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**The Financial Pathology of the Postwar American Welfare State**

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**JEL Classification:** E51, E58, I38, P16

**Abstract:** Chronic inflation in the U.S. is a post World War II phenomenon. Particularly puzzling is the period of *accelerating* inflation after 1964 and the rapid *deceleration* after 1981. Arguably, inflation was employed to solve certain problems of finance faced by political authorities benefiting from the expanding welfare state. Those solutions depended on certain deceptions of the public, however. In particular, successful vote maximization through redistributive politics required (1) taxing and raising taxes surreptitiously through inflation to hide the costs of the subsidies, (2) covert inflationary repudiation of much of the accumulating federal debt that was also being employed to hide the costs of redistribution, and (3) the successful use of inflation to reduce the disemployment effects of pro-union laws and income transfers. Accomplishing these things required accelerating inflation. Inflation stopped accomplishing its intended functions over the 1970s, however, because the public's expectations of inflation became more accurate *despite* its acceleration, and certain costs of inflation rose. Thus the marginal benefits of inflationary policy to the governmental partisans of the welfare state fell below the marginal political costs, making a lower inflation rate optimal. This endogenous theory of monetary policy and inflation behavior may be termed the "political neutralization hypothesis".

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## 1 Introduction

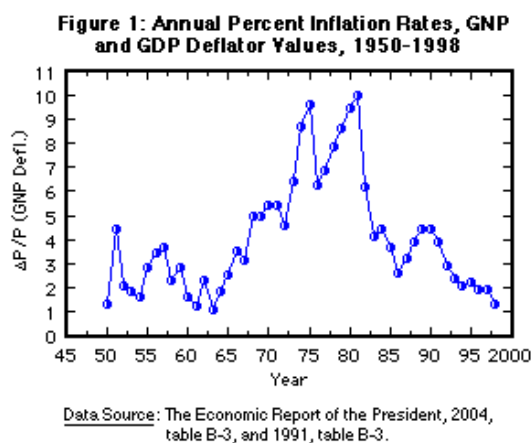
... By a continuing process of inflation, governments can confiscate, secretly and unobserved, an important part of the wealth of their citizens. By this method they not only confiscate, but they confiscate *arbitrarily*; and, while the process impoverishes many, it actually enriches some.

John Maynard Keynes, *The Economic Consequences of the Peace* (1988, p. 235)

Most of us now breathing have lived with inflation – chronically rising prices yielding an ongoing decline in the value of money – all of our lives. Yet chronic peacetime inflation in the U.S. is an unusual historic experience, largely limited to the post World War II period. The United States was a developed, industrial nation long before World War II. Indeed, by 1910 it had already become the greatest industrial nation on earth despite experiencing nearly 35 years of *deflation* following the Civil War. So there is *nothing* inherent in a modern industrial society that requires ongoing diminishment in the value of money. Clearly some crucial determinants of the price level and value of money changed during or before World War II and have since acted to make price level behavior depart from previous U.S. experience. Not only does the existence of inflation in the post war period of the 20th century require explanation, so does its pattern, shown in Figure 1. The rate of inflation, measured there by the GNP Deflator index through 1990 and the GDP deflator after, was positive but relatively stable, even falling slightly into the mid 1960s. Then inflation accelerated over the period 1964-1981, known as the “Great Inflation”, after which it *declined* rapidly for several years, before rising a bit in the late 1980s and then declining more slowly in the 1990s.

One prominent factor many analysts employ to explain much of the Great Inflation is the OPEC oil price increase associated with the Ramadan/Yom Kippur War of 1973. By raising the prices of everything made from crude oil, such as gasoline, plastics, and heating fuels, and by thus also raising transport costs and reducing supplies of nearly every good, this cost increase certainly pushed the price level up in a relatively short period. That accounts for the first of the *two* price spikes of the Great Inflation. Note, however, that the inflation rate had been rising for over seven years before the Yom Kippur War. Also note that such a unique supply shock, though it shows up as an increase in the inflation rate, only shows up as a *temporary* rise in

that *rate*, because it actually generates only a discrete jump in the price level. It would take a repeated sequence of such cost-pushes and supply declines to generate ongoing price increases. In fact, a sequence of negative sectoral supply shocks occurred which constitute part of the story, but they had nothing to do with oil. The effect of the oil price spike on inflation was completely gone by 1976, after which the inflation rate continued rising, actually slightly *below* its prior trend. The Great Inflation is not the story of the oil price shock, even if one adds in the second, smaller oil shock associated with the Iranian revolution of 1979. Something much more fundamental was occurring.



The basic nature of inflation has been understood for a long time. Inflation is a monetary phenomenon (Friedman, 1956 and 1970, Patinkin, 1965). In the long-run the rate of inflation (or deflation) will equal the *difference* between the growth rates of the nominal money stock and real balances demanded, though in the short-run significant deviations occur. Since the end of the gold standard in the Great Depression, and particularly since the 1951 Treasury accord releasing the Fed from Treasury department control, the Federal reserve has gained discretionary control over the monetary base, and hence (within certain short-term limits resulting from outside influences on the money multiplier) the level and growth of the nominal money stock (Timberlake, 1984). The basic question of why inflation has been chronic in the postwar period then becomes one of *what has motivated the monetary authorities to*

*engage in chronic excess money growth.* In particular we need to discover what motivated them to accelerate money growth and inflation from 1965 through the late '70s, and what changed to cause the subsequent rapid decline in inflation and its apparent stabilization at low levels.

Of course there has been no great lack of research into the causes of persistent inflation. The most influential theory currently was developed by Kydland and Prescott (1977). They were awarded the Nobel Prize in economics in 2004 for their work. Assuming the monetary authorities were altruistically concerned with keeping unemployment low, which required generating more rapid inflation than the public expects, and that the public preferred not being fooled, they explained chronic inflation – *without* lower than normal unemployment – as the suboptimal outcome of a “prisoner’s dilemma” faced by the public and the Fed. While astute and insightful, their argument did not explain the accelerating pattern of inflation after 1964, nor predict or explain the deceleration that occurred after 1981. And while simplicity is often a virtue, their “social welfare function” approach ignored variables that might be crucial in explaining the behavior of the Fed and the consequent postwar inflation pattern, such as institutional incentives inherent in the structure of the Fed, self-interests that Fed decision makers may have, pressures from legislators and presidents to accommodate social policies, and changes in macroeconomic theory.

What Thomas Sargent (2003) calls the “Berkeley Story”, developed by Delong (1997) and refined by Romer and Romer (2003), is that the inflation acceleration of 1964-1981 and subsequent disinflation was due to the Fed authorities having a correct macro model in the 1950s, forgetting or losing it in the 1960s and 1970s, with resulting inflationary policy, and regaining that knowledge in the 1980s. Though it contains important kernels of truth, there are obvious problems with this view. First, it provides *no* explanation for chronic post war inflation *at all*, merely for the acceleration after 1964. Second, its adherents have provided little, if any, explanation of why or how knowledge at the Fed was lost and regained. Third, the story assumes that Fed decision makers are reliably immune or insensitive to any political pressures or personal interests. This view of powerful government appointees in control of the nation’s money and credit seems naive at best, and Arthur Burns, at least, admitted that it was not so.

Thomas Mayer (1998), who interviewed many members of the FOMC from the period, developed an explanation of the Great Inflation similar to the Berkeley Story. In his view various characteristics of FOMC behavior and decision making that he terms “cognitive errors” gave policy an inflationary bias. Some of these he claims to have been rooted in the nature of committee decision-making. Thus procrastination in the making of painful (i.e. anti-inflationary) decisions aided the rise of inflation rates. He says both Martin and Burns had no use for formal econometric models, and operated with vague conceptions of how changes in money and credit affected output and employment. Likewise, the FOMC overemphasized the short-run effects of policy actions, had little understanding of the difference between real and nominal interest rates, underestimated the lags in effects of policy on output and employment until well into the 1970s, and so on. Mayer’s explanation of why these institutional and human problems had *more* inflationary effect *after* 1964 than before appears to be that they were aggravated by advice from economists based on Phillips curve reasoning (Mayer, 1998, pp. 95-104). As for political factors, Mayer specifically denies that pressures from the executive or legislative branches were crucial. In his view, it was all a result of cognitive mistakes by well-intended officials, repeated over and over for more than a dozen years.

In an early attempt to escape the social welfare function approach, Cukierman (1986), working with Allan Meltzer, formally recognized that the Fed receives pressures from the president, congress, and the financial community that affect its behavior. In their model, Fed preferences at the margin for economic stimulation versus inflation prevention shift randomly (though with some persistence) through time as the coalitions and relative strength of pressure groups change. This allowed Cukierman and Meltzer to explain many features of central bank behavior, including the existence of large swings in money growth and inflation. Note, however, that making the balance of Fed preferences for economic stimulation versus inflation prevention a random variable involves foregoing any effort to explain its value at any particular time in terms of the specific pressures existing at that time. It leaves unexplained the factors changing the composition of pressures on the Fed, *particularly in terms of the consequences of inflation itself*. It is precisely the explanation of such factors in the historic period under discussion at which the present, less formal paper, is aimed.

## 2 Redistributive Politics and Political Neutralization

That Fed independence gave it some institutional bias towards positive money growth can be seen by recognizing that all of its expenses, including the salaries and perquisites of its employees, are paid for by interest earned from loans it makes to and securities it purchases from the banking system, with base money it creates at zero cost. Such seignorage may *not* imply an *inflationary* bias in monetary policy, however, because growth in the money stock equal to the growth of real balances demanded in a growing economy would probably supply sufficient revenue to the Fed to satisfy the monetary authorities at zero inflation. Additional pressures must exist to account for chronic excess money growth and inflation.

While the Fed is a quasi-independent agency, it is certainly a governmental entity that receives pressures, both from presidents and from members of congress, to conduct monetary policy in ways they desire (Kane, 1982). Grier (1991, 1996) has shown statistically that the money growth rate over the period 1958-1984 was positively related to the degree of (welfare) liberalism of the relevant committee and subcommittee chairs in the Senate. The appointed monetary authorities in the Fed are more likely to bow to those political pressures the more uniform they are, in particular if *both* the president *and* congress want expansionary policy. They are also more likely to yield if the policy advice they get from economists reinforces the political pressures, as was often the case during the Great Inflation. Indeed, Mayer (1998) notes that by 1970 many members of the FOMC were *themselves* professional economists.

The first key argument of this paper is that *the pressures for excess money growth and inflation stemmed from motives and incentives of political authorities inherent in the rise and expansion of redistributive politics in the postwar period*, particularly, under Presidents Johnson, Nixon, Ford, and Carter. Inflation in America is thus the financial pathology of the welfare state, as Arthur Burns (1979, 12-16) clearly understood. However, inflation could aid the expansion of the welfare state only as long as the public underestimated the temporal rate of price increase. The Fed extended that period by causing the inflation rate to accelerate. Eventually, however, the inflation expectations of the public became more accurate despite its acceleration. The second key argument of this paper is that *this neutralized not only the economic effects*

*of inflation, but also most of the political benefits to the architects of that policy tool.* I term this the “political neutralization hypothesis”.

One possible objection to the perspective of this paper is the similarity of the inflation patterns in other major democracies of the world in the post-war period, before, during, and since the great U.S. inflation, suggesting some broader, international force at work than just surreptitious finance of the expanding U.S. welfare state. In fact, though, there is no mystery here. The U.S. was the key currency country in the Bretton Woods system, so the U.S. dollar was held as international reserves by all central banks, and exchange rates were pegged by central bank intervention. When the U.S. began its accelerating monetary expansion after 1965 to finance its expanding War On Poverty income redistributions, and inflation accelerated, other nations had to buy dollars and expand their own money supplies at similar rates to maintain their agreed-upon exchange rate pegs. It is no exaggeration to say that our federal reserve was driving the monetary policies of the entire democratic world, a fact about which foreign politicians and central bankers (particularly the Germans and the French) complained bitterly and repeatedly at the time.

Perhaps they complained too much. After all, they too continued inflating into the floating rate period after 1972, when Nixon closed the Gold window at the Fed. Arthur Burns (1979, 14-15) has explained this well, however. The same ideological attitudes generating expanding welfare states, regulation, and other costly government interventions here were also operating in those nations, generating the same financial solutions and political pressures for monetary accommodation. To this insight it is only necessary to add, in explanation of the later correlated decline of inflation rates in the U.S. and other nations, that similar processes of government inflationary policy neutralization operated in virtually all democratic nations.

## **2.1 Inflationary Finance of Income Transfers**

Since time immemorial, the major source of inflation has been the sovereign’s attempt to acquire resources to wage war, construct monuments, or for other purposes. Inflation has been irresistibly attractive to sovereigns because it is a hidden tax that at first appears painless or even pleasant, and above all, because

it is a tax that can be imposed without specific legislation. It is truly taxation without representation.

Milton Friedman, "Monetary Correction," (1978, p. 27)

Public choice theory has fairly well delineated the nature of politics in modern democratic states with wide franchises (Buchanan and Wagner, 1977). Politicians compete with each other to gain and retain office by offering alternative programs of expenditure and finance aimed at satisfying diverse constituencies and interest groups in such a way as to obtain the maximum number of votes possible. Since at least the Roosevelt administration, and particularly since Lyndon Johnson was elected in 1964, the expenditure side of electoral competition has increasingly involved offering programs of targeted income transfers. Those benefiting from such programs – including their administrative bureaucracies – engage in organized lobbying to support their continuance and expansion.

It is important to remember that in the U.S. most transfer payments shift income *sideways*, from unorganized to organized members of the middle class, rather than from rich to poor. Some is even redistributed upwards through business subsidies. Virtually all tax revenue is also extracted from the middle and upper classes. Because no gain can be made by anyone whose tax payment to provide such transfers equals or exceeds their subsidy, the recipients have an incentive to resist the taxation in an effort to insure that they are net beneficiaries. Those who are not recipients, and may even oppose such subsidies, have an even stronger incentive to oppose the taxation required to fund such programs.

As a consequence of the combination of strong, organized, and expanding demand for income transfers and persistent opposition to the explicit taxation required to fund them, the incentive faced by political agents has been to offer and vote for the expenditures, but not to vote for explicit tax increases (or at least for as few as possible). Instead, much of the revenue required to cover the expenditures came to be acquired through deficit finance, deferring the necessary taxation forward in time past the next election. That was only a short-term solution, however, since interest and principle on bonds must be paid. That implies future taxation, with its electoral costs. To avoid or at least minimize such costs, the authorities began pressuring the

Fed to monetize debt and otherwise use monetary expansion and consequent inflation to tax and raise tax rates surreptitiously.<sup>1</sup>

Though the public is largely unaware of it, economists – and many federal politicians – have long understood that inflation is itself a tax on the cash balances people hold (Bailey, 1956, Johnson, 1967, Friedman, 1971). Money held loses purchasing power as prices rise. As members of the public forego some current purchases and add to their nominal cash balances in an effort to maintain their desired *real* balances, purchasing power is literally transferred from them to the government. Milton Friedman (1978) estimated that revenue generated for the government directly through money creation in 1973 amounted to \$8 billion, equivalent to approximately 3.5 percent of its receipts that year.

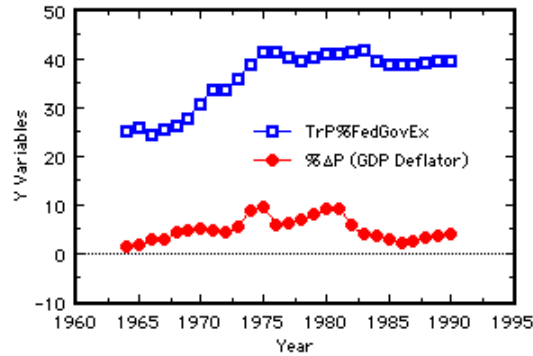
Even better from the perspective of elected federal officials, absent an indexation provision in the progressive tax code, *inflation causes income tax rates to rise without a public vote, by causing nominal incomes to rise through the progressive tax brackets*, in a process commonly known as bracket creep. In addition, it generates artificial capital gains on financial assets on which taxes must be paid, and makes legally allowed depreciation allowances inadequate to replace business capital assets, thus decreasing real cash flow of firms while increasing real taxes paid (Edwards, 1991, pp. 376-377). Again, this happens without a legislative vote from which those in favor can be identified by the public.

These covert methods of taxing and raising taxes lowered the political costs of income transfers for leftist legislators. Friedman (1978) estimated that in 1973 inflation generated \$13 billion in added revenue for the federal government from the corporate income tax alone. That was over 5.6 percent of receipts that year. He was apparently unable to obtain an estimate of personal income tax revenue added by bracket creep, but it must certainly have been many billions of dollars, so that the sum of revenue raised from seignorage, income tax bracket creep, taxation of phantom capital gains *and* understated business depreciation must have exceeded 10 percent of federal receipts that year.

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<sup>1</sup> Thornton (1984) demonstrated empirically that the Federal Reserve monetized debt in this period, and found that it apparently stopped doing so when interest rate targeting ended and monetary targeting began in 1979. through money creation in 1973 amounted to \$8 billion, equivalent to approximately 3.5 percent of its receipts that year.

**Figure 2: Inflation Rates and Income Transfer Payments as a Percent of Total Federal Government Expenditures, 1964-1990**



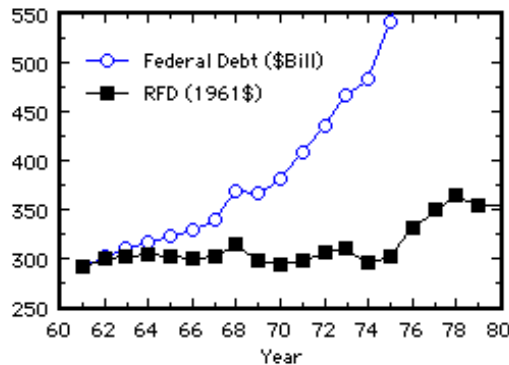
Data Source: Economic Report of the President, 2004, table B-3, and 1992, tables B-74 and B-79, and 1990, table C-81.

Given these political incentives it is no accident that, as the welfare state expanded in the 1960s and 1970s, the federal budget went into chronic, expanding deficits, rising even as a percent of gross domestic product, and the inflation rate rose. For the political authorities to gain and maintain public acceptance of the expanding welfare state required hiding its costs. Figure 2 shows, along with the inflation rate, income transfer payments as a percent of total federal expenditures (TrP%FedGovEx) from 1965 to 1990. It is easily seen that the periods of accelerating inflation rates and proportionately rising transfer payments correspond closely, and that when TrP%FedGovEx stopped rising, then began leveling off and drifting downward, so did inflation rates. It should also be added, to preempt an alternate hypothesis, that Vietnam War finance had nothing to do with the Great Inflation. *Military spending, as a fraction of either total federal spending or of GDP, began declining in the late 1960s and had a strongly inverse correlation with inflation rates over this entire period, in stark contrast to TrP%FedGovEx.*

The two processes for hiding the costs of compulsory income redistribution – federal deficits and inflation – were correlated in part because of the costs associated with the alternative mode of deficit finance. The government must borrow money to spend in excess of revenue it raises through open taxation, and it can do so by selling its bonds to private parties. In a period of rising deficits, however, the resulting increased competition for a limited supply of savings may raise interest rates, crowd out

some private sector investment and hurt the housing and capital goods industries. To avoid political fallout from this, the Treasury monetized a significant fraction of its current deficits (additions to the debt) by selling the bonds to the Federal Reserve. As the government spent the money and people deposited the checks this added to bank reserves, increasing the monetary base and the growth rate of money and credit. Such debt monetization, along with open market purchases by the Fed from the banking system, tended initially to cause interest rates to fall through the “liquidity effect”, or at least to stay constant, instead of rising, as federal deficits and debt expanded.<sup>2</sup>

**Figure 3: Nominal and Real Federal Debt in the 1960s and 1970s**



Data Source: The Economic Report of the President 1991, table B-76 p. 375 for the nominal Federal debt values, and table B-3 p. 290 for the GNP Deflator values used to translate the nominal debt magnitudes into constant 1961 dollars.

Of course there were and are long-term counter effects, which the politicians and monetary authorities may not have initially recognized. Rising nominal income, resulting from the monetary expansion increases credit demand and pressures the nominal interest rate to rise again to its natural rate over time (Friedman, 1968). In addition, changes in expected rates of inflation motivate credit market transactors to

<sup>2</sup> The argument here may be thought to beg the question of Ricardian Equivalence, which would prevent interest rates from rising as the deficit increased (Barro, 1974). But if future tax obligations generated by current added debt in lieu of added current taxation are fully discounted, and seen by present taxpayers as having the same present value, it seems obvious that the political costs to the politicians would be the same, and they would have identical incentives to avoid those costs through debt monetization.

build compensating premiums into nominal interest rates (the Fisher Effect). Here again, expansionary monetary policy causes nominal interest rates to eventually rise. Due to interest rate ceilings the Fed had imposed on bank deposits in its regulatory capacity, however, and by the use of *accelerating* money growth, causing additional liquidity effects to offset the income and Fisher effects, the monetary and political authorities were able for some time to keep real interest rates artificially low, and pay government bondholders off in depreciated dollars. *Arguably, by this process the federal authorities surreptitiously repudiated virtually all of the added federal government debt, and thus redistributed income from federal bondholders to subsidy recipients.*

As figure 3 shows, real federal debt stayed almost constant for a decade and a half as inflation accelerated, even though both the annual budget deficits and the nominal national debt increased enormously. Milton Friedman's (1978) estimate for 1973 was that the federal government realized the equivalent of \$5 billion in revenue from that source alone. That was just less than 2.2 percent of Federal receipts that year, raising the government's total revenue gains from inflation in 1973, at a very conservative estimate, to over 12 percent of its receipts.

## **2.2 Redistributive Labor Policy as an Inflation Motive**

If the Federal Reserve then sought to create a monetary environment that fell seriously short of accommodating the upward pressures on prices that were being released or reinforced by governmental action ... the Federal Reserve would be frustrating the will of Congress to which it was responsible – a Congress that was intent on providing additional services to the electorate and on assuring that jobs and incomes were maintained particularly in the short run.

Arthur F. Burns, Chairman of the Federal Reserve Board, 1970-1979, in *The Anguish of Central Banking* (1979, p. 16)

A third important motive for the policy of chronic and accelerating inflation – in addition to surreptitious taxation and debt repudiation – has to do with the labor policy favored by the proponents of the welfare state. Not all redistributive political policy involves targeted income transfers. Many legislative programs aim at altering market

outcomes and redistributing income by other means. Because of certain widespread public attitudes about the supposedly superior bargaining power and exploitative character of employers, many political agents have found that large campaign contributions and bloc votes could be obtained through legislation to raise the minimum wage and increase the strength and bargaining power of unions. Such legislation, it should be noted, aims at redistributing incomes *directly* rather than through taxation and subsidies. It should also be noted that such legislation stems from the exact same ideological mindset as do policies of fiscal redistribution.

Unfortunately for those instituting such labor legislation, it has some harmful side effects. A major one is the *downward nominal wage and price rigidity that is created by minimum wage laws and widespread union contracts*. In a recession induced by, say, a discrete decline in the nominal money stock, a sufficient fall in the price level over time will raise the real money stock, thus restoring purchasing power, and tending to offset the contractionary effect on business activity. However, initially, such a price level decline will raise the aggregate *real wage* to unemployable levels, reducing employer profit margins and adding to the contraction (Bordo et al., 2000). With a lag, however, unemployment will cause nominal wage rates to fall, reducing the real wage back to employable levels and allowing the recession to end. When such downward nominal wage adjustments are prevented by bad governmental labor policy, however, *ongoing inflation becomes an absolutely necessary concomitant of such policy, because only through differences in the relative magnitudes of wage and price inflation (and nominal money growth) rates can the required, stabilizing adjustments in real wage rates and real money balances occur*. This third key argument may be termed *the first-difference hypothesis*, and regarded as the central explanation for chronic inflation in the post-war period.

A related though subsidiary reason redistributive labor policy led to inflation, however, has to do with its initial disemployment effects. While legislation and executive branch policies raising the minimum wage and/or increasing union strength may redistribute income from owners of firms to union employees and low wage workers retaining their employment, as intended, it also generates cost pushes which, partly passed on to prices, both hurt consumers and generate disemployment among the very employee groups the legislation intends to help, thus raising the natural rate

of unemployment.<sup>3</sup> In this situation, the temptation faced by political authorities unwilling to admit the cause of the added unemployment, and determined to avoid its occurrence, is to pressure the monetary authorities for monetary expansion to “validate” the cost pushes.

This was a significant factor in the “Great Inflation”. Linneman and Wachter (1986) found large increases in union wage premiums resulting in significant declines in union employment between 1973 and 1984. Even earlier, in 1971, Arthur Burns made repeated public statements criticizing excessive union wage settlements (Schmidt, 1973, pp. 97-98). Burns also admitted, in the statement quoted above, not only both the existence of wage and welfare state financing pressures on prices, but that as Chairman of the Federal Reserve he had been unwilling, or at least unable, to resist monetarily accommodating such pressures.

The pressure on the monetary authorities, such as William McChesney Martin, and after him Arthur Burns and the other members of the FOMC, to accommodate the political authorities as they expanded income transfers through subsidies and labor legislation, was initially strengthened by the dominant Keynesian macroeconomics of the day. The Keynesian emphasis on aggregate demand management through fiscal and monetary policy was originally thought to show that unemployment could be kept minimal – even eliminated entirely – by sufficient aggregate demand without generating inflation. Specifically, the price level was assumed not to rise until full employment was reached (Keynes, 1936). When that turned out *not* to be true in the 1950s, and inflation, though low, became chronic, Keynesians adopted the Phillips curve argument, that some inflation was *beneficial* because the unemployment rate was an inverse function of the inflation rate (Samuelson and Solow, 1960). If true, unemployment could be set as low as desired by simply generating the required inflation rate. Indeed, the theory had significant empirical support as late as 1970. With a lag, this view heavily influenced the fiscal decision makers of administrations in the 1960s, as Romer and Romer (2003, pp. 20-22) have shown.

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<sup>3</sup> Phillip Cagan (1979) estimated that unions and minimum wage laws accounted for about one-half of a percentage point out of the natural unemployment rate, or about 16 percent of total unemployment. In 1978, that would have amounted to approximately one million household providers.

### 2.3 The Welfare State and the Post War Inflation

In this kind of perspective, the question is whether inflation will indeed become endemic and whether it will lead to basic social change... In the longer run it depends on the willingness of society to retreat from the welfare state towards less government taxation and expenditure and more private control over and private responsibility for the spending of income created by private effort.

Harry Johnson "Living With Inflation," *The Banker* (August 1975, p. 864)

At this point an answer can be given to the initial question posed at the beginning of this paper: the chronic inflation of the postwar period has essentially been an outcome of the demand for and supply of income transfers through the democratic political system. The incentives for deficit finance and rapid money growth inherent in the provision of compulsory income transfers through democratic politics are a central element in this explanation, though public attitudinal changes should also be stressed. Before the Great Depression, widespread public and political elite acceptance of the classical liberal perspective on limited government, as well as of the Protestant ethic of frugality and personal responsibility, kept both the demand for and supply of public income transfers low.<sup>4</sup> Demand for income transfers increased from desperation during the Depression, and increased more during the 1960s, as many people accepted the perspective, propagated by the left intelligentsia, that corporate exploitation of workers is pervasive, and that it is a proper function of government to insure citizens against every imaginable detrimental contingency. This shift in opinion resulted in the election of President Lyndon Johnson in 1964, and the subsequent rapid expansion of income transfers.

Attitudinal changes also affected supply, and here is where the Berkeley story of the Fed losing and then regaining knowledge necessary for inflation control has at

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<sup>4</sup> American leaders from James Madison in 1794 to Grover Cleveland in the 1890s made repeated statements denying both the constitutional authority of Congress to legislatively redistribute income (or wealth) and the morality of such acts. In *Calder vs. Bull* (1798) Justice Chase of the U.S. Supreme Court pronounced such laws "against reason and justice," and said, "the genius, the nature, and the spirit of our state governments, amount to a prohibition of such acts of legislation, and the general principles of law and reason forbid them." Attitudes changed, and state legislatures began undertaking such acts on a small scale in the late 19th century, particularly for the relief of widows. Until the Great Depression most poor relief was, however, provided by kin or by private charities.

least some relevance. The emerging dominance of redistributionist – and associated inflationist – views by the elites was aided by Keynesian economics, which removed the attitudinal constraints against both the budget deficits and the monetary expansion needed to fund income transfers (Buchanan and Wagner, 1977). In addition, with its presumption of downwardly inflexible wages and prices at output rates below full employment, such that the level of aggregate demand was all that determined the level of output and employment, Keynesianism led politicians and Federal Reserve officials to believe that any existing unemployment could be reduced without causing prices to rise by simply expanding aggregate demand. And when inflation became chronic despite unemployment, Phillips curve reasoning provided them with a rationale for continuing and even increasing excess money growth and inflation.

In the late 1960s and 1970s, the propagation of Monetarist doctrines by Milton Friedman and others began to threaten support for inflationary policies, however. Friedman's rejuvenation of the quantity theory of money had already made clear the monetary nature of inflation. Development by Bailey (1965), Johnson (1967), and Friedman (1971) of a clear concept of inflation as a tax on cash balances, literally shifting purchasing power from the public to the government without vote of elected representatives, threatened to remove public misconception on that score. Perhaps most important, Friedman's (1968) concept of the natural rate of unemployment, developed in his famous 1967 presidential address to the AEA, created doubts among economists and open minded political authorities about the power of monetary policy to manipulate unemployment (Friedman, 1968). His argument, in the same article, that inflation could only reduce unemployment below the natural rate by reducing the *real* wage, and then only until worker expectations adjusted to the higher inflation rate, began to spread recognition that inflationary reductions in unemployment might be temporary, not permanent, *and operated through deception of the public*.

The effect of these theoretical innovations on politicians and policy was initially limited, however. Many redistributionist politicians seem to have viewed the deceptions required by their policies as morally justified. The notion that people must be *forced* to do what is "in their own best interest" inheres in the welfare state philosophy. It is often employed in defense of compulsory social security, just to list one

prominent example (Tobin, 1988). This notion easily justified mere *deception* in the finance of such programs.<sup>5</sup> The egalitarian aspects of the welfare philosophy also easily justified the covert, inflationary expropriation of lenders, who were perceived as being wealthy.

Economists of the day, at the FOMC and in academia, were certainly aware of these effects. Indeed, when the author of this paper took his first course in Macroeconomics at the University of Utah in 1976, the Professor, a staunch Keynesian, not only clearly explained the distinction between real and nominal interest rates, but explained how inflationary reductions of real interest rates lowered the cost of government debt finance and redistributed income from government bondholders to subsidy recipients. Additionally, he made clear his *glee* at such policy action. Disregarding the questionable morality of this perspective, which was typical (though not universal) among the economists at that institution, his only intellectual error was in underestimating the intelligence of government bondholders and other private citizens while overestimating that of politicians and Federal Reserve authorities. That error was shared by the FOMC.

### 3 The Political Economy of the Disinflation

A political economy theory of inflation must provide insights not only into why a policy of enduring inflation has been followed in the postwar period, and why it accelerated after 1964, but also help explain why the inflation rate fell precipitously after 1980, eventually drifting down and stabilizing at comparatively low levels. One might attribute the rapid decline of inflation in the early 1980s to the anti-inflationary attitudes of the Reagan administration, and certainly that was a factor. Political disenchantment with inflationary policy began earlier, however, and came in the form of a change in the incentives faced by politicians relying on a policy based on deception. The crucial insight is that, in fundamental ways, critical elements of the public

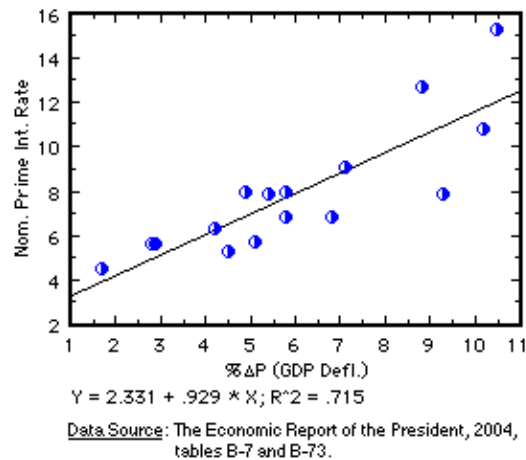
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<sup>5</sup> The term “deceptions” as used here has connotations both of the public miss-estimation of simple variables such as the inflation rate and what public choice economists have referred to as “fiscal illusions”, i.e. voter underestimates of the costs of government due to such things as complex or hidden tax systems (the tax on cash balances being the quintessential example), to the extent that such errors have been deliberately induced by political authorities.

stopped being deceived, and/or responded to chronic, accelerating inflation in ways that diminished the political incentives for inflationary policy.

First, inflation could *only* be used to reduce real wages from excessive levels generated by legal minimum-wage increases, union violence, strike threats, and pro-union government interventions, and hence keep the unemployment rate down to politically acceptable levels, as long as workers were subject to money illusion (or at least underestimated the current and prospective inflation rates). Naive Keynesian Phillips curve theory implicitly assumed worker money illusion. Monetarists rejected this, and Friedman's famous presidential paper (1968) bravely predicted that worker expectations adjustments would, over time, make the long-run Phillips curve vertical.

**Figure 4: Inflation Rates and Prime Bank Interest Rates, 1965-1980**



Some Monetarists, however, in a doctrine known as accelerationism, argued that, given adaptive expectations, the inflation expectation of the public would chronically lag the actual rate, and the government could peg unemployment below the natural rate if it was willing to cause inflation to accelerate continuously (Laidler, 1976).<sup>6</sup> Whether acting on this or more naive Phillips curve reasoning, public authorities faced in the late 1960s with the neutralization of their policy by expectations adjustment responded by causing excess money growth and inflation to accelerate. By the

<sup>6</sup> The accelerationists were not advocating unemployment rate pegging, however. Quite the opposite, their point was precisely to show that the costs of doing so would be excessive.

early 1970s, however, workers were able to anticipate even accelerating inflation and raise wage rates enough to compensate in advance. The inverse “Phillips Curve” relation between inflation and unemployment went away, just as Milton Friedman had predicted. Thus the 1970s were characterized by *both* high (and rising) inflation rates *and* high unemployment rates, contrary to the experience of the 1950s and ‘60s and contrary to both Keynesian *and* accelerationist theoretical predictions. *As a political tool for reducing the disemployment costs of redistributionist labor policies, inflation had stopped working.* Workers themselves sensed this, and their political allegiances began to shift marginally against redistributionist politicians. Previously strongly Democrat in their party affiliation, many blue collar workers voted for Ronald Reagan for president in 1980.

### 3.1 Neutralization of the Debt Repudiation Incentive

The story with debt repudiation through inflation is very similar to that of unemployment reduction. Inflation could only be used to reduce the real interest rate and repudiate debt as long as public inflation expectations lagged actual inflation rates, and transactors continued to suffer interest rate ceilings and confiscatory taxation on financial earnings. There is no reason to believe that sophisticated financial market transactors could be or were fooled much longer than workers. The operation of the Fisher effect, as such transactors built purchasing power premiums into nominal interest rates based on their inflation expectations, is shown in figure 4, which relates annual observations of GDP deflator inflation rates and prime bank lending rates from 1965 to 1980. A simple regression line is included which shows a slope coefficient of .929 on the inflation rate over the period, a virtually complete adjustment of the nominal rate to inflation. However, a regression over the 1965-1976 sub-period has a much lower slope coefficient on the inflation rate. Rising Inflation reduced the real interest rate substantially in that period.

The incomplete adjustment of the nominal rate to inflation over much of the period may *not* have been entirely due to a public underestimation of inflation, but also to the Fed’s interest rate ceilings on time deposits. By the mid to late 1970s, however, those ceilings were causing significant distortions of the market. Banks were

experiencing heavy loss of deposits as customers faced with negative real interest rates on their deposits, made worse by federal and state taxation of their nominal interest earnings, sought alternate liquid financial instruments not subject to ceilings, and non-depository financial institutions supplied such instruments. This arbitrage, however, tended to bid up the prices on alternate financial assets and reduce their rates and yields also.

Even worse from the perspective of Federal Reserve officials, when, after 1973, the annual inflation rate exceeded six percent, the fixed nominal interest rates paid to member banks on their stock in the district Federal Reserve banks became negative in real terms, and many commercial banks began to leave the system, taking their reserve deposits with them. Astonishingly, DeLong (1997), Mayer (1998), and Romer and Romer (2003), in their discussions of and explanations for the inflation pattern of this period, *all ignore these events*, blotting this massive disintermediation completely from their historical narratives. They apparently believe it had no effect on the thinking or actions of the FOMC. In fact, the effect was enormous, on both the monetary and political officials.

In a near panic as the monetary authorities realized that the marginal cost *to them* of their inflationary policy had become much higher than they had previously anticipated, the FOMC, under the leadership of Paul Volker, just appointed Chairman of the Federal Reserve Board, raised its interest rate targets and started slowing money growth in October of 1979. In addition the Fed supported, and congress passed, the Depository Institutions Deregulation and Monetary Control Act of 1980. The Act removed regulation Q ceilings on bank deposit interest rates and forced all banks to hold reserve deposits with their regional Federal Reserve Bank (Timberlake, 1985). The capacity of the political and monetary authorities to suppress real interest rates and repudiate debt through inflation was gone, actually lost as early as 1977, as figure 3 shows. Gone with it was much of the political incentive for rapid and accelerating inflation.

### **3.2 Neutralization of the Seignorage Incentive**

As with unemployment rate reduction and debt repudiation, the use of inflation to covertly tax and raise taxes also began reaching its limits in the mid to late 1970s. The

basic theoretical principle here, elaborated by the supply-side economists of the day, is that while the revenue from a tax is the product of the rate and the base, the base itself is negatively affected by the rate, *ceteris paribus*. As any tax rate rises from a low initial level, its effects on the base will be relatively small, and revenue will rise. But at a high level, the tax base will begin to diminish more than in proportion to the rise in the rate, so that revenue actually begins declining. For the tax on cash balances, the revenue is the product of the inflation rate and the quantity of real balances held. The inflation rate expected, however, negatively affects the demand for real balances, so that the quantity demanded falls as the estimated inflation rate rises.

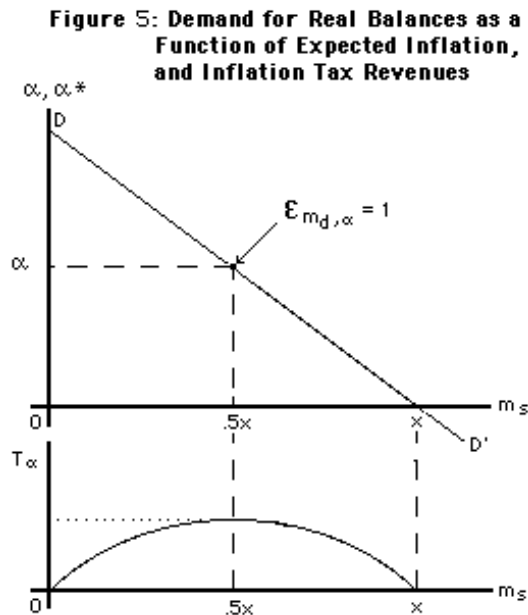


Figure 5 shows the “Laffer” (revenue) curve for the tax on cash balances, measuring real balances demanded and held on the horizontal axis, and the inflation rate and expected inflation ( $\alpha$  and  $\alpha^*$ ) on the vertical, *assuming expectations are correct*. Assuming for simplicity that the inverse relationship between inflation and real balances demanded is linear, there is a total revenue curve which rises as the tax (inflation) rate rises over the inelastic region of the demand function, reaches its maximum where the elasticity of demand for real balances with respect to inflation is unity at one-half the distance from zero to point  $x$  on the horizontal axis, and falls again as the

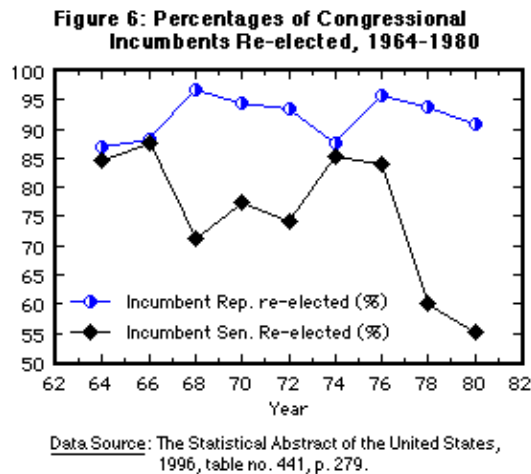
inflation rate continues rising over the elastic region of the demand function (Johnson, 1967). This is shown in the lower of the two graphs composing figure 5. The acceptance of such supply-side arguments by the Democrats in congress some years *before* their adoption by Republicans, is strong indication that something was forcing both economists and members of congress to recognize the existence of limits to their inflationary tax policy. Paul Craig Roberts (2002) has stressed the origins of supply-side analysis precisely in the stagflation of the Carter era.

In years of inflation surprise, of course, real balances held and revenue from the tax on cash balances will both be larger than they would be with accurate expectations of the same inflation rate, and the opposite would hold when inflation is below expectations. In the late 1970s the first condition still held, as the determination of the authorities to finance expanding income transfers, keep interest rates low, and repudiate debt may have caused them to actually lose control of the money supply and price level in a Wicksellian cumulative process. The CPI increased 13.3 percent in 1979 and 12.5 percent in 1980. The GDP deflator rose 8.5 percent and 9.2 percent in those years. Inflation expectations of the public were beginning to adjust, however. The real money stock actually *fell* in 1978 and 1979, despite significant real economic growth in those years. Monetary velocity increased, adding its own impetus to inflation, as real balances demanded as a fraction of real GDP fell. The U.S. was headed for banana republic inflation rates, and voter panic began to generate significant pressure on the authorities to do something about it. Clearly the limits of inflation policy, both economic and political, were being reached.

### **3.3 Neutralization of Bracket Creep Incentives**

Similar factors were operating to limit the capacity of the authorities to raise income tax rates and other tax rates through inflation. Voters may not have known which specific politicians to blame for bracket creep and rising property taxes on inflated land values, but they were not stupid. As for businessmen, they knew very well who to blame for capital consumption due to understated depreciation allowances in the tax code. Over time, the rising burdens of taxation and regulation and the consequent slowing of productivity and economic growth (Vedder, 1996) gradually created

a public backlash against taxes, which the redistributionist politicians had not anticipated. California voters began the revolt by passing proposition 13 reducing property tax rates in 1978. Many other states quickly followed. Politicians who opposed tax relief were threatened with electoral defeat, and more than a few were actually defeated, as shown in Figure 6. In 1980 Ronald Reagan was not only elected president on an explicit program of tax reduction, but the Republicans gained a slight majority in the U.S. Senate for the first time since 1956.



The inflation policy became unprofitable, then, because the marginal benefits of the policy to redistributionist politicians declined as the public learned to anticipate rising inflation rates, and because the marginal political costs of the policy increased, both in accordance with the political neutralization hypothesis. The politicians could no longer use inflation to reduce unemployment and interest rates, or hide the costs of an expanding welfare state through surreptitious taxation, deficit spending, and inflationary debt repudiation. Thus public political support began to shift marginally against the redistributionist and inflationist politicians, particularly in the U.S. Senate. Policies of income redistribution stopped growing and even declined slightly as a fraction of the budget, as shown in figure 2. At that point it became politically possible to significantly reduce the inflation rate, even at the cost of temporary added unemployment.

So, in Volker's "October Revolution" of 1979, the Fed raised the interest rate, and set monetary targets that began reducing the growth rate of the money stock. Nominal money growth fell below the growth in money demand, generating both an excess demand for money and, by Walras' Law, matching net excess supplies of the other economic goods, as people reduced their purchases in a futile effort to add to their money balances. Thus the U.S. experienced the large double dip recession of 1980-1982. The inflation rate then had to fall until it was enough below the growth in the nominal money stock that the *real* money stock could grow enough to satisfy real balances demanded and end the recession. As part of this process, since the fall in the price inflation rate below the rate of nominal wage inflation initially raised the real wage to unemployable levels, the rate of wage inflation had to eventually fall, reducing the real wage (adjusted for productivity) enough to restore more normal employment (Vedder and Gallaway, 1997, 235).

The final nail in the coffin of the inflation policy may have been the indexation of federal income tax brackets by President Reagan in his Economic Recovery Tax Act (ERTA) of 1981. Tying nominal income tax brackets, the zero bracket amount, and the personal exemptions to the consumer price index was an act of moral principle uncharacteristic of late 20th century politicians. That provision ended the congressional capacity to covertly raise income tax rates without an open and public vote, from which those in favor could be identified. This further reduced, by a large increment, the marginal benefits of inflation as a tool to redistributive politicians. The bitter congressional debate over the indexation provision should dispel all doubt concerning the deliberate, conscious use of inflation for surreptitious finance by such politicians. Opponents of indexation focused their arguments precisely on the revenue losses the government would suffer if indexation was included in the tax bill (Fessler, 1981). It is beyond dispute, as their own statements show, that they knew exactly what they had been doing, and what they were losing.

In a last gasp of Keynesian rationalization, some of its congressional opponents, including the *Republican* welfare statist John Chafee and Pete Dominici in the Senate, argued that indexation would actually make inflation worse. In their view, not only would it reduce the costs of inflation, and hence the incentive to fight it, but indexation would put more money in the hands of the public just when expenditure

restraint was needed (Fessler, 1981). So which view was correct? Did indexation decrease the incentives to *fight* inflation, or did it decrease (in combination with the expectations adjustments of citizens) the incentives of government and Federal Reserve officials to *generate* inflation? Indexation passed, and the matter was settled by the rapid disinflation that followed.

#### 4 Recent Experience and Future Prospects

On the other hand, indexation may *not* have been the final nail. Since the rapid disinflation in the 1980s the inflation rate has largely stabilized at positive values in the two or three percent range. In part, this may be because some incentives for inflation on the part of political and monetary decision makers still exist. For one thing, revenue for the federal government can still be obtained through the tax on cash balances with little political cost. More important, even though the unionized fraction of the labor force has declined significantly since the 1950s, support for minimum wage laws and pro-union policies is still strong, and consequent downward *nominal* wage rigidity is still such that macroeconomically stabilizing real wage adjustments *must* largely occur through differential movements of wage and price inflation (the first-difference hypothesis).

In the near future, incentives for more rapid inflation may increase, and factors leading that way seem already to have begun. As the baby boomers retire in just a few years, and the social insurance programs begin to collapse (Edwards, 2003), pressures to “save” them through inflationary finance will almost certainly become irresistible. Add to that the debt monetization being used to help fund the recent huge Bush and Obama financial market bailouts, the current Federal Reserve open market purchases of worthless mortgage backed securities, and the necessity of financing the new health care initiatives and other added social programs forthcoming from the Obama administration, and higher inflation seems inevitable. As has been said, those who fail to learn from history are destined to repeat it.

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