The Suitability of Methods of 
Ascertaining Changes in 
Purchasing Power for the 
Guidance of International 
Currency and Banking Policy

Introduction

The expressions, "fluctuations in the purchasing power of gold" and "measurement of the fluctuations in the purchasing power of gold" cannot be used unless we have, at the same time, a conception of the purpose for the attainment of which it is essential to have an exact definition of these terms. They have been evolved to meet mainly practical requirements, not purely theoretical ones. Being conscious of the undesirable effects of certain changes in prices, we seek ways and means of eliminating their undesirable effects or, even better, the causes which generate them. Consequently, any study referring to these expressions must take as its starting-point a consideration of what it is we find undesirable, why we find it undesirable and what can be done with a view towards its removal without putting something more undesirable in its place.

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I
The Social Effects of Changes in the Purchasing Power of Gold

There are two distinct reasons why changes in the purchasing power of gold affect income and capital conditions. If it were not for the operation of these factors, changes in purchasing power would be a matter of no more importance, so far as social effects are concerned, than changes in the system of weights and measures or changes in the calendar. If (a) there were no deferred payments, i.e., no debts or claims expressed in terms of gold, with all money transactions being cash transactions and (b) if changes in the purchasing power of money affected the whole economic system and every particular commodity simultaneously and to the same extent, we would have no reason to concern ourselves with the effects of changes in the purchasing power of gold.

(a) Changes in Purchasing Power and Indebtedness

Changes in purchasing power affect debt contracts expressed in terms of gold due to the fact that the parties contracting such liabilities do not make allowance for changes in the purchasing power of gold. In general, the world clings to the view that gold is of "stable value," naive as that view may be and as incapable as it may be of withstanding any exact analysis. However, even if this view was not prevalent, in the case of long-term commitments it would not be possible to adjust for changes in the purchasing power of gold; there is no means of making any sort of estimate about either the direction or the extent of future changes in purchasing power over a considerable future time-period. The case of short-term liabilities is different. If it is anticipated that the prices of commodities will rise in the course of the next few weeks or months, the rate of interest for short-term loans correspondingly rises, and it falls if it is expected that commodity prices will fall. Therefore, the problem of the effect of changes in purchasing power arises only in the case of long-term debt contracts, and not in the case of short-term liabilities.

(b) The Second Category of Consequences of Changes in Purchasing Power

English and American writers have investigated the influence of changes in purchasing power on the tenor of debt contracts with exceptional thoroughness for more than a century, at a time when this problem was almost entirely neglected on the Continent and, especially, in Germany. On the other hand, English and American
writers have devoted very little attention to the second category of consequences that are caused by changes in purchasing power. As a result, the numerous projects and proposals for the elimination of the unfavorable consequences of such changes have, as a rule, been concerned exclusively with the effect on debt contracts, while leaving other effects of such changes unaccounted for.

If changes in purchasing power affected all commodities and services simultaneously and to the same extent, the effect on people's incomes and expenditures would be identical, and nobody would be a penny the better or the worse for the change (apart from the case of debt contracts discussed in the previous section). However, this is never the case. Eminent economists, from David Hume and John Stuart Mill downwards, have mainly endeavored to construct a theoretical case in which a change in purchasing power might affect all commodities and services simultaneously and to the same extent. It is impossible to construct such a case.

Changes in purchasing power always make themselves felt, at first, at some particular point of the economic system, and its effects only then spread from there by successive stages. When the volume of money is increased, those into whose hands the additional new money first passes are able—with their increased income—to go on paying the previous market prices for commodities and services, i.e., at prices formed *without* regard, as yet, to the new supply of money. In this case, an increase in money income is tantamount to an increase in real income and may even ultimately result in an increase in capital. On the other hand, those whose incomes are the last to be increased are at a disadvantage, owing to the fact that they are compelled to pay for a large portion of the commodities and services they purchase at prices formed *with* regard to the new supply of money, i.e., before their incomes have risen correspondingly. This process was clearly observed in every country in the inflationary period during and after the war. But it is most conspicuous in the field of international economic relations; Cairnes has an admirable account of its operation in his *Essays in Political Economy*, in which he traces the effects of the discoveries of gold and the progressive course of depreciation to which they gave rise.

Study of the social consequences of changes in purchasing power cannot be restricted to the consideration of their effect on indebtedness. The effects of the time-lag, which I have described, also have to be taken into the account.

But it is just when we endeavor to do this that we become aware
of the immense difficulties in the way. If we only consider the effect of changes of purchasing power on indebtedness we are prone to assume that all that is required is to determine an average figure for the purchasing power of money, leaving the rise of one price to be off-set by the fall of another. But this is not enough, if we take the second category of consequences of changes in purchasing power into account; for these consequences are due precisely to the fact that some prices have risen while others are still lagging behind. Therefore, if we proceed along the lines of the proposals for the stabilization of purchasing power, i.e., by correcting changes in purchasing power after they have occurred in accordance with some system of index-numbers, we shall have done nothing to eliminate this particular category of social effects.

II

Analysis of Attempts at Stabilization

Obviously, before we enter upon the task set by our topic, we must understand the object towards which these measures are to be applied.

The serious disturbances, which follow in the train of cyclically reoccurring economic depressions, have led many in the world to entertain the conceptual ideal of a "stable" economic system. However, this can never mean an economic system in which all prices remain unchanged. All that can be attempted is the establishment of a system which is not exposed to grave shocks from the "money-side."

A number of writers have argued in favor of altering the legal basis of debt contracts in the sense of expressing them, not in terms of gold, but in terms of a definite quantity of commodities. The aim of such proposals is the establishment of what is called a "commodity standard" or a "tabular standard." For a long time it was innocently assumed that such a standard would necessarily be "equitable." I have, I think, sufficiently shown, as have other economists before me, that this assumption is not likely to be universally accepted.¹

But even if we ignore the objections to the "equitable character" of commodity and tabular standards, we cannot fail to see what has already been pointed out, namely, that the establishment of such a standard can only eliminate a part of the social effects of changes in purchasing power. It will, perhaps, be said that it is much to be able to eliminate the consequences in the case of debt contracts, even if

the more difficult problem of the elimination of the second category of consequences would have to be left to the future. This, however, is not a tenable view. No doubt, the problem of a standard of deferred payment is extremely important; but here as in other questions, the economy "helps itself," certainly in the case of short-term, and possibly even in the case of long-term, debt contracts. The circumstance that in the last few decades those who have lent money at long-term, i.e., bond-holders, have suffered losses has induced a certain caution on the market for long-term obligations. This tendency is apparent today; but it has also been noticeable in earlier periods of depression, even if not to the same extent. The reluctance of those elements which might otherwise be purchasers of bonds—as a result of the unfortunate experiences of the last few decades—is responsible for the very wide margin between the rates for money at short-term and the rates for long-term capital investment. If this cautious attitude persists, those who desire to take up long-term credits will be compelled to pay a premium as a contingency against falls in purchasing power, in addition to the interest on their loans; otherwise, they will have to satisfy their requirements on the short-term market, where (as has already been pointed out) allowance is made for probable changes in purchasing power.²

In the case of the second category of social consequences of changes in purchasing power, no similar adjustment mechanism is present. Some people are inclined to ignore this second category on the grounds that its effects are only temporary; this is true only in the sense that the effect on income and capital conditions caused by the irregular and unequal incidence of changes in purchasing power cease to operate when the changes have permeated the entire economic system. The effects on the income and capital conditions, however, remain. One man has gained and another has lost. In this respect, then, the second category of effects does not differ from the first.

All the proposals that have been made for stabilizing the purchasing power of money are vitiated by the fact that they are designed only to eliminate the effect on the tenor of debt contracts. They leave entirely out of account the second effect of such changes, in the belief that it is only, or mainly, the effect on debt contracts that matters. Everyone of these proposals for stabilizing the value of money contemplate adjustments after the event and according to the changes in purchasing power calculated on the basis of a system of average values.

²[The reader should recall this was written in 1930—Ed.]
A distinction should be made between two such systems. The older system is that of the "tabular standard" and makes the adjustments only in the case of deferred payments; that is to say, it merely alters the nominal amount of the debt contract without touching the monetary system at all. The second system, represented by Irving Fisher's "stabilized dollar" and J. M. Keynes' "manipulated currency," involves an adjustment of the purchasing power of the money in circulation as a whole. Here, again, there is to be no adjustment until after the change in purchasing power has taken place and after its unequal and irregular incidence has had its effect. Such ex post facto adjustments do nothing either to eliminate or to mitigate the effects of the second category; it can only apply to the effects of the first category. That is the essential point that needs to be made.

In general, therefore, it may be said that all proposals which aim at stabilizing the value of money have regard only to one part of the effects of changes in purchasing power. They can only eliminate those effects touching upon the tenor of long-term debt contracts in terms of gold. They can do nothing to remove the other effects of changes in purchasing power, which are no less acute than those of the first category and, perhaps, maybe are even more important.

If this is borne in mind, it will be realized that radical though these proposals sound, they would by no means be so drastic in practice. They are far from being as superior to the old, more modest, programme of the "sound currency" school as one is tempted at first to imagine. This older programme did not attempt to stabilize the value of money; it was content to aim at the elimination, as far as possible, of all factors likely to give rise to sudden and excessive changes in purchasing power. It was from this standpoint that the decision was made in favor of the gold standard, because it was felt that the gold standard offered at least relative, if not absolute, stability.

Has anything happened to disappoint the expectations entertained some decades ago by the English and Continental adherents of the classical gold standard?

III

Causes of the Changes in Purchasing Power the Last Few Decades

Since the second half of the last decade of the nineteenth century, the purchasing power of gold has steadily declined. There is no need to go into what has been generally written about the extent of this change or the reasons for it. But one point must be emphasized with
special insistence, because, as a rule, it has unfortunately been completely overlooked in recent discussions of the problem. I refer to the fact that the chief cause behind the fall in the purchasing power of gold during the period in question is to be found in the monetary policies of the various governments, rather than in the conditions of gold production. In their monetary policies, the various governments have consciously aimed at an "economizing" of gold, with these efforts leading to a much greater fall in the purchasing power of gold than would have been the case if endeavors had not been made to drive gold out of effective circulation. If we had gold coins in actual daily circulation everywhere in the world, as was the case some decades ago in Germany and England, and if the banks of issue of the smaller and poorer States kept their currency reserves in actual gold and not principally in gold claims on foreign countries, the depreciation of gold would either not have taken place at all, or at least not to anything like the extent to which this actually occurred between 1896 and 1920.

It is no doubt true that individual governments did not realize that the consequence of all countries following this same policy would be a general rise in prices. What each State had in view was a cheapening of the costs of circulation in its own country. Above all else, they were influenced by the fallacious idea that it was possible to bring about a decrease in interest rates by various monetary policy measures, including a concentration of the national supplies of gold in the basements of the central banks. But whatever individual governments may have had in view in following this policy, one thing is beyond dispute: the result was bound, other things being equal, to lead to a fall in the purchasing power of gold and an increase of commodity prices in terms of gold. Therefore, it is remarkable that public opinion should have regarded the rise in prices during this period as due solely to the conditions of gold production—quite independent of governmental policies—and have failed to realize that the increase in prices could never have assumed the dimensions it did if a different policy had been followed by their governments.

If governments had followed a different policy and the rise in the prices of commodities (in terms of gold) had, for this reason, either not taken place or, at any rate, not taken place to the extent that it did, there would never have been any talk at the time of a failure of the gold standard. And if today, at a time of falling prices, the cry for a departure from the gold standard is even more clamant, it can only be pointed out, once again, that the great collapse of prices—which has been the outstanding economic event of the last few years—represents
an inevitable reaction after the previous expansion of credit. Credit policy mistakes may be blamed for many things, but the gold standard is certainly not one of them. It is, therefore, quite unjustified to say that events have shown the inapplicability of the gold standard. It is not the old classical gold standard, with effective gold circulation, which has failed; what has failed is the gold “economizing” system and the credit policy of the central banks of issue.

All that can be said is that no conclusions should be drawn for the future. Apprehensions are expressed today that the transition to the gold standard by countries which have so far not adopted it, coupled with a decline in the production of gold, will lead in the future to a fall in the gold prices of commodities (i.e., a rise in the purchasing power of gold). These apprehensions certainly cannot be dismissed offhand, though all prophecy as to the future value of money must be taken with the utmost reserve. But it is just as well to remember that, even if the production of gold in the next few decades should decline, and even if the gold standard should be adopted everywhere (including China and Russia), it need not necessarily involve a fall in prices. This would be the case if the policy of “economizing” gold, which has gradually spread during the last few decades to all the countries in the world, is maintained and, perhaps, even strengthened.

The problem is rendered particularly complex by the fact that it is closely connected with the question of the issue of currency via credit expansion, i.e., banknotes and bank balances without gold cover.

Public opinion, looking upon a low rate of interest as the ideal of economic policy, more or less openly encourages the banks of issue to follow a policy of expanding credit in order to reduce the rates for money below the market rates, i.e., the rate which would prevail on the money market if the banks did not intervene. The fact that this policy must necessarily lead to a rise in prices is not seen as an objection from the businessman’s point-of-view; on the contrary, he regards rising prices as a sign of prosperity. It was not until the interests of classes in the population other than the entrepreneur’s began to have increased influence on judgments about general economic conditions that the world began to realize that rising prices were not an unmixed blessing. To the businessman, a period of rising prices is a period of “expansion” and “boom”; to the renter, the civil servant and, in general, the man with a relatively fixed income, rising prices mean an “increased cost of living.”

The businessmen, who want cheap money through the intervention
of the banks, pay no attention to the lesson taught by the older
economists of the Currency School and, more recently, by Wicksell
and all modern adherents of the monetary theory of the trade cycle
(or more accurately, the circulation credit theory of the trade cycle).
The gist of this lesson is that all efforts by the banks to artificially
lower the free market rates for money by expanding credit may at
first lead to increased business, but in the long-run must inevitably
create a situation of crisis and depression.

Those believing that changes in purchasing power are susceptible
to exact measurement are quite consistent in demanding that bank-
ing policy should be tied to the results of these measurements in such
a way that the banks should be required to make the goal of their
credit policy the stability of the purchasing power of the monetary
unit. Therefore, before going further, we must consider the question
whether the various methods proposed for measuring fluctuations in
purchasing power do, in fact, provide an instrument that can profit-
ability be used for the purposes of economic policy.

IV
The Various Methods of Measuring Fluctuations
in Purchasing Power and Their Importance
for the Problem of Stabilization

The assumption that changes in the purchasing power of money
are susceptible to exact measurement is based on the belief that
modifications in the exchange relationships of particular commodi-
ties and services are sufficiently taken into account when a general
average is taken. It is upon this fiction that the conception of a "level"
of prices is based; all that appears to be necessary is an ascertain-
ment of whether this "level" has risen or fallen as a whole. The avowed
neglect of changes taking place among the prices of particular com-
odities and services relative to one another has been fostered by the
fact that among the effects of changes in purchasing power those
mainly considered are the ones arising out of money's function as a
standard of deferred payment; the other social consequences of
changes in purchasing power, caused by the fact that all commodities
and services do not feel their incidence at the same time or to the
same extent, have been almost completely left out of account.

But even on the assumption that it is quite sufficient to calculate
changes in the purchasing power of money with reference to an
average of the prices of commodities and services, there are a number
of fundamental difficulties for which there appears no single solution.
In the first place, there is the question of "the average." Is it to be the
arithmetical mean, the geometrical mean, the harmonic mean, or any other form of "mean" known to mathematics? There is no categorical answer to this question.

Second, what method is to be followed in the weighting of the individual prices, that is to say, what coefficients of relative importance are to be assigned to the particular commodities and services? Here, again, there is no single solution.

It is just because there is no single solution for these two questions, i.e., no solution which can be said to be indubitably the right one and all the others wrong, that we are driven to the conclusion that the index number method is fundamentally unsuitable for the purpose of an accurate measurement of changes in the purchasing power of money. It is not contended that the majority of the systems proposed are well suited for affording the approximate indication of the changes in purchasing power which have taken place, and that they have, _pro tonto_, much educative value in directing public attention to the fact that changes have taken place. Nor need it be disputed that as a general rule and over relatively short periods of time, the calculated results by the different methods do not diverge very greatly from one another. But it is none the less necessary to insist, with all possible emphasis, on the fact that all such calculations are only _approximate_ and not exact, and that an exact calculation is fundamentally impossible. It is necessary to emphasize this point, not merely to calm the conscience of theoreticians, but in order to draw attention to the far-reaching effect which it has as regards the practical application of index numbers for currency and banking policy.

As there are various methods for calculating an index of changes in purchasing power—all of which are equally right and wrong, equally correct and incorrect—and as each of these methods gives different results, it is inevitable that, once the index figures cease to be of a purely academic interest and acquire a direct bearing on economic policy, this purely scientific problem will become the field of serious conflicts of interest. Supposing the dollar were stabilized in accordance with the proposals of Irving Fisher, or that a "manipulated currency" was introduced on the lines of Keynes' system, or that the credit policy of the central banks were made dependent on the results of the index measurements, the various interest groups would immediately take sides on behalf of this or that method of calculation, according to whether they were interested in a rise or a fall of prices. The purchasing power of the monetary unit, which under a gold standard is to a certain extent independent of direct political influence and
is ultimately based on the profit to be earned from the production of gold, would then become the plaything of political parties and political struggles. A sudden change in the purchasing power policy of the government, or even the anticipation of such a change, would be the occasion for grave disturbances within the individual countries. And the position vis-à-vis international trade would be completely intolerable. Just imagine the consequences if particular States—or all States—were to make an attempt through some joint organization, appointed by the League of Nations perhaps, to pursue a uniform currency policy based on the results of index measurements. The commercial antagonisms of the several countries would be automatically intensified, with an element of quite peculiar bitterness at once introduced into the conflict by the fact that the world is divided into two groups of people—the debtor and creditor countries.

The various writers, who have argued for some kind of tabular standard, have been so convinced of the correctness of their own particular methods of calculation that they have not seen this fundamental defect in their systems. Irving Fisher, again, attaches too much importance to the assertion that the several methods of calculating index numbers do not differ greatly in their results. It is not true that they do not differ; but even if it were so, it must be remembered that in view of the great importance of manipulations in purchasing power, even small differences would be sufficient to give rise to serious conflicts of interest in each country, and even more importantly, conflicts between one country and another.

Even if the fundamental difficulties standing in the way of index calculations could be overcome, the practical difficulties remaining would still be very great. The most correct manner of arriving at the prices of commodities and services would be to consider only commodities and services which are ripe for consumption, i.e., at the point of delivery to the ultimate consumer. Any other system will break down (apart from all other theoretical objections) for the reason that it must be a matter of entirely arbitrary selection as to how many intermediate stages of production are to be included in the calculation. The results are bound to be largely influenced by the number of times a product is treated as a separate commodity in its intermediate stages of production, and included as such in the calculations. The insuperable difficulties which stand in the way of a survey of the final consumer products are due to the impossibility of establishing any unvarying standard for dealing with changes in product quality. In order to eliminate the problem of variations to quality, all index number systems are compelled to restrict themselves to the not very
large number of articles (mainly raw materials) in the case of which the identity of quality can be ascertained beyond dispute. In addition to variations to quality, changes in consumption (due to the consumer including new articles in his consumption “basket”) present immense difficulties in the way of statistical measurements. Once again we are led to the conclusion that disputes between the various interests in each country—and still more between nations—are bound to arise as soon as these statistical calculations emerge from the sphere of theory and assume practical economic significance.

The above considerations may be summed up as follows: any economist is able to propose a system for the approximate ascertaining of changes in purchasing power, which he thinks comes nearest to the solution of this insoluble problem. But no economist is able to prove conclusively to an unprejudiced party the necessity of preferring his system to all others. The selection of a method for calculating index numbers is always more or less arbitrary. If far-reaching practical consequences are involved in such selections, as must be the case if they serve as a basis for currency policy, there will be no possibility of agreement on the part of the various nations—or the various social groups within nations—since the individual interests of each nation and of each social group will be effected.

The above arguments may appear not only as drastic and skeptical, but at first sight to be in conflict with the results of more than a hundred years of industrious research into these problems by a series of the most eminent economists. But, in fact, my comments represent nothing more than the conclusion which inevitably emerges from the entire literature on the subject. What lends them special weight is the fact that they alone explain why the ingenious proposals of eminent economists for the creation of stable currencies based on index numbers have hitherto never been put into effect. Up to the present, it has been more than a purely conservative attitude which has led statesmen and businessmen to stand aloof from these proposals; rather, it has been the recognition of the fundamental defects inherent in them.

These objections are especially weighty when the problem is considered from the international standpoint. It is astonishing that even people who are aware of the importance of the international exchange of commodities and money take the standpoint that the stability of domestic prices is more important than the stability of the international exchanges. The consequence of such proposals, if they were put into force, would be that each separate country would pursue a monetary policy based on the index system it considered
best, with the result of exposing the international exchanges (the movements of which, under the gold standard, are confined within narrow limits) to abrupt and extensive fluctuations. No one can fail to see that this would introduce a major factor of instability and uncertainty into international commercial relations and, more importantly, into the conditions of international indebtedness.

V
The Pure Gold Standard and the Gold Standard Influenced by the Banks

Before considering the function of international cooperation in the field of currency policy, something must be said about the influence of banking policy on purchasing power.

In view of the disadvantages which arise from manipulations of purchasing power, the principle underlying the pure gold standard is that it is preferable to make the world's supply of money dependent on the accident of gold production. As matters stand today, a pure gold standard would give us a monetary system under which prices of commodities would slowly fall. It is improbable that discoveries of gold will again take place on such a scale as to reduce the purchasing power of gold. But whether it rises or falls, purchasing power under a pure gold standard, at any rate, changes slowly and the changes continue over a considerable period of time in the same direction. With a pure gold standard, an increase of the world's supply of money (in a wide sense) can only come from new gold being produced and put into circulation in the form of money. A decrease in the supply of money can only come from gold being diverted from monetary to industrial uses.

It is characteristic of the gold standard that the banks are not allowed to increase the amount of notes and bank balances without a gold backing, beyond the total which was in circulation at the time the system was introduced. Peel's Bank Act of 1844, and the various banking laws which are more or less based on it, represent attempts to create a pure gold standard of this kind. The attempt was incomplete because its restrictions on circulation included only banknotes, leaving out of account bank balances on which cheques could be drawn. The founders of the Currency School failed to recognize the essential similarity between payments by cheque and payments by banknote. As a result of this oversight, those responsible for this legislation never accomplished their aim.

If this omission had not existed in the bank laws and if, in consequence, all expansion of credit by the banks had been effectively
precluded, the world would have had a monetary system in which—even apart from the discoveries of gold in California, Australia, and South Africa—prices would have shown a general tendency to fall. The majority of our contemporaries will find that a sufficient ground for regarding such a monetary system as bad in itself, since they are wedded to the belief that good business and high prices are one and the same thing. But that is a prejudice. If we had had slowly falling prices for eighty years or more, we would have become accustomed to look for improvements in the standard of living and increases in real income through falling prices with stable or falling money income, rather than through increases in money income. At any rate, a solution to the difficult problem of reforming our monetary and credit system must not be rejected offhand merely for the reason that it involves a continuous fall in the price level. Above all, we must not allow ourselves to be influenced by the evil consequences of the recent rapid fall in prices. A slow and steady decline of prices cannot in any sense be compared with what is happening under the present system: namely, sudden and big rises in the price level, followed by equally sudden and sharp falls.

As a result of the Currency School's oversight, the world has acquired a monetary system which is affected not only by the fluctuations in the production of gold, but also by fluctuations in banking policy. Spurred on by a public opinion looking for salvation through low interest rates and rising prices, the banks are perpetually endeavoring after periods of depression to give an artificial stimulus to economic activity by means of credit expansion. They create a period of rising prices and continue with their expansionary policy until a point is reached at which they are at last compelled to call a halt; and once more they, then, bring about a decline in prices via restriction of credit.

It is such a period through which we are now passing. Eminent economists look for the cause of the depression in the restrictive measures of the banks. But the root cause of the evil is not in the restrictions, but in the expansion which preceded them. The policy of the banks does not deserve criticism for having at last called a halt to the expansion of credit, but, rather, for ever having allowed it to begin.

Consider what would happen if the banks were to perpetually continue a policy of credit expansion once it had begun. To maintain the artificially induced situation they would be compelled to have recourse to continually increasing the expansion of credit, the result of which would be an ever sharper and more rapid rise of prices. But once the business world realizes that there is no end in sight to the progressive expansion of credit, i.e., that prices are going to rise uninterruptedly, it will at once speculatively discount the price increases
in advance by applying to the banks for more and more credit—since every purchase on credit will be a profitable transaction—and the end result becomes a progressive inflation. But inflation cannot last forever without leading to a panic and a collapse of the entire monetary system; this is a truth on which it is no longer necessary to expatiate, since it is amply confirmed by the experiences of the inflationary period of the last decade and a half and been explained in numerous works on the subject.

Therefore, when it is argued in various quarters that the recent fall in prices is due to the change in the policy of the banks, it is, literally speaking, true. A closer scrutiny of the facts, however, will show that sooner or later the policy of expanding credits must come to an end and that the evil consequences for which it is responsible will be the more serious the longer it has been pursued. The evil is not in the restrictions, but in the expansionist policy which preceded them. One ultimate reason for the present drop in prices is the circumstance that the banks—with the assent of public opinion, and indeed at the direct instigation of the press, the business world, and the Governments—have made use of their power to issue additional circulation, i.e., to increase credit artificially. If the banks were to make no use of this power—which could only be the case either if the Central Banks were explicitly prohibited in their reserve-issuing privileges or if public opinion rigorously condemned the practice—we should have no economic fluctuations. We would probably have slowly falling prices, since the purchasing power of money would depend exclusively on the production of gold. But we should certainly not have the abrupt transitions from a sharp rise in prices to an equally sharp fall in prices, such as we have been through twice during the last ten years.

VI
Attainable Reform Objectives

From the outset any systematic policy of influencing the purchasing power of money should be kept within narrow limits, if it is not to do more harm than would result from leaving events to take their own course. To begin with, it is necessary to completely get away from the attempt, as unscientific as it is impracticable, to maintain the purchasing power of money “stable.” Furthermore, we have to rid ourselves of the notion that a decline in purchasing power is in some way better than an increase in purchasing power. Lastly, we have to realize that theories based on the idea that the rate of interest can be lowered by banking policy are wrong; all endeavors in this direction
may, indeed, at first provoke an expansion of business, but in the end it can only lead to crisis and depression owing to the diversion of capital into wrong channels.

It also has to be borne in mind that proposals for a radical transformation of the constitutions of the banks of the various nations of the world have no prospect of being put into effect now or for a number of years to come. All that can be done is to take mitigating action during periods when the tendency for purchasing power to continuously increase is clearly marked and to take contrary action in periods showing an equally well established tendency towards a continuous fall in purchasing power. In neither case should action be taken to the point of interfering with the normal tendency conditioned by gold production, either to the extent of arresting or actually reversing its operation.

Whether taken by each country separately or as part of a programme of international cooperation, the extent of such action will have to be exercised with great caution. To prevent a policy that influences purchasing power from becoming the plaything of the various economic interests—because of the impossibility of finding any one method of calculating index numbers which by itself is correct—it is essential to restrict that interference to those changes in purchasing power, in one direction or the other, which are admitted without question by all parties. That implies that action to increase the purchasing power of money should only be taken when the decline in purchasing power is unquestionably established by all the different possible methods, and should, again, be suspended the moment any one of the methods yields divergent results; the same applies to measures to bring about a decrease in the purchasing power of money.

Any other policy followed by a single country would lead to serious conflicts between internal interests; and if followed by some common international organization it would lead to serious conflicts between nations. In all probability, at the first appearance of such conflicts all attempts at uniform international treatment of questions concerning currency and banking policy would have to be abandoned.

It is not the object of this memorandum to investigate the measures which should be taken for the attainment of these aims. Its objective is merely to consider which method of ascertaining changes in purchasing power is the best. The above explanatory digression was necessary in order to answer this question. We can now proceed to give a concrete reply.
VII

The Measurement of Changes in Purchasing Power as a Standard for Currency and Banking Policy

The considerations set forth above considerably restrict the functions which an instrument for the measurement of changes in purchasing power would perform. The problem is no longer that of satisfying the impossible demand for an exact standard for measuring changes in the purchasing power of money: the question is only one of forming an approximate estimate of the direction which those changes are taking. Up to the present, nearly all the proposals that have been made have been aiming at a correct standard—the one "correct" standard, the one "scientific" standard—of measurement. We must realize, however, that all we are looking for is a conventional standard, which means an arbitrarily selected standard. That is not a reproach to our proposal, since any and every standard is open to weighty objections and whatever standard is decided upon, the decision must always be an arbitrary one. The justification for our proposal is simply the fact that, at the outset, we set up much narrower aims for the currency and banking policy which would be guided by our standard, as opposed to the schemes which aim at stabilization. Our policy only comes into operation when the change in purchasing power has been ascertained over a considerable period with such unquestionable certainty that no one can dispute it; it ceases to operate as soon as it has been successful in bringing purchasing power back to a point at which it is possible for doubts to arise as to whether the tendency which it is desired to combat still exists or not. Under these circumstances, there is no need to criticize particular proposals which have been made for the measurement of changes in purchasing power. Dozens of volumes have been written on the subject and the acutest economists have dealt with it. It would be altogether a mistake to attempt to add a new proposal to those which have already been made. But what must be realized is that any proposal of this kind is inevitably defective.

The advantage of the suggestion put forward here is to be found in the fact that it makes possible, to a certain extent, a general conspectus of changes in purchasing power, which can serve as a basis for currency and banking policy without provoking conflicts and antagonisms of interest. That a number of proposals which have been made for the measurement of changes in purchasing power are impracticable at the outset—irrespective of their theoretical advantages—is clear. This is especially the case with proposals to base the
calculation of changes in purchasing power on wages and retail prices. The only practical proposals are those which take wholesale prices as their primary foundation; even in this case it will be necessary, in order to get around the difficulties connected with variations of quality, to make a selection and confine the calculation to articles whose constancy of quality can be indisputably established.

Systematic attempts to regulate purchasing power can only be made through international agreement. If separate countries were to take such action they would find themselves in a position of monetary isolation; as a result, one of the most important achievements facilitating international trade, namely, the monetary unification ensured by the gold standard, and its corollary of relatively stable exchanges, would be lost. But international action in this field can only be attempted if conflicts of interest are avoided from the outset. The attenuation of sharp changes in the purchasing power of money in one direction or the other is an object on which all nations will readily agree, and for such a purpose the methods which we have at our disposal are sufficient for the measurement of changes in purchasing power. To attempt anything more than this would be asking an international organization to assume a heavier burden that it is able to carry.

With the adoption of such a policy as has been indicated above, the problem of the measurement of changes in purchasing power is relatively easy to solve. But with a policy pursuing more far-reaching aims, the problem would be altogether insoluble.