

THE A B C OF INFLATION

THE A B C OF INFLATION

*With Particular Reference to
Present-day Conditions in the United States*

BY

EDWIN WALTER KEMMERER

*Walker Professor of International Finance
in Princeton University*

New York WHITTLESEY HOUSE *London*
M C G R A W - H I L L B O O K C O M P A N Y , I N C .

THE A B C OF INFLATION

Copyright, 1942, by the MCGRAW-HILL BOOK COMPANY, INC.

All rights reserved. This book, or parts thereof, may not be reproduced in any form without permission of the publisher.

SECOND PRINTING

PUBLISHED BY WHITTLESEY HOUSE
A division of the McGraw-Hill Book Company, Inc

Printed in the United States of America

TO MY SON
DONALD L. KEMMERER

PREFATORY NOTE

In the sphere of economics the strongest and most widespread popular conviction in Europe resulting from the First World War was that serious inflation was a terrible scourge and should never again be permitted. Nonetheless, today, in a Second World War, less than a quarter of a century after the Treaty of Versailles, not only most of Europe but nearly all the rest of the world is experiencing substantial inflation and it is progressing rapidly on much the same lines as it did in the early years of the First World War.

Epitomized in a few words, the outstanding reason is that, in time of war, prodigious sums of money must be raised quickly and with a minimum of public resistance. This inflation does, but it does it only at a heavy cost financially and in public welfare. The penalties are heavy but they are postponed. Financing a war largely by inflation is usually the line of least political resistance. The resort of a nation to financing by inflation has often been compared to the resort of an individual to opium smoking. The first sensations are pleasant, but the more one takes, the more he wants. The appetite grows by what it feeds upon; the more one indulges the weaker become his powers of resistance.

PREFATORY NOTE

Inflation is already well on its way in the United States. If it is to be controlled it must be curbed promptly. This demands vigorous action by the government—much more vigorous than that we have had in this matter up to the present time. To this end the public must be made aware of the simple facts of the situation and of the elementary economic principles involved, and must be aroused to demand of its political representatives prompt and vigorous action. *The A B C of Inflation* is written in the hope that it will contribute to this end.

In the preparation of the book I am indebted for valuable aid to many friends—too many to mention by name in a brief prefatory note. I must, however, make exception by expressing my particular gratitude to a few of them. Dr. William W. Cumberland of Wellington and Company, New York City, and my son, Dr. Donald L. Kemmerer of the University of Illinois, both read the entire manuscript and made numerous valuable suggestions, most of which I have adopted. My secretary, Miss Emily Wilson, has rendered throughout the preparation of the book most willing and efficient assistance.

EDWIN WALTER KEMMERER.

CONTENTS

PREFATORY NOTE	vii
--------------------------	-----

CHAPTER I

WHAT IS INFLATION?	3
------------------------------	---

War and Inflation—Inflation in United States Already Begun—What Is Inflation?—Inflation May Be Viewed from Two Angles.

CHAPTER II

CAUSES OF INFLATION VIEWED FROM THE MONETARY ANGLE	11
--	----

Deliberate Monetary and Deposit-currency Expansion, or Planned Inflation—Fiscal Inflation, or the Monetization of Government Deficits: Recent Increase in Government Expenditures and Taxes; Government Debt as a Source of Inflation—Increased Supply of Gold—Probable Increase in Deposit Velocities—Inflationary Powers of the President: Gold Content of the Dollar; Movement and Acquisition of Gold; Bimetallism; Greenbacks; Federal Reserve Bank Notes; Stabilization Fund; Silver—Currency Demand—Unique Character of Economic Activity in Time of War.

CHAPTER III

CAUSES OF INFLATION VIEWED FROM THE COMMODITY ANGLE	31
---	----

Price Changes in the United States during First World War—Price Changes in the United States since the Be-

CONTENTS

ginning of Second World War—Reasons for Differences in Price Advances of Different Commodities: Raw Materials; Plant and Equipment; Workers; Consumers' Goods in General.

CHAPTER IV

INFLATION AND DEBTS 42

Bonds v. Stocks—Inflation and the Banks—Disadvantages of Inflation to the Banker: Depressed Security Prices as a Result of Advancing Interest Rates; The Case of Government Bonds; Higher Interest Rates on Time Deposits; Increased Banking Activity and Administrative Expenses—Advantages of Inflation to the Banker: Increased Volume of Loans; Decreased Losses and Failures as a Result of General Business Stimulation; Higher Interest Rates on Assets—Inflation and Life Insurance.

CHAPTER V

INFLATION AND INTEREST RATES 60

Elements Contained in Interest: Pure Interest; Cost of Administration; Insurance—Depreciation and the Interest Rate—Rising Prices Stimulate Demand for Capital—The Future.

CHAPTER VI

INFLATION AND FOREIGN TRADE 69

Inflation Benefits the Export Trade—Inflation Hurts the Import Trade—Inflation as a Policy for Stimulating a Nation's Foreign Trade Is an Economic Absurdity—Foreign Resistances against Exchange Dumping—Exchange Wars—Creation of Uneconomic Vested Interests.

CONTENTS

Duration; Limited Scope; Decentralization; Voluntary Character; Results of Our Efforts at Price Fixing during First World War.

CHAPTER XI

CONTROLLING INFLATION—PRICE REGULATION DURING 1941	127
Administrative Price Regulations Prior to Emergency Price Control Act of 1942—The Over-all-ceiling v. Selective-price-control Controversy—The Baruch Plan: General Characteristics; Advantages Claimed for the Baruch Plan; Simplicity; Equitability; Quickness of Action; Effectiveness in Maintaining a Price Equilibrium; Favorableness to Good Public Morale—Selective Price-control, or Henderson, Plan: General Characteristics; Merits Claimed for the Selective Price-control Plan: Experience; Flexibility; Minimum of Administration; Minimum of Regimentation; Ease of Timing—Selective Price Control Becomes Law.	

CHAPTER XII

PRICE CONTROL UNDER THE ACT OF 1942	144
Purpose and Character of Emergency Price Control Act—Prices of Agricultural Products and Wages—Price Situation between Enactment of Price-control Law and President's Antiinflation Message—Presidential Announcements concerning Price Control—Putting into Effect the Over-all Price-ceiling Program: Coverage; Ceilings; Miscellaneous Provisions—The Future.	
PUBLICATIONS CITED IN THE TEXT	161
INDEX	165

THE A B C OF INFLATION

century, with their depreciated Bank of England notes, and of the Franco-Prussian War.

The widespread inflation of the period of the First World War and the years immediately following is still a tragic memory for many millions of people in Europe. In some belligerent countries, such as Germany, Russia, Poland, Hungary, and Austria, the inflation carried the cost of living to astronomical heights. In others, the inflation, though very serious, was not astronomical; for example, in France, Belgium, and Italy, advances in the wholesale-price level reached magnitudes of the order of 300 to 600 per cent. In some other belligerent countries inflation, though real, was of a still lower order of magnitude. In England between 1914 and 1920 the wholesale-price level rose 195 per cent. During the present war wholesale prices in England have already increased 63 per cent (August, 1939, to June, 1942).

Our own country has fought four important wars in addition to the present one, namely, the American Revolution, the War of 1812, the Civil War, and the First World War. In the American Revolution the cost of living rose to spectacular heights with the Continental paper currency; during the War of 1812 our wholesale prices rose 54 per cent in $2\frac{1}{2}$ years; during the Civil War from the firing on Fort Sumter in April, 1861, to Lee's surrender 4 years later our wholesale-price level rose 150 per cent; and from the outbreak of the First World War in 1914 to the

WHAT IS INFLATION?

The word *inflation* is one used with a great variety of meanings. It will be well, therefore, in the interest of clarity to explain here the meaning given to it in this discussion. A definition is a tool of thought and expression, and two of the most desirable qualities of a definition are precision and simplicity. A definition, to be workable, must define, or mark, the boundaries of a concept and must be easily understood. Most definitions of inflation fall short of one or both of these requirements. Many of them employ in referring to price advances such terms of degree as *excessive* or *great*, terms which lack precision and have different meanings for different people.¹ Many others are so complicated as to be unworkable. I shall not discuss further the various possible meanings of the word but shall merely explain the meaning I am giving it here, a meaning which has strong scientific support and which has the advantages of being simple and of conforming to widespread popular usage. It is, I believe, a thoroughly workable concept.

Inflation is too much money and deposit currency—that is, too much currency in relation to the physical volume of business being done. Money is a thing

¹ For example, an article in the *Federal Reserve Bulletin* of April, 1941 (pp. 291-292), defines inflation as "an excessive and dangerous general advance in activity and prices" and then on the following page speaks of preventing a "moderate" inflation from "assuming major proportions."

currency must always be interpreted in terms of their respective velocities of circulation. Something like 90 per cent of our business is performed by means of deposit currency (bank checks), and only about 10 per cent is done directly by means of money. Just as the supply of freight services available in a country depends upon the speed with which the freight trains move as well as upon the number of freight cars available, so likewise does the supply of our circulating mediums depend upon the velocities at which the money and bank deposits circulate as well as upon the number of dollars of money and bank deposits in circulation. A doubling, for example, of the average velocities would be equivalent in its influence on prices to a doubling of the number of dollars of the circulating mediums with velocities remaining unchanged. Velocities in general are low in periods of depression and high in periods of prosperity.

If the law of supply and demand applies to money and to deposit currency, that is, to our mediums of exchange, as it certainly does, the price level can rise only when the supply of the circulating mediums increases relative to the demand and can fall only when it decreases relative to the demand. When the price level rises, we have inflation; when it falls, we have deflation. A slight inflation or deflation is not of much consequence. But when either of these becomes substantial, it is likely to have serious consequences.

We are concerned here with the problem of inflation, the danger now confronting us. We should note

plentiful, the price of eggs would likewise go up, and the value of money in terms of eggs would go down. To take an extreme example—and we can often best illustrate by extreme examples—the price of eggs in Germany in late 1923 was more than a trillion marks a dozen, a fact obviously due chiefly to a tremendous oversupply of money rather than to any great scarcity of eggs. The difference between individual prices and the general price level is often illustrated by a lake which has widely varying depths in different parts and which, being whipped by a storm, has an almost infinite number of waves. An individual price is the perpendicular distance from the surface of the lake at any point to the bottom, and the general price level is the level of the lake.

making borrowing cheap tend to bring about an expansion of bank loans, which, in turn, causes an increase of deposit currency. This increase in circulating bank deposits, with which we do most of our business, is an inflationary force.

2. FISCAL INFLATION, OR THE MONETIZATION OF GOVERNMENT DEFICITS

The second kind of inflationary forces, as viewed from the monetary angle, may be grouped under the term "fiscal inflation." It includes the inflationary measures adopted by the government as a means of providing itself with funds for paying government expenses. This represents the practical conversion into bank notes and, more importantly, into bank deposits, of government deficits through the purchase of government debt by banks or through the making of loans by banks on the collateral of government debt.

Recent Increase in Government Expenditures and Taxes. For the 7 years ending June 30, 1941, our national government expenditures (exclusive of debt retirement) amounted to \$63 billion. Tax collections for the same period were approximately \$37 billion. In other words, during a period of 7 years of peace, the national government spent 70 per cent more than the revenue it received, representing an annual average deficit of about \$3.7 billion, this deficit being an amount 25 per cent greater than our entire national-

forts to encourage the absorption of the debt by private investors to the maximum extent possible.

To this end the government is now issuing a variety of securities, some of which are available in low denominations and on terms particularly advantageous to the small investor, and is vigorously pushing an educational campaign to encourage the purchase of government debt out of current income. Some of the government's debt is now being issued with restrictions intended to keep it out of the commercial banks, where it could serve as a basis for deposit-currency expansion, and to have it kept in the strong boxes of the permanent investor. These restrictions cover such matters as upper limits on the amount that can be bought by one person in a given period, some limits on transferability, and concessions in interest yields to persons who hold the securities a substantial period of time. An interesting example of a recent bond issue calculated to be of a noninflationary type is the 2½'s of 1962-67, which were allotted in full without limitation as to amount for any one purchaser and which were made nontransferable for 60 days and not eligible for transfer to commercial banks for 10 years. Such measures as these are highly commendable means for checking inflation.

There are in addition to the deliberately planned inflationary measures and the fiscal inflation just discussed, two other important monetary causes of inflation. One of these has been in operation for about

of the yellow metal has been equivalent to over half of its entire stock of monetary gold in 1929 and has been greater than all the monetary gold in the world at the beginning of the First World War. This recent great increase in the world's gold production is a force tending to make gold cheaper in terms of other goods, in other words, tending to push up commodity prices in gold-standard countries, so-called "gold inflation."¹

A large part of the recent heavy flow of gold to the United States has been due to conditions of war, threatened and actual, in Europe and Asia. Our own American stock of monetary gold has been more than doubled since October, 1935. Before the present world war began, funds in the form of gold came to this country in substantial quantities as a flight of capital from war-scared Europe and Asia, with the primary object of safety. After 1939 and up to the time of our own entrance into the war, this flow of gold largely constituted a means of payment for our enormous shipments of war supplies to the enemies of Hitler. When peace returns, a return flow of these funds will probably take place, as it did after the First World War.

4. PROBABLE INCREASE IN DEPOSIT VELOCITIES

Another inflationary force that is continually threatening is a great increase in the velocities of

¹ See E. W. Kemmerer, *Our Present Gold Problem*, pp. 6-14.

CAUSES OF INFLATION: MONETARY ANGLE

our bank-deposit currency. These velocities for the two years 1940 and 1941, as shown by the following

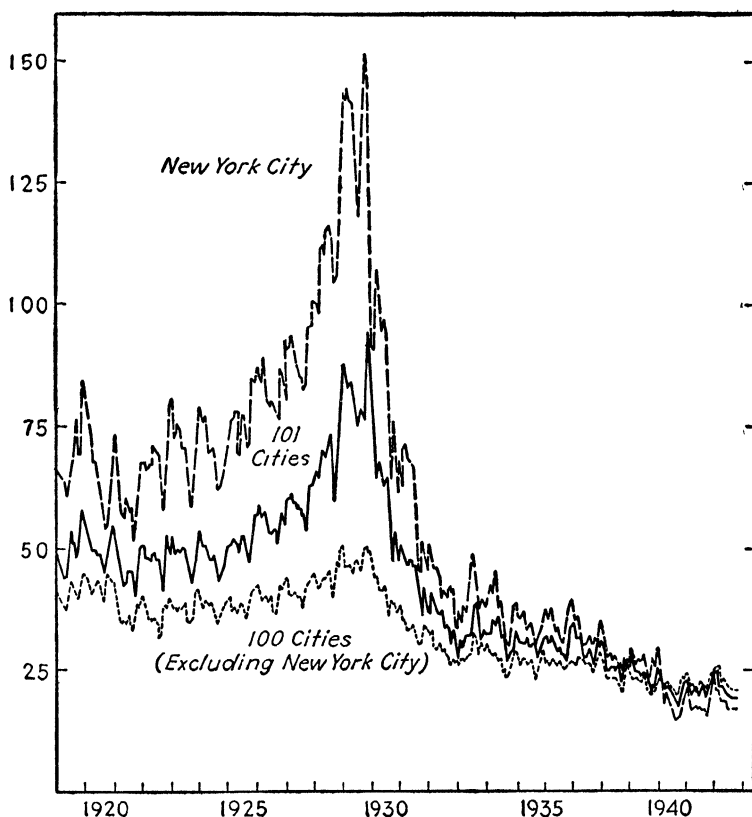


CHART I.—Annual rate of turnover of demand deposits, 1919–1942.

chart,¹ averaged the lowest for any two years since records of velocities began in 1919. For the reporting banks of 101 leading cities the average velocity was

¹ Based on figures furnished by the Federal Reserve Bank of New York.

United States." Reports on the operation of the fund are now made to Congress; almost unlimited discretion is given by the law to the Secretary of the Treasury as to the purposes for which the fund may be used.

g. SILVER. The silver legislation of 1934, as previously noted,¹ grants to the President another large monetary power by providing for the increase of the proportion of silver to gold in the monetary stock of the United States to an ultimate ratio of 1 to 3 and gives the President authority, if he so desires, to coin the silver seigniorage, amounting on Dec. 31, 1941, to about 1,353 million ounces of silver, equivalent at present coinage value to approximately \$1,800 million.

In this connection it should be noted that the President could further enormously expand our circulation of silver coin and silver certificates through the exercise of the powers given him by the Thomas Amendment ". . . to reduce the weight of the standard silver dollar in the same percentage that he reduces the weight of the gold dollar" and ". . . to reduce and fix the weight of subsidiary coins. . . ."²

¹ See pp. 12-13.

² Aside from the 60 million silver dollars, which circulate mostly in a few limited areas of our Western country, and about half a billion dollars of fractional silver coins, together containing about 350 million ounces of fine silver, our enormous supply of government-held silver performs no useful monetary function whatever. The value of our billion and three-quarters dollars of silver certificates in circulation is not determined or maintained by the cheap silver dollars "backing" them and

THE A B C OF INFLATION

and push up the price level if they are accompanied by an equal or larger increase in the demand as represented by the physical volume of goods and services

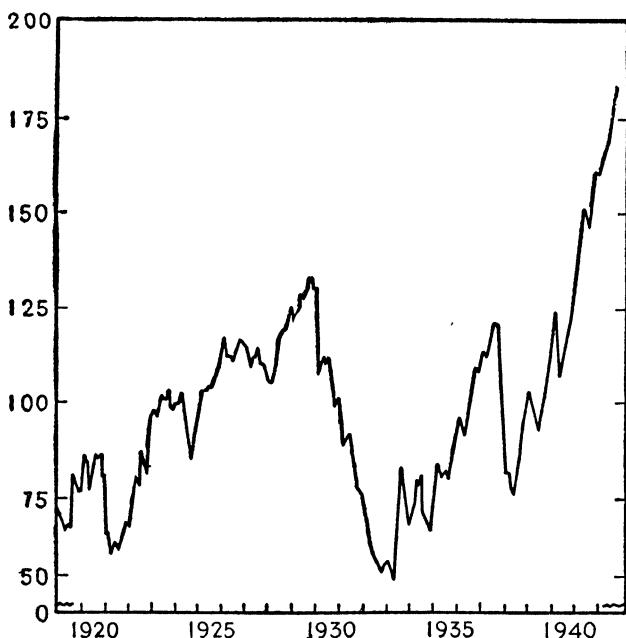


CHART II.—*Business Week* index of business activity, 1919–1942.
1923–1925 = 100

being bought and sold through the instrumentality of money and bank checks.

The demand for currency as represented by the physical volume of business done in the United States was high for a number of years, culminating with the crisis of 1929. It then dropped sharply until the period 1932 to 1933, after which it rose slowly, though

CAUSES OF INFLATION: MONETARY ANGLE

with many small temporary reactions, until the slump of late 1937 and early 1938. Since 1938 and largely under the pressure of wartime demands, it has advanced rapidly, with a few slight interruptions, and is today (August, 1942) 75 per cent above the August, 1939, level. The chart on page 28 will give a general idea of this movement as portrayed by the index of business activity currently maintained by *Business Week*.

UNIQUE CHARACTER OF ECONOMIC ACTIVITY IN TIME OF WAR

While the expansion now taking place in the field of production is enormous, it does not constitute an increase in the monetary demand at all proportionate to its volume, for two obvious reasons: First, it represents a large and rapidly increasing shift from the production of "peace goods" to "war goods." The production of the former is curtailed to release labor, raw materials, and capital equipment for the latter. Second, the production and marketing of "war goods" makes a much smaller monetary demand, in proportion to its dollar value, than does the production of "peace goods." Most war goods go to one single consumer, the national government. Furthermore, production of these goods is for the most part on a very large scale—a substantial amount of it being undertaken by the government itself—and the routes of those war goods produced by private in-

CHAPTER III

CAUSES OF INFLATION VIEWED FROM THE COMMODITY ANGLE

IT HAS been previously noted that, under inflation, price changes among different classes of goods and services are different in degree and very irregular in point of time. Some changes are small and some large, some respond to the inflation stimuli quickly, and some are long delayed.

PRICE CHANGES IN UNITED STATES DURING THE FIRST WORLD WAR

These principles are exemplified in the commodity-price changes that took place in the United States at the time of the First World War, as shown in the studies of the War Industries Board.¹ The studies cover the price movements of 1,437 commodities for the years 1913 to 1918 and use July 1, 1913, to June 30, 1914, as the base period.

The index number for all these commodities com-

¹ War Industries Board, *History of Prices during the War*, Price Bulletins 1 to 56. Figures cited on page 32 are quoted from the summary constituting Bulletin 1, prepared by Wesley C. Mitchell.

CAUSES OF INFLATION: COMMODITY ANGLE

PRICE CHANGES IN THE UNITED STATES SINCE THE BEGINNING OF THE SECOND WORLD WAR

Since the Second World War began, in the late summer of 1939, the developments have had many characteristics analogous to those of the First World War. For the 28 basic commodities for which the Bureau of Labor Statistics compiles daily price index numbers, the advances from August, 1939, to August 14, 1942, have been as follows:

28 basic commodities	67.3
Imported commodities	62.8
Domestic commodities	70.2
Domestic agricultural commodities	84.4
Raw industrial commodities	53.3
Foodstuffs	87.7
Controlled commodities	61.4
Uncontrolled commodities	82.1

From August, 1939, to July, 1942, wholesale prices in general ¹ (889 commodities) rose 31 per cent, and representative large groups of commodities advanced as follows (to March, 1942):

Groups of Commodities	Percentage Advance
Raw materials	48
Farm products	64
Finished products	23
Semimanufactured products	24

While all smaller groups of commodities rose, as did nearly all individual commodities within the

¹ Bureau of Labor Statistics index number.

numerous chemicals that are used in the manufacture of modern explosives. Among the raw materials for which war causes a greatly increased demand are also coal, oil, gas, and all the other materials that are used in the manufacture of mechanical power; the rubber needed for tanks, trucks, and planes; the silk and nylon required for making parachutes; and the coconut fiber, cotton, and plastics needed for gas masks, and so on *ad infinitum*.

In time of war there are also likely to be shortages of many kinds of basic foodstuffs, not necessarily because more of them are consumed (although that may be the case since a much larger proportion of the people are leading physically active lives), but chiefly because production is greatly interfered with, through war ravages in the producing areas and the transportation lanes and because of the large-scale drafting into the military service of farmers, cattlemen, and other primary-food producers.

Many of the articles above mentioned come from abroad and have their production impaired by the war. Some are produced largely in enemy countries and in places that have fallen under enemy control, from which importation is no longer possible. Even from friendly countries and from neutrals exportation is likely to be governmentally controlled, while ocean-shipping facilities are often greatly restricted by the war on the high seas.

2. PLANT AND EQUIPMENT

The same principle applies to plant and equipment as to raw materials. Of these the nation has a limited supply, and this plant and equipment have been a matter of slow growth and have been adapted almost entirely to the production of peace products rather than of the implements of war. A sudden shift to a demand for an "all-out" production of war implements throws the manufacturing system out of equilibrium. We have altogether too much of some types of plant and equipment and altogether too little of others. In any modern capitalistic system of production, with its high specialization into many simplified processes, its interchangeable parts, and its great similarities of instruments for the production and transmission of power used in the making of different commodities, many shifts can be made from the production of peace goods to war goods quickly and at little expense. We read daily in the press of remarkable adjustments of this type,¹ as, for example,

¹ For a long list of such war products and of the peace products they are replacing, see *Business Week*, Feb. 28, 1942, p. 24. In this list one finds such items as the following:

Bomb fuses instead of costume jewelry.

Percussion caps instead of egg poachers.

Hubs for tanks instead of lawn mowers.

Naval gun sights instead of toy trains.

Incendiary bombs instead of oil filters.

Gun-mount plates instead of mayonnaise.

For our experience in the First World War in this connection, see B. Baruch, *American Industry in the War*, pp. 41 and 42.

the shift of the entire washer-ironer industry from civilian production to the manufacture of .50-caliber antiaircraft mounts.¹ Then there is the enormous shift of our automobile industry from the production of motor cars to the production of war implements. Illustrating this development, the *National City Bank Letter* of October, 1941, page 115, cites the following examples:

General Motors has undertaken or has under negotiation \$1.2 billion of defense contracts, against which deliveries totaled \$77,-700,000 in 1940, \$131,800,000 in the first six months of 1941, and will reach an estimated \$275,000,000 in the second six months. About half of the contracts are in the aircraft field. . . . Other important contracts are held for machine guns, rapid fire cannon, shells, cartridge cases, gun housings, and other ordnance items, Diesel units for naval use, and special types of military trucks. More than 70 per cent of the defense contracts are for products other than those normally manufactured by the corporation's divisions.

The work of the Chrysler Corporation was described by Mr. K. T. Keller, the President, in the corporation's semi-annual earnings report August 15 [1941] as follows:

" . . . Extensive equipment and tooling preparations are proceeding on an anti-aircraft cannon and Martin bomber fuselages and nose pieces. The corporation is further engaged in the development and manufacture of cargo ship propulsion machinery, full-sized experimental units of which will be delivered in the latter part of August. Our engineers are making satisfactory progress in the development of a 2,000-horsepower aviation engine. They are also developing a 500-horsepower liquid-cooled tank engine and have just completed the development of a new airplane landing-gear strut."

¹ *New York Herald Tribune*, Oct. 12, 1941.

fade out of the picture. In some skills men can be trained quickly, but in others the progress is slow. Here again there are numerous bottlenecks.

The drafting of large numbers of men into the armed forces of the nation lessens the supply of labor available for economic production, and this reduction in the supply is very unequal among different skills.

Then again there are great variations in the bargaining power of different kinds of labor and even of the same kinds in different localities. Some kinds of labor are highly organized, but other kinds have no organization at all. Between these two groups there is every possible gradation. The result is that in an inflationary situation the wages of some groups go up rapidly, often actually anticipating expected advances in the cost of living, while the wages of others lag far behind. The wages and salaries of different groups of employees, therefore, like the prices of different kinds of commodities, move unevenly under the impact of the forces of wartime inflation.

Advances in the price of raw materials and of labor force compensating advances in the prices of finished products, while advances in the price of finished products, by raising the cost of living, induce labor to demand compensating advances in wages. This is the so-called "inflation spiral." Once started, the advances tend to be cumulative and to move from industry to industry.

CHAPTER IV

INFLATION AND DEBTS

INFLATION has impacts on prices of all kinds—prices of commodities and securities—on wages, profits, rents, interest rates, taxes, exchange rates, and debts. It affects every institution of our economic life and, in its extreme form, acts as a powerful engine of wealth redistribution. It also often reduces production by stimulating wasteful speculation, destroying capital-building habits of economy and thrift, and in other ways distorting normal economic processes and breaking down moral standards.

In this and the following four chapters we shall consider the more important results of inflation, which, for convenience, may be grouped under the six rubrics: debts, interest rates, foreign trade, wages, social-welfare endowments, and democracy.

Probably the most important influences of inflation are exercised through the relations between debtor and creditor. Some of the more direct of these impacts will be the subject of this chapter.

Who are the debtors and who are the creditors? In answering these questions, the first fact to note is that most people are both debtor and creditor and that

on the one hand or in so-called "equities" on the other. The trustee laws of our states and our banking laws, national and state, in a worthy effort to protect the beneficiaries of trust funds bring heavy pressure, and in many cases compulsion, upon these institutions to invest their funds chiefly in bonds and mortgages, and this pressure is enforced by a strong public opinion.

What happens to creditors under inflation? They receive payment of the debts due them, principal and interest, in a depreciated dollar. This means that the value of bonds, mortgages, and other debts declines *in terms of purchasing power* as the value of the dollar in which they are payable depreciates—in other words, as commodity prices rise. If, for example, the price level doubles, the value of the dollar is cut in half, and if the price level goes up fourfold the value of the dollar is cut to one-fourth.

In the study of the influence of inflation on the relationship between debtors and creditors, it is with long-time debts that we are most concerned. Except in cases of extreme inflation like those of Germany, Poland, Austria, and Russia after the close of the First World War, inflation is not of much importance in the case of short-time debts that are paid at maturity or of current book accounts that are paid promptly. For such debts the value of the monetary unit changes only slightly, if at all, during the short life of the obligation. For long-term debts, however, the story is very different.

may be made clear by a simple hypothetical illustration.

Assume a corporation whose capital structure was \$10 million, of which \$2 million were in the form of long-time 4½ per cent first-mortgage bonds, \$3 million in the form of long-time 6 per cent debentures, and the balance of \$5 million in the form of common stock. Assume that this corporation sold an industrial product which at wholesale brought a net price of \$1 to the corporation. Assume that the corporation was prosperous and that its earnings were ample to pay the service on the debt and a fair dividend on the common stock and to accumulate a modest surplus. Assume that the market price of its bonds was 100; that of the debentures, 80; and that of the common stock, 50.

With this situation in mind, assume that the country has experienced a strong inflation and that after a number of years the dollar has depreciated to one-fourth of its former purchasing power. This would mean that the commodity-price level had risen fourfold. With this rise in the price level, we shall assume that the product which the corporation produced has been increased in price from \$1 to \$4, that manufacturing and distributing costs have ultimately risen in the same proportion, and that the gross income of the corporation has likewise increased fourfold, with a corresponding increase in the dollar value of its capital equipment.

On these assumptions, while the corporation's debt

note the important fact that, as a class, bankers are less concerned with inflation than most other businessmen. Inflation helps debtors and hurts creditors. The banker, as previously noted, is both debtor and creditor on a large scale. His business is preeminently that of swapping his own noninterest-bearing debt for the other fellow's interest-bearing debt, *i.e.*, his noninterest-bearing demand deposit for the other fellow's interest-bearing note, bill, or bond. If we have serious inflation and the dollar greatly depreciates and thereupon the bank debtors pay the bank in a cheap dollar, the banker merely turns around and pays the same cheap dollar to his creditors—the depositors. One hand to a great extent washes the other.

DISADVANTAGES OF INFLATION TO THE BANKER

Some of the more important disadvantages of inflation to the banker are the following:

Depressed Security Prices as a Result of Advancing Interest Rates. Advances in interest rates usually accompany or follow substantial and long-continued rises in the price level.

Probably the outstanding change in American commercial banking during the present century has been the pronounced shift in banking portfolios from business paper to investment securities. This shift has been particularly pronounced since the First World War. It is the explanation of the statement one hears

so frequently nowadays that our commercial banks are rapidly becoming investment trusts, with assets consisting chiefly of capital securities (principally government debt) and with most liabilities to the public actually, or virtually, payable on demand.

For Dec. 31, 1941, the operating insured commercial banks of the United States reported total loans and investments of \$49.3 billion; of this sum \$28 billion or 57 per cent, consisted of securities and \$21.3 billion or 43 per cent, of loans, discounts, and overdrafts.¹ Of the securities 75 per cent consisted of United States Government obligations.² Because of the almost-vanishing yields of high-grade, short-time securities during recent years, the temptation to banks, particularly those in the smaller communities, has been strong to increase the proportion of their longer maturities where the yield, though low, is better.

The portfolios of the banks differ in one important respect from those of the customary type of investment trust, that is, in the fact that nearly all the securities owned are in the form of debt, namely, of bonds, mortgages, and short-time notes, and a very few are in the form of proprietorship claims such as common stocks. Under the federal law national banks are pro-

¹ Federal Deposit Insurance Corporation, *Annual Report*, 1941.

² On May 31, 1942, our commercial banks (5,780) and mutual savings banks (492) owned \$27.3 billion or 51 per cent of all national-government public-marketable interest-bearing securities. Of this amount, \$23.4 billion were securities with maturities exceeding 1 year and \$14.3 billion securities with maturities exceeding 5 years.—Treasury Department, *Bulletin*, July, 1942, p. 44.

banks, in order to get the funds with which to buy other bonds that would give higher yields. In this way the government bonds would in time all be back in the hands of the government or in the hands of the banks that were monetizing them. This is essentially what happened in Germany at the time of the First World War. In our case the government bonds would be maintained at parity in a dollar of continually depreciating purchasing power; other high-grade bonds not having such government monetization support would decline in price; and commodity prices, prices of real estate, rents, wages, and prices of equity securities would tend to advance.

Such a policy of practical monetization of the public debt might well for a short time be the line of least political resistance for the government, but in the long run it would be a bad policy to follow, if the lessons of postwar inflation in Europe are valid.

Higher Interest Rates on Time Deposits. As inflation progressed and the market rate of interest moved upward, pressure would become increasingly strong on the part of the banks for authority to permit¹ them to return to the payment of higher interest rates on their time deposits. Without such pay-

¹ The Banking Act of 1933 prohibited payment of interest on demand deposits and contained provisions under authority of which the Board of Governors of the Federal Reserve System has since greatly reduced the legal maximum rates member banks can pay on time and savings deposits. These maximum rates have been made applicable also to insured nonmember banks. Many banks have since reduced their rates below the legal maxima.

INFLATION AND DEBTS

2. Increased business activity and rising prices would tend to sweeten many sour loans and investments. Business failures would tend to be low during inflation, as would bank failures.

3. Bankers would receive higher interest rates than at present on their commercial loans and on their new investments.

On net balance, bankers would probably lose like most other classes in the community rather than gain during any extended period of substantial inflation. At least, that was the experience of most bankers during the period of inflation in Europe following the First World War, both in the countries of extreme inflation and in those of more moderate inflation.

For a time, growing activity might seem to constitute prosperity, but strong inflation usually ends in a collapse, the so-called "stabilization crisis." The hilarity of the night before is followed by the cold gray dawn of the morning after. Then values decline; many bankruptcies occur, and there is a period of stagnation and depression, during which stabilization at, or near, the *status quo* level is usually effected, and the slowly gathering forces of recovery gradually bring things back to normal.

INFLATION AND LIFE INSURANCE

Obviously, many of the principles just discussed concerning the application of inflation to banks apply

things are going to be dearer tomorrow. The housewife stores supplies, the merchant wishes to increase his inventory, the manufacturer to increase his stock of raw materials and improve his plant, and the home builder to build his home. A strong seller's market is created. This gives an artificial and feverish stimulus to business, greatly increases the demand for capital of all kinds, and pushes up interest rates.¹ It is largely for such reasons that, historically speaking, the level of interest rates and the level of commodity prices so often show the same general trend, moving up together in times of serious inflation and declining together in times of serious deflation. This conclusion is well supported by the chart on page 65, covering British experience² for over a century and a half.

The glut of money and deposit currency due to inflationary forces is soon absorbed in higher prices when the resulting upward movement of prices gets into full swing. At this time (August, 1942) in the United States we have entered upon a period of rising commodity prices. Despite our recent efforts at price control, our commodity-price level is advancing. The Bureau of Labor Statistics price index number for 28 basic commodities, for example, rose 67 per cent from August, 1939, to August 14, 1942, and five-sixths of this rise has been since October, 1940.

¹ See E. W. Kemmerer, "Trends in Interest Rates," an address before the American Finance Conference, 1936, also *The War and the Rate of Interest*, *American Economic Review*, Supplement, March, 1919, pp. 99-107.

² British commodity prices are a combination of the Silberling, Sauerbeck, and *Statist* index numbers.

INFLATION AND INTEREST RATES

The inflationary forces that will exercise a strong upward push on the price level have not yet reached their maximum, and we are now apparently just

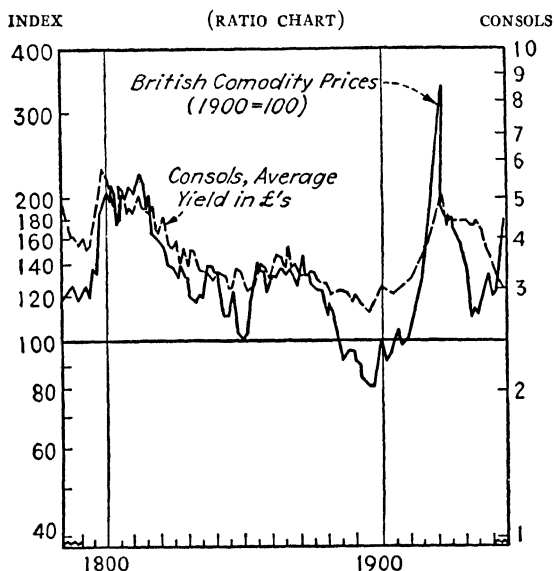


CHART III.—Yield of British consols compared with British commodity prices, 1785-1941.

emerging from a temporary period of monetary and credit glut¹ and resulting low interest rates into a period of strongly rising prices² and probably also

¹ Excess bank reserves have been tending strongly downward since early 1941, and, since August, 1941, deposit velocities in 101 leading cities have reversed their long downward trend and have recently been slowly advancing.

² For some time the government has been putting into effect progressively stronger price-control measures, which are discussed in the last four chapters of this book. How effective they will prove to be in curbing existing powerful inflationary forces, time alone will tell.

THE A B C OF INFLATION

of rising interest rates. When an upward price movement of this kind once gets considerable momentum in a time of war, it is likely to take up quickly any existing slack in the currency supply.

The present situation is in some respects like that of the year 1915, when interest rates were low because of the temporary redundancy of currency in the United States due to the establishment of the Federal Reserve System, before the First World War upward movement of commodity prices had got into swing. The 1914 to 1922 situation is shown by the following chart.

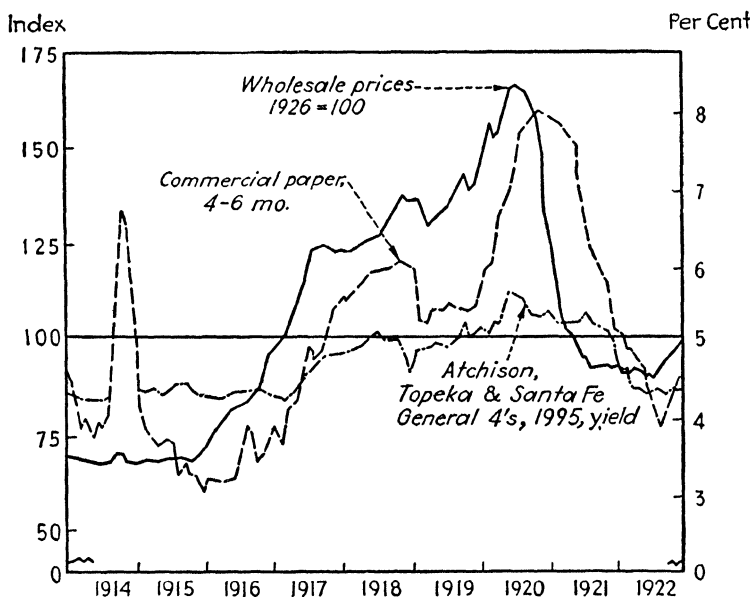


CHART IV.—Wholesale price level and the interest rate, 1914-1922.

useful lessons in the field of governmental economic controls, and it may be that we have at last evolved the technique for maintaining low interest rates by governmental action in situations like these. Even if that should prove true, we should still face the danger that prices and interest rates might run amuck after the war, as they did in several countries after the moderately effective controls, which were in force during the First World War, were lifted.

“Prophecy,” said an unknown writer long ago, “is the most gratuitous form of mistake.” We shall accordingly refrain.

CHAPTER VI

INFLATION AND FOREIGN TRADE

INFLATION BENEFITS THE EXPORT TRADE

IT IS a generally recognized principle, but not an entirely unchallenged one, that exports will be stimulated and imports retarded if a country's monetary unit depreciates under the pressure of inflationary forces so that along with rising commodity prices at home there is an even more rapid rise in the country's foreign-exchange rates.¹ These rates may be properly looked upon as one variety of price. They are the highly sensitive prices at home of foreign monetary units abroad, as, for example, the number of dollars in New York required to buy a pound in London or the number of cents in New York required to buy a peso in Buenos Aires.

The principle may be illustrated by a hypothetical case based on American happenings at the time we went off the gold standard, early in 1933, when within less than a year the gold value of our dollar

¹ Cf. E. W. Kemmerer, *Modern Currency Reforms*, pp. 479-483 and references there cited.

ing its price level in equilibrium with the price levels of other gold-standard countries. Such a country has a needlessly expensive monetary system. It has too much of its wealth in the form of monetary gold. It is "gold poor."

For a nation to adopt an inflationary policy of continually depreciating the value of its monetary unit in order to stimulate exports and retard imports would be an economic absurdity. It is only by *continually* depreciating our dollar that we could expect in this way continually to stimulate our export trade, and the logical limit to such a policy would be for the country to give up all its goods and have nothing but gold left.

Such stimulus to export trade is usually largely at the expense of labor and of the producers of raw materials. The exporter temporarily benefits by reason of the fact that the wages he pays and the prices he pays for his raw materials usually do not advance as rapidly as does the dollar price of the foreign money he receives for his exports. Under such conditions, moreover, the wages of the laborer and the pay received by the producer of raw materials in most cases advance much less rapidly than does their cost of living. The exporter gains by reason of this lag in price and wage adjustments at home, but, as soon as the slack is taken up, the exporter's advantage disappears.

it causes international exchange wars. If one country can play that game, so can all its competitors. The logical result of such a development would be widespread international competition in currency inflation, which would mean chaos in world foreign trade and in international finance.

CREATION OF UNECONOMIC VESTED INTERESTS

A fourth serious objection to attempting to stimulate export trade through currency depreciation is the fact that such a policy establishes powerful vested interests that work for continued trade restrictions and, therefore, against world economic efficiency. A depreciating dollar, we have found, acts like a government bounty in the stimulation of export trade and like a tariff in the obstruction of import trade. These influences continue only as long as the currency continues to depreciate in terms of the money of the foreign countries with which the nation carries on business. As soon as prices and wages have become fully adjusted to the new level represented by the depreciated dollar, these forces cease to operate. But the uneconomic industries that have in the meantime been built up under this protection demand further government assistance to enable them to keep going after this temporarily depreciating exchange support ceases to operate. This is the source of many of the demands on the part of vested interests for bounties

ployment that frequently involves substantial overtime rates for excess hours, so that money incomes of workers usually increase faster than hourly wage rates.

As labor becomes more fully and more effectively organized in any industry, the lag in the adjustment of wages to increases in the cost of living tends to be shortened and, in some industries in which labor is very highly organized, wage advances may even be obtained in response to demands based on prospects, or alleged prospects, of advances in the cost of living—a phenomenon being witnessed in the United States at this writing.¹

Exemplifying the broad generalizations just given, a few significant experiences may be cited:

HISTORICAL RETROSPECT

Summarizing his conclusions on wage changes during the period of the American Civil War, Wesley C. Mitchell said: ²

All of the statistical evidence that has been presented in the preceding pages supports unequivocally the common theory that per-

¹ From the outbreak of the Second World War, August, 1939, to the present time (August, 1942), the price index prepared by the Bureau of Labor Statistics for the wholesale prices of 889 commodities has increased 31 per cent and that for 28 basic commodities has increased 67 per cent. During approximately the same time the cost-of-living index number of the National Industrial Conference Board has increased by 16 per cent, and the average weekly earnings in 25 manufacturing industries have increased by 42 per cent. Real weekly wages in these 25 manufacturing industries have increased 23 per cent.

² *History of Greenbacks*, pp. 347-348.

THE A B C OF INFLATION

time, the movements by months in the United States of wholesale prices, the cost of living, and wages in

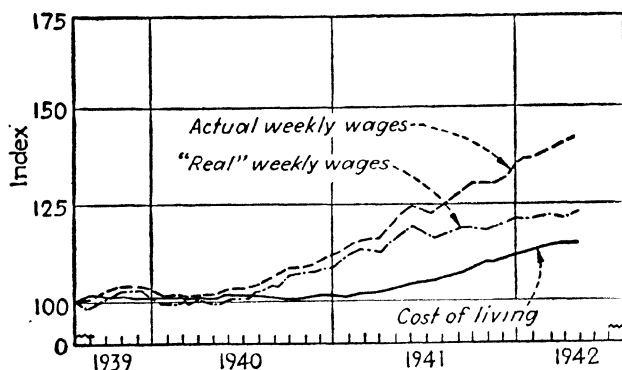
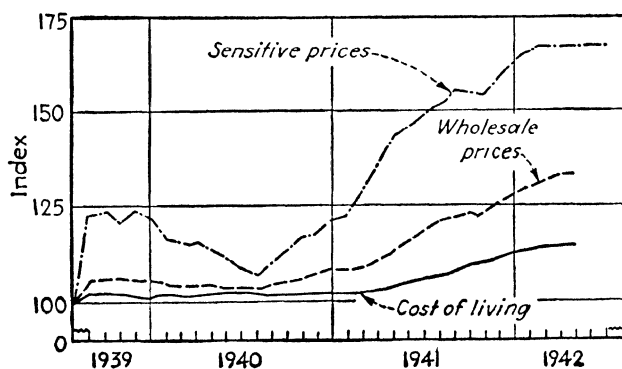


CHART V.—Prices, wages, and cost of living since beginning of World War II. August, 1939 = 100

25 manufacturing industries are shown in the following chart.¹

¹ The figures for sensitive prices and wholesale prices are those of the Bureau of Labor Statistics, adjusted to an August, 1939, base. The

INFLATION AND WAGES

For the Second World War up to the present time, the wages of the groups covered by these figures, it will be seen, have risen faster than the cost of living.

figures for cost of living are those of the National Industrial Conference Board, and the figures for actual weekly wages and "real" weekly wages are for 25 manufacturing industries, as compiled by the National Industrial Conference Board. These figures are also adjusted to an August, 1939, base.

"The foundation of every state is the education of its youth." This is a truth recognized by the founders of our American republic. Thomas Jefferson said, "By far the most important bill in our whole code is that for the diffusion of knowledge among the people." The United States stands high in the first rank among modern nations in the proportion of its revenues devoted to education. In the enrollment of our colleges we lead the world, and no other country can compare with us in the number of colleges supported by private endowments or in the amount of these endowments—the accumulated gifts of generations of self-sacrificing, public-spirited citizens. These great American educational endowments have long been a pride of America and a perpetual wonder to other countries.

Of the many effects inflation has upon educational endowments two are outstanding:

1. A depreciation in the purchasing power of the dollar in terms of which invested funds are payable.
2. The decline in gifts and bequests arising from the advancing rates of income taxes, which are brought about by inflation.

INFLATION DESTROYS ENDOWMENTS

The great bulk of the endowments of our privately supported colleges is invested in securities yielding fixed incomes, consisting chiefly of bonds and mort-

of extreme inflation, like those in several countries of Europe following the First World War, many bonds, the interest and principal of which were paid in full and the market values of which were always maintained at or near par, became practically worthless because the monetary units in which they were payable depreciated to almost nothing as a result of inflation—an inflation that practically wiped out most of the great public-welfare endowments of continental Europe. I cite the following examples from some case studies made under the auspices of the Duke Endowment.¹

France: The Pasteur Institute.

The endowment of this institution before the war amounted to about fifty million francs. The institute consists of two parts: (1) a laboratory for research, and (2) a department for the preparation and sale of products, especially antitoxins, cultures, etc.

Before the war the research department was supported by means of the income from the endowment, while the receipts from the sale of antitoxins, cultures, and other products prepared by the institution were impounded in a reserve which, in 1914, amounted to ten million francs, and which was augmented year after year by the sale of these products. But despite this annual increase in the reserve, and notwithstanding the fact that the investment of the endowment fund was handled with extraordinary skill during the inflationary period, the total endowment after inflation and stabilization was less than 40 per cent of its pre-war amount. . . .

Austria: The Theresian Academy of Vienna.

This institution corresponds, from the standpoint of its curriculum, to an American high school. It was founded in 1778 by

¹ Philip G. Wright, *Inflation and After*, pp. 22-27.

INFLATION: ENDOWMENTS AND DEMOCRACY

threefold and likewise his net income. In that case his real, or purchasing-power, income has not been changed, but his money income has become \$30,000, which subjects him to much higher income tax rates and also, for the same reason, to much higher rates for gift and bequest taxes.¹ As inflation progresses, these rates advance, and his actual and prospective tax burden increases relatively to his real income and to the real value of his estate. The uncertainty as to how long this process will continue is also a cause of anxiety. Under such circumstances it is easy to see why serious inflation is a strong deterrent to gifts and bequests. In times of progressive inflation endowed institutions are likely to find their expenses rising at a much more rapid rate than their benefactions.

INFLATION AND DEMOCRATIC GOVERNMENT

In the United States an important aspect of government financing by inflation is the manner in which it directly and indirectly undermines the foundation of our democratic system of government. First, we shall consider the more direct action.

¹ Of course, this situation might be met by proportionate reductions in tax rates, but such a procedure is very unlikely.

The basic principle of Anglo-Saxon democracy is control of the government by the people through their control of the purse, "the surest safeguard of freedom." When the members of Congress who vote for large expenditures of public money are compelled at the same time to vote for additional taxes for meeting these expenditures, taxes that are distributed among all classes of voters, both rich and poor, and that are consciously paid by the voters and not concealed in the form of increased prices, then and only then do the members of Congress become watchdogs of the Treasury and become careful and economical in the expenditures they authorize. If they are not economical, they receive vigorous protests from the "folks back home," and they are not reelected.

The situation, however, is very different when a great part of the expenditures is financed by inflation. The inflation financing may be effected (1) by the antiquated method of direct governmental issues of inconvertible paper money or (2) by the more modern method of the sale of government debt to the banks, which the banks pay for either (*a*) by issuing bank notes or (*b*) by placing to the government's credit bank deposits that the government in turn pays out as it desires by means of checks. Financing by inflation tends to take away the "control of the public purse" from the Congress and to put it in the hands of the executive, a process that is in direct contradiction to the fundamental principle

are complementary, one to the other." Speaking of the breakdown of public morale that occurred at the time of the paper-money inflation during the French Revolution, Andrew D. White in his classic little book, *Fiat Money Inflation in France*, said:

[One of the] deep-seated signs of disease which now showed themselves . . . was the *obliteration of thrift* from the minds of the French people. The French are naturally thrifty; but, with such masses of money and with such uncertainty as to its future value, the ordinary motives for saving and care diminished, and a loose luxury spread throughout the country. A still worse outgrowth was the increase of speculation and gambling. . . . In the leading French cities now arose a luxury and license which was a greater evil even than the plundering which ministered to it. In the country the gambling spirit spread more and more. . . . Nor was this reckless and corrupt spirit confined to business men; it began to break out in official circles, and public men who, a few years before, had been thought above all possibility of taint, became luxurious, reckless, cynical and finally corrupt.¹

Essentially this same thing could be repeated for every recent case of extreme inflation.

INFLATION AND THE MIDDLE CLASS

Although this breakdown of morals in time of serious inflation applies to all classes of the population, it is likely to be particularly severe in the case of the so-called "middle class,"² the class that is the back-

¹ Pp. 27-29.

² This was true, for example, after the First World War, in Germany, France, Austria, and Poland.

Of the German situation at the end of the inflation Frank D. Graham

CHAPTER IX

CONTROLLING INFLATION—GENERAL CONTROLS

THE subject of controlling inflation may conveniently be viewed from two angles, the angle of general controls (or of functional controls), which is concerned principally with currency and credit, and the angle of specific controls, which is concerned chiefly with goods and price fixing. General controls will be discussed in this chapter and specific controls in Chapters X to XII.

REPEAL OF INFLATIONARY MONETARY LAWS

From what has already been said concerning the nature of inflation, it should be obvious that to control inflation the most important requirement is to stop inflating and that here the first thing to do is to repeal the dangerously inflationary legislation now on our statute books. This includes:

1. The legislation authorizing the President to change at will the gold content of the dollar and the government's price for gold.
2. The legislation authorizing the President to

GENERAL CONTROLS

lic's confidence in its currency and is a continual threat of a great inflationary rise in the velocities of money and deposit circulation, which we call "a flight from the dollar." The power to "coin money and regulate the value thereof" should be returned promptly to Congress, where it was wisely placed by the fathers of our Constitution.

TAXATION AS A CURB TO INFLATION

Broadly speaking, financing by taxation is the antithesis of financing by inflation.¹ The more a government resorts to the one, the less it will resort to the other. We financed the American Revolution chiefly by inflation—probably no other adequate method was possible at the time—but we are wisely making an effort to finance the present war to a very substantial extent by taxation.

Under taxation the government takes currency away from the people and uses it itself. The people, therefore, have less purchasing power, and the government has more; the people, presumably, buy fewer goods and services and the government, more. This of itself does not push up the price level.

Under inflation financing, on the other hand, the government buys its supplies and services by pumping into circulation (either directly or indirectly) an increased supply of currency, by which it com-

¹ A third possibility, which will be considered later, is financing by noninflationary borrowing; see pp. 100-105.

GENERAL CONTROLS

For such a purpose the best taxes would be fairly high excise taxes on consumers' goods in the luxury and semiluxury classes, a retail-sales tax, and personal income taxes of a type that bear most heavily on the increases of real incomes caused by the war and on those incomes that are spent predominantly for consumption goods, as contrasted with those that are being in large part saved and reinvested in productive enterprise. Ill-adapted for this purpose are such corporate income taxes as prevent the accumulation of adequate funds for plant maintenance and expansion during the war and for postwar readjustments; also ill-adapted are excise taxes on raw materials, which are likely to become cumulative elements in the cost of production and taxes in the already excessively taxed higher income brackets¹ where a large proportion of the income that would be heavily taxed would otherwise be likely to be ploughed back into production.²

¹ For the year 1939, the last year for which figures are available, individuals having net incomes under \$5,000 received 89 per cent of the national income but paid only 10 per cent of the federal individual income tax.

The Office of Price Administration recently estimated that for the year 1941 approximately 78 per cent of all consumer units had incomes of less than \$2,500.

For 1941 Department of Commerce figures show that 64.8 per cent of our national income consisted of salaries and wages, while 68.6 per cent consisted of total employee compensation. Seventy per cent of consumer expenditures in the United States in the year 1935-1936 came within income groups receiving \$2,500 or less per annum. See Department of Commerce Release, Mar. 8, 1942, and *Hearings before the Committee on Banking and Currency*, House of Representatives, 77th Congress, 1st Session, *Price Control Bill* (H.R. 5479 superseded by H.R. 5990), II, p. 1,395.

² *Ibid.*, I, p. 258.

GENERAL CONTROLS

substantial percentage of this increased income and invest it in government debt.

If the government's efforts to induce wage earners to buy government bonds should not yield adequate results, they may have to be supplemented by some plan of compulsory saving.

COMPULSORY SAVING

For several years the British economist John Maynard Keynes has been advocating for England a compulsory-savings plan, which he has recently elaborated in considerable detail in his book *How to Pay for the War*.

Briefly summarized, the plan provides that the government take from each person who is subject to the law a certain proportion of his earnings, this proportion to be determined on the criterion of relative sacrifice. Persons with incomes below a minimum standard would be exempt. The amounts taken by the government would be collected by the same means as social-insurance contributions. They would be deposited in the Post Office Savings Bank or other depository designated by law and would accumulate interest at the rate of $2\frac{1}{2}$ per cent per annum. With certain qualifications, to be noted later, the amounts so collected would be repaid, with accumulated interest, after the war in installments at dates fixed by the government. It would be expected that the time

GENERAL CONTROLS

or for other methods of obtaining the funds to make the repayments.

Among the advantages claimed for such compulsory-savings plans are the following:

1. They provide the government with funds as they are earned at continually recurring short intervals.

2. They constitute a force against inflation by withdrawing from the market purchasing power that would otherwise be used largely for the purchase of consumer goods.

3. They provide the taxpayer an insurance fund for certain important emergency needs during the war and immediately thereafter.

4. For the postwar period they provide funds that may be used as sustenance money for periods of unemployment at times of economic slumps, which so frequently follow a great war, and they also serve as a backlog of purchasing power, the widely distributed spending of which should help to prevent, or at least to cushion, such slumps.

Among the objections raised to such compulsory-savings plans are the following:

1. As contrasted with tax revenues, they impose upon the government an obligation for repayment to the public after the war and presumably at a time when the government fisc will be badly depleted and when the taxpaying public will be bled white.

2. If the basis for determining the amount of saving required is the individual's total income, the re-

GENERAL CONTROLS

What assurance is there, however, that there will not be substantial inflation despite all efforts to prevent it? Inflation has occurred in all past wars, and there has already been considerable inflation in nearly all countries during this war. The price level in the United States is now rising, and the opinion is widespread that we shall have much more inflation before peace is attained. In that case those who make these savings are giving up today money of a relatively high purchasing power to be repaid later in money of a lower purchasing power. Certainly, no government can guarantee the purchasing power of the money unit in which compulsory savings shall be repaid.

CURBING INFLATION BY RESTRICTIONS ON INSTALLMENT BUYING

One direct method of curbing inflation is by imposing restrictions on the use of credit for the purchase of consumer goods. A person's potential demand for the purchase of goods is limited by the sum of his cash and credit, and credit is just as effective in this demand as cash. In fact, cash and credit as forms of purchasing power are interchangeable. A man may increase his available credit by decreasing his cash through the payment of a debt, or he may decrease his available credit and increase his cash by borrowing money. The amount of a man's credit depends upon the degree of confidence that potential

GENERAL CONTROLS

The second general type of consumer credit, and the one that is of most importance in connection with the problem of controlling inflation, is that concerned with the purchase of consumers' durable goods,¹ that is, goods that are used or that give off their usufructs normally over a considerable period of time as measured in years. The volume of such credit outstanding at the end of 1940 was estimated at nearly \$6 billion.² Looming large in this class of goods are automobiles, furnaces, stoves, and other heating and cooking devices, electric washing and ironing machines, radios, and (the pioneer in this field) sewing machines.

CHARACTERISTICS OF CONSUMERS' DURABLE GOODS

In addition to their durability, consumers' goods of this class have characteristics that are important from the point of view of the problem in hand:

1. They are sold chiefly on installment credit³—

¹ On the general subject of installment-credit buying of consumers' durable goods, see Rolf Nugent, *Consumer Credit and Economic Stability*, *passim*.

² House *Hearings on Price Control Bill*, I, p. 125.

³ For the year 1940 it was estimated that about 65 per cent of the sales of new passenger automobiles were made on installment contracts, and that this was true of "80 per cent of all refrigerators, washing machines, and automatic furnaces, 75 per cent of all furniture, 70 per cent of all suction cleaners and radios, and 75 per cent of all other electrical equipment for which the selling price exceeds \$20. . . ."—House *Hearings on Price Control Bill*, I, pp. 128-129.

The total amount of consumer installment credit outstanding reached a maximum of about \$6 billion in the summer of 1941. It declined to less than \$5 billion by the spring of 1942.—*Federal Reserve Bulletin*, May, 1942, p. 404.

GENERAL CONTROLS

and many other skilled workers needed for the production of war implements.

Restrictions placed upon the purchase of such consumers' durable goods, therefore, release raw materials, machines, and labor, skilled and unskilled, for the implementation of war and at the same time tend to divert the money that would otherwise be spent by consumers for the purchase of such goods to the purchase of government debt or facilitate its diversion to the payment of taxes, thereby contributing directly to the support of the war effort.

Furthermore, at the end of the war, when the difficult period of readjusting from a war economy to a peace economy arrives, this pent-up, unsatisfied demand for durable consumption goods would be released, and in place of the policy of restricting the purchase of such goods would be substituted the policy of encouraging it. This would be an aid to reemployment and to economic recovery. It would help to cushion the shocks of postwar economic readjustments.

METHODS OF RESTRICTING PURCHASES OF CONSUMERS' DURABLE GOODS

There are many possible methods of directly restricting the purchase of such durable consumption goods. One is to put a definite legal limit on the quantities of such articles that may be produced, by

GENERAL CONTROLS

consumers' credit, a regulation that was amended from time to time, mostly in administrative and technical particulars, down to the late spring of 1942.¹ The regulation was directed principally at consumer credit extended for the purchase of consumers' durable goods that used materials needed for armament production. The object was to reduce the demand for such goods. Restrictions were not imposed on all types of consumer credit² and did not include some types of goods that are commonly sold on installment credit.

The two principal restrictions were (1) The imposition of minimum percentages, for different classes of consumers' durable goods, on the amount of down payments required and (2) the fixing of maximum maturities for the payment of the balance, in substantially equal installments and at approximately equal intervals ordinarily not exceeding one month. For example, for sewing machines the minimum down payment was originally $33\frac{1}{3}$ per cent, and the maximum time permitted for the installment payment of the balance was 15 months. For household furniture the corresponding figures were 20 per cent and 18 months.

Effective May 6, 1942, and in conformity with the President's special message to Congress on inflation, of April 27, the Board of Governors of the Federal

¹ *Federal Reserve Bulletin*, 1941, pp. 837-848, 974, and 1088-1090; also for 1942, pp. 203-206.

² *Ibid.*, May, 1942, p. 401.

GENERAL CONTROLS

quently low down payments required in recent years, should greatly restrict purchases. The same result should follow the shortening of maturities and the corresponding increases in the amount of the installment payments.

CHAPTER X

CONTROLLING INFLATION—PRICE FIXING PRIOR TO THE END OF THE FIRST WORLD WAR

METHODS OF PRICE FIXING

BROADLY speaking, there are in a capitalistic economy two methods of direct action on prices that a government can use to restrain price advances. They are (1) the fixing by government order of maximum prices for selected individual commodities or groups of commodities that are "affected with a large public interest," and (2) the fixing by law of an over-all price ceiling for all commodities and for rents, wages, and other service payments, with provisions in the law for changes by administrative action when adequate cause for change can be shown.¹

¹ A third possibility, but one involving a departure from a capitalistic economy, is the assumption by the government of the marketing—both purchase and sale—and possibly also the production, of the entire supply of certain specified commodities.

In actual practice there are no sharp lines delimiting these three methods. The adoption of any one of them is likely to mean frequent excursions into the fields of the others, or at least strongly in those directions.

THE A B C OF INFLATION

The rise of prices was regarded a terrible evil; and Congress sought to prevent this inevitable effect of the over-issue of paper money by a measure, which in the light of these days looks puerile enough, but which at that earlier period found numerous supporters. The plan was to fix the prices of all commodities, both domestic and imported, by legal enactment. This was in no sense a novel conception; for, at an early period in New-England colonial administration, the experiment had been tried; the prices of labor, and of almost every thing forming the subject of sale or exchange, having been established by law.¹

These efforts, however, availed little for prices continued to soar.

At the time of the First World War and for several years thereafter, most of the inflation-ridden countries of Europe and some on this side of the Atlantic endeavored to hold down prices by legally establishing price ceilings for selected commodities that were affected with an important public interest. Among these countries were Germany,² Russia,³ France,⁴ Mexico (during its revolution of 1912 to 1917),⁵ and the United States.

Let us review briefly our own experience with this general type of control at the time of the First World War.

¹ *Financial History of the United States*, pp. 158-159.

² H. Schacht, *The Stabilization of the Mark*, p. 20.

³ S. S. Katzenellenbaum, *Russian Currency and Banking 1914-1924*, p. 73.

⁴ H. E. Fisk, *French Public Finance in the Great War and Today*, pp. 81-82.

⁵ E. W. Kemmerer, *Inflation and Revolution*, p. 64.

THE A B C OF INFLATION

ginning in January, 1916, and totaling over a billion dollars from that month through March, 1917.

The 31 months of the war prior to our entry had witnessed price advances in the United States of the following magnitudes:

Commodity or Group	Percentage Advance
General prices	32
Wholesale prices	60
Raw materials	68
Farm products	75
Metals and metal products	83
Iron and steel	159
Chemicals	107

After we entered the war, our demand for war supplies was added to that of the Allies, resulting in a further sharp rise in the prices of these products.

At the time of our declaration of war the only agencies that were favorably situated to give prompt consideration to the problem of price fixing were the Federal Trade Commission, the Council of National Defense, and its two subsidiary organizations, the Munitions Standards Board and the General Munitions Board. The powers of all these agencies were investigatory and advisory. Little toward price control was accomplished until August, 1917.¹

Even after these beginnings progress was for some time rather slow and halting. The problem was a

¹ See Army and Navy Munition Board, *History of Development of Price Control during the World War*, House of Representatives, 77th Congress, 1st Session, *Hearings before the Subcommittee on Appropriations on Second Deficiency Appropriation Bill for 1941*, p. 815.

ning, in this class of commodities were the basic metals and certain chemicals. (b) The second class was commodities of the so-called "necessity" classes, required by consumers, especially the more basic foods and fuels. Here the ultimate object was to control retail prices, although restrictions were often placed on the prices before the goods reached the retailers, as, for example, while they were in the hands of processors, jobbers, and wholesalers.

3. *Decentralization.* There were many different government agencies working in the field of price regulation. These agencies were not under effective centralized control and therefore often worked at cross purposes.

Before July 28, 1917, most of what little price regulation we had was in the hands of the Council of National Defense, composed of six cabinet officers and an advisory committee of seven members. After that date the control over the prices of basic raw materials and partially finished products needed by our government and its allies was exercised for a while by the War Industries Board, which was created on July 28, 1917, by the Council of National Defense. The board was an independent body and reported directly to the President. It was given broad powers to coordinate the war effort, including specific directions "to consider price factors."

On Mar. 4, 1918, the President removed most ¹ of

¹ Informal price controls continued to be exercised by the Board independently of the Committee over a number of commodities, including

Agriculture, the Federal Trade Commission, the Federal Reserve Board, the Sugar Equalization Board, and the United States Grain Corporation.

As previously noted, there was some overlapping in the membership of these different price-controlling agencies. There were nearly 11,500 paid employees engaged in price and rationing work, and in addition there were about twice as many volunteer workers.

4. *Voluntary Character.* A large part of our American price fixing during the period of the First World War was of a voluntary character on the part of the sellers. The principal exception was the price control exercised over certain necessary foods by the Food Administration under authority of the Lever Act. Here the control was exercised largely through a system of licensing dealers and processors. This act had plenty of teeth in its penalty provisions.

There was very little direct compulsion exercised by the War Industries Board, the Price Fixing Committee, or the other agencies of price control. The experience in this connection has been summarized as follows by Hardy: ¹

In most cases the number of firms in the industries concerned was small enough so that control could be exercised through contact with the war service committees, without the necessity of propaganda among, or compulsion upon, individual business men. Consequently no licensing system or other machinery of enforcement was set up. Prices were fixed by negotiation and agreement,

¹ *Ibid.*, p. 120.

RESULTS OF OUR EFFORTS AT PRICE FIXING DURING
THE FIRST WORLD WAR

The question of the degree of success the government achieved in its efforts at price control during the period of our belligerency in the First World War is one on which there are wide differences of opinion. An attempt to answer it satisfactorily would require a long discussion and at best would be of doubtful value. It will not be made here.

Our efforts covered a brief period of time and were not begun until inflation was pronounced. Different organizations and different methods were used for different groups of commodities, and the responses of these groups and of the different commodities in each of them varied widely. We know how far prices went up under the kinds of controls inaugurated, and we can compare the price movements of controlled prices with those of uncontrolled prices, but we do not know where the controlled prices would have gone had there been no controls, nor do we know the extent to which the movements of uncontrolled prices were influenced by the checks exercised over controlled prices.

The chart¹ on page 125 covers 1,366 series of commodity prices, of which 573 series were controlled and 793 were uncontrolled. From 1913 to the latter

¹ The chart is reproduced from the War Industries Board, *History of Prices during the War*, summary prepared by Wesley C. Mitchell, p. 47.

CHAPTER XI

CONTROLLING INFLATION—PRICE REGULATION DURING 1941

ADMINISTRATIVE PRICE REGULATIONS PRIOR TO THE EMERGENCY PRICE CONTROL ACT OF 1942

ALTHOUGH there were some informal price controls, notably of zinc and copper, as early as September, 1940, the direct controlling of the prices of individual commodities on any considerable scale by the government under Presidential authority did not begin until early in 1941. The work was done by a branch of the National Defense Advisory Commission, the Price Stabilization Division, headed by Leon Henderson. Prior to April 11 price schedules had been fixed on secondhand machine tools, certain forms of aluminum and zinc, copper, and lead, also iron and steel scrap, and bituminous coal.

In an executive order issued on April 11 President Roosevelt put in a more definitive form the work of direct price control.¹ He created in the Office

¹ With reference to the legal authority of the President to set up such an office as OPACS, assigned the duty of establishing price ceilings, there was some question. No legislation specifically granted the President any such power, and it was implied from other powers of a more general character.

The subject is discussed at some length in a memorandum submitted

ing on a certain date. This is something everybody can understand.

2. **EQUITABILITY.** The plan is equitable. Unlike so much of our national legislation relating to economic affairs, this plan treats all classes alike, the rich and the poor, the big corporation and the small, the farmer, the laborer, the manager, the professional man, the landlord, and the capitalist. It "affords equal treatment for all and gives special privilege to none."¹

3. **QUICKNESS OF ACTION.** The minute the law is passed, it becomes effective in putting a ceiling on all prices. In such matters time is of the essence. Under this plan the prices of some things cannot run away while those of others are being brought under control. Price distortions are thereby curbed. Maladjustments can be taken care of as they are brought to the attention of the price-fixing authorities. Mr. Henderson conceded this point to a degree when he said:²

The main value of an over-all price ceiling is the creation of a breathing spell during which the price authorities can develop the more refined methods to deal adequately with the situation, particularly with a sudden upward pressure on the price system.

4. **EFFECTIVENESS IN MAINTAINING A PRICE EQUILIBRIUM.** Every price (inclusive of every wage rate, interest rate, fee, and other production charge) is to some degree immediately or remotely related to every other price. Certain goods are raw materials

¹ Albert A. Gore, Town Hall Meeting, *Bulletin*, Nov. 3, 1941, p. 1

² House *Hearings on Price Control Bill*, I, p. 89.

vidual commodities as experience should prove required control for the effective carrying out of our defense program. Different commodities were to be brought under price control from time to time as the situation should seem to require. Both the extent of the control and the methods of control could be different for different groups of commodities concerned or even for different commodities within a particular group. The prices of all commodities not specifically brought under control would be left free. The idea was to encroach on the free-price system only to the extent necessary. As Henderson said:

The free market is the best regulator of supply and demand that has ever been thought of; but when you get an enormous increase due to the Government's impact of its own buying, the Government at times has got to step in and prevent the price from following its natural course.¹

Although there was to be no limit on the number of commodities that might be brought under price control, it was contemplated that it would be sufficient to extend the control to a comparatively small number. While Mr. Henderson admitted that the selective price-control plan might in experience ultimately approach an over-all price-ceiling plan and while he desired the legislative authority to extend selective commodity-price control to the limit in case of necessity,² he said:

¹ House *Hearings on Second Deficiency Appropriation Bill for 1941*, p. 802.

² Town Hall Meeting, *Bulletin*, Nov. 3, 1941, p. 6.

was being carried on. From April, 1941, to January, 1942, the price-control pup was rapidly growing into a husky watchdog.

We as a nation never had any experience with an over-all price-ceiling plan, nor had any other democracy. The first instance of the kind was that of Canada, whose plan was not put into effect until Nov. 17, 1941, so that the Canadian experience up to that time afforded us no lessons.¹

2. FLEXIBILITY. A second advantage claimed for the selective-control plan is a high degree of flexibility. Instead of freezing a price for everything all at once and then making exceptions for individual cases as needs for them are established, the selective plan feels its way, controlling only the prices of those commodities that are found urgently to need control, fixing the limits in accordance with the particular situation of each commodity, and changing those limits as changing conditions seem to demand. In discussing the relative merits of the over-all and selective-control plans, Hardy in supporting the latter says: ²

The price-ceiling plan makes for unnecessary and undesirable inflexibility. In its emphasis upon the importance of freezing the price structure, allowing changes to occur only when they are demonstrated to be necessary, there is a tendency to overlook the necessity of allowing prices to adjust themselves in the light of

¹ For a recent study of Canadian experience with price control, see E. T. H. Kjellstrom and others, *Price Control—the War against Inflation*, pp. 72-109.

² C. O. Hardy, *Wartime Control of Prices*, pp. 100-101.

If the Baruch plan had been adopted before the upward surge of commodity prices became pronounced, under the pressure of the war, the basic date could have been a near one, on which most prices might have represented "a normal demand-and-supply" level. The outbreak of the war, in September, 1939, however, brought about in this country great price disturbances, and these disturbances continued.

By the late summer and autumn of 1941, when Congress was seriously considering the subject of price control, the nation's normal price picture had experienced great changes. Many important prices had advanced enormously, while some had actually declined, and the great bulk of them had witnessed moderate advances.

In a price-limiting plan, to adopt as the base the prices of an early supposedly normal period would have called for many disturbing price reductions for those commodities that had risen most. On the other hand, to use the prices of a later date as the ceiling would have placed the ceiling unduly high for the commodities that had risen most and relatively low for those that had risen little. Such a policy would have been looked upon as very unfair. Moreover, any attempt of the price-fixing authority to make adequate adjustments for these varying degrees of lag in price advances would have involved an enormous amount of administrative adjustment and would have

vigorous and extended over many months. Each of the arguments just outlined in support of one plan was questioned by the proponents of the other plan.

SELECTIVE PRICE CONTROL BECOMES LAW.

For all immediate purposes the controversy was brought to a close by the adoption of the selective price-control plan when the President on January 30 signed the Emergency Price Control Act of 1942.

CHAPTER XII

PRICE CONTROL UNDER THE ACT OF 1942

IN THIS concluding chapter we shall review briefly the developments of early 1942 and say a few words concerning the future outlook.

PURPOSE AND CHARACTER OF THE EMERGENCY PRICE CONTROL ACT

The Emergency Price Control Act did not make many important changes in the government's price-control policy and methods that were in operation at the time of its enactment. It did give a clear statutory authority, however, for the Executive's price-control program, for which the legal authority had theretofore been rather tenuous. Furthermore, it implemented that authority by the definite provision of adequate penalties for the infraction of its rules.

The first and most important of the declared purposes of the act was "to stabilize prices and to prevent speculative, unwarranted, and abnormal increases in prices and rents." The prices of agricultural products (unless they should rise above 110

THE A B C OF INFLATION

. . . that price for the commodity which will give [it] a purchasing power with respect to articles that farmers buy equivalent to . . . [its] purchasing power in the base period; and, in the case of all commodities for which the base period is the period August 1909 to July 1914, [a price] which will also reflect current interest payments per acre on farm indebtedness secured by real estate, tax payments per acre on farm real estate, and freight rates, as contrasted with such interest payments, tax payments, and freight rates during the base period. The base period in the case of all agricultural commodities except tobacco shall be the period August 1909 to July 1914, and, in the case of tobacco, shall be the period August 1919 to July 1929.

The 1909 to 1914 base period chosen for agricultural products (except tobacco) was a period during which these agricultural prices for peacetimes were at a level very favorable to farmers in comparison with the prices of the commodities "that farmers buy." The period 1919 to 1929 was chosen for tobacco, because tobacco prices were low in the period chosen for other agricultural products and were high in the period 1919 to 1929.

"Parity" prices thus chosen were for the most part high prices. They could obviously establish no claim to be considered sacrosanct, or even normal, prices despite the connotation of the word.

In the light of this law of 1938 let us look at the provisions concerning agricultural products contained in the Emergency Price Control Act of 1942. In their essentials they were as follows:

No maximum price shall be established or maintained for any agricultural commodity below the highest of any of the following

THE A B C OF INFLATION

lic address that his office then had some 45 to 50 per cent of all the 900-odd commodities of the Bureau of Labor Statistics Wholesale Price Index Number under some kind of formal or informal control.¹ During the 9 weeks intervening between the date of this statement and the President's message of April 27, the field of price control was being continually extended.

From January through April representative price and wage indexes advanced as shown in the following table.

Group	Percentage Increase
28 Basic commodities ¹ —average of daily figures (Bureau of Labor Statistics)	2.0
Domestic agricultural commodities ² (Bureau of Labor Statistics, basic commodities)	4.5
Wholesale prices (Bureau of Labor Statistics, 889 commodities)	2.8
Retail food prices (Bureau of Labor Statistics)	2.9
Cost of living (National Industrial Conference Board)	2.7
Wages—90 industries (Bureau of Labor Statistics) .	4.3
Wages, weekly—25 manufacturing industries (National Industrial Conference Board)	3.2

¹ Jan. 30 = 165.0, and Apr. 27 = 166.7, an advance of 1.03 per cent.

² Jan. 30 = 179.0, and Apr. 27 = 184.3, an advance of 3.0 per cent. During this period of about 3 months some farm commodities showed decided price advances, *viz.*, hogs 19.2 per cent, steers 10.9 per cent, and butter 7.6 per cent.

For the year 1941 and the first 8 months of 1942 the wholesale price of the 28 basic commodities for

¹ Address before the National Farm Institute, Des Moines, Iowa, Feb. 21, 1942.

THE A B C OF INFLATION

established up to the end of April, 1942, had apparently proved reasonably effective, there was a widespread and rapidly growing feeling on the part of the public that the inflationary forces were getting out of hand and that a more comprehensive and vigorous price-control policy was needed.

At the end of April, 1942, the Office of Price Administration issued *Bulletin 1*, in which it said:¹

General price increases have become a grave threat to the efficient production of war materials and to the stability of the national economy. . . . During 1942 . . . individual income [it is estimated] will total \$117,000,000,000, [of which amount] . . . \$31,000,000,000 will be saved or paid to the Government in personal taxes and \$86,000,000,000 will be spent. The supply of goods and services available for civilian use . . . will total \$69,000,000,000. Thus, demand in 1942, unless limited, will exceed supply by \$17,000,000,000. . . .

[This so-called inflationary gap] between the total purchasing power available for disposal by the people . . . and the total supply of goods and services available for them to purchase has caused, in recent months, a general advance in prices and an advance which is accelerating in rate. . . . The \$17,000,000,000 [gap] . . . if left to itself, would force an estimated increase of 25 per cent in the cost of living this year. But price increases build on each other. Increases in the cost of living lead to wage adjustments. These in turn augment purchasing power at the same time that they increase industrial costs. . . . Left to itself, the process has no definite end. It can be stopped only by measures which will eliminate the occasion for increased income payments on one hand, and narrow the gap by withdrawing excess purchasing power on the other.

¹ *Federal Reserve Bulletin*, May, 1942, pp. 441-442.

THE A B C OF INFLATION

vanced, these advances tend to push up the prices of the manufactured goods that the farmer buys, and this, in turn, pushes up the farmers' price "parities," and so on in an endless spiral.

Furthermore, if the farmer is guaranteed prices for his products high enough to give him a constant purchasing power over the goods he buys, he is largely exempted, except to the extent that he is taxed and rationed, from the necessity of making economic sacrifice in the war effort. The same is true of the laborer if he is guaranteed wage increases commensurate, or more than commensurate, with the rise in his cost of living. If, however, farmers and laborers do not carry their fair shares of the economic cost of war, other classes in the community—classes constituting a minor part of the total—must carry much more than their own fair shares.

Such a situation, however, would not last long. If wages and the prices of farm products are not adequately restricted but are permitted to spiral upward in the manner just described, the whole price situation will get out of control, and farmers and laborers as well as all the rest of the community will be engulfed in a rising tide of inflation.

PUTTING INTO EFFECT THE OVER-ALL PRICE-CEILING PROGRAM

Immediately after the President's announcement on April 27 of the over-all price-ceiling policy, the

THE A B C OF INFLATION

Ceilings. The ceilings for each seller in general are the maximum prices he charged for the respective commodities during the base period, which is the month of March, 1942. The maximum for each commodity, therefore, varies among sellers.

For wholesalers and manufacturers the ceilings became effective May 11; for retailers, May 18; and for services (such as repairs sold at retail), July 1.

Miscellaneous Provisions. As a means of control all wholesalers and retailers must be licensed by OPA, but the licensing is automatic. Machinery is established for making appeals from the general regulation and obtaining administrative relief in cases where adequate cause can be shown. Violation of the regulations is subject to heavy penalties, including the suspension of the violator's business. Buyers who believe themselves to have been cheated on any commodity they have purchased "for use or consumption other than in the course of trade or business" are permitted to bring suit against the seller for \$50 or for treble the amount by which they have been cheated (whichever is the greater) plus court costs.

THE FUTURE

Such is the situation at this writing in August, 1942. What of the future?

Economic prophecies are exceedingly dangerous in times like these, when war and politics seem to dominate everything. I shall not, therefore, assume

PUBLICATIONS CITED IN THE TEXT

Books and Periodicals

- BARUCH, B. M.: *American Industry in the War*, Prentice-Hall, Inc., New York, 1941.
- BLENK, W.: *A Study of French Post-War Inflation and the Present American Situation*, privately published, November, 1938.
- BOLLES, A. S.: *Financial History of the United States from 1774 to 1885*, D. Appleton-Century, Inc., New York, 1879-1886.
- BRESCIANI-TURRONI, C.: *The Economics of Inflation*, George Allen & Unwin, Ltd., London, 1937.
- BULLOCK, C. J.: *The Finances of the United States from 1775 to 1789*, University of Wisconsin Press, Madison, Wis., 1895.
- DOUGLAS, P.: *Real Wages in the United States 1890-1926*, Houghton Mifflin Company, Boston, 1930.
- FISHER, I.: *The Theory of Interest*, The Macmillan Company, New York, 1930.
- FISK, H. E.: *French Public Finance in the Great War and Today*, Bankers Trust Company, New York, 1922.
- GRAHAM, F. D.: *Exchange, Prices, and Production in Hyper-Inflation Germany, 1920-1923*, Princeton University Press, Princeton, N. J., 1930.
- HARDY, C. O.: *Wartime Control of Prices*, Brookings Institution, Washington, 1940.
- JACOBSTEIN, M., and H. G. MOULTON: *Effects of the Defense Program on Prices, Wages, and Profits*, Brookings Institution, Washington, 1941.

PUBLICATIONS CITED IN TEXT

- WRIGHT: *Price Control: The War against Inflation*, Rutgers University Press, New Brunswick, N. J., 1942.
- MILLIS, H. A., and R. E. MONTGOMERY: *Labor's Progress and Some Basic Labor Problems*, McGraw-Hill Book Company, Inc., New York, 1938.
- MITCHELL, W. C.: *Gold, Prices and Wages under the Greenback Standard*, University of California Press, Berkeley, 1908.
- : *History of Greenbacks*, University of Chicago Press, Chicago, 1903.
- National Economy League: *When the Clock Stopped in Germany*, New York.
- National Industrial Conference Board: *America's War Effort*, National Industrial Conference Board, New York, 1942.
- : *Economic Almanac*, 1941-1942, National Industrial Conference Board, New York, 1941.
- : *Road Maps of Industry*, National Industrial Conference Board, New York.
- NUGENT, R.: *Consumer Credit and Economic Stability*, Russell Sage Foundation, New York, 1939.
- OGBURN, W. F., and W. JAFFÉ: *The Economic Development of Post-war France*, Columbia University Press, New York, 1929.
- SCHACHT, H.: *The Stabilization of the Mark*, George Allen & Unwin, Ltd., London, 1927.
- WARDWELL, A. R., and G. J. MITCHELL: Price Ceilings and Wartime Control over the American Economy, *Survey of Current Business*, June, 1942, pp. 19-26.
- WHITE, A. D.: *Fiat Money Inflation in France*, Brigdens, Ltd., Toronto, 1914.
- WITHERSPOON, J.: *Works*, 9 vols., J. Ogle, Edinburgh, 1815.
- WRIGHT, P.: *Inflation and After*, Duke Endowment, Charlotte, N. C., 1934.

THE A B C OF INFLATION

- Baruch, B. M., price control plan of, 131-134
- Belgium, inflation during First World War, 4
- Benefactions, effect of inflation upon, 88-89
- Bimetallism, powers of the President relative to, 25
- Blenk, Walter, cited, 48
- Bolles, A. S., cited, 115-116
- Bonds, decline in value under inflation, 50-55, 86, 87
effect of inflation upon, 45-49
government, monetization of, 53-55
- Bottlenecks, of plant, 39
of workers, 40
- Bresciani-Turroni, C., cited, 79
- Budget, United States, 15
- Bullock, C. J., cited, 115
- Business, physical volume of, in United States, 28-29
- C
- Civil War, inflation during, 4
wages during, 78-79
- Commodity scarcity, causes of, 35-41
- Confidence, effect on inflation, 22
- Congress delegates monetary powers to President, 22
- Consumers' goods, shortage of, effect on inflation, 41
- Consumers' goods, types of credit for, 106-107
durable, characteristics of, 107-108
methods of restricting purchase of, 109-110
restriction of production of, 109-110
rationing of, 110
- Corporations, effect of inflation upon, 46-47
indebtedness of, volume of, in United States, 45
- Cost of living, 5, 78, 81, 82, 150
wage advances precede advances in, 78
- Council of National Defense, 118, 120
- Credit, supply of, 64-66
volume of, for consumers' goods, 106
volume of, for consumers' installment purchases, 107
- Creditors, effect of inflation upon, 44
- Currency, demand for, 27, 28
- D
- Debts, effect of deflation upon, 12
effect of inflation upon, 42-59
short-time, 44

INDEX

- Middle class, influence of inflation upon, 93-94
- Millis, H. A., cited, 80, 81
- Mitchell, Wesley C., cited, 31, 32, 78, 79, 124, 125, 126
- Monetization of government deficits, 14-19, 53-55
- Money, demand for, 6-9, 63-64
supply of, 6-9, 63-66
- Monroney, A. S. M., cited, 134
- Montgomery, R. E., cited, 80-81
- Morale, breakdown in France, 93
effect of inflation on, 92-93
- Morgenthau, Henry, Jr., cited, 142
- Moulton, H., cited, 34
- N
- National bank notes, 54
- Nelson, Donald, cited, 138, 142
- Nugent, Rolf, cited, 107
- O
- Ogburn, W. F., cited, 48
- Office of Price Administration, *Bulletin* I, 152
under Emergency Price Control Act of 1942, 145
- Office of Price Administration and Civilian Supply, 127-129
- Over-all price ceiling program, 156-158
(*See also* Baruch plan)
- P
- Parity prices, definition of, 148
- Pasteur Institute, influence of inflation upon, 87
- "Peace goods," curtailment of production of, 29
- Plant and equipment, shortage of, effect on inflation, 37-39
- Poland, inflation during First World War, 4
interest rates after First World War, 62-63
- President of United States, monetary powers of, 22-27, 92, 95-97, 159
- Price Administrator, duties of, under Office of Price Administration and Civilian Supply, 128-129
and powers under Office of Price Administration, 145-146
- Price ceilings, proposal for, 131-132
- Price control, during American Revolution, 115-116
Baruch plan, 131-134
under Emergency Price Control Act of 1942, 144

INDEX

S

- Salaries, gradations in, 40
- Saving, compulsory, 101-105
 - advantages of, 103
 - disadvantages of, 103-105
 - in England, 102-103
- Savings banks, investments of, 43
- Schacht, H., cited, 17, 116
- Secretary of Treasury, inflationary powers of, 22
- Selective price control, 114-126, 127-130, 134-140
 - (*See also* Henderson plan)
- Sensitive commodity prices, 5, 33, 64, 78, 82, 150-151
- Silver, powers of President relative to, 26
 - purchase of, by government, 12-13, 95-96
 - supply of, in United States, 12-13
- Spending, need for discouragement of consumer, 154
- "Stabilization crisis," effect on banks, 57
- Stabilization Fund, power of Secretary of Treasury over, 25-26
- Stockholders, discrimination against, in time of inflation, 48
- Stocks, advantages in owning, 45-46

T

- Tariffs, 74
- Taxes, as a means of controlling inflation, 97-99
 - corporate, use of, 99
 - excise, use of, 99
 - financing by, antithesis of financing by inflation, 97
 - income, use of, 98-99
 - increase in, effect on endowments, 88-89
 - recent, 14-15
 - need of, for controlling inflation, 153, 159
 - retail-sales, use of, 99
- Thackeray, William M., cited, 94
- Theresian Academy of Vienna, influence of inflation upon, 87-88
- Thomas Amendment, 22, 25, 26
- Time deposits, higher interest rates on, 55-56
- Trade barriers, 74, 75

V

- Velocities, of deposit currency and money, 8
 - as force making for inflation, 20-22

THE A B C OF INFLATION

- W
- Wages, during Civil War, 78-79
 - control of, need for, 153-155, 159
 - effects of inflation upon, 77-83
 - during First World War, 80-81
 - in Germany, during and after First World War, 79
 - omitted from control of Emergency Price Control Act of 1942, 146-147
 - responses of, to inflationary forces, 77
 - during Second World War, 78, 80-83, 150
 - War, influence on gold flow, 20
 - occurrence of inflation during, 3-5
 - shift of economic activity in time of, 29-30
 - War of 1812, inflation during, 4
 - War Bonds, purchase of, 154
 - War goods, consumption of, 29-30
 - production of, 29-30
 - shift to production of, 37-39
 - White, Andrew D., cited, 93
 - Wholesale prices, in England, 4, 65
 - in United States, 5, 31-32, 33-34, 64, 66, 78, 81, 82, 118, 124-126, 149-152
 - Witherspoon, John, cited, 115
 - Workers, shortage of, effect on inflation, 39-40
 - World War, First, inflation during and following, 4-5
 - interest rates during and following, 62-63
 - price fixing during, 117-126
 - results of, 124-126
 - wages during, 81
 - Second, wages during, 80-83
 - Wright, Philip G., cited, 87

