OBJECTIONS TO A COMPENSATED DOLLAR ANSWERED

In *The Purchasing Power of Money* (1911) I sketched a plan for controlling the price level, *i.e.*, standardizing the purchasing power of monetary units. This plan was presented more briefly, but in more popular language, before the International Congress of Chambers of Commerce, at Boston, September, 1912. The details were most fully elaborated in the *Quarterly Journal of Economics*, February, 1913. Following these and various other presentations of the subject, especially the discussion at the meeting of the American Economic Association in December, 1912, the plan was widely criticised by economists, both favorably and unfavorably, as well as by the general public. The bibliography at the end of this article is selected from a list of 344 references (of which 305 are newspapers), and I there include references to anticipations of the plan by Professor Simon Newcomb and Aneurin Williams, M. P.[1]

On the whole the plan has been received with far more favor than I had dared to hope and even the adverse criticism has usually been tempered by a certain degree of approval.

The object of the present paper is to answer briefly the more important and technical objections which have been raised. The chief popular objections and misunderstandings were answered by an article in the *New York Times*, December 22, 1912. Only one of these is included in this article. Answers to the more popular objections, omitted from this article through lack of space, will appear in a book, *Standardizing the Dollar*, which I hope to publish in 1915.

[1] Mr. Williams' plan, described in 1892, was first brought to my attention after the American Economic Association discussion. That of Simon Newcomb, the famous astronomer (and economist), appeared in 1879. I came upon it by accident after the present article was in type, in searching for data on the allied subject of an absolute standard of value. Newcomb's and Williams' plans are so nearly identical with mine as to leave nothing vital which I can still claim as original and unanticipated except the proviso against gold speculation. Among others who have anticipated the general idea of changing the weight of the dollar are, William C. Foster of Watertown, Mass., Henry Heaton of Atlantic, Iowa, Professor Alfred Marshall (*Contemporary Review*, Mar. 1887, p. 371, footnote), and President Woodrow Wilson. In a book which I hope to publish on this subject in a few months, I shall include references to several other, though less similar, anticipations which have come to light, one being by Alfred Russell Wallace.

I shall begin with a skeleton statement of the plan; space is lacking for more. In brief, the plan is *virtually* to vary each month the weight of the gold dollar, or other unit, and to vary it in such a way as to enable it always to have substantially the same general purchasing power. The word "virtually" is emphasized, lest, as has frequently happened, any one should imagine that the actual gold coins were to be recoined at a new weight each month. The simplest disposition of existing gold coins would be to call them in and issue paper certificates therefor. The virtual gold dollar would then be that varying quantum of gold *bullion* in which each dollar of these certificates could be redeemed. The situation would be only slightly different from that at present, since very little actual gold now circulates; instead, the public uses gold certificates, obtained on the deposit of gold bullion at the Treasury, and redeemable in gold bullion at the Treasury at the rate of 25.8 grains, nine tenths fine, per dollar. The only important change which would be introduced by the plan is in the redemption bullion; we would substitute for 25.8 a new figure each month. The gold miner, or other owners of bullion, would, just as now, deposit gold at the United States Mint or Treasury and receive paper representatives, while the jeweler, exporter, and other holders of these certificates would, just as now, present them to the Treasury when gold bullion was desired.

There would also be a small fee or "brassage," of, say, 1 per cent for "coinage," *i.e.*, for depositing the bullion and obtaining its paper circulating representative. In other words, the government would buy gold bullion at 1 per cent less than it sold it. This pair of prices, for buying and selling, would be shifted in unison, both up or both down, from month to month, it being provided, however, that no single shift should exceed 1 per cent, a figure equal to the amount by which the two differ. The object of this proviso is to prevent speculation in gold.

To determine each month what the pair of prices should be, or, what is practically the same thing, to determine what amount of gold bullion should be received and paid out in exchange for paper, recourse would be had to an official index number of prices. If, in any month, the index number is found to deviate from the initial par, the weight of bullion in which it shall be redeemable the next month is to be corrected in proportion to this deviation. Thus, the depreciation of gold would lead to a heavier virtual dollar; and an appreciation, to a lighter virtual dollar.

There are, of course, other details and possible variants of the plan, some of which will be referred to later when necessary. The objections to the plan are classified under the fourteen heads named.

1. "*The plan assumes the truth of the quantity theory of money.*" The impression that the plan is dependent on the truth of the quantity theory of money is presumably due to the fact that I have defended that theory (in a modified form) in my *Purchasing Power of Money.* But there is nothing whatever in the plan itself which could not be accepted by those who reject the quantity theory altogether. On the contrary, the plan will seem simpler, I think, to those who believe a direct relationship exists between the purchasing power of the dollar and the bullion from which it is made—without any intermediation of the quantity of money—than it will seem to quantity theorists. In fact, one economist, Professor B. M. Anderson, Jr., said at the meeting of the American Economic Association above referred to, "Because I am *not* a quantity theorist, I am disposed to believe that Professor Irving Fisher's plan of stabilizing the dollar might be feasible."

2. "*It contradicts the quantity theory.*" This objection, the opposite of that above, is raised by some, who, like Professor Boissevain, believe in the quantity theory, but imagine that the operation of the plan could not affect the quantity of money at all (or would not affect it to the degree needed).[2] But evidently an increase in the weight of the virtual dollar, *i.e.*, a reduction in the price of gold bullion, would tend to contract the currency, by diverting gold from the mint into the arts; because its reduced price would cause an increased demand and consumption. A decrease, of course, would have the opposite effect.

3. "*The correction of the price level would be too sudden.*" It is objected by some that there would be a sudden jump in the index number at every monthly adjustment. But all adjustments require time. Changes of the flow of gold into or out of circulation are like changes in a mill pond from the sluice gates. The pond does not jump its level down or up every time the gate is opened or closed. The change of level begins immediately but it is not *completed* immediately.

4. "*The correction of the price level would be too slow.*" Some are dubious as to whether it would not take "years" for any ef-

[2] For answer to this statement see objections 5, 9, 11, and 12.

fect of a change in the dollar on the price level to follow. How prompt the effect would actually be, we have no exact means of knowing. I should expect an appreciable effect within a week. One can scarcely deny that the effect would *begin* at once, for the instant that the price of gold is decreased, even a little, there would be at least *some* tendency to increase the use of gold in the arts and, consequently, an *immediate* reduction in the amount of gold taken to the government for money. If this be conceded, the plan would surely, under any conceivable circumstances, have a great and quick influence toward stability.

There are some cases sufficiently analogous to be illuminating on this point. The closure of the Indian mints in 1893 had an almost immediate influence in raising the value of the rupee.[8] The rate of exchange on London in New York has often changed from the maximum to the minimum inside of a fortnight. Again, Canadian and American price levels, as worked out by the labor bureaus of the two countries correspond with each other year by year with extreme precision. Even month by month, judging by a careful comparison for twenty-four months, the agreement is very noticeable. The price levels of different countries tend to approximate each other like two connected lakes, through the overflow of currency from one to the other, back and forth. That the adjustment should be so delicate and prompt as between countries whose centers average hundreds of miles apart and whose trade currents are obstructed by high tariffs is not only astonishing but extremely significant.

But it is not necessary to prove that the correction of deviations would be rapid in order that the plan may be accepted as superior to the present arrangement. It need only be pointed out that any correction at all is better than none.

5. "*It might aggravate the evils it seeks to remedy.*" This objection, raised by Professor Taussig and a few others, is based on the preceding. It is claimed that an increase in coined money may take place for years "without visible effect on prices; then comes a flare-up, so to speak." I doubt if Professor Taussig meant the first half of this statement to be quite so strong. The evidence only justifies the statement that the rise is slow at first

[8] See, *e.g.*, tables of silver and rupees in relation to gold in *Financial and Commercial Statistics for British India*, Calcutta, 1895, p. 353, showing that the first figures available after the closure of the mints which occurred in June 1893—*i.e.*, about a month and a half after that event—show a marked appreciation of the rupee.

and rapid later while similarly the effect of a scarcity of money is slow at first and rapid later. Professor Taussig then proceeds to apply the same idea to my plan:

> The cumulative consequence would be like the cumulative consequence of a long continued decline in gold production. After a season or two of declining bank reserves, tight money, and so on, a sudden collapse might be occasioned, and apparently caused, by the announcement of some particular seigniorage adjustment. Then there might be a decline in prices much greater than in proportion to the bullion change.

But the working of the compensated dollar would not be in the least analogous to the operation of gold inflation or contraction, even as Professor Taussig supposes it. The plan always works cumulatively *toward* par, never cumulatively *away from* par. One often sees a wagon with its wheels on a street-railway track having some difficulty getting off; the front wheels have to be turned at a large angle before they are forced out of their grooves; then of a sudden they jump away. This is analogous to the delayed "flare-up" of prices which Professor Taussig supposes under the influence of a long continued decline or increase in the gold supply. But if the driver instead of trying to turn out is trying to keep the wagon on the track he will pull the horse back at every tendency to turn to the right or left. The more the horse turns to the right the harder will the driver endeavor to turn him to the left. Clearly the effect of the driver's efforts will be to avert or delay, not to aggravate or hasten, any jumping out of the grooves which other causes may tend to produce.

In other words, if it takes as much time as Professor Taussig fears for a pressure on prices to move them, then so much the more certain is it that, under the plan, deviations from par, though they may be persistent, can not be either rapid or wide. A long continued small deviation gives plenty of time for the counter pressure exerted by the compensating device to accumulate and head off any wide deviation.

Suppose that, following Professor Taussig's ideas, some cause such as an increase of gold production would, in the absence of the compensated dollar plan, gradually lift the price level as follows: during the first year, not at all; during the second year, 1 per cent; during the third year, 2 per cent; after which would come a "flare-up" of 10 per cent. We may suppose then that, if the plan were in operation during the first year, there being no deviation visible, there would be no change in the weight of the

dollar. After the first month of the second year when prices were 1 per cent above par, the weight of the dollar would according to the plan be raised 1 per cent. If this were unavailing, so that in the second month the deviation were still 1 per cent, the weight of the dollar would be again increased 1 per cent. Every month, as long as the deviation of 1 per cent lasts, the weight of the dollar would receive an *additional* 1 per cent. Unless some effect were produced on the supposed original schedule of deviations, the weight of the dollar of the second year would be increased 12 per cent, and by the end of the third year by 24 per cent more, or 36 per cent in all. But it is clear that by this time, with so swollen a dollar, the "flare-up" scheduled for the fourth year could not occur, but that a counter movement would set in—in fact, would have set in long before the dollar became so heavily counterpoised. Nor could the result of the counterpoise, even if so heavy, be to swing suddenly prices far below par. Prices would, by hypothesis, yield slowly and again give time for taking the counterpoise off. If the price level sank, say to 1 per cent below par for six months, then to 2 per cent for another six months and to 3 per cent in the next six months, evidently the entire 36 per cent would be taken off in eighteen months (since $1 \times 6 + 2 \times 6 + 3 \times 6 = 36$). The compensating device is thus similar to the governor on a steam engine. It is the balance wheel that is largest and hardest to move which is the most easily controlled by the governor. So if the "flare-up" theory is true, the system will work more perfectly than if it were not true.

6. "*It would not work unless every single mint in the world employed it.*" This is an error. Although it could be easily shown to be politically inadvisable for one nation alone to operate the plan, this would not be economically impossible. Those who hold the contrary are deceived by the term "mint price." They reason that our mint price ($18.60 an ounce of gold, 9/10 fine) and England's mint price (£3. 17s. 10½d. for gold 11/12 fine) are now "the same," and that, consequently, if our price were lowered 1 per cent, *i.e.*, to $18.41, while the English price remained unchanged, *all* our gold would be taken to England to take advantage of the "higher" price there. But these comparisons between English and American prices are based on the present "par of exchange" ($4.866 of American money for the English sovereign); which par of exchange is in turn based on the relative weights of the dollar and the sovereign.

As soon as our dollar were made 1 per cent heavier, not only would the new American mint price go down 1 per cent, but the par of exchange would also go down 1 per cent, to $4.82. Consequently, the new mint price of $18.41, although in figures it is lower than the old, yet, being in heavier dollars, would still be "the same" as the English mint price of £3. 17s. 10½d. This sameness of mint price as between the two countries means at bottom merely that an ounce of gold in America is equivalent to an ounce of gold in England.

It is true that each increase in the weight of the virtual dollar in America—in other words, each fall in the official American price of gold—would at first discourage the minting of gold in America. The miner would *at first* send his gold to London, where the mint price was the same as formerly, and realize by selling exchange on the London credit thus obtained. But the rate of exchange would soon be affected through these very operations, by which he attempted to profit, and his profit would soon be reduced to zero; the export of gold to England would increase the supply of bills of exchange in America drawn on London and lower the rate of exchange until there would be no longer any profit in sending gold from the United States to England and selling exchange against it. When this happened it would be as profitable to sell gold to American mints at $18.41 per ounce as to ship it abroad; and $18.41 in America would be the exact equivalent at the new par of exchange ($4.82) of the English mint price of £3. 17s. 10½d.

7. "*The system would be destroyed by war.*" Professor Taussig fears that if money were stabilized, the system would itself be upset by war. "Any war would put an end to it." To this I would reply: first, that if war did put an end to it the system would do good so long as it lasted and its discontinuance would do no more harm than the existence of our present unscientific system is doing at all times; secondly, I do not see any reason for thinking that war would put an end to it.

Possibly Professor Taussig has in mind the first form in which I explained the plan, *viz.*, in my book, *The Purchasing Power of Money*. In that form one country was to serve as a center and all other countries were to have the gold exchange standard in terms of gold reserves in the central country, just as now the Philippines have a gold exchange standard with reference to the United States, and India with reference to England. Professor

Taussig's objection would undoubtedly apply, to some extent, in cases where the plan was carried out through the gold exchange mechanism. But where the system was independently established in each country simply parallel to the systems in other countries, there would be no more need for its abandonment in case of war than for the abandonment now by Germany of the gold standard because England, its enemy, has the gold standard also. We know, of course, that in time of war, the gold standard is often temporarily abandoned in favor of a paper standard; and the new proposal would not escape such a difficulty. This, however, would not be due to the international character of the plan, but to the exigencies of war.

8. "*The multiple standard is not ideal. Especially is it faulty when the cause of price movements is entirely a matter of the abundance or scarcity of goods in general.*" Those who hold this objection point out that an ideal standard would not be one which always smooths out the price level but one which discriminates and leaves unchanged such rises and falls as are due to general scarcity and abundance of goods. There is much to be said in favor of such discrimination as an ideal. It must be admitted that the compensated dollar plan would not discriminate between changes in the price level due to the scarcity or abundance of goods in general and those due to changes in money and credit. It must be further admitted that a theoretically ideal standard would take some account of this distinction. But the compensated dollar plan does not claim to be ideal. The plan would simply correct the gold standard to make it conform to a multiple commodity standard. It does not pretend to correct the multiple commodity standard to make it conform to some "absolute" standard of value.

Such an ideal standard is as unattainable as is absolute space. Changes in relative value indicate change in absolute value, either of goods or of money; but it is not possible for us to know, except in a general way, how much of the absolute change is in goods and how much in the dollar. On general principles we may be assured that the absolute change is wholly or mostly in the dollar. We economists in our measurements of value are in much the same predicament as the astronomers. Our economical "fixed stars" are fixed only in a relative sense. We cannot measure the empty spaces of absolute value, but can only express values in terms of visible goods, the general average of which is the nearest approach to absolute invariability we can, in practice, reach.

But if it were possible to measure absolute values to our universal satisfaction, in terms, say, of "marginal utility," or of "disutility of labor," or of anything else, there are no statistics by which we can realize such a standard in practice. The only readily available statistics by which we can correct our present standard are price statistics from the great markets. We can, by index numbers based on these price statistics, translate from gold into commodities, but as yet we can not translate from commodities into any ideal or absolute standard.

If I were treating of the problem of an ideal standard of value, I think I should be inclined to agree with Professor Marshall that a standard that represents a gradually descending scale of prices to keep pace with the "real" cheapening improvements in industrial processes is better than one which represents an absolute constancy of prices. But it would be quite impracticable to discover the exact rate of fall of prices which would correctly register the improvement going on in industry, and, moreover, it would, I believe, be so small as not to depart much from the multiple standard. This I infer is also the opinion of Professor Marshall.

Professor Kinley makes the very interesting suggestion that we can suppose a more ideal standard than the tabular by making our unit a definite percentage of the national annual dividend. This appeals to me as a rough and ready way of fixing a unit more nearly ideal than that fixed by the tabular standard. But it would certainly not be practicable. It would not even be quite ideal. But if Professor Kinley will measure his standard, the compensated dollar plan will be able to take care of it.

In fact, if we could find a more absolute standard than the tabular standard and could accurately measure it in statistics, precisely the same method of compensating the dollar could be employed to keep the dollar in tune with that standard as with the tabular standard. The only difference would be that the guiding index would be different. The plan for compensating the dollar does not in essence consist in selecting the multiple or any other standard. It consists in a method of making the monetary unit conform to any standard chosen. But there is convincing evidence that the multiple standard is usually near enough to the ideal for all practical purposes and infinitely nearer than the gold standard. *While individual goods may vary greatly in absolute value the general mass of goods will vary comparatively little and*

seldom. There may be some absolute change in the general mass of commodities but it must usually be extremely small in comparison with changes in any one commodity like gold. It is clear from the theory of chances that this must be the case. The odds are hundreds to one that the variations in absolute value in several hundred commodities will offset each other to a large degree. We very seldom have world feasts or world famines. If the corn crop is short in some places it is abundant in others. If it is short everywhere the crop of wheat or barley or something else is practically certain not to be. We cannot expect that everything will usually move in one and the same direction. If there is a war in Japan, it is not likely that there will also be a war in India. A world war or even anything as near to a world war as the present conflict in Europe is a most unusual thing.

A standard composed of several hundred commodities must therefore be, in all human probability, more stable than a standard based, as is our present gold standard, on one commodity. Bimetallists made much of this point when claiming that two metals joined together were steadier than one, just as two tipsy men walk more steadily arm in arm than separately. Still more steady is the average of a hundred commodities just as a line of a hundred tipsy men abreast and holding each other's arms will march even more steadily than two. This is because it is wholly unlikely that every man in the line will lurch in the same direction at the same instant. The lurching of some in one direction can always be depended on to offset almost entirely the lurching of others in the other direction. This theory of probabilities in its application to the present rise of prices is, I believe, borne out by the facts.

After a careful study of all available evidence, I am convinced that the present general rise in prices beginning in 1896, can not be traced to any simultaneous scarcity of goods. I refer the reader to *Why Is the Dollar Shrinking?* where I have given the summary of the evidence. I think the facts are equally clear that the great fall in prices from 1873 to 1896 can not be laid, wholly at least, to the increasing plentifulness of goods.

Finally, even if we could measure and apply an absolute standard, it is doubtful if, in practice, it would be of any more service in regulating contracts, than a multiple standard. For after all, as I have tried to show in *Appreciation and Interest*[4] what we want

[4] *Publications of the American Economic Association*, third series, vol. XI, no. 4 (Aug., 1896), pp. 331-442.

in a contract is something that is *dependable* rather than something that is absolutely constant; and the multiple standard gives dependability in terms of the ordinary familiar staple necessities of life. If we could know that the dollar always means a definite collection of goods, we could know that the bondholder or the salaried man who gets a stated income of $100 a month, would have the same command over actual goods, and such knowledge would be of great service. This whole subject I have discussed in chapter 10 of my *Purchasing Power of Money.*

9. *"It would be inadequate to check rapid and large changes of the price level."* Owing to the narrow limits, *e.g.*, 1 per cent as stated, imposed on the monthly adjustments, it is quite true that a sudden and strong tendency of prices to rise or fall could not be completely checked. If prices were to rise 8 per cent per annum and the plan permitted no more rapid shift than 6 per cent per annum, this would leave only 2 per cent per annum uncorrected, or only one fourth the rate at which prices would rise if wholly uncorrected. But half (or in this illustration three quarters of) a loaf is better than no bread. Moreover such extreme cases are rare and when they occur there is all the keener need for mitigation even if it be somewhat inadequate. Ultimately, of course, after the rapid spurt has abated, the counterpoise, in its relentless pursuit, would overtake the escaped price level and bring it back to par.

10. *"The correction always comes too late."* It is objected that the plan does not make any correction until actual deviation has occurred, and so the remedy always lags behind the disease. It is true that the corrections follow the deviations. They could not precede them unless we foreknew what the deviations were to be; and we could not afford to entrust the work of guessing to government officials. In this respect, as in others, the plan does not attain perfection; yet it is infinitely better than the present plan, which leaves the standard haphazard. It is also pointed out that after the correction is applied it may happen that prices will take the opposite turn, in which case the remedy actually aggravates the disease. But, taking the extremely fitful course of prices since 1896 and correcting it according to the plan, month by month, as shown in the *Quarterly Journal of Economics* diagram, we find that in nine cases out of ten the opposite is true. Even in the few remaining cases the deflections were very slight and were, of course, soon corrected immediately after the following

adjustments. If the corrections are sufficiently frequent, it is impossible not to maintain, in general, an extremely steady adjustment.

When steering an automobile the chauffeur can only correct the deviation from its intended course *after* the deviation has occurred; yet, by making these corrections sufficiently frequent, he can keep his course so steady that the aberrations are scarcely perceptible. There seems no reason why the monetary automobile cannot be driven almost equally straight.

11. "*The plan assumes that a 1 per cent fluctuation can be exactly corrected by a 1 per cent adjustment of the dollar's weight.*" Owing, I fear, to my own fault of phrasing, I have found that several people have acquired the mistaken impression that the plan requires, to be made at each adjustment, an increase of 1 per cent in the weight of the dollar for every 1 per cent *increase* of the index number since the last adjustment; whereas actually the plan requires, to be made at each adjustment, an increase of 1 per cent in the weight of the dollar for every 1 per cent excess of the index number *above par* then outstanding.

From this mistaken premise it has naturally been inferred that, in order that the plan should work correctly, a 1 per cent loading of the dollar would always have to exactly correct a 1 per cent change in the index number, and, very properly, the critics doubted the truth of this. But since the premise was mistaken the objection based on it disappears.

The supposed rule and the true rule for correcting may be contrasted by a numerical illustration which will also show clearly how surely and swiftly the system would push back every deviation of the index number from par. Assume the system launched at a certain date and the index number of prices at that date to be called 100 per cent or par. Let us suppose that, were it not for the operation of the plan, the index number would be rising 1 per cent per month indefinitely. Since no change in the dollar's weight can occur until the first month has passed, the index number will, at the end of the first month, register 101 per cent. The excess above par of 1 per cent is now the signal for increasing the weight of the dollar by 1 per cent. (In this case the excess above par happens to coincide with the increase during the month, which is also 1 per cent.) The dollar is therefore loaded 1 per cent. Let us now assume, with the critics, that a change of 1 per cent in the weight of the dollar does not exactly

correct this rise but represses it during the month, let us say, by only ½ per cent. Then, at the end of the next month the price level will be 101 per cent less the ½ per cent correction produced, plus the assumed 1 per cent increase during the month (101 — ½ + 1) or, 101½ per cent in all.

It will now be observed that the signal for loading the dollar stands at 1½ per cent (although the actual rise in the number has been only ½ per cent). Accordingly, the weight of the dollar will be increased 1½ per cent (not ½ per cent) and will repress the price level, according to our supposition not by 1½ per cent but, say, by ¾ per cent; consequently, at the end of the next month, the price level will be 101½ — ¾ + 1 or 101¾.

The signal for the next loading now stands at 1¾ per cent (although the actual rise has been only ¼ per cent). Consequently the dollar will now be increased 1¾ per cent (not ¼ per cent).

By the same reasoning, the result at the end of the next month will be 101¾ — ⅞ + 1 or 101⅞ per cent (although the rise has been only ⅛ per cent); and at the end of the next, 101 15/16 per cent (although the rise has been only 1/16 per cent). According to the rule supposed, the price level would never reach 2 per cent.

Thus, if in a series of years the price level would have risen, without the operation of the plan, say, 50 per cent, it may well be that, with the plan in operation, there would be an increase in the weight of the dollar of fully 100 per cent (not 50 per cent) and that throughout the period the price level would have been kept always within 2 per cent of par.

It is therefore not essential that a 1 per cent increase in the dollar's weight should exactly correct a 1 per cent increase in prices. It is only essential that the correction should work toward par. Even if the effect of a 1 per cent loading is ¼ per cent or smaller, the cumulative effect of increasing the counterpoise may be trusted to handle the situation. In this connection the numerical example under objection 5 may be read.

12. "*It would offer too tempting a profit.*" This objection is that there would be a constant temptation to coin the so-called "seigniorage" or excess of the virtual or bullion dollar over the coined dollar of 25.8 grains, assuming that these coins are still employed.

Some of the objectors say that the coinage of this seigniorage would, or might, break down the plan by depleting the redemption

reserve. Others, as *The Financial Chronicle*, say that it would nullify the plan because the coinage of the gold would result in just as many dollars in circulation as without the plan.

But even if the government should attempt to seize the reserve for its own private funds the result would not necessarily be a failure to redeem. Any attempt of the government to coin the seigniorage for its own profit would tend to defeat itself; for to inject this new gold coin into the circulation would soon cause a back flow of redundant currency; then gold coin or certificates would be presented to the government for redemption in gold bullion.

This point is overlooked in the very specious argument that the coinage would restore the original number of dollars. To illustrate clearly what these objectors have in mind, let us suppose the seigniorage to be so large that every dollar of 25.8 grains coined would require the bringing to the Mint or Treasury 51.6 grains, of which the Mint would retain half. Suppose, further, that the currency contains, say, 500 millions of gold dollars in circulation, and that, according to the large seigniorage, the Treasury holds bullion capable of being coined into 100 millions more. Suppose further, for the sake of argument, that, were it not for the compensated dollar or seigniorage plan, the whole of this gold would be in circulation, making 1,000 million dollars. The critics referred to think that the coinage of the seigniorage would put back the gold in circulation to this 1,000 millions. They ask triumphantly of what avail would be the raising of the weight of the virtual dollar, if, by coining the seigniorage, every 51.6 grains becomes two dollars after all, instead of one.

This supposed demonstration overlooks the important fact that, under the plan, the price of gold would be lowered just as fast as was necessary to prevent the inflation of the currency which these objectors imagine. That is, the attempt to inject coined seigniorage into the circulation would, as soon as the inflation effect was felt, be registered in an index above par. This would signal, of course, for an increase to be made in the weight of bullion which the miner must bring to get a dollar and also in the weight at which the government must redeem the dollars, paper or coin, in circulation; in other words, it would lower the price of gold. This lowered price would lead, as always, to a flowing of gold into the arts. The flow would proceed in one or both of two streams. Buyers of the cheapened gold bullion could get it direct

from the miner, to that extent keeping it from passing into circulation, or they could get it from the government in redemption of gold coin or paper certificates. The more seigniorage the government sought to take and spend, the more persistently would the index number signal for reducing the price of gold. The price of gold would drop month by month and the government would be compelled to sell a larger and larger amount of its dwindling stock for gold coin or paper certificates. As long as the government kept up this self-inflicted endless chain the result would be not to flood the currency—for the coins put out would return for the purchase of bullion—but to flood the jewelry trade with the cheapened gold, or, to send the gold abroad whenever the compensating plan was not in use. Supposing that to maintain a constant price level required the draining away from circulation into the arts of all coins beyond 100 million, it would follow that the fall of mint price would proceed up to that point. Of course such a mad policy, if persisted in, would end in inability to redeem. In other words, to persist in it too far would be to abandon the compensating plan. It could be pursued without breakdown only up to the point where the gold reserve was still adequate. But it could not be pursued at all without revoking the proviso of the plan that the reserve funds should be treated as a trust fund just as inviolable as the one billion dollars of gold now behind the gold certificates.

There would be no more danger of the government appropriating the gold reserve to its own use than there is now danger of its seizing the present reserve for the greenbacks, or the present 100 per cent reserve for the gold certificates (which could readily be converted into notes), or the reserve to be created for the new banking system. To take a near parallel, the Philippine and Indian governments have never yet been in danger of abusing the store of pesos or rupees by reissuing them in order to help out the government exchequer. If, for the moment, they pass out too fast they immediately come back for redemption in gold exchange.

There is always with us a latent danger of inflation; but if the compensated dollar should be adopted, that danger would be diminished. The plan would involve a double education: First, it could not be adopted until it was realized that its object was to stabilize prices and maintain the constancy of the purchasing power of the dollar. In the second place, it would, therefore, always be a standing object-lesson as to the same principle. The constant buy-

ing and selling of gold by the government at variable rates would give rise to questions by the uninformed public as to the object in view; and the constant clinging to par of the published index number of prices would be eloquent testimony of how the system worked. Any attempt to break down the system would thus be a deliberate departure from the principle of uniformity in the purchasing power of the dollar. As it is at present, inflation can be suggested without the question of changing the purchasing power of the dollar being so clearly thrust forward, since our present system does not even pretend to, or give any mechanism for, such stability.

13. "*The plan would be sure to create dissatisfaction and quarreling.*" This fear is, I believe, wholly imaginary. There would be some ground for it if the proposal were to adopt the old "tabular standard" by correcting money payments through the addition to or substraction from the debt of a certain number of dollars. Under these circumstances the extra dollars paid or the dollars from which the debtors were excused would stand out definitely and would be a subject for debate and dispute, but if the tabular standard were merged in the actual money of the country the ordinary debtor and creditor would be as unaware of how his interests had been affected as he is now unaware of how his interests are affected by gold appreciation. It would still be true that to the ordinary man "a dollar is a dollar."

The contrast between the complaints which might arise under the tabular standard as proposed by Jevons and under the plan proposed here is the contrast between complaints which occur under direct and those which occur under indirect taxation. The taxpayer feels the burden of direct taxation, but even the economist cannot raise him from his lethargy enough to make him complain against the outrages of indirect taxation. It must be remembered that it required several generations to bring the American consumer up to the point of protesting against a high tariff; and even this protest, when it came, was largely based on the recent general rise in the cost of living mistakenly attributed to the tariff as the chief cause.

The truth is that if the proposed system were at once adopted, there would be very little attention paid to what "might have been" if some other plan or index number had been in use. Few besides the jeweler and the miner would be vitally interested in the changes in the government prices. An actual illustration is found in the

fact that the average Filipino or the average inhabitant of India has had no real conception of the vital changes which have been wrought in the purchasing power of his money by the adoption of the "gold exchange standard," if, indeed, he ever heard of it; and no discontent has come from the contrast between what his purchasing power is and what it would have been had the silver standard been retained. In fact, we do not need to seek so far for an illustration. We have it at hand in the very subject we are discussing. The average man does not complain of the present gold standard though billions of dollars are lost thereby. Few realize that the depreciation of gold has affected or can affect the interests of creditor and debtor. We economists may calculate this and show by index numbers that in the last fifteen years the savings bank depositor has been, as it were, cheated out of all his interest by the depreciation of his principal, but he does not yet realize either this fact or its cause. We may similarly show that the bondholder has not really been getting any interest at all but simply eating up his principal; but the ordinary man who believes "a dollar is a dollar" takes little stock in such a curious idea and, if he finds any fault at all with rising prices, vents his wrath not upon the gold mines or the expansion of deposit banking but upon the luckless middlemen, the cold storage plants, the trusts, the tariff, the trade unions, and so forth.

If then, we cannot get the ordinary man today really excited over the fact that his monetary standard has affected him to the tune of some 50 per cent of his principal of fifteen years ago, it does not seem likely that he could get excited because some one tells him that the index number used in the "compensated dollar" plan robbed him of 1 or 5 per cent as compared with some other possible system.

The debtor class favored in large measure bimetallism, or free silver, as a means of helping them pay debts, while the creditor class opposed it. But this was a question of changing the standard, not of keeping it unchanged. If it were proposed to shorten the yardstick, undoubtedly many who would profit in the outstanding contracts would and ought to oppose it. But there is and can be no contest over efforts to keep the yardstick from changing. To establish a new standard would be as difficult perhaps as it was to establish the metric system of weights and measures, but after it was established there would be practical unanimity in favor of keeping it.

14. *"It has never been tried."* True; but the proposal is, in mechanism, almost identical with the gold exchange device introduced by Great Britain to maintain the Indian currency at par with gold. The system here proposed would really be today less of an innovation in principle than was the Indian system when introduced and developed between 1893 and 1900, while the evils it would correct are similar to, but vastly greater than, the evils for which the Indian system was devised. The Indian currency plan, when originally adopted in 1893, consisted virtually of a simple closure of the Indian mints which made the rupee for a time a purely fiat money, having a scarcity value above its bullion value, yet not redeemable in gold. Thus we see that conservative England, in order to get rid of the comparatively trifling inconvenience of a fluctuating rate of exchange with India, adopted a plan which gave India a temporarily irredeemable currency, dependent, moreover, for its value somewhat on the discretion of government officials, a system much more dangerous than the one here proposed could possibly be accused of being. And yet this Indian system, so far from becoming a menace, was soon converted into a system of gold redemption by which a silver country obtains the advantages of a gold standard without changing its coins. This development of the gold exchange standard, afterward adopted in essence in the Philippines, Panama, the Straits Settlements, Mexico, and Siam, I believe to be one of the greatest steps forward in monetary history. Today it is so recognized, although when first devised it was eyed askance. The present proposal is modeled on the same idea, but applied in such a way as to secure a much more important kind of stability, namely, stability not simply of the money of the country with the money metal of some other country with which it has trade relations, but stability with the general mass of commodities.

The truth is, unless I am greatly mistaken, that the last named is the only strong objection to the plan in the minds of most of its critics; it is the constitutional objection to any change of the *status quo*. It is simply the temperamental opposition to anything new. As Bunty well says in the play, "anything new is scandalous." The conservative temperament dislikes experiment because it is experiment. Accordingly it is not surprising that we find many of the objectors saying, "let well enough alone," "let us 'rather bear those ills we have than fly to others that we know not of.'" These people seldom give assent to untried experiments;

yet after the new plan has been tried and established they invariably turn about and become its most staunch supporters. This fact has been often illustrated in our monetary and banking system. Nothing short of the shock of civil war was required to divert us from a state system of banking to a national one. In spite of the intolerable evils of the former, it was easy to find many arguments in its favor. After the change these arguments never reappeared. The same was true of slavery.

But conservatism always yields gradually to pressure. Its resistance is strong but has no resiliency. It is not like the resistance of a steel spring (which, when pushed in one direction, will bend back), but of a mass of dough or putty which, though it resists impact strongly, yet when it is moved stays inert and does not return. Under these circumstances, even if progress is made an inch at a time, it seems to me worth while to try to make it. The two steps first necessary have been taken, namely, the perfecting of the plan and the running the gauntlet of criticism. Any who may not be fully convinced that it has run the gauntlet unscathed, I would ask to read the full description of the plan in the *Quarterly Journal of Economics* and to write me wherein their objections have not yet been answered. I have responded to many such inquiries and I shall welcome more.

Experience shows that the more the opponents of the plan study it the more sure they are to change their minds. I have seen this in numerous instances, many of them through personal correspondence. One economist who at first opposed the plan and published a hostile review, afterward, when in a conversation I answered for him objection 11, which had been his particular stumbling block, changed his mind on the spot. Even some who are still, on the whole, opposed give a partial adherence. Professor Taussig states: "It must be admitted, at the outset, that the plan if carried out with iron consistency for a considerable stretch of time would achieve the results mainly had in view—the prevention of a long continued and considerable rise in prices. It might not achieve that result as smoothly and evenly as its proposer expects, and the qualifications just stated—that it must be carried out unflinchingly for a long period,—should be borne in mind." Professor Kinley says, "I do not see any logical flaw in it." His opposition is to the tabular standard.

It is fair, I think, to say that, in spite of the distinguished character of these and other opponents or semi-opponents, the real weight of authority is already on the side of the plan and

not of its opponents. It has received the approval, to mention a few out of many, of such economists as Hadley, J. B. Clark, J. M. Clark, Mitchell, Persons, Edgeworth, Marshall, Cannan, Keynes, Pigou, Royal Meeker, Adolphe Landry, Achille Loria, as well as, of such other leaders in thought and action as Sir David Barbour, Paul Warburg, Farwell, and President Wilson.

If we simply count votes, it is still true that the numerical majority, except perhaps among economists, of those who have expressed themselves, are, at present, against the plan. Thus, of the newspaper editorials, about two out of seven are favorable, three out of seven are opposed, and two out of seven express no opinion pro or con.

I am naturally desirous of getting as nearly as possible the unanimous approval of economists. The idea of a scientific standard of value is still academic, but it will be ready to pass out of that stage as soon as the practical man finds that academic economists in general believe in it. It is for this reason that I venture to suggest its study by those economists who have not already weighed it in the balance. I do this with the less reticence since I have learned that the credit of working out the plan first belongs, not to me, but to Professor Newcomb. The fact that I was anticipated affords me, at any rate, the opportunity to promote the plan the more impersonally and to urge economists to consider it on its merits. The most that I hope to see accomplished by economists is to make the desirability and practicability of some such improvement in our present dollar a commonplace in the minds of men. Just as the opposition to index numbers of two decades ago has now essentially disappeared so that they are today accepted as a matter of course and even published in practical business journals, so it should be possible, building on the index number idea, within a like period to establish the added idea that the dollar can be and ought to be standardized.

It is not impossible, judging from the many and authoritative endorsements of the plan, that it may be pushed toward realization much faster than this. All depends on the opening up of opportunities. After the present war, for instance, it may be that "internationalism" will come into a new vogue and that some special opportunity will be afforded to bring the plan with its endorsements to the serious attention of the world's administrative officials.

IRVING FISHER.

Yale University.

SELECTED BIBLIOGRAPHY

Simon Newcomb, "The Standard of Value," *North American Review*, vol. CXXIX, no. CCLXXIV (Sept., 1879), pp. 234-237.

Aneurin Williams, "A 'Fixed Value of Bullion' Standard," *Economic Journal* (London), vol. II (June, 1892), pp. 280-289. Discussion by Sir Robert Giffen, "Fancy Monetary Standards," *ibid.*, pp. 463-471; reply by Aneurin Williams, pp. 747-749.

Irving Fisher, *The Purchasing Power of Money* (New York, Macmillan, 1911), ch. 13.

O. M. W. Sprague, "Fisher's Purchasing Power of Money," *Quarterly Journal of Economics*, Nov. 1911, pp. 148-151.

Irving Fisher, "International Conference Regarding the Cost of Living." Report before Congress of Chambers of Commerce, Boston, Sept. 1912, reprinted in *Independent*, vol. LXXIII, no. 3330 (Sept. 26, 1912), pp. 700-706.

Editorial, *Commercial and Financial Chronicle*, Oct. 5, 1912. Replies by Irving Fisher and further discussion, Oct. 26, and Nov. 16, 1912.

Irving Fisher, "Standardizing the Dollar" (replies to objections), *New York Times*, Dec. 22, 1912.

Irving Fisher, "A More Stable Gold Standard," *Economic Journal* (London), vol. XXII, no. 88 (Dec., 1912), pp. 570-576.

William Blackman, "The Increasing Cost of Living, Its Cause and Cure," *Rollins College Bulletin*, Dec., 1912.

Lucien March, "Un Projet de Stabilisation des Prix." Communication à la Société de Statistique de Paris, le 15 janvier, 1913, reprinted from its journal, pp. 10-24. Discussion by Edmond Théry, G. Roulleau, Aug. Deschamps, Adolphe Landry, Lucien March, Irving Fisher.

Irving Fisher, "A Compensated Dollar," *Quarterly Journal of Economics*, vol. XXVII, no. 2 (Feb., 1913), pp. 213-235. Appendices, pp. 385-397.

Irving Fisher, "Standardizing the Dollar," *American Economic Review*, Supplement, vol. III, no. 1 (March, 1913), pp. 20-28. Discussion by Nathaniel C. Murray, Albert C. Whitaker, Williard C. Fisher, O. M. W. Sprague, B. M. Anderson, Jr., R. R. Bowker, E. W. Kemmerer, and Irving Fisher, *ibid.*, pp. 29-51.

David Kinley, "Objections to a Monetary Standard Based on Index Numbers," *American Economic Review*, vol. III, no. 1 (March, 1913), pp. 1-19.

Augusto Graziani, *Di una nuova proposta per rendere più stabile il valore della moneta*, Reale Instituto d'Incoraggiamento di Napoli. Nota letta nella tornata del 6 marzo 1913 (Napoli, Cooperativa Tipografica, 1913).

Peyton R. Anness, "The Compensated Dollar," *Yale Scientific Monthly*, March, 1913.

Corrado Gini, "L'equazione dello scambio e il potere di acquisto della moneta," *Rivista Italiana di Sociologia*, Rome, Anno XVII, Fasc. II (March-April, 1913).

E. B. Wilson, "Review of the Purchasing Power of Money," *Science*, May 16, 1913, pp. 761-763.

F. W. Taussig, "The Plan for a Compensated Dollar," *Quarterly Journal of Economics*, vol. XXVII, no. 3 (May, 1913), pp. 401-416.

F. Zeuthen, "Irving Fishers Forslag til Prisniveauets Stabilisering, *National-ökonomisk Tidskrift* (Copenhagen), Hefte 4 (Jul.-Aug., 1913), pp. 350-364.

Irving Fisher, "What an International Conference on the High Cost of Living Could Do," *Institut International de Statistique, Vienna, XIV^e Session, Rapports*, no. 25, Sept., 1913.

J. M. Clark, "Possible Complications of the Compensated Dollar," *American Economic Review*, vol. III, no. 3 (Sept. 1913), pp. 576-588.

E. M. Patterson, "Objections to a Compensated Dollar," *American Economic Review*, vol. III, no. 4 (Dec., 1913), pp. 863-875.

Irving Fisher, "La Hausse Actuelle de la Monnaie, du Crédit et des Prix, Comment y Remédier," *Revue d'Economie Politique*, Paris, 1913, pp. 419-434.

Irving Fisher, "De la Nécessité d'une Conférence Internationale sur le Coût de la Vie." *La Vie Internationale*, Brussels, Tome III, Fasc. 12 (1913), pp. 295-311.

G. M. Boissevain, "Een Ideale Waarde-Standaard?" *De Economist*, The Hague, 1913, pp. 441-473.

David Davidson, "Irving Fishers förslag att reglera penningens köpkraft," *Ekonomisk Tidskrift* (Stockholm), 1913, Haft. 3, pp. 88-107.

W. Eggenschwyler, Review of article in *American Economic Review*, Supplement, March, 1913, *Archiv für Sozialwissenschaft und Sozialpolitik*, Tübingen, Germany, Band 37, Heft I (July, 1913), pp. 258-264.

A. W. Allen, "The Equation of Exchange and the Compensated Dollar, an Analysis of Professor Irving Fisher's Theory and Plan" (not yet published).