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Abstract

Throughout modern history and especially in the last century, business cycles, inflation, and banking crises have plagued the world economy. Such problems stand in the way of achieving uninterrupted economic growth; the ideal economic state. Economists versed in Austrian Business Cycle Theory claim to have the solution to these problems. They blame fiat money and fractional reserve banking for the boom-bust cycle, inflation, and financial crises. As a solution, they offer a monetary system consisting of a 100% reserve gold standard. Austrian economists have various solutions such as free banking, but this paper focuses on the 100% reserve gold standard.

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By David Rasho

I. INTRODUCTION

Throughout modern history and especially in the last century, business cycles, inflation, and banking crises have plagued the world economy. Such problems stand in the way of achieving uninterrupted economic growth; the ideal economic state. Economists versed in Austrian Business Cycle Theory claim to have the solution to these problems. They blame fiat money and fractional reserve banking for the boom-bust cycle, inflation, and financial crises. As a solution, they offer a monetary system consisting of a 100% reserve gold standard. Austrian economists have various solutions such as free banking, but this paper focuses on the 100% reserve gold standard.

These gold proponents make a strong case that the introduction of fiat money, government control of monetary printing, and fractional reserve banking have all hurt economic welfare. Theoretically, they show how a 100% reserve gold standard could provide the backbone for an economy.

While the theory is sound and convincing, these economists seldom address whether a shift to a 100% reserve gold standard is feasible for today's complex economy. Use of fiat money is worldwide, as is fractional reserve banking. Economies everywhere structure themselves around this system, and changing the system could be extremely difficult and costly. The purpose of this paper is to explore the workings of a 100% reserve gold standard, to explain the nature and extremity of the economic and political obstacles of converting to a 100% gold standard, and to discuss potential transition processes. To accomplish this purpose, a history of the United States' use of gold as money is presented, followed by an explanation of Austrian Business Cycle theory, then an explanation of the merits of a 100% reserve gold standard. Provided next is a section covering

the implications of a 100% reserve gold standard on government, followed finally by a survey of proposed processes for transitioning to such a system. After understanding these areas, I conclude the following: A 100% reserve gold standard, if implemented, would be far superior to the world's current monetary system. However, Austrian economists have failed to sufficiently outline a possible plan of transition. This deficiency makes the political and economic obstacles to a 100% reserve gold standard insurmountable.

II. HISTORY OF THE GOLD STANDARD IN THE UNITED STATES

A 100% reserve gold standard never existed in the United States. But from July 4th, 1776, when the United States of America declared independence until the collapse of Bretton Woods on August 15th, 1971, the United States dollar was convertible to gold. During this time period, the degree of convertibility varied and was subject to suspension.

Originally, an international gold standard existed. Proponents of a 100% reserve gold standard generally find the classical system far more appealing than the current fiat system. Because a 100% reserve gold standard never existed, its proponents cannot empirically prove that the system would work. Instead they point to the United States in the 1880's, the decade in which the country maintained its purest form of the gold standard, as proof that a 100% reserve gold standard can allow an economy to experience uninterrupted economic growth.

Under the international gold standard, government money was redeemable for gold coins. Governments settled trade deficits/surpluses by moving gold from country to country. If a government issued more notes without increased gold backing, prices and incomes would rise in the country. Assuming fixed exchange rates, such monetary expansion must lead

to a trade deficit as increased domestic prices make imports less expensive and exports more expensive. This deficit would lead to an outflow of gold, leaving the inflating country in a crisis. The outflow of gold would place tremendous pressure on the banking system, which must use a dwindling supply of gold to back an increasing amount of paper notes. A country could not save its currency and continue expanding the money supply without eventually losing all of their gold. Inevitably, facing the ruin of their currency, governments would have to contract the money supply suddenly. While the classical gold standard did not completely prevent business cycles and inflation, it did keep cycles shorter and far less damaging than those experienced in the 20th century (Rothbard, 1991).

The United States converted the dollar to gold for most of its history. In arguing against a gold standard, one might look to the panics and economic downturns from 1776-1971 as evidence of the inability of a gold standard to provide the monetary foundation for an economy. 100% reserve gold standard proponents hold an alternate view. Rather than showing inherent problems with gold as money, they view this economic turmoil as showing that gold functions as money as well as governments allow it to do so.

When governments stopped exchanging dollars for gold and printed more money to finance operations such as wars, damaging cycles and inflations occurred. For example, in February of 1861, the U.S. began printing legal tender known as "Greenbacks" to finance the Civil War. The government allowed banks to stop making gold payments three months prior, and over the course of the war prices increased 110.9%. Even worse for the economy was the accompaniment of massive increases in taxes and public debt (Paul, 1982). Similar economic hardships occurred as result of massive seignorage during the Revolutionary War and the War of 1812, and had similar disastrous impacts on the United States' economy.

When the United States government experimented with central banking in the 1800's, the economy suffered. The Second Bank of the United States provides a good example. Set up in January of 1817, and 20% owned by the government, the

bank immediately began expanding the money supply through fractional reserves. In two years, the Second Bank of the United States had increased the money supply by 40.7%. This expansion was followed by a painful contraction as officials realized the bank would soon be unable to make gold payments. In one year, the money supply dropped 28.3%, resulting in widespread bankruptcies, and even a partial and temporary return to barter trading (Paul, 1982). Other various forms of fractional reserve banking had similar effects on the U.S. economy.

The essential point here is that these economic problems resulted from movement away from a pure gold standard, not from inherent problems with gold as money. From 1879 to 1889, the United States maintained its most pure version of a gold standard in history. The results of this period support the proponents of the 100% reserve gold standard. The CPI fell 4.2% while wages jumped a staggering 23%. Interest rates fell substantially, labor productivity rose 26.5%, and GNP per capita increased 3.8% per annum. These statistics can be attributed to a lack of any sustained inflation, an increase in savings and capital formation, and technological advancement. (Paul, 1982). Proponents of a 100% reserve gold standard maintain that all evidence from the United States' experience with the gold standard shows that breakdowns under the gold standard come from impurity of the standard. They conclude that the degree of purity is directly correlated with the health of the economy.

The 20th century can be characterized as a steady movement away from gold as money, culminating with the collapse of Bretton Woods in 1971. Currently no country offers to convert its currency to gold. An international fiat system exists, lacking the check on inflation that existed under the international gold standard. Fractional reserves exist worldwide, and are regulated by central banks. At this point it becomes necessary to discuss the negative effects of fractional reserve banking. Making the most compelling argument against fractional reserve banking, and for a pure gold standard, are the Austrian economists.

III. AUSTRIAN BUSINESS CYCLE THEORY

Most proponents of a 100% reserve gold standard recognize the same major problem with fiat money. Governments have the ability to inflate the

currency through seignorage or fractional reserve banking. Rare in history is a government who, given the power to purchase its own debt, refuses to do so (Paul, 1982). Many mainstream economists see no problem with the current system, but most gold standard supporters subscribe to a different school of economic thought.

Austrian economists view inflation in a radically different manner than the mainstream. According to the Austrians, inflation is defined as an increase in the supply of money. The increase in prices that follows is merely a consequence of inflation rather than inflation itself. Monetarists partially accept the Austrian definition because they agree that the money supply is closely correlated with inflation. On the other hand, economists with more Keynesian leanings fail to accept the Austrian definition. Ludwig von Mises founded most Austrian theory regarding inflation during the early and mid 20th century. F.A. Hayek expanded Mises' work on the business cycle after studying under Mises for years (Rockwell, 2000). Current Austrians have extended the theory to a variety of other areas, but the trademark of the Austrian school is still business cycle research.

If inflation is any increase in the money supply, then the causes of inflation are increased money printing by governments, and the extension of bank credit through fractional reserve banking. The source of the inflation leads to different implications for the economy, but the same end results. Austrians contend that of all expansionary policies, those that increase the supply of money without an equal increase in gold or other commodity money will prove extremely harmful to economic growth. Causing this conclusion to differ from the mainstream's is the Austrian's intense focus on acting individuals in a constantly changing environment rather than the use of aggregated equilibrium models. By focusing in this manner, Austrians can better understand the distribution effects of inflation and why expansionary policy does not promote real economic growth.

One way for inflation to begin occurs when governments finance deficits by printing more money. The obvious effect of such policy will be a decrease in purchasing power as governments create new legal tender without increased economic growth. While mainstream economists move from recognizing the

existence of new money to recognizing an upward movement in the general price level, Austrians take a different approach. They form their theory by following the injection of money, tracing its consequences as it moves through the economy. They account for what some consider economic phenomena through an explanation of human action in an inflationary environment.

The inflationary cycle begins at the precise point where a government injects new money into the economy. Assuming the new money is for deficit financing, it will often first find its way into the hands of government contractors. Borrowing from Henry Hazlitt, the great popularizer of Austrian economics, the following example will show a case where the government prints money to pay back war contractors (Hazlitt, 1996). As this occurs, these contractors now have more money than before, while prices in the rest of the market remain unchanged. Their natural tendency will be to respond to their increased demand by raising prices, expanding production and investment, and increasing employee wages. Causing this is the contractors' perception of themselves as being better off relative to the rest of the economy. Such behavior is rational and would be correct under natural circumstances, but this situation is not natural. The contractors' higher relative standing exists only because the new money has yet to raise prices throughout the economy.

The next phase involves the new investment and production by the war contractors. These contractors will spend the newly created money on raw materials for production such as steel, and on building materials for a new plant to accommodate the perceived increase in demand. At the same time, employees of the war contractors will begin spending their additional income on new cars, homes, and luxury goods. Now prices and wages rise in the automobile, housing, luxury, steel, and construction industries. These participants are better off because their incomes have increased while the rise in prices has spread only to their industries and to the war contractor industry.

By this time, the trend should be apparent. The new money will be further disseminated throughout the economy and prices will rise in most areas.

The greatest gainers from the situation are the war contractors who used their increased income in a market that had not adjusted its prices. Individuals who received the new money last but were forced to pay the already adjusted prices are the greatest losers. This group most often includes individuals on fixed-incomes and the lower income population. At this point it is important to realize that in the end all parties will lose. A recession will result because businesses received improper market signals and based their actions on them. Those who received the new money early expanded their production based on a false signal telling them they were in a better position relative to the rest of the economy. The truth of the matter is that the boom for certain industries was counterfeit. The war contractors received their increased money from a customer who would have defaulted without the printing press. Their expanded production and investment, as well as expansions in other areas, must now be wiped out as it becomes apparent that the economic growth was artificial.

While the above example conveys the intuitive nature of the Austrian theory, its simplification of the process makes further discussion necessary. In most economies, expansionary policies are undertaken more than once. This makes the situation more complex as individuals begin to expect inflation and act accordingly. When people begin to expect inflation, sometimes prices actually rise faster than new money is being created. The effect of this is to create a shortage of money in the economy. While policy makers may argue that this phenomenon is a sign that still more money should be put in circulation, Austrians strongly disagree (Mises, 1978). They maintain that increasing the money supply further will only worsen the problem. The true cause is the fact that during inflation, "Everyone becomes anxious to keep his cash holding, on which he continually suffers losses, as low as possible" (Mises, 1978). This preference of goods to cash will allow prices to rise faster than the actual inflation. In reality, there is no shortage of money, people are simply acting based on high inflation ex-

pectations. Mises took an extremely pessimistic view of countries using inflationary policy, predicting that, "Once the people generally realize that the inflation

will be continued on and on and that the value of the monetary unit will decline more and more, then the fate of the money is sealed" (Mises, 1978).

Another, more complicated way for inflation to begin exists; it occurs when the nominal interest rate falling below its natural level. The natural level

is defined as the rate that reflects the true scarcity of capital in an economy. This inflation occurs through government mandated lowering of interest rates via central banks, and the extension of bank credit through fractional reserve lending. Both are commonly prescribed methods for jump-starting an economy. While Austrians agree that low interest rates are a recipe for a short economic expansion, again they predict horrible long-term implications. Ludwig von Mises spent much of his career examining the business cycle, and Friedrich von Hayek later continued and expanded this work.

Throughout his career, Mises attempted to show that the extension of bank credit through fractional reserve lending is very similar to the printing of more money. Only the way money enters circulation is different. "...by lowering the interest rate they charge, banks can intensify the demand for credit. Then, by satisfying this demand, they can increase the quantity of fiduciary media in circulation" (Mises, 1978). Such behavior by banks will lead to a cycle beginning with economic growth, and ending with economic depression or recession. The growth phase begins simply because credit is easily attainable for entrepreneurs. "Since loan money is now cheaper to acquire than circumstances warrant, entrepreneurial ambitions expand" (Mises, 1978). While mainstream economists look at the ensuing growth as genuine economic development, Austrians tend to be far more skeptical. Mises believed that "Every single fluctuation in general business conditions- the upswing of the peak of the wave and the decline into the trough which follows- is prompted by the attempt of the banks

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of issue to reduce the loan rate and thus expand the volume of circulation credit through an increase in the supply of fiduciary media" (Mises, 1978).

Although a temporary boom can be created through an artificially low interest rate, such growth cannot be maintained. Causing the growth is the false signal that additional projects have become profitable at the new, lower interest rate. The signal is false in the sense that it was created "not through the accumulation of capital, but through banking policy" (Mises, 1978). The cycle begins as entrepreneurs throughout the affected area enter new business ventures, because more ventures are profitable at a lower interest rate.

Businesses judge potential projects based on the present value of future profits using the following equation:

$$\text{Present Value} = S \left\{ \frac{\text{Expected future profit}}{(1 + \text{interest rate})^n} \right.$$

Extending bank credit through fractional reserve lending shrinks the denominator in this equation making more projects profitable. These projects represent malinvestment and they eventually place upward pressure on factor prices. Causing this is the fact that the newly lowered interest rate does not reflect the true scarcity of capital. The interest rate falsely signals to entrepreneurs that the economy can support their growth when in reality, the supply of capital and labor has not increased. All that happens is more firms begin competing for the same stock of resources. Soon the labor market tightens, and materials become more expensive. Many projects that once seemed profitable now become unprofitable and fail. Thus the bust portion of the cycle occurs because the price inflation is initially hidden (Mises, 1978).

Hayek's cycle theory expanded on how price inflation reveals itself well after the expansionary policy induces a cycle, and on the inner workings of the business cycle. He explained that lower interest rates lead producers to invest in more roundabout methods of production. Because credit can be obtained cheaply, producers use more capital intensive methods that will lead to higher profits after the initial capital spending. Hayek referred to this as a "lengthening of the production process" (Hayek, 1967). During

this period, investment in producer goods increases as money shifts away from consumer goods. In terms of the business cycle, this is the boom portion. All of the new projects compete for a stock of capital and labor that has not risen. Thus, the boom ends as factor markets tighten and prices rise. Capital projects in progress are choked off by unforeseen expenses. Then investment shifts back to consumer goods, shortening the production process and sending the economy into the bust portion of the business cycle.

The cycle runs its course as bankruptcies and project abandonment clear up the situation. Further aggravation of the economy ensues as a negative impression of credit causes banks to shy away from providing credit, even for truly feasible projects. This can result in the interest rate climbing above the natural rate (Mises, 1978). Examining the inner workings of the business cycle is made extremely difficult by the fact that bank credit is extended numerous times during a cycle. While this policy can extend the boom portion of the cycle, it cannot indefinitely postpone the bust. An economic downturn will come once individuals realize that interest rates are artificially lower, and that costs will eventually rise. This could happen at any time, so predicting a timeline for a business cycle is impossible (Mises, 1978).

While it makes no predictions regarding time, Austrian theory does offer many suggestions for how to treat and end business cycles. At the core of Austrian treatment of business cycles is the belief that, "The only way to do away with, or even to alleviate, the periodic return of the trade cycle... is to reject the fallacy that prosperity can be produced by using bank procedures to make credit cheap" (Mises, 1978). Once the cycle begins, nothing should be done to alleviate the discomforts of the bust. The market must clear away the malinvestments caused by improper market signals before the recession can end. Attempts to control prices and soften the market's fall will aggravate the situation by sending more improper market signals.

One effect of bank credit remains for the most part overlooked by Austrian economists. Generally, they fail to concede that bank credit can bring about genuine growth. Actually, not all of the expansionary phase of the business cycle involves malinvestment. Some businesses will use their credit in ways that ex

pand the factors of production. This economic expansion will keep the labor and capital markets from tightening, thus allowing the boom phase to continue.

However, such success stories of bank credit cannot forever halt the business cycle if the interest rate continues to be held below its natural rate. The only way expansion could occur uninterrupted would be if the increased productivity lowered the natural rate to the same level as the nominal interest rate. Further extension of bank credit would again push the interest rate below its natural level and lead to an economic downturn unless productivity was again greatly increased. Also, increased productivity does not eliminate malinvestment, it merely allows the malinvestment to continue. This is because the bank credit is available to any industry, not just the ones that increase economic productivity.

Any increase in productivity that keeps the economy in the boom phase is accidental. If anyone knew which industries were ready to grow substantially and efficiently use credit, he or she would invest more in those industries. Governments directing or mandating investment into certain industries would more effectively create growth if the correct industries were known. This would be necessary only when the market was wrong about the growth potential of an industry, and an inadequate amount of investment was being delivered. Austrian theory would adamantly oppose government investment based on the contention of limited knowledge and the inability of any central planner to grasp the vast complexities of the market. Instead, the solution is to eliminate distorted signals and let the price system direct investment into the correct areas.

IV. MERITS OF THE GOLD STANDARD

If seignorage and the extension of bank credit through fractional reserve lending are the causes of the business cycle, other alternatives must be considered. The monetary policy advocated by most Austrians consists of eliminating bank credit through a 100% reserve gold standard. Combining 100% reserves with a gold standard provides solid protection against inflation. Having a 100% reserve requirement would stop banks from undercutting the natural interest rate by extending bank credit. Therefore a 100% reserve gold standard will eliminate the expansion-

induced business cycle.

Making the monetary unit convertible to a set amount of gold would end inflationary government policies because increases in the quantity of money must be met with equal increases in gold reserves. In essence, a 100% reserve gold standard rids the economy of inflation. Here one must note that the price level will not be completely stable. Achieving complete stability is largely impossible, and Austrians would argue that achieving it is unnecessary. Under a 100% reserve gold standard, prices would most likely fall gently over time. This would occur because as long as gold remains difficult to discover and mine, increases in the quantity of money would occur at a low rate relative to increases in productivity. An important distinction needed here is that the tendency towards falling prices need not result in the economic problems associated with deflation. Under a gold standard "...a fall in prices would be the result of an increase in production, not a decrease in spending" (Reisman, 1990). Because the problems associated with deflation come about as result of a contraction in the volume of spending in the economy, a 100% reserve gold standard actually protects the economy from deflationary damages (Reisman, 1990). A gold standard protects because "nothing could happen that would suddenly reduce the quantity of money, and nothing could happen that would suddenly increase the need or desire to hold money" (Reisman). Falling prices would serve to equilibrate the supply and demand for money as the supply of goods in an economy grew.

Two other benefits of a 100% reserve gold standard come from the end of inflation. First the economy will experience permanently lower interest rates. This occurs because "the inflationary premium is completely removed if a true gold standard exists" (Paul, 1982). Permanently lower interest rates allow for speedier accumulation of capital and accelerated economic growth. The interest rate is lower because less risk exists for lenders, not simply because the federal reserve lowered rates. If the interest rate still reflects the true scarcity of capital, the boom/bust cycle will be avoided, and the growth will be sustainable. In addition to spurring economic growth, lower interest rates will be extremely beneficial to governments with high national debts (although as discussed later,

additional debt financing is much more difficult under a 100% reserve gold standard). The second of this group of benefits is that the economy will experience a permanently higher savings rate. With inflation out of the picture, individuals would have no need to spend in fear of depreciating purchasing power. Over time this greater savings rate, in an economy where the price system and the interest rate accurately direct investment, will lead to higher levels of economic growth.

Another merit of the 100% reserve gold standard is that it strictly limits a government's ability to run a deficit. With a 100% reserve gold standard, a government must balance its budget. All government programs must be funded through taxation. This taxation will be either direct or indirect. Direct taxation simply means that today's tax dollars pay for today's government spending. Indirect taxation means that tomorrow's tax dollars pay for today's government spending. The government could issue bonds to pay for spending, but would have no means other than taxation to eventually repay the debt. Under the current system, governments do not have to balance their budgets. Rather than increasing taxes to fund spending, governments can monetize the debt. This enables governments to increase spending because not all citizens see that the negative effects of inflation are caused by earlier fiscal irresponsibility. A 100% reserve gold standard would limit government spending to what citizens see as truly important because "taxing the people the full amount for extravagant expenditures would prove too unpopular and a liability in the next election" (Paul, 1982).

If 100% reserves were required worldwide, the benefits would be even larger. In addition to simply aggregating the above-mentioned benefits, another one would exist. If all governments tied their currency to gold, no foreign exchange risk would exist. This would decrease the cost of doing international business. The certainty provided would be welcomed by economic participants worldwide, leading to even greater economic growth.

V. LONG TERM IMPLICATIONS OF A 100% GOLD STANDARD

Successfully utilizing a 100% reserve gold

standard has major implications for government. As Federal Reserve Chairman Alan Greenspan explained, "...gold and economic freedom are inseparable, the gold standard is an instrument of laissez-faire and each implies and requires the other" (Greenspan, 1966). The reasons for this are two-fold. First, as already mentioned, a 100% reserve gold standard limits government revenue generation to taxation, either direct or indirect. The high tax rates needed to support interventionist programs, both foreign and domestic, will likely lose support when citizens are taxed to pay for them. Domestically, expansive welfare programs and most public works would not survive under a 100% reserve gold standard.

Abroad, one could speculate that foreign aid would quickly lose support once taxpayers began directly footing the bill. Also, the gold standard's implications for war are large. With their enormous expenditures being funded without seignorage or large deficits, military actions would receive little public support. This restriction on the government could prove problematic in times when immediate and large-scale military action is necessary. Especially if a country on a 100% reserve gold standard needed to defend itself from another country that funded its military through expanding their money supply. On the other hand, if such action was absolutely necessary, the government could most likely raise the money through taxation. Still, under those circumstances, countries with a pure gold standard would probably need to have a law allowing them to abandon 100% reserve requirements in the case of a natural emergency. Perhaps the people could quickly vote on temporarily abandoning the system. This would help ensure that governments undertake military action only when less costly means of settling disputes fail to provide a solution. If adopted worldwide, a 100% reserve gold standard would cut the number of military conflicts everywhere by forcing governments to have the support of their people. This support is not simply popular approval, but willingness on the part of citizens to bear the extreme economic costs of fighting as well as the social and emotional costs. It is reasonable to assume that whatever military conflicts still occurred would be of far shorter duration, as governments would receive pressure to settle using more diplomatic means.

Even if support for an interventionist government policies, remained, the tax rates required for such programs will likely stifle economic growth, by stunting savings rates and capital accumulation. So if a country prefers the interventionist route, a 100% reserve gold standard is not the proper monetary backbone. Instead, the current fiat system is more appropriate.

VI. TRANSITION TO A 100% RESERVE GOLD STANDARD

To their credit, Austrian economists and others have shown that a 100% reserve gold standard can provide the framework for substantial, uninterrupted economic growth. But to their detriment, these economists have failed to complete their case by effectively showing how and at what consequence a country could transition from a fiat system to a 100% reserve gold standard. Attempts have been made to show how a transition could occur, but they are often vague and theoretical.

The late Murray Rothbard, a leading Austrian economist, gave general outlines of a transition on several occasions. His broad plan goes as follows (Rothbard, 1994): First, fix the dollar to gold by raising the price of gold to equilibrate the Federal Reserve's gold stock with its liabilities. Using the Federal Reserve's balance sheet as of April 6, 1994, Rothbard arrives at a new value for the dollar of $\$1 = 1/1554$ ounce of gold. Second, liquidate the federal reserve's assets and get the gold stock into the hands of private banks and individuals. Third, transfer all note-issue functions of the federal reserve and the treasury to private banks. Fourth, free the market for silver from any fixed value of gold. Fifth, eliminate the term dollar, replacing it with its weight in gold. This would serve as evidence that the monetary unit is actually gold represented by paper. Sixth and finally, move to private coinage of money. Rothbard admits that he does not have the perfect solution, but wanted his work to convince readers that a 100% reserve gold standard is the correct goal. The greatest weakness of his work is that he does not attempt to explain how an economy would react to such a transition.

Ron Paul, United States Congressman from Texas, outlined a plan in 1980 as part of the United States Gold Commission. His plan is very similar to

Rothbard's, but he does explain perceived transition effects on various industries (Paul, 1982). He explains that land values will drop in response to the market no longer using land as a hedge against inflation. Also, industries will benefit from lower interest rates, but businesses receiving special privileges and subsidies will lose these benefits. Banks would lose their lender of last resort, government bailouts, and would face increased competition leading to lower margins. Congressman Paul also fails to mention any economy-wide problems with a transition.

Austrian economist and financial advisor Mark Skousen wrote on the subject, and did attempt to address the problems involved in the transition process. Unfortunately, he addressed them by saying that he does not think "... a gold standard will be established on its own. No doubt such an event would create a crisis. But if a fiat dollar monetary crisis is already happening, a return to gold may actually re-establish economic stability" (Skousen, 1996). Such a statement shows the heart of the problem of proponents of a 100% reserve gold standard. Skousen provides no further explanation as to the nature of this crisis, its duration, or its solution.

George Reisman is the lone Austrian who truly attempts to explain the transition process. Like the others, he offers a detailed explanation of the consequences of fiat money and the merits of a 100% reserve gold standard. Following that, he also suggests that the dollar be revalued to the existing gold stock. He explains that making money redeemable for gold will sharply increase the demand for holding money and thus cut the velocity substantially (Reisman, 1990). Falling velocity will deflate the money supply, and this contraction in spending, will devastate the economy. Reisman claims that this economic downturn can be avoided by "making the gold stock equal to enough dollars to leave spending in terms of dollars unchanged at the lower velocity" (Reisman, 1990). The other problem Reisman sees with transitioning to a 100% gold standard is dealing with the debt burden. By this he means the amount of debt that debtors will not be able to repay when fractional reserve banking halts. The resulting mass of bankruptcies would overload the court system, paralyzing the economy as individuals try to sort out who owned what (Reisman 1990). By devaluing the dollar even further, one last burst of in-

flation could allow the repayment of debts, and ready the economy for a 100% reserve gold standard. However, this solution would mean disaster for creditors, minimizing the likelihood that such an event would occur. Reisman should be complimented for actually attempting to answer the economic issues at hand. However, his solution seems oversimplified, and the issue deserves far more discussion.

The key to understanding the transition problem comes from its impact on the banking system. Under a pure gold standard, citizens would not receive interest on their bank and checking deposits. Customers of banks would pay a fee to have their money stored for them. Paying this fee would be acceptable to customers because they know that their cash holdings would appreciate slightly over time. Since customers are no worse off holding their money in banks under a pure gold standard, no reason exists to believe that customers would remove their money from banks. Because banks can no longer lend out large portions of this money, the velocity of money will drop sharply. Although he does not explicitly mention it, this is most likely the logic behind Reisman's argument. After becoming accustomed to the new system, individuals may decide that they do not need all of their savings account immediately redeemable. In that case, they will look to invest their money in search of higher returns, increasing the velocity of money. They could accomplish this by allowing their money to be lent out to others.

The lending function of banks would be separated under a pure gold standard. Spun-off lending divisions would attract money in the same fashion as other businesses. Investors would be offered potential returns in exchange for accepting the risk of losing their investment. Unlike our current deposit system, no insurance would exist to protect these investments from losses. This will force lending businesses to make their business more appealing to their investors. Lenders can accomplish this through either offering higher returns, or lessening their investor's risk by making loans more carefully. Most likely, lenders will use some combination of the two.

Attempting to circumvent the inevitable economic downturn is far from easy, even after understanding its cause. The best way to soften the economic blow is to give the market time to adjust. An-

nouncing that a 100% reserve gold standard will be in place at a specific date in the future will allow the market to put itself in the best possible position when the transition finally takes place. Such an announcement will result in an immediate but gradual revaluation of gold, as the time for convertibility approaches. Only the market can make the process gradual. If the government tried gradually devaluing gold and allowing convertibility at the same time, the results would be disastrous. In that case, people would redeem all their dollars for gold because they know their dollars will depreciate. Another point that must be emphasized is that for such a program to work, the change to a 100% reserve gold standard must be definite. Economic participants must be certain that the program will be brought to fruition. Otherwise the added uncertainty would slow the transition process and confuse those industries needing to make adjustments.

By simply making the transition known well in advance, the government allows banks and their customers to adjust accordingly. Banks would be able to plan the spin-off of their lending business, which could begin operating efficiently once the new system is implemented. Velocity would fall upon the announcement of the transition, but the fall would be less severe. In addition, velocity would begin rising more quickly if the banking industry is prepared when convertibility begins.

VII. CONCLUSION

A 100% reserve gold standard could provide a framework for uninterrupted economic growth. Such a standard could rid economies of inflation, business cycles and banking crises. Proponents of a 100% reserve gold standard have sufficiently explored business cycle theory to show the problems of fractional reserve banking. They have also adequately shown how a 100% reserve gold standard could work, and they have some empirical support from the 19th century. However, these economists have done very little to show how to transition from a fiat monetary system to a 100% reserve gold standard. So long as this research void exists, there is no reason to expect the call for a 100% reserve gold standard to grow much louder. Unless a painless transfer could be reasonably assured, governments are very unlikely to change their monetary system.

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