

Should We Fear Deflation? An Economic Analysis

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Abstract

This paper analyzes the current monetary problems, associated with the fiduciary currency and expansionary monetary policy. And it suggests a possible solution in which the return to sound money and deflation plays an important role. The paper discusses the nature of fiat money in the current system, highlighting the dangers involved in the present worldwide monetary policy. It claims that we should reconsider the qualities of a monetary and financial system based on a commodity money that establishes natural limits to the expansionary policies. The paper also systematizes the different sorts of deflation. It analyzes and debunks the main arguments against deflation and concludes that the alternative is a return to sound money, the spontaneous creation of the social order, and a rejection of the meddling of central banks.

Keywords: money, inflation, deflation, monetary policy, central bank

JEL Classification: E30, E31, E42, E52, E60

1. Introduction

On the morning of Sunday, August 15, 1971, the US president, Richard Nixon, declared the inconvertibility of the dollar into gold¹. As a result, the Bretton Woods system officially ended, and the dollar became a fully fiat currency, backed not by gold but by the promise of the government. This meant the end of a historical and monetary rule that, from the dawn of civilization, had made money a general medium of exchange and also a store of value. It began a new era of historical abnormality, that of fiat currency and central-bank monopoly, where the ability to provide credit and financing becomes as boundless as the production of legally enforced paper printed by the issuing bank. With the burial of the last vestiges of the gold, the annoying limitation on the creation of money and credit was broken. Human needs, as well as political demands, mobilized through democratic majorities and powerful lobbies are infinite. The new fiat currency, devoid of intrinsic properties, releases governments from their commitment to convertibility, granting unlimited powers to the rulers of this system. When Nixon repudiated all obligations to pay gold, the system of floating exchanges was universally adopted. It thereby set the stage for a sharp contraction of foreign trade and a worldwide recession. With the burial of sound money, Keynes stands as the prophet of an era of inflation under the new gospel of spending. Fiat money helps to remove the link between production and consumption, contributing to the delusion that the ineradicable scarcity of capital has been abolished. The central banks can now print any amount of money. The widely adopted quantitative easing programs are expanding the balance sheets of Central Banks. The European Central Bank - in similarity with the main worldwide lenders of last resort - has monetized the debt of the peripheral European countries, diverting real resources from entrepreneurs in order to finance the wasteful activities of governments. The Federal Reserve is saddled with more than \$4 trillion of assets from its crisis-era buying spree, which will be a problem when the economy runs into trouble again soon. Economic recovery has been accompanied and fueled by an unprecedented expansionary monetary policy with interest rates pushed down to extremely low levels. The monetary illusion will evaporate sooner or later. In the opinion of the public, more inflation and more credit expansion are the only remedy against the evils which inflation and credit expansion have brought about. And deflation is always seen as the worst possible scenario.

¹ The 1926 gold-exchange standard had already prevented the use of gold in the daily life of ordinary citizens, because the government would pay only in large-sized bars. After Nixon's decree, the dollar was officially no longer exchangeable at the ratio of 35 dollars per ounce of gold. The current gold price is now around 1,340 dollars (!).

The present paper analyzes the current monetary problems, associated with the fiduciary currency and an inflationary context. And it suggests a possible solution in which deflation and the return to sound money play an important role.

2. *The role of paper money*

Monetarism and New Keynesianism accept the long-run neutrality of money. Milton Friedman (1963), in a well-known analogy, depicted the money supply process as the monetary authority dumping money from a helicopter to all the citizenry equally. But in the modern economy, the new money is not distributed equally. As a result, money has non-neutral effects. Inflation has distributional effects. The wealthy often have the means to adjust their portfolio to assets less affected by inflation than the poor. As a result, the harmful effects of inflation are disproportionately borne by the poor. Similarly, changes in the variance in inflation can affect economic growth by increasing uncertainty in an economy. David Hume (1987), in his essays 'Of Money' and 'Of Interest' contain early statements of the non-neutral aspects of money as does Richard Cantillon's (1931) 'Essay on the Nature of Commerce'. The central insight of Hume, Smith, Cantillon, Ricardo and Mill is that the wealth of a nation does not depend on changes in the quantity of money. But eventually a new generation of students brushed over that central insight, and thus the errors of the classical economists, rather than their science, triumphed in the twentieth century. Irving Fisher, Knut Wicksell, Karl Helfferich, Gustav Cassel, and especially John Maynard Keynes set out a relentless campaign against the gold standard. These champions of inflation conceded that, in the short run, the printing press could work wonders and that it could reduce unemployment and stimulate production and economic growth. At the beginning of the twentieth century, most firms and industrial corporations were financed out of their revenues, and banks and other financial intermediaries played only a subordinate role. Today, the picture has been reversed, and the most fundamental reason is paper money. Paper money has caused an unprecedented increase of debt on all levels: government, corporate, and individual. It has financed the growth of the state on all levels, federal, state, and local. The quantity of money is irrelevant in the sense that any quantity of money provides all the services that the medium of exchange can provide, both in the long and in the short run. In a dramatic deflation, there is much less money around than there used to be, but the machines, the streets, the trucks, the crops and the food supplies, all this is still in place. And firms can go on producing, even profitably, because profit does not depend on the level of money prices at which we sell, but on the difference between the prices at which we sell and the prices at which we buy. The only fundamental change that deflation brings about is the modification of the structure of ownership. Firms financed by credits go bankrupt because at the lower level of prices they can no longer pay back the credits they had incurred. Private household with mortgages go bankrupt, because with the decline of money prices their monetary income declines too whereas their debts remain at the nominal level. The very attempt to liquidate assets to pay back debt entails a further reduction of the value of those assets, thus making it even more difficult for them to come even with their creditors. But deflation does not affect the real wealth of the nation and does not imperil the successful continuation of production. Other people will run the firms and own the houses. People who at the time the deflation set in were out of debt and had cash in their hands to buy firms and real estate. This starkly contrasts with inflation, which creates anonymous winners at the expense of anonymous losers. Both deflation and inflation are, from this point of view, zero-sum games. But inflation is a secret fraud and thus the perfect vehicle for the exploitation of a population through its false elites, whereas deflation means open redistribution through bankruptcy according to the law.

Changes in the supply of money alter relative prices, which influence individual decision-making regarding the types of goods and services to consume. Those people who receive the money early have greater purchasing power than those who receive it later. They alter the structure of relative prices. In the long run, a new distribution of prices has emerged. Those people with fixed incomes are forced to use their savings in order to purchase goods. Their existing savings have lost some purchasing power. Horwitz (2000, p. 115) summarized the forced savings as "the forced reduction in the purchasing power of non-recipients of excess supplies of money." Over time, malinvestment takes place as certain markets have an excess supply of goods and other markets have excess demand. The central bank provides the money to banks and the central government through the purchase of bonds. If they use the new credit to make investments in capital, prices for those goods rise. Expected relative price changes and resources are reallocated to activities they would not be allocated to if new money was not introduced. The downturn occurs once the divergence becomes too great. Unlike the 19th century, when the dominant power, Britain, accumulated surpluses, and the emerging nations ran into debt, now just the opposite happens.

The United States' external deficit and his twin brother, the public deficit, absorb the bulk of world savings, while emerging countries, most remarkably China, lend to them. And it seems that China the largest single holder of U.S. government debt is not resigned to stay passive while the value of its holdings is decreasing.

3. The dangers of inflation

Inflation means an increase in the volume of money, resulting in the loss of value of currency, and the persistent rise in the general level of prices. For instance, the euro annual growth rate of the broad monetary aggregate M3 decreased to 4.6% in December 2017, from 4.9% in November. And the annual growth rate of the narrower aggregate M1, which includes currency in circulation and overnight deposits, decreased to 8.6% in December 2017, from 9.1% in November. At the same time, in the case of the dollar, the annual growth rate of M2 was 4.7% and 7.7% for M1 in December 2017. In the U.S. and in the European Union, the stock of base money (paper notes plus accounts held at the central banks) has been increased by annual rates of between 5 and 10 percent during the past five years. In the case of Japan, that fell into recession in 1990, the Bank of Japan has been trying to reflate the economy by lowering interest rates, adopting the zero interest rate policy in 1999 and then quantitative easing policy in 2001. In 2013, governor Kuroda massively expanded the quantitative easing program and again in late 2014. In early 2016, he went further in adopting a negative interest rate policy. However, all these monetary expansions have failed to bring about a sustained recovery in Japan. The Japanese government has sought to fix the economic crisis through increasingly bigger doses of inflation. But the only result of this policy has been to give a zombie life to the hopelessly bureaucratic and bankrupt conglomerates that control Japanese industry, banking, and politics. It sustained insolvent companies, subsidized favorite industries, and always prevented needed correction and readjustments. Massive deficits continue to consume the people's savings, and false interest rates sustain old imbalances and create new maladjustments. After almost twenty years of mindless inflation, Japan's economic crisis has not been solved, but menaces to bring the country onto the verge of an abyss. The notion that an increase in the stock of money is socially beneficial is one of the great economic fallacies of our time. Money cannot be consumed and cannot serve any productive end. At any given time both the demand for and supply of money determine its exchange value. Whether the given stock of money is large or small, it renders the desired exchange services. Almost 200 years ago David Ricardo eloquently expressed that "the smaller quantity of money would perform the functions of a circulating medium as well as the larger" (1951, p. 73).

There is an agreement among economists that excessive inflation brings about a collapse of the monetary system, destroys the exchange order with its productive division of labour, it consumes business capital, and reduces economic life to primitive barter. Monetary inflation is an enemy of the private property order, and a serious threat to economic well-being and individual liberty. Inflation, the silent tax not voted in parliament, erodes the purchasing power of money. Savings and consumption capacity is lower, the accumulation of capital is reduced as well as the productivity. Inflation reduces the real debt and contributes to an unequal distribution of income, improving the creditors and worsening the debtors. It affects the exports negatively and reduces the international competitiveness of the inflationary country, contributing to an increase in tariff demands that will eventually cripple the international relations, not only in the economic ground. Inflation also thwarts the correct allocation of resources and hinders the role of prices to disseminate information and provide the right incentives. In summary, inflation causes maladjustments of production to consumer demand as prices adjust to inflation with unequal flexibility. It destroys the savings of the middle classes and reduces the real earnings of wage earners, who learn to distrust the price system. It profoundly modifies the social order and, realizing the inequity of distribution, most victims put their faith in strike action of government intervention. The victims of the redistribution process may want to escape to friendlier locations, which government seeks to prevent through public law and compulsion. Government is eager to apply coercion to mitigate the unpopular effects of their own inflation. With growing popular support, public officers resort to measures as price, wage, and rent controls. Inflation continuously enlarges the circle of the needy and therefore the scope of government functions. It is a self-perpetuating force that calls for more redistribution, which in turn invites more inflation. The sphere of individual freedom is constrained as politics encroaches ever more widely on economic and social life. The sphere of international cooperation and integration is compressed by growing economic nationalism. All welfare state institutions are national in scope: public assistance, social security and unemployment benefits, tariff protection, government orders and subsidies. Inflation is a means by which welfare-warfare governments attempt to hide several costs from their citizens. It's the case of war.

The enormous destruction of productive wealth that war entails would become immediately evident if governments had no recourse but to raise taxes immediately upon the advent of hostilities; their ability to inflate the money supply at will permits them to conceal such destruction behind a veil of rising prices, profits, wages, lower interest rates, and a booming stock market. The growth of the welfare-warfare state should not have been possible without inflation. The production of new quantities of paper dollars and the creation of new credit facilities at the Federal Reserve have provided the liquidity for an even greater expansion of bank-created demand deposits and other money substitutes, which in turn allowed for an unparalleled expansion of public debt. U.S. national debt is currently at 20.6 trillion dollars (February 2018), up from under 2 trillion at the beginning of the 1980s, and less than 1 trillion before the era of the paper dollar set in when President Nixon closed the gold window in the early 1970s.

Inflation is not only a powerful destroyer of productive capital. It steals the savings of many millions of thrifty individuals for government consumption and redistribution. It weakens the capital markets and misleads businessmen into costly management errors. It causes businessmen to overstate their earnings, overpay their taxes, and consume their fictitious profits. It was the creation of massive quantities of money substitutes that caused central banks to default on their obligation to redeem their currencies in gold. But this default did not bring stability and prosperity. On the contrary, it opened the gates for massive inflation and great instability. The fiat standard is more unstable than the gold exchange standard, which afforded less stability than the gold bullion standard, which in turn was less stable than the classical gold coin standard. With paper money, the supply is potentially unlimited. But the fiat standard does not make us independent of the vagaries of foreign influence. It has made the international money market more vulnerable than ever before. The U.S. dollar is stumbling from crisis to crisis, with grave dangers to international trade and cooperation and also to the stability of the American economy itself. The popular notion that an increase in the stock of money is economically and socially beneficial and desirable is one of the great fallacies of our time. It mistakes individual desire and demand for more purchasing power with a need of more units of money. It has lived on throughout the centuries, embraced by kings and presidents, politicians and businessmen. It has shattered numerous currencies, inflicted incalculable harm, and caused social and political upheavals. And it springs forth, again and again, no matter how often economists may refute it. The belief that economic growth requires a corresponding growth of the money supply is also a fallacy, because any quantity of goods and services can be exchanged with virtually any money supply.

4. Money in a free society

In a truly free society, the production of money is a matter of private initiative. Money is produced and sold just as any other commodity or service. And this means that in a free society the production of money is competitive. It is a matter of mining precious metals and of minting coins, and both mining and minting are subject to the competition emanating from all other market participants. In buying factors of production, the money producer competes with the producers of tables, concert pianos, computers, trucks and so on. Miners and minters will make additional investments and expand their production if they believe that no better alternative is at hand. In practice this usually means that they will expand coin production if the expected monetary return on investments in mines and mint shops is at least as high as the monetary returns in alternative factories. Then, in a free society the production of money is constrained within fairly narrow limits. What kind of money would prevail in a free society? Theoretical considerations and historical experience all point to the same answer. A free society would use precious metals as money. Payments would be made in coins made out of gold, silver, copper, platinum, or whatever other materials would combine scarcity with the physical advantages of these metals. At most times and places in the history of Western Europe, silver coins were most widespread and dominant in daily payments, whereas gold coins were used for larger payments and copper coins in very small transactions. In ancient times too, this was the normal state of affairs. The special characteristics which man ascribes to gold have made it the most marketable economic good of all, the popular medium of exchange, store of value and unit of economic calculation. It can be used for the manufacture of jewelry and ornaments. It is a corrosion-resistant element, the most malleable and ductile metal, ideal for plated coating on a wide variety of electrical and mechanical products. It is a good thermal and electrical conductor. It is durable and storable, hardly falsifiable, and readily shipped to other places. Gold may be the most marketable commodity around the globe. The value of gold is determined by the same considerations as that of all other economic goods. Individuals give it value according to the enjoyment and satisfaction they expect to get from its possession.

This fact is explained in terms of utility and scarcity. The supply of gold is plentiful. For thousands of years it has been mined and accumulated; very little is consumed or lost. Existing supplies are greater by far than current production. No matter how gold is produced in South Africa or Russia, current output is rather negligible when compared to the quantities in individual possession throughout the world. This characteristic, in which it differs from all other metals, reduces the risk of sudden changes in quantity and, therefore, sudden changes in value. Governments have had a love-hate relationship with gold. Most of the time, they sought to amass it in their treasuries and monopolize its use. They claimed and brutally enforced a monopoly of the mint. Government have waged war on gold, seeking to ban it under penalty of fine, imprisonment, or even death. During the French Revolution, hundreds of businessmen died on the guillotine because they had dared to ask for gold. In the United States of 1933 to 1975, it was a crime punishable by fine and imprisonment to own standard gold coins. For more than 2500 years, from ancient Greece to modern USA, gold coins have served as money. Paper money has always been fiat money, that is, it has always been imposed by the coercive power of the state. It is not the money of the free market. It violates the principle of free association. It enables the producers of paper money to expand their production through the violation of other people's property rights. We live now in an age in which all governments, regardless of the system of political and economic organization, whether interventionistic or liberal, democratic or dictatorial, are occupying an economic command post. Most of them work through central banks issuing legal-tender notes and through government mints manufacturing coins. In 1971, they all suspended gold payments and made the most important and most stable currency, the U.S. dollar, take the place of gold. The world has been on a dollar standard ever since. For the U.S. federal government, the dollar standard has been a magical guide to cheerful spending and soaring debt. It released the Federal Reserve System from the shackles of gold and set it free to finance federal deficits no matter how large. In 1971, the federal government deficit amounted to \$23 billion and the federal debt stood at \$409.5 billion. By now, February 2018, the federal government deficit exceeds \$683 billion, budget calls for expenditures in excess of \$4.1 trillion, tax revenues of about \$3.5 trillion, and the outstanding federal debt stands at over \$20.63 trillion, and rising. Net interest payments for the current fiscal year will be about \$307 billion, or about 7.5 percent of all government spending. This means that if the debt ceiling were not to be raised, it would require the federal government to reduce spending by less than 8 percent in all other activities to meet his interest obligations to both domestic and foreign holders of U.S. federal debt. The national debt is not simply an intergenerational transfer for others to have to be taxed to pay off in the future, given what has been borrowed in the past or in the present to benefit those living in an earlier time. It is also a real transfer from one portion of the current generation to another. What is borrowed today represents a shifting of the use of real resources to the government for the benefit of those upon whom the goods and services are spent. Society's savings is taken out of the hands of those in the private sector who otherwise could have borrowed those real resources and devoted their use to market-based investment and production. The financial crisis in America is due to a government that already taxes, spends and regulates far beyond anything imaged by the Founding Father's conception of a constitutionally limited government meant to only secure the life, liberty and honestly acquired property of all who live and work within its jurisdictional confines. It makes it difficult to project future deficits and debts, but it is likely that the dollar standard will disintegrate if foreign investors should ever lose their confidence in the U.S. dollar.

Profligate governments, inflation and fiat money are inextricably linked together. The paper money means to allow the government to significantly curtail the personal liberties of its citizens on a daily basis and on a massive scale. It means send in the police and to use the courts to combat human cooperation involving "natural monies" such as gold and silver, in use since biblical times. Determining the supply of money, like other goods, is best left to the free market. Aside from the general moral and economic advantages of freedom over coercion, no dictated quantity of money will do the work better, and the free market will set the production of gold in accordance with its relative ability to satisfy the needs of consumers.

5. The false threat of deflation

Deflation means that the money supply is shrinking, which is not the case in the main monetary areas, as we have examined previously. Another usual connotation of the term defines it as a decrease of the price level. Let's remember that before World War II, when the terms "inflation" and "deflation" were used in academic discourse or everyday speech, they generally meant an increase or a decrease in the stock of money, respectively. A general rise or decline in prices was viewed as a respective consequence of inflation or deflation in the money supply. Under the influence of the Keynesian Revolution of the mid-1930s, however, the meanings of these terms began to change radically.

By the 1950s, the definition of inflation as a general rise in prices and of deflation as a general fall in prices became firmly entrenched in academic writings and popular speech. A general fall in consumer prices implies an increase in the value or purchasing power of the monetary unit, that's to say an increase in the amount of consumer goods that can be purchased. Deflation has become the scapegoat of the economics profession. It is not analyzed, but derided. One hundred years of pro-inflation propaganda have created a quasi-total agreement on the issue (Hülsmann, 1998). Economists who otherwise cannot agree on any subject are happy to find common ground in the heart-felt condemnation of deflation. It's evilness is beyond dispute². The harmful character of deflation is based on six arguments. One, some consider a matter of historical experience that deflation has negative repercussions on aggregate production and, therefore, on the standard of living. They hold, two, that deflation incites the market participants to postpone buying because they speculate on ever lower prices. Furthermore, they consider, three, that a declining price level makes it more difficult to service debts contracted at a higher price level in the past. These difficulties threaten to entail, four, a crisis within the banking industry and thus a dramatic curtailment of credit. Five, they claim that deflation in conjunction with "sticky prices" results in unemployment. However, theoretical and empirical evidence substantiating these claims is very weak. First, in historical fact, deflation has had no clear negative impact on aggregate production. It is taken for granted that the effects of deflation are an unmitigated disaster for economic activity and welfare, and that the Federal Reserve System, as well as other Central Banks, need to take prompt action to head off such devastation to the economy. Modern macroeconomics was born of John Maynard Keynes's (1964, p. 269) obsessive deflation-phobia. But the argument that lowering prices drives down sales figures and lessens the willingness of companies to invest does not stand up to scrutiny. Sales figures are not crucial for companies, but rather their earnings, meaning the difference between revenues and costs. Sinking sales prices increase pressure to reduce costs. The companies, therefore, replace manpower with machines. That means more machines need to be produced, which increases the demand for manpower in the capital goods sector. In this way, workers who lost their jobs in the wake of price deflation find new work in the capital goods sector. The capital stock grows without resulting in mass unemployment. In this respect, it's crucial that the labor market be flexible enough to offer incentives for creative employers to hire new workers. Second, it is true that unexpectedly strong deflation can incite people to postpone purchase decisions. However, this does not slow down aggregate production. The argument that consumers will roll back their spending if everything is cheaper tomorrow is untenable. The latest smartphones sell, although consumers know that the phones will be sold at a lower cost a few months afterwards. America was dominated by deflation for decades after the Civil War. In spite of that, consumption increased. If people were to put off buying because of lower prices, they ultimately would starve to death. Third, it is correct that unanticipated deflation makes it more difficult to service debts contracted at a higher price level in the past. Deflation allows the actual debt burden to increase, and thus strangles the overall economic demand. But the deflation alarmists fail to mention that creditors benefit from deflation, which stimulates demand. In fact, no change in price level by itself helps or hampers a business; creditor-owners and debtor-owners may simply divide their gains, or losses, in different proportions. Fourth, it is true that deflation threatens the banking industry, but a curtailment of bank credit does not destroy any resources; it simply entails a different employment of human beings and of the available factors of production. The destruction entailed by deflation is therefore often "creative destruction" in the Schumpeterian sense (Schumpeter, 1944). Fifth, according to the "sticky prices" argument the manipulation of the money supply might be a suitable instrument to re-establish a lost equilibrium on the labor market. Suppose that powerful labor unions push up nominal wage rates in all industries to such an extent that entrepreneurs can no longer profitably employ a great part of the workforce at these wages. The result is mass unemployment. If it were possible to substantially increase the money supply, then the selling prices might rise enough to curb unemployment. This argument is ridiculous and a fallacy, because it is based on the notion that monetary policy makers can constantly outsmart the labor unions. The labor unions will not be permanently fooled. Faced with the reality of expansionist monetary policy, they will eventually increase their wage demands to compensate for the declining purchasing power of money. And the result will be stagflation.

2 An overview of the essential tenets of Austrian deflation theory is in Joseph Salerno "An Austrian Taxonomy of Deflation". Among the non-Austrian works that analyze deflation without undue emotional bias, see John Wheatley, *An Essay on the Theory of Money and Principles of Commerce* (London: Bulmer & Co., 1807); Lancelot Hare, *Currency and Employment, Deflation of the Currency – A reply to the Anti-Deflationists* (London: King & Son, 1921); Edwin Cannan, *The Paper Pound of 1797-1821* (London: King & Son, 1925); Yves Guyot, *Les problèmes de la déflation* (Paris: Félix Alcan, 1923); Yves Guyot and Arthur Raffalovich, *Inflation et déflation* (Paris: Félix Alcan, 1923).

Some representatives of mainstream economics are fomenting a deflation phobia. Governments love inflation because it gives them the opportunity to live beyond their means and pile up huge mountains of debt that the central bank devaluates through inflation. It is no wonder it just happens to be the opponents of austerity policies who warn about deflation. They are afraid of presenting the true costs of the welfare-warfare state to the electorate. Some mainstream economists fear deflation and want to prevent it (Samuelson, 1980; Bernanke, 2002).

6. Different sorts of deflation

The deflationary processes may be benign or malign in their effects on productive efficiency and consumer welfare, depending on whether they result from the voluntary choices of citizens or from the coercive intervention of a government central bank. First of all, the expansion of an industry as a consequence of rapid technological improvement is one sort of benign deflation. Take, for instance, the spectacular drop in the prices of high-tech products. A computer was sold for \$4.7 million in 1970; today one can purchase a PC that is 20 times faster for less than \$1,000 (Cox and Alm, p. 45). The substantial price deflation in the high-tech industries did not impair and, in fact, facilitated the enormous expansion of profits, productivity and outputs in these industries. For general prices, the natural tendency in the industrial market economy under a commodity money such as gold was to persistently decline as accumulation of capital and advances in industrial techniques led to a continual expansion in the supplies of goods. Thus throughout the nineteenth century and up until World War I a mild deflationary trend prevailed in the industrialized nations as rapid growth in the supplies of goods outpaced the gradual growth in the money supply that occurred under the classical gold standard. In the U.S., from 1880 to 1896, the wholesale price level fell by about 1.75 percent per year, while real income rose by about 5 percent per year (Friedman, pp. 94-95). The effect of growth deflation on economic activity and consumer welfare is entirely benign. The second type of deflation is when hoarding occurs. An individual deliberately chooses to reduce his current spending on consumer goods below his current income, preferring the accumulation of his cash balance. Cash building usually stems from a more pessimistic or uncertain attitude toward the future, caused possibly by the onset of a recession, a natural disaster or the imminent prospect of war. It may even result from speculation on the happy prospect that prices may fall in the near future as a result of economic growth. This deflation is also benign because it accomplishes an increase in aggregate monetary wealth. Another major factor that have historically operated on the supply of money to produce deflation is a decline in the supply of money that results from a contraction of fractional reserve bank credit. Bank credit deflation represents a purgative market adjustment process. In fact in the era before the 1930s when the natural flexibility of prices and wage rates prevailed and was not impeded by legal constraints, bank credit deflations in the U.S. were swift and did not cause severe economic dislocations. The central banks can also reduce the money supply. Take the forgotten depression of 1920. From 1915 through 1919, the Fed stimulated a massive inflationary bubble. The money supply (M2) was increased at an average annual rate of 15.5 percent, and prices measured by the price deflator rose from 1916 to 1920 by 15.4 percent per annum. The Fed began to recognize the dangerously inflationary nature of its policies in 1919 and raised its discount rate from 4 percent to 4.75 percent in December 1919, to 6 percent in January 1920, and to 7 percent in June 1920, where it held fast until May 1921. The consequence was a steep decline in the annual rate of growth in the money supply to 2.9 percent in 1920 and to -7.5 percent in 1921, causing the GDP deflator to decline by 16.6 percent in 1921 and 8.1 percent in 1922. Because of this massive deflation, however, the economy began to recover by August 1921, eighteen months after the downswing had started in January 1920. As Gordon describes it "the downswing was severe but relatively short and its outstanding feature was the extreme decline in prices" (Gordon, pp. 21-22). No use of fiscal policy was made and despite the absence of a stimulative government policy, recovery was not long delayed. Furthermore, at a given level of taxation, fiscal deflation lightens the fiscal burden on the market economy and diminishes the calculational chaos inevitably induced by government expenditures, whereas inflationary finance intensifies the fiscal burden and promotes the spread of calculational chaos.

There does exist a malign form of deflation that is coercively imposed by governments and their central banks and that violates property rights, distorts monetary calculation and undermines monetary exchange (Salerno, 2003). It may disrupt an economy back to a primitive state of barter if applied long and relentlessly enough. This form of deflation involves an outright confiscation of people's cash balances. A glaring example of confiscatory deflation occurred recently in Argentina. In 1992, after yet another bout of hyperinflation, Argentina pegged its new currency, the peso, to the U.S. dollar at the rate of 1 to 1.

As investment dollars flooded into the country, they found their way into the central bank, enabling it to expand the amount of reserves available to the commercial banks. Fractional reserve made his course and bank credit boomed. As a result, Argentina's money supply (M1) increased at an average rate of 60 percent per year from 1991 through 1994 (Shostack, 2001). But the influx of dollars ceased and the inflationary boom came to a screeching halt in 1998 as the money supply increased by about 1 percent and the economy went into recession. In 1999, money growth turned slightly negative, while in 2000 the money supply contracted by almost 20 percent. In 2001, domestic depositors began to lose confidence in the banking system and deposits were withdrawn from Argentine banks. President Fernando de la Rúa and his economy minister, Domingo Cavallo, responded to this situation on Saturday, December 1, announcing a policy that amounted to confiscatory deflation to protect the financial system and maintain the fixed peg to the dollar. Specifically, cash withdrawals from banks were to be limited to \$250 per depositor per week. Cavallo's malign confiscatory deflation dealt a severe blow to cash businesses and brought retail trade to a standstill. This worsened the recession, and riots and looting soon broke out that ultimately cost 27 lives and millions of dollars of damage to private businesses.

7. Conclusions

We can continue the journey started on August 15, 1971, or acknowledge that it was a tragic error of dire consequences. Defenders of unlimited Leviathan advocate additional doses of quantitative easing and the creation of a single currency controlled by a world central bank³. Along this line, major central banks could take unified and oligopolistic action under the pretext of coordinating monetary policies. This would mean total disaster and the ultimate triumph of the system that has led to the current crisis. An inflationary paper money system is not beneficial from an overall point of view. It does not create real resources on which our welfare depends. It merely distributes the existing resources in a different manner; false elites gain, many others lose. It provides illicit incomes, encourage irresponsibility and dependence, stimulate the artificial centralization of political and economic decision-making, and constantly create fundamental economic disequilibria that threaten the life and welfare of millions of people.

The alternative is a return to sound money, a restoration of the true currency, spontaneous creation of the social order, and a rejection of the meddling of governments and central banks. They should not produce money nor should they force the citizens to use fiat money by imposing legal tender laws. They should not try to fix the interest rate, the prices of financial titles, or commodity prices. We should not be afraid of deflation, but love it as much as our liberties. Deflation appears as a great harbinger of liberty. It stops inflation and abolishes the advantage that inflation-based debt finance enjoys, at the margin, over savings-based equity finance. And it therefore decentralizes financial decision-making and makes banks, firms, and individuals more prudent and self-reliant than they would have been under inflation. Deflation also eradicates the redistribution of incomes that result from the monopoly privileges of central banks. It thus destroys the economic basis of the false elites and obliges them to become true elites rather quickly, or make way for new entrepreneurs and other social leaders. Deflation puts a brake on the further concentration of power in the hands of the government. It dampens the growth of the welfare-warfare state and it is a liberating force. It brings the inflated monetary system back in touch with the real world. In the light of these considerations, deflation is not merely one fundamental policy option. Rather, it is the only acceptable monetary policy to advance a free society.

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³ This was the proposal of Keynes during the Bretton Woods conference, recommending the imposition of the bancor as the international currency.

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