THE POSSIBILITIES OF MANAGED STERLING
AS AN INTERNATIONAL STANDARD

by

Kenneth M. McKee
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PREFACE

In the midst of a great international depression the problems of money and credit are subject to all the blasts of both enlightened and misguided controversy. There are the currency cranks who are sure that all the ills of the day are the direct result of unsound money policies; there are those who take the more moderate view that economic distress is the consequence of both monetary and non-monetary influences; and there are those who are satisfied that economic accord is incompatible with capitalism. Undoubtedly most people will agree, however, that the causes of economic discord can be resolved into two factors, namely, (1) those of a monetary nature, and (2) all others.

The subject of managed currency is unusually controversial, and consequently few unqualified conclusions will be found in this essay. Managed currency is not represented as a universal panacea for a troubled world, neither is it claimed that it will control the credit cycle in so far as it is caused by non-monetary factors; but it is contended that enlightened currency management will at the very least mitigate economic disturbances. Some people do not believe that a comparatively stable price level is the best thing for a capitalist society, it being argued that a slightly rising price level is a necessary stimulus or drug to industrial
activity. Still others believe that in view of decreasing real costs the price level should be gradually lowered to enable the public to buy the additional products of increased efficiency, as it is supposed that the rise in wages would not be sufficient to allow the purchase of the increased quantity of goods produced. In short, there are sound arguments for a gradually increasing price level, a stable price level, and a gradually decreasing price level in a capitalist world. It would seem that each of these plans - and a choice must be made - has its quota of disturbing elements, and the preference must rest with that one which has the greatest prospect of giving economic stability. For reasons given in the text, stabilization of the price level is made the object of currency management, but it is left as an open question whether effective monetary control is possible, and some attention is given to a few of the non-monetary aspects of economic instability. The essay is based on the assumption of capitalism, but it is recognized that the socialists may be right when they contend that economic efficiency is incompatible with a capitalist organization of society. Certainly currency management is possible without socialism, but it is not so certain that other aspects of economic management are possible without it. Although managed currency may to a large extent solve the world's monetary problems, it is doomed to disappoint those who expect economic harmony as its logical sequel.
Obviously the essay is based on the work of Mr. J. M. Keynes, but in its international aspects a departure is made in respect to exchange control. For unusual circumstances control by exchange taxation is suggested, which, it is hoped, improves on current usage. While restrictive exchange policies are usually an evil, de facto control under abnormal conditions must be recognized, and it is thought that control by taxation would be more equitable than by any means now employed. A new organization for investment control boards is recommended, and an alternative to central banking is suggested for Canada. Also the problem of proportional control by the discount rate and by open market policies is raised.

I am indebted in particular to Professors H.F. Angus and W.A. Carrothers for kindly criticism and assistance; to the members of the Department of Economics as a whole, and to Dr. T.H. Boggs of Stanford. For all imperfections, however, I am fully responsible.

This thesis is dedicated respectfully, and without malice, to the Spirit of the World-Wide Depression.
Chapter I

INTRODUCTION.

The problem of an adequate money system is as old as trade itself. As early traders bartered for goods they were in all probability dimly aware that an improvement in their system of exchange might facilitate trade. It is not difficult to imagine the mental state of a barterer who wishes to exchange a goat for a meal, only to find that a goat is quite unacceptable because a sheep is desired. Both traders realize that a goat is more valuable than a meal, but are confronted with the problem that the goat is not a sheep in the particular instance; and even if it were, the owner of the goat is not prepared to accept poultry for the difference in value between the meal and the goat. Both traders must feel that there is something wrong with their system of exchange.

In a later economy the producer of meals would have been glad to accept a cow from his hungry customer, because he would know that cows could be easily exchanged for any goods that he might desire. Likewise the customer would have seen to it that his goats were exchanged for cows before he presented himself for the meal. Because of the general acceptability of cattle they became a medium of exchange in many early communities, with the result that cattle became the standard measure of wealth. But as a standard of value and as a medium of exchange
cow money had many disappointing features. This kind of money had to be fed and was subject to a variety of diseases and natural forces which caused its value to fluctuate most alarmingly.

It required a long time to convince the world that gold was more suitable as a money medium than cattle, cowrie shells, or beaver furs. For centuries gold had to compete with silver and other metallic standards. Indeed, its predominant place in the world's money economy was not attained until the nineteenth century, and then only after a bitter struggle. In spite of the advantages of gold which led to its almost world wide acceptance as a standard of value, the old problem of a suitable money system was still far from solution. Before an attempt is made to solve the problem it will be wise to discover just wherein the gold standard is defective, because its very faults may afford a clue to the ultimate answer. For the present the influence of credit on the gold standard will be neglected, so as to throw into clearer light some of the factors which determine the value of gold.

Two of the principal functions of money are to act as a standard of value and as a standard for deferred payments. While gold responds to these purposes better than more primitive forms of money, it does not serve them as well as the world would wish. The value of gold as compared to most commodities is relatively stable because the ratio of the annual increase is so small to the world's supply. Then again, the annual production is not subject to rapid increase or decrease in
response to a changed demand for the metal, because of its scarcity, and the nature of the technology used in its production. Thus its chief virtue of stability is derived largely from its inelasticity of supply. But in order to serve the purpose of good money, the supply must be subject to control so as to meet the changing demands for it. In the imperfect control of the gold supply, then, is to be found one of the grave defects of its use as a money standard. If the supply of gold does not respond readily to the demand, an alteration is effected in its value. Gold as a standard of value or for deferred payments is thus open to serious objection. A debtor stands to gain with a fall in the value of gold and to lose with a rise in the value of gold. Apart from the moral aspects of a fluctuating standard, the most serious consequence is to be found in the resulting disorders to the economic system. The Industrial Revolution has made money so much more vital to the world's well being that a small fluctuation in the value of its medium of exchange or unit of account, will cause economic consequences undreamed of two centuries ago. In other words the more complex the economic system, the more sensitive it is to changes in the value of its money.

The above analysis presents a picture of the gold standard unmodified by the extension of credit. It is much closer to the facts of a generation ago than it is to those of today. The net effect of credit before the war was to modify the supply of purchasing power within certain limits,
and to bring the value of money under a limited degree of bank control. Nevertheless the supply of gold was the uncontrolled and most important determining factor in the value of money.

Since the World War the picture of the gold standard has been radically changed. The past two decades have witnessed the disappearance of gold from circulation, the wide adoption of inconvertible standards, and the subordination of gold to the American dollar. The gold standard has been shaken to its very foundation by a terrible war and by a policy of reparations and war debts. The facts are that most of the world now employs quasi managed standards which have a more or less definite relationship with gold, and that most countries which use convertible currency have withdrawn gold from circulation. Whether gold will recover its former position is open to question, and whether it is desirable that it should is still more open to question. The gold standard had barely become widespread when the stage was reset for the introduction of managed currency. The results of the past few years indicate that money can retain its value without being convertible into gold, and have tended to educate the public to an appreciation of the fact that gold has not a mystic value inherent in itself.

The working of the gold standard, then, is subject to modification by the extension of credit. The power of currency management permits those in control to mitigate or aggravate the tendency of money to fluctuate in value, although this power may be exercised only within certain limits if a country is to remain on the gold standard. Unfortunately many
countries have been subject to gross misuse of the power of currency control, which has resulted in the issue of varying quantities of debased currencies.

The conclusion may be reached that the instability of money in most countries can be traced to fluctuations of the value of the national currency in terms of the gold standard and to the fluctuations of the value of gold itself. It must be admitted, however, that the increased use of credit has made the gold standard much more efficient than it otherwise would have been. It may not be too much to say that the instrument of credit has allowed the gold standard to bend without breaking.

Chapter II

THE OUTLOOK FOR THE GOLD STANDARD

The events of the past few years have shown that gold is not nearly so vital to currency as had been supposed. The question before many countries now, is whether it would be wise or desirable to aim at the ultimate restoration or retention of the gold standard. If the world or anyone country were to restore the gold standard (whether at the pre-war par or at some other parity) relative stability of the foreign exchanges would be secured, but the value of gold in the long run would be left to the mercy of fate.

Advocates of the gold standard point out that it has been relatively stable and satisfactory for over a hundred years. Therefore, they naively assert, a divine providence which has guarded the value of gold for so long will surely not relax its vigilance. Fortunately for the relative stability of gold, the great discoveries of ore bodies of the past century came at most propitious times. Depreciation was admittedly reaching dangerous proportions after the mid-century gold rushes, and the subsequent serious appreciation was fortunately checked by the very timely discovery of the South African deposits. But on the whole it is unlikely that any other standard would have been more satisfactory for the requirements of the nineteenth century.
Is it likely that purely fortuitous circumstances will continue to stabilize the value of gold? Geologists tell us that as the world's unexplored regions grow smaller, so too will become the chances of phenomenal gold strikes. This factor, if unchecked, would tend to cause a gradual appreciation in the value of the world's gold. It is sometimes said that this threatened gold stringency will be met by the increasing exploitation of low grade deposits, but it is equally likely that such developments will be counterbalanced by the force of diminishing returns and by the exhaustion of producing mines. Then, too, the value of gold must be ever subject to the scientific developments in the technology of gold extraction. In short, gold is likely to become too rare or too plentiful. Why should countries cling to a fluctuating and expensive standard when a better one is available? The answer is, of course, that man is essentially conservative in his habits of thought and action. The argument that the gold standard protects from inflation is hardly tenable in the light of recent experience. It is sufficient to recall American price movements during the war.

If all the gold produced were available for monetary use, and if no economies were made in the monetary use of gold, the task of value prediction would be greatly simplified. It would be almost sufficient to say that the value of money

1. "The Economist," May 9, 1925 - Mr. Pethick Lawrence, M.P., spoke favourably for a managed standard as he had great faith in the prospects of changing mercury into gold.
depends on the supply of gold and on all the forces which affect the supply of the metal. Unfortunately for such a simple view, there exist a host of circumstances which affect the demand for the precious element. In the first place, the supply of gold available for money depends on the demand for it in the industrial arts. The demand for gold in the industrial arts tends to rise with living standards and to fall with the price level, because better living standards mean that a larger proportion of the family income is available for the purchase of luxuries, and a fall in the price level causes gold luxuries to be relatively more expensive in terms of goods. In addition to the above secular influences in the arts' demand for gold, there must be included a cyclical variation which is closely related to the business or credit cycle. If the standard of living continues to increase, it is extremely probable that a greater proportion of new gold will find its way into the arts, and less will be available for monetary purposes. The consequent rise in the value of gold may be expected to act as a partial check to this tendency, provided that the gold standard is maintained.

The supply of gold available for money is also dependent on the hoardings of the Orient. For centuries there has been an almost constant drain of specie to the Orient

1. Approximately 52% of the world's stock of gold is used for monetary purposes, 32% for industrial purposes, and 14% is absorbed by India, and 3% is absorbed by China and Egypt. During the last three decades (1890-1920) China has taken over 75% of her precious metal imports in silver, while India has only taken 45% in silver - Shirras - The Future of gold and Indian Currency Reform - The Economic Journal No. 146, Vol. 37, p. 242.
(particularly to India) for ornamental and hoarding purposes. The amount of gold imported by these countries has shown a tendency to vary inversely with the value of gold, with the result that when gold was cheap in terms of goods, more gold was imported than when it was dear. In so far as a secular trend can be determined for the Oriental consumption of gold it would appear to be on the increase; but a caution must be exercised in forecasting, because the future demand must depend largely on education, patriotic motives, and governmental policies.

Because of the relative inelasticity of the non-monetary demands for gold, a fluctuation in production must have its first consequence upon bank reserves, which because of their flexibility may be expected to soften the shock to the price level. The use of gold for other than monetary purposes tends to aggravate the effects of fluctuating gold production on the stability of the gold standard, because the smaller the supply of monetary gold, the more a change in the increment will affect its value.

Economy in the use of gold by centralizing and pooling reserves has the same effect on the value of the metal as would an increased supply. When gold is accumulated in reserves, it serves as a basis for the extension of credit, and credit expansion tends to lower the value of gold by increasing the aggregate of purchasing power. Centralized reserves also have the effect of tempering the influence of fluctuating gold production on the price level, by permitting an alteration.
in the ratio of reserves to credit.

Newcomers to the gold standard may be expected to cause an additional demand for gold, but it may be pointed out that there are few countries that are not in some manner linked to gold. Some countries are only loosely bound to gold by means of gold exchange standards, and if they should decide to adopt the gold standard in full, it would mean a necessary accumulation of specie reserves which might seriously appreciate the value of the metal. Part of such a demand for specie, however, would be met by the draining of gold from other reserves.

The Royal Commission on Indian Currency and Finance hesitated to recommend the adoption of a complete gold standard for India because it was feared that her gold requirements might cause serious economic disturbances as indicated above. It was estimated that India would require five hundred million dollars worth of gold to place her on the gold standard, so a compromise was made wherein India adopted the gold exchange standard in 1927. By this arrangement Indian money may be exchanged for gold exchange on London at any time demanded, but currency redemption in gold is optional with the authorities. The system requires the maintenance of substantial reserves in London, and is cheaper and is as satisfactory as a complete gold standard. Mr. Gustav Cassel has recommended the wider adoption of the gold exchange standard so as to economize on

2. Cassel, Gustav - Post-War Monetary Stabilization, p. 59.
the available supply of monetary gold, in order to prevent a general appreciation in the world's money.

The secular trend of population and volume of trade must manifest itself in a greater demand for gold if that standard is to be retained. Population has doubled itself since the time of Napoleon Bonaparte, and indications are that it will continue to increase, although the rate of increase may ultimately be expected to decline. Up to a point increased population is likely to produce greater division of labor and specialization of industry, which will be reflected in an increasing volume of trade. While changes in the rate of increase of population and volume of trade may occur, there is every evidence that an absolute increase may be expected for a long time to come. These changes are going to influence a change in the demand for gold, which will tend to cause a steady appreciation in the value of money.

The above considerations indicate that a progressive increase in the annual supply of gold will be necessary to maintain its value, and it is likely that the exhaustion of deposits and the force of diminishing returns will make gold production inadequate to meet the future demand. Providing that the gold standard is not discarded we may reasonably expect, then, a long time rise in the value of gold.

Before the war an element of stability in the value of gold was imparted by the policy of numerous banks of issue. As gold became relatively rare or abundant the ratio of gold to bank liabilities became smaller or larger respectively. Since the war the value of gold has come largely under the control of a single country, namely the United States. In order to maintain the value of the American dollar the Federal Reserve Board has adopted the policy of burying huge quantities of gold in the vaults of Washington. By regulating the effective gold supply the dollar has been maintained at an artificially high value. As a consequence the maintenance of the gold standard demands that an excessive price be paid by those nations which pin their faith to gold. Furthermore the stability of the gold standard is brought into dependence on the whims of one national banking board. The world is by no means assured that the United States will continue to pay a heavy mint price for the pleasure of reburying gold. If the United States were to discontinue its practice of free gold minting the price of gold in terms of regulated American dollars would decline at the expense of all gold standard countries. Why should the world aspire to a costly gold standard which is at best only a fiction and which is largely controlled by one country? In strict truth the gold standard has become the American dollar standard.

In spite of the difficulties inherent in the gold standard as outlined above, it is possible that international cooperation designed to improve the situation could be effected.
Many recent thinkers on this subject have pinned their faith to centralized reserves, gold exchange standards, and intimate central banking relations. While it is true that there have been in recent years marked examples of central banking cooperation, it is also true that there have been examples of antagonism. Quite apart from any ill will, there have grown up since the war policies which consciously or unconsciously frustrate the normal course of the international gold standard. The function of the gold standard under normal conditions, as understood by the Classical Economists, was to correct automatically any disturbance in equilibrium. Thus gold imports meant an expansion of credit, higher prices, more imports, and fewer exports. Today central banking policy tends to frustrate forces which tend to bring about equilibrium. For example if Great Britain ships gold to the United States the Federal Reserve Board may and frequently does prevent the normal effect on prices by absorbing the gold and selling securities of an equal amount. Great Britain, instead of allowing the gold shipment to affect its price level may make up for the loss by advancing credit. In this manner the fundamental causes which destroy equilibrium are not corrected, and a condition, if not checked, would arise in which a steady drain of gold might ensue. A gold drain of the above nature could go on as long as the United States were prepared to absorb the metal, or as long as Great Britain were prepared to create credit against

the withdrawals. It is not intimated for a moment, that these policies are a part of a deliberate sabatical campaign, but that countries which practice them are actuated in the large by domestic motives. Nevertheless, as long as such practices are followed the gold standard can hardly be considered an international medium of exchange in the traditional sense. It is clear that any tendency which is not subject to checks must in the long run reach equilibrium by coming to an end. In effect the end comes by the country suffering the drain in leaving the gold standard. It is not implied, however, that the central banking policies as depicted above are solely or even largely responsible for the present situation in most countries.

While it may be admitted that there is a long run tendency for the value of gold to rise in the proximate future, it may be objected by gold adherents that there is little use in concerning ourselves too much with what might happen in a quarter or half a century from now. Mr. Kitchin in his estimates had reassured us that the predicted gold shortage will not make itself felt until about 1935, but it must be remembered that the estimates were made on the basis of the 1928 price level. If the average price level for 1931 or 1932 were taken as a basis the date when an effective gold shortage would be felt will have to be considerably advanced.

More important for the immediate future of the gold standard are the factors of international gold mal distribution.

and current central banking policies. In 1913 Europe possessed sixty-three percent of the world's gold stock of 2,102 million pounds and in 1925 she held only 35% of the then aggregate gold stock of 2,102 million pounds. On the other hand North American holdings had risen from 429 million pounds to 950 million pounds, or from 24% to 45% of the aggregate stock during this period. From 1925 to 1928, a period when Europe was generally readopting the gold standard, European demands absorbed 165 million pounds or 18 million pounds more than the new supply for that period. Since then the main feature in international gold movements has been the flow of gold from debtor to creditor countries. Thus American holdings have increased from 880 million pounds to 944 million pounds from December 1929 to December 1930, and for the same period French holdings have increased from 336 million pounds to 431 million pounds. Of the new gold produced during 1930 available for monetary purposes it is estimated that 64% has found its way to the two above named creditor countries.

As a partial consequence of this tendency to concentration, France and the United States are the only important countries on a full gold standard at the time of writing. The fact that Great Britain has abandoned gold for the present, at least, has dealt a severe blow to the gold exchange standard. It was hoped by Mr. Cassel, Mr. Hawtrey, and other economists that the gold exchange standard would be

the means of economizing gold so that the probable shortage
would not be felt in the near future.

Probably the most serious drag on the international
gold standard of today is the system of war debts, reparations,
enclosed trading areas, and gold and exchange embargoes.
These factors are all closely related and in a large degree
hinge around the problem of war debts. The international
debts and their associated evils are inimical to an interna­
tional gold standard, and they have been largely responsible
for the break-down of the system. It is almost axiomatic
that if the United States persists in its debt policy that
the gold standard as an international medium of exchange is
gone. In spite of the decision of December 1932 regarding
the settlement of the debt problem, many economists expect
a change of policy which will be more or less radical. It is
recognised, however, that any opinion advanced at this date
is subject to modification in the near future.

Another post war factor that should not be neglected
is the unusually large international short loan fund. Until
this large fund is invested in long term securities those
countries in which the funds are maintained must keep abnor­
mally large gold reserves to protect their exchanges.
France, in particular maintains large liquid balances in
London and other centres, and she can embarass any centre by
sudden withdrawals.

2. Ibid., p.38.
In conclusion it may be noted, that apart from any objections to the gold standard occasioned by its barbarity, clumsiness, and the unsteady supply of the metal, there are very grave current economic problems to be solved before the international gold standard can be established on even a modified pre-war basis.

The MacMillan Committee, while recognizing the difficulties involved by changed economic conditions, was hopeful, although not fully convinced that cooperation would maintain the standard. "Among the causes which may make for disequilibrium two stand out most prominently. In the first place the working of the gold standard may from time to time be seriously affected by the recurrence of boom conditions in American economic conditions. In the second case, the gold standard is liable to be affected by the break-down, after a period of expansion, of the process of international investment. The immense growth of the financial and economic power of the United States has altered the scale, if not the terms, of the problem of American-European economic relations, and thrown upon the European Central Banks - in the absence of any definite guarantee that the Federal Reserve Banks will be permitted by public opinion to co-operate at all times whole-heartedly with other Central Banks - a task of great difficulty, which can only be solved by common understanding and action. .... The working of the gold standard must be adjusted to these striking changes in world conditions, and the task of adjustment must
This passage is quoted at length because it represents conservative opinion, and yet it implies a doubt which is unthinkable but nevertheless is present. It suggests that the authors of the statement are half aware that they are clutching at the proverbial straw, but that they are hardly prepared to admit it even to themselves.

Chapter III

GOLD PRODUCTION AND THE PRICE LEVEL

The Roman world obeyed the same economic laws that are in force today, - at least in so far as the quantity theory of money is concerned. The rich tribute from foreign conquest played havoc with the national price level, and rising prices shook the patriotism of many an otherwise noble Roman. It is estimated that Rome at the height of her glory possessed specie to the amount of one and one-half billion dollars. The Mediaeval world never inherited this rich legacy, as it seems to have perished in the hands of the Barbarians.

During the latter part of the Middle Ages money scarcity became acute. Gold and silver mines were little worked, and in many parts of Europe the ancient metallurgic arts had been forgotten. Outside of the discovery of some alluvial silver deposits in Portugal and the opening of a few mines in Bohemia, the production of precious metals in Europe was virtually at a standstill. The discovery of the Americas had the happy effect of providing Europe with an adequate money supply, and the less happy effect of making Spain the premier power on the Continent. Prices had a tendency to rise throughout Europe, although in some places Spanish gold was very slow in making itself felt.

1. Feavearyear, A.E., - The Pound Sterling, 1931.
During the period from 1782 to 1814 prices were rising in western Europe and in the United States, but the causes are attributable, not to an increase in gold and silver production, but to the wide extension of credit. In England inconvertible paper was the chief medium of exchange throughout the Napoleonic wars, and in France the Assignat sent prices rising to the skies. In addition to inflationary war practices, however, the growth of deposit banking and legitimate note issue was an important cause of rising prices during this period.

From the close of the Napoleonic wars to the middle of the century the price level fell. The South American struggles for independence disorganized gold and silver production and many mines had been depleted; but the chaotic character of banking, perhaps, was the most important reason for the price decline. It was a period of repeated crises throughout the industrial world, and the banking facilities were inadequate to meet the legitimate needs of business.

In 1848 gold was discovered in California and a little later in Australia, with the result that the world's gold supply was nearly tripled in a period of twenty-five years. A substantial rise in prices was inevitable, but the effect of the new supply on prices was tempered by a fourfold increase in the demand of the arts for the metal. Also much of this new gold was absorbed by new converts to the gold standard. It is estimated that France and Germany alone absorbed one billion, five hundred sixty-four million dollars
of this new gold when they adopted the new standard. The growth of population and trade created an additional demand for gold, but this factor was more than offset by the development of sound banking in the important countries.

From 1873 to 1898 a world wide price decline again made its appearance. While economists are not united in their reasons for this secular trend, it is generally agreed that a falling off of gold production, the wide adoption of the gold standard, and increasing population and trade were primarily responsible. Gold discoveries in South Africa and the Klondike were the chief causes for rising prices up till approximately 1915 when credit inflation became the chief factor. Most of the gold from South Africa was available for monetary purposes because Oriental consumption was not commensurate with the increased supply. Much of this new gold, however, did not affect the purchasing power of the world's currency, because many of the central banks used it to strengthen their reserves.

Chapter IV

THE ECONOMIC CONSEQUENCES OF A FLUCTUATING PRICE LEVEL

It is a truism to say that a change in the price level which would affect all members of society in an equal manner would cause no unjust transfer of wealth as between classes. The fact is, however, that the incidence of a changed price level falls unequally and causes innumerable social complications. By the merest chicanery of fate wealth may be transferred from one class of people to another, regardless of all planning or expectation.

For the purposes of considering the effect of unstable money, society may be divided into two overlapping interests, namely creditor and debtor. Most people are both creditors and debtors but their general attitudes toward fluctuating money are largely determined by their predominating interest. Consequently debtors tend to look with favour on inflationary measures while creditors tend to favour deflation. A gradual increase in the value of money results in substantial gains to those who own long term investments or have claims to future money incomes. This class of people may be conveniently called the investing class and comprises all those who receive money incomes from bonds, mortgages, annuities, leases, and similar contracts. During the last half of the nineteenth century the rentiers reaped substantial gains because of the gradual
but steady decline in the price level. As the burden of these debts became noticeably heavier during the eighties and nineties of the nineteenth century this class became increasingly unpopular; to such an extent that the adverse feeling to long term creditors was widely reflected in the current literature. When prices are rising, however, this class tends to lose. At times the price level may rise so rapidly that the debtor may actually repay less purchasing power than was borrowed, and the real rate of interest as distinct from the money rate may be negative. Consequently, during periods of rising prices, bond investment tends to become less attractive, with the result that borrowers must offer higher interest rates. In the long run, if the economic order is to depend on individual savings for its capital, it must safeguard the investor from losses attributable to fluctuating money standards.

The business class generally buys before it sells, and consequently stands to make a fortuitous gain in excess of normal profits when prices are rising. Business is declared to be good and employment and production are at a maximum. During a period of rising prices a person who can borrow money frequently finds that his repayment has less purchasing power than his borrowing, and in a usually futile attempt to keep up with the fall in the value of money, interest rates may soar to great heights. High unearned rewards stamp the business man a ruthless profiteer. This, then, is the second disturbance to the economic system which can be blamed on rising prices. If the rising prices discourage the investor, they also bring down
opprobrium on the business interests.

When the price level is falling business enterprisers frequently repay, at the expense of their profits or capital, more purchasing power than they borrowed. Industry is stagnant, unemployment is rife, and the interest rate is low. Thus the needs of society are subordinated to the faith in a treacherous standard.

Wages have a decided tendency to lag behind price movements. As a consequence those who during periods of falling prices are sufficiently lucky to retain employment enjoy an increase in real wages. In periods of rising prices real wages have a tendency to fall. This tendency, in the case of strongly organized labour, may be discounted by successful demands on the increased profits of the enterpriser. In the long run rising prices probably result in a relative gain, and in some cases in an absolute gain to labor as a whole, that is as compared to interests other than business.

Since business is carried on for the sake of prospective money profits, the volume of production must be influenced by a change, or by a mere expectation of a change in the price level. If business men expect a fall in the price level it may pay them to check industry at the expense of society. In so far as changes in the price level are unforeseen, special provision must be made for the element of risk. The cost of risk bearing is one of the big wastes of specialized economic activity, so

that wherever risk can be reduced a social saving may be said to accrue. Those risks which are attributable to fluctuations in the price level can be minimized by stabilizing the standard of value. This risk is much greater in international trade because of the time element, and may be almost prohibitive when price levels are fluctuating rapidly. The risk bearer must be recompensed for his service and this cost must be borne by industry and consumer alike. If prices are expected to fall risk bearers demand a higher remuneration, so that those industries in which the time element is paramount may curtail production to the vanishing point, - again at the expense of society.
Chapter V

PUBLIC FINANCE AND THE PRICE LEVEL

Gold adherents are fond of saying that a managed currency can never be successful until governments learn to balance their budgets. The implication is that the gold standard does not tempt a government to inflate while a managed standard does. The experience of recent years tends to show that gold is a poor bulwark against the inflationary measures of hard pressed governments. It is perhaps true that a government might be more hesitant about abandoning a gold standard than depreciating a managed standard, but in a national emergency gold is just as prone as managed currency to surrender its sanctity to governmental exigencies.

It is so simple to balance cumulative government deficits by resorting to the printing press. Inflation is the easiest means of taxing known, as it requires no collectors and no enforcement. Indeed, it might even be popular for a time, providing it were regulated. The incidence of the tax falls equally on all note holders and is roughly proportional to their wealth. Like all forms of taxation its abuse must eventually lead to decreased prosperity and even chaos, although as long as the currency has value the tax is applicable.

In the first stage of inflation a government might reap a double benefit. With the first rise of prices optimistic note holders are likely to hoard their money in the hope of being in a position to take advantage of the expected price fall. This stage soon passes when the public begins to realize the inflationary character of the government policy. In order to avoid the tax of inflation they seek to reduce their holdings of the national currency by converting it into commodities and foreign exchange. They retain just sufficient currency to meet their daily requirements, and as a consequence prices may be affected by recurring periods of money stringency.

We may conclude that inflation is a dangerous method of taxation and may even lead to ruin. A country may be expected to avoid inflation wherever possible so as to maintain its standards and business honour, the latter being especially important to its economic relations abroad. Thus a managed standard is just as likely to be respected in practice as a gold standard, because the price of inflation is just as heavy with the one as the other.

Some countries, notably Italy, Czechoslovakia, and Great Britain have attempted to deflate their currencies to the pre-war gold par. The advisability of such a policy would depend on the discrepancy between the present par and the pre-war par. It would result in a country maintaining its honour and financial reputation at the expense of its industry.

When the currency is only slightly depreciated the regaining of a lost reputation is well worth the price, but when there is a great spread between the pars such a course is little short of suicidal. If France were to attempt to bring the franc back to its pre-war par, French industry would be crippled and the burden of taxes required to meet public debts of greatly enhanced value would be intolerable. France has pursued the only feasible course, namely, that of redefining the franc in terms of gold, but at the expense of its international reputation. Economists will forgive, but the public will not.

It is probably reasonable to conclude that a country would find it just as desirable to respect a managed standard as the gold standard. In times of great stress neither will be respected. The managed standard, however, will work at its best in those countries which have relatively stable political and financial institutions. It is suggested that Great Britain satisfies these requisites better than any other country, and furthermore that she is in such a position that the adoption of a managed standard would create the least economic and psychological disturbance.
Chapter VI

A CONSIDERATION OF THE THEORY OF MONEY

In the preceding chapters we have dealt almost exclusively with the vagaries of unstable money and have suggested that a managed currency would reduce these vagaries to a minimum. Before a scheme of managed currency can be developed satisfactorily, however, it will be necessary to master some of the details with which monetary theory is concerned, as theory is the rationale of practice. Unfortunately, those very details which are necessary to successful currency management are to some extent controversial. Indeed, the chief opposition to managed currency reform is not directed against the plan itself, but against its premises, and these premises centre around the truth and working of the quantity theory of the value of money.

There are many theories of the value of money, but probably the most widely held is the quantity theory. The difficulty is that few agree as to just what the quantity theory involves, and as a consequence there are many modifications which in turn receive numerous degrees of emphasis. The quantity

theory is by no means a new-comer to the science of economics, as it received attention by the earlier Classical economists. Thus, Mr. David Ricardo, in those more rational moments when he did not confuse labour cost with the value of money, advocated it. The theory in their hands, however, took a crude form in which the quantity of money was emphasized at the expense of the influence of bank reserves and private hoards. The modified quantity theory, as generally accepted today, states that the price level varies directly with the quantity of media of exchange, other things being equal. This latter qualification is designed to cover the influences on the value of money which are dependent on such factors as changing business habits and banking customs.

The theory of money early lent itself to mathematical interpretation, but by far the best known equation is that of Professor Irving, which takes the form of $MV + M^1V^1 = PT$. $M$ represents the quantity of money in circulation in the form of coin and currency, and $M^1$ represents all other forms of purchasing power, particularly bank deposits. The circulation velocity of the former is represented by $V$ and the circulation velocity of the latter is represented by $V^1$. $P$ is a price index and $T$ is the volume of trade. The equation is obviously a truism, and is one of the easier money equations to understand, which makes it more valuable for some purposes than its complicated successors.
Another form of the money equation is \( n = p(k + rk^1) \) where "n" represents the number of units of money and currency, "p" represents the price of each consumption unit, "k" represents the number of consumption units over which the public wishes to have control in the form of cash, and "k^1" represents the number of consumption units over which the public wishes to have control in the form of bank deposits, and "r" represents the ratio of bank reserves to deposits. A consumption unit may be defined as the aggregate value of a given quantity of standard objects of consumption or other forms of expenditure at representative prices.

Recently Professor Keynes has developed a new set of money equations which have attracted widespread attention. These differ from the older forms in their method of approach, and like them are truisms. It is claimed by Professor Keynes that the new money equations are superior for statistical purposes in that they elucidate causal influences more clearly. For the purposes of this paper it is immaterial which form of the money equation is used as they are all true, but differ only in their approach. For the statistician, however, the matter of approach is very important and he must select the equation which best suits his purpose. Mr. Keynes' recent contributions to monetary theory will be further considered below.


2. Keynes, John Maynard - "Treatise on Money."
Whichever equation we should use for our purposes it is clear that the price level (usually represented by \( P \)) is a function of the other terms. Thus if \( P \) is to be kept constant we must decide which of the remaining terms shall alter, and if we wish to trace the causal disturbances we should probably favour Mr. Keynes' fundamental equations. But, after all, just what do we understand by \( P \). Curiously enough there is some disagreement as to the meaning of the "price level." Mr. Jevons and statisticians of the older school thought of the price level as an average of all prices or as a central tendency about which individual prices tended to revolve. It has since been demonstrated that there is no such thing as a general price level. Most authorities now agree that there is a plurality of price levels, and some writers even go so far as to deny the existence of any composite price level. Most of the familiar price indexes such as Sauerbeck's and the Economist's are purely of the wholesale type. In addition to this kind, however, there are price standards of consumption, earning, international goods and others of minor importance. It is only reasonable to expect that these multiple price indexes should differ because they differ in their weighting and in their composition. For example, the consumption standard includes the prices of personal services, most of the costs of marketing, house rent,


and other expenses which are not considered by the wholesale standard. The international index is composed of those goods which enter into foreign trade and as a consequence could not be expected to reflect purely domestic price movements. Thus the 1927 international index fell in terms of most local indexes. What concerns us in this thesis is what prices should be used as a guide in directing monetary policy. The aim of scientific management according to most authorities is to stabilize the average of wholesale prices. This aim is favoured by Messrs. Fisher, Keynes, Cassel and Commons, while Mr. Carl Snyder prefers the stabilization of an average of all kinds of prices.

The Recent Contributions of Mr. Keynes:

Mr. Keynes' "Treatise on Money" is the product of a number of years of divided labour and in many instances the book shows defects which would not have appeared if written under more favourable circumstances. It is, nevertheless, the outstanding contribution to monetary thought of the twentieth century. He is primarily concerned with a theory of the value of money and a theory of price control by central banking activity. As a treatise it of necessity deals with some phases of the money problem which are not pertinent to this subject, but on the whole, it represents a development which cannot be neglected.

His theory of the value of money is based on the relationship of saving to investment. The method of approach
is to divide both goods and money into a number of categories with the purpose of being able to determine causal agencies so that new money equations of a more useful nature may be formed. Thus goods are divided according to their use, namely, for consumption and for capital or investment purposes; and money is similarly divided into two groups, namely, that which is to be spent and that which is to be saved. His chief aim is to show the relation which holds between the price level of consumption goods and the ratio of national income to production. The analysis is complicated, however, by the fact that all income is not spent on consumption goods, and not all the national produce is offered for immediate sale. When people save, their incomes available for current spending are reduced, and if these savings exceed investments the price level tends to fall because a buyer's market is created. On the other hand, if investment exceeds saving, and capital goods increase relative to consumption goods the public obtains an extra income which is not represented in consumption goods, so that prices tend to rise. An investment good for the purposes of this theory may be defined as any good which is withheld from the market, for example, fixed capital in the shape of a warehouse, or surplus stocks.

Thus given efficiency wages, the price level of consumption goods may be kept relatively constant by balancing saving and investment, and it is the duty of the central bank to promote this equilibrium. This influence must be exerted not only on the volume of saving and investment, but also on
the value of investment goods, because the price level of investment goods can affect the value of consumption goods by its effect on the saving-investment ratio, and in the long run by affecting the rate of earning of the productive factors. To illustrate, if the price level of investment goods is reduced by central banking policy, savings will be increased because investment will be less attractive, and consequently the total of production will diminish, bringing about reduced prices and earnings.

If at any time the price level of investment goods were abnormally high, the producer would make a profit. Now profit is neither a part of the money income of the community nor saving, and consequently its expenditure tends to disturb equilibrium. Normally profits made from the production of investment goods would be used in the production of more investment goods, which would mean that the expenditure on these goods would exceed saving with the result that society would have an increased money income to spend on consumption goods. Thus prices would rise for this class of goods and give profits to consumption goods producers. In this manner profits tend to increase in all branches of industry until competition for the factors of production reduce profits and restore equilibrium. If the social system is rigid this process may go on until losses appear and the old equilibrium is restored by deflation of prices, profits, and ultimately incomes. Thus to preserve equilibrium it is necessary to eliminate profit and loss so that the price level of investment goods will be
On first consideration one might think that saving must equal investment, but there is no real reason why this should be so because the two functions are usually performed by different people. For example, when a bank has loaned to the limit, a shift from demand to time deposits will not affect the aggregate of loans, but the saving will be an idle instead of an active reserve as formerly, and the spending power will be reduced. Mr. Keynes concludes that the relation of time to demand deposits is an important index to show whether saving is excessive or whether investment is excessive. If the former prevails a decrease in the bank rate will make saving less attractive and if the latter prevails an increase in the bank rate will discourage investment. The Bank rate tends to influence its effect on credit by altering the ratio of member bank reserves. Thus an increase in the bank rate makes borrowing less attractive and more loans are repaid than are renewed, with the result that time deposits are decreased. Obviously the details in the theories of Mr. Keynes are based on British conditions and they would require some adjustment to make them applicable to other banking systems.

1. This is expressed algebraically as follows:

\[ P = E + I - S \]
\[ \frac{1}{R} = P \]

where \( S \) = savings, \( I \) = Cost of Investment, \( E \) = value of investment, \( O \) = output, \( P \) = prices of consumption goods, \( P^1 \) = price level of consumption goods, and \( R \) = current output of consumption.
The Quality of Investment and Economic Equilibrium.

Even though the banks were able to balance the saving-investment ratio it is by no means impossible that a major financial loss through unwise financing might seriously disturb the economic system. Public investment is frequently guided by optimistic and even glamorous factors. Hence it is not unusual for a particular industry which happens to appeal to the public eye to be over capitalized; and likewise, it is frequently the case that other essential industries suffer through capital diversion. Manifestly it is both undesirable and impossible to control the direction of public investment, but it is by no means impossible to influence it. For example it would be unjust to force an individual to abstain from particular investments, but his range of choice could be restricted by controlling the number and quality of investments to which he is invited to subscribe. It is suggested that the required supervision could be made by an investment control board empowered to authorize, modify or reject, all important industrial bond and stock issues. Thus it should be possible to distribute capital on a more rational basis as between industries. Of course evasion by such tactics as borrowing abroad would be possible, but in all likelihood the official frown exercised by the board would limit the public taste for those securities. An investment control board should in the last analysis be controlled by those who are responsible for currency management, but it would be desirable to have industrial interests represented on it.
The idea of an investment board is by no means new, but the majority of plans usually involve state guarantees and responsibility for the investments which are sponsored, and in some proposals the investment board even has a borrowing and relending function. To my mind these alternative suggestions involve an undue measure of state control, but it is admitted that they may be necessary to alleviate a panic. An organization similar to the one I have outlined, however, is recommended for normal control under currency management.
Chapter VII

THE FOREIGN EXCHANGES

The major advantage of the international gold standard is that fluctuations in the foreign exchanges are confined to narrow limits, which are fixed by the costs involved in gold exporting and importing. Under this system equilibrium is established by gold movements which tend to be reflected in changes in the national price levels and social structures; while under a paper standard, equilibrium is secured by variations in the exchanges or relative value of currencies. The latter system has a great advantage in so far as it minimizes the necessity of internal adjustment to world price forces, but it has the disadvantage of introducing the element of uncertainty into international capital and commodity movements.

Other things being equal, the exchange rates under inconvertible paper standards may be approximated by a comparison of their respective purchasing powers. The parity derived from comparing the respective purchasing powers of two currencies may be defined as the rate of exchange at which the purchasing power of the money of the given country would be the same if spent at home or converted into foreign currency and spent abroad. It must be remembered, however, that the parity so derived is merely a central tendency and does not
necessarily measure the rate of exchange for any given time. Moreover the parity itself is not a constant, as it tends to change with a relative increase or decrease of one national price level as compared with another. Even if comparative changes in the respective price levels could be neglected the doctrine is subject to a number of important qualifications.

The first qualification to the theory as outlined above is that the prevailing market rate is influenced by the anticipated future value of the currency in the exchange market. For example, if it is feared that governmental action or central banking policy will reduce the national purchasing power of the currency, the present market rate will reflect the expected policy, and the exchange rate will be lowered.

Secondly it is possible that the existing rate, the purchasing power parity, and the true equilibrium rate will be different. Such a condition might be expected if one country had a more insistent demand for foreign products than other countries had for its own products, with the result that equilibrium would be lower than the purchasing power parity.

According to the modified purchasing power parity doctrine the money of a country on a paper standard is likely to be either over-valued or undervalued. What effect have these probable discrepancies from the true value on the industry of a country. If a currency is undervalued and the domestic price level remains unchanged foreigners will find it cheap to

import from the country in which the currency is undervalued, while the latter will find it more expensive to buy abroad. Since the latter tends to buy less from abroad the demand for foreign exchange will decrease and the demand for exchange in the under valued currency will increase, and thus equilibrium will tend to be restored. Does this mean that the export industries of an undervalued money country are stimulated, and if so, how is the stimulus effected? If the raw materials, labour, and capital used are entirely national and are paid for in the national currency, the producer of export commodities enjoys a definite advantage over foreign competitors. If, on the other hand, raw materials must be imported and paid with appreciated currency the advantage will depend on the ratio of domestic costs to foreign costs. It is conceivable that an export industry might be discouraged by having its national currency undervalued in the case where costs are largely foreign. For example, if two producers, one being in a country of depreciated currency, buy their raw materials in a third country whose currency is depreciated in terms of the other two, the buyer with the most valuable currency will have the advantage. This, of course, is an extreme case, but it should serve as a caution to those who expect nothing but gain from depreciating their currency.

On September 21, 1931, the pound was valued at $4.50 in New York, and on October 31, it had depreciated to $3.40.
Since that time the pound has been undervalued. How is this to be explained in the light of the above theory? In the first place there are a number of short run influences that have tended to depreciate sterling. When the gold standard was abandoned many foreign owners of liquid balances were willing to suffer a loss because they feared a further decline in the pound, and added to this some British capital sought to flee from the country. The political situation augured a general election, and in view of the uncertainty created, the exchanges were affected for the most part unfavourably. Perhaps these scare influences were the most important in the initial stages, but later these were probably superseded by the adverse factors of decreased shipping and other commercial earnings, decreased returns from foreign investments, and increased imports resulting from tariff anticipations. In so far, however, as the British market is overstocked with imports, the decreased gold costs of new imports, the desirability of repaying sterling debts under the present rate of exchange, and the disinclination to foreign investments are concerned, sterling will tend to be strengthened. At the present time, however, in view of the complexity of influences, it is very unsafe to draw conclusions as to the immediate prospects of the pound in the foreign exchanges.

At the risk of anticipating some of the later chapters it might be said that fluctuating exchanges under managed

currencies could be controlled by the war time device of pegging. It is not suggested, however, that this method is a panacea to fill the gap where even the gold standard has widely failed. Admittedly, the gold standard can not be improved upon as far as exchange stabilization is concerned, and it is probable that it can resist greater strains than any other device. A less perfect method, however, would be desirable if greater gains would accrue in other directions with the abandonment of gold. It is suggested that many of the normal-time vagaries of the foreign exchanges can be eliminated by pegging, and that if at any time it is necessary to alter the exchange par in the interests of monetary stability, the operation can be performed under logical direction and control. After all it is not the fluctuation in the exchange itself that is so bad, as the risk involved by chance fluctuations. If the parity is to alter it is desirable to have it alter gradually and according to plan.
A CONSIDERATION OF SOME SUGGESTIONS FOR CONTROLLING THE PRICE LEVEL.

Economists have long been aware of secular changes in the value of money, but it is only in recent years that serious consideration has been given to the problem of stabilizing the price level. Some of the plans examined below have features which are now considered undesirable or obsolete, but it should be remembered that each was radical when proposed, and that they have all made valuable contributions to monetary thought.

The pioneering work was done with the development of the idea that a unit of purchasing power should not be measured by a unit of weight. The first plan to be considered is that known as the tabular standard, which was designed to adjust secular changes in the value of money as they affect debtor and creditor. According to it, all money contracts, unless otherwise stipulated, would be subject to revision when payment fell due, so that debtors would repay purchasing power equivalent to that which they borrowed. The plan deserves praise as an attempt to solve the problem of unstable money, but in practice it is open to many serious objections. First, it would be impossible to establish a single index that would be fair to all classes and all sections of a community, and
secondly it would involve tremendous difficulties for those who would have many claims to settle because separate computations would have to be made for each settlement.

A better plan is that of altering the weight of gold in the money unit to fit the purchasing power. Professor Irving Fisher, while not the originator, is the best known sponsor of the plan, and it is he who has developed many of its intricacies. The system would be automatic in its working and would not allow for the control of any anticipated price movements. Thus if wholesale commodity prices were rising the weight of the unit of money would be decreased by one percent per month until the movement was corrected, and conversely if prices were falling the weight of the money unit would be automatically increased. The plan involves both the abandonment of gold circulation and of free minting so that a decision to alter the weight of gold in the unit of money would be effected by altering the official price of buying and selling gold. Thus if wholesale prices were to fall the mint would increase the price of gold with the result that gold would be withdrawn from the arts to swell bank reserves and credit, and a rise in wholesale prices would automatically ensue. In order to prevent speculation in gold futures a brassage charge of one percent would be charged so that the selling price would always be one percent above the buying price, which would mean that the speculator who purchased gold in anticipation of a rise in price would have his profit

absorbed by the brassage fee. The plan would probably be effective in controlling secular price changes, but its mechanical features limit its applicability to seasonal or credit cycles. Because the corrective is always applied after the consequence, and since consequences are frequently cumulative, the plan might not be as effective as claimed.

Advanced gold standard supporters have proposed a palliative to secular price changes in an extension of the use of gold by means of the gold exchange standard. By concentrating most of the available gold in London, New York, or Paris and the linking of world currencies with the gold exchange standard, greater economies in the use of gold would be effected. While this suggestion does not escape the fundamental objections to be found in gold as a medium of exchange as outlined in Chapter I, it would be an improvement over existing measures. Unfortunately, the abandonment by England of the gold standard has shaken faith in this device. Many countries which might have been friendly to the plan have had the bitter experience of seeing their London balances depreciate, and consequently may reasonably be expected to be unsympathetic with this proposal.

An interesting suggestion for the control of secular changes in the price level has been presented by Professor R.A. Lehfeldt of South Africa. His approach to the problem is

unusual and his treatment is largely influenced by the local needs of his country. He approaches the problem with the fundamental thesis that monetary policy should be largely directed for the national good and that world consequences should receive secondary consideration. He warns his reader at the outset that his views are held in the special interests of South Africa and reminds them that it is to her interest to maintain the value of gold. As a consequence many of his attitudes savour of archaism to those of the managed currency school, but that does not mean to say that he is an unreasoning die-hard or that he is lacking in ability to measure new forces. As an example of his conservative attitude he gives as the leading advantage of the gold standard the relative freedom it enjoys from the arbitrary action of governments, while the more radical thinkers emphasize the advantages to be derived from the comparative stability of the foreign exchanges. Then, too, he is one of the few economists who has a good word to say for the circulation of gold coins, and attention is drawn to the virtues of an intrinsic standard.

After a careful investigation of Professor Fisher's plan, he concludes that forecasting on the basis of index numbers involves too many difficulties. Next he examined the Genoa recommendations which contemplated intentional regulation of credit, i.e., of the demand for gold, but for Dr. Lehfeldt

2. Ibid., - p. 32.
it is a "difficult and dangerous plan which should be reserved till the situation is better understood and more under control." The counter plan which he has evolved is based on the regulation of the supply of gold with the sole object of avoiding secular trends in prices. The diamond industry is quoted as an example of a successful measure to maintain prices by limitation of supply, which is effected by the concentration of control in one financial group. Similarly, it is argued, the important gold producing countries are few and it would not be difficult to form a syndicate of the important nations concerned to control the supply of the precious metal. To carry out a control policy a Commission consisting of a scientific and an administrative bureau would be formed and the personnel would be appointed by the powers represented in the syndicate. The Scientific bureau would be responsible for the collection of information on (1) monetary and banking statistics of all countries, (2) statistics of prices in selected markets, (3) information on the geology and exploitation of the known sources of gold and (4) information as to law and finance of gold-mining lands and the condition of gold-mining companies. From the information gathered by this department the administrative bureau would act through the intermediation of the constituent governments.


2. Ibid., pp.56-62.

3. " p. 56.
The obvious objection that a change in the supply of gold reacts very slowly on prices is anticipated when the situation is compared to the working of a machine that is equipped with an inadequate governor, that sometimes goes too fast or too slow. This difficulty is answered by the statement "that the aim of the Commission would be to anticipate the changes of value, and correct them by intelligent action, instead of leaving natural forces slowly to stop and reverse the movement; that is, to play the part of the governor." It is hard to reconcile this answer with his objection to the plan of Professor Fisher, because surely changes in value could be anticipated as effectively under the one plan as the other, as they both involve the use of price statistics. Indeed, the problem of intelligent anticipation is the chief bugbear of the most radical management systems in which the time element is reduced to a minimum. But, perhaps this is an unfair comparison because Professor Lehfeldt is only considering secular trends, and he does not criticize the Keynes-Cassel group on their power of forecasting, but rather because of the temptation to inflation.

During periods of rising prices gold production would be checked by closing the least productive mines and by preventing the exploitation of new ones. This would involve the purchase of shares in those mines which were nearly defunct and it is claimed that the cost would not be great because of the low value of the shares; but he does not seem to anticipate the forces of

1. Lehfeldt, R.A. - op. cit., p.56.
speculation which would tend to raise their prices as soon as it became known that the Government was in the market for them.

During periods of falling prices he recommends; (1) the exploitation of land which the commission had acquired, and on which it had suspended work, (2) the encouragement of systematic exploration with a view to discovering new ore deposits (3) encouragement of research into improved methods of gold extraction, and (4) the facilitation of employment of paper substitutes for gold. With respect to the fourth recommendation he discusses the dangers of regulating demand. His suggestion is only allowed to effect a moderation in the ratio of reserves to currency and he thinks that this power will not be abused because it would lead to the abandonment of the gold standard and the evils of inflation.

In an analysis of the Lehfeldt plan one is struck by the desire to build up a case for South Africa's major industry, and the faith in the sanctity of gold. The plan would involve international cooperation to an unprecedented degree and is above all a clumsy device. It must be remembered, however, that the proposal was made before 1923 and that Dr. Lehfeldt could not have anticipated the many subsequent changes in the gold problem which place his critics in a more favourable position. If he were writing at a more recent date he may have given more consideration to the effects of gold sterilization and concentration on the value of the metal. At the time of

his writing the value of gold was relatively low and he considered an appreciation to be desirable, but he feared a renewed depreciation and the "associated evil of currency inflation." At the present time it is difficult to understand why he expressly contradicted the conclusions of the Genoa Conference with respect to the probable secular trend of the value of gold, and one is tempted to conclude that he either lacked access to the relevant data or that he was blinded by South African problems. A more reasonable method of controlling the price level is to be found in enlightened central banking policy. This plan is primarily intended for the control of short time price trends and was not designed for the management of secular movements. It does, however, leave some room for controlling secular changes by permitting an alteration of reserve ratios. The chief method of controlling short price level movements is that of altering the discount rate. Thus when prices tend to rise an increase in the bank rate tends to be reflected in tight money, and a decrease is manifested by tendencies toward easy money. Consequently when the rate is high business activity is checked by the increased cost of loans, and when the rate is low trade and industry are stimulated by cheap money. One of the difficulties in controlling price fluctuations by the manipulation of the discount rate is that it is not of sufficient power to correct major price disturbances. For example, if a

boom is allowed to make headway commercial optimism may in a large measure disregard a substantial increase in the bank rate. Similarly if a period of depression becomes established a great proportion of the enterprisers will refuse to borrow under any circumstances. It may be argued that enlightened central banking policy would prevent the cycle from getting beyond control, and the argument may be true provided that the enlightened policy were international. It is very unlikely that any single country could have averted the effects of the present international depression by any central banking policy. Even in normal times the bank rate must depend on international cooperation to be effective; for example, if the Bank of England raised its discount rate the results can be largely negatived by similar action in the United States.

Another obstacle to the successful working of the discount rate is to be found in the public attitude toward changes in the rate. If the rate is raised there is a tendency to regard it as an attempt to check the development of industry, when the real reason may be to correct a disturbance in the exchanges. Before an adequate discount policy can be practiced the public must be educated so that every change will not be interpreted as a design to restrict credit and industry.

In addition to manipulation of the discount rate enlightened central banking policy includes the practice of open market activities. For example, when bull influences tend

to manifest themselves the central bank may exert a counter-
acting bear influence by selling securities; and conversely, a
bearish tendency may be checked by the purchase of securities.
In this manner, by its open market activities, a central bank
can ease a tight money market or tighten an easy money market.
It is doubtful if central banking policy is sufficient to
control business cycles, and even if it were possible, it is
doubtful if control by this device alone would secure the most
favourable results. If, for example, the situation could be
controlled solely by alterations in the discount rate, the
result would lead to an unnecessary disturbance in the discount
market, while, on the other hand, if the controlling forces
were distributed, the effect on any one commercial activity
would be less severe. That is to say, it would be undesirable
to depress or stimulate the discount market to the advantage
of the bond market or deposit owners. Of course any given
influence would tend in the long run to affect all markets, but
the influence of the time element on particular interests must
be considered in giving direction to central banking policy.
So far no thought has been given as to how much control should
be exercised by the bank rate, how much by open market activit-
ies, and how much by other agencies. It is possible that the
bank rate may be used too freely while the other factors may
be comparatively neglected.

The most recent plan for stabilizing the price level is that known as the managed currency standard. It embraces all the advantages of the preceding plan, and is wider in its scope in that it allows for unlimited control over the quantity of money. It provides for complete secular control of the price level by divorcing itself from the gold standard and is thus free from the disadvantages of the latter. Opponents of the managed currency plan have two major objections, namely, (1) the danger of inflation, and (2) the difficulty of regulating the exchanges. A more detailed consideration of this plan will be developed in subsequent chapters.
Chapter IX

THE OPERATION OF A NATIONAL MANAGED CURRENCY WITH PARTICULAR REFERENCE TO GREAT BRITAIN.

In Chapter VI it was shown that the price level or the value of money was a function of the other terms of the equation of exchange. By suitable alterations in the value of the variables in the equation the price level can be controlled. In considering the details of managed currency operation it will be wise to examine the influence of each term in the equation on monetary stability.

It is to be expected that in future a change will be brought about in the nature of bank reserves. Under the present system gold plays such an important part in reserves that central banks lack complete control over their volume. Similarly the importance of gold hampers central banking control over the quantity of currency. In the near future it is to be expected that gold will become a less important factor in bank reserves and its place will be occupied by liquid securities. At first gold will be important to reserves only in so far as the settlement of foreign balances is concerned, and in the remote future it may entirely disappear. Only when the central bank has complete control over both bank reserves and the note issue can currency management be truly effected.
Once the limiting factor of gold is removed the discount rate will have its full effect on reserves and currency. For example, a rise in the discount rate makes borrowing less attractive and loans tend to be repaid with the result that the quantity of money is reduced. As a consequence of the repayment of part of the loans the bank reserves are strengthened. It is possible that the joint stock banks could oppose the official policy for a time by continuing to lend at the old rate. Soon, however, the ratio of reserves to liabilities would decrease and they would be forced to retrench. Since they have not recourse to the practice of rediscounting with the Bank of England under normal circumstances, they would be forced to strengthen their position by (a) selling assets, (b) allowing treasury bills to run off and thus forcing the Treasury to borrow from the Bank of England or from the market, and (c) by withdrawing call loans. Consequently it is clear that no single bank could run counter to the Bank of England, although it would be possible for a combination of banks to delay the central policy. In practice, however, such a possibility is inconceivable.

At present the proportion of bank reserves to liabilities is not elastic because of old fashioned banking habits, and because of this, the creation of credit is brought into dependence on their total reserves. Thus the total magnitude of credit must correspond to a great degree with the total bill

holdings, investments, and advances, which ultimately must determine the internal price level. The reserves of the country banks as a rule take the form of currency on hand and deposits with the Bank of England. The amount of these reserves can be altered by (a) a change in the quantity of notes demanded by the public, (b) by Treasury borrowing from the Currency Note Reserve, (c) by the reserve policy of the Bank of England, and (d) by alteration of the quantity of Treasury Bills held by the banks. While Treasury Bills are not strictly speaking cash they may be sold to the public in order to increase cash reserves as already indicated, and consequently may be called "second line" reserves. Conversely the Treasury may, by borrowing from the public or by taxation, pay off some of the Treasury Notes and reduce these second line reserves; or it may pay off direct advances from the Bank of England which reduces the first line reserves.

In practice the above four factors are the determinants of the internal price level. (a), however, is more a reflection of the price level and the volume of trade, and its effect on bank reserves is indirect, as it operates through (c) and (d). That is, an increase in note issue is effected by Treasury borrowings from the Currency Note Reserves, and bank assets are correspondingly reduced when repayment is made to the Bank of England and when Treasury Notes are redeemed. As regards (b) a Treasury borrowing from the Currency Note Reserve is effected by bank advances to the Treasury. From the above it can be
seen that (c) and (d) are the important determinants of the national price level.

The ratio of reserves to liabilities of the Bank of England depend in so far as they are variable on changes in the total of (1) Ways and Means advances to the Treasury, (2) investments, (3) loans and bills of exchange, and (4) gold. An increase in these variable reserves tends to increase prices by the creation of additional credit, and conversely a decrease in these reserves tends to lower prices by credit restriction. Thus if the bank wishes to increase the reserve ratio it merely raises the discount rate some Thursday morning.

And (d), the bank holdings in Treasury Bills are dependent on the magnitude of government deficits not otherwise covered, and tend to raise prices by increasing bank secondary reserves. Hence the creation of credit and consequently the level of prices and the exchanges is brought into dependence on the reserve or discount policy of the Bank of England and the requirements of the Treasury. Close cooperation on the part of the Treasury and the Bank of England, then, is all that is necessary to start Great Britain in the system of managed currency. The reader may remark that the demands of managed currency are in all essentials being met by the British banking system of today. And so they are except that the lure of gold still hinders complete control over reserve ratios and the quantity of currency. Indeed the changes that are required to manage sterling are of a comparatively minor nature, and are in no sense radical. Great Britain is not on the gold standard.
and only conservative opinion which looks forward to the reestablishment of gold prevents a greater disregard for rule-of-thumb ratios. Of course it would be desirable to have a more accurate statistical knowledge of banking details, such as the volume of current and time deposits. In fact this knowledge is almost essential for adequate control, but there is no reason why this knowledge should be difficult to secure.

Admittedly currency management is based on theory and the reader is entitled to ask if it will work in practice. In strict truth that all important question can not be definitely answered. If a credit cycle were permitted to obtain a reasonable start would the above measures be of sufficient power to control the disturbance? In all probability they would not be able to correct the situation. The only hope, then, would be to correct a cyclic movement before it had gathered material headway. It may be objected that forecasting is very difficult, and so it is. On the other hand forecasting is made much easier if the controlling power is in hand, because to a certain degree the future can be made. It is made still more easy if statistical data is available, as might be reasonably supposed if Great Britain were to attempt scientific currency management. It is not my purpose to underestimate the difficulties involved, for they are there and very real, but there is no reason to say that these difficulties are insuperable. The only way to determine if this plan is workable is to put it actually into practice. Even if it were to fail it is certain that the results would be less disastrous than
the working of an automatic system because it is definitely established that enlightened central banking policy has at the very least a meliorative influence.

The system would be at its best if it were practiced internationally and there is no reason why national managed currencies should be eternally isolated by chaotic exchanges. In considering the consummation of managed currency Mr. Keynes writes: "The foreign exchanges are unregulated and left to look after themselves. From day to day they fluctuate in accordance with the seasons and other irregular influences." These statements are not typical of Mr. Keynes; they sound more like a master mariner's report on the wanderings of a derelict at sea.

Obviously it is impossible to establish permanent exchange stability among managed currencies, but it is possible to give a large measure of stability to them by scientific control devices. In the succeeding chapters I am going to estimate the possibilities of an international money connection with managed sterling and to show why the pound sterling is the most desirable basis.

1. Keynes, John Maynard - Monetary Reform.
Chapter X

THE CLAIMS OF STERLING TO BE THE BASIS OF AN INTERNATIONAL MEDIUM OF EXCHANGE

It would seem at first glance that many countries would claim the honour of having their own currency made the basis for an international currency plan. In practice there are only three countries that could with any prospect of success initiate the international currency ideal, namely Great Britain, the United States and France. It is the object of this chapter to show why sterling would be more suitable for the purpose than the American dollar, or the franc. First, in order to claim this honour, a country must have an international reputation for the stability and integrity of its financial institutions, which can be inspired only with a long record of sound economic policies. Secondly, it is necessary that the world have implicit confidence in the political and social institutions of the country. Thirdly, it is necessary that the financial interests of the country be of sufficient importance and of sufficient diversity of employment as to make its money familiar to the world. Fourthly, it is necessary that the world already have wide experience in the use of that country's credit as an international medium of exchange. And fifthly, it is necessary that the country be possessed of strong central banking facilities. It is contended that sterling is the most
suitable currency to meet these five conditions.

The sweeping claims made for sterling must be defended, and the only way that this can be done is to appeal to the truths of history. An appeal to the truths of history, however, must be considered in the light of historical and personal bias. I must warn the reader beforehand that I am naturally biased in favour of sterling, and that while my purpose is not to distort history, I may be led unconsciously to overemphasize in sterling’s favour. I declare my position in advance so as to do full justice to the claims of the American dollar and the franc.

England, as compared to other European countries, has always occupied an anomalous position. Her institutions, in their embryonic stages, have been relatively free from the influence of prevailing continental cultures because of her comparative isolation. The English people have developed a unique system of government which has been widely copied throughout the civilized world. It took a thousand years of trial and error to shape this political machine, and approximately a hundred years for the world to copy it. The cumulative experiences of generations have imparted a stability into English politics which cannot be exported along with the political framework. Many countries have borrowed the set of English political rules but have failed to appreciate the underlying ideals. The result has been that England has largely

1. Blackett, Sir Basil - "It was sterling rather than gold that formed the true international standard before the War" - The Nineteenth Century and After, Vol.CXI, p.531, May 1932.
escaped the political upheavals that have characterized continental history. Perhaps the so called Anglo-Saxon temperament is less amenable to sudden change and is more given to patient suffering, which is rewarded on the whole by steady, if slow progress. Equally possible, the course of English history may have moulded the Anglo-Saxon temperament to a deep respect for constitutional methods. This does not mean that the English people are imbued with a fatalistic indifference to the course of events, but that they have a greater respect in the power of their institutions, than they have in the power of violence. Whatever the force of the above reasons the fact is that England has been singularly free from violent political strife, and while it is unsafe to adopt the role of a seer, her past must to a large degree instil confidence in continued political stability. This factor, alone, I think should be sufficient to eliminate the franc and other important European currencies from world acceptance as the basis for an international money. It may be true that some of these important European countries have reformed and are on the threshold of economic and political stability, but the world is slow to revise its opinions in such matters.

The Industrial Revolution, because of its head start in England, has given that country a highly systematized economic order and has made her the first industrial leader. There is room for argument as to whether she has always maintained that enviable position, but the fact is that most of the world has carried on its international business through
London since the days of Dutch supremacy. During the vicissitudes of the pound as the result of the Great War, London's financial prestige was challenged by New York, but a financial centre of world wide importance is not the product of a few troubled years. It takes a long time to accumulate the business skills, habits, and prestige necessary to maintain such a position; so long, in fact, that other things being equal, the world will revert to its former economic centre. This seems to have been the case with the post war reestablishment of sterling, and outside of the United States, the fact is generally conceded. The regaining of this outstanding financial position was a tribute to the highly specialized business institutions which have done the world's banking for so long. Why, apart from the early incidence of the Industrial Revolution, did sterling become a synonym for integrity? To answer this question it is necessary to consider monetary history and to inquire into the development of English banking.

There has been no severe break in the history of sterling since the days of King Offa of Mercia. Its history, like all others, is a long story of depreciation, but when compared with others it appears an eminently respectable standard. For the purposes of this exposition it is unnecessary to review all of this complicated history.

The Bank of England, founded late in the seventeenth century, has become the centre of the English system. For a long time it had a monopoly on note issue but by the act of 1826 this privilege was extended to banks operating outside a
distance of sixty-five miles from London, and in 1833 corporations were allowed to carry on a general banking business, with the exception of note issue within the confines of London. Hitherto these privileges had been limited to the Bank of England and banking firms comprising not more than six persons. This legislation was followed by a great extension of joint stock banking which resulted in numerous unsound note issues. In order to meet the new situation Peel's Act of 1844 limited the right of country banks to issue notes and made provision for the security of the Bank of England's notes. By this act no country bank was permitted to increase its note issue above a predetermined average and all new banks were denied the right of issue. Furthermore provision was made to take over the note issue function of any bank that should cease to do business, with the ultimate purpose of giving to the Bank of England a complete monopoly of this part of the banking business. Notes had to be covered by government securities or bullion up to fourteen million pounds, and by bullion for any additional quantity. This act is important because it is the basis of the present English banking system. During the past century it was suspended no less than four times in the face of emergencies. In the case of the Bank of England, it is mere officialdom to limit note issue by statute because of its conservative policy and the confidence the Bank enjoys.

It may be said that the Bank of England is both a bankers' and government bank. Most of the country banks keep a large portion of their reserves in it and the government does
practically all its banking with that institution. Because of this fact the bank is placed in the peculiar position of being a private bank yet possessing all the responsibilities of a national institution. This may be best illustrated by a consideration of the Baring crisis. In 1890 an emergency was created by the suspension of Baring Bros. & Company. This company imprudently locked up too large a proportion of its assets in long-dated securities, principally those of South America. While these securities proved to be perfectly sound the firm had so heavily invested in them that it could not realize on short notice. When other houses were asked to relieve it, they grew nervous and a panic threatened. The Bank of England averted the crisis by coming to its assistance at the risk of jeopardizing a substantial part of its reserves.

The pre-war system is admirably summed by Mr. Peavearyear as follows: "In the days before the war all who studied the English banking system, with few exceptions, contemplated it with admiration mingled a little with awe. London, they said, was the financial centre of the world, the banker of all nations. The bill upon London was an international currency which could be negotiated anywhere, because everyone owed us money. A mountain of credit of unprecedented size was reared up internally upon the reserve of the Bank of England, and that reserve was amazingly small.... The ingenuity with which the bank maintained a free market for the metal and carried on the finances of the world upon so small a foundation
was the wonder of all." These words show that if any country at that time had the organization to establish a managed international currency surely it was Great Britain. It will be attempted to show that war and post war strains have prepared Great Britain still more for the adoption of this role.

The advent of war meant the suspension of the Bank Act, which prepared the way for currency and credit inflation, and the suspension of the gold standard. While the gold standard was not formally revoked during the war, its action was so controlled as to make specie redemption unprofitable if not prohibitive. Gold could not be exported at a profit because of governmental control of shipping, so that the main incentive to specie redemption was effectively removed. Most of the important continental currencies were pegged to the pound, in terms of which they tended to fall. The principal currency in which the pound tended to fall was the American dollar, and so towards the end of 1915 the British government pegged the pound to the dollar. In order to do this, American and Canadian securities held in Great Britain were by various inducements collected and used to support the pound on the exchange, by placing dollars on the London market everytime sterling tended to fall. When the United States entered the war American government advances were used for the same purpose. The wisdom of the plan is questionable, because in so far as American imports were purchased with borrowed

1. Feavearyear, A.E. - op. cit.
dollars, imports were not made cheaper. It did make imports cheaper for those who had to buy their dollar exchange in London, but this benefited chiefly those who were importers of luxuries. In order to limit the latter activities the McKenna duties were imposed. The period was one of rising prices and the cause is variously attached to the increase of note circulation, to the increase of credit, and to the successful demands of organized labour for higher wages. In March 1919 the exchange peg was removed and the pound fell rapidly to its purchasing power parity with the dollar. Foreseeing that a profit could be made by exporting gold after the peg was removed, the government immediately put an embargo on the export of gold, while at the same time permitting its importation. This regulation prevented what little free gold there was at the time from coming to England until the government granted a license for the reexport of newly imported gold. When the last of the peace treaties had been signed the embargo lapsed, but the Gold and Silver Act of 1920 made provision for the resumption of this control at any time within the next five years.

Anticipating the currency problems that would arise with the cessation of hostilities, the government appointed the Cunliffe Commission to study them. The Committee decided that inflation had resulted because the normal check, namely the exportation of gold, had been held in abeyance. They recommended deflation so as to bring about the restoration of the gold standard and proposed that the government begin to
reduce its indebtedness. They upheld the principle of the Act of 1844 and recommended the reintroduction of legal note issue restriction. While they decided that convertibility should be retained it was recommended that gold reserves should be centralized and the public should be discouraged from using gold coins.

For a year the government was not in a position to adopt any of these resolutions and meanwhile the post war boom began to take effect. Although prices rose the authorities applied the lessons of the Cunliffe Report by preventing inflation and discouraging the extension of credit. The inevitable collapse came in the fall of 1920 and the subsequent depression made it inadvisable to deflate further. By 1925, however, the sterling exchange had risen in terms of dollars to a point where the resumption of the gold standard was practicable.

The Gold Standard Act of 1925 provided for redemption for export purposes only, and in units of gold weighing four hundred ounces. Thus gold circulation was abandoned on the stabilization of the pound. Although the exchange value of the pound was at par, the internal price level had not adjusted itself to the new value of the pound, partly because of the rigidity of the British social system. This meant that British industry was to suffer in world competition because of higher costs, and as a consequence of the coal industry attempting to reduce these costs the General Strike of 1926 resulted. It seemed likely at the time that the
great industrial stoppage would drive Great Britain from the
gold standard, but it is probable that the "flight from the
1 franc" was instrumental in lessening the strain. Partly as
a consequence of the return to gold, Great Britain has suffered
a chronic depression in some of her important industries, but
it must be remembered that all these industrial ills can not
be attributed to monetary factors. The coal and cotton
2 industries, for example, have probably been more depressed by
influences peculiar to themselves than by monetary changes;
that is to say, oil has tended to replace coal, and eastern
competition has displaced Manchester in some of the world
markets.

Superimposed upon Great Britain's domestic difficul-
ties is the influence of the great international depression
which made its appearance towards the end of 1929. Faced with
these difficulties the British government created the MacMillan
Committee to study the problems and to make recommendations
for their solution. The Committee completed its task in 1931
and its report is probably the most exhausting analysis of
the situation that had been made up to that time, and some of
the findings and recommendations of the Committee are pertinent
to the subject of managed currency. The Committee was firm
in rejecting any suggestions involving a reduction in the gold
value of the pound. "International trade, commerce and


finance are based on confidence. One of the foundation stones on which that confidence reposes is the general belief that all countries will seek to maintain so far as lies in their power the value of their national currency as it has been fixed by law, and will only give legal recognition of its depreciation when that depreciation has already come about de facto. It has frequently been the case - we have numerous examples of recent years - that either through the misfortunes of war, or mistakes of policy, or the collapse of prices, currencies have fallen so far below par that their restoration would involve either grave social injustices or national efforts and sacrifices for which no adequate compensation can be expected. The view may be held that our own case in 1925 was of this character. The British currency had been depreciated for some years. It was obvious to the whole world that it was an open question whether its restoration to par was in the national interest and there is no doubt in our minds as to our absolute freedom at that time to fix it, if it suited us, at a lower par value corresponding to the then existing exchange. But it would be to adopt an entirely new principle, and one which would undoubtedly be an immense shock to the international financial world, if the Government of the greatest creditor nation were deliberately and by an act of positive policy to announce one morning that it had reduced by law the value of its currency from the par at which it was standing to some lower value." It must be remembered that the above extract

was written in the early part of 1931 before the suspension of gold, and does not now necessarily represent the opinion of all the members on the Committee.

The report recommends that in so far as Great Britain is able, she should influence the international price level to a point "a long way above the present level and then to maintain it at the level thus reached with as much stability as can be managed." The idea of management in monetary policy should be the guiding aim according to the recommendation. It is admitted, however, that international currency management is dependent on active central banking cooperation.

In addition to the general thesis as outlined above the Report presents a number of interesting details of which the more important are those concerning more freedom to the Bank of England, the economizing of reserves, and the improvement in the Bank's liquid position. This latter suggestion was intended to prevent the necessity of altering the discount rate when moderate gold drains threatened.

Valuable as were the recommendations of the MacMillan Committee, it is unlikely that Great Britain could have remained on the gold standard even if time had allowed their complete adoption. When viewing the work of the Committee after a two year interval it is clear that it under-estimated the international aspects of the problems which confronted Great Britain.

2. Ibid. - " 256, pp.110-111.
5. " - " pp.147-152
Prices throughout the world continued to fall until the middle of 1932, and it became increasingly difficult for debtor countries to meet their obligations. Great Britain found herself in the position of both borrower and creditor, a substantial part of her short term loans to South America, Germany, and other countries being merely reinvestments of foreign liquid balances deposited in London. Much of this liquid capital was used by the borrowers to take the place of long term loans which they were unable to obtain at the time, and consequently repayment would have meant economic collapse in the borrowing countries. Meanwhile liquid balances were being withdrawn from London to meet emergencies in other countries. The effect of these emergency withdrawals finally engendered a panic flight. Thus many small countries feared for the safety of their "gold exchange" balances and the flight from the pound developed rapidly. The Bank of England found it necessary to borrow 50,000,000 pounds, repayable in gold, from the Federal Reserve Bank of New York in July, 1931. This sum, however, was inadequate, and the Bank of England was forced to appeal to the government. The Labour Government under the influence of Mr. Snowden attempted to save the pound by further borrowing from New York or Paris, but the terms were so onerous that the Government was unable to effect them. It is thought that the terms included a drastic economy in unemployment expenditures, and this issue led to the formation of the present National Government.

The National Government instead of suspending the gold standard, negotiated a further foreign loan of 80,000,000 pounds. By this time, however, the flight from the pound had reached such a magnitude that gold had to be suspended in September. It was hoped that the fall in sterling exchange would help British industry, but any gains were largely negated by widespread gold suspension. At present there is little indication of a return to gold in the near future, because factors beyond the control of Great Britain would make a return to gold perilous in the extreme.

Clearly Great Britain's problems are merely a phase of the international depression, and any real solution must depend on international action. This is only being widely realized now, and it may bear fruit at the coming World Economic Conference. In the earlier stages of the depression remedies were purely national, and while they were of temporary benefit at the expense of other countries, the adverse influences of nationalist policies in the long run reflected on the countries which expected to reap the gains. Thus a vicious system of international trade stagnation is resulting from tariff and exchange policies designed to save the necks of the perpetrators, but in reality these policies are strangling the whole.

Even Great Britain has abandoned free trade, and the ultimate course of the world economic situation is left open to speculation. It is impossible to write a chapter on the monetary history and problems of Great Britain without becoming entangled with the problems of the international depression. Furthermore
it is impossible to form any final or satisfactory conclusions in view of present conditions. Up to 1929 the rocks in the sea of economics are reasonably well marked, but from 1930 the charts are indistinct and the shoals are more numerous.
Chapter XI

THE CLAIMS OF THE UNITED STATES DOLLAR TO BE THE BASIS OF AN INTERNATIONAL MEDIUM OF EXCHANGE.

The United States is generally referred to as a new country which is relatively unhindered by tradition. At first glance it might seem that this is an ideal prerequisite for the introduction of managed currency. Because of this very newness Americans have been so much occupied with their own problems that theirs is a distinctly national outlook. During the nineteenth century they erected a diplomatic wall around both Americas by means of the Monroe Doctrine which told the rest of the world to stay home with its guns. The queer thing is that the beneficiaries of American paternalism do not appear to be thankful. They even resent the intrusion of American Marines when it is obviously done to secure their liberty against villainous rebels. But why try to fathom the idiosyncrasies of Latins when practical measures will get results?

Apart from dipping into the fleshpots of international relations a few times, the Americans on the whole adopted the policy of rigid nationalism. Consequently we find the United States with a negligible "colonial empire" and without territorial spoils from the Great War. Her distinct national outlook is perhaps best manifested today by her consistent refusal to become a member of the League of Nations. Maybe the United States is wise to adopt this attitude, but it certainly does
not encourage the world to look to the American dollar for leadership.

The great wealth and diversity of economic interests has made the United States so largely self-contained that foreign trade and world markets will probably be for some time to come relatively less vital to her than they are to most countries. In order to build up internal industry the United States has developed a system of high tariffs to keep out competitive foreign goods, and at the same time has been encouraging her export industries to build up foreign markets. While the Americans may justify the policy, outsiders are resentful. It may not be too much to say that to a large extent her export policy is a luxury for which the taxpayers pay dearly in the form of shipping subsidies and the presentation of attractive mail contracts.

The American Constitution is composed of a set of rigid rules which proves to be very unsatisfactory in times of emergency, because if it is pressed too far it has a decided tendency to break without bending. The average American has an inculcated reverence for his beloved constitution and is usually resigned to wait while his clumsy political machine slowly remedies his grievance. Whether rightly or wrongly the world at large has not a deep respect for American institutions and diplomacy, and as long as this condition obtains the American dollar will prove an infertile basis for international currency. It may be pointed out that the world lacks a deep respect for Hungarian and Siamese institutions, but then, they
are not so important to the world's welfare. It may be that much of the world attitude towards the United States is based on fear and jealousy, but whatever the reason, it is likely to hinder many forms of international cooperation.

This same independent spirit has characterized American financial institutions to a marked degree. Two years after the formation of the national government the First Bank of the United States was formed. This bank was a central bank which had a meliorative affect on the wildcat policies of the numerous independent banks, and in the long run its conservative management and efficient control over the actions of the independent banks proved its undoing. A united opposition influenced Congress to abolish the bank when its charter expired in 1811. An orgy of wildcat banking ensued, and the result of the inevitable crash was the establishment of the Second National Bank of the United States. Its record of efficiency is similar to that of its predecessor, but political machinations ended it in 1836. From that time to the Civil War American banking history is one of general disaster, characterized by numerous failures and a multiplicity of unsound note issues. It is only fair, however, to point out that there were some banks, particularly in the older settled regions, that operated on sound banking principles during this period.

Partly as the result of the chaotic currency inflation of the Civil War the era of the national banking system made its appearance. State bank notes were taxed out of existence and their place was taken by the national bank notes which had
as their security government bonds. The system was one of thousands of independent banks totally devoid of central banking control. While the safety of the national bank notes was guaranteed their quantity depended on the amount of the government debt, and on the comparative value of bonds in relation to the interest return from the note issue. In other words these safe notes were perversely elastic and had no relation to the currency needs of the country.

The Federal Reserve system was inaugurated for the purpose of providing not only a sound currency but an elastic one, and to furnish a centralized banking organization. There are twelve federal reserve banks strategically located throughout the country. Each is incorporated, and its stock is held by the member banks which comprise all national banks and any state banks which choose to affiliate. At the head of the system is the Federal Reserve Board, composed of the Secretary of the Treasury, the Comptroller of Currency, and six other members chosen by the President of the United States subject to the approval of the Senate. Elasticity of note issue is secured by permitting the reserve banks to rediscount specified commercial paper in exchange for federal reserve notes. These notes are secured by a legal minimum of gold, together with commercial paper. Thus by altering the ratio of gold to commercial paper behind the notes, gold may be released or buried without affecting the value of the American dollar. Hence the Federal Reserve Act marks a distinct advance in American banking practice.
The new system has had to adapt itself to the war and post-war conditions. The original theory was that the Federal Reserve Board would adjust its discount rate according to gold movements and the ratio of its gold reserves to its liabilities. The war forced the Board to abandon the old ideal and to absorb gold without undue credit inflation. The result has been an artificial maintenance of the dollar. Gold is still accepted at its enhanced value so that the luxury of stabilizing the dollar according to the American plan is very expensive. As long as the value of gold is supported by the American dollar it will tend to find its way to that country. The United States could get rid of this surplus gold by inflation, but this would mean a reversal of the Board's present policy. Some Americans advocate the loaning of huge quantities of the metal to foreign countries, but this, too, would involve inflation and under present conditions the risk would be great. Another way to reduce this superfluous gold pile would be to reduce the dollar price of the metal, but it is unlikely that there ever would be a sufficient number of intelligent senators to pass a bill for this purpose. The American foreign trade policy will not allow her to trade gold for any great quantity of foreign goods, and it is unlikely that any country will buy much of it for burial purposes. I would suggest that it would be easier to change the law in regard to free gold minting and for the Board to quietly disregard the gold standard, except in so far as it is possible to settle foreign balances. And so it is, except for the modification introduced by the adverb "quietly,"
and the senators would not know the difference. If this were done much of this hidden gold would find its way into the arts and the dollar would not suffer.

Would the American banking system be able to control the value of a paper standard? What is the record of the Federal Reserve System in money management? During the war the Federal Reserve Board did not prevent a rise of prices in spite of the gold sterilizing policy. But to use that argument against the Federal Reserve System would be grossly unfair in view of the recency of the Act creating it and in view of those abnormal conditions. A fair answer to the above questions must be attempted from American post-war experiences. How are we to explain the boom of 1920-22? The answer to this question is probably to be found in the misunderstanding of the technique and use of the discount rate in credit control. To a certain extent the Board is to be blamed for a tardy upward revision of the rate but probably the most important reason for the boom was that the bank rate failed to have the effect that was expected. It simply did not act in the same way as a change in the British bank rate does. The true explanation for this anomaly is to be found in the different use to which central banking rediscount facilities are employed in the American system as compared to the British. When the Federal Reserve System was established it was not appreciated how necessary to Central Bank control was the English technique which secured that the advances of the Bank of England to the joint stock banks should be normally nil. Thus the Bank of England rate
is normally higher than it pays to rediscount with it so that when the country banks find it necessary to strengthen their reserves they must withdraw credit from the market, while the American member banks can rediscount and strengthen their reserves without interfering with the flow of credit. The Federal Reserve System implies that rediscount will be the normal thing and as a consequence it has been made easy for member banks to use these facilities. Perhaps the ultimate cure for this difficulty will be found in the abandonment of the commercial paper reserve for Federal Reserve notes. It must be noted, however, that this explanation is not universally accepted, and some writers have even used this period of rising prices to discredit the quantity theory of the value of money.

From 1923 to 1927 inclusive, the price level of the United States was reasonably stable and some consider this a triumph of the Federal Reserve System. This triumph, however, has been reduced by the disastrous boom of 1928-1929 and the subsequent depression. Some blame a low discount rate, some blame gold inflation, and some find other influences which they blame. Undoubtedly the causes are highly complex, but it is improbable that the Federal Reserve System could have completely controlled the situation in view of its inadequate powers.

Since 1925 there has been a growing tendency of the member banks, especially those in New York, to use rediscount facilities for short term credits only. Then again, there has

been a growing disinclination for member banks to be in debt to the Federal Reserve Banks because they fear an adverse influence on their prestige. Thus a bank tends to lend more freely when its debt to the central bank is low and to restrict credit when its debt is high. Mr. Riefler has shown that the extent of member bank indebtedness has a greater effect on interest rates than has the discount rate. It would be very profitable to determine more accurately the effect of bank indebtedness on the volume of demand deposits.

In conclusion we may note that there is a reasonable doubt as to the ability of the Federal Reserve System as at present constituted to control credit. The effect of the discount rate is uncertain because it depends on the cooperation of thousands of member banks. Is it reasonable to suppose that these member banks will act as a body when it is desirable to exert central banking pressure on credit and on the markets?

The prospects of the United States adopting a managed paper standard are not very favourable because of her gold problem and because of the conservatism of her people. It is suggested that the American policy of isolation will keep her out of any arrangements which will peg her currency to sterling. When and if managed sterling becomes international we may expect to see the United States in much the same position as she is to the League of Nations today.

New York as an International Money Market.

As previously remarked the war resulted in the acquisition by the United States of many foreign securities formerly held in Europe and has made the United States the greatest creditor nation. This meant that New York was in a position to lend money on a large scale and necessitated the development of foreign departments in many of the important banks. While their experience does not equal that of the British institutions, great strides have been made to overcome this difficulty. Perhaps the chief disadvantage under which New York labours is the lack of a public which is willing to invest in foreign securities. During the period from 1923 to 1928 American bond houses did succeed in disposing large quantities of foreign issues to the investing public, but these were largely resold abroad when the Wall Street boom attracted funds. Even when foreign securities were selling at their best, American houses found it necessary to dispose of large quantities in Stockholm, Amsterdam, and other centres.

The boom of 1928 and 1929 changed New York from a lending to a borrowing centre, which had the effect of weakening her international supremacy. The slump of 1929 further weakened New York's position in the international market by forcing her attention on domestic problems. Many of the American banks found that their margins on brokers' loans had disappeared and they were left in the position of holding frozen assets. If liquification were attempted with these assets a further decline in security prices would ensue, so that their only alternative.

at present is to hold them. There is now a plethora of foreign bonds on the American market and it seems unlikely that the investing public will absorb many foreign securities for some time to come. It is unlikely that New York will in the proximate future become the leading financial centre because her domestic problems will swamp international interests. When economic recovery has taken place New York will again be an active factor in international finance, but this interest will be spasmodic because of the national situation. The American public, in this generation at least, will be interested in speculating in steel in preference to investing in Chilean Conversion bonds. International finance must in the long run depend on constant interest rather than sporadic.

Cooperation between New York and London.

While New York and London were struggling for financial supremacy the story of their mutual relations is most gratifying. New York has always been most generous when it came to sacrificing a national gain for the sake of international stability. This cooperation was partly due to the cordial relations that existed between Mr. Montagu Norman and Mr. Benjamin Strong, late Governor of the Federal Reserve Bank of New York. The latter realized that the financial rehabilitation of Europe was more important to all concerned than a temporary advantage to dollar credits. In 1925 New York granted substantial credits to stabilize the new British gold standard, when

1. The Economist, May 9, 1925.
their withholding would have helped dollar supremacy in the international money field. Also there has been in several instances mutual cooperation on discount policies. On the whole New York has been relatively free from political influence, and in the cases when political motives affected foreign credits the primary purpose was economic. Until 1927 New York was probably the premier financial centre and it was in that year that Governor Strong enacted the last of his friendly measures in support of sterling. In order to prevent a rise in the London discount rate he lowered the New York rate. The late Mr. Strong has been severely criticized in some circles for his last act, because it was thought that this was the cause of the Wall Street boom. It is very unlikely that this had much influence, but somebody must be made the goat and dead men do not protest very vigorously. When the boom attracted foreign funds their great volume threatened the European exchanges and embarrassed the New York market. Several times London relieved the situation by raising the discount rate.

It is pertinent to note that most monetary thought of the present day bases its conclusions on continued cooperation


3. Laughlin, J. Laurence - "Money, Credit and Prices, Vol.II.

between London and New York. It seems to me, however, that it is unwise to consider as permanent the experiences of a decade. The Genoa Resolutions depend on this cooperation for their effective consummation; so, too, do the ideas of Messrs. Hawtrey, Cassel, Edie, and other conservative reformers.
Chapter XII

THE CLAIMS OF THE FRANC TO BE THE BASIS OF AN INTERNATIONAL MEDIUM OF EXCHANGE.

France as the world's third creditor nation, her superior liquid foreign resources, and her special position with respect to Europe, entitle her to be considered in a treatment of international currency. Unfortunately there is an air of mystery surrounding recent French financial policy, which to a certain extent complicates a consideration of her claims. Perhaps it is not so much a matter of mystery, as it is a matter of misunderstanding, which leads to so many confusing interpretations of her policy. The facts as such are clear, but the pattern which they form is complicated by the varying amount of stress which different writers place upon them. With this preliminary caution it should be possible to develop a reasonable explanation of some of the more obscure issues, and in particular to give a satisfactory treatment of the French gold problem.

With reference to her position on the Continent, France enjoys certain advantages which support her claim. This Continental influence results from her policy of establishing defensive alliances or understandings. Before the war her Russian ally was the chief benefactor of this policy, which was manifested by substantial French loans. Since the war a

number of the new European countries have benefited at the expense of those countries beyond the pale of the new Entente. Consequently France has been accused of exerting political pressure in the French money market, and while there may be nothing wrong with this policy from a political standpoint it reacts against the franc in those countries not benefited.

It is claimed that French banks tend to reflect political disagreement, and it is not difficult to show that in the past few years gold has been withdrawn when Anglo-French relations became strained. In June, 1929, Mr. Snowden's anti-French attitude was followed by the withdrawal of gold; and again at the Hague, Mr. Snowden's disagreement with the French representatives was followed by similar action. When the Paris Conference of Reparations Experts threatened failure the rediscount rate on German bills was raised and credits were recalled. The same situation arose when the National Socialist Party in Germany was victorious. These four examples are quoted by Mr. Einzig as a proof of the malicious influence behind the French money market. He may be right, but it is suggested that a more likely explanation can be found. It is more probable that France had economic reasons for withdrawing funds from London rather than from New York; for example, it may have been thought that the prospective remuneration for liquid balances would be more favourable in New York. Similarly

3. The Economist.
there are other interpretations of the German illustrations if one is prepared to look for them. The failure of the Reparations Conference would certainly react unfavourably on the German economic situation and it is not unnatural that the French banks showed concern. The consequences of the German election are easily explained if we choose to associate the ideas of socialism and nervous capitalism.

The war dealt the financial organization of France a serious blow, and as is well known the franc was at the mercy of speculators from 1919 to 1926. The greatest bear influence on the French exchange during this period was the flight from the franc, and it was only checked when it appeared that France was about to deflate. The franc was not stabilized at the pre-war par, however, and France made handsome profits in catching many of these speculators. With the stabilization of French money the flight of capital was reversed, and the exchange went heavily in favour of France as thousands of Frenchmen repatriated their foreign funds. The French banks, however, decided that it was to their advantage to leave a substantial portion of these funds abroad in liquid form, so that the net result to these foreign balances was just a transfer of control from numerous small investors to a small number of banks.

The foreign liquid resources of France have been a constant worry to the central banks concerned, and to the financial world at large. A sudden shift of these credits from one centre to another upsets the foreign exchanges and
may prove embarrassing to the markets affected. As a consequence of this danger the central banks of the centres in which these balances are maintained are forced to keep abnormally high reserves and to maintain a very liquid position. The MacMillan Committee took cognizance of this possibility when it recommended a more liquid position to the Bank of England. France has been severely criticized for not investing her liquid assets in long term securities, and because she has failed to do this it has been hinted that there is some sinister political influence behind the French policy. In considering the situation from the investing angle, however, it is perhaps not unreasonable that France was hesitant to invest in long term securities when it is remembered how uncertain post-war financial conditions were, and in view of the existing economic conditions it is not difficult to understand the French attitude toward long term loans.

Perhaps the accumulation of the French gold reserves has excited more comment and suspicion than any other factor in French financial policy. Most people find it easy to explain the American reserves because the reasons are clearly associated with war financing, but they find it difficult to understand how France accumulated so much gold in the last five years. They remember the French war sacrifices, the chaotic franc, the French war debts, and find it impossible to reconcile them with

3. Einzig, Paul -
the new gold reserves. It is small wonder that so many suspect France of using shady methods to build up a war or political chest. While there may be an element of truth in this popular view, the situation can be explained without presupposing France to be a buccaneer among the nations.

In an attempt to find a reasonable explanation of the French gold imports it is best to start with an examination of those forces which would tend to cause a flow of gold to France. First, it will be remembered that France is an important creditor nation and in consequence gold would tend to flow to France. According to the well known Classical doctrine gold imports tend to be reflected in higher prices, which in turn lead to conditions favourable to the export of the metal until equilibrium is again restored. But in France gold imports have not led to conditions favourable to gold exports. Is it because France deliberately sterilized gold as claimed by some, or is it an effect of economic and banking conditions? If the economic and banking situation is responsible for French gold accumulation, how did it counteract the tendency for gold to leave France? This unusual consequence of gold imports can be explained on several grounds, namely, (1) tariff increases which tended to limit French imports and consequently foreign claims on France, (2) an abnormal demand for gold in France, (3) the rigidity and undeveloped character of French banking which would tend to limit the effect of gold imports on prices.


and (4) the Wall Street crash reduced the wide margin between domestic and foreign short term interest rates, which made it less attractive to maintain funds abroad. All of the above factors were influential in attracting gold to France, but it is probable that the immediate cause was the demand of the provincial banks and of the Bank of France for gold to strengthen their respective reserves.

As soon as the franc was reestablished the Bank of France commenced to increase its reserves by direct withdrawals from London. This drain, however, was stopped when the central banks agreed not to interfere with each other's reserves at the Washington Conference of Central Banks in August, 1927. This agreement, of course, did not affect the powers of the French joint stock banks to draw from abroad to strengthen their own positions. The underlying reasons behind the demand for gold on the part of the joint stock banks are several, namely, (1) the desire to strengthen their reserves as indicated above, (2) the desire to draw on foreign balances rather than to rediscount with the Bank of France in periods of money stringency, and (3) the inflationary character of the Government savings bank which led to a demand for reserves to cover the swelled deposits and currency. The reason for the unwillingness of the French joint stock banks to rediscount with the Central Bank is traceable to competition of the former with the latter. The Bank of France has numerous branches throughout the country.

1. The Economist, June 11, 1927.
which come into direct competition with the business of the other banks. When the provincial banks required more currency notes there were two methods of obtaining them, namely (1) borrowing from the Bank of France against their commercial paper, with the obvious disadvantage of acquainting a competitive institution with their private business, or (2) cashing their foreign resources and exchanging the gold received for bank notes at the Bank of France. The inflationary character of the Government savings bank, the "Caisses des Depots et Consignations," is due to a combination of factors. Almost all savings accepted by this institution are invested in government securities, and the debt redemption activities of the government tend to turn the savings back into the hands of the rentiers who tend to redeposit the proceeds in the savings bank. The vicious circle continues to swell deposits and currency, which in turn leads to a demand for gold to swell the reserves. Even though much of the increased currency is sterilized it has its affect on the volume of gold imports.

Why have not these huge gold imports affected credit conditions and the price level to a greater degree? First, the banking system of France is so poorly articulated, and commercial banking has developed to so small an extent, that cash reserves only slowly stimulate increased bank credit, and secondly, the French peasant has a tendency to hoard. The

importance of the second factor is debatable, and many author-


To many observers it seems that France has an
desirable demand for gold, and it is apparent that if the
drain continues it will have a serious economic consequence
on the rest of the world, but what can be done about it?
First, nothing can be done, with the hope that ultimately
there will be a reaction on the French price level which will
reverse the flow. The obvious objection to this laissez faire
attitude is that the corrective may come too late. Secondly,
widespread investment in foreign countries would help to
relieve the difficulty. There are, unfortunately two serious
obstacles to plan, namely, (1) the uncertain outlook for long
time investments under present economic conditions, and (2)
the disinclination of the rentiers to foreign investing after
their recent unfavourable experiences. Thirdly, it has been
suggested that the Bank of France engage in open market activ­
ities. For example, if the Bank could purchase acceptances
and securities the additional currency circulated would relieve
the provincial banks from the necessity of importing gold to
cover their currency demands. The difficulty with this suggest­
ion is that the Bank of France is by law powerless to engage in
such activities, and there is little prospect of a change in
sentiment that will be favourable to these operations. Fourthly,
the situation would be helped if the Bank of France increased
its balances abroad, but this would be undesirable because it is considered that they are already too large. A fifth suggestion is more encouraging, namely, cooperation with the Bank of International Settlements. By this means it is proposed that deposits be placed to the credit of the Bank of France in the Bank of International Settlements. In the last analysis this suggestion is merely a device for evading the laws that make the Bank of France powerless to prevent gold imports.

The rigidity of the Bank of France's statutes has rendered the Bank open to very unfavourable criticism. In June, 1930, the Bank of England discontinued the paying out of bars of fine gold because the supply had been depleted, and the Bank of France refused to accept bars of standard fineness. This meant that gold had to be refined before it was acceptable, and since only a limited amount could be refined in a given time, the gold point was lowered. The French official explanation is that bars of standard fineness were unacceptable because of minting regulations. It has been contended that these regulations could have been changed, and that since French coins were of inferior fineness to standard gold no additional burden would have been imposed in minting the bars. From this incident it has been inferred that England was the victim of a French attempt to weaken sterling. On the other hand the view may be held that it was a friendly act designed to relieve

the pressure on the Bank of England's reserves.

It is unlikely that France has pursued a deliberate policy calculated to upset the money markets of the world (and particularly that of London) as her policy can be satisfactorily explained on economic grounds. The reader was warned at the beginning of this chapter that we could interpret the facts in such a way as to make France appear a ruthless buccaneer, or an innocent victim of economic forces. In this paper we will leave the former interpretation with Mr. Einzig, and will base our conclusion, with some modifications, on the latter. Undoubtedly the course of events could have been better controlled if the Bank of France had been given some of those powers which are essential to a modern central bank. While it is admitted that the French people are conservative and would be unwilling to give wide powers to their central bank, some concessions could have been made which would have given the bank greater powers to deal with the situation, yet which would not have required them to surrender their cherished control. However, in making the above statement, it must be remembered that the French have their own views, and in respect to the statutes governing the Bank of France these views are of more importance than those of foreign economists. For example, some French circles have justified the limitation of credit on the grounds that it has kept the discount rate from falling.


Thus it is claimed that the loss of interest on the gold reserves was largely made up by the earnings of the higher discount rate.

What are the claims of the franc to be made the basis of an international currency? The chief claim is that France is the financial centre for a number of Europe's new countries. Apart from this there is little to be said in her favour. In the first place she lacks modern central banking facilities, and secondly, her gold position makes it advantageous for her to maintain the value of the metal. Thirdly, a suspicion as to her financial integrity has been widely circulated, which, even though it be founded on misunderstanding, is opposed to her claim.
Chapter XIII

THE POSSIBILITIES OF Managed Sterling
AS AN INTERNATIONAL MEDIUM OF EXCHANGE.

The British Labour Party is at present (September, 1932) considering a platform which shall include as one of its planks the policy of initiating the system of managed currency. To a certain extent that which appears to be an academic curiosity in the United States threatens to be an election issue in Great Britain. Whether the Labour policy will include deflation to the gold par before it considers managing the currency, will depend largely on the British industrial situation. There are many indications that sterling will be the first managed currency and it is likely that gold will for some time to come play an important role in the experiment.

Before managed sterling can be made the successful basis for an international medium of exchange it will be necessary for those countries which wish to peg their currencies to sterling to begin by managing their own houses. Supposing that the countries involved have managed currencies, what is going to be the effect on the exchanges? According to Professor J.M. Keynes "the foreign exchanges will be allowed to look after themselves, and from day to day to fluctuate in accordance with the seasons and other irregular influences."

It is my purpose to show how a large element of exchange stability is consonant with price level control. Before I continue it will be well to consider what is implied in the phrase "exchange stability." It is not claimed for a moment that it is desirable or possible to secure eternal exchange stability. It is admitted that circumstances, such as different rates of national progress, may cause it to be desirable to alter the pegging ratio of two national currencies. All that is claimed for exchange stability is relative freedom from fluctuation for a reasonable period of time, which in some cases may last for a period of years.

It has long been considered that currency regulation is a national responsibility, and I propose to extend the idea of national responsibility to cover the regulation of the exchanges. The first proposition, then, is to make the regulation of the exchanges a social service. In order to guard the exchanges from seasonal and irregular influences it is proposed that government funds be established to support the exchanges when they tend to fall.

Under unusual circumstances the demand for foreign exchange may threaten to drain the stabilization fund, and as a consequence some method must be devised to secure this fund against such a contingency. An unusual disturbance of the above nature might be occasioned by an invention or a change in fashion or taste. A chance alignment of bear influences might also be the occasion of such a temporary disturbance, which would not justify repropegging at a different ratio.
Repegging would correct the disturbance for the time being but would not replenish the stabilization fund, and as soon as the disturbance had ended the pegging ratio would again have to be altered.

It is suggested that a severe temporary demand on the stabilization fund be met by the imposition of a graduated tax on all foreign exchange. It is claimed that this device would divert the profits that usually fall to the exchange speculator into the stabilization fund, and as a consequence the fund would tend to be self-perpetuating. Furthermore the incidence of the proposed tax would fall on the consumers of foreign goods so that in the long run those who would gain most by exchange stabilization would bear the greater part of the cost. It is not expected that this tax would be the ordinary condition of affairs, as it is designed to meet emergencies of a temporary character. If a change in the character of a country's industry or living standards were to create a permanent change in the demand for foreign goods and services, it would be desirable to repeg at a different ratio.

A concrete example of the effect of the proposed exchange tax will make the above clearer. Suppose that country 'A' develops a more insistent, although temporary demand for the products of country 'B', with the result that the stabilization reserves are being endangered. In order to prevent this, country 'A' places a tax on all purchases of foreign exchange and the amount of this tax is determined from a consideration of the quantity of exchange demanded, or likely to be demanded.
The tax tends to reduce the demand for all foreign goods including those from country 'B', and it acts in exactly the same way as if the market forces had been allowed to raise the price of foreign exchange, with the exception that the profits go to the state rather than to the speculators. The result, then, is that foreign goods become relatively more expensive in country 'A', and in order to prevent a rise in the general price level this country deflates its currency, or restricts its credit, or does both. It is not proposed for a moment that a tax of one percent should be applied to the exchange of country 'B', two percent to the exchange of country 'C', and none at all to the exchange of country 'D'. If the exchange forces should tend to go against a country as manifested by an abnormal run on its reserve for purchasing its own exchange, an equal tax on all foreign exchange would correct the disturbance without operating in the manner of a preferential tariff.

The device for controlling the exchanges as developed above, however, is by no means the only method, and indeed, may not be the most desirable under certain circumstances. Recently the Australian Government has influenced the exchanges by (1) enforcing a prescriptive right to all foreign exchange offered, and (2) by placing embargos on the import of a number of commodities. The South African Government has attempted to control the exchanges by limiting the quantity of foreign exchange that can be purchased by any one particular interest. These latter devices are open to the obvious criticism that they are not impartial and are even discriminating. In actual
practice, however, it may be desirable or necessary to supplement an exchange tax by one or more of these other controls.

Having outlined the theory of a device for securing exchange stability between managed currencies, it might be desirable to consider some of the practical aspects of setting up machinery for control. The most perfect device would consist of a central authority with full power to regulate the economic life and policies of all the countries concerned. It would involve control of tariff relations, taxation, and many other national details, which would be almost impossible for any country to consider. This plan clearly belongs in the realms of international Utopias. A more reasonable plan is that of central banking and treasury cooperation. Mr. Gregory admits that this might be desirable for those countries which have extensive economic relations with London, but he believes that the Dominions, in particular, would resent any measure of control by Great Britain in the same way as they resented political control by Downing Street. It is not hard to agree with him that the difficulties involved are "real," but his principal point of criticism is hardly logical. In the first place economic cooperation is far from political control, as it involves freedom to withdraw and makes provision for all concerned to share in that control. Secondly a Dominion might well enter into a currency union if it were thought to be advantageous to it, while no Dominion would see an advantage to

political control. The two situations, to my mind, are hardly comparable. In considering foreign unions with sterling, Mr. Gregory stresses the problem of nationalist sentiment, and while that factor is important, the liberty to withdraw would largely mitigate this objection. The very idea of an international currency union presumes that a country would not desire to become a member unless there were material advantages to be gained.

It might be objected that the different national economic interests would preclude a lasting currency union. For example South Africa wishes to maintain the value of gold, Canada may wish to maintain the dollar at a high external value because of her relations with the United States, and Australia may wish to place a low value on the pound because of her debtor position. This objection may be answered by saying that any member of an international currency union can establish its par with sterling at the existing rate. Mr. Gregory further objects that countries like Australia would find it to their advantage to inflate and alter the par. It is difficult to see the force of this objection when it is remembered that those countries have the same liberty to inflate whether they are in a currency union or not. Possibly these objections are based on a misunderstanding of the aims of a currency union, because he tends to regard the par of exchange as some inviolate ideal, which cannot be altered without destroying the union. Obviously it would be undesirable to maintain a permanent exchange par, and in truth it would be
impossible if national currencies were truly managed. A lowering of the pegging ratio would create a hardship on those who had to make foreign remittances, but, on the other hand, capital would migrate much more freely in the form of loans if it were assured that it would be repaid in the national managed currency.

What are the chances of an imperial or international managed currency union based on sterling? In a large measure they are dependent on the decisions to be made at the International Economic Conference which is scheduled to meet in April 1933. If radical changes are made in war debt and reparations policies and in tariff and gold policies, there is great likelihood that the gold standard will be reestablished. These changes will involve a great reduction in war debts and tariffs, and the release of impounded gold. In other words gold will have to be redistributed and its movements must be permitted to manifest their usual economic consequences. The concessions that would have to be made by the United States and France are so great that it is questionable if they would be of sufficient magnitude to renew the life of the gold standard.

If the changes to be effected by this Conference are not great, it is likely that the world will be divided into two camps as at present, namely, those who adhere to gold, and those who are on an inconvertible paper basis. The probable

consequences of the present system, if not altered by this Conference, will be a strengthening of currency management and the ultimate adoption of a currency union based on sterling. Once such a union were started its growing importance would draw many other inconvertible currencies into the fold. The United States and France would probably be the only remaining gold standard countries.
Chapter XIV

THE CANADIAN SIDE OF THE PROBLEM

The Canadian bank note issue has always been noted for its elasticity. Banks are permitted to issue notes based on their assets to the extent of their paid up capital and additional quantities must have as their security government notes or gold. An exception to the above rule is made during the crop moving season (September 1st - February 28th - 29th) when the banks are allowed to issue excess circulation to the amount of 15% of their combined capital and reserve funds. This excess circulation is subject to a 5% tax. The Banking system comprises less than a dozen branch banking institutions and because of keen competition each bank tends to push the circulation of its own notes, and to present the other bank notes which it receives in the course of business for redemption. These two opposing forces guard against note inflation, yet at the same time cause the public to have all the notes which it demands.

The weakness of the Canadian banking system is to be found in the absence of a central bank, although this weakness has not manifested itself in a glaring fashion because of close inter-bank cooperation. Thus if it is advisable for Canada to go off the gold standard at any time the tacit agreement of the
banks not to ship gold may bring about the desired result without the intervention of formal measures.

While the system works admirably as far as note issue is concerned no check is effective for the control of credit. Thus if one bank feels that credit is being extended too freely it can only retrench at the expense of losing customers to its competitors. Obviously no bank is run on such highly altruistic principles. To give Canada credit stability a central bank patterned somewhat after the Bank of England is sadly needed. The English Central banking system would satisfy Canada's need much better than would the American Federal Reserve system, because the latter is designed for the pooling of much scattered small reserves. That condition does not hold in Canada because Canada is essentially a land of big banks with nation wide interests. If a central bank were established to control the discount rate it is likely that the currency side of the problem would be largely self-regulating.

What are the prospects for a Canadian central bank? Up till the present popular demand for the establishment of such an institution has been increasing and a growing body of public men is supporting the reform cause. The banks, however, are unanimous in their opposition, and in recent reports to shareholders and to the public, special mention is made of the undesirability of a Canadian central bank. Usually it is argued that a central bank is not necessary to the Canadian banking system and that it may actually result in harm. No details of the harm that might arise, however, are given and
the public is left to draw on its imagination as to the possible nature of these evils. Obviously a Canadian central bank might lead to a restriction of freedom and to greater supervision, but it is likely that the Canadian banks are fearful of super-control and tend to underestimate the gains which would accrue. It is to be expected that the Canadian banks will continue to oppose central banking reform, and their success will depend on the trend of public opinion and on the trend of economic conditions as they affect Canada.

An alternative plan that may be suggested is that of control by banking and Treasury cooperation through a special department to be established in the Canadian Banker's Association. This department would be entrusted with the collection of relevant statistical data and be responsible for the determination of current policy; and any decision made by this department would be binding on all member banks. It is not proposed that such a system would replace a central bank, but if the establishment of a central bank were successfully opposed, some measure of monetary control could be effected by this arrangement.

At present Canada is buffeted between her American dollar and sterling interests. One section of opinion favours inflation to such a degree that the Canadian dollar could be pegged to the paper pound at the traditional ratio, while another section is in favour of maintaining the external value of the Canadian dollar at a high level so that it can be restored to a par with the American dollar. In the long run
it will probably be to Canada's advantage to peg to the pound at such a ratio that her dollar will be approximately equal to the American dollar. If a managed Canadian currency were pegged to the managed pound, it is likely that it would have an adverse effect on American loans to Canada. On the other hand, it is likely that recent unfavourable exchange experiences will tend to make Canadian loans, in so far as possible, payable in Canadian money.
Appendix A

A CONSIDERATION OF SOME POSSIBLE OBJECTIONS TO THE PROPOSED EXCHANGE TAX.

On first consideration it might be thought that the proposed exchange tax would be liable to abuse by revenue seeking finance ministers. Such a fear, however, is groundless, as abuse of this measure of exchange control would bring about automatic retaliation. An example will make this clearer.

Suppose that the minister of finance of country 'A' conceived the idea of augmenting public revenue by an unjustified tax on all foreign exchange. In respect to the volume of trade the new tax would act in the same manner as an increased tariff. Since this excessively high tax would make it impossible to clear the available supply of foreign exchange, the surplus would be offered on other exchange markets, which would act as a bear influence on all foreign exchanges. Automatically those countries which were affected by the new tax would have to protect their stabilization reserves by taxing all offerings of foreign exchange in their own markets. In this manner a new equilibrium would be established with a diminished volume of foreign trade, and it is likely that the gain from the exchange tax would not equal the loss in other taxes whose amount is directly dependent on the volume of trade. Foreign goods would be relatively more expensive in all the countries involved by
the new taxation. Foreign exchange taxation for revenue purposes differs from customs revenues in that the former offers automatic retaliation while the latter does not. Thus exchange taxation is not likely to be abused by intelligent finance ministers, but there is always danger of temporary disturbance to the exchanges by the action of unintelligent ministers. Probably the best way to make exchange taxation foolproof would be to place the power in the hands of the central banking authorities, or even with an international bureau.

It might be argued that the tax could be evaded by borrowing funds or selling securities in a foreign market in order to secure foreign exchange, and that as a consequence the tax is inapplicable. It is true that the tax could be evaded in this manner, and furthermore such an evasion would not be in itself undesirable, because the tax is not designed for revenue producing purposes. Let us first consider the above "evasion" in the light of the present system. If foreign exchange rises in response to an increased demand a person may evade the exchange premium by borrowing abroad or by selling securities for foreign funds. The net effect of his deal is to tend to relieve the demand for foreign exchange and to tend to lower the premium. My suggestion involves the substitution of a tax for the premium, and if a person were to evade the tax by borrowing foreign funds he would tend to relieve the pressure on the stabilization fund and influence forces which would tend to lower the tax. The economic effects would be the same in either case, but, of course, the person who evades the tax or
premium is gambling in futures.

Another case to consider is that in which the demand for foreign exchange is largely inelastic. A case of this nature must be considered abnormal as it would most likely arise under unusual circumstances such as (1) a nation wide economic catastrophe, e.g., a crop failure, (2) the imposition of an indemnity, and (3) national disorders consequent to inflation or to cumulative government deficits represented by foreign loans. In all these extreme cases the only solution would be to repeg the national currency at a lower ratio. Under the present system the same thing is effected by abandoning the gold standard. The scheme that I have proposed is not meant to cover chaotic conditions as in the case of fiscal mismanagement, nor is it meant to solve the Young reparations dilemma. In the cases of (2) and (3) they may be so extreme that it would be worthless to aim at exchange stability. In the case of (1), however, a disturbance may reasonably be expected to be temporary, as it is very unlikely that national crop failures would prevail for many years in succession. Temporary repegging would probably be the best solution for a disturbance of the latter nature.

The recent experiences of Australia will best serve as an illustration of disturbances of the above nature. Australia, perhaps more than most countries, underwent a period of rapid expansion, piled up cumulative deficits, and borrowed freely from abroad to cover them. When the slump came in 1929, Australia, like other countries, found her domestic industries
and foreign trade severely crippled. Australia, however, unlike most countries, had excessive fixed charges to meet abroad. Since these charges formed a large part of her demand for foreign exchange it may be said that her demand was relatively inelastic. If Australia and a large part of the world had been pegged to a managed standard, such a condition, in so far as it was caused by controllable factors, would not have occurred. If Australia's plight had been caused by a natural calamity, or by the imposition of an indemnity, the illustration would have been more valuable for our purpose.

In conclusion we may state that the proposed exchange tax would find its primary employment in controlling a temporary demand of an elastic nature. If a new demand for exchange (such as might be caused by the imposition of an indemnity) is inelastic, the tax is not applicable. It must be remembered that this emergency tax is designed to fit certain situations, and that it must not be attempted to bend every situation to fit the tax. Furthermore the tax does not involve a change in the economic system. The economic consequences would be just the same as before, arbitragerers would still make their profits, and it is possible that a few of the old exchange speculators would find their way into the grain pits.

So far as I can see this appendix answers the most likely objections to the employment of exchange taxation as an emergency measure for exchange stabilization.
Appendix B

A DETAILED CONSIDERATION OF SOCIAL JUSTICE
IN RELATION TO THE SELECTION OF PRICE INDEXES.

This appendix is designed to give a more detailed account of alternative opinion on price indexes than was desirable in the main body of the text. Manifestly the object of price level stabilization is to secure industrial stability and at the same time to render justice to debtors and creditors. The difficulty is that the idea of general stability is inconsistent with innumerable independent variables, and all that really can be done is to choose for constancy one real or composite variable. As a consequence numerous choices are in fact made, but any preference is largely a reflection of the particular interests emphasized by those who make a selection. Then, too, there is a difference of opinion as to what constitutes social justice as between creditor and debtor. In view of the variety of reputable opinion is it any wonder that bankers are shy of managing currency which purposes to stabilize a will-o'-'the-wisp?

One school of thought insists that creditors should be repaid a sum of money of equal purchasing power to that which they loaned. Another school insists that social justice demands that creditors are entitled to share in relative social gains and to bear their proportion of relative social loss.
That is to say, if per capita production is declining or increasing the rentier should be repaid less or more purchasing power as the case may require. This ideal could be accomplished by stabilizing the level of per capita money incomes. If money incomes were stabilized and due allowance were made for changes in population, prices would tend to fall with increasing industrial efficiency, and the average money income would have a greater purchasing power. A modification of this plan is to be found in the suggestion of money-wage stabilization. If money-wages were singled out for stabilization, stability would tend to be reflected in other forms of money incomes, so the real difference between the plans is small. It is doubtful, however, if organized labour would consider the idea favourably.

Mr. Carl Snyder's Index: This index has the advantage of being representative of all the commodities and services that are bought and sold. It is composed of four divisions, namely, 1 wholesale prices, 2 retail prices, 3 wages, and 4 rents. Obviously the index is not weighted to favour the particular interests of creditors, as it was designed to measure fluctuations in the value of money. Some economists favour this index as being generally the most satisfactory for stabilization.

The Cost of Living Index: Since creditors as well as others are consumers, it is claimed by Mr. W.I. King that it is to the long run advantage of creditors to have the price level of

consumption goods stabilized. He is fully aware that the interests of all consumers are not the same, and as a consequence his cost of living index is a weighted average representative of (1) urban employees, (2) farmers, (3) farm labourers, (4) families spending $5,000 per year, and (5) families spending $25,000 per year.

Stabilization of the wholesale commodity price level: This index is the favourite of the monetary reformers for reasons which will be considered later. It is clearly a production index and leaves out of consideration the costs of distributing and marketing.

Stabilization of Wholesale Prices of Freely Reproducible Commodities: This suggestion is made by Mr. Hudson B. Hastings who claims that land rent or any income from scarce natural resources should not be included in a price index. It is claimed that gains or losses through changes in technological efficiency should not be shared by the owners of natural resources. One is tempted to conclude that Mr. Hastings is one of those people who still make a sharp distinction between land and other forms of property.

The above plans have been considered in order of diminishing advantage to the claims of the rentier. From the standpoint of business stability, however, there is almost unanimous agreement that the wholesale commodity price index is in the long run the most suitable. In the short run, though,

It is by no means the best. It is possible to make a wholesale index that will react to the credit cycle very closely, and likewise it is possible to make one that is comparatively impervious to credit cyclic influences. The latter is chosen as the most suitable index for price stabilization by Mr. A.H. Hansen of the University of Minnesota, because he believes that it would modify the extremes of the business cycle, yet would permit some cyclic variation which both he and Mr. D.H. Robertson hold to be desirable in a dynamic society.

Up to this point this appendix has been merely a history of conflicting opinion. I am going to venture a few conclusions of my own. In the first place all the above mentioned writers assume that there is one best index for their purpose, but this is not necessarily true. It is conceivable that an index which might favour the rentier at one time might not do so at another. For example the losses through default might outweigh the gains to be derived from securing the right to be repaid an equivalent purchasing power, and under different circumstances the gains might outweigh the losses. It is indeed difficult to conceive a concrete example unless depreciated currency is supposed, but such a consideration is not impossible. Secondly most of the above writers have fallen into the error of Mr. Irving Fisher by making stabilization of a selected index their ultimate goal, instead of considering an index as a guide.

I would suggest that all of the above price indexes have their place in currency management. To my mind stabilization of Mr. Snyder's index would be the most equitable as a goal, provided that other things remained the same. That is to say, if business should at any time be, unduly depressed or even threatened with undue depression some concession should be made in monetary policy. The amount of divergence needed temporarily or otherwise from Mr. Snyder's index would be indicated by the wholesale commodity index. Mr. Hansen's choice of indexes would find its place in announcing credit cycle movements and would be invaluable as a guide to counteracting policy. I cannot agree with Mr. Hansen and Mr. Robertson in believing that the credit cycle need be fostered or that provision need be made for it, because it will undoubtedly manifest itself in some degree no matter how effective is the control; indeed, the major worry is the problem of control.

It may seem that I am advocating the stabilization of an average of index numbers, but that is not my purpose. I am merely suggesting that most indexes have their uses as guides to currency management, and am expressing a preference for stabilization of that of Mr. Snyder in so far as it is desirable. Expressed in a general way, it is desirable to give relative constancy to the most important dependent and independent variables, provided the social gains are not outweighed by the losses resulting from the movements of unregulated variables when they tend to move out of line. It may be objected that these suggestions would give anything but stability to prices,
but if the goal of stabilization of the one selected index is not lost to sight, I think that reasonable stability could be secured. Obviously if these suggestions were to be followed greater liberty of central banking action would be necessary than if one particular index were to be made the absolute goal of monetary policy.
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