



**Online Appendix to the JHET Article: “‘The Initiated’: Aaron Director and the Chicago Monetary Tradition,” by George S. Tavlas**

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**Aaron Director: Lecture on Full Employment  
Institute for Humane Studies, June 20, 1956**

*Transcription by George Tavlas on May 25 and 26, 2019<sup>1</sup>*

In recent years we have been preoccupied with the problem of full employment, and this is supposed to be a new objective of public policy, but it isn't a new objective of public policy since it can be subsumed under the old objective of maximum output ... which is a more meaningful objective than merely employing everybody regardless of the character of the employment.

What was new was that the objective became identified with specific means of attaining maximum output. These specific means have to do with operations on the income stream, which, if pursued, are of necessity, anti-liberal or collectivist in character. Thus the large volume of government activity, which is usually accepted by its proponents for other reasons, received the support of those who became concerned about the problem of unemployment and of output. This is of some importance and might have been the cause of considerable danger to the liberal position.

The classic-neoclassical position involved the conclusion that long-run stationary equilibrium would be achieved with full utilization of resources. For a time it appeared that conditions could be specified — and many thought that they had already appeared — which would lead to disequilibrium with less than full employment of the community's resources.... You could reach a stage in which the level of accumulation was such, that the opportunities for investment were such, that the real rate of interest that was appropriate would be negative, but in a monetary economy interest rates could never be negative, and as a consequence you would get an economy in which many of the resources were idle. Now it is generally agreed that at the theoretical level there is really no inherent conflict — that a monetary system prevents the emergence not only of a negative market real rate as well as an equilibrium real rate through the influence of the stock of money, which can be altered.... There remains, therefore, only the problem of short-run changes in income and prices, and out of the discussion of the long run problem ... there again appeared an emphasis on the connection between consumption and income as the major factor in explaining short-run changes. This is an entirely

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<sup>1</sup> Numbers in parentheses mark the time into the lecture.

different issue than the one of long-run equilibrium because this is an empirical question: which is the more significant relationship, whether that between income and expenditures and the level of output or that between monetary factors and income.

For “a considerable time ... there was a complete disregard of the monetary factors in determining the short run variation in income. This too gave a bias to government operations on income and expenditures, as a method of either preventing short run variations or as a method of correcting short run variations. This too was inconsistent with the liberal emphasis on minimization of government activity. While the first conflict in the long run position has been eliminated [i.e., settled] the conflict at the short run level I do not believe has of yet been resolved and it cannot be resolved on a theoretical basis. It can only be resolved by further empirical study of the past variations in the supply of money and variations in income and in prices.

A difficulty in empirical studies the past history will consist of a period in which the variations in the supply of money were quite fortuitous and to those who place great reliance on expectations as an important factor in the short run behavior of the economy, particularly expectations with respect to the behavior of money it is not too satisfactory to rely on data in which there were no such expectations, in which the variations in the supply of money were essentially fortuitous.

Example: the period of the 1930s, which was a very short period, characterized by a large volume of unemployment becomes to be expected as proof of the fact that we had reached a period of stagnation during which there were inadequate opportunities for investment ....

This revival of interest in the significance of monetary conditions is of (9:21 min) considerable importance [because] it directs us once again to an examination of the appropriate monetary system. There is really no importance in doing so when the dominant opinion emphasizes its minor character. Most members of our profession were of the opinion that it had little significance.

Monetary arrangements are a necessary function of government. This [view] includes those in favor of a commodity standard, such as gold.

On a free banking system — I would argue that a competitive monetary system cannot provide its own monetary system. The reason it cannot do so is that there is no equilibrium price level with a completely free banking system since the costs of changing the units of the fiduciary issuers are quite small so you can have a continuously increasing supply of money and a continuously increasing level of prices which I suppose will ultimately reach some infinite value.... [Thus] the issue of fiduciary currency is a natural monopoly. There is no one to argue, or I think no one will argue, that this particular natural monopoly should be left unregulated.... [Moreover] the undesirable consequences of the variations in the supply of money, which would take place, fall on others than on

issuing banks. [Thus] the disadvantages of a free banking system would not be confined to the enterprises engaged in the community but would also fall on others.

Thus if the monetary system is an appropriate function on the state, the only problem that remains is the standard that should be adopted. One of the important considerations from the point of view of the liberal position is that discretionary authorities should be eliminated or at least minimized. This opposition to discretionary authority in any field has always been one of the cardinal characteristics of the liberal position.... In this [monetary] field, discretionary authorities have not been very successful, just to put it very mildly. And some have argued, they couldn't possibly be successful in this area. And the reasons are two: first, the inherent difficulty — some would say, the impossibility — of forecasting short run changes in the economy (15:20). Second, in this area — unlike some others where discretionary authorities are used — great importance is to be attached to providing some certainty in the way of expectations for the community so that enterprises will not be required to add to the risks which they already have to assume with respect to the character of particular products and the demand and supply conditions of them [so that] they should not be asked to assume the risks of general changes in demand and prices. It is inherent in discretionary authorities that they cannot provide these general expectations for the community (16:15). [Repeats the 2 reasons]: discretionary authorities “are not successful and the circumstances indicate that they cannot be successful because they cannot provide these expectations so that in effect they cannot hope to get the community with them but in effect have to work against the tendencies that develop in the community. In this connection, I would point out that the late Professor Simons's original emphasis was primarily on the rule of stable rules than on the character of the rules themselves. There (12:07) were occasions when he was inclined to argue that it didn't really make any difference what kind of a monetary system you establish — one that led to rising prices or falling prices, and so on — but what was important was that the rules should be fixed and known in advance so that the community could rely upon them (17:5).

We have some alternatives:

(1) Adopting a commodity std. The principal candidate is gold. This is a costly method of running a monetary system. It is strange that we have to devote a fraction of our resources to produce the necessary gold as a means of providing us with a monetary standard. But this is a minor point. It would become a major point if we really had to adopt such a standard in which there are no other means of circulation.

Major advantage is supposed to lie in the fact that it provides a check to governmental irresponsibility.

This is why classical economists did not explore alternatives — the belief that any other fiduciary system would produce irresponsible government (20).

[Concludes on commodity standard]: we cannot be certain how successful such a system would be

even if adhered to. It's true that it removes discretion of authority and it fulfills one of the necessary conditions I discussed about the expectations of the community. But the expectations would have to be based on prospective changes in the production of gold (20:22). Such a commodity system requires at a minimum a system of insurance on bank deposits (20:37) (Friday, May 26, 2019) which already seems to be a strange requirement in the liberal system because if we do not have a system of insurance of bank deposits, then any shift in the preference for gold over fiduciary issues might well lead to large changes in the total supply of money and, consequently, to large changes in prices and output. Or at the other extreme — and this, I'm sure, as a requirement that the proponents of a commodity system would welcome least — requires the abolition of fractional reserves; because, if fractional reserves were abolished, there could not be any shift from one form of currency [money] into another, thus eliminating this disturbing element. But if fractional reserves were abolished, then the cost of producing the necessary gold to continue operating on the present level of prices might not be a minor factor anymore.

But I think that there is a more fundamental objection to the adoption of the commodity, gold: What is the necessary check to government irresponsibility? Surely, it is only that the system will be adhered to. Opinions differ on this issue — whether the community will adhere to a particular system. My own conclusion is that the conditions for assuring adherence to this system are now lacking. Consequently, we can no longer say that it will provide a check to government irresponsibility. This is especially the case since it depends not only to the adherence of any particular country that adopts it, but it mainly requires the adherence of other countries. I conclude: we are more likely to be successful in creating, if I may use the form, a new religion than it was restore an old one that in many eyes has been discredited — but this is a question on which we cannot be very confident.

The second alternative is that of a stable level of prices as basis for determining the fiduciary standard. This is a question of the extent to which we are likely to adhere to such a system once we adopt it. In its favor: it is readily comprehended by the community, although we have to add the qualification that every member of the community is more influenced by particular prices than by prices in general.... It does introduce a considerable amount of discretion with respect to the timing and magnitude of the operations of the monetary authority. In addition to that, it introduces the problem of the definition of the price level which is to be stabilized. All I can say: I think it is to be preferred to present arrangements. Under the present arrangements, we have all of the disadvantages of a discretionary system and none of the advantages.

The original position of the so-called Chicago view or Chicago School, which is essentially the work of Henry Simons, was that the ideal system was one that adopted neither the commodity standard nor the stable level of prices as a basis, but one that adopted a fixed quantity of money or a fixed quantity of money to allow for any growth in the resources of the community or any improvement in the utilization for the resources (27:00).

To what extent is the community likely to adhere to such a [fixed quantity-of-money] system? I can see two marked differences between our expectations in this respect as between the commodity, gold, and a fixed quantity of money. It has a great advantage that it is easily understood [referring to a fixed quantity of money] as against [i.e., opposed] to the stable level of prices. Although, of course, until it has proven itself successful it will be easily understood in a formal sense, but its significance will not be apparent to the community. Thus, adherence will ultimately depend on the successful character of this rule. It, and all other alternatives will depend in large measure on the climate of opinion which prevails, because if the recent climate of opinion continues, then there must be no changes in community at all, especially no downward changes, then it seems to me that neither the commodity standard, nor the stable level of prices standard, nor the fixed quantity of money has a ghost of a chance. Consequently, to say that any of these systems tends to limit the irresponsibility of governments is irrelevant.

In the original formulation of the fixed quantity of money-rule or the stable level of prices rule, great importance was attached to the reorganization of the banking structure, which is really a different thing than the monetary rule adopted. This is the part of the original formulation which has received most criticism; if it had not been incorporated in the original scheme, the scheme itself might have received a lot more support. Why this should be [the case] I never have known except the fact that we seem to believe that everything we have must be the result of natural forces and any drastic change that was embodied in the 100% reserve banking system suspect.

The reason why emphasis was placed on elimination of fractional reserves is that fractional reserve banking itself contributes to economic instability, in two ways: (1) bankers are likely to participate in the changes in attitude that take place in the community and to make those changes in attitude effective. As creators of a large volume of money, they can exercise a decisive influence in changing the upward or downward movement. Second reason: the possible loss of confidence in banks in unfavorable conditions which would lead to striking changes in the supply of money (31:55).

Discussion of “reorganization of banking structure.”

This is part of the original Chicago formulation which has received most criticism....

The reasons why emphasis was placed on the reorganization of the banking system to eliminate fractional reserves was mainly that fractional reserve banking itself continues to economic instability, in two ways: (1). The bankers themselves are likely to participate in the same changes of attitude that takes place in the community and they are in a particular, good position to make these attitudes [i.e., expectations] effective. As creators of a large volume of money they can exercise a decisive influence

in changing [the money supply] upward or downward. (2). Possible loss of confidence in banks unfavorable conditions which would lead to striking changes in the supply of money. At the time of this proposal was first made we didn't have an insurance system for banking. Now, [with deposit insurance] this second part has been largely eliminated, although it is strange that we should be led into accepting the particular regulation of a group of enterprises in this particular area.

I doubt whether the emphasis on 100% reserves is as strong as it was in the original formulation of the position at Chicago. I may put it this way: the choice between fractional reserves and 100% reserves depends on the extent to which we want to rely on discretionary authorities. I may illustrate this with respect to the fixed quantity of money or by a quantity of money increased by some fraction annually. With 100% reserve banking, all the authorities would have to do is to make certain that they, themselves, created the necessary addition, say, to the quantity of money. With a fractional reserve system, they could only operate on the reserves, and they would create that amount of reserves which they thought would carry with it the necessary increase in the quantity of money, since it is not the increase in reserves which is the basis of the standard, but the increase in the quantity of money which is the basis of the standard. If the fractional reserve system responded in different ways over periods of time to the level of reserves, then the monetary authorities would have to be given some discretion in determining the increase in the level of reserves in order to accomplish the final increase in the total quantity of money. (35:00).

From the point of view of eliminating all discretionary authority, as well as in terms of improvements in the functioning of the system, there is still a great deal to be said for working in the direction of a banking system with 100% reserves. But it is not nearly as crucial a factor as we once considered it.

Some implications of the system with a fixed quantity of money or a stable level of prices for our relations with other countries. If we adopt a system of independent national policies, we face the problem of what to do with exchange rates. If we adopt fixed rates of exchange — which is supposed to be an advantage of a commodity standard — it is clear that all adjustments between countries has to take place via direct controls over international trade. I doubt if we should adopt such a system of controls as a method of making adjustments. Therefore, a necessary implication of an independent national monetary policy is for free, flexible exchange rates.

A spurious argument against free exchange rates is that there must be instability in exchange rates beyond that needed to bring about adjustment as a result of private speculation. If this argument is applicable to exchange rates, it ought to be applicable to commodity exchanges as well.

Another argument against flexible exchange rates: it makes it possible for governments to be irresponsible. What is implied: we cannot trust our own government, but must trust the discipline of some other government to follow an appropriate policy. If we start off with a stable level of prices as

an objective, if this led to a significant change in the rate of exchange between countries, we are not likely to continue adherence to the national standard and thus will abandon the standard. So the other case, we abandon the commodity standard.

[In response to a question] The last 4 years: the chief monetary reserves have operated on the supply of money. This empirical observation is why I said that we have restored our faith in monetary considerations. It has been achieved without a rule, but by discretionary authority — shows that “even authorities can follow a proper program” (42:09). But the criticisms of the discretionary authorities, it seems to me, is that we have no assurance that they will continue to follow such [a policy]. It is fortuitous that they have followed this particular program of increasing the quantity of money by some given amount. We have some evidence that they abandoned this standard in the last 6 months and did not increase the quantity of money as they have been doing before. This may be the cause of some difficulty.

Second part of audio

[Another question] [Question had to do with 100% reserves system]

Enterprises get their financial resources from institutions other than banks. They have to rely on institutions other than the banks under the 100% reserves proposals. There has always been a troublesome question of how to design a means of payment. But I don't think that the extension of credit by a department store, for example, provides a means of creating a means of payment. Moreover, such department stores can extend their credit by obtaining the resources from other institutions — they can't do it on their own. Presently, they obtain them from banking institutions: this, they could no longer do. (3:17).

[Under 100% reserves] [department stores] could obtain resources from savings institutions or by borrowing in other forms.

[Someone here asked a long question]

On the basis of the little evidence that now exist, we are inclined [to believe] that the primary source of instability has not been changes in the process which you describe — that is, changes in preferences. But the primary source [of instability] has been changes in the quantity of money. I am not saying that this is well-established. It is precisely because we think that it has been changes in the supply which have been the dominant feature, that we have been gradually departing from the emphasis on both 100% reserves and on the original emphasis on eliminating everything in the community except, on the one extreme, means of payment, narrowly defined, and at the other extreme, common shares or, one step below that, perpetual bonded indebtedness. But this is an empirical, not theoretical, question.

If I really believed that the private system could provide its own fiduciary system without any government intervention, I would say we do not face the same dilemma that you raise [in a question which was not understandable]. A commodity standard poses the same problem. On the issue of a multi-commodity system, if there are advantages to such a system, one comes very close to a system of a stable level of prices.

I don't attach too much importance to the particular level of prices to be stabilized. A standard that requires that the level of prices should rise by 2% per year would be practically as good as a standard that requires that the level of prices should not change at all. A standard which requires that the level of prices (10:06) should fall by 2% a year would be, apart from some difficulties that arise because of the resistance of institutions to changes, would be just as good as a standard which required a stable level of prices. I attach much less importance — in this sense the emphasis that Simons originally placed on it — I attach much less importance to the particular rule than I do to the rule itself. (around: 10:20).

[Someone asked a question about how to affect changes in the quantity of money, mentioning that Simons favored deficits financed by changes in money]

I don't think this is a particularly importance consideration as long as we have a large volume of government debt; it can be used to provide the necessary increase in the quantity of money. [A lot of background noise emerged — made it difficult to follow] (13:30).

[In response to a question]: It is not the function of governments to operate on interest rates. I would argue that it is the supply of money itself that is the crucial factor. It is that which determines variations in output and prices.

Question from audience: The supply of money because of what?

Director: Because it is crucial, that's all. There is no doubt that large changes in the level of prices have come about with large changes in the supply of money. There are people who would say that we just could not have done without the changes in the volume of money.

[A question followed about the relative importance of changes in the demand and the supply of money]: This can only be resolved by empirical considerations. But, in the past, changes in the demand for money came about through changes in the supply of money. If that is the case, what we ought to do is prevent the changes in the supply of money (17:00).

If there is foreign trade, there are only two kinds of adjustment that can take place. If there are fixed exchange rates, there need to be direct controls. The preferable method of adjustment is in the price of



one currency relative to another.

Director referred to “a question which Professor Hayek raised” (24:10). What would happen under a 4% annual money growth rule if the level of prices suddenly went up, by 10 or 15%. Then the monetary authorities are no longer in there. [This was an issue raised by Hayek.]

But our position: these things will not happen in such a system. But this is an empirical issue.

[In response to a question about the relative importance of fiscal and monetary policies]: we cannot be certain that operations on the income stream via expenditures and taxation, that they will not be more prompt and effective than operations on changes in the quantity of money. Does it make a difference whether you increase the quantity of money through open market operations, or whether you do it by decreasing taxes keeping the level of expenditures constant, or by increasing the level of expenditures, keeping taxes constant? This can only be resolved through empiricism.

[Around 32 min — a lot of inaudible discussion among members of audience].

In response to a question: how would we modify the Fed? Director responded: the first thing to do is to abolish it, and substitute a rule under which the money supply would increase by 2% or 3% a year (ended at 44:00).