 1932. In January 1933 it was as high as 20 and during that year it fell to around 30, after which, during 1934–35–36 it tended to level off at around 28 and 29, being 29.41 for September 1936. The American monetary measures thus did not drive the dollar down to the new par nor even to the old, but, after a certain decline had set in, corresponded to a levelling off tendency. There was no marked change in November 1936.

Argentina is of course affected by sterling, but on the other hand has had a very strict exchange control of the rationing type. The sharp *rise* of the dollar from 1933 to 1934 was apparently largely due to the change from the gold to the paper peso in December 1933. In the ensuing period there was no important change in the dollar-peso rate.

The *Belgian case* was influenced of course by the Belgian devaluation of March 1935. The dollar fell from 13.92 for 1932 to 17.89 for 1933 and 23.28 for 1934, compared with the par, after dollar devaluation, of 23.54. After the new par of 16.95 set by the Belgian devaluation of March 31, 1935 the rate did not fluctuate greatly, the dollar tending to run at a slightly appreciated level, through to the autumn of 1936, being 16.89 in September 1936. There was no marked change for November 1936.

The *Swiss franc* had remained on gold at the old par, but was also surrounded with exchange control devices of the direct type. The dollar behaviour was broadly similar to that in case of the French franc. *France*, as the principal member of the old gold-bloc, provided a significant case. The rate for 1932 was 3.93 as against a par of 3.92. The dollar fell steadily throughout 1933, to 6.12 for December, and also in 1934, being 6.67 for September 1934, after which it did not fluctuate greatly, being 6.60 for December 1935 and 6.51 for September 1936. The par set by the dollar devaluation had been 6.63. Again in this case, then, the decline of the dollar on the exchange did not begin with devaluation, nor even with the gold purchase plan, but earlier; it continued for awhile after de-

valuation, and then tended to level off. After the understanding of late 1936, it rose sharply, to 4.66 in November 1936.

Taking a general view of the behaviour of the dollar on the foreign exchanges, it is obvious that not *too* much can be said, since the dollar exchange rate is in no sense a single one with the world at large, but is a matter calling for treatment case by case.[2] The cases vary greatly in detail and even in their major aspects. Also it must be borne in mind that many foreign monetary controls, and many non-monetary factors at home and abroad influence the situation. But a few broad observations may be made. (1) Gold parities in a few cases have been significant, but in most cases not. This is not at all surprising, in view of the inherent limitations upon the old gold system noted in a previous chapter, and of the extent to which that system in recent years has been partly or completely modified or abandoned. (2) To make a general point specific, in certain cases foreign flexible currency management such as the British, or direct exchange controls such as that of Argentina, in varying degree have offset what otherwise might have been the effects of the dollar policy. (3) There can be no question of the general tendency of the dollar to decline in its foreign exchange value. But this decline set in before the devaluation and before the gold-purchase plan. This was doubtless influenced by the financial crisis in the United States in the spring of 1933, by the partial abandonment of the gold standard then, and by anticipation of the dollar experiment after the failure of the London Conference and the statement of the general American attitude at that time. (4) There was no precise correlation between the dollar measures and the foreign exchange behaviour of the dollar. In a few cases the devaluation did not stop the exchange depreciation tendency and may have promoted it. (5) Of much significance is the point that after the declines had continued awhile they tended to give way to a levelling off process, roughly from about the middle of 1934 and particularly after the beginning of 1935.

Broadly speaking, then, and with very important exceptions

2 It should be remarked that there is great need of further case by case investigations, each case being examined in full detail. This would fill a whole series of volumes and would require the work of a large research organization. It may be hoped that ultimately such investigations can be made, as only in this way can the various theories be verified or qualified in a refined way and the international aspects of monetary science be pressed toward conclusive and detailed accuracy. Meanwhile the broader view must suffice.

such as that of the French franc, the dollar devaluation measure was followed not by marked continuous external depreciation, but rather, after a time, by a considerable stabilization and even in some cases a slight appreciation. It does not follow that the results were as intended, but the beginning of the operation of the stabilization fund at the time of devaluation lends the assumption some validity. If this assumption be made, a significant conclusion follows. In an earlier chapter it has been seen that a major purpose of the measure was to promote *internal* depreciation, i.e., an internal rise of prices. But here it would appear that a major purpose may have been to check rather than to promote further *external* depreciation. This, however, does not obscure the fact that external depreciation did occur. Only, it set in before devaluation and even before the gold purchase plan, and continued after devaluation. Some of this may perhaps be attributed to the earlier parts of the new monetary policy, as mentioned above; how much, it would be difficult to say. In any event, the total general effect of external dollar behaviour during the whole period, very roughly and with very important exceptions, was to bring it more nearly 'into line' with that of some other leading currencies, such as the pound sterling, in the preceding period, and to steady it somewhat around the new level. In contrast, internally the reversal was later.

The question also recurs, as to whether a stabilization fund operation should or can create long-time major changes in the exchange. It has often been stated that such has not been the purpose of the British equalization account, this account being used only to iron out short-time, minor fluctuations in sterling exchange, to absorb the shocks of quick exchange disturbances, but in the long run to permit the pound to find an 'equilibrium level' at which the internal price structure would be related to others to the best advantage of that structure and the economic system resting upon it.

While observations cannot be conclusive, especially when the criteria are diverse, it may then be argued that the total dollar policy, with its combination of events from March 1933 on, tended *very roughly* to attain somewhat the supposedly desired rate results in the exchange position of the dollar.

It may be added, finally, that the dollar-pound case was one of the most interesting ones, between the two outstanding managed

currencies, with their equalization funds. That the dollar did not too long remain at a greatly lowered level in terms of sterling obviously reflected the competitive interaction, and possible later co-operation, of these two managements. It has been asserted that there was informal co-operation, beginning in the autumn of 1934. This is significant, as indicating the possibilities of two or more managed currencies regularized amongst each other by flexible management rather than by rigid stabilization. A much more detailed consideration could be given to dollar exchange rates, even the daily fluctuations which are often significant in inducing some flow of gold or goods or capital, or in causing the monetary authorities to alter their management operations. But the above points are probably sufficient.

Although the co-operative arrangement made between France and Britain and the United States in the autumn of 1936 is still very recent, it may be remarked here that by November 1936 the dollar had changed markedly in its current relation to some currencies and very little with regard to others. The rate rose substantially on sterling and very greatly on the French franc. This was partly in the nature of a capitulation, as especially in the case of sterling, and partly was due to devaluation of other currencies, especially of the old gold bloc, as in the case of the franc. Where the other currencies devalued, this appeared to mark a more or less permanent shift. But the whole event is too recent to provide analysis of the resulting behaviours. The later changes in foreign monetary *policy* will be observed in the following chapter.

The League of Nations in 1934 compiled some interesting figures and charts showing, to some extent, the comparative fluctuations at that time of the various currencies in terms of gold,[3] and commented as follows: 'The principal change to be observed is the fall of the dollar after March 1933 and the subsequent fall of several of the South American currencies. South Africa also joined the sterling group in the middle of the year, and the whole group, including not only the British countries but several European countries also, drifted lower after July 1933.' It was further remarked that 'the definite devaluation of the dollar in January 1934 might

3 League of Nations, *World Economic Survey*, third year, 1933–34, Geneva, 1934 pp.267 *et seq.* Cf. also, the League's *Course and Phases of the World Economic Depression*, Geneva, 1931, for data for earlier years.

in some respects be regarded as a first tentative step towards future stabilization.'

PRICES

The exchange rate performance of the dollar, during the development of the new dollar policy, is *in itself* of limited significance in discovering the real external effect of the policy. However sharp may have been the changes in that performance, it is only a first step in endeavouring to discover the results. One of the next steps is to make a comparison with prices.

EXCHANGE AND THE PRICE INDEX. If the exchange rates be compared with the U.S. wholesale all-commodity price index (already considered for internal purposes in an earlier chapter), on the basis of change from early 1933, several observations may be made: (1) The ratios vary a great deal, as might be expected from the diverse trends just seen in the exchange rates. In some cases the dollar declined less in terms of foreign currency than of internal prices. (2) But in general, the tendency was for the external depreciation of the dollar to outrun the internal depreciation. For example, this was marked in the case of sterling and very great in the case of the franc. (3) However, after devaluation the disparity tended slowly to disappear, both because of the tendency toward external stability of the dollar, and the tendency of the internal price level to continue to rise, even if slowly. That is, the gap *tended* to close. (4) The international arrangement of late 1936, broadly speaking, hastened somewhat the closing of the gap, or more than closed it in certain cases, such as that of the franc. (5) There remained, however, a period, certainly during 1933 and somewhat during 1934 and 1935, when the gap was important.

Within the limits of the significance of a price index for all commodities, as noted in an earlier chapter, and without the refinements suggested in the last chapter regarding the export-stimulation theory, the figures accordingly suggest that temporarily the goods exports of the United States, at least to some countries, might have been expected to increase substantially, and the imports to decrease in like degree, especially in 1933 and 1934 and even in 1935 and early 1936. Certainly the simple traditional ideas about export stimulation through depreciation would have anticipated a considerable increase in goods exports and decrease in goods

imports. But it already has been seen that fundamental qualifications must be placed upon the common idea that depreciation, or even greater external depreciation than internal, will promote merchandise exports and retard merchandise imports.

EXPORT AND IMPORT PRICES. From the point of view of the dollar policy, as suggested in the chapter on theoretical considerations, export and import prices are of significance. The League of Nations [4] has published indices of such 'prices' for various countries on a 1927 base. For the United States, during the period here considered, those figures indicate that export prices remained substantially above import prices, the import prices tending to level off in 1934 and 1935, while the export prices continued to rise. Thus the terms of trade were presumably favourable. They had been favourable also in earlier years, but the new tendency was toward 'improvement.' But as previously observed, such a disparity could scarcely be *attributed* to dollar policy, which supposedly works on the general price level, unless it be assumed that, indirectly, foreign demand for the exports rose, owing to the currency change, and that this pulled the prices on exports upward disproportionately. This does not seem likely. Thus, if an increase in degree of net gain from foreign trade may have appeared it does not seem attributable to the money measures, except possibly as an illustration of one of the qualifications to the cruder theory, as suggested in the previous chapter. But this factor qualifies the effects studied here.

Indices of unit value of United States exports and imports, as compiled by the Department of Commerce (from which the League figures presumably are drawn), on a 1923–25 base, show the same general trends. As the discrepancy between the export and import indices did not exist in 1929, and arose thereafter, it was apparently a phenomenon of the depression rather than of the recovery period and the new monetary policy.

It is significant that the rise of the unit value of exports, and even more so of the unit value of imports, lagged greatly behind the increase in the B.L.S. wholesale price index, from 1932 to 1935. The wholesale price index (1926 base) was 66 for 1933, was 75 for 1934, and 80 for 1935. The unit value index (1923–25) for exports was 54 for 1933, and was 63 for 1934, and 65 for 1935. The unit

4 *World Economic Survey, vide* especially fifth year, 1935–36, pp.87–89.

value index for imports was 43 for 1933, was 50 for 1934, and 50 for 1935. The possible influence of these price index differentials may be briefly considered in terms of the theoretical assumptions. Generally speaking the lag of import and export prices would tend to modify whatever expectations were assumed on the basis of the (higher) general price index. Thus, reasoning from the hypotheses, any anticipated import stimulation attracted by the high prices would be offset somewhat by the lag in import prices, as foreign sellers would not get so much for their wares as the general index would indicate. On the export side, if export retardation were expected from the general price rise, the lag of export prices behind this general price rise would offset the retardation; foreign buyers, discouraged by the advancing price level, would be less discouraged by the fact that the export prices had not risen as much. Either trend or both would be lessened by the differential here considered. This would hold, then, for the simpler version. But with the theoretical modification for a temporary stimulation of exports (and retardation of imports) through greater external than internal depreciation, the reverse would be true. Foreign buyers, getting their exchange cheaper, would find all the more of a bargain and supposedly buy all the more goods; foreign sellers would find it all the less attractive (or possible) to sell, and there would be even greater slowing up of imports. This would be temporary, of course, until the gap closed. But here, as elsewhere, the usual qualifications, too often neglected, are necessary. Too often only the supply or (especially) only the demand side is considered. Thus the foreign buyer might be attracted by *especially* low export prices, but this would offset the differential for the domestic producer for export by pressing upon his cost-price ratio. Foreign sellers might find especially low import prices less attractive, but the domestic consumer of imports, particularly if handicapped by having to pay more dollars than before for foreign currency, would welcome such prices. Moreover, there is here, as in any other aspect of the problem, the question as to whether and how long supply and demand would interact; the foreign buyer may bid up low export prices, the importer low import prices. All the processes of course have limits. In this respect, however, the statistics show persistence of the export and import price lags. Finally, it is always to be recalled how inadequate or contrary the generaliza-

tions may be for individual cases of individual commodities and transactions, although the purpose here must be to consider trends and their significance in the total trade.

WORLD PRICES. A 'world price' index for foodstuffs and industrial raw materials may be mentioned. This index rose, on a 1923–25 base, from 24.9 in February 1933 to 41.5 in September 1933, fluctuated mildly during the gold purchase plan period and again in the months just following the formal devaluation; reached 50.4 in August 1934; and thereafter fluctuated around 46–48, reaching 50 by December 1935 and 55 by the autumn of 1936. All in all, then, this index did rise greatly in 1933 and somewhat in 1934; and a widely prevalent assumption is that this, if nothing else, showed an effect of dollar behaviour. But probably no price index could be more misleading in this respect. The index is constructed, not alone on internal prices, nor on export or import prices, nor on foreign prices. It is composed of prices of representative world-staple commodities, and these prices are taken from whatever place happens to be the leading market, this leading market being New York for one commodity, but London or Liverpool for another, and so on. Obviously therefore, it does not reflect the performance of the dollar or of the currency of any other single country, and it is influenced by the widest variety of commercial and monetary conditions and policies throughout the world at large. Consequently, contrary to popular impression, it tends to be meaningless and worse, if used as a statistical check upon the results of dollar policy. (So used it would, anyway, show a correlated response, perhaps, to United States policies of early 1933, almost none to the gold purchase plan, and only a little to the devaluation.) It does not particularly matter whether it be called an index of 'international prices' or of 'world prices.' The point is often stressed that it applies to those commodities which have an 'international' or 'world' market (such as standard grains, cotton, wool, silk, copper, lead, zinc, petroleum) in the sense that such commodities had a uniform price in all the leading markets in the various countries. But it may be questioned whether this condition still obtains in anything like its previous form, what with the many internal and external restrictions and regulations now existing. The only way in which this index could be supposed to reflect dollar performance would be by assuming that enough of its components (e.g., cotton) are produced

in the United States to permit a general price rise here to dominate it. Or it might be argued (?) that when these commodities were imported into the United States they then became influenced by the price rise here. But the two arguments are inconsistent. What some observers in the United States may have noticed was some price rise for some individual commodity, caused by non-monetary factors; for example, cotton and wheat were being influenced by the A.A.A. program, etc. Examination of individual price charts for a series of these 'international commodities' discloses correlation with dollar and sterling behaviour in any fairly neat way for only a few cases, and for some others in such a broad and rough way—and in many cases just the opposite of correlation—that presumption of precision of the supposed monetary effect would be entirely without warrant. As for the world price index, by its very composition it could not reflect solely American monetary performance. Moreover, if it were so used, it would not show the correlation sometimes erroneously claimed for it, as it rose insignificantly during the gold purchase plan, fell just after devaluation, rose substantially but not consistently later, and had experienced its really great rise from January to July 1933.

COMPARATIVE NATIONAL PRICES AND COST STRUCTURES

Comparison of national price levels in the United States and other countries is a further step toward a proper basis for appraising the external results of dollar behaviour. U.S. sources give some figures of this kind, and there are (better) League figures.[5] None of these series is in a form readily adaptable to present purposes. But the League figures for wholesale prices are on a comparable base, 1929, and they show the index for June of 1934, 1935, and 1936, and the percentage increase or decrease for 1935–36. It is remarked (late in 1936) that 'it seems clear that the level of wholesale prices is moving upwards in most countries,' but also that 'the most important fact revealed,' January 1935 to June 1936, 'is the great variety of movement.' It is in such varieties, of course, that comparative currency changes may have their chief effects. Bearing in mind the 1929 base, a few of the percentage changes for the 1935–36

5 *World Economic Survey, op. cit.*, pp.73 *et seq.* Consideration is given to wholesale and retail prices, cost of living indices, agricultural vs. manufactured goods prices, etc.

period given as against the 1934 date may be mentioned: U.S. minus 1.4, United Kingdom plus 4.6, France plus 14.6, Japan plus 6.7. Earlier figures of course indicate a rise for the United States.

But a really accurate basis for an appraisal of external results of dollar policy would be found only in statistics including *cost* and price and exchange. Properly the figures should be so constructed as to show a ratio between the United States and each other country, this ratio being in turn one between: (1) the ratios between costs, prices, and the exchange rate, for the United States; and (2) similar ratios for the other country. These ratios could then be checked against the trade, *and other* transactions, between the two countries. Then, within the limitations of the probabilities of these factors' being results of monetary policy, and other familiar limitations such as the fact that a price index itself contains divergent commodity trends and that import and export price both vary from general internal price, one might at last arrive at an *estimate* of the external result of monetary policy, country by country.

No such computations exist. The League, however, offers a few data providing a rough approach to such a formula.[6] These are on a 1929 base for the indices, September 1931 for the ratios—unfortunately,—as one would wish for present purposes to see the changes beginning in 1933 and especially running through and after 1934. For the United States only two relationships are given, those with France and the United Kingdom. They are, unfortunately, given only in diagram form, without the statistical tables. They show exchange rates, wholesale prices of raw materials and foodstuffs, cost of living, wage rates, and bond yields.[7] The method used is to 'calculate the ratio of the index numbers and plot these ratios on the basis of September 1931 = 100. To facilitate comparison, the exchange rates are reversed. Thus, in the comparison between France and the United States, the French index numbers of wages, prices, and interest rates are divided by the American. The quotient for September 1931, is equated to 100 and the monthly movement of each ratio since that time is plotted as an index number on the base of September 1931.' Apparently British abandonment of the gold standard is thus taken as the starting point.

6 *Ibid.* p.277.

7 The national derivations of the figures, or the degree of their representative nature, are not indicated. Refined as the method is, the residual crudeness of the indices is apparent.

The results from January 1933 to early 1936, without tracing details, were roughly as follows: United States-United Kingdom: The ratios for prices and cost of living and wage rates, which had been so 'low,' rose greatly in 1933, substantially in 1934, and tended to level off in 1935. The interest ratio had been extremely high, and fell greatly. The exchange rate ratio rose markedly in 1933, fell in 1934, and rose slightly in 1935. In early 1936 all the lines were nearer together and tending toward convergence.

In short in the Anglo-American relation the United States in January 1933 was 'out of line,' but there at last appeared a strong tendency toward the former 'equilibrium.' The money-price-cost structures had had their tiff and were making up. 'Abnormal' flows between the two countries would, seemingly, become less likely.

For the Franco-American relationship, the ratios fluctuated widely, and by early 1936 were still far apart, and the various ratios all remained in either great or very great degree above the exchange ratio. France remained out of line. 'The diagrams show that interest rates have risen in France and that wages and prices have not fallen enough to compensate for the exchange disadvantage.' No wonder France 'fell in line' with devaluation and new currency management, in co-operation with America and Britain later in the year. If goods and gold and capital flows (and other important items in the balance of payments) could only appear in these diagrams the picture would be roughly complete for the two cases, effects being observable for the thus related cause ratios. The crudities observed throughout this study would still exist, crudities of all the indices, crudities of frictionless shift from domestic to export industries, crudities of market behaviour in the light of pure theory assumptions. But there would be a rough measurement, approaching the ideal form of measurement.

FOREIGN TRADE BY COUNTRIES

Only by tracing the exports and imports of the United States by countries in terms of the proper (ideal) ratios mentioned above, i.e., in the light of comparative national cost and price structures, could a really precise appraisal be made of the theoretically expected external trade effects of the dollar policy—i.e., assuming the effects to be upon trade alone. But this would be impossible in the present condition of statistics. Taking the case of the United King-

dom, on the basis of the League computation mentioned above, one would have expected, following the change in the position of the dollar, in terms of the old simple theory thus modified by the idea of temporary effects of discrepancies between internal and external depreciation, a rise of United States exports and a decline of United States imports, followed by a later levelling off tendency. The exports did rise, but they did so steadily from 1932 to and including 1935, and imports *also* rose steadily. On the same basis, in the French case a steady export rise and import decline would have been expected through 1935. But the exports rose in 1933, declined in 1934, and in 1935 were a little higher than in 1934 but less than in 1933. Imports also rose in 1933 and 1934, and in 1935 declined slightly but were still above those of 1933. Examination of other cases, made without cost and price structure data, yields similar irregular observations.

In short, foreign trade by countries shows remarkably little correlation with dollar exchange rate behaviour, even when modified for comparative cost price structures where data on these are at all available. Either theoretical money assumptions are not borne out, or trade restrictions, droughts, and a host of other non-monetary factors intervene, or both; or the external effects are to be found in other external transactions than trade. A broader if less refined, view suggests the totals, the balance of international payments.

THE BALANCE OF INTERNATIONAL PAYMENTS

The question arises, then, as to what has been the behaviour of the whole of foreign trade and of the other international economic transactions during the period of the monetary changes here considered. Has the decline of the dollar stimulated total exports and retarded total imports of goods, or of total goods and services? Has it affected the flow of gold, or of capital? And what are the proportionate changes in the interrelation of these major items in the balance of international payments? [8] Only the major aspects of the

8 *Vide:* (1) Tables covering exports and imports (of goods); (2) League of Nations, *op. cit.*; (3) U.S. Department of Commerce, *The Balance of International Payments* published annually, especially the issues covering 1932, 1933, 1934, and 1935; (4) Letters to the President by Hon. George N. Peek (Special Adviser to the President on Foreign Trade)—(a) on *Foreign Trade*, May 23, 1934, (b) on *International Credits for Foreign Trade and Other Purposes*, August 30, 1934, (c) on *Foreign Trade and International Investment Position of the United States*, April 30, 1934.

balance will be examined. The purpose is not to explore the balance as such, but simply to consider what it discloses with possible reference to the purpose of the present study.

Net figures are shown for some outstanding items and group totals in the balance for 1932–36, inclusive.

GOLD FLOWS. One of the very greatest changes which occurred in the balance of payments in the period here considered was in the performance of gold flows. A net import of eleven million dollars in 1932 changed to a net export of a hundred and seventy-three millions in 1933. But this was sharply reversed; in 1934 as much as 1,217 millions flowed in net, and the net inflow reached the huge sum of 1,739 millions in 1935, and was still great, at 1,030 millions, in 1936. Here, in this period, then, the shifts in the balance on gold (and on some other accounts) were more spectacular than they had been for many years. This raises the important question of causes and effects, of the function of gold.

As for the domestic monetary situation, this great inflow has been mentioned in an earlier chapter. Both theoretical and empirical considerations have raised doubts regarding precise effects along the lines of the quantity theory of money. Nevertheless the fact has been pretty plain that the inflow for some time was helping to expand the bank credit base, finally to a point considered so undesirable that the new sterilization method was adopted. It was seen, on the other hand, that this credit base was not resulting in corresponding increase of active credit and that, perhaps in part because of slow velocity, the domestic price level was rising but not commensurately, although it may yet do so.

But the relation of gold to other items in the balance of international payments raises other questions. It was observed that great limitations, at the least, had to be placed upon the old, simple concept that gold is *the* balancing agent in the balance of international payments, and particularly so with regard to the supposed correlation with changes in the merchandise trade. This will be seen still more definitely in the trade performance statistically examined below.

The causes and effects of gold flows in the balance are not always easily analysed; certainly they are not subject to some precise law. But so long as nations do not completely abandon the gold standard, so long as some of them have even nominally gold-content

currencies, or have monetary gold reserves or gold purchase and sale policies—indeed so long as gold remains a generally appreciated thing of value, the international gold flows of course have significance. In fact it is obvious that gold remains one of the most convenient and rapid vehicles for the international transmittal of values. So, though gold is no longer to be viewed as 'the' balancing item, and all items, through 'the law of promotion and detraction,' come to be in a sense balancing items, nevertheless the gold flows are significant. They do not occur simply for their own sake. They *are* transmitters. In short, if gold is now 'only a commodity' it is one with very special functions. One point suggests itself very prominently, namely the very substantial increase, to $35.00 an ounce, made in the government purchase price, during the autumn of 1933 and January 1934. This would not only increase the total dollar value of a given number of ounces of imported gold, but would tend strongly to induce an inflow, other things being equal, by the amount of difference between the American and foreign current gold prices and within the limits of freedom of its flow elsewhere. This does not solve the problem of the inter-relation of the gold item and other items in the balance of payments, but it serves as one possible explanation. A further point to be borne in mind is that gold, unlike such things as merchandise, has a turnover. Thus a given amount of gold can be transferred back and forward a number of times a year, each time carrying other values back and forth with it; this suggests the old, simple concept that a small amount of gold can do a great deal of work, in its international movement. But from this point of view, if a certain shipment of gold comes in, carrying certain other values in, so also if it goes out again, it must carry certain other values out. In any event, the amount of net inflow per year might understate, but it could scarcely overstate, the size of the flows of other values with which it was associated. And in the present case the net inflow has been so large, and the resulting accumulation of stocks of it likewise, and the shifts in some of the other major items have been so great that, while no assumption may be made as to a precise and inherent connexion with another item, at any rate a strong case presents itself for finding *some* sort of *significant* relationship. This in itself does not solve the problem of which is cause and which is effect; thus if a high price of gold here attracted inflows, that attraction

might be the initiating factor and it would remain to be seen what disposition would be made of the resulting transfer of values. But in fact it would scarcely seem that the gold transfer would be made only of itself, and there is a presumption that those who sent it here, even though induced to do so partly because they could thus get a bargain, nevertheless must have had something they wished to purchase, some *particular* bargain, if not in merchandise then in something else. It is true of course that much of the inflow might represent a drain from central banks abroad, due say to their efforts to sustain an overvalued currency. But fundamentally this would still be an expression of the balance of payments and would necessarily involve association at a given time with some other item or items in the balance. This is obviously the case because of the way in which the (American) balance of payments is computed, to include all cash claims arising on both the American and the total foreign side of all accounts, so that 'the balance must balance.'

Assuming then a partly, or even primarily monetary cause for the inflow of gold which emerged so hugely in 1934,[9] the question remains: what changes in other important items in the balance were associated with this great change?

MERCHANDISE—VALUE AND QUANTITY. The changes in foreign trade (in merchandise) were far from what might have been expected from the formerly prevalent assumptions. Exports had been $1,675 millions in 1933. These did rise substantially to 2,133 millions in 1934, a rise which of course was partly nominal. The sudden devaluation, which immediately caused measured values to rise here, but without commensurate rises in import or even export prices, may be borne in mind throughout. But after that, in 1935 and 1936 exports did not rise so rapidly. The increase in 1934 *might* be

9 A closer examination reveals more details. For example, in February–March 1933 a net outflow probably represented foreign reaction in confidence in the dollar attendant upon the bank crisis, the abandonment of redeemability and general uncertainty here; the especially heavy inflow of February–March 1934 might be considered an immediate reaction to dollar devaluation and perhaps belief that it suggested stabilization; and so on. There were always variations in currency and political conditions in foreign countries, causing rise or fall in confidence there. It is not the purpose here to trace such matters step by step throughout the period. The broader view of the period must be adopted. It should be borne in mind, however, that a mechanical view must always be qualified by psychological factors; in money matters the word 'confidence,' like the word 'speculation,' has much significance.

assumed to represent a stimulation-from-devaluation. But the *imports also rose.* They were $1,450 millions in 1933, rose to 1,655 millions in 1934, and rose especially to 2,047 millions in 1935, and to a still higher level in 1936. Certainly this did not support the import retardation idea. Indeed, the net active balance rose from $225 millions in 1933 to 478 in 1934, but it fell to 236 in 1935, and to a mere $34 millions in 1936, the smallest in many years.

While there are limitations to the significance of quantity figures as contrasted with the ones by value, as the *comparisons* are being made, with gold and other items in the balance, only in terms of value, it is interesting to observe the quantity trend contrasts. The value index of exports (1923–25 base) was 35 for 1932, rose somewhat during 1933 but was only 37 for the year, and rose slowly to 47 for 1934 and 50 for 1935, this being 43% higher than for 1932. But the quantity index of exports was on a higher plane than that for value. It was 69 in 1932 and remained the same in 1933, so that we sold abroad no more actual goods at all in that year. The figure climbed to 74 for 1934 and 78 for 1935, when it was only 13% higher than in 1932. Thus the increase in our exports in 1933 was only a value one and the subsequent increases were far more in value than in quantity. The main point was that we were receiving more (of the new dollars) for what goods we shipped.

This same distinction is found in lesser degree for imports. The import value index was 34 for 1932, 37 for 1933, 43 for 1934, and 53 for 1935, in which year it was 56% greater than in 1932. But the import quantity index was 79 in 1932, 86 in 1933, the same in 1934, and 106 in 1935, then being only 34% greater than in 1932. We were paying more for what we bought.

This is, of course, simply the obverse of the previously noted trends in unit value indices. These 'average export prices,' with reference to 1932, increased by 6% in 1933, by 23% in 1934, and 27% in 1935. The 'average import prices,' similarly compared with 1932, increased none in 1933, by 16% in 1934, and by the same percentage in 1935. Thus the rise in our import prices, after the monetary changes began, was less than the rise in our export prices. All of our foreign trade, then, declined much less during the depression 'really' than in terms of money, and increased less during the recovery turn and after the monetary changes 'really' than in

monetary terms—which has also been true, generally, of all international trade. But the real increase in our exports, after 1932, was much less than the real increase in our imports. This throws further light on the decline of our active trade balance (in monetary terms) in 1933, its increase in 1934, its partial decline again in 1935, and its very great decline in 1936.

Reverting, however, to the analysis in total dollars, and summarizing: Except that exports and the active balance rose materially in 1934, it appears that the foreign trade did not correlate well with the idea of export stimulation through greater external than internal depreciation, and showed some affinity with the simpler theory of price rise import stimulation. As in so many other instances, the results are mixed. As for correlation with the tremendous imports of gold, there seemed little if any. The discrepancy can be explained only in one of two ways: (1) The trade was being governed by other forces, of which there is always a great variety and which in this case may have included domestic recovery, which in turn may have been influenced by the internal aspects of the new monetary situation (it was too early for the new trade agreements to have very great effect); (2) the gold inflow was coming in, *not* to pay for a changing trade balance, but for something else.

With reference to the first of these two possibilities, the League, in commenting on the period through a part of 1935, offers the following remarks: [10] 'Increased imports by the United States were widely distributed over foodstuffs, raw materials and manufactures from a considerable number of countries. . . . They were caused in part by the continued drought. . . . In the main, however, it seems clear that the increased imports reflected industrial recovery and revived demand for raw materials and special manufactures. . . . *As purchasing power rose there was* a substantial *increase of* manufactured *imports*. . . . Exports rose also, though less than imports, the active balance of commodity trade being the lowest recorded for twenty five years.'

As for the second possibility, unless it be assumed that exports would have risen even less and imports even more than they did, had it not been for the monetary situation—and this is scarcely suggested by a view of the balance as a whole—it remains to ex-

10 *World Economic Survey, op. cit.*, pp.170–171.

amine non-commodity items, to see what stuff the Americans sold that was less precious to them than the gold they bought.[11]

11 The author does not know of any previous statistical measurements, in other cases, which bear out the export stimulation and import retardation theory in any precise manner if at all. In 1932 the United States Tariff Commission made some exhaustive descriptive and statistical studies of this kind, and their results were, on the whole, almost completely inconclusive. *Vide Depreciated Exchange: Statistics of Imports into the United States*, 72nd Congress, 1st Session, Senate Document No.90; and *Depreciated Exchange; Statistics of Exports from the United States*, same Congress, same session, Senate Document No.90, Part 3; and, for a summary, *Sixteenth Annual Report of the United States Tariff Commission*, 1932.

William O. Scroggs, writing on 'Depreciated Currencies and World Trade,' in *Foreign Affairs*, vol.11, No.3, April 1933, pp.513–516, summarized the Commission's findings and some of his own observations in the following language:

'The 1932 foreign trade figures of the leading commercial countries afford an opportunity for speculation with regard to the effects of currency instability upon imports and exports. The trade of three countries with stable currencies—France, Germany and the United States—may be compared with that of two countries with depreciated currencies—Great Britain and Canada. In theory, currency depreciation tends to stimulate exports and to check imports. Investigation shows that the exports of all the countries mentioned were less in 1932 than in 1931, but that the decline was substantially greater in the stable-money countries. The decrease in the value of exports in 1932 from the previous year was 35 percent in France, 40 percent in Germany and 33 percent in the United States. In Great Britain and Canada, on the other hand, the decreases were respectively 7 and 19 percent.

'This would seem to indicate that the cheap money of Great Britain and Canada, while not causing an absolute increase in exports, may have been instrumental in producing a smaller decline than was experienced by stable-money countries. On the other hand, if the export trade of these five countries in 1932 is compared with that of the predepression year 1929, the relative changes shown by the two groups are not so striking. From 1929 to 1932 the value of exports decreased 60 percent in France, 58 percent in Germany and 65 percent in the United States, while for Great Britain and Canada the decreases were respectively 50 and 59 percent.

'The decline in the case of Germany, France and Canada shows remarkable uniformity. As British trade was lagging behind that of these other countries in 1929, a relatively smaller decline might be expected. For a contrary reason, a greater decline might be expected in the United States, inasmuch as its export trade in the pre-depression years had been stimulated by heavy loans to foreign countries.

'It is impossible to obtain conclusive evidence from trade statistics regarding the effects of the depreciation of foreign currencies on imports and exports. The United States Tariff Commission, in response to a Senate Resolution of April 12, 1932, made a comprehensive study of this question. With respect to imports into the United States it found that "no definite difference can be traced between the commodities coming chiefly from depreciated-money countries and those coming from other countries." Concerning exports its verdict was that the data "likewise fail to show at all conclusively that the trend in exports has been more unfavorable in the case of depreciated-currency countries than of other countries."

'The Commission found that between October 1931 and February 1932 imports into the United States from the six leading European countries off the gold standard had declined 28 percent, as compared with the corresponding months of the preceding year. At the same time, imports from six important countries remaining on the gold standard had decreased only 23 percent. This seemed to indicate that the actual effects of the abandonment of the gold standard were the

SERVICES. The service items offer little or no explanation. As is well known, most of these are net imports for the United States. For example, American tourists spend abroad more than foreign tourists spend in America; the net imports on this account increased somewhat in 1934 and 1935, despite the exchange rate disparity in the gold bloc countries, and also increased in 1936, when they were nearly as great as in 1932. Net immigrant remittances (imports) declined somewhat steadily through 1935, and rose a little in 1936. Net interest and dividends (exports of capital service) fell somewhat in 1934 and rose a little in 1935–36. As a whole the service items offer no solution of the present problem. Indeed, if merchandise and services be combined, one finds some increase in the net export figure from 1932 through 1934, but not to any great amounts, and a decline in 1935; whilst in 1936 the figure shifted to a *net import* of $132 millions. It is generally considered that this was the first time in its history that the United States found itself with an 'unfavourable' (i.e., passive) balance on total merchandise and service account—a most striking development.

CAPITAL MOVEMENTS. The important and distinctive change in the balance, which accompanied the large net inflow of gold, appears to be, in considerable measure, a net inflow of capital—i.e., export of securities and other 'titles.' This flow was not commensurate with the gold inflow. But, despite a net outflow of *short-term funds* in 1933, this net inflow of capital was strikingly large in the years 1934, 1935, and 1936. In large part, then, Americans were selling, for gold, securities and other financial obligations. The net import of private long-term capital funds was not new, having been 217 million dollars in 1932 and 49 millions in 1933. But it rose to 202 millions in 1934, to 462 millions in 1935, and to the large figure of 792 millions in 1936! Of great significance also was the total net flow of short-term funds of various kinds. This was a net outflow of 409 million dollars in 1932 and 412 millions in 1933. But it changed to a new inflow of 192 millions in 1934, and

opposite of what was generally expected. The Commission was careful to point out, however, that the real effects of currency depreciation might be concealed through the operation of other more important influences, and that depreciation of currency was itself the outcome of more fundamental conditions and forces.'

Professor Scroggs also believes that if the currency depreciation is long continued, 'the advantage which the country appears to enjoy can be maintained only by the depletion of its capital resources; for with steadily rising domestic prices it is actually selling its goods for less than the cost of their replacement.'

970 millions in 1935!—falling again in 1936 to 404 millions. When the long- and short-term are taken together, a total net outflow of capital funds of 272 million dollars occurred in 1933, but after 1933 changed and ran to *a total net inflow of 1,536 millions*—over one and a half billions of dollars—in 1935! It was also 1,141 millions in 1936! The cumulative net capital funds movement from January 1935 through September 1936, as shown by the Treasury,[12] was over two and a quarter billions of dollars! If foreigners could get dollar bargains, they apparently had less preference for merchandise, the internal and export prices of which were rising, and more preference for such things as securities, which were still in many instances 'cheap at half the price' or less, and which besides offered marked speculative possibilities during the possible coming boom. America's post-war net creditor position (on private account) was rapidly diminishing.

It is unnecessary here to analyse this capital fund inflow in detail, but a few highlights may be mentioned. During 1935 foreign long-term holdings increased from $4,270,000,000 to $5,035,000,000, long- *and* short-term from $4,870,000,000 to $6,235,000,000. The inflow of short-term banking and commercial funds was heavy. The *cumulative* net inflow of short-term *banking* funds alone, from January 1935 through September 1936, as shown by the Treasury, was well over one and a quarter billions of dollars.[13] There was withdrawal by Americans of banking funds from abroad. Despite some American repurchase of American securities held abroad, there were heavy foreign purchases of American securities and large repatriations of foreign securities previously held in America. The purchases were not all 'homing' ones; for example there were purchases on European account of Latin-American dollar bonds. There were also foreign purchases of American direct investments abroad, e.g., industrial plants. Facts concerning the direction of the flows during the whole period are not completely available, but the outstanding activity of British accounts may be mentioned as a highlight.[14]

12 U.S. Treasury Department, *Statistics of Capital Movements between the United States and Foreign Countries and of Purchases and Sales of Foreign Exchange in the United States, January 1935 through September 1936*, 1936.

13 *Idem.*

14 *Ibid.*, pp.13–15 (summary tables by countries) and pp.122–127 (graphs by countries) for the period January 1935 through September 1936.

There are two important questions: (1) To what extent was this great change in the international position of the United States due to monetary conditions? And (2) can the nature of the change be analysed in terms of the structures of production and expenditure or in other ways significant for present purposes?

As to the first, doubtless it would be a mistake to suppose that the whole shift of capital was caused by monetary policy. As in all such cases there must have been a mixture of causes. For example, there had been evidence that the long-term creditor position had been declining for some years. This raises in turn the whole question whether (disregarding the intergovernmental debts) the great outflow of American capital funds in the twenties was of a kind to endure. Some of it, for example in the field of direct, as contrasted with portfolio, investments, seemed to be. But it must have become obvious that some of it was not. Some of it not only went into unproductive channels, but was also inflated beyond fundamental supporting values, just as at home this was true in the stock market boom, and the collapse had caused a shrinkage in nominal values during the world-wide deflation. Indeed some of it had been clearly speculative in character, and could have only a maladjusting influence upon the financial structure both at home and abroad. As for the return flow, however, monetary conditions must have had an important influence. For example, the British apparently had diminished their overseas investment position with the overvaluation of sterling in 1925, but as early as 1931 they had begun the adjusting of their currency position and as a result gradually 'improved' their foreign investment position. Their 'capital surplus' situation was again becoming more conspicuous, and in this connexion reference may be made again to the large part played by British accounts in the American capital inflow of 1934–35 and early 1936. The gold flows from France into the United States during the recent period considered here had an important place in the total gold movement. Part of them resulted from the French difficulty of maintaining the position of the franc, but part of them at times were apparently not simple movements from that country to this; France became a sort of channel for some of the flow which originated elsewhere, for example in England. The important place of Great Britain, Canada, the Netherlands, and some other countries in the new total of foreign long-term investments in the

United States as of the end of 1935 is significant. Under international financial triangulation the source of the gold imports does not have to coincide with the source of the capital funds imports.

If such an interpretation be correct, it will be argued that the United States, having adjusted *her* currency position, would be in a situation conducive to capital *exports*. But this in turn would depend upon the extent to which the United States is, at the present stage, basically a capital surplus country. To some extent she is. That is the long-time tendency in her economic evolution, and she still has many foreign investments.

To sum up this analysis in very simple terms, it may be argued that: (1) A nation, for non-monetary reasons, may in its economic evolution acquire a so-called capital surplus position, as England had earlier, and as the United States was tending to do later. The foreign investing process may be unduly accelerated or retarded by unusual events such as the World War and the general disturbances which followed it, and a further series of resulting disturbances. Meanwhile the monetary system may contribute heavily to such disturbances by providing international maladjustments. The gold standard, through its rigidity, may do as much as anything to prevent the necessary readjustments, and a case for greater flexible currency management emerges. But during the process of such readjustment further difficulties may occur, as when some leading countries adjust their own currency positions but not in a coordinated, synchronized way (e.g., England and United States), and some (the gold bloc) delay their adjustments for a considerable period. (2) In the case of the United States, the currency adjustment, probably not a *prime* cause of the changed capital position, helped to precipitate or at least accelerate it. Some of America's great increase of capital investments abroad could not have been expected to be permanent, but the return flow was doubtless speeded by the currency adjustment, thus presumably tending to restore, even if in an abrupt way, a capital position more in keeping with the general economic position. Already in 1936, despite the further increase in inflow of long-term capital funds, the total net inflow of capital of all kinds, though still very large, was retreating from the enormous high of 1935. If international monetary conditions are not the fundamental determinants, they can con-

tribute considerably to the international maladjustments and readjustments.

At one point such an interpretation evades a most basic question. Does a nation ever have a real capital surplus? Equilibrium theory so assumes, because of the international division of labor and the need for such an international distribution of capital as will insure its highest world-wide marginal productivity; such theory thus necessarily admits the possibility of its maladjustment. On the other hand, many observers have come to question the desirability of the heavy international capital flows, and their observation finds some illustration in the American experience of 1925–35, with an outward flood followed by a huge back-wash. It is argued that a country accumulating capital can always use that capital better at home, and even the international equilibrium theorist would admit so if it were proven that at home such capital could be employed at its best productivity. Further pursuit of this question would probably lead too far from the central, monetary theme of the present study. But the recent experiences are sufficient to suggest much comfort for the questioning of the concept of world capital distribution, as viewed in a practical manner and especially with regard to a country such as the United States. At the least it is clear that much of the huge and sudden international capital movement of recent periods has been disturbing and speculative and unwarranted by basic economic conditions.

This interpretation is all the more tenable in the light of the behavior of short-term capital funds. It is here that the most violent shifts have occurred in the balance of international payments. The net flow was outward in 1932 and also in 1933. It reversed sharply in 1934, and in 1935 the net inflow was, as seen above, nearly a billion dollars. In 1936 the decline of the net inflow was noticeable, as compared with a continued rise in the much less spectacular inflow of long-term capital, although the cumulative net inflow from January 1935 through September 1936, as mentioned above, was still larger and, in absolute if not relative terms, continuing upward. This was easily the most notable passenger on the incoming golden ship. The huge size and the erratic nature of this movement already have been the subject of so much comment in current literature that little more need be said here. It may only be recalled that such funds may become the most disturbing of all;

for example, they may come in, take a speculative whirl in the stock market, and rush out again at a later time, contributing to a possible boom and later collapse of security markets and banks, as they have apparently helped to do before. The President has expressed concern about these funds, and the Treasury Department has begun to compile very detailed records of these and the other capital flows.[15] To the extent that such funds are speculative, the speculation cannot be regarded, on balance, as a stabilizing influence, but the contrary. Incidentally, the remark may be ventured that if monetary policy alone proves inadequate to control these violent movements, it would not be surprising if more direct controls were set up. It will remain to be seen what stabilizing influence in this respect may possibly result from the new international currency co-operation established in the autumn of 1936.

An exact appraisal of the causes of these particular short-term movements is another matter. They may have come to be called 'violent and dangerous,' but what made them occur? No doubt, as in all economic analysis, mixed causes must have existed. The most frequent opinion, expressed in current literature repeatedly, both unofficially and officially, has been that they have represented a flight of capital from other countries where currency and other economic and political conditions seemed unfavourable and where lack of confidence was conspicuous.[16] It has been, of course, for several years, customary to speak of 'flight capital.' This aspect is not to be ignored. Only, distinction must be drawn, in part, between the long- and the short-term movements, *and* both terminals of the flight must be taken into account. As for the first, for example, once the United Kingdom had worked out its new currency adjustment, it would appear that, with the pressure removed, an increase in British foreign investments would occur, to

15 U.S. Treasury Department, *op. cit.*, containing extremely detailed and precise tables of day by day figures. This highly useful publication, it was announced, would thereafter appear quarterly. Perhaps the most remarkable thing is that governments, which a long time ago had begun the most detailed recording of commodity movements, did not sooner begin the similar recording of capital movements.

16 The view that the large international short-term capital flows of recent years represent flight is expressed in the *World Economic Survey*, *op. cit.*, p.267: 'Since short-term capital seeks security against depreciation rather than increased profit opportunities, the play of discount rates is not always effective and may even defeat its own purpose by sounding a note of alarm.' But does this fully explain these flows?

the extent that this was justified by the basic, non-monetary conditions. But this case would, thereafter, suggest less motive for the *flight* of capital. In any event when a certain movement is identified as a flight, it is scarcely sufficient to explain this solely in terms of conditions in the country of take-off. The capital would necessarily want to make sure of a landing field that was relatively attractive. The country of entry must present some advantages at least as refuge. It seems reasonable to suppose that the United States possessed attraction. It is also clear that this attraction appeared in 1934, as the net short-term flow was outward from the United States in 1932 and 1933, and the net inflow emerged in 1934—then becoming huge in 1935. Accordingly it would appear that the inflow of flight and speculative capital must be explained by conditions, especially including monetary conditions, at home as well as abroad. It is here that the signs point to the new dollar policy as a very significant factor.

By the same token it is also here that the new dollar policy encounters a dilemma. Intended to bring a readjustment and to insulate against the shocks of external disturbance, it apparently contributed to the introduction of some new disturbances, exposing the country, it has been charged, to violent inflow of speculative funds which 'would do the country no good,' which might have repercussions internally (as in a possible stock market inflation and, later, collapse) as well as externally. The defence of the policy doubtless rests on these three points: (1) that it hastened a liquidation which had to occur anyway (say in respect of long-term capital position); (2) that any readjustment would have to be attended, for a time, by some 'dangerous incidents,' and the final proof of the management will lie in its ability to maintain the adjusted position, once it is attained, perhaps with the aid also of non-monetary devices; and (3) that the maintenance of the adjustment will be facilitated by the new international monetary arrangement, which in turn led to currency readjustments in several other countries.[17]

17 The greater proportionate place of capital flows in the international transactions of the United States, over a period of some years, has been noted by some observers. If this is a general post-war tendency it cannot be related directly to the dollar policy since 1933–34, but it suggests the *possibility* that disturbances in international monetary relations may have contributed to the shift. This tendency is shown in a computation, made by the Office of the Special Adviser to

Only a tentative word may be added concerning the possible connexion with international cyclical movements. If the one outstanding effect of the new dollar policy was to help to cause, or to facilitate, a very large inflow of capital, would this affect the stream of income and the structure of production and if so, how? That it might affect it there can be little doubt. Also, because it *was* capital, it might not be expected to swell the flow of spending for consumers' goods, although those Americans who sold securities might have used the proceeds for such expenditure. In general, though, it would probably be supposed, in recent cycle theory, directly or indirectly to enter into some 'higher' stage of the production structure, and some of it probably has done this. But at *what* stage? There is no evidence that it entered only the highest stages, that it swelled the funds available to the producers' goods out of proportion to those available to the consumers' goods industries. It seems probable that some of it was spread throughout different stages, though how evenly cannot be statistically known. Moreover, to the extent that the incoming capital represented purchase of *existing* foreign or domestic securities, or plant (direct investments), and not *new* securities or plant, the process would be

the President on Foreign Trade, showing 'distribution of dollar settlements.' Some objection has been raised regarding the formula in this case, as for example that the turnover of the gold item is not taken into account. And if gold and currency were shown separately from capital transactions a sharper analysis might be made. But this does not greatly lessen the general and noteworthy significance of the figures. These figures show the percentages of dollar settlements absorbed annually by (1) capital transactions and gold and currency (net), (2) commodity and service transactions, (3) tourist expenditures and immigrant remittances, (4) interest and dividends, (5) direct governmental payments and war debt receipts, with a column for unestimated items, errors, and omissions. The results are: (1) The percentage of dollar settlements absorbed by interest and dividends was 1.3 in 1919, reached a high of 7.8 in 1932, and was 5.0 in the first six months of 1935. (2) Commodity and service transaction, which one might have assumed constituted the largest item, was 70.7 in 1919. But this declined greatly (if slightly irregularly) to 41.8 in 1933 (45.7 in 1934), and to 38.8 in the first half of 1935. Thus not greatly over one third of dollar settlements were then being used for merchandise trade! (3) On the other hand, the percentage taken by capital transactions underwent a converse trend. Being only 8.9 in 1919 it rose to 20.2 in 1921, fell again to as low as 13.4 in 1925, and then began a notable (if slightly irregular) rise to 43.2 in 1934 and 52.0 in the first half of 1935. The complete significance of these figures perhaps remains to be discovered. Various questions arise. Do the shifts in functional distribution of dollar settlements respond to secular trends, to cyclical trends, or to the evolution of the structure of national economy from say the simple to the complex type? Has the world, so far as its international transactions are concerned, entered into an era in which finance (perhaps unduly) increasingly overshadows commerce? Have international currency disturbances contributed to the trend, and will their adjustment finally reverse the trend?

merely one of transfer of title, and could in no way affect the existing structure of production or expenditure, except for the securities that had originally been sold high and now were sold abroad low, with a resulting long-run net loss of American capital funds. In fact, in many instances it is just this that has taken place. As for the short-term funds, and the long-term funds also in many cases, to the extent that these have been merely speculative, they may have simply contributed to rising stock market prices, and thus may have helped begin a new increase of funds functioning in that market without necessarily affecting the production structure. This interpretation does not cover all cases but it seems applicable probably to a large proportion of the whole movement. If so, then, whether or not one accepts an income-flow-and-structure-of-production theory of the cycle, there seems little evidence that the inflow of capital into the United States has had much effect upon such processes. What is suggested is the possible contribution to an inflationary tendency in the stock market which might go 'too far.' If so it would be this, more than other possible cyclical aspects of the problem, which would be of concern, in respect of the international capital movements, to monetary and related policies.

In summary, monetary policy may have, under certain circumstances, far less the effect, and little or no effect of the type once supposed, upon foreign trade in commodities; and in the present period of large and rapid international capital movements, it may have important effects upon these. Capital movements, then, along with extraordinary flows and maldistributions of gold, at this stage constitute the chief problem for international monetary policy.

Chapter VII

INTERNATIONAL STABILIZATION

In the rapid evolution of the American monetary system and in its relationships with other currencies of the world, considered in the foregoing chapters, the question constantly arose: what will be the next step? Within the country opinion was still considerably divided. From the international point of view it remained rather obvious that the world monetary problem had not been completely resolved.

In the United States some business men, economists, and officials advocated a prompt return to the national and international gold standard either exactly as it had existed before or with only very minor modifications. Others regarded the new policy as satisfactory, and the Administration had indicated that it would continue the new course. While the differences in point of view were apparently based largely upon doctrinal predilections, there seems to have been a considerable drift of thought toward the new type of management, at least with regard to the external aspect. As for any exact or final appraisal of the results of the new policy, it has been seen in earlier chapters, in considerable theoretical and statistical detail, how difficult any sweeping conclusion becomes. Summarizing very briefly and broadly, from both the internal and the external point of view, it has been observed: (1) that actual results had run far from any precise correlation with those which might have been anticipated by the policy and by certain theoretical assumptions; (2) that on balance the results in some important respects had tended to move in the general direction of anticipations; and (3) that meanwhile significant actual or potential difficulties had arisen, such as, internally, the exceptionally great enlargement of the credit base which finally led to partial reversal of the expansionist aspect of the policy although not to a change in the nominal gold content of the dollar nor to any abandonment of the newer control devices and, externally, the tremendous inflow of gold and capital—two phenomena which in some respects are related. Although the ultimate effects of the policy and the ability of the new mechanism to adapt itself to the next phase of the cycle and indeed to the secular sweep of the national economy may still remain to be seen, it may probably be said all in all that, given the

international situation as it had developed, some such measures were to be considered more or less necessary, and to say this is not to ignore the difficulties and even the dangers which had arisen, some of them most serious. By the summer of 1936 no inexorable forces were at work to compel revaluation or scrapping of the management scheme. Rather the contrary. On the other hand, the new internal and external difficulties did suggest the desirability of a further evolution and adaptation of the system, especially with a view to the effects of the external processes. Specifically, unless gold were to be completely demonetized, something would probably have to be done about the great influx of gold, and of capital—especially short-term capital of either the flight or the speculative type. For, internally and internationally, the problem had become chiefly a problem of capital.

Abroad, the monetary situation varied greatly. It has not been the purpose of this study to analyse monetary policies and effects in countries other than the United States. But a few general comments may be made, concerning rather familiar aspects. The consensus of opinion had doubtless come to be that Britain, although she had by no means solved all of her economic problems, was reasonably satisfied with the currency management she had exercised since September 1931, even being able to some extent to conduct both internal and external management in such a way that one would not endanger the other with separate effects for each. This opinion may have been fortified by the evidence that some time after the American devaluation, perhaps after the autumn of 1934, the British Exchange Equalization Account and the American Stabilization Account were either unofficially co-operating or, at least, pursuing such approximately similar objectives that by 1936 the pound and the dollar were never at any *great* disparity and that even the cost and price structures of the two countries were tending gradually to approach somewhat their former relationship. Indeed it has been suggested that the 40% devaluation decided upon in the United States in January 1934 was as much dictated by an approximately equivalent depreciation of sterling as by a 1926 price level criterion—a convenient coincidence. It does not particularly matter what answer is given to the much debated question whether the United States, in January 1934, had decided to stop depreciation at the then existing level and so stabilize, or to drive further toward

new levels. There is some evidence of the former, but also much evidence of the latter, especially internally; the latter view was adopted in the introduction of the present study and it is by no means untenable. What is significant at the present point, however, is the fact that the whole process has been an evolutionary one, and that by mid-1936 conditions could be regarded as more favourable for some sort of stabilizing arrangement.

Meanwhile, of course, the extensive sterling area (some members of the British Commonwealth, Scandinavia, Egypt, Argentina, etc.), although presenting many internal differences and special problems, broadly considered, tended to move internationally with the pound. The situation of the mark, with all of its particular problems such as that of the debts, of course remained and remains very difficult, and constitutes somewhat a case by itself. Despite the unique techniques developed there, undoubtedly this problem will have yet to be solved before the total world monetary problem can be reasonably well composed.

Reverting to the situation in 1935 and early 1936, the general world economic trend was obviously 'improving,' and this was reflected in a general way in the international exchanges. 'After the abandonment of the gold standard by the United Kingdom, and still more after the United States had devalued the dollar by approximately the same amount as that by which sterling had depreciated, there was a strong tendency for new exchange equilibria to be established around these focal points. A great many currencies had followed sterling, and when the dollar-sterling ratio appeared to be reasonably steady at approximately the old parity, other currencies settled down at about the new level or in a steady relationship with it. After sterling ceased to depreciate in April 1935, there was, indeed, exchange stability among all the principal countries, modified only by a tendency for some exchange-control countries to introduce premium systems which had the effect of bringing their currencies, for purposes of external trade, down approximately to the new level.' [1]

Nevertheless, the gold bloc countries remained islands in the stream of international monetary adjustment, and it was widely predicted that they would soon find it necessary to abandon their monetary isolation. Their situation is quite familiar, and may be

1 *World Economic Survey, op. cit.*, p.293.

most readily reviewed in the following comment:[2] 'In the second quarter of 1936, the countries of the gold bloc passed through the severest currency crisis they have yet experienced in the course of the depression. As in the crises of the preceding year, one result was the departure from the gold standard of one member of the bloc. In April 1935, Belgium devalued her currency. In April 1936 Poland imposed exchange control. The three remaining countries of the bloc—France, the Netherlands and Switzerland—survived the crisis without devaluation, though at the cost of heavy gold withdrawals and some increase in exchange restrictions.' A 'New Deal' in France promised some 'improvement' of the situation of the franc in the summer of 1936, but did not prove sufficient to relieve the pressure upon that currency. The '*de facto* stabilization of the principal currencies gave an opportunity for uneven price movements to remedy the discrepancy which existed between the price-levels of the gold standard group and those of the United Kingdom and the United States. Wholesale prices had not risen greatly in the latter countries. There had been a steady fall in the former, but not enough to compensate for the exchange depreciation of other currencies. The gold bloc countries therefore had been driven to increasingly severe control of imports, in order to maintain their domestic price levels. The strain imposed by a constantly adverse balance of external payments was aggravated by distrust of the gold-standard currencies, leading to a steady flight of capital which at times rose to great proportions and was swelled by speculation against these currencies. There was a persistent deflationary pressure in the gold bloc countries, a considerable amount of hoarding, both of gold and of bank-notes, and a reduced velocity of circulation of bank deposits. Economic activity was thus reduced to a low ebb, profits disappeared, unemployment increased, and the state of public finance was rendered difficult. . . .'

If it be true, therefore, that 'in retrospect, economic developments since the breakdown of the international monetary and trading system in the latter part of 1931 may be regarded as an attempt to construct a new system of international economic relations' (though the breakdown had its origins long before 1931), it now became clear that, as far as the world monetary system was concerned, the position of the gold bloc countries

2 *Ibid.*, pp.292 *et seq.*

caused increasing difficulties for themselves, and at least to some extent for other countries, including the United States. In these circumstances, the familiar prediction that had been made so often, that the gold bloc would 'have to fall in line,' took on increasing validity.[3]

Consequently, the French devaluation of September 25, 1936 was not at all unexpected, nor was the tripartite currency co-operation understanding of the same date, with France as the probable prime mover, surprising.

THE INTERNATIONAL ENTENTE

Various proposals had been made, from time to time, for international stabilization. Some of these, of course, ran in terms of a return to the old international gold standard, with abandonment of the new types of currency management; but such a development was hardly to be expected by those who had followed the problem carefully, nor were the United States and England likely so soon to give themselves over to the rigidities of the old system from which they had sought escape. Other suggestions were for provisional stabilization.[4] What seemed more feasible, however, was the possibility of a less rigid arrangement. The present author, in the first draft of this manuscript written in the early autumn of 1935, had said: 'What would seem, however, much more feasible, would be a *flexible* co-operation, wherein those countries with currency management would enter into informal arrangements whereby their monetary authorities could consult with each other from time to time, with a view to managing their currencies in relation to each other in a manner which might allow for all the shifts that might be suggested by constantly changing conditions. The fluctuations might not, in this process be *very* great, other countries

3 From August 7 to September 25 the Bank of France lost 320 millions of dollars worth of gold. 'This brought the aggregate loss of gold reserves of the Bank of France since March 1935 to more than 2,100 millions of dollars, reflecting almost entirely exports of capital from France.'—*Federal Reserve Bulletin*, October 1936, p.760.

4 One such suggestion was substantially as follows: The United States and the United Kingdom should take the initial step by agreeing upon a provisional stabilization of the dollar and the pound, at 4.8666 (the old parity) or perhaps at 5.0, with the understanding that if this ratio did not prove feasible it might later be readjusted. Other countries, including those of the gold bloc, could later be induced to adjust their currencies to this ratio. *Vide* Sir Arthur Salter, 'Stabilization and Recovery' in *Foreign Affairs*, vol.14, No.1, October 1935, pp.12–25.

might gradually enter into the informal arrangements, and there might be preserved those advantages of flexibility which, to a certain extent, reside in the present management systems.'

On September 25, 1936, simultaneously with devaluation of the French franc, the United States, Great Britain, and France announced that they had reached an understanding concerning monetary policy. Couched in very general terms, it did not specify fixed ratios, but simply looked toward a flexible co-operation of the monetary managements of the three countries. Belgium, the Netherlands, and Switzerland later joined in the arrangement, Belgium declaring its general adherence to the principles on September 26, 1936.

The announcement issued by the United States Treasury Department was as follows:[5] 'By authority of the President, the Secretary of the Treasury makes the following statement:

'1. The Government of the United States, after consultation with the British Government and the French Government, joins with them in affirming a common desire to foster those conditions which safeguard peace and will best contribute to the restoration of order in international economic relations and to pursue a policy which will tend to promote prosperity in the world and to improve the standard of living of peoples.

'2. The Government of the United States must, of course, in its policy towards international monetary relations take into full account the requirements of internal prosperity, as corresponding considerations will be taken into account by the Governments of France and Great Britain; it welcomes this opportunity to reaffirm its purpose to continue the policy which it has pursued in the course of recent years, one constant object of which is to maintain the greatest possible equilibrium in the system of international exchange and to avoid to the utmost extent the creation of any disturbance of that system by American monetary action. The Government of the United States shares with the Governments of France and Great Britain the conviction that the continuation of this two-fold policy will serve the general purpose which all the Governments should pursue.

5 *Federal Reserve Bulletin, op. cit.*, pp.759–760. Substantially similar announcements were simultaneously released by the British and French Governments.

'3. The French Government informs the United States Government that, judging that the desired stability of the principal currencies cannot be insured on a solid basis except after the reestablishment of a lasting equilibrium between the various economic systems, it has decided with this object to propose to its Parliament the readjustment of its currency. The Government of the United States, as also the British Government, has welcomed this decision in the hope that it will establish more solid foundations for the stability of international economic relations. The United States Government, as also the British and French Governments, declares its intention to continue to use appropriate available resources so as to avoid as far as possible any disturbance of the basis of international exchange resulting from the proposed readjustment. It will arrange for such consultation for this purpose as may prove necessary with the other two Governments and their authorized agencies.

'4. The Government of the United States is moreover convinced, as are also the Governments of France and Great Britain, that the success of the policy set forth above is linked with the development of international trade. In particular it attaches the greatest importance to action being taken without delay to relax progressively the present system of quotas and exchange controls with a view to their abolition.

'5. The Government of the United States, in common with the Governments of France and Great Britain, desires and invites the cooperation of the other nations to realize the policy laid down in the present declaration. It trusts that no country will attempt to obtain unreasonable competitive exchange advantage and thereby hamper the effort to restore more stable economic relations which it is the aim of the three Governments to promote.'

Important monetary changes thereupon occurred in France and in many other countries; these will be mentioned below.

In view of the steps taken to implement this tripartite arrangement, it will be helpful at this point briefly to recapitulate earlier measures of the American Government regarding gold and foreign exchange transactions. (1) Under the temporary restrictions set up

at the time of the bank-holiday, March 5, 1933, all banks had been forbidden to export gold without permission of the Treasury, and all foreign exchange transactions had been placed under control; but the Treasury had proceeded to licence exchange transactions and gold exports to an extent apparently sufficient for ordinary purposes. (2) From April 19, 1933 the release of gold from the monetary stocks of the Government and the Federal Reserve Banks had actually ceased. (2) From October 25, 1933 or a little earlier the Government's domestic gold purchases, and from November 1, 1933 its domestic and foreign gold purchases, had begun, at increasing prices. (4) Upon devaluation, January 31, 1934, the Treasury had announced (January 31 and February 1) that it would buy gold at $35.00 an ounce and on January 31 had indicated its willingness to release gold for export (at the new fixed price of $35.00 per ounce) to countries still on the gold standard whenever the exchange rate on such currencies (respectively) reached the gold export point. (5) Exchange control apparently had never been more than nominal, and on November 12, 1934, the Treasury had announced the granting of a *general* licence for all such transactions, although it still required that all such transactions be reported.

Reverting now to the steps which followed the tripartite agreement, on October 13, 1936, the Secretary of the Treasury, incidentally suggesting that a new type of international standard was now being established, announced a co-operative arrangement whereby gold would be released for export to the equalization or stabilization funds of countries which would reciprocate with regard to terms of purchase and sale. The announcement was:[6]

'Supplementing the announcements made by him on January 31 and February 1, 1934, to the effect that the Treasury would buy gold, and on January 31, 1934, referring to the sale of gold for export, the Secretary of the Treasury states that (hereafter, and until, on *twenty-four hours notice*, this statement of intention may be revoked or altered) the United States will also sell gold for immediate export to, or earmark for the account of, the exchange equalization or stabilization funds of those countries whose funds likewise are offering to sell gold to the United States, provided such offerings of gold are at such rates and upon such terms and condi-

6 *Federal Reserve Bulletin*, November 1936, p.852.

tions as the Secretary may deem most advantageous to the public interest. The Secretary announces herewith, and will hereafter announce daily, the names of the foreign countries complying with the foregoing conditions. All such sales of gold will be made through the Federal Reserve Bank of New York, as fiscal agent of the United States, upon the following terms and conditions which the Secretary of the Treasury deems most advantageous to the public interest:

'Sales of gold will be made at $35 per fine ounce, plus one-quarter percent handling charge, and sales and earmarking will be governed by the Regulations issued under the Gold Reserve Act of 1934.'

'The Secretary of the Treasury today named Great Britain and France as complying with the conditions specified in his press release of October 13, 1936, for the purchase of gold from the United States for immediate export or earmark.'

On November 24, 1936, Belgium, the Netherlands, and Switzerland having formally adhered to the tripartite understanding for co-operation, the Treasury Department added these countries to the group with which 'reciprocal gold transactions' would be permitted, and withdrew the gold export announcement of January 31, 1934. The new announcements were:[7]

'By authority of the President the Secretary of the Treasury announces that as a further step in the direction of international monetary equilibrium arrangements have been made to give effect to the desire of the Governments of Belgium, the Netherlands and Switzerland to cooperate with the Governments of the United States, Great Britain and France in accordance with the principles of the tripartite declaration of September 25, 1936.

'The Belgian Government notified the United States of its adherence to these principles on September 26. Similar declarations of adherence have now been received from the Governments of the Netherlands and Switzerland.

'The Governments of the United States, Great Britain, and France welcome the declarations of the Governments of Belgium, Switzerland and the Netherlands expressing their adherence to the principles stated in the tripartite declaration of September 25.

7 Press releases: press service No.8–93, 8–94, and 8–95.

'Arrangements have been made by the United States Treasury for gold transactions on a reciprocal basis with these three countries. These arrangements are given effect by public statements of the Secretary of the Treasury which are annexed hereto:

'(1) A statement supplementing the statement of the Secretary of the Treasury dated October 13, 1936, with respect to reciprocal transactions in gold with certain countries, and withdrawing the statement of January 31, 1934, relating to the sale of gold for export:

'(2) A statement naming the countries of Belgium, the Netherlands and Switzerland as complying with the conditions of the statement of October 13 as supplemented by the above statement.

'In addition to the statements to which reference is made above, copies of communications from the Governments of the Netherlands and Switzerland are made public herewith.

'Supplementing the announcement made by him on October 13, 1936, relating to the sale of gold for export, the Secretary of the Treasury states that (hereafter, and until, on twenty-four hours' notice, this statement of intention may be revoked or altered) the United States, in addition to sales of gold to the exchange equalization or stabilization funds of foreign countries, will also sell gold for immediate export to, or earmark for the account of, the treasuries, or any fiscal agencies acting for or whose acts in this connection are guaranteed by the treasuries, of those countries whose treasuries or fiscal agencies so acting or guaranteed are likewise offering to sell gold to the United States, provided such offerings of gold are at such rates and upon such terms and conditions as the Secretary may deem most advantageous to the public interest. The Secretary announces herewith, and will hereafter announce daily, the names of the foreign countries complying with the foregoing conditions. All such sales of gold by the United States will be made through the Federal Reserve Bank of New York, as fiscal agent of the United States, upon the following terms and conditions which the Secretary of the Treasury deems most advantageous to public interest:

'Sales of gold will be made at $35 per fine ounce, plus one-quarter percent handling charge, and sales and earmarking will be governed by the Regulations issued under the Gold Reserve Act of 1934.

'The Secretary further announces that his statement of Janu-

ary 31, 1934, relating to the sale of gold for export, is accordingly withdrawn.

'The Secretary of the Treasury today named the following additional countries:

Belgium
The Netherlands
Switzerland

as complying with the conditions specified in his press release of October 13, 1936, as supplemented by his press release of November 24, 1936, for the purchase of gold from the United States for immediate export or earmark.'

Thus did the gold bloc enter into currency co-operation with the United States and Great Britain and thus did the United States adjust its gold and exchange stabilization system. Meanwhile, of course, it was necessary for the gold bloc countries to make appropriate adjustments in their own currency systems, and it is also significant that this outstanding event was accompanied, as might have been expected, by important monetary changes in a number of other countries, such as Austria, Greece, Latvia, Italy, Czechoslovakia, Rumania, Turkey, and the Union of Soviet Socialist Republics.

THE READJUSTMENT OF OTHER NATIONAL MONETARY SYSTEMS

It is not within the scope of this study to explore these changes in the monetary systems of other countries. But their significance, representing in considerable part an adaptation to the co-operative arrangement and its results, is such that a few of the highlights should be mentioned.[8]

France, which had already begun a new 'social program' including some changes in the credit situation, after devaluation suspended the gold standard on September 26. A decree temporarily closed the security and commercial exchanges. An agreement between the Minister of Finance and the Bank of France raised

8 *Vide Federal Reserve Bulletins*, October 1936 *et seq.*, and U.S. Department of Commerce, 'Recent Currency Developments in Europe,' by Dr. Thomas R. Wilson, Special Circular No.419, November 16, 1936. Verbatim quotations are from these sources. For a detailed account of the immediate repercussions in many countries, September 25–Oct. 1, 1936, *vide The Economist*, London, Vol.CXXV, No.4858, Saturday, October 3, 1936.

from 215 thousand to five billion francs (330 millions of dollars) the minimum amount for redemption in gold by the Bank of its notes. A decree of September 28 prohibited gold exports except by authorization of the Bank. A special session of Parliament on October 1st suspended the provisions of the law of June 25, 1928 which had fixed the gold content of the franc at 65.5 milligrams of gold .900 fine and had required the Bank to buy and sell gold on demand at fixed prices. The Government was authorized to set the new gold content of the franc at not less than 43 and not more than 49 milligrams (.900 fine). That is, the new parity was to be between 65.6% and 74.8% of the old. In other words *the franc was devalued,* but *not by a definite amount,* the *percentage of devaluation* ranging *from 25.2 to 34.4.* Gold holdings of the Bank were to be revalued, provisionally, on the basis of 74.8% of the former content. The increment, with regard to the Bank's gold reserves (about 17 billion francs) and the foreign exchange holdings, went to the Government. Of this, 10 billion francs was set aside for the establishment of an exchange equalization fund, to be administered by the Bank for the Government. In administering this fund the Bank was mandated to maintain the exchange value of the franc within the limits indicated by the devaluation, which in terms of United States currency are 4.35 cents and 4.96 cents. It was provided, under penalty, that all persons of French domicile were to declare their gold holdings at home and abroad, and persons holding gold were required to sell it to the Bank. The Government was also authorized to try to prevent price increases other than those resulting from the higher cost of imports, and to deal specially with labour disputes arising over a possible increase in the cost of living.

Devaluation of the franc presented two problems. The internal problem, or group of problems, thus had to do with the fear of increasing prices and living costs and attendant labour and social questions. From the external point of view it seemed open to question whether the degree of devaluation of the franc would be sufficient to maintain it at its new rate; many had anticipated a devaluation of 50% or perhaps even more.

In some of the other gold bloc countries the sudden developments of September 25–26 apparently came somewhat unexpectedly; the first reaction seemed to be in favour of continuing the old position,

and announcements were at first made to that effect. But hourly events, such as gold drains in the Swiss case, occurred rapidly, and the bloc members found it necessary to adjust their positions.

Switzerland on September 28 relieved the Swiss National Bank of its obligation to redeem its notes in gold or gold exchange, took steps to set up a stabilization fund, and ordered the Bank to maintain the Swiss franc at a parity ranging from 190 to 215 milligrams of fine gold. The devaluation, thus setting the new par at a range between 66% and 75% of the old gold parity, was therefore *a devaluation of 25% to 34%*—very nearly the new range of 25.2% to 34.4% effected by France for the French franc.

The *Netherlands*, on September 27, embargoed gold exports except by authorization of the Netherlands Bank, and began arrangements for a stabilization fund, to be derived from issue of Government securities. *No new gold parity was fixed*, and the florin, like sterling in 1931, was unlinked from gold and placed upon a purely managed basis. Afterward the florin was maintained on the foreign exchange at a level about 21% below its former position.

The currency repercussions in various other countries may be only touched upon here. *Italy*, which had been virtually pegging the lira to the French franc, nominally devalued its currency by 40.93%, with further adjustments possible within a range of 10%. *Germany*, still nominally on the old par, continued as before, but with the unique system of multi-marks so controlled that, though at considerable cost, she could possibly further continue her special currency position. *Belgium*, which had devalued in 1935, indicated maintenance of the belga as before. The *Austrian* gold schilling, previously pegged to the gold buying rate of the Bank of France, was now to be fixed daily at a rate in terms of paper schillings on the basis of daily gold and foreign exchange rates 'on representative markets.' The *Greek* drachma was pegged to sterling. *Latvia* and *Turkey* changed their pegs from the French franc to sterling. *Czechoslovakia* devalued and established an equalization fund. In the *Union of Soviet Socialist Republics*, a decree of April 1, 1936 had pegged the ruble to the French franc, at the rate of 1 ruble to 3 francs. Now a decree of October 28, 1936 fixed the value of the ruble at 4½ French francs. Of course the whole *sterling area* continued to be influenced by the British pound. *Japan* unofficially indicated no contemplation of further depreciation of the yen and a

desire to continue, on the previously reduced level, to follow sterling.

Thus did the franc move into the orbit of the dollar and the pound, and around the tripartite entente clustered a constellation of many currencies.

THE 'NEW' WORLD MONETARY SYSTEM

A brief but eventful epoch in the evolution of international monetary relations had occurred. What prospect does it present for the future? Were valuable lessons learned? Does the new management offer opportunities for increasing economic recovery and progress in the United States and in the world? Is the entente merely a step back towards the old national and international gold standard, or does it represent the emergence of a new international monetary system? Answers to these questions would necessarily consist of largely useless generalities and hazardous predictions. Quite insufficient time has elapsed to permit analysis of the real economic effects of the new arrangements.

But it is worth while to conclude this study with a brief consideration of the question whether the new managements do or do not, essentially, constitute a return to the national and international gold standard. There is no doubt that these arrangements do comprise a scheme for a considerable degree of stabilization—a stabilization of course at new, not old, levels. It is also quite obviously true that gold still plays a highly important role in this scheme, as it does also in the monetary system of the United States and in those of most other countries. In the United States the dollar has a nominal gold content and gold is not unrelated to the credit structure. In the international plan official purchases and sales of gold and the price of gold are very important devices. Certainly money has not been divorced from gold.

Nevertheless, it is going much too far to say that the international gold standard, as it once existed, has been restored, just as it is not accurate to say, as do some observers, that when the United States devalued in January 1934 it had returned to a national gold standard in the old sense. There are several important respects in which the new situation does not constitute a return to the former gold standard.

One of these is the matter of freedom of gold operations and

movements. Great Britain, commonly regarded as the pioneer in the new type of monetary policy, limited such freedom even before 1931. When she 'returned to the gold standard' in 1925 she really 'returned to the gold bullion standard.' Individuals could obtain gold bars but they could not obtain gold coin, and their rights in the former respect were in some ways limited.

An essential feature of England's departure from the gold standard in 1931 was the suspension of the right of individuals to buy gold at the central bank. Afterward, as now, individuals could deal in gold in the open market, but the Bank of England could take any sizable quantities from them, at statutory price, unless those quantities were held for industrial or export purposes. In the United States, beginning with devaluation in 1934, all gold, with minor exceptions, became the property of the Government, and individuals were prohibited from holding it or dealing in it. Substantially similar measures were adopted in France, with the devaluation of September 1936. Indeed there is scarcely anywhere in the world where individuals are now free to hold and deal in gold —which is another way of saying that nowhere is there redeemability, but it is saying a little more than that too. It may be added also that the secrecy which in a number of countries surrounds the exact amount of gold holdings of the stabilization authorities makes for another contrast with the old gold standard.

But the matter of gold content of currencies and fixed currency prices of gold is probably even more significant. In the United States, the gold content of the dollar is fixed by current policy. But under existing legislation this may be changed within a considerable range. In France and Switzerland the devaluation was not by a fixed, but by a flexible amount, and there too the range is very considerable. In Great Britain, as also in the Netherlands, there is no fixed gold content of the currency at all. True, in those two countries there is a fixed statutory price of gold, but in practice it is ineffective, since any one possessing gold can obtain a higher price for it in the open market. In the United States, as in France, Switzerland, and Italy, there is no fixed statutory price of gold; its price is subject to current policy, at least within a range so broad as to make flexibility, rather than rigidity, the dominant aspect. Moreover, in the very international gold agreements of October 1936, there is no *permanent* gold price fixity. Great Britain

and the European parties to the agreement, it is true, can convert dollars, acquired say in their stabilization operations, into gold at a fixed price. But in practice it is not clear how far the reverse process could go, that is, for the American operations. And, most important, the United States has entered into no binding and permanent commitment with regard to such purchases and sales, at the price indicated; it reserves the right to withdraw on twenty-four hours' notice.

It seems fairly clear that the new international arrangement did not constitute a restoration of the old gold standard, nationally or internationally. It is possible, but difficult, to view it as a step in that direction. It may be what the Secretary of the Treasury has termed it, 'a new type of gold standard.' But a name for it is not particularly important. The significant point is that it undertakes international stabilization in a new way.

In appraising the whole monetary experiment, it is not possible to dissociate the internal and external aspects, but on balance the external results appear to have approximated the objectives sought somewhat more than have the internal—perhaps because of the apparatus or perhaps because of the manner in which the apparatus was employed. If the scheme has not yet solved certain major problems, it must doubtless be admitted that it is still subject to corrections and improvements in its technique, that it is capable of further extensions of various kinds looking toward stabilization with currencies of still other countries, and also that, viewed as a mechanism, it provides a framework within which adjustments may be made and different national policies, wise or unwise, may be formulated from time to time. Its essence is its flexibility.

From this point of view, it does not matter whether the United States and the other countries have obtained all of the benefits expected, or have encountered certain difficulties. At least they are apparently convinced that they have derived some benefits, and have escaped some repercussions they would otherwise have suffered. Having enjoyed the flexibility of current adjustments of their national structures and policies to the international situation, it is open to question whether they will be willing to surrender this for the fixity of the old order—the advantages of which they believe they can attain in the newer way, without the disadvantages. If they reach the conviction that their respective currencies

have come exactly or almost exactly to the point which is satisfactory, and would automatically and permanently remain so, they may yet be composed to the 'comforts' of the old monetary regime. More likely, in the present outlook, they may prefer still to strive for a flexible rather than a rigid international stability, and to pursue further the recent evolution of the 'new' monetary system.

APPENDIX

NOTE.—In constructing some of these tables, the question arose whether the figures, after devaluation, should be adjusted for the devaluation and presented in 'old gold dollar equivalent.' There appeared to be some advantages in this. It would have seemed to make for time series comparability; e.g., the sudden and, in some respects arbitrary, jump in certain values in February 1934 would have largely disappeared. However, this would have lessened certain other types of comparability, and might have introduced certain confusions. For example, in some cases it might have implied the assumption that prices had changed in exact proportion to the change in the nominal gold content of the dollar, when one of the purposes of the analysis was to discover whether they did or, as proved to be the case, did not. On balance, it was deemed best not to make such an adjustment.

APPENDIX

STATISTICAL TABLES

Table 1

Gold Stock, and Average Price of Newly Mined Domestic Gold Established by United States Treasury, by Months

Month	Average Price [1]	Gold Stock (Millions) [2]
August, 1933	$ —	$ 4,323
September, 1933	30.77	4,327
October, 1933	30.82	4,324
November, 1933	33.31	4,323
December, 1933	34.05	4,323
January, 1934	34.28	4,323
February, 1934	35.00	7,138
August, 1934	35.00	7,978
August, 1935	35.00	9,203
February, 1936	35.00	10,167
July, 1936	35.00	10,648
September, 1936	35.00	10,845
November, 1936	35.00	11,184

1 *Annual Report of Secretary of Treasury*, Fiscal Year ended June 30, 1934, p. 205, and Treasury statements.

2 *Federal Reserve Bulletins* (Stock at end of month).

Note: Prices from September 8 through October 24, 1933, represent the price at which the Secretary of the Treasury was authorized to sell newly mined domestic gold received on consignment under authority of Executive order of August 29, 1933; from October 25, 1933 through January 15, 1934, the price fixed for newly mined domestic gold by the Reconstruction Finance Corporation which was offered in payment for notes of the Reconstruction Finance Corporation under authority of Executive order of October 25, 1933; from January 15, to January 31, 1934, the price at which the Federal Reserve Bank of New York as fiscal agent for the Treasury purchased newly mined domestic gold consigned to the mints and assay offices. Under regulation issued by the Treasury Department January 31, 1934, the mints are authorized to purchase gold (newly mined domestic, unmelted scrap, and gold imported after January 30, 1934) at $35 less one fourth of 1% and less mint charges.

Table 2

United States Currency in Circulation
(Money outside Treasury and Federal Reserve Banks) [1]
(In millions of dollars)

End of Month	Total	Gold Coin	Gold Certificates	Silver Certificates	United States Notes	Federal Reserve Notes	Federal Reserve Bank Notes	National Bank Notes
December, 1929	$4,865	$384	$ 880	$417	$265	$1,862	$ 3	$597
December, 1930	4,890	368	1,118	404	296	1,641	3	623
December, 1931	5,647	409	877	389	288	2,603	3	656
December, 1932	5,675	468	601	371	294	2,716	3	820
January, 1933	5,645	479	591	350	287	2,707	3	836
April	6,003	335	323	360	261	3,362	50	915
July	5,630	320	252	365	275	2,974	129	914
October	5,635	312	225	387	277	2,930	182	903
January, 1934	5,289	—	178	391	283	2,894	202	927
April	5,368	—	157	400	282	3,025	162	918
July	5,317	—	146	399	277	3,044	133	885
October	5,453	—	136	510	273	3,124	112	856
January, 1935	5,380	—	127	580	259	3,048	97	827
April	5,478	—	121	653	268	3,120	88	778
July	5,518	—	115	702	280	3,232	78	654
October	5,713	—	111	773	281	3,495	70	514
January, 1936	5,737	—	107	809	259	3,598	63	436
April	5,886	—	103	886	249	3,726	56	391
July	6,162	—	100	958	274	3,937	50	352
October	6,351	—	97	1,020	282	4,076	46	324
December	6,543	—	95	1,057	289	4,223	44	307

1 Types of minor importance omitted but obtaining in total: standard silver dollars; Treasury notes of 1890; subsidiary silver; and minor coins.
Source: *Annual Reports of the Federal Reserve Board* and *Federal Reserve Bulletins.*

Table 3

Federal Reserve Bank Discount Rates under Section 13 and 13a of the Federal Reserve Act [1]
(Table effective to January 30, 1937)
(Percent)

In Effect	New York	Cleveland	Chicago	San Francisco
January 1, 1930	4½	5	4½	4½
January 1, 1931	2	3	3½	3½
January 1, 1932	3½	3½	3½	3½
January 1, 1933	2½	3½	2½	3½
October 20, 1933	2			
October 21, 1933		2½	2½	
November 3, 1933				2½
February 2, 1934	1½			
February 3, 1934		2		
February 16, 1934				2
January 19, 1935			2	
May 11, 1935		1½		

1 Rates indicated also apply to U.S. Government securities bought under repurchase agreement.
Source: *Federal Reserve Bulletins.*

Table 4

Deposits of All Banks in the United States, Exclusive of Interbank Deposits
(In millions of dollars)

Date	All Banks	Date	All Banks
1929—October 4	$55,180	1933—June 30 [1]	$38,011
December 31	55,289	October 25 [2]	—
		December 30	38,505
1930—March 27	53,185		
June 30	54,954	1934—March 5 [2]	—
September 24	52,784	June 30	41,870
December 31	53,039	October 17 [2]	—
		December 31	44,770
1931—March 25	51,427		
June 30	51,782	1935—March 4	44,455
September 29	49,152	June 29 [2]	45,766
December 31	45,821	November 1	47,522
		December 31	48,964
1932—June 30	41,963		
September 30	41,942	1936—March 4	48,771
December 31	41,643	June 30	51,335

1 Beginning June 30, 1933, all figures (other than for mutual savings banks) relate to licensed banks only, with some exceptions as to non-member banks.
2 Non-member bank figures not available.
Source: *Federal Reserve Bulletins.*

Table 5

Net Demand Deposits of Reporting Member Banks and Debits to Individual Accounts, with Index, Monthly Average, 1929 = 100

Month	Net Demand Deposits [1]		Debits to Individual Accounts [2]	
	Millions	Index	Millions	Index
January—1929	$13,593	101.5	$82,814	106.3
July	13,243	98.9	77,631	99.6
January—1930	13,224	98.8	60,423	77.5
July	13,220	102.5	52,744	67.7
January—1931	13,763	102.8	46,253	59.4
July	13,576	101.4	39,451	50.6
January—1932	10,752	80.3	33,569	43.1
July	10,067	75.2	25,230	32.4
January—1933	11,233	83.9	24,466	31.4
April	10,918	81.6	22,624	29.0
July	10,427	77.9	31,232	40.1
October	10,653	79.6	26,307	33.8
January—1934	11,118	83.0	27,221	34.9
April	12,221	91.3	31,231	40.1
July	12,745	95.2	27,752	35.6
October	13,476	100.7	26,750	34.3
January—1935	14,027	104.8	29,980	38.5
April	15,769	117.8	31,549	40.5
July	16,030	119.7	33,287	42.7
October	13,598 [3]	—	32,577	41.8
January—1936	14,017	—	35,424	45.5
April	14,258	—	34,783	44.6
July	14,850	—	34,816	44.7
September	15,116	—	33,242	42.7

1 Reporting member banks in 90 cities.

2 Represents debits in 141 cities.

3 Note: Beginning with the figures shown above for October 1935, the demand deposits series involves two changes: (1) The figures are for reporting member banks in 101 instead of 90 cities. (In earlier years there had already been changes in the number of cities.) (2) As of August 24, 1935, because of changes in reserve requirements under the Banking Act of 1935, 'adjusted demand deposits' figures were substituted for 'net demand deposits' figures. The new act required that reserves be carried against United States Government deposits. The adjusted demand deposit figure excludes United States Government deposits, interbank balances, and reported 'float' (cash items in process of collection). It represents 'the demand deposits of individuals, partnerships, corporations, clubs, associations, and the like.' Some idea of the difference may be obtained by comparing the following figures with those given in the table above; these are net demand deposits figured as before (although for 101 and not 90 cities): November 1935—17,688; January 1936—17,941; April 1936—18,180; July 1936—19,515; October 1936—20,072.

Source: *Federal Reserve Bulletins.*

Table 6

Member Banks Excess Reserves
(In millions of dollars)

Monthly Averages	1929	1930	1931	1932	1933	1934	1935	1936
January	$53.4	$44.5	$104.7	$ 35.4	$583.8	$ 866	$2,035	$3,033
February	46.1	53.2	56.6	43.8	417.3	891	2,237	3,038
March	56.9	56.0	66.5	59.0	[1]	1,375	2,065	2,653
April	36.5	42.4	55.6	152.1	379.1[2]	1,541	2,026	2,510
May	33.0	45.1	66.8	277.1	319.1	1,624	2,297	2,800
June	41.7	53.9	128.9	234.4	363.1	1,685	2,438	2,593
July	42.2	74.0	124.4	204.4	435.7	1,789	2,385	2,907
August	35.5	52.3	100.6	269.9	565.5	1,884	2,636	3,105[3]
September	34.2	59.2	120.3	345.5	674.5	1,754	2,628	1,852
October	42.4	59.1	129.1	435.9	758.4	1,731	2,820	2,043
November	65.4	51.7	57.0	482.2	794.1	1,835	3,061	2,219
December	48.3	72.8	59.5	528.8	765.7	1,748	2,983	2,046

1 Unavailable.
2 Beginning with April 1933, figures are for licensed banks.
3 3,105 for August 1–15; 1,852 for August 16–31; reserve requirements increased 50%, effective August 16, 1936.
Source: *Federal Reserve Bulletins*: monthly averages of daily figures.

Table 7

Loans and Investments of Reporting Member Banks in 101 Leading Cities
(In millions of dollars)

Date	Total Loans and Investments	Total Loans	Investments			Investments in Government Obligations as % of Total Investments
			Total	United States Government Obligations		
				Direct	Fully Guaranteed	
1933						
January 25	$18,619	10,040	8,579	5,283	—	61.6%
April 26	16,786	8,810	7,976	4,856	—	60.9
July 26	17,535	9,080	8,455	5,364	—	63.4
October 25	17,392	9,074	8,318	5,230	—	62.9
1934						
January 31	18,158	8,870	9,288	6,184	—	66.6
April 25	18,502	8,615	9,887	6,678	—	67.5
July 25	18,915	8,421	10,494	7,186	—	68.5
October [1]	19,056	8,295	10,761	7,182	501	71.4 [2]
1935						
January	19,489	8,061	11,428	7,795	657	73.9
April	19,856	8,083	11,773	7,909	783	73.8
July	19,909	7,943	11,966	7,930	994	74.6
October	20,355	7,963	12,392	8,156	1,114	74.8
1936						
January	20,928	8,080	12,848	8,599	1,155	75.9
April	21,745	8,361	13,384	8,767	1,273	75.0
July	22,484	8,374	14,110	9,484	1,278	76.3
October	22,566	8,718	13,848	9,310	1,255	76.3

1 Beginning October 1934, figures are monthly averages.
2 Beginning October 1934, per cent investment in government obligations, direct and fully guaranteed, is of total investments; prior to this date only direct government obligations are used in computing the percentage.
Source: *Federal Reserve Bulletins.*

Table 8

Federal Expenditures
Fiscal Years Ended June 30, 1934, June 29, 1935, and June 30, 1936 [1]
(In millions of dollars)

Expenditures	Fiscal Year 1934	Fiscal Year 1935	Fiscal Year 1936
Total, general	$3,100.9	$3,719.3	$5,588.9
Total, emergency and recovery	4,004.1	3,656.5	3,290.9
Total Expenditures	7,105.0	7,375.8	8,879.8

1 On basis of daily statements of Treasury Department.

Table 9

Index of Wholesale Prices, Farm and All Commodities, by Years
(1926 = 100)

Year	Combined Index	Farm Products
1926	100.0	100.0
1927	95.4	99.4
1928	96.7	105.9
1929	95.3	104.9
1930	86.4	88.3
1931	73.0	64.8
1932	64.8	48.2
1933	65.9	51.4
1934	74.9	65.3
1935	80.0	78.8
1936	80.8	80.9

Source: Bureau of Labor Statistics.

Table 10

Index of Wholesale Prices, Farm, and All Commodities, by Months
(1926 = 100)

Month	Combined Index				Farm Products			
	1933	1934	1935	1936	1933	1934	1935	1936
January	61.0	72.2	78.8	80.6	42.6	58.7	77.6	78.2
February	59.8	73.6	79.5	80.6	40.9	61.3	79.1	79.5
March	60.2	73.7	79.4	79.6	42.8	61.3	78.3	76.5
April	60.4	73.3	80.1	79.7	44.5	59.6	80.4	76.9
May	62.7	73.7	80.2	78.6	50.2	59.6	80.6	75.2
June	65.0	74.6	79.8	79.2	53.2	63.3	78.3	78.1
July	68.9	74.8	79.4	80.5	60.1	64.5	77.1	81.3
August	69.5	76.4	80.5	81.6	57.6	69.8	79.3	83.8
September	70.8	77.6	80.7	81.6	57.0	73.4	79.5	84.0
October	71.2	76.5	80.5	81.5	55.7	70.6	78.2	84.0
November	71.1	76.5	80.6	82.4	56.6	70.8	77.5	85.1
December	70.8	76.9	80.9	84.2	55.5	72.0	78.3	88.5

Source: Bureau of Labor Statistics.

Table 11

Cost of Living in U.S. [1]
(Average 1923–25 = 100)

Year and Month	Index	Year and Month	Index
1926	103	1933—June	74.5
1927	102	December	77.2
1928	100		
1929	99	1934—June	78.4
1930	97	November 15	79.1
1931	89		
1932	80	1935—March 15	80.6
1933	76	July 15	80.4
1934	78	October 15	80.7
1935	81		
		1936—January 15	81.3
		April 15	80.6
		July 15	82.0
		September 15	82.4

1 Index of cost of goods purchased by wage earners and lower-salaried workers in 32 large cities combined.
Source: Bureau of Labor Statistics.

Table 12

Brokers' Loans, as Reported by the New York Stock Exchange
(End of month)

May 1926	$4,433,000,000	
December 1927	6,440,000,000	
September 1929	8,549,000,000 (Peak)	
December 1930	1,894,000,000	
January 1933	359,000,000	
January 1934	903,000,000	
January 1935	825,000,000	
September 1935	781,000,000	$771,000,000 [1]
January 1936	925,000,000	922,000,000
July 1936	967,000,000	981,000,000
September 1936	—	995,000,000

1 New series; figures include only the borrowings of member firms carrying margin accounts. Includes all money borrowed, except from member firms of national securities exchanges. Figures derived from monthly reports of member firms of national securities exchanges inaugurated by the Board under the Securities Exchange Act of 1934.

Source: *Federal Reserve Bulletins.*

Table 13

Index of Production, Index of Contracts Awarded, Flotation of New Securities, and Index of Department Store Sales

Month	Index of Industrial Production [1] (1923–26 = 100)	Index of Contracts Awarded [2] (1923–25 = 100)	Flotation of New Securities [3] (Millions)	Department Store Sales [4] (1923–25 = 100)
Average, 1932	64	28	$ 99.4	69
January, 1933	65	22	64.5	60
February	63	19	19.6	60
March	60	14	16.3	57
April	66	14	24.9	67
May	78	16	43.8	67
June	92	18	110.1	68
July	100	21	117.1	69
August	91	24	45.6	74
September	84	30	63.8	68
October	76	37	58.7	70
November	72	48	58.3	67
December	75	57	57.0	69
January, 1934	78	49	47.8	73
February	81	44	81.0	73
March	84	35	97.3	76
April	86	32	143.4	76
May	86	26	102.7	75
June	84	26	122.5	73
July	76	27	216.6	73
August	73	27	179.5	76
September	71	29	43.4	74
October	74	31	121.9	74
November	75	31	107.0	75
December	86	31	140.9	77
January, 1935	90	27	92.1	76
February	89	28	50.0	77
March	88	26	108.1	79
April	86	27	89.9	75
May	85	27	86.4	74
June	87	30	58.1	79
July	86	35	134.1	80
August	88	38	151.5	77
September	91	43	177.1	81
October	95	48	145.5	78
November	96	60	117.5	82
December	101	68	231.2	83

This table continued on next page.

Table 13—*Continued*

Index of Production, Index of Contracts Awarded, Flotation of New Securities and Index of Department Store Sales

Month	Index of Industrial Production [1] (1923–26 = 100)	Index of Contracts Awarded [2] (1923–25 = 100)	Flotation of New Securities [3] (Millions)	Department Store Sales [4] (1923–25 = 100)
January, 1936	97	62	123.3	81
February	94	52	106.7	83
March	93	47	129.5	84
April	101	47	176.7	84
May	101	46	111.6	87
June	104	52	217.3	87
July	108	59	102.8	91
August	108	62	216.5	86
September	109	59	178.9	88
October	110	57	188.7	90

1 Index of total industrial production, adjusted for seasonal variation, from the *Federal Reserve Bulletins*.
2 Index of contracts awarded from the *Federal Reserve Bulletin*; based on F.W.Dodge. Corporation figures.
3 Taken from *Commercial and Financial Chronicle*.
4 Taken from *Survey of Current Business*, Department of Commerce.

Table 14

General Indices of Employment in Manufacturing Industries, in the United States (1923–25 = 100)

Month	Employment							
	1929	1930	1931	1932	1933	1934	1935	1936
January	100.8	97.3	79.6	68.7	60.2	73.3	78.7	82.9
February	102.9	97.4	80.3	69.5	61.1	77.7	81.2	83.1
March	104.1	96.9	80.7	68.4	58.8	80.8	82.4	84.1
April	105.3	96.3	80.7	66.1	59.9	82.4	82.4	85.2
May	105.3	94.8	80.1	63.4	62.6	82.5	81.1	85.7
June	105.6	92.9	78.4	61.2	66.9	81.1	79.6	86.1
July	106.1	89.5	77.0	58.9	71.5	78.7	79.7	86.9
August	107.9	88.8	77.1	50.1	76.4	79.5	82.0	89.0
September	109.0	89.6	77.4	63.3	80.0	75.8	83.7	90.6
October	107.7	87.7	74.4	64.4	79.6	78.4	85.3	
November	103.6	84.6	71.8	63.4	76.2	76.8	85.0	
December	99.8	82.3	71.0	62.1	74.4	78.0	84.6	
Average	104.8	91.5	77.4	64.1	69.0	78.8	82.2	85.9[1]

1 Average for nine months.
Source: Bureau of Labor Statistics.

Table 15

National Income Produced and Paid Out
(Millions of dollars)

Item	1929	1930	1931	1932	1933	1934	1935
Income produced	81,034	67,917	53,584	39,545	41,742	48,397	52,959
Total savings	2,402	− 5,015	− 8,120	− 8,817	− 3,198	− 1,776	− 628
Corporate savings	1,423	− 3,909	− 5,877	− 6,366	− 2,796	− 2,340	− 1,443
Business savings of individuals	979	− 1,106	− 2,243	− 2,451	− 402	563	815
Income paid out	78,632	72,932	61,704	48,362	44,940	50,174	53,587
				Percentages of 1929			
Income produced	100.0	83.8	66.1	48.8	51.5	59.7	65.4
Total savings	—	—	—	—	—	—	—
Corporate savings	—	—	—	—	—	—	—
Business savings of individuals	—	—	—	—	—	—	—
Income paid out	100.0	92.8	78.5	61.5	57.2	63.8	68.1
Bureau of Labor Statistics cost of living index	100.0	97.9	89.5	80.8	76.2	78.7	81.1
Bureau of Labor Statistics wholesale price index	100.0	90.7	76.6	68.0	69.2	78.6	83.9

Source: Department of Commerce.

Table 16

National Income Paid Out by Types of Payment
(Millions of dollars)

Item	1929	1930	1931	1932	1933	1934	1935
Total income paid out	78,632	72,932	61,704	48,362	44,940	50,173	53,587
Total compensation of employees	51,487	47,198	39,758	30,920	29,420	33,528	36,057
Salaries (selected industries) [1]	5,663	5,548	4,606	3,387	3,048	3,250	3,417
Wages (selected industries) [1]	17,197	14,251	10,608	7,017	7,189	8,944	10,149
Salaries and wages (all other industries)	27,690	26,409	23,461	19,417	17,591	19,046	20,173
Work relief wages [2]	—	—	—	—	619	1,389	1,313
Other labor income	937	900	1,083	1,099	973	899	1,005
Total dividends and interest [3]	11,218	11,302	9,764	7,980	6,969	7,211	7,303
Dividends	5,964	5,795	4,312	2,754	2,208	2,549	2,830
Interest	5,104	5,305	5,169	4,975	4,592	4,569	4,422
Entrepreneurial withdrawals	12,503	11,666	10,086	7,992	7,306	8,052	8,701
Net rents and royalties	3,424	2,766	2,096	1,470	1,245	1,382	1,526

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Table 16—*Continued*

National Income Paid Out by Types of Payment

Item	1929	1930	1931	1932	1933	1934	1935
	Percentages of 1929						
Total income paid out	100.0	92.8	78.5	61.5	57.2	63.8	68.1
Total compensation of employees	100.0	91.7	77.2	60.1	57.1	65.1	70.0
Salaries (selected industries) [1]	100.0	98.0	81.3	59.8	53.8	57.4	60.3
Wages (selected industries) [1]	100.0	82.9	61.7	40.8	41.8	52.0	59.0
Salaries and wages (all other industries)	100.0	95.4	84.7	70.1	63.5	68.8	72.9
Work relief wages [2]	—	—	—	—	—	—	—
Other labor income	100.0	105.7	115.6	117.3	103.8	95.9	107.3
Total dividends and interest [3]	100.0	100.7	87.0	71.1	62.1	64.3	65.1
Dividends	100.0	97.2	72.3	46.2	37.0	42.7	47.5
Interest	100.0	103.9	101.3	97.5	90.0	89.5	86.6
Entrepreneurial withdrawals	100.0	93.3	80.7	63.9	58.4	64.4	69.6
Net rents and royalties	100.0	80.8	61.2	42.9	36.4	40.4	44.6

1 Includes mining, manufacturing, construction, steam railroads, Pullman, railway express, and water transportation.
2 Includes pay rolls and maintenance of Civilian Conservation Corps enrollees and pay rolls of Civil Works Administration, Federal Emergency Relief Administration, and Works Progress Administration work projects plus administrative pay rolls outside of Washington.
3 Includes also net balance of international flow of property incomes.
Source: Department of Commerce.

Table 17

Percentage Distribution of National Income by Types of Payment

Item	1929	1930	1931	1932	1933	1934	1935
Total income paid out	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total compensation of employees	65.5	64.7	64.5	64.0	65.4	66.8	67.3
Total salaries and wages	64.3	63.4	62.7	61.7	61.9	62.2	62.9
Work relief wages [1]	—	—	—	—	1.4	2.8	2.5
Other labor income	1.2	1.3	1.8	2.3	2.1	1.8	1.9
Total dividends and interest [2]	14.3	15.5	15.8	16.5	15.5	14.4	13.6
Dividends	7.6	7.9	7.0	5.7	4.9	5.1	5.3
Interest	6.5	7.3	8.4	10.3	10.2	9.1	8.3
Entrepreneurial withdrawals	15.9	16.0	16.3	16.5	16.3	16.0	16.2
Net rents and royalties	4.3	3.8	3.4	3.0	2.8	2.8	2.9

1 Includes pay rolls and maintenance of Civilian Conservation Corps enrollees and pay rolls of Civil Works Administration, Federal Emergency Relief Administration, and Works Progress Administration work projects plus administrative pay rolls outside of Washington.
2 Includes also net balance of international flow of property incomes.
Source: Department of Commerce.

Table 18

Income Produced, by Industrial Divisions
(Millions of dollars)

Item	1929	1930	1931	1932	1933	1934	1935
Total income produced	81,034	67,917	53,584	39,545	41,742	48,397	52,959
Agriculture	7,159	5,555	3,601	2,335	3,153	4,303	4,824
Mining	1,894	1,307	701	474	522	842	888
Electric light and power and gas	1,295	1,197	1,125	985	907	924	954
Manufacturing	19,308	14,072	9,526	5,623	7,797	9,791	11,326
Construction	3,225	2,756	1,742	670	595	729	980
Transportation	7,216	6,206	5,007	3,760	3,745	3,999	4,260
Communication	1,023	994	906	744	656	688	739
Trade	10,955	9,131	7,372	5,254	5,772	6,340	6,551
Finance	8,219	7,113	5,702	4,360	3,677	3,859	4,433
Government, including work relief program	6,805	7,043	7,189	7,148	7,360	8,365	8,646
Government, excluding work relief program	6,805	7,043	7,189	7,148	6,741	6,976	7,333
Work relief program	—	—	—	—	619	1,389	1,313
Service	9,207	8,459	7,198	5,379	4,957	5,802	6,404
Miscellaneous	4,728	4,084	3,515	2,813	2,601	2,755	2,954

Source: Department of Commerce.

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Table 18—*Continued*

Income Produced, by Industrial Divisions

Item	1929	1930	1931	1932	1933	1934	1935
	Percentages of 1929						
Total income produced	100.0	83.8	66.1	48.8	51.5	59.7	65.4
Agriculture	100.0	77.6	50.3	32.6	44.0	60.1	67.4
Mining	100.0	69.0	37.0	25.0	27.6	44.5	46.9
Electric light and power and gas	100.0	92.4	86.9	76.1	70.0	71.4	73.7
Manufacturing	100.0	72.9	49.3	29.1	40.4	50.7	58.7
Construction	100.0	85.5	54.0	20.8	18.4	22.6	30.4
Transportation	100.0	86.0	69.4	52.1	51.9	55.4	59.0
Communication	100.0	97.2	88.6	72.7	64.0	67.3	72.2
Trade	100.0	83.4	67.3	48.0	52.7	57.9	59.8
Finance	100.0	86.5	69.4	53.0	44.7	47.0	53.9
Government, including work relief program	100.0	103.5	105.6	105.0	108.2	122.9	127.1
Government, excluding work relief program	100.0	103.5	105.6	105.0	99.1	102.5	107.8
Work relief program	—	—	—	—	—	—	—
Service	100.0	91.9	78.2	58.4	53.8	63.0	69.6
Miscellaneous	100.0	86.4	74.3	59.5	55.0	58.3	62.5

Source: Department of Commerce.

Table 19

National Income Paid Out, by Industrial Divisions
(Millions of dollars)

Item	1929	1930	1931	1932	1933	1934	1935
Total income paid out	78,632	72,932	61,704	48,362	44,940	50,173	53,587
Agriculture	6,157	5,495	4,271	3,181	2,967	3,282	3,692
Mining	2,080	1,732	1,213	826	814	1,042	1,081
Electric light and power and gas	1,304	1,475	1,408	1,275	1,094	1,085	1,091
Manufacturing	18,013	15,940	12,364	8,543	8,514	10,258	11,427
Construction	3,257	2,939	1,969	948	786	874	1,111
Transportation	6,847	6,327	5,362	4,266	3,909	4,216	4,444
Communication	914	947	894	801	726	749	773
Trade	10,852	10,296	9,027	7,074	6,132	6,691	6,864
Finance	8,334	7,469	6,428	5,130	4,274	4,454	4,679
Government, including work relief program	6,805	7,043	7,189	7,148	7,360	8,365	8,646
Government, excluding work relief program	6,805	7,043	7,189	7,148	6,741	6,976	7,333
Work relief program	—	—	—	—	619	1,389	1,313
Service	9.271	8,767	7,673	6,056	5,462	6,150	6,614
Miscellaneous	4,798	4,502	3,906	3,114	2,893	3,007	3,165

Source: Department of Commerce.

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Table 19—*Continued*

National Income Paid Out, by Industrial Divisions

Item	1929	1930	1931	1932	1933	1934	1935
	Percentages of 1929						
Total income paid out	100.0	92.8	78.5	61.5	57.2	63.8	68.1
Agriculture	100.0	89.2	69.4	51.7	48.3	53.3	60.0
Mining	100.0	83.3	58.3	39.7	39.1	50.1	52.0
Electric light and power and gas	100.0	113.1	108.0	97.8	83.9	83.2	83.7
Manufacturing	100.0	88.5	68.6	47.4	47.3	56.9	63.4
Construction	100.0	90.2	60.5	29.1	24.1	26.8	34.1
Transportation	100.0	92.4	78.3	62.3	57.1	61.6	64.9
Communication	100.0	103.6	97.8	87.6	79.4	81.9	84.6
Trade	100.0	94.9	83.2	65.2	56.5	61.7	63.3
Finance	100.0	89.6	77.1	61.6	51.3	53.4	56.1
Government, including work relief program	100.0	103.5	105.6	105.0	108.2	122.9	127.1
Government, excluding work relief program	100.0	103.5	105.6	105.0	99.1	102.5	107.8
Work relief program	—	—	—	—	—	—	—
Service	100.0	94.6	82.8	65.3	58.9	66.3	71.3
Miscellaneous	100.0	93.8	81.4	64.9	60.3	62.7	66.0

Source: Department of Commerce.

INTERNATIONAL

Table 20A

Argentina [1]

Average Exchange Rates

(In cents per unit of foreign currency)

(Averages of daily quotations based on noon buying rates for cable transfers in New York. New par indicated in footnote, effective January 31, 1934.)

YEAR		MONTH	1933	1934	1935	1936
1920	90.70	January	58.58	33.50	32.60	33.07
1921	72.10	February	58.58	33.55	32.46	33.33
1922	81.82	March	58.30	33.96	31.80	33.13
1923	78.57	April	60.49	34.35	32.22	32.95
1924	78.13	May	67.90	34.04	32.56	33.11
1925	91.38	June	71.06	33.66	32.87	33.42
1926	92.15	July	80.73	33.61	33.03	33.49
1927	96.30	August	79.43	33.77	33.12	33.50
1928	96.48	September	86.09	33.29	32.86	33.61
1929	95.12	October	86.12	32.95	32.71	—
1930	83.51	November	92.04	33.26	32.82	32.64 [2]
1931	66.75	December	33.33	32.95	32.85	—
1932	58.44					
1933	72.80 [1]					
1934	33.58					
1935	32.66					

1 Peso: Old par: 42.45; New par: 71.87. Paper peso, equivalent to 44% of gold peso, quoted in place of latter beginning December 13, 1933. Average for 1933 is for gold peso for January 1–December 10.

2 For November 25, 1936.

Source (this and subsequent exchange rate tables): Federal Reserve and Treasury.

Table 20B

Belgium [1]
Average Exchange Rates
(In cents per unit of foreign currency)
(Averages of daily quotations based on noon buying rates for cable transfers in New York.)

YEAR		MONTH	1933	1934	1935	1936
1920	7.38 [2]	January	13.86	22.04	23.32	16.94
1921	7.45 [2]	February	13.96	22.89	23.33	17.04
1922	7.68 [2]	March	13.98	23.30	22.76	16.98
1923	5.22 [2]	April	14.53	23.44	16.94	16.91
1924	4.64 [2]	May	16.27	23.41	16.95	16.94
1925	4.76 [2]	June	17.05	23.36	16.94	16.91
1926	3.26 [2]	July	19.45	23.36	16.91	16.90
1927	13.92	August	19.15	23.71	16.89	16.85
1928	13.93	September	20.70	23.73	16.86	16.89
1929	13.91	October	20.72	23.46	16.85	—
1930	13.95	November	22.32	23.32	16.89	16.91 [3]
1931	13.93	December	21.73	23.39	16.86	—
1932	13.92					
1933	17.89					
1934	23.28					
1935	18.42					

1 Belga: Old par: 13.90; New par after January 31, 1934: 23.54; Par after March 31, 1935: 16.95.
2 Cents per franc; after 1926 cents per belga.
3 For November 25, 1936.

Table 20C

Canada [1]

Average Exchange Rates

(In cents per unit of foreign currency)

(Averages of daily quotations based on noon buying rates for cable transfers in New York. New par indicated in footnote, effective January 31, 1934.)

YEAR		MONTH	1933	1934	1935	1936
1920	89.28	January	87.46	99.53	100.18	99.93
1921	89.55	February	83.51	99.17	99.89	100.11
1922	98.48	March	83.52	99.79	99.06	99.84
1923	98.04	April	84.72	100.21	99.53	99.50
1924	98.73	May	87.59	100.19	99.90	99.81
1925	99.96	June	89.89	100.79	99.91	99.72
1926	99.99	July	94.47	101.20	99.83	99.90
1927	99.97	August	94.28	102.38	99.78	99.98
1928	99.91	September	96.47	102.94	99.26	100.02
1929	99.25	October	97.60	102.12	98.58	—
1930	99.84	November	101.18	102.47	98.92	100.18 [2]
1931	96.35	December	100.55	101.31	99.05	—
1932	88.09					
1933	91.96					
1934	101.01					
1935	99.49					

1 Dollar: Old par: 100.0; New par: 169.31.

2 For November 25, 1936.

Table 20D

Denmark [1]
Average Exchange Rates
(In cents per unit of foreign currency)

(Averages of daily quotations based on noon buying rates for cable transfers in New York. New par indicated in footnote, effective January 31, 1934.)

YEAR		MONTH	1933	1934	1935	1936
1920	15.78	January	16.91	22.55	21.84	22.15
1921	17.80	February	15.26	22.47	21.76	22.32
1922	20.95	March	15.32	22.74	21.32	22.19
1923	18.36	April	15.95	23.01	21.59	22.06
1924	16.72	May	17.52	22.79	21.82	22.18
1925	21.13	June	18.44	22.54	22.05	22.41
1926	26.23	July	20.77	22.51	22.13	22.42
1927	26.73	August	20.12	22.62	22.18	22.43
1928	26.74	September	20.83	22.30	22.01	22.48
1929	26.68	October	20.84	22.06	21.91	—
1930	26.77	November	23.00	22.27	21.98	21.86 [2]
1931	25.06	December	22.85	22.08	22.00	—
1932	18.83					
1933	19.07					
1934	22.49					
1935	21.88					

1 Krone: Old par: 26.80; New par: 45.37.
2 For November 25, 1936.

Table 20E

France [1]

Average Exchange Rates

(In cents per unit of foreign currency)

(Averages of daily quotations based on noon buying rates for cable transfers in New York. New par indicated in footnote, effective January 31, 1934.)

Year		Month	1933	1934	1935	1936
1920	7.04	January	3.90	6.21	6.58	6.63
1921	7.46	February	3.92	6.46	6.59	6.68
1922	8.20	March	3.94	6.58	6.62	6.63
1923	6.08	April	4.10	6.62	6.60	6.59
1924	5.24	May	4.59	6.61	6.59	6.59
1925	4.77	June	4.80	6.60	6.61	6.59
1926	3.24	July	5.46	6.59	6.62	6.62
1927	3.92	August	5.37	6.66	6.62	6.59
1928	3.92	September	5.77	6.67	6.59	6.51
1929	3.92	October	5.82	6.62	6.59	—
1930	3.93	November	6.27	6.59	6.59	4.66 [2]
1931	3.92	December	6.12	6.60	6.60	—
1932	3.93					
1933	5.03					
1934	6.57					
1935	6.60					

1 Franc: Old par: 39.2; New par: 6.63.
2 For November 25, 1936.

Table 20F

Germany [1]

Average Exchange Rates

(In cents per unit of foreign currency)

(Averages of daily quotations based on noon buying rates for cable transfers in New York. New par indicated in footnote, effective January 31, 1934.)

YEAR		MONTH	1933	1934	1935	1936
1920	1.75	January	23.8	37.59	40.06	40.39
1921	1.20	February	23.8	38.89	40.12	40.69
1922	.23	March	23.9	39.66	40.37	40.44
1923	.002	April	24.4	39.59	40.26	40.24
1924	—	May	27.4	39.47	40.25	40.28
1925	23.80	June	28.8	38.30	40.41	40.27
1926	23.80	July	33.3	38.49	40.35	40.32
1927	23.76	August	32.7	39.48	40.35	40.22
1928	23.86	September	35.4	40.28	40.23	40.08
1929	23.81	October	35.4	40.45	40.23	—
1930	23.85	November	38.2	40.21	40.23	40.22 [2]
1931	23.63	December	37.3	40.19	40.22	—
1932	23.75					
1933	30.52					
1934	39.38					
1935	40.26					

1 Reichsmark: Old par: 23.82; New par: 40.33.
2 For November 25, 1936.

Table 20G

Japan [1]

Average Exchange Rates

(In cents per unit of foreign currency)

(Averages of daily quotations based on noon buying rates for cable transfers in New York. New part indicated in footnote, effective January 31, 1934.)

Year		Month	1933	1934	1935	1936
1920	50.37	January	20.74	30.11	28.47	28.99
1921	48.25	February	20.79	29.75	28.39	29.13
1922	47.80	March	21.26	30.01	27.98	28.94
1923	48.58	April	22.09	30.31	28.37	28.87
1924	41.19	May	24.00	30.23	28.73	29.08
1925	41.04	June	25.76	29.90	28.99	29.39
1926	47.12	July	28.77	29.84	29.15	29.33
1927	47.41	August	26.90	30.00	29.32	29.40
1928	46.41	September	27.25	29.77	28.94	29.41
1929	46.10	October	27.77	28.68	28.67	—
1930	49.39	November	30.36	29.06	28.68	28.61 [2]
1931	48.85	December	30.74	28.82	28.74	—
1932	28.11					
1933	25.65					
1934	29.72					
1935	28.71					

1 Yen: Old par: 49.85; New par: 84.40.
2 For November 25, 1936.

Table 20H

Netherlands [1]

Average Exchange Rates

(In cents per unit of foreign currency)

(Averages of daily quotations based on noon buying rates for cable transfers in New York. New par indicated in footnote, effective January 31, 1934.)

Year		Month	1933	1934	1935	1936
1920	34.42	January	40.18	63.62	67.46	68.17
1921	33.65	February	40.27	66.04	67.56	68.68
1922	38.50	March	40.36	67.30	67.95	68.35
1923	39.10	April	41.95	67.85	67.46	67.88
1924	38.21	May	46.95	67.91	67.62	67.63
1925	40.16	June	49.01	67.81	67.87	67.69
1926	40.10	July	56.18	67.71	67.99	68.08
1927	40.11	August	55.38	68.08	67.78	67.90
1928	40.22	September	59.88	68.57	67.56	66.74
1929	40.16	October	59.95	68.09	67.74	—
1930	40.23	November	64.56	67.60	67.80	54.22 [2]
1931	40.23	December	62.85	67.64	67.78	—
1932	40.29					
1933	51.72					
1934	67.38					
1935	67.72					

1 Florin: Old par: 40.20; New par: 68.06.
2 For November 25, 1936.

Table 20I

Norway [1]

Average Exchange Rates

(In cents per unit of foreign currency)

(Averages of daily quotations based on noon buying rates for cable transfers in New York. New par indicated in footnote, effective January 31, 1934.)

Year		Month	1933	1934	1935	1936
1920	16.53	January	17.27	25.37	24.58	24.93
1921	14.91	February	17.53	25.28	24.49	25.12
1922	17.50	March	17.59	25.58	24.03	24.97
1923	16.67	April	18.32	25.88	24.30	24.83
1924	13.94	May	20.02	25.65	24.56	24.97
1925	17.88	June	20.88	25.36	24.79	25.22
1926	22.33	July	23.36	25.32	24.91	25.23
1927	26.05	August	22.65	25.45	24.95	25.25
1928	26.69	September	23.44	25.09	24.77	25.30
1929	26.68	October	23.45	24.83	24.66	—
1930	26.76	November	25.87	25.07	24.74	24.60 [2]
1931	25.05	December	25.71	24.85	24.76	—
1932	18.00					
1933	21.43					
1934	25.32					
1935	24.63					

1 Krone: Old par: 26.80; New par: 45.37.
2 For November 25, 1936.

Table 20J

Sweden [1]
Average Exchange Rates
(In cents per unit of foreign currency)

(Averages of daily quotations based on noon buying rates for cable transfers in New York. New par indicated in footnote, effective January 31, 1934.)

Year		Month	1933	1934	1935	1936
1920	20.49	January	18.30	26.04	25.23	25.58
1921	22.54	February	18.27	25.96	25.13	25.78
1922	26.17	March	18.19	26.26	24.63	25.63
1923	26.55	April	18.81	26.56	24.93	25.48
1924	26.52	May	20.24	26.32	25.20	25.62
1925	26.85	June	21.28	26.02	25.44	25.88
1926	26.76	July	23.98	25.99	25.56	25.89
1927	26.81	August	23.23	26.12	25.62	25.91
1928	26.80	September	24.05	25.75	25.42	25.96
1929	26.80	October	24.07	25.48	25.30	—
1930	26.85	November	26.55	25.72	25.39	25.24 [2]
1931	25.25	December	26.39	25.50	25.41	—
1932	18.47					
1933	22.03					
1934	25.98					
1935	25.27					

1 Krona: Old par: 26.80; New par: 45.37.
2 For November 25, 1936.

Table 20K

Switzerland [1]

Average Exchange Rates

(In cents per unit of foreign currency)

(Averages of daily quotations based on noon buying rates for cable transfers in New York. New par indicated in footnote, effective January 31, 1934.)

Year		Month	1933	1934	1935	1936
1920	16.90	January	19.28	30.64	32.31	32.66
1921	17.35	February	19.37	31.74	32.35	33.03
1922	19.07	March	19.37	32.29	32.53	32.82
1923	18.06	April	20.13	32.46	32.36	32.58
1924	18.22	May	22.54	32.53	32.32	32.39
1925	19.33	June	23.57	32.50	32.68	32.43
1926	19.31	July	26.96	32.58	32.75	32.72
1927	19.26	August	26.53	32.95	32.72	32.60
1928	19.26	September	28.73	33.02	32.50	31.42
1929	19.28	October	28.79	32.77	32.53	—
1930	19.38	November	31.02	32.47	32.44	22.99 [2]
1931	19.40	December	30.25	32.41	32.43	—
1932	19.40					
1933	24.84					
1934	32.37					
1935	32.50					

1 Franc: Old par: 19.30; New par: 32.67.
2 For November 25, 1936.

Table 20L

United Kingdom [1]
Average Exchange Rates
(In cents per unit of foreign currency)
(Averages of daily quotations based on noon buying rates for cable transfers in New York. New par indicated in footnote, effective January 31, 1934.)

Year		Month	1933	1934	1935	1936
1920	366.43	January	336.14	504.93	489.25	496.27
1921	384.91	February	342.21	503.26	487.35	500.05
1922	442.92	March	343.28	509.39	477.63	497.07
1923	457.48	April	357.93	515.34	483.68	494.27
1924	441.71	May	393.24	510.63	488.78	496.97
1925	482.89	June	413.56	504.80	493.49	501.92
1926	485.82	July	464.99	504.07	495.77	502.25
1927	486.10	August	450.27	506.31	496.99	502.59
1928	486.62	September	466.47	499.41	493.07	503.63
1929	485.69	October	466.83	494.08	490.78	—
1930	486.21	November	514.97	498.90	492.50	489.72 [2]
1931	453.50	December	511.59	494.58	492.88	—
1932	350.61					
1933	423.68					
1934	503.93					
1935	490.18					

1 Pound: Old par: 486.66; New par: 823.9.
2 For November 25, 1936.

Table 21

Dollar Exchange and Dollar Prices
Percentage Decreases from January 1933 (Rough estimates of % in round figures)

	Nominal Gold Content of the Dollar	U.S. All-Commodity Wholesale Price Index (Increase)	$ Rate on Sterling	$ Rate on French Franc	$ Rate on Canadian Dollar	$ Rate on Japanese Yen
Dec. 1933	—	16%	52%	57%	15%	48%
Dec. 1934	40%	26%	47%	69%	16%	38%
Aug. 1936	40%	34%	50%	69%	15%	38%
Nov. 1936	40%	35%	43%	19%	15%	38%

Source: Tables above.

Table 22

Price Movements in Principal Countries
Wholesale Prices—All Commodities
(Index numbers)

Year	United States (1926 = 100)	Canada (1926 = 100)	England (1930 = 100)	France (1913 = 100)	Germany (1913 = 100)	Italy (1913 = 100)	Japan (October 1900 = 100)	Netherlands (1926–1930 = 100)
1926	100	100	—	695	134	602	237	106
1927	95	98	—	642	138	495	225	103
1928	97	96	—	645	140	462	226	102
1929	95	96	—	627	137	445	220	100
1930	86	87	100	554	125	383	181	90
1931	73	72	88	502	111	328	153	76
1932	65	67	86	427	97	304	161	65
1933								
January	61	64	100	411	91	292	185	75
April	60	65	97	387	91	279	176	71
July	69	71	102	401	94	279	182	73
October	71	68	103	397	96	274	180	75
1934								
January	72	71	89	405	96	276	176	79
April	73	71	88	387	96	273	177	[1]—
July	75	72	87	374	99	270	174	—
October	77	71	88	357	101	272	182	—
1935								
January	79	71	88	350	101	277	182	62
April	80	73	88	336	101	296	182	61
July	79	71	88	322	102	310	180	61
October	81	73	91	342	103	[1]—	194	63
1936								
January	81	73	92	359	104	—	192	62
April	80	72	92	371	104	—	192	61
July	81	74	94	391	104	—	197	62
October	82	77	98	471	104	—	200	68
December	84	80	101	519	105	—	215	71

1 Unavailable.
Source: *Federal Reserve Bulletins.*

Table 23

Cost of Living, Several Countries
(Index numbers)

Year and Month	United States (1913 = 100)	England (July 1914 = 100)	France [1] (January–June 1914 = 100)	Germany (1913–14 = 100)
1926	175	170	103	142
1927	173	164	104	148
1928	171	166	105	152
1929	171	164	113	154
1930	164	158	118	148
1931	148	148	116	136
1932	134	144	107	121
1933	132	140	106	118
1933—July	—	138	—	118
August	—	139	—	118
September	—	141	105	119
October	—	141	—	119
November	—	143	—	120
December	1346 .	143	107	121
1934—January	—	142	—	120
February	—	141	—	120
March	—	140	107	120
April	—	139	—	120
May	—	137	—	120
June	136.5	138	106	121
July	—	141	—	122
August	—	142	—	122
September	—	143	104	122
October	—	143	—	122
November	137.8	144	—	122
December	—	144	102	122
1935—January	—	143	—	122
February	—	142	—	123
March	140.4	141	100	122
April	—	139	—	122
May	—	139	—	123
June	—	140	99	123
July	140.2	143	—	124
August	—	143	—	125
September	—	143	95	123
October	140.7	145	—	123
November	—	147	—	123
December	—	147	97	123

This table continued on next page.

Table 23—*Continued*

Cost of Living, Several Countries
(Index numbers)

Year and Month	United States (1913 = 100)	England (July 1914 = 100)	France [1] (January–June 1914 = 100)	Germany (1913–14 = 100)
1936—January	141.7	147	—	124
February	—	147	—	124
March	—	146	99	124
April	140.6	144	—	124
May	—	144	—	124
June	—	144	101	125
July	143	146	—	125
August	—	146	—	125
September	143.6	147	—	124

1 Index represents prices converted to gold basis of 1914.
Sources: U.S., Bureau of Labor Statistics; other countries, *Federal Reserve Bulletin.*

Table 24

Movement of World Prices—Foodstuffs and Raw Materials,[1] by Months
(Combined Index, 1923–25 = 100)

Month	Index			
	1933	1934	1935	1936
January	25.1	41.2	47.9	51.1
February	24.9	43.2	47.6	50.5 [2]
March	27.0	42.4	46.8	51.3
April	28.6	40.9	48.2	52.1
May	34.2	40.3	49.5	51.3
June	37.6	43.6	48.5	54.7
July	42.8	47.0	48.5	54.8
August	39.7	50.4	48.8	55.9
September	41.5	50.1	50.3	55.4
October	37.6	48.3	53.0	—
November	39.3	48.2	51.2	—
December	39.3	48.9	50.5	—

1 The commodities upon which these indices are based and their weights are: cotton 9, sugar 6, wheat 6, rubber 3, coffee 2, silk 2, copper 2 (²), tea 1, tin 1.
2 Excluding copper, beginning February 1936.
Source: Bureau of Foreign and Domestic Commerce, Department of Commerce.

Table 25

Indices of United States Export and Import Prices (Unit Values) by Years
(1923–25 = 100)

Year	Exports—Unit Value Index	Imports—Unit Value Index
1926	92	102
1927	86	95
1928	88	92
1929	87	87
1930	78	71
1931	60	55
1932	51	43
1933	54	43
1934	63	50
1935	65	50

Source: Bureau of Foreign and Domestic Commerce.

Table 26

Indices of United States Export and Import [1] Unit Values by Months
(1923–25 = 100)

Month	Exports—Unit Value Index				Imports—Unit Value Index			
	1933	1934	1935	1936	1933	1934	1935	1936
January	—	61	65	65	—	48	50	52
February	—	63	67	66	—	47	50	53
March	48 [2]	62	64	65	39 [2]	49	50	53
April	—	62	64	66	—	49	50	54
May	—	62	65	64	—	50	50	54
June	50 [2]	63	65	66	39 [2]	51	49	53
July	55	64	65	66	44	50	51	54
August	57	64	66	66	47	50	51	54
September	57	66	65	68	48	50	50	55
October	58	66	64	—	49	51	50	—
November	60	65	65	—	48	51	50	—
December	60	65	64	—	48	50	51	—

1 General imports through December 1933. Imports for consumption beginning January 1934.
2 Quarterly.
Source: Bureau of Foreign and Domestic Commerce.

Table 27

United States Exports (Including Re-exports), Total, and to Selected Countries
(In millions of dollars)

Year	Total	Argentina	Belgium	Canada	Denmark	France	Germany	Netherlands	Norway	United Kingdom
1926	$4,808	$143.6	$ 99.3	$738.6	$50.6	$264.0	$364.2	$135.8	$24.9	$972.6
1927	4,865	163.5	116.2	836.5	58.6	228.8	481.7	148.2	23.4	840.1
1928	5.128	178.9	111.8	914.7	47.1	240.7	467.3	142.3	21.1	847.3
1929	5,240	210.3	114.9	948.4	51.4	265.6	410.4	128.3	23.7	848.0
1930	3,843	129.9	86.0	659.0	40.2	224.0	278.3	105.0	20.3	678.1
1931	2.424	52.7	59.4	396.4	29.7	121.8	166.1	65.6	12.2	456.0
1932	1,611	31.1	40.3	241.3	12.0	111.6	133.7	45.3	7.0	288.3
1933	1,675	36.9	43.3	210.6	11.6	121.7	140.0	48.7	7.1	311.7
1934	2,133	42.7	50.0	302.4	14.5	115.7	108.7	51.0	11.2	382.7
1935	2,283	49.4	58.3	323.2	12.5	117.0	92.0	49.1	13.6	433.4

Source: *Foreign Commerce and Navigation of the United States.*

Table 27A

United States Exports (Including Re-exports), Total, and to Selected Countries, by Months
(In millions of dollars)

Month	Total				Argentina			
	1933	1934	1935	1936	1933	1934	1935	1936
January	$120.6	$172.2	$176.2	$198.6	$2.71	$2.94	$3.50	$3.78
February	101.5	162.8	163.0	182.0	2.78	2.55	3.77	4.15
March	108.0	191.0	185.0	195.1	1.87	3.10	4.62	3.88
April	105.2	179.4	164.4	192.8	2.54	3.62	3.86	4.03
May	114.2	160.2	165.5	200.8	2.35	3.37	3.54	4.54
June	119.8	170.6	170.2	185.1	2.76	3.50	4.38	4.66
July	144.2	161.8	173.2	179.7	3.41	3.78	4.62	5.96
August	131.5	172.0	172.1	178.3	2.90	4.44	4.91	4.12
September	160.1	191.7	198.8	219.9	2.59	3.71	4.23	4.95
October	193.9	206.4	221.3	—	4.14	4.14	3.44	—
November	184.3	194.9	269.8	—	4.56	3.78	4.95	—
December	192.6	170.7	223.5	—	3.32	2.95	3.56	—

Source of Tables 27A–27D inclusive: *Foreign Commerce and Navigation of the United States*, and *Monthly Summary*.

Table 27B

United States Exports (Including Re-exports), Total, and to Selected Countries, by Months—*Continued*
(In millions of dollars)

Month	Belgium				Canada			
	1933	1934	1935	1936	1933	1934	1935	1936
January	$3.81	$4.26	$4.05	$5.40	$12.44	$18.86	$22.81	$26.98 [1]
February	2.88	4.33	3.46	4.21	11.50	19.60	23.30	25.28
March	3.08	5.38	4.80	4.74	13.84	25.36	25.61	27.39
April	2.74	4.61	4.77	4.44	13.31	26.25	28.58	31.56
May	2.58	4.36	3.97 [2]	4.96	16.44	31.99	30.50	36.67
June	2.95	4.33	5.75	3.55	18.07	27.88	27.64	34.88
July	3.51	3.50	3.85	3.71	20.92	26.71	29.77	31.29
August	3.46	3.22	3.53	4.10	20.30	27.26	27.98	31.52
September	4.13	4.00	3.93	4.55	21.00	24.85	27.36	31.50
October	5.08	4.12	5.47	—	21.49	26.88	30.42	—
November	4.45	4.03	8.52	—	22.83	26.04	27.47	—
December	4.60	3.80	6.18	—	18.51	21.01	21.76	—

1 Trade agreement effective January 1, 1936.
2 Trade agreement effective May 1, 1935.

Table 27C

United States Exports (Including Re-exports), Total, and to Selected Countries, by Months—*Continued*
(In millions of dollars)

Month	Denmark				France				Germany			
	1933	1934	1935	1936	1933	1934	1935	1936	1933	1934	1935	1936
January	$ .82	$1.46	$ .71	$ .93	$ 8.99	$13.20	$ 7.54	$11.66	$11.74	$ 6.49	$ 4.65	$ 7.48
February	.59	1.04	1.24	1.09	7.65	10.94	7.33	9.79	8.56	13.82	6.08	8.82
March	.97	1.66	1.43	.83	7.96	12.91	7.66	8.39	7.04	15.39	6.25	9.49
April	.67	1.20	.65	1.11	8.16	10.57	8.61	9.31	8.98	10.82	5.06	7.64
May	.85	1.24	.79	1.28	8.08	7.26	9.30	7.30 [1]	11.42	6.85	4.98	7.24
June	.63	1.01	1.03	.77	8.18	8.14	8.75	8.89	10.24	8.23	7.03	6.54
July	.83	.97	.80	.84	8.58	6.38	7.35	6.45	11.35	7.70	6.59	7.04
August	.72	.87	.91	.84	8.48	6.48	7.82	8.48	9.04	6.80	5.55	5.84
September	1.18	1.51	.98	.87	12.38	10.33	7.32	14.93	13.69	7.44	8.93	10.21
October	1.63	1.01	1.16	—	17.04	10.51	10.75	—	17.82	6.28	9.97	—
November	1.19	1.31	1.40	—	14.08	9.13	18.91	—	16.93	5.06	14.56	—
December	1.53	1.23	1.39	—	12.13	9.94	15.70	—	13.58	4.65	12.33	—

1 Trade agreement effective May 6, 1936.

Table 27D

United States Exports (Including Re-exports), Total, and to Selected Countries, by Months—*Continued*
(In millions of dollars)

Month	Netherlands				Norway				United Kingdom			
	1933	1934	1935	1936	1933	1934	1935	1936	1933	1934	1935	1936
January	$3.89	$4.77	$3.84	$4.22	$.51	$ .86	$1.00	$1.16	$21.31	$32.24	$37.97	$37.81
February	2.64	5.16	3.15	4.21 [1]	.33	.46	1.12	1.16	18.69	27.94	25.77	32.54
March	2.78	4.92	4.17	4.90	.56	.95	1.02	1.18	17.65	32.19	29.44	32.01
April	3.14	5.32	4.35	4.30	.46	1.24	1.20	1.26	18.23	28.84	20.55	28.03
May	2.92	4.44	3.68	4.48	.60	.88	.79	1.34	18.79	25.92	24.24	30.42
June	3.24	4.09	4.85	3.60	.56	.79	.97	1.13	22.23	24.86	21.92	27.07
July	3.43	3.51	3.46	3.44	.45	.84	.88	1.08	24.71	24.34	24.28	27.38
August	3.98	3.40	3.37	3.64	.55	1.11	1.31	1.10	24.69	30.69	32.28	33.22
September	4.47	4.16	3.58	4.19	.71	.94	1.01	1.38	28.47	40.12	53.59	47.50
October	5.58	3.63	4.58	—	.93	1.26	1.30	—	39.53	47.04	59.04	—
November	5.58	4.22	5.17	—	.57	.75	1.86	—	33.56	40.54	62.48	—
December	6.97	3.08	4.92	—	.88	1.02	1.15	—	43.88	28.49	41.83	—

1 Trade agreement effective February 1, 1936.

Table 28

United States Imports (General), Total, and from Selected Countries
(In millions of dollars)

Year	Total	Argentina	Belgium	Canada	Denmark	France	Germany	Netherlands	Norway	United Kingdom
1926	$4,430	$ 88.1	$77.8	$475.9	$5.5	$152.0	$198.5	$101.9	$25.1	$383.2
1927	4,184	97.2	72.2	475.0	4.1	167.8	200.6	87.2	22.2	357.9
1928	4,091	99.4	75.0	489.3	3.9	158.7	222.1	83.6	21.7	348.5
1929	4,399	117.6	74.0	503.5	4.6	171.5	254.7	83.9	21.2	329.8
1930	3,060	71.9	51.5	402.4	3.2	113.8	177.0	51.2	18.2	210.0
1931	2,090	36.0	34.2	266.3	1.9	79.2	127.0	35.0	16.8	135.5
1932	1,332	15.8	21.9	174.1	1.3	44.7	73.6	22.4	10.4	74.6
1933	1,449	33.8	23.2	185.4	1.8	49.7	78.2	30.9	13.2	111.2
1934	1,655	29.5	26.2	231.7	1.9	61.0	68.8	28.4	16.9	115.4
1935	2,047	65.4	39.8	286.4	3.3	58.1	77.8	40.6	16.5	155.3

Source: *Foreign Commerce and Navigation of the United States.*

Table 28A

United States Imports (General),[1] Total, and from Selected Countries, by Months
(In millions of dollars)

Month	Total				Argentina			
	1933	1934	1935	1936	1933	1934	1935	1936
January	$ 96.0	$128.5	$167.0	$187.5	$1.02	$2.53	$2.87	$4.94
February	83.8	132.7	152.5	192.8	1.18	2.53	5.04	5.13
March	94.9	157.9	177.3	198.7	1.26	3.70	6.87	5.70
April	88.4	146.5	170.6	202.8	.83	2.96	4.83	5.56
May	106.9	154.6	170.6	191.2	1.32	2.96	5.48	3.82
June	122.3	136.1	156.8	190.4	1.76	1.68	6.20	3.06
July	143.0	127.3	176.6	194.2	4.04	1.97	7.64	3.60
August	155.0	119.5	169.0	192.4	6.23	1.30	6.54	4.17
September	146.7	131.7	161.6	215.5	4.54	2.28	5.10	6.55
October	150.9	129.6	189.4	—	5.94	2.01	4.97	—
November	128.5	150.9	169.4	—	3.42	1.90	4.65	—
December	133.2	132.3	186.9	—	2.32	3.67	5.22	—

1 Imports for consumption since January 1934.
Source of Tables 28A–28D inclusive: *Foreign Commerce and Navigation of the United States*, and *Monthly Summary*.

Table 28B

United States Imports (General), Total, and from Selected Countries, by Months—*Continued*
(In millions of dollars)

Month	Belgium				Canada			
	1933	1934	1935	1936	1933	1934	1935	1936
January	$1.44	$1.89	$3.35	$4.32	$10.71	$18.08	$18.84	$22.93 [1]
February	1.40	2.29	2.40	4.13	8.53	15.26	17.84	22.86
March	1.41	2.31	3.18	4.40	10.06	18.20	20.20	26.29
April	1.22	2.10	2.59	4.35	11.08	17.24	22.94	26.93
May	1.63	2.21	3.25 [2]	5.09	14.81	10.07	27.48	29.75
June	1.86	2.05	2.81	5.83	15.26	17.88	23.10	29.41
July	1.89	2.16	3.37	4.34	19.38	18.16	23.66	30.59
August	2.99	1.98	3.18	4.71	17.67	18.65	23.38	36.16
September	2.79	2.12	3.87	6.18	19.98	20.98	25.97	34.99
October	2.75	2.03	4.05	—	19.62	21.80	29.09	—
November	2.07	2.98	3.81	—	17.12	21.24	27.06	—
December	1.73	2.05	3.94	—	21.20	25.12	26.89	—

1 Trade agreement effective January 1, 1936.
2 Trade agreement effective May 1, 1935.

Table 28C

United States Imports (General), Total, and from Selected Countries, by Months—*Continued*
(In millions of dollars)

Month	Denmark				France				Germany			
	1933	1934	1935	1936	1933	1934	1935	1936	1933	1934	1935	1936
January	$.13	$.13	$.23	$ .21	$3.13	$5.20	$4.67	$5.81	$5.21	$6.49	$6.91	$5.98
February	.09	.34	.17	.20	2.99	8.67	3.93	4.34	4.87	6.08	5.65	5.76
March	.11	.20	.20	.22	3.00	5.95	4.65	5.39	5.61	7.50	6.36	6.49
April	.09	.12	.23	.15	2.21	4.52	6.26	4.36	4.73	5.74	6.40	5.69
May	.17	.11	.45	.23	2.73	5.24	3.75	4.89 [1]	5.11	5.47	5.87	6.07
June	.15	.17	.19	.24	3.11	4.19	4.06	4.16	6.80	5.17	5.60	5.87
July	.18	.11	.20	.32	3.83	3.58	3.70	4.66	7.47	5.35	5.33	7.57
August	.18	.16	.18	.25	5.41	4.10	4.30	5.76	8.70	5.52	6.49	6.03
September	.15	.08	.18	.28	5.67	3.95	4.39	5.91	8.51	5.85	6.70	7.21
October	.14	.14	.79	—	5.12	4.10	7.47	—	7.67	5.72	7.37	—
November	.17	.13	.23	—	5.63	6.42	5.96	—	6.60	5.68	6.62	—
December	.23	.21	.29	—	6.89	5.11	4.97	—	6.88	5.06	8.16	—

1 Trade agreement effective May 6, 1936.

Table 28D

United States Imports (General), Total, and from Selected Countries, by Months—*Continued*
(In millions of dollars)

Month	Netherlands				Norway				United Kingdom			
	1933	1934	1935	1936	1933	1934	1935	1936	1933	1934	1935	1936
January	$1.47	$2.43	$2.76	$2.48	$ .95	$1.44	$1.17	$1.81	$ 4.37	$ 8.36	$10.98	$14.62
February	1.97	2.49	2.00	3.79 [1]	.65	.87	1.35	1.51	5.35	12.86	10.25	16.44
March	1.95	2.37	3.58	3.34	.85	2.50	1.46	2.19	5.75	11.11	11.61	16.95
April	1.80	2.19	3.32	3.77	.59	.91	1.22	1.68	5.10	9.47	11.77	14.30
May	2.75	2.34	4.48	3.94	.76	2.41	.87	1.78	7.98	11.10	12.66	14.77
June	4.03	1.76	2.49	3.68	1.46	1.22	1.26	1.45	11.17	7.88	11.39	14.54
July	2.61	2.17	3.00	3.87	1.42	1.30	1.32	1.67	12.58	9.57	12.79	14.31
August	3.34	2.02	2.56	4.13	1.15	1.04	1.23	1.49	14.07	7.73	11.60	15.44
September	3.96	3.56	4.28	5.99	1.39	1.39	1.50	2.16	12.09	9.84	14.57	17.52
October	3.01	2.62	5.11	—	1.39	1.47	1.72	—	15.25	8.23	16.58	—
November	2.01	2.65	3.88	—	1.07	1.64	2.06	—	9.25	10.70	16.03	—
December	2.07	1.84	3.27	—	1.48	.78	1.32	—	8.25	7.70	15.05	—

1 Trade agreement effective February 1, 1936.

Table 29

U.S. Merchandise Exports: Value, Price, and Quantity
(1923–25 = 100)

	Value Index		Unit Value Index		Quantity Index		Internal Wholesale Price Index [1]	
	Index	% increase over 1932	Index	% increase over 1932	Index	% increase over 1932	Index	% increase over 1932
1929	115	—	87	—	132	—	95	—
1930	85	—	78	—	109	—	86	—
1931	53	—	60	—	89	—	73	—
1932	35	—	51	—	69	—	65	—
1933	37	6	54	6	69	0	66	1
1st Q.	29	− 17	48	− 6	61	− 12	—	—
2d Q.	30	− 14	50	− 2	60	− 13	—	—
3d Q.	38	9	56	10	68	− 1	—	—
4th Q.	50	43	59	16	85	23	—	—
1934	47	34	63	23	74	7	75	15
1st Q.	46	31	62	22	75	9	—	—
2d Q.	45	29	62	22	72	4	—	—
3d Q.	46	31	65	27	72	4	—	—
4th Q.	51	46	65	27	77	12	—	—
1935	50	43	65	27	78	13	80	23
1936	54	54	66	29	82	19	—	—

1 1926 = 100.

Source: Foreign trade figures adapted from U.S. Department of Commerce, *Foreign Trade of the United States, Calendar Year 1935*, by Grace A. Witherow. Internal price index from preceding tables.

Table 30

U.S. Merchandise Imports: Value, Price, and Quantity
(1923–25 = 100)

	Value Index		Unit Value Index		Quantity Index		Internal Wholesale Price Index [1]	
	Index	% increase over 1932	Index	% increase over 1932	Index	% increase over 1932	Index	% increase over 1932
1929	114	—	87	—	131	—	95	—
1930	79	—	71	—	111	—	86	—
1931	54	—	55	—	98	—	73	—
1932	34	—	43	—	79	—	65	—
1933	37	9	43	0	86	9	66	1
1st Q.	28	− 18	39	− 9	73	− 8	—	—
2d Q.	33	− 3	39	− 9	84	6	—	—
3d Q.	46	35	46	7	99	25	—	—
4th Q.	43	26	48	12	89	13	—	—
1934	43	26	50	16	86	9	75	15
1st Q.	42	23	48	12	87	10	—	—
2d Q.	44	29	50	16	88	11	—	—
3d Q.	40	18	50	16	80	2	—	—
4th Q.	43	26	51	19	84	6	—	—
1935	53	56	50	16	106	34	80	23
1936	63	85	54	26	117	48	—	—

1 1926 = 100.

Source: Foreign trade figures adapted from U.S. Department of Commerce, *Foreign Trade of the United States, Calendar Year 1935*, by Grace A. Witherow. Internal price index from preceding tables.

Table 31

Gold Exports, Imports, Net Imports,[1] Receipts at Mint (Domestic), and Gold Stock

Month	Exports (Thousands)	Imports (Thousands)	Net Imports (Thousands)	Receipts at Mint (Fine Ounces)	Gold Stock at End of Each Month (Millions) [2]
1933					
January	$ 14	$128,479	$ 36,957	115,188	$ 4,553
February	21,251	30,397	− 169,409	89,016	4,380
March	28,123	14,948	− 113,287	187,694	4,282
April	16,741	6,769	23,729	120,461	4,312
May	22,925	1,785	975	114,017	4,315
June	4,380	1,135	301	64,445	4,318
July	85,375	1,496	592	99,581	4,320
August	81,473	1,085	− 921	86,265	4,328
September	58,281	1,544	− 7,442	105,985	4,324
October	34,046	1,696	− 5,483	155,532	4,323
November	2,957	1,894	− 463	162,280	4,323
December	10,815	1,687	2,652	184,622	4,323
1934					
January	4,715	1,947	9,438	116,543	4,033 [3]
February	51	452,622	521,223	68,845	7,438 [4]
March	44	237,380	236,499	93,222	7,694
April	37	54,785	53,615	97,751	7,757
May	1,780	35,362	34,071	101,217	7,779
June	6,586	70,291	64,691	94,439	7,856
July	114	52,460	52,934	141,910	7,931
August	14,556	51,781	36,170	93,212	7,978
September	22,255	3,585	− 16,251	144,313	7,978
October	2,173	13,010	11,097	155,887	8,002
November	310	121,199	120,804	96,365	8,132
December	140	92,249	92,170	119,864	8,238
1935					
January	363	149,755	150,523	98,590	8,391
February	46	122,817	123,007	79,564	8,527
March	540	13,543	12,342	117,786	8,567
April	62	148,670	146,307	97,080	8,710
May	49	140,065	138,481	114,552	8,858
June	166	230,538	231,370	112,619	9,116
July	59	16,287	15,805	167,667	9,144
August	102	46,085	47,779	155,793	9,203

This table continued on next page.

Table 31—*Continued*

Gold Exports, Imports, Net Imports,[1] Receipts at Mint (Domestic), and Gold Stock

Month	Exports (Thousands)	Imports (Thousands)	Net Imports (Thousands)	Receipts at Mint (Fine Ounces)	Gold Stock at End of Each Month (Millions) [2]
September	86	156,805	157,734	173,899	9,368
October	76	314,424	313,484	191,898	9,693
November	242	210,810	211,141	149,144	9,920
December	170	190,180	191,260	193,107	10,125
1936					
January	338	45,981	43,898	120,712	10,182
February	23,637	7,002	— 26,141	125,529	10,167
March	2,315	7,795	6,449	156,435	10,184
April	51	28,106	27,900	163,674	10,225
May	5	169,957	166,706	181,140	10,402
June	77	277,851	252,993	157,081	10,608
July	695	16,074	17,672	264,140	10,648
August	32	67,524	55,547	228,557	10,716
September	42	171,866	143,019	237,630	10,845
October	117	218,929	207,559	273,318	10,045

1 Including gold released from earmark, or exports (—).
2 Source: *Federal Reserve Bulletins;* all other figures are from the *Survey of Current Business.*
3 Change reflects primarily omission from gold stock of gold coin in circulation.
4 $1.00 = 15 $\frac{5}{21}$ grains $\frac{9}{10}$ fine; i.e., an ounce of fine gold = $35.

Table 32

Dollar Settlements in Percentages

Total International Movement		Percentage Absorbed Annually By—					
Year	Amount	(A) Capital transactions and (B) gold and currency (net)	Commodity and service transactions	Tourist expenditures and immigrant remittances	Interest and dividends	Unestimated items, errors, omissions	Direct inter-governmental payments and war-debt receipts
1919	$19,584,000,000	8.9	70.7	3.3	1.3	5.5	10.3
1920	18,770,000,000	11.5	74.5	4.5	1.3	6.6	1.6
1921	10,790,000,000	20.2	66.8	6.5	2.6	2.3	1.6
1922	10,578,000,000	17.6	67.9	7.8	4.5	.7	1.5
1923	11,332,000,000	10.6	72.3	9.5	4.8	.5	2.3
1924	12,160,000,000	14.4	69.5	8.6	5.0	1.0	1.5
1925	13,262,000,000	13.4	70.8	8.5	5.2	.7	1.4
1926	15,952,000,000	23.3	60.9	7.0	6.3	1.3	1.2
1927	17,838,000,000	28.2	53.6	6.5	6.1	4.5	1.1
1928	18,958,000,000	33.5	51.9	6.4	6.6	.5	1.1
1929	18,456,000,000	27.2	56.5	7.1	7.6	.5	1.1
1930	15,934,000,000	33.8	47.1	7.5	7.6	2.5	1.5
1931	10,680,000,000	34.8	46.8	8.4	7.4	1.6	1.0
1932	6,740,000,000	29.7	48.4	10.3	7.8	2.3	1.5
1933	8,046,000,000	44.9	41.8	6.2	6.4	.5	.2
1934	9,472,000,000	43.2	45.7	5.7	5.4	—	—
1935 (1st 6 mo.) [1]	5,908,000,000	52.0	38.8	4.2	5.0	—	—

1 Preliminary.

Source: 1919–33, pp. 96–97, The Balance of International Payments of the United States in 1933, Department of Commerce;
1934, Preliminary 1934 Balance of International Payments, Department of Commerce;
1935, Jan.–June 1935 Balance of International Payments, Department of Commerce.

Note: This table appears as 'Chart II' appended to *The Foreign Trade Problem of the United States*, address by George N. Peek before the National Industrial Conference Board, October 24, 1935, and is reproduced as it appears there.

Table 33

Condensed Balance of International Payments of the United States
(In millions of dollars)

Major Items and Totals	1932	1933	1934	1935	1936[1]
Merchandise Exports	(+) 1,612	(+) 1,675	(+) 2,133	(+) 2,283	(+) 2,453
Merchandise Imports	(−) 1,323	(−) 1,450	(−) 1,655	(−) 2,047	(−) 2,419
Net Merchandise Balance	+ 289	+ 225	+ 478	+ 236	+ 34
Net Tourist Expenditures	− 375	− 221	− 245	− 292	− 373
Net Immigrant Remittances and Other Contributions	− 163	− 132	− 131	− 115	− 138
Net Interest and Dividends	+ 393	+ 384	+ 367	+ 375	+ 375
Net Merchandise and Service Balance [2]	+ 131	+ 215	+ 461	+ 208	− 132
Net Gold [3]	− 11	+ 173	− 1,217	− 1,739	− 1,030
Net Silver [3] [4]	—	—	− 86	− 336	− 180
Net Gold and Silver [3]	− 11	+ 173	− 1,303	− 2,075	− 1,210
Net Long-Term Capital	+ 217	+ 49	+ 202	+ 462	+ 792
Net Short-Term Capital	− 409	− 412	+ 192	+ 970	+ 404
Net Miscellaneous Capital [5]	—	+ 27	− 8	+ 105	− 75
Net Currency	− 80	− 90	− 26	− 1	+ 20
Net Total Capital Movements	−272	− 426	+ 360	+ 1,536	+ 1,141

1 Figures preliminary.
2 Including other service items not enumerated here.
3 Includes earmarkings.
4 Prior to 1934 silver movements were included with merchandise adjustments. They were − 6 in 1932 and − 41 in 1933.
5 Not reported separately prior to 1933.
Source: U.S. Department of Commerce, Finance Division.
Note: For detailed figures reference may be made to U.S. Department of Commerce, *The Balance of International Payments*, published annually. Note also that the Department formerly grouped currency with gold and silver and now groups it with capital items.

LIST OF STATISTICAL TABLES

TABLE NO.

1 —Gold Stock, and Average Price of Newly Mined Domestic Gold Established by United States Treasury: 213.
2 —United States Currency in Circulation: 214.
3 —Federal Reserve Bank Discount Rates under Section 13 and 13a of the Federal Reserve Act: 215.
4 —Deposits of All Banks in the United States, Exclusive of Interbank Deposits: 215.
5 —Net Demand Deposits of Reporting Member Banks and Debits to Individual Accounts, with Index, Monthly Average: 216.
6 —Member Banks Excess Reserves: 217.
7 —Loans and Investments of Reporting Member Banks in 101 Leading Cities: 218.
8 —Federal Expenditures: 219.
9 —Index of Wholesale Prices, Farm and All Commodities, by Years: 219.
10 —Index of Wholesale Prices, Farm, and All Commodities, by Months: 220.
11 —Cost of Living in U.S.: 220.
12 —Brokers' Loans, as Reported by the New York Stock Exchange: 221.
13 —Index of Production, Index of Contracts Awarded, Flotation of New Securities, and Index of Department Store Sales: 222–223.
14 —General Indices of Employment in Manufacturing Industries, in the United States: 223.
15 —National Income Produced and Paid Out: 224.
16 —National Income Paid Out by Types of Payment: 225–226.
17 —Percentage Distribution of National Income by Types of Payment: 227.
18 —Income Produced, by Industrial Divisions: 228–229.
19 —National Income Paid Out, by Industrial Divisions: 230–231.
20A—*Argentina*—Average Exchange Rates: 232.
20B—*Belgium*—Average Exchange Rates: 233.
20C—*Canada*—Average Exchange Rates: 234.
20D—*Denmark*—Average Exchange Rates: 235.
20E—*France*—Average Exchange Rates: 236.
20F—*Germany*—Average Exchange Rates: 237.
20G—*Japan*—Average Exchange Rates: 238.
20H—*Netherlands*—Average Exchange Rates: 239.
20I —*Norway*—Average Exchange Rates: 240.
20J —*Sweden*—Average Exchange Rates: 241.
20K—*Switzerland*—Average Exchange Rates: 242.
20L—*United Kingdom*—Average Exchange Rates: 243.
21 —Dollar Exchange and Dollar Prices: 243.
22 —Price Movements in Principal Countries: 244.
23 —Cost of Living, Several Countries: 245–246.
24 —Movement of World Prices—Foodstuffs and Raw Materials: 246.
25 —Indices of United States Export and Import Prices (Unit Values) by Years: 247.

TABLE NO.
26 —Indices of United States Export and Import Unit Values by Months: 247.
27 —United States Exports (Including Re-exports), Total, and to Selected Countries: 248.
27A—United States Exports (Including Re-exports), Total, and to Selected Countries, by Months: 249.
27B—United States Exports (Including Re-exports), Total, and to Selected Countries, by Months—*Continued:* 250.
27C—United States Exports (Including Re-exports), Total, and to Selected Countries, by Months—*Continued:* 251.
27D—United States Exports (Including Re-exports), Total, and to Selected Countries, by Months—*Continued:* 252.
28 —United States Imports (General), Total, and from Selected Countries: 253.
28A—United States Imports (General), Total, and from Selected Countries, by Months: 254.
28B—United States Imports (General), Total, and from Selected Countries, by Months—*Continued:* 255.
28C—United States Imports (General), Total, and from Selected Countries, by Months—*Continued:* 256.
28D—United States Imports (General), Total, and from Selected Countries, by Months—*Continued:* 257.
29 —U.S. Merchandise Exports: Value, Price, and Quantity: 258.
30 —U.S. Merchandise Imports: Value, Price, and Quantity: 259.
31 —Gold Exports, Imports, Net Imports, Receipts at Mint (Domestic), and Gold Stock: 260–261.
32 —Dollar Settlements in Percentage: 262.
33 —Condensed Balance of International Payments of the United States: 263.

INDEX

NOTE.—Some of the references are to the statistical tables in the appendix, a list of which will be found at the front of the index.

A

Academy of World Economics: 60, 134.
Act of 1873: 19.
Act of March 24, 1933: 26.
Aftalion, Albert: 71–72.
Agricultural Adjustment Act of 1933: 27.
Agricultural Adjustment Administration: 41, 174.
American Academy of Political and Social Science: 60.
Anderson,B.M.: 66, 90.
Angell,J.W.: 66, 134, 138.
Argentina (and the peso): 166, 195; and statistics of exchange rates, U.S. exports to and imports from, in appendix.
Austria (and the schilling): 7, 203, 205.

B

Balance of international payments: 135, 138, 153 *et seq.*, 177 *et seq.*; and statistics in appendix.
Balogh, Thomas: 5.
Bank credit: 90 *et seq.*, 115 *et seq.*
Bank deposits: 91 *et seq.*; and statistics in appendix.
Bank for International Settlements: 129, 138.
Bank Holiday of 1933: 25.
Bank of England: 51, *et passim.*
Bank of France: 51, *et passim.*
Banking Act of 1933: 29.
Banking Act of 1935: 38.
Barter terms of trade: 147.
Belgium (and the franc and belga): 7, 166, 201–205; and statistics of exchange rates, U.S. exports to and imports from, in appendix.
Bergmann, Eugen: 71.
Bimetallism: 2.
Böhm-Bawerk,E.von: 76.
British Imperial Monetary Alliance: 132.
Brokers' loans: statistics in appendix.
Brussels monetary (financial) conference of 1920: 122.

C

Cairnes,J.E.: 136, 153.
Canada (and the Canadian dollar): 165, 186; and statistics of exchange rates, U.S. exports to and imports from, in appendix.
Capital flight: see capital movements.
Capital formation: 70, 76 *et seq.*, 112 *et seq.*
Capital issues: 103 *et seq.*; and statistics in appendix.
Capital movements (international): 22, 153–154, 177, 184 *et seq.*, 189 *et seq.*; and statistics in appendix.
Capital surplus: 188.
Cassel, Gustav: 56, 134, 136, 141.
Catchings,W.: 73.
Chapman,J.M.: 11, 76.
China: 37.
Claim theories of money: 56.
Classical theory of international prices: 134 *et seq.*
Commission of Experts (preparatory to London Conference): 124.
Commodity dollar: 2, 61.
Comparative cost: 135.
Continentals: 19.
Contracts awarded (building): statistics in appendix.
Cost and price structures: 105, 142–150, 174 *et seq.*
Cost of living: 103; and statistics of, for U.S. and various other countries, in appendix.
Currency blocs: 131 *et seq.*
Currency co-operation (international): see monetary co-operation.
Currency in circulation: 89 *et seq.*; and statistics in appendix.
Currency management: 5, 61, *et passim.*
Cycles: 70 *et seq.*, 105 *et seq.*, 156 *et seq.*, 191 *et seq.*
Cycles and money: 70 *et seq.*, 156 *et seq.*, 191 *et seq.*
Czechoslovakia: 6, 203, 205.

D

Debits to individual accounts: 92 *et seq.*; and statistics in appendix.
Debt theories of money: 56.
Demand deposits: 92; and statistics in appendix.
Denmark (and the krone): statistics of exchange rates, U.S. exports to and imports from, in appendix.

Depreciation: 7, 135 *et seq.*, 167 *et seq.*, *et passim.*
Devaluation: 5 *et seq.*, 7, 27 *et seq.*, 132 *et seq.*, 142 *et seq.*, 203–205, *et passim.*
Discount policy and rates: 91 *et seq.*; and statistics in appendix.
Division of gain (in international trade): 148 *et seq.*
Division of labor (international): 135.
Dollar settlements, distribution of: 190–191; and statistics in appendix.

E

Egypt: 195.
Ely, Richard T.: 19.
Emergency Banking Act of 1933: 25.
Employment: 104 *et seq.*
Equalization Account (British): 51, 125, 168, *et passim.*
Equation of exchange: 63.
Equilibrium: 135 *et seq.*
Excess reserves: 96 *et seq.*; and statistics in appendix.
Exchange: 134–156, 164–169, 170; and statistics of exchange rates on various countries (Argentina, Belgium, Canada, Denmark, France, Germany, Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom) in appendix.
"Exchange dumping": 142.
Exchange standard: 2.
Exports: 134–156, 180–183; and statistics of U.S. exports, total and to various countries (Argentina, Belgium, Canada, Denmark, France, Germany, Netherlands, Norway, United Kingdom), and of value, quantity and unit value compared, in appendix; see also gold (exports of), and the balance of international payments.
Export stimulation (through currency change): 150 *et seq.*, 172.

F

Farm mortgage bonds: 35.
Federal Emergency Relief Administration: 41.
Federal Home Loan Bank: 25.
Federal Reserve System: 42, *et passim.*
Fisher, Irving: 61.
Flight capital: see capital movements.
Fluidity of capital (international): 135, and see capital movements.
Forced saving: 76 *et seq.*
Foreign trade: 134–156, 176–183; see also imports, and exports.
Foster, T.: 73.
France (and the franc): 7, 13, 128, 166, 176, 186, 196–198 *et seq.*, 201 *et seq.*, 207; and statistics of prices, cost of living, exchange rates, U.S. exports to and imports from, in appendix; see also currency blocs, Bank of France, World Monetary and Economic Conference 1933, Monetary Entente (International), *et al.*
Free coinage: 3.
Functions of money: 55 *et seq.*

G

Genoa Conference of 1922: 122.
Germany (and the mark): 20, 122, 160–165, 205, and statistics of prices, cost of living, exchange rates, and U.S. exports to and imports from, in appendix.
Glass-Steagall Act of 1932: 24.
Gold: standard, 2 *et passim*; gold bullion standard, 3; and devaluation, 7; gold content, 23 *et passim*; gold purchase plan, 30, 88 *et seq.*; gold sterilization, 50 *et seq.*; gold clause decision of Supreme Court, 37; gold exchange standard, 122 *et passim*; Gold Delegation of the League of Nations, 123 *et seq.*, 137 *et seq.*, *et passim*; function of gold in theory of international prices, 135 *et seq.*; international distribution of gold, 135; international flows of gold, 135 *et seq.*, 177 *et seq.*; gold bloc, 132, 195, 203; gold and the Monetary Entente (International), 196 *et seq.*; *et passim*; and statistics of gold price, gold coins, gold certificates, gold stock, gold imports and exports and receipts at mint, and gold in the balance of international payments, in appendix; see Gold Standard Act of 1900, Gold Reserve Act of 1934, *et al.*
Gold Reserve Act of 1934: 31 *et seq.*
Gold Standard Act of 1900: 19.
Government borrowing: 97 *et seq.*, 115 *et seq.*
Government debt: see government borrowing.
Government spending (expenditures): 41, 98; and statistics in appendix.
Graham, F.D.: 14, 144.

Great Britain (United Kingdom, England) (and the pound sterling): 8, 13, 95, 122 *et seq.*, 129 *et seq.*, 160, 164, 175–176, 185–187, 194–198 *et seq.*, 207, *et passim*; and statistics of prices, cost of living, exchange rates, U.S. exports to and imports from, in appendix; see also sterling area, Bank of England, currency blocs, British Imperial Monetary Alliance, World Monetary and Economic Conference 1933, Monetary Entente (International), *et al.*
Greece (and the drachma): 203, 205.
Greenbacks: 19.
Gregory,T.E.: 55.

H

Haberler,G.von: 134, 138.
Hall,N.F.: 51.
Hansen,A.H.: 73.
Hardy,C.O.: 101, 137.
Harms, Bernhard: 76.
Hastings,H.B.: 73.
Hawtrey,R.G.: 56–57, 71–72, 75–76, 78, 143.
Hayek,F.von: 76 *et seq.*
Hoarding: 75.
Hobson, John A.: 74–75.
Hull, George H.: 72.
Hume,D.: 134.
Hungary: 7.

I

Immigrant remittances: see balance of international payments.
Imports: 134–156, 180–183; and statistics of U.S. imports, total and from various countries (Argentina, Belgium, Canada, Denmark, France, Germany, Netherlands, Norway, United Kingdom), and of value, quantity and unit value compared, in appendix; see also gold (imports of), and the balance of international payments.
Income and saving: 73 *et seq.*, 105 *et seq.*
Index standard: 2.
Industrial Credit Act: 36.
Inflation: 9–10 *et seq.*, *et passim.*
Institut für Weltwirtschaft: xiii, 9.
Interest and dividends, international flows: see balance of international payments.
Invisibles (in balance of international payments): 154, and see balance of international payments.
Isometric standard: 2.
Italy (and the lira): 6, 203, 205, 207; and price and exchange rate statistics in appendix.
Iverson, Carl: 134.

J

Japan (and the yen): 166, 175, 205; and price and exchange rate statistics in appendix.
Jevons,W.S.: 71.

K

Keynes,J.M.: 72, 75, 78, 140.
King, Wilford I.: 106, 112.
Knapp,G.F.: 56.

L

Latin America: 169, 185.
Latvia: 203.
Lausanne Conference of 1932: 124.
League of Nations (publications): 65–66, 93–94, 114, 123 *et seq.*, 127, 137 *et seq.*, *et passim.*
Lederer, Emil: 73.
Lescure,J.: 71.
Lewis, Cleona: 153.
Limping standard: 2.
Loans and investments (of banks) and proportion in government obligations: 79; and statistics in appendix.
London Conference 1933: see World Monetary and Economic Conference.
Long-term international capital flows: see capital movements.

M

Marget,A.W.: 65.
Marshall, Alfred: 57.
Martin,P.W.: 73.
Martin, Robert F.: 106 *et seq.*
May,R.E.: 73.
Meade,J.E.: 150.
Mercantilism: 134.
Mill,J.S.: 64, 136.
Mills, John: 71.
Mises,L.von: 57, 76.
Mitchell, Wesley C.: 70–71, 93, 112, 157.
Mobility of labor (international): 135.
Monetary control: 59 *et seq.*, *et passim.*
Monetary co-operation (international): 152, 166 *et seq.*, 197 *et seq.*
Monetary Entente, International, 1936: 50, 166 *et seq.*, 197 *et seq.*
Monetary history (modern international): 121–133.

Monetary policies: 19 *et seq.*, 121–133, 193 *et seq.*, *et passim*.
Monetary standards: 2 *et seq.*, 59, 193 *et seq.*
Monetary terms: 1–18.
Monetary theories: 19–53, 133–163.
Money management: see currency management.
Monometallism: 2.
Morgan-Webb, Sir Charles: 139.
Moulton,H.G.: 70, 112.
Multimetallic standards: 2.

N

Nathan, Robert: 107 *et seq.*
National Foreign Trade Council: 23.
National income: 106 *et seq.*; and statistics in appendix.
National Industrial Recovery Administration: 41.
Neisser, Hans: 78, 159 *et seq.*
Netherlands (and the florin): 186, 196, 201, 205; and statistics of prices, exchange rates, U.S. exports to and imports from, in appendix.
Neutral money: 76 *et seq.*
Normal cost: 148.
Norway (and the krone): statistics of exchange rates, U.S. exports to and imports from, in appendix.
Notes in circulation: statistics in appendix, of U.S. notes, Federal Reserve notes, Federal Reserve bank notes, National bank notes.

O

Ohlin, Bertil: 134, 136, 153.
Open market operations: 91 *et seq.*, *et passim*.
Overproduction: 72 *et seq.*
Oversaving: 75 *et seq.*
Overvalued currency: 150.

P

Parallel currencies: 2.
Pasvolsky, Leo: 124.
Pearson, Frank A.: 63.
Peek, George N.: 177.
Phinney,J.T.: 65.
Pigou,A.C.: 71, 136.
Poland: 7.
Price-goods-specie-flow mechanism: 135.
Prices: 13, 98 *et seq.*, 102, 134 *et seq.*, 170, 171 *et seq.*; and statistics of U.S. prices (all commodity, and farm), export prices, import prices, world prices, prices in various countries (Canada, England, France, Germany, Italy, Japan, Netherlands), and prices compared with exchange rates, in appendix; *et passim*; see monetary theories, foreign trade, price-goods-specie-flow mechanism, cost and price structures, World Monetary and Economic Conference, *et al.*
Production: 103 *et seq.*; and statistics in appendix.
Public Works Administration: 41.
Purchasing power: 152, 182.
Purchasing power of money: 6, 56 *et seq.*
Purchasing power parity: 134.

Q

Quantity theory of money: 58–60 *et seq.*, 135.

R

Reciprocal demand (international): 136.
Reconstruction Finance Corporation: 30, 41.
Redeemability: 3.
Repatriation (international) of securities: 185 *et seq.*
Ricardo,D.: 64, 136.
Robertson,D.H.: 74.
Roumania: 203.
Russia: see U.S.S.R.

S

Sales: 103 *et seq.*; and statistics in appendix.
Salter, Sir Arthur: 197.
Saving and investment: 74 *et seq.*, 112 *et seq.*
Scandinavia: 195.
Schumpeter,J.A.: 71.
Scroggs, William O.: 183.
Securities Exchange Act: 36.
Services, in the balance of international payments: 184.
Short-term international capital flows: see capital movements.
Silver: 7, 37, *et passim*; see also statistics of silver certificates and of silver in the balance of international payments, in appendix.
Silver Purchase Act of 1890: 19.
Silver Purchase Act of 1934: 36.
Sismondi,J.C.L.S.de: 73.
Smith, Lawrence: 144.
Snyder, Carl: 64.

Social cost: 136.
Sombart, Werner: 71.
South Africa: 169.
Spending and saving: 74 *et seq.*, 112 *et seq.*
Spiethoff, Arthur: 72.
Stabilization: 12, 165, 167 *et seq.*, 193–210, *et passim.*
Stabilization Fund: 34, 125, 197 *et seq.*, *et passim.*
Stable money: 13.
State theory of money: 56.
Sterling area: 165, 195, 205.
Structure of production: 74 *et seq.*, 110 *et seq.*
Sweden (and the krone): exchange rate statistics in appendix.
Switzerland (and the Swiss franc): 166, 196, 205, 207; and exchange rate statistics in appendix.

T

Tabular standard: 2, 61.
Taussig,F.W.: 134, 138.
Territorial division of labor: see division of labor.
Thomas Amendment, 1933: 27.
Thorp,W.L.: 157.
Tourist expenditures: see balance of international payments.
Tugan-Baranowski,M.: 74.
Turkey: 203, 205.

U

Undersaving: 79 *et seq.*
Unspent margin: 75.
U.S.S.R. (and the ruble): 7, 136, 158, 162, 203, 205.

V

Value of money: 55 *et seq.*
Veblen,T.B.: 74.
Velocity of money: 63 *et seq.*, 93 *et seq.*

W

Warren, George F.: 63.
Whittlesey,C.R.: 144.
Wicksell, Knut: 76.
Wieser,F.von: 57.
Willis,H.P.: 11, 76.
Wilson, Thomas R.: 203.
Works Progress Administration: 41.
World Monetary and Economic Conference 1933: 22, 127 *et seq.*, 167.
World prices: see prices.