

# **Boom and Bust: The Political Economy of Economic Disorder**

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## **I. Politics and Macroeconomic Management**

Adam Smith noted in 1776 that "What is prudence in the conduct of every private family can scarce be folly in that of a great kingdom." The Classical economists generally believed that principles of sound business practice were equally appropriate for a family and for government, and this belief dominated public opinion until a generation or so ago. Thrift led to prosperity, profligacy to poverty. Borrowing, especially to finance consumption, would destroy wealth, and so should be avoided by any prudent person or government. The Classical economists recognized that fluctuations in economic activity were possible, but they also recognized that these fluctuations would set in motion self-correcting forces that would restore the normal condition of full employment. This self-correcting property came to be known as Say's Equality, which can be summarized by the statement that in a free economy supply creates its own demand.<sup>1</sup> There is no basis for a fear that consumers will be unable to buy what producers offer for sale, for the act of production entails the earning by consumers of the income necessary to buy what is produced. Moreover, saving creates no problem, for it does not represent a reduction in demand. Rather it represents only a shift in the object of demand from consumer goods to capital goods. Within this Classical perspective, what government should do to promote prosperity was to avoid profligacy, which would result from deficit finance, and the injection of sources of economic instability into the economy, which would result, for instance, from such interferences in the pricing process as the control of prices and the inflation of the supply of money.

Say's Equality explained why the idea of a paradox of thrift was invalid, and it did this nearly two centuries before the paradox became part of the folklore of Keynesian economic management. According to this paradox, saving could actually cause impoverishment, and it was spending for consumption that became the path to prosperity. This paradox of thrift, which

informed the Keynesian program for economic management that has dominated postwar policy, held that the spontaneous coordination of economic activities within a market order cannot be relied upon to proceed in a smooth and stable manner. An economy may be plagued by prolonged unemployment or buffeted by cycles of prosperity and depression. A market economy will not be a reliable guarantor of prosperity because, as an implication of the paradox of thrift, self-correcting forces cannot be depended upon to restore full employment. Substantial unemployment is as likely as full employment, the Keynesian perspective held.<sup>2</sup> In light of the unreliability of the self-correcting or automatically-adjusting forces of the market, the assurance of prosperity was seen as a necessary task for macroeconomic management by government. Only government, it was argued, could assure prosperity, and it could do that by expanding or contracting the rate of aggregate spending so as, ideally, to promote approximate stability in or constancy of spending over time.

Postwar macroeconomic policy has been based on two main presumptions. One is that unemployment reflects an inadequacy of aggregate demand, as reflected by the paradox of thrift. The attention given to the Phillips-curve tradeoff between inflation and unemployment follows naturally from this first presumption. The other main presumption is that the process of public policy formation will work as well as can be expected to promote economic stability. The tools of economic policy will be put to the best use possible, limited only by such things as irreducible ignorance, unavoidable error, or unforeseen events. As will be explained below, both of these presumptions are inappropriate to an understanding of the relations between economic conditions and government policy. With respect to economics, the common-perspective macroeconomic management suffers from the holistic approach it takes toward its phenomena. The focus on such economic aggregates as the percentage of the population unemployed and the change in some index of prices obscures rather than facilitates analysis of the sources of prosperity and depression. For instance, as explained below, the common perspective leads to an erroneous treatment of inflation and recession as being alternatives for choice, instead of both being a product of monetary disorder.

With respect to politics, the common approach to macroeconomic policy reflects a failure to recognize the possible inconsistency between the type of macroeconomic policy required to promote prosperity and the type of policy that is consistent with electoral success in a democracy. In large measure it has been tacitly assumed either that politicians will act selflessly to promote economic stability or that their own political survival will require them to act to promote such stability. Consequently, our historical pattern of economic instability is attributed to mistakes in policy, and most certainly not to the

rational pursuit of political gain within an existing institutional order characterized by, among other things, government monopoly over money. Herschel Grossman, in reviewing the contributions of James Tobin to macroeconomics, clearly described this failure of economics to treat seriously the relation between politics and macroeconomic policy. While particular references were to Tobin, Grossman was speaking of economists in general when he noted:

Tobin presumes that the historical record of monetary and fiscal policy involves a series of avoidable mistakes, rather than the predictable consequences of personal preferences and capabilities working through the existing constitutional process by which policy is formulated. Specifically, Tobin shows no interest in analysis of either the economically motivated behavior of private individuals in the political process or the behavior of the government agents who make and administer policy.<sup>3</sup>

Recognition that public policy emerges from a political process has rarely been incorporated into macroeconomic analysis. Should the electoral interests of an incumbent party be advanced more effectively through policies that create instability than through policies that promote stability, the promotion of stability is unlikely to be pursued. Quite recently, there has emerged considerable interest in the possibility that in pursuing their political interests politicians might use their monetary and fiscal powers to promote economic disorder. There are two related lines of analysis on this topic. One stresses the inflationary bias of existing democratic institutions.<sup>4</sup> There is a political bias toward budget deficits, and these deficits will in turn induce a more rapid creation of money than would have resulted in their absence. The other line of analysis focuses on the possibility that governments may act deliberately to create economic instability.<sup>5</sup> Government may act to promote business cycles rather than dampen them, thereby giving rise to what has been referred to as a political business cycle. Pursuit of this line of analysis explains why there are strong grounds for suggesting that macroeconomic ills are a by-product of democratic politics, at least so long as government possesses a monetary monopoly and is large enough to produce macroeconomic consequences through its policies.<sup>6</sup> Both lines of investigation explain why there is no necessary congruence between democracy and prosperity. Existing democratic processes may be plagued by institutions that bring about a negative-sum destruction of wealth. The extent to which this will happen will depend heavily on the incentives provided by and the knowledge produced within a particular institutional order. So long as the interests of politicians are promoted more effectively through actions and policies that are negative-sum than through actions that are positive-sum, we should expect such negative-sum action and policies to dominate the political process.

## II. Economic Conditions and Political Success

To continue in office, an incumbent politician must secure more votes than a challenger. Policies are instruments that politicians have to assist them in maintaining their incumbency. It is reasonable to view politicians as designing policies so as to enhance their electoral support.<sup>7</sup> This is not to say that politicians care only about reelection. They may very well choose to pursue various ideological beliefs, even though doing so may diminish their probable electoral support. But it is rare that ideological belief would be pursued at the cost of reelection. As the likelihood of reelection weakens, it becomes increasingly likely that policies will be chosen for their ability to enhance the odds of reelection rather than for their congruity with ideological beliefs.

Budgetary policy can be used to influence the electoral prospects of incumbent politicians. Consequently, the budgetary outcomes that emerge from within a democratic system will be shaped by the incumbent party's anticipation of the electoral gains and losses from different taxing and spending programs. In general, expenditure programs are vehicles to secure political support, while the taxes necessary to finance those programs will by themselves diminish political support. If the government operates within a balanced-budget constraint, any proposal for expenditure must also entail a proposal for taxation to finance the program. The ability to engage in deficit finance severs this link between spending and taxing. It then becomes possible to enact expenditure programs without having to raise taxes; the incumbent party can pursue the vote-increasing ability of expenditure programs without having to bear the vote-decreasing burden of taxation. Deficit finance enhances the ability of politicians to use budgetary policy to strengthen their electoral prospects. While borrowing implies future tax payments to amortize the debt, there are a variety of reasons why people will regard borrowing as less costly than tax finance. Hence, borrowing will lose less political support than the equivalent amount of taxation.<sup>8</sup> Political success will be promoted by deficit finance because, in contrast to a balanced budget, it appears to politicians and citizens as a less costly way of providing expenditure programs.

Numerous observers have suggested that a systematic relationship exists between general economic conditions and political success. In particular, it has been widely suggested that such macroeconomic variables as the rates of inflation, unemployment, and growth of real per capita income can influence the electoral prospects of the incumbent government. On the basis of such relations, it has often been suggested that democratic processes will tend to produce policies designed to influence macroeconomic variables so as to enhance the prospects of reelection.<sup>9</sup> While democratic governments may be prone to deficits and inflation (with the inflation resulting from the response

of the central bank to the deficits), they are also prone to economic fluctuations, due not to "natural" conditions but to the pursuit of electoral success.

Several efforts have been made to assess empirically and to understand conceptually the use by governments of what is commonly called macroeconomic policy for purposes of electoral gain. In several different studies, Bruno Frey and Friedrich Schneider have examined the relation between the common macroeconomic variables and the popularity of incumbent politicians in West Germany, the United Kingdom, and the United States.<sup>10</sup> They found that incumbents become less popular as rates of inflation and unemployment increase, while they become more popular as the rate of growth in real per capita consumption increases. These findings would appear to suggest that general economic conditions can influence the probable electoral success of incumbent politicians. The second element of their analytical framework is the effort of the incumbent party to influence these macroeconomic variables so as to enhance their electoral prospects. This can be done, they suggest, by using government expenditure programs to do such things as, among others, increase transfer payments and employment in the public sector.

Frey and Schneider used survey measures of actual popularity as an indicator of the political implications of macroeconomic circumstances. In contrast, most other authors have used some measure of actual electoral support, typically the number of votes received or seats won in an election. It might be thought that a measure of actual support would be the preferable approach because it is an objective, *ex post* indicator of how well the incumbent party actually fared, and this objective indicator can in turn be related to objective measures of the macroeconomic variables at the time of the election. However, what is relevant for political conduct, or for any rational conduct, is the *ex ante* belief about the relation between possible courses of action and probable subsequent success. Measures of popularity are one such forward-looking indicator, though they are by no means a complete description of an incumbent's belief about anticipated future success. They do, however, relate to the states of mind of incumbents before an election, which is what is relevant for action, and not to the results of the election, which is irrelevant for action. For reasons explained below, there is a sound basis for suggesting that the common focus on macroeconomic conditions obscures much of what is essential about the relation between economic policy and political success. For this reason, there is little to be gained from a detailed consideration of different possible measures of electoral success.

Besides differing in the measure of success, these studies have differed in the particular variables that have been found to be significant in determining electoral success. Gerald Kramer, for instance, found that the share of the

popular vote going to the incumbent party in congressional elections varied positively with the rate of change in real income and negatively with the rate of inflation, but found the rate of unemployment to be insignificant.<sup>11</sup> Allan Meltzer and Marc Vellrath also found two of the three variables used by Frey and Schneider to be significant in explaining the division of the vote, only these were the rate of unemployment and the rate of inflation.<sup>12</sup> Moreover, Meltzer and Vellrath examined voting in presidential elections, although congressional elections were examined by Francisco Arcelus and Allan Meltzer.<sup>13</sup> Ray Fair found that only the rate of growth of real income had a significant impact on the outcome of presidential elections.<sup>14</sup> George Stigler, similarly, found only one variable to be significant in determining election outcomes, the rate of inflation. He, however, examined only congressional elections and, moreover, on conceptual grounds suggested that aggregate variables should generally be unimportant as determinants of political success.<sup>15</sup>

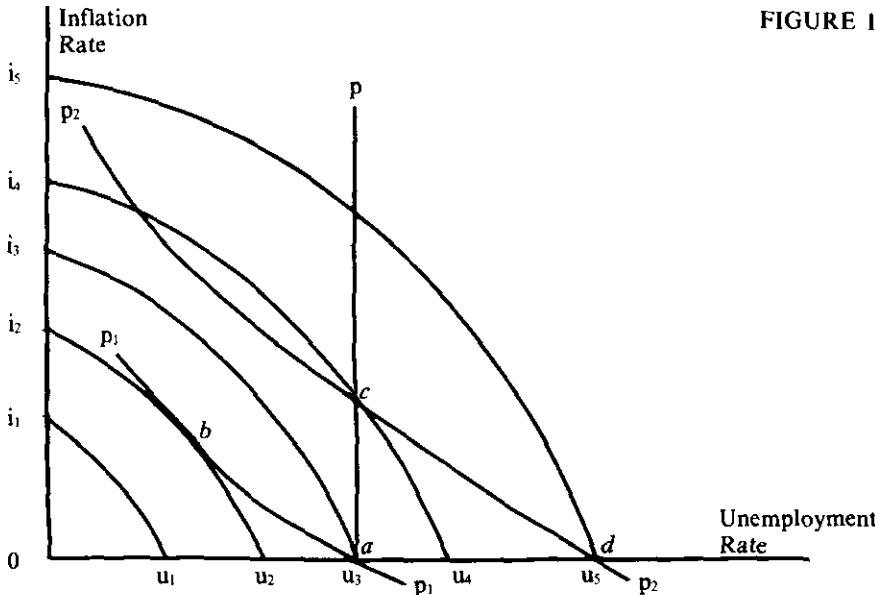
What is important, of course, is not whether incumbents were actually able to strengthen their electoral prospects through manipulating macroeconomic variables, but whether they believed that they could strengthen their prospects by such manipulation. To the extent that politicians possess such beliefs, efforts at macroeconomic manipulation will be timed with an eye to the occurrence of elections. On this account, Yoram Ben-Porath found that during the 1952–1973 period, per capita consumption in Israel increased significantly more rapidly in the years close to an election than in the years immediately following an election. He suggested that this difference in consumption resulted from policies chosen to enhance electoral prospects.<sup>16</sup> This finding might suggest that politicians believe that the timing of peaks and troughs in employment will influence their survival prospects. Similarly, Edward Tufte found evidence for politically-induced cycles in 19 of the 27 democracies he surveyed.<sup>17</sup> These cycles were characterized by a more rapid rate of growth in real income before elections than after elections. There are, of course, numerous differences in particular details among the various empirical studies that have been undertaken. Nonetheless, what is important and relevant here is the central proposition that the incumbent government will attempt to use economic policy to serve its political purposes. Just how such an electorally-motivated policy will take place, and just what will be the character of its economic consequences is, however, something that remains to be examined.

### III. A Basis for Politically-Induced Economic Disorder

It is a short step from a belief on the part of the politicians that economic conditions will affect their electoral prospects to a presumption that the

incumbent party will conduct economic policy in such a way as to improve the electoral prospects of its members, at least if they feel threatened by the forthcoming election. It is a simple matter to move from this presumption to an elementary description of how an incumbent party can enhance its electoral prospects through the deliberate creation of economic instability. Numerous efforts have been made to develop such a description of what has come to be called a political business cycle.<sup>18</sup> This cycle can be described quite simply within a Phillips-curve framework. The various analytical efforts contain two main elements: the impact of inflation and unemployment upon voter support for the incumbent party and the ability of the incumbent party to influence rates of inflation and unemployment.

As for voters, it is assumed that inflation and unemployment are both evaluated negatively. This is in keeping with the empirical evidence described above and the two pertinent variables described by the Phillips-curve framework. The preferences of voters are assumed to be described by the indifference curves illustrated in Figure 1. The most preferred outcome is assumed to lie at the origin, in which there exists neither inflation nor unemployment. Consequently, the curve  $i_1 u_1$  represents a higher rate of voter approval than the curve  $i_2 u_2$ , and so on. For instance,  $i_1 u_1$  might represent, say, 56:44 odds that the representative voter will support the incumbent party, while  $i_2 u_2$  represents, say, 52:48 odds, with the odds of any voter supporting the incumbent party declining as the macroeconomic variables move in a northeasterly direction as described by Figure 1.



The possibility of a politically-induced business cycle exists so long as the economy is properly characterized as facing a Phillips-curve trade-off that differs between the short run and the long run. For convenience of illustration, Figure 1 describes a Phillips curve that is vertical in the long run. At the same time, the economy faces the short-run trade-offs described by the configuration of  $p_p$  curves. The incumbent party can, it is also assumed, choose that combination of inflation and unemployment it most prefers. As Figure 1 is constructed, the optimal choice of inflation and unemployment in the long run is described by the corner solution at  $a$ . Within this framework, it is easy to see how a politically-induced business cycle could increase the incumbent's electoral prospects. Suppose the incumbent party is able to pursue an inflationary policy that reduces unemployment in the short run, with the outcome being the attainment of a state described by  $b$ . If this is done in the interval before the election, the odds that the representative voter will support the incumbent party will have been increased from that implied by  $i_3u_3$  to that implied by  $i_2u_2$ , say, for illustration, from 48:52 to 52:48.

In the typical discussions of Phillips-curve trade-offs, unemployment declines because employers mistake the general rise in prices for a relative rise in the particular prices of their products. As employers come to anticipate the inflation correctly, they will cut back on their willingness to hire people. Inflation will be able to stimulate employment only in the short run while anticipations about future prices are incorrect. As these anticipations become correct, inflation will lose its ability to stimulate employment. Consequently, the natural rate of unemployment, described by the long-run Phillips curve,  $P$ , will be attained again. Inflation will have reduced unemployment only temporarily, and ultimately the economy will come to be characterized by  $c$ . The temporary reduction in unemployment will have been purchased at the price of a permanent inflation of prices. Should the economy be kept stable at  $c$ , the representative voter is less likely to support the incumbent party than he was either before the initial inflation, when the economy was at  $a$ , or just before the election (after the inflation had begun but before anticipations had adjusted), when the economy was at  $b$ . The level of voter satisfaction is lower at  $c$ ,  $i_4u_4$ , than it was at  $a$ ,  $i_3u_3$ , let alone when the economy was at  $b$ ,  $i_2u_2$ .

The incumbent party could wait until the next election came near, and then increase the rate of inflation, hoping to move the economy along the short-run Phillips curve  $p_2p_2$  in such a way as to achieve some increase in the odds of electoral success. Within the framework described by Figure 1, however, it would be more effective to pursue a deflationary policy in advance of the next election. This policy would initially force the economy to contract along the short-run Phillips curve  $p_2p_2$  to  $d$ . The party's popularity will then decline still further, as indicated by the movement to  $i_5u_5$ . But as people come to anticipate correctly the change in inflation, the short-

run Phillips curve will shift downward to  $p_1 p_1$  until  $a$  is attained once again, which completes an electoral cycle. An inflationary policy, described by the movement from  $a$  to  $b$ , is instituted before the election to gain voters. The long-run erosion of the party's electoral support that is done by the permanent inflation described by  $c$  is eliminated by incurring still greater disfavor by pursuing a deflationary policy, described by the movement to  $d$ , after the election, but well in advance of the next election. And when the next election draws near, the incumbent party stands ready to repeat the cycle.

Within this common analytical framework, the dichotomy between short run and long run reflects voter myopia. In evaluating politicians, voters weight recent experiences more heavily than more distant experiences. In this setting, a macroeconomic policy that provides for a constant rate of unemployment or inflation over the entire electoral period will be less successful in achieving political support than a stop-and-go policy that contracts the economy shortly after an election and expands it shortly before the next election. Unemployment is raised immediately after an election to combat the inflation that follows the stimulatory policies applied before the election. And as the next election approaches, unemployment is lowered in an effort to buy votes, although this policy will generate inflation after the election. This analytical framework typically yields a stable business cycle that has a period equal to the length of the election period. While such stability emerges from the mathematics of the analysis, the political value of such macroeconomic manipulation would seem likely to decline as it becomes more regular because regularity would strengthen the ability of voters to discern such manipulation.<sup>19</sup> Raising this last point is, however, getting ahead of the line of development that seems to provide the clearest exposition. What seems valuable about the recently developing literature on the political business cycle is that it reflects a realization that politicians will use policy to promote their ends, along with a recognition that the promotion of instability will dominate the promotion of stability if the former contributes more strongly to political success. The common approach to the political business cycle is characterized by its aggregative approach to its subject matter. A less aggregative approach, both to the process of policy formation and to the understanding of the economic consequences of such policies, can be exceedingly valuable. Such an alternative approach can deepen our understanding both of the impact of economic conditions and policies upon political success and of the economic consequences of such politically motivated policies.

#### IV. The Fictive Character of Macroeconomic Policy

The standard literature on the political business cycle is constructed within a Phillips-curve framework, in which politicians pursue their interests by

seeking to influence such macroeconomic variables as rates of unemployment and inflation. The value of this focus on aggregate or macroeconomic variables is questionable. Suppose there is some inverse statistical relation between, say, the rate of unemployment and a measure of votes received by, or popularity of, an incumbent party. Other things being equal, this evidence might show a 55 percent chance of electoral success when the unemployment rate is 5 percent, and only a 45 percent chance of success when the unemployment rate is 10 percent. Just because this aggregate relationship can be detected, however, does not mean that the aggregate, Phillips-curve framework captures the essence of the phenomena under examination. The reduction in unemployment increases the total amount of working time within the population. However, this increase is not distributed uniformly among the population, but rather is concentrated among particular people. The success of the policy results not because of the general or aggregate increase in working time, but because of the concentration of this increase on particular beneficiaries. The votes of particular individuals have, in effect, been bought by government expenditure. This interpretation suggests that the phenomena must be understood microeconomically in terms of the relation between policy and the incomes of particular people. To the extent that an inverse relation exists between the unemployment rate and the degree of support for the incumbent party, it is because a rise in unemployment indicates a reduction in real income for particular people, and these people will be less likely to support the incumbent party because they blame their loss of income on that party.

The common distinction between macroeconomic variables and policies and microeconomic variables and policies does not seem very helpful in promoting our understanding of the relations between politics and economic activity. A policy that reduces the rate of unemployment increases the electoral support for the incumbent party because it provides income gains for particular people. The success of the policy must be understood in terms of its impact upon individuals and their real incomes, and not in terms of its impact upon some aggregate measure of unemployment. A useful distinction between a class of phenomena referred to as macroeconomic policy and another class referred to as microeconomic policy must be grounded in something firmer than just the number of digits in the price tag, which is all there seems to be to the common distinction. The only distinction that seems capable of offering such a grounding, at least within the context of politics and prosperity, is a distinction between policies that discriminate among people and those that do not. Only the former type of policy would seem to have political value within a majoritarian democracy.

Price levels and unemployment rates dominate discussions of macroeconomic policy and business cycles. Yet these variables have little to do with

understanding economic policy because these variables are incapable of addressing the distributional focus that dominates policy formation in democratic governments. Changes in the rate of unemployment are significant precisely because different people are affected differently. An increase of one percent for one year in the rate of unemployment does not mean that all people are employed 2.5 days less during the year. A one percent reduction for one year in the rate of unemployment will not increase each person's work-year by 2.5 days. The increased employment will be concentrated on particular people, and these people will be the primary beneficiaries of the policy to lower the rate of unemployment. There would be no political purpose to a policy that affected everyone indiscriminately. Discrimination among people is the essence of majoritarian democracy, and such discrimination can be understood only by getting behind the general or nondiscriminatory concern with the rate of unemployment.

It is the same with reference to the price level, the rate of growth of which is these days referred to as the rate of inflation. What is called the level of absolute prices (the price level) has nothing to do with rational political action. Political action is concerned with achieving desired changes in the structure of prices. Any change in the level of prices that may happen to result because of a resort to money creation is an incidental by-product of the effort to change the structure of prices.

Again, discriminatory policies will dominate nondiscriminatory policies in a majoritarian democracy. A simple majority rule game can illustrate this point. Suppose a government is to distribute \$90 in its effort to gain support. Whether this money comes from taxation or from money creation is irrelevant for the point being illustrated. In a three-person model, easily generalizable to n-persons, one possible policy would be the nondiscriminatory

$$P_1 = (30, 30, 30).$$

With majority rule, there would be numerous policies that would provide larger benefits to a winning coalition. One such policy would be

$$P_2 = (45, 45, 0).$$

A program that dispersed benefits in a nondiscriminatory fashion would be defeated by one that discriminated among people. Discrimination, what may be called tax-transfer politics, will, in a setting of majoritarian democracy, dominate nondiscrimination.<sup>20</sup> Political action is not aimed at altering something called total spending. It is aimed at altering the distribution of incomes through changing market prices. Any changes in total spending that may result are simply a by-product of the process of inducing these changes in market prices of products and factors.

While it is possible to conceive of a truly macroeconomic (i.e., nondiscriminatory) policy, there is probably no such thing in practice. What are commonly referred to as macroeconomic policies always affect the structure

of relative prices and thereby the distribution of income. Whether tax reduction is to be regarded as a microeconomic or a macroeconomic policy is generally viewed as a matter of how big the reduction is to be, as well as what type of taxes are reduced and what rhetoric is used to rationalize the policies. Regardless of the amount or form of tax reduction, or what is said by way of promoting it, however, tax reduction cannot be considered a macroeconomic policy, for its very essence is a discrimination among people in a political search for gain. Some will advocate the reduction of personal income taxes; others will advocate the reduction of corporate taxes. Among the former, some will advocate across-the-board reductions and others that the reduction be concentrated in the lower brackets; still others will advocate the reduction of taxes on capital appreciation. It is the same with government expenditure. Numerous programs of equal aggregate magnitude could be proposed, but what would determine their political fate would not be their aggregate magnitude, but their impact upon the real incomes of a decisive coalition. Similarly, the process of money expansion confers new money balances on particular people. There is no indiscriminate or proportional increase in all money balances. In all of these instances, policies may lead to increases in the absolute price level. The inflation, however, can be understood only by looking behind the change in the average level of prices to the change in the distribution of income or the structure of prices, for it is this type of change that affects political success. If politicians were truly concerned with macroeconomic variables, they would be indifferent among all policies of the same aggregate magnitude. That they are not indifferent is, of course, readily apparent when it is realized that the debates about so-called macroeconomic policy take place not over the size of the policy but over the specific design or content of the policy, i.e., over the distributional impact of the policy. Political success is mainly achieved through discriminatory policies, and this success depends on achieving transfers of income through policy, which in turn requires changes in the pattern of prices in favor of those whose political support is sought. Controversy about macroeconomic policy revolves not around how much to increase aggregate spending or how much to raise the price level, but around how to transfer wealth to a favored clientele, with the macroeconomic language serving simply as a smokescreen to obscure the essential nature of the vote-buying process.

A reasonable approach to politics and business cycles must be based on the presumption that human conduct is purposive and forward-looking, in politics as well as in economics.<sup>21</sup> As part of this approach, financial policies are regarded as resulting not by accident, but from the rational actions of people in light of the knowledge and the incentives produced within particular monetary institutions. Money is created and inflation results because of

the incentives that characterize a particular monetary institution.<sup>22</sup> A prominent feature of the prevailing system of monetary order is the effective nationalization of money and credit. Those who control this system can certainly be expected to use their control over money and credit to pursue their interests.<sup>23</sup> The nationalization of money and credit—in conjunction with the nonneutral character of monetary disturbance, which is explained below—leads to the political generation of economic disorder.<sup>24</sup>

The nationalization of money and credit has not been advocated because it allows government to promote the interests of those who dominate the political process, with the resulting instability a necessary by-product. Such advocacy or apologetics is based on some hypothetical gains in economic efficiency. As compared with a commodity standard, a fiat system of monetary organization holds out the promise of a potential social saving. With a commodity standard, specific commodities must be produced and then used for monetary purposes. A fiat system obviates the need for this type of production. Pieces of paper can serve as substitutes for the gold or other commodities that would serve as money under a commodity standard, so it is argued. The social saving is possible because the commodities that otherwise would have been tied up in money stocks can be used for other purposes under a fiat standard. The adoption of a fiat standard offers the potential of an outward shift in the production capabilities within the economy. The services formerly supplied by the money commodity, and which require the dedication of stocks of that commodity to serve as money, can now be supplied costlessly through government fiat, at least in principle.

A rationalization for state monopoly over money should, however, never be confused with an explanation of the essential properties of state monopoly. A statement about the desirable conduct of a monetary monopoly generally has little bearing upon actual conduct. It is contrary to reason and to history to expect that a monopoly position will fail to be exploited for the benefit of those in a position to do so. It is the very costlessness with which fiat money can be created which creates the potential for monetary abuse when money is nationalized. There is a substantial cost of producing gold or silver, but with a fiat standard it is possible to produce claims to real resources at nearly zero cost. Counterfeiting becomes a profitable activity, one that the state customarily tries to reserve for its own use. An ounce of gold can be mined and exchanged for a television set. Alternatively, someone could simply print up \$400 worth of currency to trade for the television. The temptation to counterfeit is understandable, whether it is done by private citizens or by the state. By counterfeiting, a private citizen can gain control over resources without having to provide a valuable service in return. It is the same with counterfeiting by government, only the power to collect taxes means that government is already able to gain control over

resources without having to provide a valuable service in return. The money creation still helps the incumbent party, because it enables the party to buy the support of a favored clientele, who benefit from the money expansion, without having to impose vote-losing taxes in the process.

Government monopoly over money is typically advocated on the presumption that monetary order is a public good. This presumption implies that monetary order must be provided by government because the process of market competition will not bring about an efficient provision of monetary order. Yet there is a considerable history of the provision of money through the competitive market, with the effectiveness of such provision casting grave doubt upon the public goods rationalization for state monopoly over money.<sup>25</sup> Instead of being an agency for the provision of a public good, a central bank seems more reasonably seen as an agent for cartelizing a banking system that otherwise would be competitive. The member banks gain from the formation of this cartel, as the members of any cartel gain from the cartel's formation. It is the government that makes this cartel possible, and which enforces the cartel, so it too would share in the gains from the monopolization of money and credit. A fractional reserve banking system allows such a sharing of the gains from cartelization, with the government's share in the gain varying directly with the reserve requirement.

After the cant of political language is blown away, politics reduces essentially to designing policies that take from some citizens to give to others, with those who control the government claiming a brokerage commission in the process.<sup>26</sup> Within this context, it is clear that the nationalization of money and credit gives those who control government an additional instrument to use in promoting their interests. The power to do this resides, of course, in the office itself, and not in the holder of that office. Within a commodity standard, an increase in the benefits promised to one set of citizens necessarily requires a decrease in the benefits promised to (or disposable incomes left with) another set, for this is how the increased benefits must be paid for. Government monopoly over a fiat standard, however, severs this link between positive and negative benefits. It now becomes possible to enact or expand a program designed to benefit one set of citizens without having to curtail a program designed to benefit another set or having to increase taxes. Positive promises can be made without negative offsets, for the excess of desire to spend over the means to pay for such spending can be bridged through money creation.

## V. Money Creation, Inflation, and Price Distortion

A reasonable understanding of political conduct must be based on the presumption that politicians act rationally to use their means to attain their ends. For the most part, the attainment of these ends requires their presence

in office. The means to attain these ends are their ability to create policies which can then be financed through money creation as well as through taxation. Nondiscriminatory policies will be ineffective policies within the majoritarian political setting presently in existence. There will be no political gain from the promotion of policies that secure proportionate increases in prices across-the-board. Such gain is possible only if some prices increase relative to others. This change in relative prices could well be accomplished within an environment in which prices are rising generally. But it could also be accomplished within an environment of overall price stability. The presence or absence of inflation is nonessential to what is actually happening—the shift in the pattern of relative prices. If the shift in prices takes place through money creation, the average level of prices will rise as a result. This rise in average level, however, is not the object of the policy, but only a by-product of the real object—the shift in the structure of prices, i.e., the redistribution of income.

A focus on relative prices is more consistent with a presumption of rational political conduct than is a focus on the absolute price level; and it leads to a quite different, *more accurate understanding* of the economic consequences of vote buying through the government's manipulation of money and credit. Recognition that a regime of generally rising prices is simply a smokescreen that hides the variation in the pattern of relative prices fits in nicely with recognition of the nonneutral character of monetary change.<sup>27</sup> Monetary expansion will, of course, increase total spending, as is assumed in the standard literature on the political business cycle; the monetary value of output or income will increase as a result of the creation of additional money. What is of primary importance, however, is the change in the pattern of prices that results from such monetary creation. Inflation, or generally rising prices, is characterized by a change in the pattern of prices; prices do not all increase proportionately at the rate of increase of prices in general.<sup>28</sup>

Recognition that monetary expansion will change the pattern of prices has a long history in economics, and includes such prominent authors of the past as Richard Cantillon, Henry Thornton, Knut Wicksell, and Ludwig von Mises. The reason for the change in the pattern of prices is easy to understand. The newly created money is created by someone, either by an individual or by a collection of individuals acting under the cover of government. In the former case, such episodes of money creation are called counterfeiting; in the latter, they are called something like public policy actions. The economic impact is the same in either event. The newly created money resides initially with those who create it. As these people spend this money, those who receive it will in turn find an excess demand for their products and services. This excess demand leads to rising prices for these products and services. Eventually, the newly-created money will become diffused throughout the

economy, and the general level of prices will be higher than it was before the money creation. What is of central importance, however, is that there is a temporal sequence to the receipt of the new money, and that the initial recipients are favored over those who occupy later positions in the chain of transactions.

For instance, the government might create a program of subsidies for certain types of energy-saving expenditures, perhaps operating through a tax credit. The initial recipients of the new money would be those who made the approved expenditures. In turn, the demand for insulation and thermal glass will increase; prices will rise and output will expand. Retailers who sell insulation and thermal glass will gain from the higher than previously anticipated rate of buying, as will manufacturers as new orders are placed. These beneficiaries will in turn spend their incomes on such other things as the consumption goods they prefer, diffusing the newly created money in the process. A point will be reached in the chain of transactions where, beyond that point, people will lose more in terms of the higher prices they pay for what they buy than they gain in terms of the higher prices they get for what they sell. At earlier points in the chain of transactions, the reverse is true; people gain more from the higher prices of what they sell than they lose from the higher prices they pay for what they buy. The inflation will ultimately mean a higher price for canned tuna, along with everything else. For the seller or producer of thermal glass, the gain from rises in the prices of the sources of income will exceed the loss from rises in the prices of the uses of income. For the tuna fisherman or packer the reverse will be true. And herein lies the essence of all counterfeiting, whether done by individuals or by government: wealth—control over resources—is transferred to those who counterfeit, or occupy positions in the chain of transactions close to the counterfeiter; and is transferred away from those relatively distant in the chain of transactions. The change in the pattern of prices brought about by this counterfeiting will, moreover, be a source of economic disorder.

## VI. Economic Disorder Through Money Creation

With respect to politics and business cycles, it is the inflation-induced shifts in the pattern of relative prices, and its consequences, which are the primary phenomena to be examined.<sup>29</sup> Any variation in the price level is, even though a consequence of the money creation, just a by-product of the political effort to alter the structure of relative prices. While rational political action will aim to change the structure of relative prices and not simply the level of absolute prices, the resulting modifications in the structure of relative prices will inject disorder into the pattern of economic activity. How this disorder comes about can perhaps be seen most clearly by considering the actual

process of money creation.<sup>30</sup> Money is created not directly by the Treasury's printing of currency, but indirectly through the Federal Reserve System's increasing its ownership of Treasury debt. Much confusion results because of our institutional confounding of money creation and borrowing.<sup>31</sup> In principle, borrowing results from actions of the Treasury, while money creation results from actions of the Federal Reserve. In practice, the distinction is not so neat.

To begin, assume that government neither borrows nor creates money. The ability of individuals to borrow is limited by the willingness of people to lend. People who save choose to relinquish their control over resources now in exchange for repayment of principal and interest at some later time. Repayment is made by borrowers or investors, and what makes this repayment possible is the yield on the investment. The rate of interest indicates the rate of return to savers from lending, but it is also the price of borrowing. Consequently, the higher the rate of interest, the greater the amount of saving, but the less the desired amount of borrowing. Figure 2 can be used to illustrate this point, as well as to show the impact of government borrowing. The demand for loans on the part of investors is described by D, and the supply of loans by savers is described by S. In the absence of government borrowing and money creation, Figure 2 indicates that saving and investment would be equal to \$100 billion annually, with an 8 percent rate of interest.

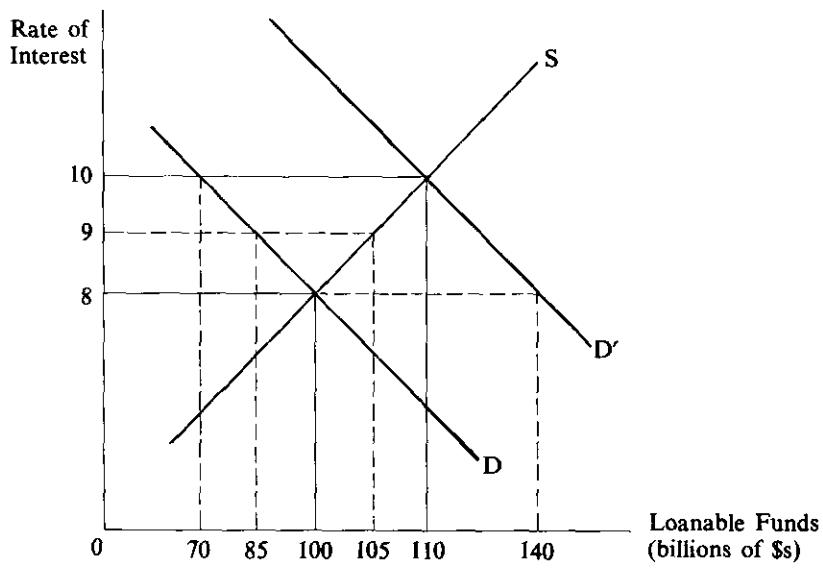


FIGURE 2

When a government deficit is financed through the Treasury's borrowing from private citizens, the demand for loans will increase to D' in Figure 2. Suppose the government runs a \$40 billion deficit. The \$140 billion of desired borrowing exceeds the \$100 billion of desired saving at the 8 percent rate of interest. The excess demand for loans will lead to a rise in the rate of interest, owing to the competition among borrowers for funds. As the rate of interest rises above 8 percent, some potential borrowers will curtail their desire to borrow. This process of reduction in the amount of loans must continue until the excess demand for loans disappears.

The rise in the rate of interest due to this competition among borrowers does two things. First it reduces the amount the borrowers wish to borrow. They might wish to borrow \$100 billion at an 8 percent rate of interest, but only \$85 billion at 9 percent. Second, the rise in the rate of interest will increase the desire of people to save, increasing it to, say, \$105 billion at a 9 percent rate of interest. The rate of interest will continue to rise until the amount of loans demanded equals the amount supplied. Suppose the rate of interest rises to 10 percent before this equality is attained, in which event the amount of saving is \$110 billion. Government will borrow \$40 billion of this total; private citizens the remaining \$70 billion. The \$40 billion budget deficit will have crowded out \$30 billion of private investment, for private borrowing will have been reduced from \$100 billion to \$70 billion.<sup>32</sup>

As noted above, a budget deficit that is financed by borrowing from private citizens is true borrowing, which is to be distinguished from the so-called borrowing that is really money creation. But if the Federal Reserve System increases its ownership of Treasury debt, money creation will have occurred instead. This process of money creation is referred to as debt monetization, for it describes the conversion of government debt into money through the mechanics of our Federal Reserve System. The impact is the same as if the Treasury had simply printed money to finance the excess of its expenditures over its revenues. There is, it should be noted, no automatic, mechanical connection between government borrowing and money expansion. Even in the absence of government borrowing, the Federal Reserve System could increase its ownership of outstanding government debt, thus causing an expansion of the stock of money. And despite government borrowing, the Federal Reserve System could keep its ownership of government debt unchanged, as noted above. Yet there is a good basis for connecting government borrowing to monetary expansion.

In the absence of debt monetization, government borrowing will, as explained above, place an upward pressure on interest rates and therefore crowd out private investment. There will be political gains from some resistance to this crowding out. The Congress will have chosen the budget deficit because a majority of its members believe that deficits strengthen their

political support. The political gains from deficit finance vary directly with the degree of diffusion of the costs of deficits over the population. A cost of \$10 billion spread over 100 million people will generally provoke less opposition than the same cost spread over only one million people. To the extent that budget deficits are financed by genuine government borrowing, the costs of deficit finance will be concentrated upon the investors who are crowded out. In contrast, money creation would diffuse the cost more generally among the population. Therefore, deficit finance accompanied by money creation will typically evoke less opposition than deficit finance in the absence of money creation. To the extent that Congressional interests are reflected in the actions of the Federal Reserve Board, budget deficits will result in money expansion. Debt monetization would offset some of this rise in interest rates through its ability to counteract some of the crowding out.<sup>33</sup> Moreover, the interests of the banking system will generally operate in the same direction of supporting debt monetization.

With debt monetization, the supply of loanable funds is no longer limited to what people save. If \$10 billion of money is created through debt monetization, the amount of lending, continuing with the above illustration, can rise to \$120 billion, as illustrated by Figure 3. With \$40 billion of government borrowing, \$80 billion will now be available for private borrowing. However, at a rate of interest of 10 percent, people will not be willing to borrow \$80 billion privately. As shown by D, they will be willing to borrow only \$70 billion. The money creation has produced an excess supply of loanable funds, which will produce a downward pressure on the rate of interest. To illustrate the argument, suppose the rate of interest falls to 9 percent. Saving will now be \$105 billion, which when added to the \$10 billion of money creation gives a total supply of loanable funds of \$115 billion. With \$40 billion being used to finance the government's budget deficit, \$75 billion remains available for private investors. As a result of the debt monetization, the amount of crowding out was reduced from \$30 billion to \$25 billion. Debt monetization reduces the extent of crowding out because the inflation in the stock of money is used to provide the resources necessary to finance the additional private investment. The money creation reduces the real value of the existing stock of money; this erosion of value provides the means for reducing the extent of the crowding out.<sup>34</sup>

Monetary expansion allows the amount of borrowing to exceed the amount of saving. The rate of interest at which these two quantities would be equal is the natural rate of interest. Money creation drives the market rate of interest below this natural rate. This divergence can best be understood as a lowering of the price of using more time- or capital-intensive forms of production. The process of production in an economy can be characterized as containing vertical and horizontal dimensions. Milk and ice cream in a

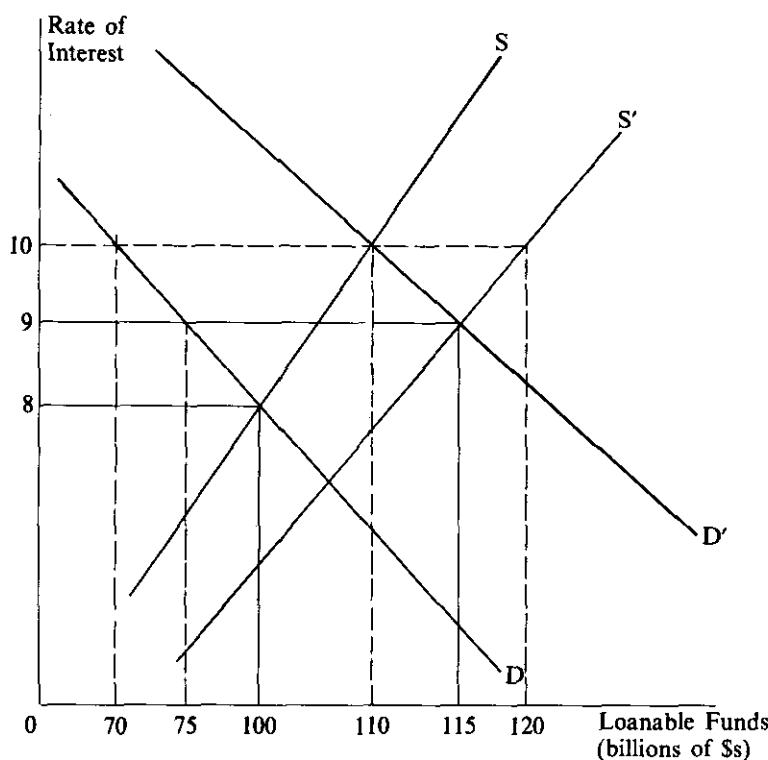


FIGURE 3

grocery store are consumer goods ready for purchase. Milk and ice cream at a distributor are producer goods, though ones of relatively low order, because they are close in time to final consumption. Raw milk at a dairy is a producer good of a high order, for it would be still further removed in time from final consumption. And a new barn and milking equipment would be producer goods of higher order yet, for each would represent milk and ice cream still further removed in time from final consumption.

Monetary expansion will lead to a lengthening of the structure of production; resources will shift, in effect, from producing milk and ice cream to producing refrigerators and milking equipment. A simple example can show how this is so. In the absence of money creation, there will be some pattern of production that is consistent with the rate of interest in the economy. Suppose, to keep the arithmetic simple, that wine may be aged either one or two years before sale, and that the rate of interest is 10 percent. Simple principles govern the equilibrium prices for the two types of wine, as well as the division of output between these two types of wine. If it is anticipated that one-year wine will earn \$110 per barrel, two-year wine will be produced only if it is anticipated to return \$121 per barrel. If the anticipated price of

two-year wine is less than this amount, production will concentrate on one-year wine. And if the anticipated price of two-year wine exceeds \$121, two-year wine will be produced instead of one-year wine. The more of any one good offered for sale, the lower the price it will command; and this principle of demand will lead to a distribution of output between the two types of wine. Resources devoted to these two methods of producing wine will tend to be apportioned such that the present values of the anticipated future yields will be the same. If, for instance, people anticipate a greater present value from investing in the longer, more capital-intensive method of producing wine, resources will shift to this method from the less capital-intensive method of production.

Suppose the rate of interest falls below 10 percent as a result of money creation. (Actually, the money creation will increase nominal interest rates because of the addition of an inflation premium. Nonetheless, the money creation will still leave the market rate of interest below the natural rate, and as long as this pattern of divergence obtains, the inflation premium will itself be of no consequence, and so can be ignored for ease of exposition.) Investment in the more capital-intensive, two-year wine will now become relatively more profitable. With the 10 percent rate of interest, the present value of either investment is \$100, with this equality of present values being a necessary condition for equilibrium. The fall in the rate of interest causes a divergence in the anticipated present values of the two types of investment. With a 5 percent rate of interest, the present value of wines becomes \$104.76 and \$115.24 respectively. The reduction in the rate of interest has increased the attractiveness of investing in the two-year wine. More generally, it increases the attractiveness of investing in more time- or capital-intensive forms of production.

This resultant lengthening of the structure of production is, however, inconsistent with the underlying data of wants, resources, and knowledge to which an economy is always adapting. It would have been different had the added investment taken place as a result of an increased willingness of people to save. Otherwise, the process of capital goods expansion will reverse itself. The money creation leads to a shift in the structure of production away from consumer goods and lower-order producer goods into higher-order producer goods. This structure of production is consistent with a setting in which people wish to consume less and save more. Only no such change in preference has taken place when the fall in the rate of interest results from money creation. In this case the increased investment is financed not by saving, but by what can be called "forced saving," with this description indicating that there has been an involuntary transfer of resources to entrepreneurs who receive loans from those who lose real wealth through the reduced value of their money balances. With the production of consumer goods decreasing relative to that of producer goods, in conjunc-

tion with no greater desire of consumers to save, prices of consumer goods will start to rise in response to shortages of these goods. A self-reversal will set in motion: the capital goods boom will turn into a capital goods bust. The process of expansion that is set in motion by the money creation will reverse itself automatically, unless the inflation accelerates. Without this acceleration of inflation, much of this increased investment will turn out to be unprofitable. As these investments are scrapped or put to different uses, economic contraction will result. Excess capacity will arise as capital becomes unemployed. But labor will become unemployed as well. Both types of unemployment result from the previous inflation.

The money expansion creates an artificial economic high by leading people to make investments that will turn out to be unprofitable. In the absence of perfect foresight, there will always be some investments that will turn out unprofitably. What money creation does, however, is to increase the volume of such mistaken investments. As people subsequently revise downward their estimates of profitability and take corrective action, economic contraction will result. Such contraction is necessary to correct these previous mistakes, and this recession is implied by the previous inflation. The decision to have the inflation in the stock of money actually implies a simultaneous decision to have a subsequent recession; the inflation, and the momentary prosperity it may entail, cannot be created without burdening the future with a recession.

## VII. The Boom-and-Bust Sequence

The common approach to economic policy is based on the presumption that there is a trade-off between inflation and unemployment and that boom (inflation) and bust (recession or unemployment) result from changes in aggregate spending, changes that can be offset by countercyclical government policy. Within this Phillips-curve framework, recession is characterized by unemployment and excess capacity, and these can be offset by policies that increase total spending.<sup>35</sup> Inflation is characterized by an excessive demand placed on labor and industrial capacity, and this excessive demand can be offset by policies that decrease total spending. The Phillips-curve framework seems deceptively appealing at first glance, possibly because of its stark simplicity. If the economy becomes overheated (inflation), the task of policy is to cool it down by reducing the amount of spending. If the economy becomes sluggish (recession), the task of policy is to quicken the pace of activity by increasing the amount of spending. This standard framework sees inflation and recession as inversely related, with both magnitudes contemporaneously controllable through public policy. But if the problem of economic management were truly as simple as this Phillips-curve framework implies, it would seem impossible to understand our recent

experience. Conversely, our recent experience would seem to attest to some fundamental inadequacy in the mechanistic framework of aggregate demand management.

In this common framework, a nation is portrayed as able to choose a desired combination of inflation and unemployment.<sup>36</sup> As noted above, however, inflation and unemployment are not options for choice, for a nation does not have the ability to choose a combination of the two at a particular time. Obviously, at any time there is both a rate of inflation and a rate of unemployment, simply as a matter of historical observation. But these two variables are not contemporaneously chosen and inversely related; rather they are directly related in a sequence of cause and effect. Today's unemployment is a result of yesterday's inflation, and today's inflation will cause tomorrow's unemployment. A recession becomes a necessary price of the political activities that produced the inflation in the first place.<sup>37</sup> Reallocations of labor must take place before the economy's structure of production will once again reflect the underlying data to which the economy adapts. The mistakes that resulted because people responded to the nonsustainable price signals generated by inflation must be worked out before the economy can return to normalcy. Recession is an inherent part of the recovery process.

What if the government attempts to counteract the economic contraction by further money creation? With a sufficiently strong injection of money, the contractionary forces can be offset—temporarily. But inflation cannot accelerate indefinitely. When the inflation, or even just its acceleration, ceases, contraction will result. Only, the longer the inflation is allowed to accelerate before the recession is faced, the greater will have become the distortion in prices and in the pattern of investment in the economy. A dilemma results by attempting to resist the contraction. Resistance increases the amount of distortion in the economy. But resistance cannot continue indefinitely. The longer the period of resistance before the monetary expansion is brought under control, the stronger will be the subsequent economic contraction. Once it is recognized that inflation breeds recession, it is easy to see why it is possible to confront rising prices along with unemployment. This situation, called stagflation, is nothing new or mysterious. It is a natural outgrowth of inflation; in particular, of attempting to resist or counteract by further money expansion the recession that was made necessary by the initial inflation.<sup>38</sup>

### VIII. What About Exogenous Sources of Disorder?

Recognizing that economic policy is to some extent shaped by the desire for political success and that inflation contributes to economic disorder leads to a realization that such disorder is an endogenous feature of our present

institutional order. Yet there are exogenous sources of disorder as well, and it might be thought that an activist policy is necessary to offset these types of disorder. It might even be thought that the sufferance of monetary sources of disorder is a reasonable price to pay for having a government with the ability to offset such exogenous sources of disorder. The desirability of government monopoly over money, in conjunction with related institutional arrangements, would seem, in other words, to be ultimately an empirical matter of the relative strengths of the endogenous and exogenous sources of disorder.

For instance, sudden reductions in food production below anticipated amounts can bring on recession. So can oil embargoes or increases in oil prices. All these events, and many more, diminish the production possibilities open to an economy and disrupt the network of production relations. It was estimated that the 1973-74 oil embargo reduced employment by 500,000 and was responsible for the decline in Gross National Product of \$10 to \$20 billion in the first quarter of 1974. With a lower rate of output in the economy, the average level of prices will rise, unless the stock of money has declined as well. Rising prices and unemployment can result simultaneously from exogenous forces that either destroy part of the production of particular commodities or reduce their availability.

But what is the role of policy in the face of such exogenous disturbances? Monetary expansion cannot offset these disturbances: it will not substitute for the food or oil that was lost—we cannot eat currency, and our cars will not run on government bonds. These losses are irretrievable. Such exogenous changes necessarily leave us less wealthy than we were previously. The best that can be hoped for is that the transition to a new pattern of economic relations will come about as smoothly as possible. Money creation in response to such exogenous disturbances will not, however, smooth the transition to a new pattern of economic activity. Indeed, they will make this transition more difficult. This nonmonetary disturbance will necessitate a readjustment in the network of economic relations. Changes in the pattern of prices as a result of changes in such things as resource availabilities facilitate that readjustment. Monetary expansion cannot assist in the process of the readjustment of prices. On the contrary, it will create further, nonsustainable shifts in prices, in addition to the shifts made necessary by the exogenous disturbance. The price distortion resulting from the exogenous disturbance will be compounded by the distortion resulting from the monetary expansion. The process of economic readjustment will have been made more difficult by the monetary expansion.

#### **IX. Cycles and the Anticipation of Policy**

The process of economic policy formation has been typically portrayed as

something that works as well as possible to promote economic stability, only sometimes the exogenous shocks can prove difficult to overcome. Still, the tools of economic policy will be put to the best use possible, limited only by ignorance (on the part of economists), error (a bad set of survey data), or unforeseen events (recalcitrant Arabs). Any contribution of policy to the creation of economic disorder, therefore, will be a result of accident or error. There would be nothing systematic about the process of making economic policy that generates economic disorder. Contemporary scholarship, however, has begun to deepen our understanding of the bias toward economic disorder that characterizes the prevailing institutional order through which policy emerges.

It would be easy to construct a model of the political business cycle by emending the standard literature to account for a relative price focus and the nonneutrality of money. The economy would be stimulated before an election, only now it would be recognized that stimulation means that particular people have received the newly created money. The expansionary process during the pre-election period could be traced out, and the distribution of gains and losses examined. The boom phase could be described by a relatively simple model, and this description would not differ greatly from the common story about the expansion phase of the political business cycle. The collapse would, of course, be described differently. The collapse would no longer result from a conscious decision by politicians to deflate after the election. Instead, a decision to inflate before the election would imply a subsequent collapse after the election, with both boom and bust being inseparable components of a unified economic process. While the description of the bust phase would differ from the typical description, the process of bust could retain the same simplicity as found in the standard approach. Consequently, the complete boom-and-bust sequence would be timed so that the bust would occur optimally (from the perspective of the incumbent party) after the election, leaving plenty of time to manufacture another boom before the next election.

Such a model, however, would seem incapable of capturing the inherent complexity of economic life, and it is this complexity that creates so much scope for the disorder that results from monetary manipulation. The common models of political business cycles always describe situations well under control. There are booms before an election and collapses afterwards, all of this taking place regularly and within safe bounds. These models are largely based on what might be called hot-air economics: an economy is like a balloon, and the problem of economic manipulation is simply one of adjusting the air pressure according to the proximity of the next election.<sup>39</sup>

Historically, of course, cycles have not represented such easily controlled phenomena as the models make them appear. Once it is recognized that an

economy is quite unlike a balloon, but is actually a complex network of human anticipations, it becomes apparent that it is impossible to know the full consequences of money creation, or of any other change in policy. All that can be known are some general outlines of those consequences. The regularity and controllability of cycles disappears, and it becomes possible for the cyclical process to get out of control in the sense that the easy assurance of what is to come is replaced by a pervasive uncertainty.<sup>40</sup> An incumbent government may counterfeit to strengthen its electoral prospects. However, the collapse that is implied by this action cannot be nicely timed, and it may even begin before the election. Out of desperation, the government may work the printing presses even harder, yet the boom may not set in until after the election, when there is a new government. Politicians can certainly be depended upon to seek their interests, which will include the resort to counterfeiting when monetary institutions permit it. Economic instability will result from such money creation, though this process of boom and bust will not be simple and easily controlled.

Some people have objected to the idea of a political business cycle, not because they see inherent complexity in economic life and hence an inherent unpredictability in all efforts at economic manipulation, but because they see economic life as extraordinarily simple and easy to control. From this type of perspective, the political business cycle would seem to be grounded in myopia; people vote for a candidate who gives them something before an election which he takes away afterwards, and yet they persist in repeating this cycle.<sup>41</sup> Within the Phillips-curve framework, the political business cycle would indeed seem to be grounded in a presumption of voter myopia. Rather than discard the idea of politically-generated instability, it may be more sensible to discard the Phillips-curve framework. This framework, after all, characterizes an economy as consisting of one commodity, an aggregate of indistinguishable output, and it treats all people as identical, for differences among persons are inessential for the model. With this view of reality, it seems quite natural to conceptualize an economy as something like a balloon, which in turn would indeed make the presence of a political business cycle a matter of myopia.

Stated differently, the presence of politically-induced economic instability should indeed be attributed to myopia if the understanding of reality held by people conforms to that described by Figure 1 above. But if people universally possessed this interpretation of reality, it would be impossible to understand why government monopoly over money is permitted in the first place. That the monopoly over money is allowed to continue, i.e. that the negative-sum institution is allowed to persist, is evidence that people do not uniformly share the interpretation of reality described by Figure 1. Although the interpretation conveyed by Figure 1 does convey the idea that policy is

used to pursue electoral purposes, it is wrong in the details of that process and in the description of the consequences that follow.

In a market setting, those who possess the correct interpretation of reality and act on it will profit from their action and, in the process, convey some benefit to others. In politics, however, what matters generally is what most people commonly believe to be so, and there is no way for those who think differently to test their contrary belief. Suppose for instance, that the supply of food has been nationalized. Before the election people are allotted daily rations of steak, vegetables, and wine, but after the election they subsist for a while on beef bouillon, vegetable soup, and grape juice. Is it evidence of myopia if someone votes for the incumbent party? It would be so only if that person has an interpretation of reality that says that the government is manipulating the supply of food so as to cause the alternating periods of famine and plenty. People who think this way are, of course, unlikely to support the incumbent party. Alternatively, those who do support the incumbent party are likely to have a quite different interpretation of reality. They could, for instance, think that the government is doing its best to react to such exogenous forces as continuing changes in the birth rate among insects.

The greater the complexity of economic life, the greater the number of possible interpretations, and, *ceteris paribus*, the greater the likelihood that erroneous interpretations will dominate in politics, in contrast to the market. In a market setting, rational action is largely a matter of responding to a question of "what". Thus, as food supplies become more variable, people will come to carry larger inventories of food. No knowledge of the reason for the variability is necessary for rational action. In contrast, rational choice in politics is largely a matter of responding to a question of "why". It is essentially a matter of choosing among different hypotheses—in the illustration at hand, choosing among different hypotheses on the reason for the recurring periods of famine and plenty. This greater complexity of political choice is compounded by an inability to gain from any investment in knowledge. In a market setting, a person can gain by storing food during the boom periods; it is a simple task to profit directly from knowledge. In a political setting, however, even if a person has acquired knowledge about the more complex question of "why", there is no way that he can profit from his knowledge because a change in policy will take place only after a majority of people have come to the same conclusion. Consequently, it is rational to be considerably more ignorant about general political matters than about matters of market choice.

There is certainly no point in basing an explanation of economic phenomena upon a presumption that people will fail to take advantage of the profit opportunities available to them. Much economic analysis has, how-

ever, done exactly this.<sup>42</sup> But it is inappropriate to jump from this truism to a proposition that politicians cannot use the government's nationalization of money and credit to promote their ends. Such an effort to do so may well backfire, as noted above; but in bringing in these notions of the essential complexity of economic life, we are getting into issues that cannot be treated within any of the analytical frameworks that are grounded in an essential simplicity of economic life. To take advantage of profit opportunities is, of course, a trivial matter in the typical approaches found in this literature. In turn, the making of errors by entrepreneurs can only be ascribed to stupidity, much on the order of making mistakes in arithmetic computations.

Matters are seen differently when the essential complexity of economic life is taken into account. Entrepreneurial error can become quite prevalent. Saying this is not, it should be noted, the same as saying that continual repetition of the same set of antecedents will elicit the same entrepreneurial mistakes. It would seem silly to attribute such densemess to entrepreneurs. But how many trials are required for the cognitive faculties to bring about a change in inference as to the need for change in economic action? A typical entrepreneurial career will span about ten presidential elections. Also, circumstances will never be the same in all relevant respects but one, the change in government policy.

Most importantly, the very ability of those who control government to accomplish their ends depends largely upon their ability to create entrepreneurial error. Policy is concerned primarily with creating rents for a favored clientele, paid for by taking—directly through taxation or indirectly through counterfeiting—from those not so favored. Political entrepreneurship, within our present institutional order, consists of finding ways to promote such transfers and to capture a brokerage commission or finder's fee in the process. To use the same method of theft repetitively would not be effective political entrepreneurship, for the victims would come to develop better ways of protecting themselves. Of course, the more complex the economic reality, the less rapidly will victims come to make the correct inference and take evasive action; so the amount of rent that could be captured from repetitive policy would be larger than in a less complex economy.

Nonetheless, political entrepreneurship will be designed to foster entrepreneurial error, so predictability in policy would be contrary to a requirement of rational political entrepreneurship. And it is just as necessary to assume rationality in politics as it is to assume it in the market. To have politicians act systematically in enacting their policies is to presume that they will fail to take advantage of the profit opportunities open to them.<sup>43</sup> Recognition that entrepreneurs are just as rational in the public sector as they are in the private sector, in conjunction with recognition of the essential complexity of economic life, leads to a recognition that there is no conflict

between an assumption of rationality and the continual governmental injection of sources of instability into the economy. This becomes particularly apparent once it is seen that the particular channels through which the new money enters the economy will affect the outcome. Episodes of money creation are not homogeneous—each one is different, and, so, each will entail different patterns of resource transfer as well as different patterns of subsequent economic reaction. It is not enough to act on the basis of a presumption of a relation between monetary expansion and the increase in the measured price level. What must be formed is a presumption of a relation between monetary expansion and changes in the structure of prices. Moreover, monetary expansion may take place in a variety of ways, each way having a different effect upon the structure of prices. While numerous episodes of monetary expansion can all have the same effect upon the aggregate price level, each particular episode will nevertheless differ in its effect upon the structure of prices.

#### X. Disorder and the Problem of Waste in Economic Life

Inflation and recession are inseparable consequences of the pursuit of political interest in the context of government monopoly over money. The discoordination of interdependent plans as a result of government counterfeiting constitutes the business cycle. Once the analytical focal point is shifted from cyclical fluctuations in such aggregate variables as price levels and unemployment rates to the coordination of interdependent plans, however, the basis for looking at the business cycle as a distinct phenomenon seems to erode. In the division of labor among economists, it is customary to link business cycles with monetary manipulation, and resource misallocations with a variety of taxes and regulations: two distinct phenomena linked with two distinct classes of government action. This very way of thinking about business cycles as something different from resource misallocation seems to suggest a reluctance to totally give up notions of the neutrality of money and the dichotomization of the pricing process. Such thinking is one aspect of the presumption that macroeconomic policy is to be distinguished from microeconomic policy on the basis of the price tag of the policy. Within the rigorously applied subjectivism and methodological individualism pursued here, it would seem inadmissible to distinguish cycles from resource misallocations, because the two do not constitute independent phenomena.<sup>44</sup>

What makes for a successful economy? Is it a stable level of employment, even if that level is defined as full employment? In such an economy, there would obviously be no fluctuations in employment. But should such an economy be necessarily considered successful? To illustrate, consider a Hayekian-type cycle in which the structure of production lengthens at first,

then subsequently shrinks. The shrinkage of the structure of production is normally associated with rising unemployment. But there is no reason why this must be so. It is certainly possible to postulate a frictionless world in which people who were laid off in the capital goods industries immediately found employment in the consumer goods industries. Or some more complex pattern of reemployment could be described. Yet such a constancy in the rate of unemployment should hardly be taken as a sign of a successful economy. The economy would be plagued by waste, which in this instance would be the divergence between the wants that could have been satisfied in the absence of a change in the structure of production and the wants that were actually satisfied.<sup>45</sup> In the process of lengthening and then shortening of the structure of production, what could have been produced had the malinvestments not been made is lost forever. Mistakes cannot be corrected costlessly, even though labor may be fully employed in the process of correcting those mistakes. Someone who spends two hours cleaning a carpet, only to knock over a bucket of dirty water, making it necessary to clean the carpet again, is fully employed for four hours, not two. Yet the second cleaning represents waste, for what could have been done with those second two hours had the bucket not been spilled has been lost forever. Wastage of what could have been produced to satisfy human needs, had the monetary expansion not disordinated individual plans, is also a cost of that expansion even though the rate of unemployment may have remained unchanged. And even if unemployment does result, the waste caused by money creation will be understated if only the change in unemployment is brought under consideration.

Waste is an inherent aspect of economic life, for there will never be perfect coordination among people's plans. The difference between perfect coordination and the best attainable degree of coordination can be called the natural rate of waste. Different institutional orders will entail different degrees of waste, and an "ideal" institutional order will entail the natural rate of waste. A comparison between two economies is illustrated by Figure 4. The economy characterized by the production ray *a* operates within an ideal institutional order, and is characterized by the natural rate of waste. The economy described by the production ray *b* has a higher proportion of waste to useful output. With respect to the subject of this essay, economy *b* represents the effect of government monopoly over money, where the output mix has shifted toward more effort being devoted to making and rectifying malinvestments.

It might be thought that such waste could be detected through the national income accounts, either as a lower level of national income or as a slower rate of growth. Neither seems possible, however, and the problems confronted in attempting to do so are the same as those that are confronted

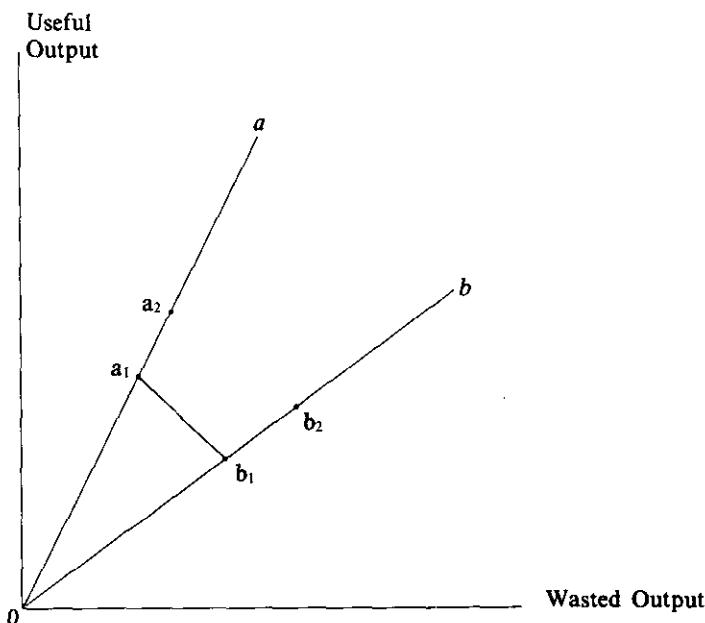


FIGURE 4

in efforts to compare the sizes and growth rates of economies.<sup>46</sup> The way that these accounts are constructed, resources devoted to the correction of error are valued equivalently with resources devoted to other production. If the economies described by *a* and *b* are equal in all other relevant respects, the one described by *b*, will have the same measured national income as the one described by *a*, though the extent that economy *b* falls short of economy *a*'s ability to satisfy human wants is indicated by the line segment *a*<sub>1</sub>*b*<sub>1</sub>, which would have a slope of minus one. Differences in measured rates of growth would not seem likely to be discernible either. There is no reason why technological progress would necessarily be any slower with regard to the correction of malinvestment than it would be for other economic activities. There would seem to be no systematic basis for economy *b* not moving from *b*<sub>1</sub> to *b*<sub>2</sub> at the same rate that *a* moves from *a*<sub>1</sub> to *a*<sub>2</sub>. Measures of national income and rates of growth might not differ, yet the economy with institutions that promote waste would have a lesser ability to fulfill human wants.

The assessment of economic performance is a matter of ethics, not economics, so waste cannot be assessed independently of a normative judgment. This, of course, is, equally true in engineering. By virtue of the law of conservation, all engines are necessarily 100 percent efficient. To say that an engine is less than perfectly efficient requires a normative judgment that separates the output into useful or desired output and waste. A pump that

moves water uphill to a house can be said to be less than 100 percent efficient only as a result of someone's having judged that such things as the water lost in transit and the heat dissipated in the pump house are unwanted and hence represent waste. It is the same with society.<sup>47</sup> At the end of a day, twenty-four hours have been lived through, and it cannot be otherwise. Each instant of time can in principle be accounted for in an accounting system. This time might be spent chopping down trees. It might be spent just lying under a tree. Or it might be spent smashing in store windows. It could also be spent in filling out government demands for information. For each moment of time, there would necessarily correspond an output that represents the use of that time. In only a fraction of those moments would some material traces be created to remain behind, but always there would be, by definition, some use made of that time. The efficiency of an economy cannot be judged without placing some valuation upon different uses of time, any more than the efficiency of an engine can be judged without placing some valuation upon different transformations of energy. By extension, unemployment cannot be said necessarily to worsen economic performance. For instance, what if the unemployment results from layoffs in the cadre of government regulators and inspectors? The decrease in regulation would free people privately to engage in truly productive activity rather than in make-believe and even destructive work made necessary by regulation. Or what if the unemployment resulted among physicians and nurses, due to a sudden cessation of automobile accidents?

## XI. A Concluding Summary

Macroeconomic theory has tended to look upon government as having the function of keeping stable what would otherwise be an unstable economy. Once it is recognized that macroeconomic policy emerges from within a political process, it quickly becomes apparent that the politically rational conduct of public policy may actually amplify rather than dampen business cycles. When recognition of the nonneutral character of monetary disturbance is combined with an awareness of the patterns of rational political action, it becomes possible to understand more clearly just how existing institutional arrangements contribute to economic instability.

To focus on aggregate variables, however, is to miss the essence of the process being examined. Political manipulation revolves around individual rather than aggregate variables. Cycles are a by-product of the efforts of politicians to buy votes through monetary manipulations that bring about changes in the structure of relative prices. When unemployment is addressed, it is through specific programs to increase the real income of particular people, not through generalized increases in aggregate demand.

There may well be changes in what are called macroeconomic variables, but the reasons for these changes, as well as their nature, must be understood microeconomically. Additionally, the waste resulting from the changes in plans due to monetary manipulation is an important consequence of this manipulation, and this waste will remain largely undetected by rates of unemployment. A thorough application of the methodologically individualist perspective leads to a realization that the business cycle does not constitute an independent phenomenon, but is rather one aspect of the problem of waste in human affairs. At the most general level, what is of interest is the relationship of different institutional orders to the waste of human life.

State monopoly over money, as created by the Federal Reserve Act, strengthened over the past half century, and culminating in the repudiation of the gold convertability of the dollar in 1971, was not supposed to contribute to economic instability. But a growing body of literature suggests that it has, and explains why it has had this effect. The pursuit of political gain in conjunction with an institutional setting of state monopoly over money contributes to economic instability and more generally to waste—a lessened ability of an economy to satisfy people's wants. Politicians cannot be expected to stop being politicians; they will continue to promote policies and seek reelection—it can be no other way. What can be altered, however, is the nature of the monetary order within which politicians pursue their ends. By taking a variety of steps to remove money from the category of a nationalized industry, the ability of the ordinary vicissitudes of politics to promote economic disorder would be lessened.<sup>48</sup> Without such steps, we can expect to remain plagued by disorder. The denationalization of money and the restoration of competition in banking and in the supply of money will not, of course, remove all sources of economic disorder, but a gigantic first step in the right direction will have been taken.

## NOTES

1. For a recent analysis of this perspective, see W. H. Hutt, *A Rehabilitation of Say's Law* (Athens, Ohio: Ohio University Press, 1974).
2. For a description of these contrasting perspectives, see Axel Leijonhufvud, "Effective Demand Failures," *Swedish Journal of Economics* 75 (March 1973):27-48.
3. Herschel I. Grossman, "Tobin in Macroeconomics: A Review Article," *Journal of Political Economy* 83 (August 1975):845-46.
4. For an examination of this bias within an American context, see James M. Buchanan and Richard E. Wagner, *Democracy in Deficit: The Political Legacy of Lord Keynes* (New York: Academic Press, 1977). This analytical framework is extended to a British context in James M. Buchanan, John Burton, and Richard E. Wagner, *The Consequences of Mr. Keynes*, Hobart Paper #78 (London: Institute of Economic Affairs, 1978).

5. For a recent survey of this literature, both conceptual foundations and empirical evidence, see Bruno S. Frey, "Theorie und Empirie Politischer Konjunkturzyklen," *Zeitschrift für Nationalökonomie* 36 (No. 1, 1976):95–120. Early statements of the possibility of a political business cycle are contained in Johan Åkerman, "Political Economic Cycles," *Kyklos* 1 (No. 2, 1947):107–17; and Michael Kalecki, "Political Aspects of Full Employment," *Political Quarterly* 14 (No. 4, 1943):322–31. Kalecki's thinking on this topic is examined in George R. Feiwel, "Reflection on Kalecki's Theory of Political Business Cycle," *Kyklos* 27 (No. 1, 1974):21–48.
6. On some topics, though within a somewhat different perspective than found in most of the literature, see Richard E. Wagner, "Economic Manipulation for Political Profit: Macroeconomic Consequences and Constitutional Implications," *Kyklos* 30 (No. 3, 1977):395–410; and *idem*, "Politics, Monetary Control, and Economic Disruption," in *Models of Political Economy*, ed. Paul Whiteley (London: Sage, forthcoming).
7. Anthony Downs, *An Economic Theory of Democracy* (New York: Harper & Row, 1957), inspired a voluminous literature.
8. Some evidence on this point is developed in W. Mark Crain and Robert B. Ekelund, Jr., "Deficits and Democracy," *Southern Economic Journal* 44 (April 1978):813–28.
9. A few items among many are Bruno S. Frey, "Politico-Economic Models and Cycles," *Journal of Public Economics* 9 (April 1978):203–20; Bruno S. Frey and Lawrence J. Lau, "Towards a Mathematical Model of Government Behavior," *Zeitschrift für Nationalökonomie* 28 (November 1968):355–80; Lawrence J. Lau and Bruno S. Frey, "Ideology, Public Approval, and Government Behavior," *Public Choice* 10 (Spring 1971):21–40; Howard S. Bloom and H. Douglas Price, "Voter Response to Short-Run Economic Conditions: The Asymmetric Effect of Prosperity and Recession," *American Political Science Review* 69 (December 1975):1240–54; Susan J. Lepper, "Voting Behavior and Aggregate Policy Targets," *Public Choice* 18 (Summer 1974):25–43; Assar Lindbeck, "Stabilization Policy in Open Economies with Endogenous Politicians," *American Economic Review Proceedings*, 66 (May 1976):1–19; and W. Mark Crain, Thomas H. Deaton, and Robert D. Tollison, "Macroeconomic Determinants of Tenure in the U.S. House of Representatives," *Atlantic Economic Journal* 6 (July 1978):79–83.
10. Their general framework is presented in Bruno S. Frey and Friedrich Schneider, "On the Modelling of Politico-Economic Interdependence," *European Journal of Political Research* 3 (December 1975):339–60. See also, *idem*, "An Empirical Study of Politico-Economic Interaction in the United States," *Review of Economics and Statistics* 60 (May 1978):174–83; and *idem*, "A Politico-Economic Model of the United Kingdom," *Economic Journal* 88 (June 1978):243–53. Simulation studies within this general framework are presented in Bruno S. Frey, "The Politico-Economic System: A Simulation Model," *Kyklos* 27 (No. 2, 1974):227–54; and Friedrich Schneider, "Politisch-ökonomische Konjunkturmodelle: Ein Simulationsmodell," *Schweizerische Zeitschrift für Volkswirtschaft und Statistik* 110 (September 1974):519–49.
11. Gerald H. Kramer, "Short-Term Fluctuations in U.S. Voting Behavior, 1896–1964," *American Political Science Review* 65 (March 1971):131–43.
12. Allan H. Meltzer and Marc Vellrath, "The Effects of Economic Policies on Votes for the Presidency: Some Evidence from Recent Elections," *Journal of Law and Economics* 18 (December 1975):781–98.
13. Francisco Arcelus and Allan H. Meltzer, "The Effect of Aggregate Economic Variables on Congressional Elections," *American Political Science Review* 69 (December 1975):1232–39.
14. Ray C. Fair, "The Effect of Economic Events on Votes for President," *Review of Economics and Statistics* 60 (May 1978):159–73.
15. George J. Stigler, "General Economic Conditions and National Elections," *American Economic Review, Proceedings*, 63 (May 1973):160–67.
16. Yoram Ben-Porath, "The Years of Plenty and the Years of Famine—A Political Business Cycle?" *Kyklos* 28 (No. 2, 1975):400–403.

17. Edward R. Tufte, *Political Control of the Economy* (Princeton: Princeton University Press, 1978).
18. In addition to the literature already cited on the political business cycles, see William D. Nordhaus, "The Political Business Cycle," *Review of Economic Studies* 42 (April 1975):169-90; C. Duncan MacRae, "A Political Model of the Business Cycle," *Journal of Political Economy* 85 (April 1977):239-63; and Paul Mosley, "Images of the 'Floating Voter': or, The 'Political Business Cycle' Revisited," *Political Studies* 26 (September 1978):375-94.
19. Robert J. Gordon, "The Demand For and Supply of Inflation," *Journal of Law and Economics* 18 (December 1975):807-36.
20. This is one of the central themes of James M. Buchanan and Gordon Tullock, *The Calculus of Consent* (Ann Arbor: University of Michigan Press, 1962). For a comparison between the market order and majoritarian politics on this point, see Ludwig von Mises, "The Clash of Group Interests" in *The Clash of Group Interests and Other Essays*, ed. Richard M. Ebeling (New York: Center for Libertarian Studies, 1978), pp. 1-12.
21. A concise statement of this presumption is William H. Meckling, "Values and the Choice of the Model of the Individual in the Social Sciences," *Schweizerische Zeitschrift für Volkswirtschaft und Statistik* 112 (December 1976):545-60.
22. Some interesting observations on developing a political economy of inflation are contained in Karl Brunner, "Comment" (on Robert J. Gordon's "The Demand for and Supply of Inflation"), *Journal of Law and Economics* 18 (December 1975):837-57.
23. With respect to central banking in relation to government policy, see, for example, Keith Acheson and John F. Chant, "The Choice of Monetary Instruments and the Theory of Bureaucracy," *Public Choice* 12 (Spring 1972):13-24; *idem*, "Bureaucratic Theory and the Choice of Central Bank Goals," *Journal of Money, Credit, and Banking* 5 (May 1973):637-55; and William P. Yohe, "Federal Reserve Behavior," in *Crisis in Economic Theory*, ed. William J. Frazer (Gainesville, Fla.: University of Florida Press, 1974), pp. 189-200.
24. Though neglected in the literature on the political business cycle, a seminal treatment of how politics is responsible for business cycles is contained in Ludwig von Mises, *The Theory of Money and Credit* (original ed. 1912) (London: Jonathan Cape, 1934).
25. See Benjamin Klein, "The Competitive Supply of Money," *Journal of Money, Credit, and Banking* 6 (November 1974):423-53; and Lawrence H. White, "Free Banking in Scotland Prior to 1845," manuscript, University of California at Los Angeles, 1979.
26. Murray N. Rothbard, *Power and Market*, 2nd ed. (Kansas City: Sheed Andrews and McMeel, 1977). On proprietorship as a quite different basis for organizing a community, see Spencer H. MacCallum, *The Art of Community* (Menlo Park, Calif.: Institute for Humane Studies, 1970).
27. This nonneutral character is what Gottfried Haberler referred to as the monetary overinvestment theory of the business cycle, as contrasted with the purely aggregative, monetary theory of the cycle. See Gottfried Haberler, *Prosperity and Depression*, 3rd ed. (London: George Allen and Unwin, 1958). A different comparison of these perspectives can be found in Robert E. Lucas, Jr., "An Equilibrium Model of the Business Cycle," *Journal of Political Economy* 83 (December 1975):1113-44. The reasons for the nonneutral character of monetary disturbance are summarized in Friedrich A. Lutz, "On Neutral Money," in *Roads to Freedom*, ed. Erich Streissler, et al. (London: Routledge and Kegan Paul, 1969), pp. 105-16.
28. For an empirical examination of price changes under inflation, showing not only that some prices will increase more rapidly than others, but also that these price changes will be highly skewed rather than symmetrically distributed, see Daniel R. Vining and Thomas C. Elwertowski, "The Relationship between Relative Prices and the General Price Level," *American Economic Review* 66 (September 1976):699-708.
29. While the nonneutral character of monetary disturbance has been discussed by many authors, the seminal statement of interest for the topic of this study is contained in

- Friedrich A. Hayek, *Prices and Production*, 2nd ed. (London: Routledge and Kegan Paul, 1935); and *idem*, *Monetary Theory and the Trade Cycle* (New York: Harcourt Brace, 1932). Hayek's work on economic coordination is portrayed in Gerald P. O'Driscoll, Jr., *Economics as a Coordination Problem: The Contributions of Friedrich A. Hayek* (Kansas City: Sheed Andrews and McMeel, 1977).
30. For another exposition of the material covered in this section, though developed for a somewhat different purpose, see Robert D. Tollison and Richard E. Wagner, *Balanced Budgets, Fiscal Responsibility, and the Constitution* (San Francisco: Cato Institute, forthcoming).
  31. This confounding of borrowing and money creation is described in James M. Buchanan and Richard E. Wagner, *Public Debt in a Democratic Society* (Washington: American Enterprise Institute, 1967).
  32. For an analysis of crowding out, see Keith M. Carlson and Roger W. Spencer, "Crowding Out and its Critics," *Federal Reserve Bank of St. Louis, Review* 57 (December 1975):2-17.
  33. For discussions of the connection between rising interest rates and monetary expansion, see Raymond E. Lombra and Raymond G. Torto, "The Strategy of Monetary Policy," *Federal Reserve Bank of Richmond, Monthly Review* 61 (September-October 1975):3-14; and Susan R. Roesch, "The Monetary-Fiscal Mix through Mid-1976," *Federal Reserve Bank of St. Louis, Review* 57 (August 1975):2-7.
  34. The increase in prices due to the monetary expansion will also lead to an upward shift in rates of interest. Figure 3 does not account for this inflation premium, but the analysis could easily be modified to do so. The result would be a more complicated narrative, with no change in the essential point of the analysis. This point is discussed in Gerald P. O'Driscoll, Jr., "Rational Expectations, Politics, and Stagflation," in *Time, Uncertainty, and Disequilibrium*, ed. Mario J. Rizzo (Lexington, Mass.: D.C. Heath, 1979), pp. 153-76.
  35. A. W. Phillips, "The Relation Between Unemployment and the Rate of Change in Money Wage Rates in the United Kingdom, 1869-1957," *Economica* 25 (November 1958):283-99. A survey of different perspectives toward the Phillips curve is presented in Thomas M. Humphrey, "Changing Views of the Phillips Curve," *Federal Reserve Bank of Richmond, Monthly Review* 59 (July 1973):2-13.
  36. This theme is developed in Paul A. Samuelson and Robert M. Solow, "Analytical Aspects of Anti-Inflation Policy," *American Economic Review*, Proceedings 50 (May 1960):177-94.
  37. For an application of this line of analysis to the Great Depression, see Murray N. Rothbard, *America's Great Depression*, 3rd ed. (Kansas City: Sheed and Ward, 1975).
  38. On stagflation, see Gerald P. O'Driscoll, Jr. and Sudha R. Shenoy, "Inflation, Recession, and Stagflation," in the *Foundations of Modern Austrian Economics*, ed. Edwin G. Dolan (Kansas City: Sheed and Ward, 1976), pp. 185-211.
  39. Hot-air economics is compared with the alternative discussed here in Wagner, "Economic Manipulation for Political Profit."
  40. For a related argument, though from a somewhat different perspective, that an economy, while normally stable, can get out of control, see Axel Leijonhufvud, "Effective Demand Failures."
  41. See, for instance, Bennett T. McCallum, "The Political Business Cycle: An Empirical Test," *Southern Economic Journal* 44 (January 1978):504-15. For careful examinations of the rational-expectations framework from which such reasoning as this stems, see Gerald P. O'Driscoll, Jr., "Rational Expectations and Entrepreneurship," manuscript, New York University, 1978; and *idem*, "Rational Expectations, Politics, and Stagflation."
  42. This is pointed out in, for instance, Robert J. Barro, "Rational Expectations and the Role of Monetary Policy," *Journal of Monetary Economics* 2 (January 1976):1-32; and Robert E. Lucas, Jr., "Econometric Policy Evaluation: A Critique," in *The Phillips Curve and Labor Markets*, ed. Karl Brunner and Allan H. Meltzer (Amsterdam: North-Holland, 1976), pp. 19-46.
  43. A similar conclusion, though in illustration of a somewhat different point, is presented in Andrew Schotter and Gerald P. O'Driscoll, Jr., "Why Rational Expectations May Be Impossible: An Application of Newcomb's Paradox," manuscript, New York University, 1978.

44. For a brief survey of some of the main conceptual difficulties with macroeconomics, see Ludwig M. Lachmann, *Macro-economic Thinking and the Market Economy* (London: Institute of Economic Affairs, 1973).
45. W. H. Hutt, "The Concept of Waste," *South African Journal of Economics* 11 (March 1943):1-10.
46. For a careful treatment of this topic, see G. Warren Nutter, "On Economic Size and Growth," *Journal of Law and Economics* 9 (October 1966):163-88.
47. See, for instance, Frank H. Knight, "'What is Truth' in Economics?" in *idem, On the History and Method of Economics* (Chicago: University of Chicago Press, 1956), p. 164.
48. For one consideration of the types of steps that could be taken, see Friedrich A. Hayek, *Denationalization of Money* (London: Institute of Economic Affairs, 1976).