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Activist Monetary Policy for Good or Evil? The New Keynesians vs. the New Classicals

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Economic analysts and policy practitioners argue endlessly about how long it takes for monetary policy actions to affect output or employment, how long the effects will last, or how large they will be. But underneath it all, the truth is that economists cannot agree on how monetary policy affects the real economy in the first place. Theoreticians are offering two different explanations, each with its own implications for the way monetary policy ought to be conducted.

Perhaps the most popular explanation for money's impact was first proposed about 15 years ago by a group of economists now known as the New Classicals. These economists see episodes of money affecting economic activity as temporary aberrations that occur only when monetary policy actions happen to catch the public by surprise. Because they see these episodes as harmful, the New Classical economists think that central banks should avoid such surprises. They think that a central bank should just announce a simple money growth plan and stick to it. Such a policy, they say, would minimize economic disruptions and make inflation predictable.

In the last few years a group of economists labeled the New Keynesians has begun mounting a challenge to the New Classical view. The New Keynesians claim that under the right circumstances even widely publicized monetary policy actions can have a sustained impact on output and employment. And they claim that this impact can be used to help counteract what they see as the economy's tendencies toward excessive volatility and unemployment. So the New Keynesians think that a good central bank conducts an activist monetary policy—it actively manages the supply of money and credit to keep the economy close to full employment.

Which side is right? Is an activist

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monetary policy good or evil? Neither side has all the answers, but both command serious attention in a very important policy debate.

THE NEW CLASSICALS' CASE AGAINST ACTIVIST POLICY

Like the great Classical economists of the last century, the New Classicals see the market system naturally bringing the economy to its peak level of efficiency. They see markets as a network of competitive auctions in which prices respond quickly and completely to changes in economic conditions. Basing their decisions on these market prices, households and firms automatically deploy the economy's real resources—its labor, raw materials, factories, and equipment—fully and efficiently. Activist monetary policy has no place in this world. Policy actions designed to alter the pattern of economic activity are ineffective and unnecessary.

Competition among many small households and firms makes the Classical economy efficient. In the Classical system, overall supply and demand conditions determine the prices people pay and the wages they earn. No business or individual is big enough to manipulate market conditions to its own advantage. Any firm that tried to charge above-market prices for its product would lose all of its customers to competing producers. Any worker that held out for above-market wages would lose his or her job to competing workers.

This environment may sound harsh, but it gives firms the incentive to perform at peak efficiency. Given the wage-price structure, each firm faces just one basic decision: how much to produce. And in its quest for profits, the firm will automatically choose a production level that balances consumer preferences with resource availability.

Consider the typical firm. For each unit it produces, it gets the market price. It also incurs costs equal to the price of the requisite labor and materials. The more it produces, the more it is prone to operating inefficiencies that push up per-unit production costs. At some point, the cost of producing another unit would exceed the product's market price. Expansion beyond that point would cut into profits, so the firm expands no further. Following this strategy not only maximizes the firm's own profits, it promotes overall economic efficiency as well. The product's market price measures its worth to the consumer. Wages and other input prices measure workers' and resource suppliers' valuation of their time and materials. So, in effect, the firm is producing only the units whose benefits to the consumer justify the burden their production imposes on workers and other resources.

Of course, economic conditions are constantly changing. Consumers' preferences shift away from one product and toward another; a new production technology comes along and displaces an old one. But in the Classical view, market prices and wages adjust quickly to changes in supply and demand, providing firms with the incentives

to keep the economy's resources fully and efficiently employed. With the market system allocating resources so effectively, there is no reason to use monetary policy to alter the level of economic activity. But it's just as well. Because in the Classical world, any attempt at activist policy would fail.

The Classical economists developed the theory that money has no effect on economic activity. Clearly, prices are crucial to people's economic decisions in the Classical system. And usually we think of prices being quoted in terms of money. Yet the Classical economists maintained that changing the money supply would have no impact on output or employment. How can this be?

The Classicals claimed that when the money supply changed, all prices and wages would change in equal proportion, leaving the relationships among them unchanged. Consequently, households and firms would stick by their original employment and production decisions, leaving the real economy unaffected.[1]

Suppose, for instance, that the central bank pumps up the money supply. This increases the overall demand for goods and services, pushing up market prices. But workers recognize that higher prices erode the purchasing power of their wages. So they are willing to work the same hours and expend the same effort only if they get wage increases commensurate with the increase in market prices. Firms, competing for workers, agree to pay for the raises out of their inflated sales revenues, and they maintain their original level of employment and output. All that remains of the money supply increase are higher prices and wages.

The Classical economists recognized that, as a practical matter, these adjustments to a change in the money supply would not always proceed as smoothly as their theoretical analysis might suggest. But their message comes through clearly enough: the money supply ultimately affects the level of prices, not the level of economic activity.

The New Classical economists reinvigorated the Classical argument that monetary policy is generally ineffective. The Classical perspective on money's role in the economy was among the casualties of the Great Depression. The Keynesian Revolution swept through the economics profession and gave birth to the activist monetary policies of the postwar period. But in the early 1970s, some economists resurrected the Classical viewpoint. In fact, by combining parts of the Classical tradition with the notion of "rational expectations," these New Classical economists emerged with an even stronger position: monetary policy cannot systematically affect the real economy. Instances in which monetary policy actions alter employment or output levels are occasional, random events.

The New Classical analysis of money's impact on the economy is a variation on the old adage "knowledge is power." In keeping with their Classical tradition, the New Classicals maintain that markets are competitive enough to drive the economy to full employment, and responsive enough to keep it there in the face of shifting economic conditions. To this they simply add that a key

element in markets' responsiveness is market participants acting upon rational expectations about where the economy is headed. The New Classicals assume that market participants understand the underlying structure of the economy and use the available data on current economic conditions to formulate accurate forecasts about future economic performance. Presumably, participants' actions in the marketplace today reflect those rational expectations.

The New Classicals go on to argue that market participants pretty much know what to expect from the monetary authority. Competitive market prices and wages automatically reflect those expectations, thus neutralizing the impact of any anticipated policy actions on output and employment. Admittedly, policy actions that take people by surprise can affect economic activity. But, the New Classicals point out, such "surprises" must, by definition, be occasional and without pattern. So the monetary authority cannot systematically influence the level of output or employment.

The New Classicals emphasize that even when a monetary policy action does take people by surprise, its impact is temporary. It lasts only as long as it takes for the markets to find out what the central bank has done and respond. And in the interim, people—particularly workers—are not necessarily better off.[2]

Textbook versions of the New Classical view assume that product prices respond to sudden shifts in economic conditions more quickly than wages do. For one thing, wage agreements, whether formal or informal, may cover several months, a year, or even several years—all periods much longer than it takes for product prices to change. Even where wages are set more frequently, workers usually agree to a certain wage without the benefit of complete information on the prices of the products they intend to buy. Consequently, when an unexpected monetary expansion comes along and pushes up product prices, firms find they can retain, and perhaps even expand, their work force without raising wages very much. And they make the most of the opportunity. They pay a slightly higher wage, hire more workers, produce more output, and sell it at the new, higher prices. Hence the expansionary monetary policy boosts aggregate employment and output.[3]

Of course, the workers eventually catch on. They shop. They see the higher product prices. And the next time they negotiate a wage, they demand compensation for their loss in purchasing power. Once wages rise as much as prices have, firms revert to their original hiring and production patterns. So money is, in the last analysis, neutral.

Overall, the New Classical analysis of money's impact on the economy casts activist monetary policy in a very dim light. First of all, the New Classicals see the economy exhibiting a strong tendency toward full employment that makes it unnecessary for the monetary authority to focus on the level of economic activity. But even beyond that, attempts to conduct an activist policy do more harm than good. An expansionary policy

anticipated by the public simply creates instant inflation. If, as occasionally happens, the policy is not anticipated by the public, it affects output and employment essentially by tricking people into producing at a pace they would not have chosen if they were fully informed.

Given this perspective, the New Classicals' advice to policymakers is straightforward: do not try any surprise moves. Choose a simple money growth plan consistent with your inflation goals. Announce the plan far enough in advance to allow markets to react. Then just follow the plan.[4]

THE NEW KEYNESIANS' CASE FOR AN ACTIVIST POLICY

The New Keynesians don't see things quite the way the New Classicals do. The New Keynesians see an economy in which firms face only limited competition. These imperfectly competitive firms restrict their output to keep prices high and respond only partially to shifting demand conditions. As a result, the economy shows the tendencies toward underemployment and price "stickiness" that are very much a part of the traditional Keynesian perspective. The New Keynesians believe that in this world, regardless of how people form their expectations, monetary policy can and should be used to expand the level of economic activity.

Without strict market discipline, firms are less likely to achieve maximum economic efficiency. The difference between the Classical competitive firm and the imperfectly competitive firm is simple: the competitive firm must take the market price of its product as a given, whereas the imperfect competitor has the power to set price to its own advantage. And the right price structure for the imperfect competitor is not necessarily best for the overall economy.

In the competitive market, each firm is small and its output is nothing special. So its decision about how much to supply has no appreciable impact on the market price. If Farmer Jones decided to withhold some of his wheat from the market, how far could he drive up the price of wheat? If he tried to charge extra for Farmer Jones Wheat, who would pay the premium? No one.

Imperfect competitors have larger operations. Their product may have some special characteristic—real or imagined—that differentiates it in the mind of consumers. For these firms, size or special niche gives them some power over the price of their products. If General Mills were willing to cut its supply of breakfast cereal, cereal prices would rise. And if it decides to increase the price of Wheaties, some people would be willing to pay the premium.

In short, the imperfectly competitive firm has some advantage that frees its pricing structure from the strict discipline of the market. Of course, the firm is still subject to the Law of Demand: the higher the price it sets, the fewer units it will sell. So it must choose between setting a high price and selling to a limited number of customers, or

setting a low price and grabbing the lion's share of the market. But one thing is for sure: it will not set as low a price as a Classical competitive market would establish. It will always find it profitable to set a higher price and maintain it by keeping output below competitive levels.

Exercising market power may make individual firms more profitable, but it imposes costs on society as a whole. From the social standpoint, imperfect competitors' prices are too high and their production is too low. Society would be better off if these firms would cut their prices to levels more consistent with resource costs. This would expand sales, production, and employment to more socially desirable levels.

Neither the notion of imperfect competition nor its impact on social welfare are original to the New Keynesians.[5] But the analysis offers them a rationale for their belief that the economy tends to underemployment. And it offers them something more—a jumping-off point for a new theory of how monetary policy can help alleviate the problem.

The New Keynesians believe monetary policy can work on imperfect competitors. Traditional theories of imperfect competition can explain underemployment, but they cannot explain why monetary policy should be effective in combating it. As long as prices and wages respond flexibly, the monetary authority is still powerless to affect firms' output and employment decisions. But the New Keynesians add a new wrinkle to the theory of imperfect competition: imperfectly competitive firms' prices are not as flexible as competitively established market prices. So real activity may respond to monetary policy actions.

In the Classical world, competitive markets adjust prices quickly and completely to every shift in economic conditions. In a world of imperfect competition, firms must set prices. When demand shifts are relatively small, these firms may not find changing prices worthwhile. It may be more profitable to maintain current prices and adjust production accordingly.

Economists have labeled the costs firms bear when they change their product prices "menu costs." That name captures the most obvious cost of repricing: printing new menus and catalogs and changing price tags and signs. But there are other costs as well. To find the new profit-maximizing price, the firm must estimate the likely nature, magnitude, and duration of the shift in customer demand. That kind of research and analysis uses up resources. In addition, frequent price changes may alienate customers and cost the firm some of its good will.

It's difficult to say how large menu costs are. It may seem that, as a practical matter, the cost of changing prices ought to be relatively small. But the New Keynesians emphasize that the benefits to changing prices can be small for imperfect competitors, too. So even small menu costs can thwart a price change.

When the demand for an imperfect competitor's product increases, the firm can respond in any number of ways. At one

extreme, it can take the opportunity to raise its prices without losing sales. At the other extreme, it can hold the line on prices and take the opportunity to pick up sales volume. If the demand shift that the firm is experiencing is large, then choosing the right strategy can have a substantial impact on profits. But if the demand shift is relatively small, there is little advantage to choosing one over the other. A firm that simply maintains its original prices will not get as much as it could on each unit, but it will sell more units. So its profits will not be substantially compromised.[6] Once menu costs—even small ones—enter the equation, they can tip the scales in favor of maintaining current prices. Thus the profit-maximizing imperfect competitor may choose to accommodate a small demand shift without changing the price of its product.

This tendency for prices to be sticky in an imperfectly competitive environment affords the central bank some opportunity to influence overall output and employment. Suppose the central bank increases the money supply and thereby boosts overall demand for goods and services. Further suppose that individual firms decide that the demand increase is too small to make a price adjustment profitable. Instead, they decide to hold the line on prices and fully accommodate the increased demand for their products. In order to increase their output, they begin to hire more workers. So both output and employment pick up. Meanwhile, since product prices are not rising, workers are not demanding an inflation adjustment to their wages, so both wages and prices remain relatively constant.[7]

The New Keynesians recognize that the central bank's ability to raise output and employment in this way is circumscribed. If monetary policy actions create too large a demand shift, firms are more likely to raise prices than increase output. Furthermore, every firm faces different demand conditions and menu costs. Some will have lower thresholds for changing prices than others. So almost any policy action is likely to affect aggregate prices as well as aggregate output. In short, the New Keynesians acknowledge that a central bank cannot engineer dramatic or persistent increases in output and employment without driving up prices and wages. Nonetheless, New Keynesian analysis suggests that an activist policy can be successful, if used judiciously.

Overall, the New Keynesians see the potential for an activist monetary policy to improve the performance of an imperfectly competitive economy. Monetary policy may not be a cure-all, but it can help offset what New Keynesians see as the economy's chronic bias toward underproduction and underemployment in modern, imperfectly competitive economies.

Add to this underlying bias the fact that the economy is subject to sudden shifts in overall demand, and the New Keynesians' case for an activist monetary policy seems even stronger. For if price stickiness accentuates the impact of monetary policy on economic activity, it also accentuates the impact of other demand shifts as well. Thus a

sudden decline in overall demand could drop the economy well below its potential level of performance. This suggests that monetary policymakers should be alert to these shifts and stand ready to offset them.[8]

WHO'S RIGHT?

Both the New Classicals and the New Keynesians offer explanations for monetary policy's impact on the economy. But the New Keynesian approach certainly casts activist monetary policy in a more positive light. Which explanation should we believe? One way to evaluate competing theories is to "let the data decide." But at this point, empirical tests do not provide a clear answer.

The New Classical theory has been around longer and been subjected to more empirical study. The results are not favorable to the hard-line New Classical view that only unexpected policy actions affect real activity. Statistical analyses seem to show output and employment responding to anticipated policy actions too. But, ironically enough, these kinds of results have prompted some New Classicals to support a theory that attributes even less potency to monetary policy actions: the *real business cycle* theory. According to this theory, monetary policy never causes fluctuations in economic activity. Rather, anticipated fluctuations in the economy cause the public to increase or decrease their demand for money. The central bank and financial system simply accommodate these demand fluctuations.[9]

The New Keynesian theory is relatively new, and empirical evidence is scantier. There is some supportive evidence, however. In countries where inflation is relatively low, which would suggest that expansionary monetary policies have not been pursued too aggressively, policy shifts seem to have more impact on real activity—as the New Keynesians would predict. But tests of the New Keynesian model are really in too early a stage to provide a convincing case one way or another.[10]

Empirical issues aside, there are unsettling aspects to both the New Classical and the New Keynesian models. Perhaps the most unsettling theoretical aspects have to do with the functioning of the labor market. Both groups admit they have trouble explaining why monetary policy actions that affect output have such a large effect on employment and such a small effect on wages. According to the New Classical theory, an unexpected increase in product demand induces firms to produce more because it pushes the product price up before wages have had a chance to rise in response. But firms need more workers in order to expand production. Won't that increased demand for labor itself push up wages?

The New Classicals' answer: some, but not much. True to their Classical perspective, they maintain that labor markets are competitive. They simply assume that labor supply is very sensitive to wage changes. Thus when labor demand increases, it evokes many more hours of work at only a slightly higher wage. The problem is that, as a

practical matter, willingness to work does not seem to be all that sensitive to wage changes.

New Keynesians face a similar conundrum. According to them, when firms face a small increase in product demand, they hold the line on prices and expand output. Again, to expand output, firms need more workers. Granted, product prices are not increasing, so there is no inflation pressure on wages. But won't firms have to raise the wage they pay in order to induce more people to work? The New Keynesians' answer is no. True to the Keynesian tradition, they claim that there is a pool of involuntarily unemployed workers from which firms can always draw workers at the going wage. But to explain the involuntary unemployment, they must resort to some unconventional theories of the labor market.

Imperfectly competitive firms charge high prices, which restricts both output and employment. Nonetheless, the New Keynesians claim, these firms tend to pay the people they do employ relatively high wages. Different economists offer different reasons for this tendency. Proponents of the "efficiency wage" theory emphasize that by paying workers more than they would expect to earn if they had to go look elsewhere for a new job, the firm gives the worker the incentive to perform more effectively. Proponents of the "insider/outsider" theory emphasize that employees whose experience on the job is valuable to the firm can exact wage concessions from the firm. In either case, with wages high and employment opportunities limited, there is routinely a pool of willing workers unable to get jobs. Whenever firms want to expand output, they can tap this pool for workers without increasing the wage they pay.[11]

In short, both the New Classicals and the New Keynesians have a long way to go before either can proclaim their approach to be theoretically complete.

THE ACTIVIST POLICY DEBATE RENEWED

When the New Classical economics came on the scene in the early 1970s, it jolted academic economists and policymakers as well. The New Classicals were trying to explain precisely why monetary policy actions affect real activity. They concluded that money temporarily affects output and employment by tricking people into deviating from their preferred activity levels. This conclusion hardly cast activist monetary policy in the most favorable light, but there was little theoreticians could offer in rebuttal.

Now the New Keynesian school is offering an alternative explanation for money's impact on economic activity. That analysis, based on theories of imperfect competition, looks more favorably on activist monetary policy. The New Keynesians conclude that the economy tends toward underemployment and that an activist policy can help overcome the problem.

The New Keynesians can hardly claim to have overcome the New Classical paradigm. But they have reinvigorated the battle over the efficacy of an activist monetary policy.

ENDNOTES

1..To see this, suppose that initially bread costs $1 and workers earn $6 an hour, making a loaf of bread worth 10 minutes' work. If both prices and wages double, bread goes to $2 and wages go to $12, but a loaf of bread still trades for 10 minutes' work.

2..Thomas Sargent and Neil Wallace, in their article "'Rational' Expectations, the Optimal Monetary Instrument and the Optimal Money Supply Rule," *Journal of Political Economy* (April 1975) pp. 241-54, present a clear statement of the New Classical notion that expected monetary policy actions have no effect on economic activity.

3..Analyses stressing the role of wage contracts in limiting short-run wage flexibility can be found in Stanley Fischer's "Long-Term Contracts, Rational Expectations, and the Optimal Money Supply Rule," *Journal of Political Economy* (February 1977) pp. 191-205, and John Taylor's "Aggregate Dynamics and Staggered Contracts," *Journal of Political Economy* (1980) pp. 1-24. The idea that wages adjust imperfectly because workers are not completely aware of current product prices is more consistent with the original New Classical formulation by Robert Lucas in "Some International Evidence on Output-Inflation Tradeoffs," *American Economic Review* (June 1973) pp.326-34.

4..The New Classical argument for this approach to monetary policy has most recently been articulated by Bennett McCallum in *Monetary Economics: Theory and Policy* (Macmillan, 1989).

5..The term "imperfect competition" is used here as a convenient expression for "monopolistic competition" a market model that can be traced back to the work of E.H. Chamberlin in the 1930's. Texts such as Paul Samuelson's *Economics* (McGraw-Hill) provide readable discussions of this market type.

6..This idea is sometimes called the PAYM insight because it emerged from the work of economists Michael Parkin, George Akerlof, Janet Yellen, and N. Gregory Mankiw. Specific references are to Parkin's "The Output-Inflation Tradeoff When Prices Are Costly to Change," *Journal of Political Economy* (1986) pp.200-24; Akerlof and Yellen's "Can Small Deviations From Rationality Make Significant Differences to Economic Equilibria?" *American Economic Review* (September 1985) pp.708-21; and Mankiw's "Small Menu Costs and Large Business Cycles: A Macroeconomic Model of Monopoly," *Quarterly Journal of Economics* (May 1985) pp.529-37.

7..Olivier Blanchard and Nobuhiro Kiyotaki develop this argument formally in "Monopolistic Competition and the Effects of Aggregate Demand," *American Economic Review* (September 1987) pp.647-66.

8..Prospects for this kind of policy get some theoretical support in Lars Svensson's "Sticky Goods Prices, Flexible Asset Prices, Monopolistic Competition, and Monetary Policy," *Review of Economic Studies* (1986) pp.385-405.

9..Frederic Mishkin provides a more complete discussion of the evidence on the New Classical hypothesis in *A Rational Expectations Approach to Macroeconometrics* (University of Chicago Press, 1983). For a good discussion of the real business cycle view and its monetary policy implications, see "Monetary Policy with a New View of Potential GNP," by John Boschen and Leonard Mills, this *Business Review* (June/July 1990) pp.3-10.

10..This New Keynesian result is presented by Laurence Ball, N. Gregory Mankiw, and David Romer in "The New Keynesian Economics and the Output-Inflation Trade-Off," *Brookings Papers on Economic Activity* (1988:1) pp.1-65. For an up-to-date discussion of the empirical evidence on the New Keynesian economics, as well as a good evaluation of its theoretical underpinnings, see Robert Gordon, "What Is New Keynesian Economics?" *Journal of Economic Literature* (September 1990) pp.1115-71.

11..Lawrence Katz provides an excellent overview of these modern labor market theories in "Some Recent Developments in Labor Economics and Their Implications for Macroeconomics," *Journal of Money, Credit, and Banking* (August 1988, Part 2) pp.507-30.