

PRIVATE FORECASTING AND GOVERNMENT POLICY STABILITY

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The Meaning of Forecasting

To forecast and to predict are not necessarily the same thing. In my dictionary, the first definition of forecast is “to form an opinion beforehand”; the first definition of predict is “to tell in advance.” But my dictionary goes on to say that forecast and predict are synonyms. I do not use them that way. Also, what some people call forecasts are nothing more than assumptions that they act on, whether they would assign a high probability to certain events or not. There are occasions when it makes sense to base business or personal investment decisions on an assumption about the future that one does not necessarily consider to be the most likely. During the Middle East crisis and the war with Iraq, it made sense for business decisions and personal investing decisions to be based on a worst case about the macroeconomy even if that case was considered to have a low probability. There is, after all, a logic to minimax strategies.

In some sense, both forecasting and policymaking are inevitable. However, forecasting by government is not inevitable, and policymaking need not be activist. Avoiding swings in nominal GNP is desirable, but stabilization policies may not be stabilizing. Stable exchange rates are desirable, but actions by government to stabilize them may not achieve that result.

Private Forecasting

With apologies to Descartes, “I think, therefore I plan.” Individuals make current decisions that have future consequences and in

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doing so behave *as though* they could foresee the future. Most business decisions and personal investment or consumption decisions result in actions that involve at least implicit forecasts about the future macroeconomic environment. Since choices often involve a time dimension, the tradeoffs are subject to change under alternative assumptions about such factors as the purchasing power of money, interest rates, exchange rates, and tax rates.

We make decisions; therefore, we do forecast. Because change is inevitable, forecasting is inevitable. The only thing certain about the future is that it will not be the same as the past. Individuals have expectations and beliefs; therefore, they are all forecasters. In this context, forecasting is a positive (non-normative) activity. A private forecast does not suggest desirability nor does it involve preferences about the future.

In contrast, policy is *normative* on the part of the policymakers. So-called forecasts by government authorities are not comparable to those made in the private sector. Consequently, *ex post* analyses that purport to compare the accuracy of private- and public-sector forecasts of macroeconomic variables are silly.

It is important to distinguish between assumptions about the future for certain purposes—budgets, planning, policies—and predictions about what is going to happen in the future. Private-sector forecasting involves identifying various possible states of the world in the future and assigning probabilities to them.

A major part of the exercise is seeking internal consistency between assumptions or beliefs about governmental policy actions and the logical consequences. To predict in February which team will win the World Series next October is not similar to a macroeconomic forecast. Deriving the implications for various teams or players of changing the height of the pitcher's mound or implementing the designated hitter rule is similar to what private forecasters attempt to do.

The economists' general equilibrium framework incorporates feedback effects from the numerous microdecisions to the macro-implications. It would be true that I could see better by standing up in the football stadium only if my behavior did not influence the behavior of others. Given that my behavior is likely to affect others, it is not as dubious as it sounds to say that some fans can see better sitting down than standing up.

Governments and Forecasting

For private-sector macroeconomic forecasters, one of the greatest sources of uncertainty about the future is the effects of government

policy actions. Often it is not known what policy actions various governmental bodies will take. However, even when actions have already been taken, there is uncertainty about the timing and the magnitude of the effects.

The least useful piece of information to the private forecaster is the intent of the policymakers. It is helpful to distinguish between *policies* as statements of policymakers' intent and *policy actions* as what is actually done. Such terms as "easing" or "tightening" often represent nothing more than an expression of intent. Actions to achieve intended conditions may have quite different effects.

If what we refer to as "government" constituted no more than a set of rules and contractual arrangements according to which private decisionmakers interact with one another, then the nature of macroeconomic forecasting would be different from what we now observe. However, where government agencies take actions (such as spending; taxing; open-market operations; reserve requirements; foreign-exchange interventions; and wage, price, credit, capital, or exchange controls), the private-sector forecaster must take account of the probability of such actions and their likely consequences.

Following the distinction made by Karl Brunner (1985, p. 214), "The classical approach to policy analysis thus understands policy not as a choice of specific actions but as a choice of general rules usually embedded in a set of institutions. We may juxtapose it under the circumstance as an 'institutional policy' to 'specific action policies.'" One level of private forecasting attempts to ascertain the effects on incentives of a change in a certain marginal tax rate, for example. Quite another level of analysis is involved in attempts to anticipate and project the implications of activist, discretionary, counter-cyclical stabilization policies.

Economic Policy Discretion

In addressing the subject of "The Limits of Economic Policy," Brunner discussed the sources of "Uncertainty in the Private Sector." Rather than beginning with an assumption that policy activism by governmental authorities is necessarily positive, as some writers do, or that policy is benign, as others have concluded, Brunner (1985, p. 223) simply asserts, "Government interventions confront members of society with a challenge. [Policy actions] modify private opportunity sets and thus induce various responses. Many of these responses address *an imaginative search to lower the impact of government intervention*" (emphasis added).

Brunner (1985, p. 223) continues, "Every intervention tends to produce unintended and unexpected consequences which eventually

affect the evaluation and usefulness of the intervention.” What makes private-sector forecasting of the effects of government actions so difficult, says Brunner (1985, p. 223), is that

the social process governed by spontaneous interaction between agents in market economies operates as a vast system continuously creating and disseminating new information. Acquisition and interpretation of these flows of new information modifies private opportunity sets and expectations of future conditions. These revisions induce pervasive adjustments in behavior.

One is reminded of the Heisenberg uncertainty principle in physics: “The accurate measurement of one of two related, observable quantities, as position and momentum or energy and time, produces uncertainties in the measurement of the other, such that the product of the uncertainties of both quantities is greater.” In monetary economics a variation of this idea became known as Goodhart’s Law: The targeting of any one monetary variable alters the relation between that variable and real economic activity so that it no longer is a reliable indicator of the thrust of monetary policy actions. That is, the relationship holds only if few people know it and if policymakers do not attempt to control it.

Forecasts by Government

An appropriate question regarding economic forecasts issued by governmental authorities is, “Why do they do it?” Several possible reasons can be offered for government agencies making and issuing forecasts: (1) They are better forecasters than private-sector forecasters; (2) they have access to better, more timely data; (3) they have economies of scale (that is, they can do it more cheaply, possibly because they have bigger and faster computers); (4) they are providing a public good; (5) they are informing the public about consequences of policies they intend to take (for example, it has been argued that the credibility of the Bundesbank is so great that when it issues its forecast for inflation, the information alters private-sector decisions).

In arguing “The Case Against Monetary Activism,” Brunner (1981, pp. 22–23) notes that there is assumed to be

a peculiar asymmetry in the distribution of knowledge and information. The public sector, represented in particular by the central bank, stands implicitly as the guardian of truth with full and precise knowledge about the state and structure of the economy. The policymakers thus have in their minds the equivalent of the one and only true massive econometric model of the economy. The private sector, on the other hand, is sunk in the passive stupor of abysmal ignorance. . . .

Closely associated with this asymmetric distribution of knowledge there is a second implicit strand in the argument. "Government" is not only the guardian of truth, it is also the fountain of wisdom and the representative of moral principles. This means that the agents manning the political institutions can always be relied upon to execute policies fully reflecting the moral requirements of the "common good" on the basis of their mysterious possession of full knowledge of all the relevant factors. The pervasive occurrence in various forms of these ideas . . . should not blind us to their falsehood as statements about the world in which we live. The people operating the political institutions possess no superior knowledge about the process to be influenced, and generally have a vested interest *against* critical examination of their accustomed and usually questionable views.

Government Budgets

To assemble a budget, especially for a five-year period as Congress requires, one must use projections of such macroeconomic variables as output growth, employment, inflation, and interest rates. Such economic assumptions are not forecasts comparable to those prepared in the private sector. Numbers used for these variables for the first and possibly the second year of a five-year horizon may be someone's best guess about what might actually happen, given certain assumptions. For the most part, however, such numbers are not representative of highly probable actual conditions.

Government economists are not free to assume the policy actions they advocate will *not* be adopted, nor are they free to assume the Federal Reserve or Congress will actually do something they do not want those bodies to do. Private-sector forecasters have no such constraints. While private forecasters differ in their assumptions about actions that may be taken, they are not obligated to assume that their preferred policies will be implemented, as are government forecasters. In fact, private forecasters are free to assume government will do something to make things worse, while the government's own forecasters must foresee only positive implications of their recommendations or actions.

According to Brunner (1981, p. 32), private forecasters know that

activist policymaking based on a particular response structure induces variations in this structure which eventually force adjustments in the nature of policymaking. This process lowers the likelihood, even with an optimal starting point, that activist policymaking can substantially contribute to raising the observed level of performance. It may actually convert "stabilization policies" into a sequence of destabilizing moves.

The Fatal Conceit of Macroeconomic Policy¹

One advantage of a market economy is that it is informationally efficient (that is, a market will function well even if each individual knows only his or her own preferences and opportunities). Conversely, when the government controls an activity, much more information must be collected and centralized, but this information is expensive and sometimes not available. The information is necessarily aggregated and averaged; it accounts for variations among individuals in only the crudest ways. This fact places another limit on the ability of the government to achieve its goals.

A slightly different aspect of the information problem involves timing. Fine-tuning the economy—responding to every small fluctuation—is not feasible largely because information, even if accurate, ages quickly. The information needed is simply not available or is generally not accessible in time to be useful. Also, there are lags in the system that are of variable and unknown length. Such lags often mean that policies will be responding to conditions that no longer exist and may tend to exacerbate the conditions that they are aimed at alleviating.

Macroeconomic Stability

Whether economic policies aim at specific markets or are meant to have a broader impact, the central problems are the same. Still, I shall focus attention briefly on some policy issues that arise in the area of macroeconomic stabilization.

It is sometimes argued that a market system is subject to unacceptably large fluctuations in income. If this were true, it would have welfare implications. First, the level of incomes, averaged over the business cycle, might be lower than would be true if the growth path of the economy were more stable. Second, even if the average level of incomes were unaffected by fluctuations, economic agents are generally risk averse (that is, most agents prefer a certain stream of income to a fluctuating stream, given that the expected values are identical). For these reasons, government might have a role in providing stability. Still, for intervention to be more helpful than harmful, it must overcome the formidable information and decision-making limitations I cited earlier.

An alternative view is that a capitalist economy is inherently stable. According to this view, actions by the government frequently are the main destabilizing factors in the economy. If market processes

¹This section draws on my paper, "The Economic Role of Government" (Jordan 1988).

are inherently self-correcting, faulty interventions by government—however well intentioned—will reduce economic stability.

In 1969, Axel Leijonhufvud (1973, p. 28) argued:

The central issue in macroeconomic theory is . . . the extent to which the economy, or at least its market sectors, may properly be regarded as a self-regulating system. In what respects does it, or does it not, behave in such fashion? How well, or badly, do its “automatic” mechanisms perform?

Leijonhufvud’s questions apply equally well today.

Much earlier, F. A. Hayek (1945) and W. H. Hutt ([1939] 1977) forcefully argued that a private, market-oriented economy is inherently resilient and naturally gravitates toward full employment of its productive resources following any kind of shock that has temporarily depressed economic activity. These shocks to various sectors of the economy include wars, droughts, energy-price or other commodity-price changes, perverse government policies, and substantial exchange rate movements.

This view of the natural, self-correcting tendencies of the economy is diametrically opposite to the stagnation thesis, which raised concerns about the adequacy of aggregate demand in the absence of governmental actions to ensure a sufficient amount of total spending. The notion of a “demand failure” persists to the present time. Several generations of economists in the private sector, as well as in government and in academia, have argued that even an economy that relies primarily on private property and a market mechanism to allocate resources could stagnate at less than full employment of its productive resources. These economists urge that central government ought to pursue an activist policy to ensure that sufficient demand is fostered. Their proposals have been implemented in the past, but the results have not always been as desired.

Unconstrained Monetary Creation

Let me turn now to one area where there may be the strongest case for an activist government policy intended to provide greater stability in the economy: the conduct of monetary policy. Not very many of us are happy with the conduct of monetary policy in recent decades, and it might be worth thinking through what sort of rules of the game we would like to see in this area, given our economists’ understanding of the policy dilemma.

In the 20th century we have seen two policy-related phenomena that were left unconstrained by the Constitution’s framers. One is the unlimited power of the federal government, unlike state governments, to issue interest-bearing obligations to finance expenditures.

The other is the unlimited discretion of the central bank (which did not even exist until 1914) to substitute its own non-interest-bearing obligations for the interest-bearing obligations of the U.S. Treasury.

Money performs several functions in an economy. It economizes on transactions costs and on information costs, since all persons accept the same money and are aware of its value. There also are arguments for a monopoly money supply, since the use of only one type of money in an economy will reduce information costs. But what sort of monetary policy is consistent with the spirit of the Constitution and yet responsive to income stabilization concerns?

The government (or, in the current age, the Federal Reserve) in its money-creating function must be careful not to exacerbate cyclical fluctuations. Milton Friedman and Anna Schwartz (1963) have argued that the length and severity of the Great Depression of the 1930s was caused primarily by inappropriate Federal Reserve policies. Today private-sector forecasters must consider the possibility that such major policy mistakes could be repeated.

The invention of open-market operations as a method of financing government—wherein non-interest-bearing obligations of the central bank are created to purchase (and thereby cancel) direct government obligations—has proven too tempting to resist in the 20th century. In an era of large fiscal deficits, resorting to the monetary printing presses as a lesser of evils to cutting real spending or raising explicit taxes will be a temptation to some politicians. The “dismal arithmetic of monetarism,” noted by Sargent and Wallace (1981), warns portfolio managers that under some conditions debasing the purchasing power of money becomes unavoidable. Ignoring such analyses and failing to monitor government behavior would prove very costly.

Economists and Policy Advocacy

Many contemporary politicians and economists do not seem concerned about the enormous power of the central bank. The inclination of most politicians toward an institution that seemingly augments the power of the political authority to tax and spend is not surprising. More puzzling, at least to me, is that economists rarely challenge the premises of unbridled central bank authority. In fact, economists often seem to be making a case for still greater scope of centralized authority.

We all know that the jargon of free markets has broad appeal, even to those who have a very different agenda. We are familiar with business leaders who talk about free markets, then seek protection from imports or defend regulatory barriers to competition. We also

are not surprised by the politicians who talk about free markets and private enterprise, then vote for all sorts of governmental intrusion in the economy.

To paraphrase Winston Churchill's statement about democracy, "Capitalism may not be a perfect economic system, but it is much better than all the alternatives." Nevertheless, we see many of our fellow economists advocate governmental policies in ways that suggest either they do not believe that private is better, or they do not like the outcome of a nongovernmental approach. If economists do not consistently profess the virtues and superiority of a market economy, who will? While there are many dimensions to this phenomenon, I shall comment only on the rhetoric of the macropolicy debate.

Many of us claim to believe in the inherent resiliency of a market economy, but confidence in the magic of the marketplace differs among us. Do you accept that there is an unseen hand that keeps the economy expanding? Are you willing to argue that government attempts at fine-tuning the economy are more likely to do harm than good? Or do you look to Washington to do something when a firm, a sector, or a region confronts a serious economic challenge or threat?

Doing something to deal with this or that economic ill typically consists of actions that result in increasing government spending—including so-called jobs programs—or cutting personal taxes to increase personal disposable income, or increasing credit availability, or attempting to reduce market interest rates, or undertaking to influence exchange rates. In the late 1980s, the return to demand management took the form of pressure on the economic policymakers of Japan and Germany to engage in pump-priming stimulus to their domestic demand. Even economic spokesmen in the Reagan administration called for demand stimulus policies by other countries.

My concern is that endorsement or advocacy by economists of activist policies communicates considerable lack of faith in market mechanisms. On a daily basis we encounter economic arguments for intervening in foreign exchange markets, tightening or easing monetary policies, or changing government spending or tax policies for the express purpose of augmenting or diminishing aggregate demand. In each case the argument suggests that markets cannot be relied on. If our profession does not have confidence in the self-correcting tendencies of a market economy, then it is unlikely that business leaders or politicians are going to be willing to rely on the inherent resiliency of a capitalist economy.

Conclusion

The U.S. model of a capitalist economy is far from perfect, but it still provides a better environment for upward mobility of its

participants and a greater aggregate standard of living than any known alternative. Where there are shortcomings, the flaw is more likely to be too much intrusion of government at some level, rather than too little government involvement.

During the 1980s, we witnessed less government regulation of domestic industries than in the previous two decades, but more political sentiment for governmental intervention in international trade. We saw the Reagan administration in its first term extol the virtues of the magic of the marketplace, then in its second term advocate old-fashioned pump priming of aggregate demand to speed up world expansion. In the first term, the Reagan administration prohibited discretionary intervention in foreign exchange markets; in the second term, Reagan policymakers were advocates of a policy of deliberately reducing the international (and domestic) value of the currency.

At the beginning of the past decade, Congress seemed determined to impose some constraints on the discretion of our central bank and to force the monetary authorities to adhere to some rules. But that determination did not last long, and by the middle of the decade we had returned to the purely judgmental approach to monetary policy that prevailed during the 1950s and 1960s.

Today, although the media have been slow to catch on, the old, false dichotomy between pro-growth and anti-inflation policymakers has been substantially diminished. We still have considerable activism and attempts at fine-tuning the macroeconomy, yet there also seems to be a healthy degree of humility about what can be done by government to “do good” rather than make things worse.

Nevertheless, individuals elected or appointed to government office will inevitably bring to their position a zeal to “find out what’s wrong and fix it.” Given that, the rest of us have no choice but to attempt to anticipate, to cope, and to survive, which means we must forecast. To fail to do so could be fatal.

References

- Brunner, Karl. “The Case Against Monetary Activism.” *Lloyds Bank Review* (January 1981). Reprint. Center for Research in Government Policy and Business, Reprint Series no. C-93. Rochester, N.Y.: University of Rochester, 1981.
- Brunner, Karl. “The Limits of Economic Policy.” *Schweizerische Zeitschrift für Volkswirtschaft und Statistik*, Heft 3 (1985). Reprint. The Bradley Policy Research Center, Reprint Series no. PPS-R-28. Rochester, N.Y.: University of Rochester, 1985.

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- Friedman, Milton, and Schwartz, Anna J. *A Monetary History of the United States, 1867–1960*. Princeton, N.J.: Princeton University Press for NBER, 1963.
- Hayek, F. A. “The Use of Knowledge in Society.” *American Economic Review* 35 (September 1945): 519–30.
- Hutt, W. H. *The Theory of Idle Resources*. London: Jonathan Cape, 1939; 2d ed., Indianapolis: Liberty Press, 1977.
- Jordan, Jerry L. “The Economic Role of Government.” Presidential Address, National Association of Business Economists, *Business Economics* 23 (January 1988): 14–20.
- Leijonhufvud, Axel. “Effective Demand Failures.” *Swedish Journal of Economics* 75 (1973): 27–48.
- Sargent, Thomas J., and Wallace, Neil. “Some Unpleasant Monetarist Arithmetic.” Federal Reserve Bank of Minneapolis *Quarterly Review* (Fall 1981): 1–17.

THE CASE FOR MARKET-BASED FORECASTING

Lawrence A. Kudlow

My comments will begin with some of the themes that Jerry Jordan mentioned in his paper, especially the theme of government policy rules, which is, of course, crucial to Karl Brunner's work. Brunner was a great friend and teacher of mine, as is Jerry Jordan. So there is a little bit of a historical conspiracy. But the question of rules in government policy is irrevocably tied up in a very general point: the use or the utility of the markets and market prices, which is really the thrust of my comments.

I agree with the people who have mentioned how poor economic forecasts are. Markets strike me as really the best—the only reliable—forecasting tool. In the same respect, I think markets are the only reliable policy tool. And as Jordan noted in his distinction between government forecasting and private forecasting: Private forecasting is largely defensive in response to government events, which are frequently unpredictable and irrational.

Markets, Information, and Policy Formation

Inside government, the use of markets—not only to discipline policymakers but to provide information—can be an awesome tool in helping policymakers chart the right course. When I served in the Reagan administration, I thought we made a much greater use of markets than others had—not only in the sense of letting markets tell us what was right and wrong, but also in the sense of deregulating them to increase their efficiency. To the extent that we enjoyed a much better economic success in the 1980s than was the case in the 1970s—not perfect but substantially better—I think my point of view is vindicated.

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On the margin, the last announced piece of information is always going to be in an open market, and free markets will always know more than the most complex and comprehensive econometric model or the 500 some odd Ph.D.s at the Federal Reserve Board.

Why Forecasts Fail

One of the reasons econometric models do not work, never have worked, and, in my view, never will work, is that economics itself is simply not a Newtonian physical science. Professionals, academics, and policymakers have tried to make it into a physical science for the past 40 or 50 years, particularly since the rise of Keynesianism and the decline of classical thinking. But the physical science approach does not work. So if we are now having a general rebirth of classical thinking and the classical approach—because of the work of Friedrich Hayek, Milton Friedman, Karl Brunner, and many others—then we have to admit that economics is really not a physical science. It is not clockwork. Time never stands still.

We are dealing with human behavior, which is always changing, not mechanical constructs. And human behavior is always evolving and changing in response to events, both government and nongovernment. We have a historical continuum here. Because human behavior is always evolving, I believe that the evolution of economics and human behavior is a lot closer to biology than it is to physics. And it is a lot closer to Darwinian evolution theories because, after all, individuals compete, which was also the essence of the beginning of biology.¹

Markets as Forecasting Devices

My experience in government and the private sector has convinced me that markets are crucial for policymaking, for rule making, and for forecasting. Indeed, I now rely almost exclusively on using markets as forecasting devices. In forecasting inflation, for example, I pay little attention to the CPI, or to data from the Commerce Department, the Treasury Department, or the Federal Reserve. I certainly examine the data, and my clients expect me to comment on it; but I do not believe any of it. Gold and commodity prices tell me a much better story about inflation, because they are market prices.

Monetary Policy

With respect to monetary policy, I believe more and more strongly that market prices have more information than monetary aggregates.

In particular, I have argued, written, and defended the view that gold prices and, to a lesser extent, the equally important sensitive commodity indexes, are the only way to capture the mix or the balance between the money supplied by the Fed and the money demanded by the private economy. It is a question of the interaction of money supply and money demand. We cannot focus on only the supply of money, because, after all, the ultimate game is to get inflation as close to zero as possible. I believe we can achieve zero inflation by raising the domestic purchasing power, or value, of our money, which is largely a function of the demand for money. I do not mean the demand for credit; I am not talking about commercial loans. I mean the willingness of people to hold financial balances or financial assets such as stocks and bonds. If people are willing to hold those monetary balances, then the price or value of money goes up. Hence, money buys more goods and services, and inflation goes down. In my judgment, the price of gold is the ultimate indicator of the purchasing power or value of money. The market value of gold tells us whether the demand for money is in line with the supply of money created by the Federal Reserve.

I am not dismissing the argument to use the quantity of money as an indicator of monetary policy, but I think using monetary aggregates is a tricky business. Even the most rigorous and consistent students of money are still confused about which monetary aggregate—the base, M1, M2, M3—is the right indicator to gauge monetary policy.

In choosing a measure of the quantity of money, there is a tendency to select the one that tells the story you want to tell rather than the one that is actually the “correct one,” which is almost unknowable. We have all played the game—whether it is M2; whether it ought to be the monetary base; whether it ought to be the unadjusted base or Federal Reserve credit, which comes off the balance sheet of the Fed; or whether it should be bank reserves or other things. For example, if the growth of M2 is below the Fed’s target range while the monetary base is exploding, which is the right aggregate? If I distrust the monetary base because currency is flowing abroad or because I know the Fed has reduced reserve requirements on some of the institutional deposit accounts, and the so-called reserve adjustment formula might not yet have gotten it right, then I do not want to use the base as an indicator of monetary policy. Instead, I might look at the Fed’s balance sheet and use adjusted or unadjusted Federal Reserve credit. But even that indicator may not be correct. The domestic banking system may not be using the Fed’s high-powered credit.

No one really knows which quantity indicator is correct. My answer is, "Why don't you just look at the price of gold or commodity indexes?" Although no Fed governor has said it and although the Fed chairman has never explicitly discussed it, I think we are actually operating on a de facto, Bretton Woods-style, *domestic price rule* whereby the value of the domestic dollar is linked to gold and whereby the supply of dollars created by the Fed is basically linked to a yardstick called gold. When the Fed operated in this Bretton Woods fashion in 1989 and 1990, the money supply was, on average, well controlled. M2 growth was about 4 percent, nominal GNP growth was about 5 percent, and gold stayed, on average, at around \$375–\$380. We had a terrific bond rally; long-term interest rates, which can stimulate corporate investment and housing, dropped from 9.5 percent to 8.5 percent in 1990. Short-term rates went down even more. There was virtually no inflation risk in the market. The Fed was operating exactly the right way.

When the Fed went off the Bretton Woods price rule in the middle 1980s and decided to increase the money supply, we paid heavily for it. Gold and interest rates skyrocketed, which led to the stock market crash of 1987. That crash was, among other factors, the precursor of the recession. Therefore, the stock market crash of 1987 turned out to be a better forecaster than some people thought.

If the Fed stays with the implicit price rule it is now using, we are going to be in better shape than we think. I like the price-rule approach because I think it captures not only the supply of money in the Fed's actions but also fiscal policy. Taxes and regulations count a lot in monetary value and in the inflation outlook. Taxing, spending, and regulating can affect inflation. If we increase taxes, if we raise government spending as a share of GNP, or if we regulate more heavily, we will reduce incentives, efficiency, and productivity in the economy (that is, we will reduce real economic growth).

If money growth is constant, but you shrink or reduce the growth of goods and services, you cause inflation from the supply side because you roll back incentives. Markets will respond. Look at the behavior of the Dow Jones in 1990. It rose to 3,000 in the late winter and early spring. At almost the moment President Bush moved his lips, the Dow's rally ended. As the shape of that budget deal, which was nothing but a high tax and spending package, became clearer and clearer to the markets—before Saddam Hussein and after Saddam Hussein—the Dow Jones dropped about 700 points. And the market was headed lower, until, in my judgment, (1) the Fed made it clear it was not going to monetize the oil price shock but was going to stay with the gold-price, Bretton Woods-type rule; and (2) it became

obvious that the Bush administration was going to move back on the supply-side growth path. The combination of a steady, domestic Fed price rule and what looked like the return to growth economics moved the Dow from 2,300 in the fall of 1990 to 2,900 and higher by early 1991.

I am not attacking monetarism, which is, after all, the study of money. The Federal Reserve controls our money supply, however it is defined. But there is good monetarism and bad monetarism. Bad monetarism says we are going to fine-tune the monetary aggregates or some measure of the quantity of money to hit some artificial target. Bad monetarism also believes that the Fed can fine-tune nominal GDP growth over short time intervals. Some very bright people of great integrity whom I respect are now saying we should significantly increase the growth of M2. Such a policy, however, would undermine the price rule, drive the price of gold and interest rates—particularly long rates—sky high, and wreck whatever chances of recovery we have.

In contrast, good monetarism says the Fed should add or withdraw reserves while keeping a sharp eye on gold and commodities as the value-of-money yardstick. That kind of monetarism is really what the Fed is now engaged in and is the right way to go.

Conclusion

I want to end on an optimistic note, because of my dislike for the stagnation model. Why does everyone always assume the worst case? If the Fed continues with a domestic price rule, then interest rates of 3 to 4 percent for Treasury bills and 5 to 6 percent for Treasury bonds should result. The budget deficit would then be eliminated, because over the next five or six years we would save a couple of hundred billion dollars in net interest expense compared to the current services baseline. I think a global case can be made that countries are operating on domestic price rules everywhere, thereby punishing inflation. That is why we have a big bull market in bonds and stocks in almost every national currency, which, in turn, should move the exchange rates back into equilibrium.

Markets are made up of the decisions of millions of people who want prosperity, progress, and better living standards. When governments interfere, markets will punish right away and get policymakers back on the right track. The Malthusian notion, which is the stagnation view or the global capital-shortage view, can be rejected and discarded as long as we let markets operate freely and pay attention to them as private citizens and government policymakers. Population

growth is a plus because of the potential creativity of individual men and women. Resources are not scarce; they are limitless—because technology is boundless. If we stay close to the free market, the 1990s can be another decade of strong growth.

Reference

Rothschild, Michael. *Bionomics: The Inevitability of Capitalism*. New York: Henry Holt, 1990.