

Efficient Disinflationary Policies

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The combination of exceptionally high inflation rates and unemployment rates has confronted *U.S.* policymakers with an unprecedented dilemma during the current expansion. They have responded with a compromise of sorts, aiming to achieve a gradual recovery in which unemployment rates inch back down to equilibrium over a prolonged period. I shall discuss the logic of the gradual-recovery strategy, and will outline an alternative, more efficient strategy of disinflation.

I. The Welfare Economics of Gradual Recovery

The gradual-recovery strategy has been enunciated by both the Ford and Carter Administrations. In January 1976, after the initial inventory snapback from the severe recession and with an unemployment rate of essentially 8 percent, the Ford economists drew a path to a 5.2 percent unemployment rate in 1980. Unemployment was thus to decline by 0.6 percentage point per year. This remains, more or less, the target path of the Carter Administration today. To me, it translates into a growth rate of real *GNP* of approximately 5.5 percent, taking 3.75 percent as the growth of potential *GNP* and assuming that a decline of 1 percentage point in unemployment is associated with 3 percentage points of extra real *GNP* relative to potential.

A hypothetical alternative strategy of strong recovery might have aimed at, perhaps, 7 percent growth of real *GNP*, and a decline in the unemployment rate of 1.1 percentage points a year, reaching the ultimate 5.2 percent in mid-1978. From 1976 to mid-1980, cumulative output along the gradual-recovery path is below that of the strong recovery path by about 10.5 percent of a year's *GNP*—a price tag of about \$200

billion—ignoring the compound effects of the loss of physical and human capital. Similarly, the cumulated difference over the five-year period in the annual unemployment rate is 3.5 percentage points or "point years." The policymakers apparently judge that those costs of maintained slack are outweighed by its anti-inflationary benefits.

What is the disinflationary gain from the less rapid recovery? To evaluate this issue, I inspected six macroeconomic Phillips curves of recent vintage. (See Robert J. Gordon, Figure 3, p. 273; Robert Hall, Table 5, p. 378; Franco Modigliani and Lucas Papademos, Table 1, equation (1), p. 150; George Perry, Table 2, p. 416; James Pierce and Jared Enzler, equation 3, p. 19; Michael Wachter, Table 7, p. 146. Details of the calculations are available on request from the author.) While they are essentially accelerationist, implying no long-run tradeoff between inflation and unemployment, they all point to a very costly short-run tradeoff. For an extra percentage point of unemployment maintained for a year, the estimated reduction in the ultimate inflation rate at equilibrium unemployment ranges between one-sixth and one-half of 1 percentage point, with an average estimate of 0.3. Or, to put it another way, the average estimate of the cost of a 1 point reduction in the basic inflation rate is 10 percent of a year's *GNP*, with a range of 6 percent to 18 percent. The extra 3.5 point years of unemployment and the sacrificed \$200 billion of output buys, according to these estimates, a reduction of between 0.6 and 1.8 points in the basic inflation rate for the 1980's.

II. The Costs of Anticipated Inflation

Is it worth paying \$200 billion for 1 point or even 2 points of reduced inflation? I shall offer two contrasting answers to that question. On the standard view that anticipated

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(i.e., correctly predicted) inflation imposes no major social welfare costs, it is not worth anything approaching \$200 billion.

In the standard formulation, an anticipated inflation rate of 6 percent is worse than a rate of 4 percent in only one respect: the extra resource cost of economizing on demand deposits and currency that bear zero interest in a world of higher nominal interest rates. And that welfare cost is trivial—surely not more than \$1 billion a year.¹

The view that the welfare costs of anticipated inflation are negligible is shared by some economists of various persuasions, but it is a central implication of the accelerationist-rational expectations school. In that model, a higher rate of anticipated inflation cannot raise output or employment, because economic behavior adjusts to it. Thus, it cannot do any good. But by the same token, since economic behavior does adjust to it, it cannot do any harm!

Of course, unanticipated inflation—any positive or negative deviation between the expected and realized inflation rate—has substantial welfare costs in these formulations. However it is a factual matter that inflation has been accurately predicted in 1976–77 by a broad consensus of professional forecasters, as well as by the bond market.

My own answer is different because I cannot accept the standard view. Contrary to its implications, people are disturbed by a high rate of anticipated inflation. After two years of well-predicted 6 percent rates of price increase, a majority of Americans name inflation as Public Enemy No. 1 repeatedly in opinion surveys. The American public cannot readily speculate, hedge, or arbitrage on inflation. Only a small percentage of workers have obtained effective escalator clauses on their in-

comes. Asset markets have not offered savers and investors a good hedge against inflation in the past dozen years—except for the illiquid and lumpy single-family home. Indeed, the most popular savings-type assets are yielding a negative before-tax real interest rate.

The specific ways in which people get hurt by inflation, even when they are not surprised by it, should be viewed in a broader context. Inflation disturbs an important set of institutions that economize on information, prediction, and transactions costs through ongoing buyer-seller relationships—what I have called customer product markets and career labor markets (1975). The bilateral monopoly surplus that develops in the interdependent economic relationships is preserved by accepted price or wage standards—implicit and explicit contracts, conventions, and habits—which are framed in currency units. These standards can adapt only slowly and painfully to inflation or slack. As a twin result, the short-run Phillips curve is remarkably flat, and even anticipated inflation is exceedingly costly.

I cannot hope here to win converts to this minority position on the welfare costs of inflation, which Sir John Hicks and I have taken, and which is consistent with the views Gardner Ackley presents persuasively elsewhere in this volume. But I would insist that every economist needs *some* rational explanation of why the current well-anticipated inflation is so disturbing to the public.

III. Slack as Insurance against Accelerating Inflation

Even those who deny the costs of anticipated inflation might espouse gradual recovery as a means of avoiding accelerated and unanticipated inflation if they saw much risk that a strong recovery would, in fact, raise the inflation rate well above 6 percent. But here again the standard formulation of a “natural” unemployment rate (or *NAIRU*) is reassuring, predicting that inflation will decelerate so long

¹Suppose the elasticity of demand for M_1 with respect to nominal short-term interest rates is as high in absolute value as 0.3; then an interest rate of 8 percent, compared with 7 percent, would lower real money demand by 4 percent, or roughly \$13 billion. The resource cost of more trips to the bank associated with that \$13 billion differential might be about 7.5 percent of it, or nearly \$1 billion.

as the unemployment rate remains above its equilibrium.

Unfortunately, history points to a less comforting verdict. Inflation has generally slowed or been reversed during recessions and the initial half-year (or perhaps year) of recovery. Beyond that, however, periods in which unemployment declined but remained above equilibrium have not typically witnessed decelerating inflation—not in 1933–37, nor in 1940–41, nor in 1961–64. (New Deal price-wage-cost policies simply cannot explain the paradox of the mid-1930's. Prices fell again in 1938–39 in response to recession, although the unemployment rate was lower than in 1934–35.)

The overall inflation rate, I submit, averages quick and slow responses to excess supply or demand. Auction product markets and casual labor markets respond very promptly. For example, wholesale prices of sensitive industrial materials fell 15 percent between May 1974 and March 1975, and then began rising. Such sectors add to inflation once the *GNP* gap starts narrowing, countering the lingering downward pressure on inflation from the customer and career sectors. Econometric Phillips curves that include as a variable the recent *change* in the *GNP* gap or in the unemployment rate illustrate this result. For example, Gordon finds that a 1 point *reduction* in the *GNP* gap adds as much to wage inflation as a gap *level* of 2.5 points subtracts from it (see his Table 3, column (8), p. 266).

The view that a full and strong recovery will not court additional inflation is optimistic in the light of history and especially optimistic in the present context of continued institutional adaptations to past inflation, rising relative prices of energy, and significant cost-raising measures taken by the government.

IV. The Cost-Reducing Strategy

In short, I believe it is important both to lower the current inflation rate and to ensure against a higher rate in 1978–79. Thus in my view—unlike the standard view—the strategy of maintaining slack is

not absurd. But it is inefficient. The efficient technique uses the direct influence of public policy on costs.

The basic analytics of the cost-reducing strategy can be seen in a simple accelerationist model in which the rate of increase of wages w in the current year depends on (a) the rate of price inflation p , of the last two years with coefficients summing to unity, and (b) the current rate of unemployment U . Those wage increases, in turn, feed into price increases fully with no lag. Thus,

$$(1) \quad w_t = \alpha p_{t-1} + (1 - \alpha)p_{t-2} + f(U_t)$$

where $0 < \alpha < 1$

$$(2) \quad p_t = w_t$$

Now, suppose that equation (2) is disturbed by the introduction of a 1 percent subsidy on all items in the *GNP*, and that other fiscal and monetary actions are taken to hold the previously expected rate of unemployment. In the initial year, p will be pushed down by 1 percentage point (assuming, plausibly, full forward shifting of the subsidy). As a result, in the next year, w is lower by α . Since the second-order difference equation is dominated by a root of unity, both p and w are ultimately reduced by $1/(2 - \alpha)$ —a number somewhere between 0.5 and 1.0 (in percentage points). In this model, the 1 percentage point subsidy, enacted on a permanent basis, reduces the basic inflation rate about as much as two point years of extra unemployment does in the Phillips curve estimates cited above.

The hypothetical subsidy illustrates the character of cost reduction. Reductions in federal payroll taxes levied on employers and in state and local sales taxes are the closest analogies in the actual fiscal system. The cost-reducing strategy can also be pursued by subsidizing consumer goods with elastic supplies and inelastic demands, by designing farm-income supports that do not raise prices, by maintaining free access of imports, by bolstering the exchange rate of the dollar, and by relying on wage subsidies rather than minimum wages to aid low-income workers.

The simplified model exaggerates the disinflationary effectiveness of cuts in indirect taxes, relative to that of unemployment, through one of its features—the assumption that the feedback onto wages comes entirely from prices rather than from other wages as well. Any wage-wage feedback dilutes the effectiveness of cuts in indirect taxes, but does not alter that of higher unemployment. The wage-wage view is supported empirically by the 1973–74 experience, in which exploding fuel and food prices apparently did not add a great deal to U.S. wages, contrary to what a price-wage view would have predicted.

Suppose that, to allow for both wage-wage and price-wage feedbacks, equation (1) is replaced by

$$(3) \quad w_t = \beta w_{t-1} + \alpha' p_{t-1} + (1 - \alpha' - \beta) p_{t-2} + f(U_t)$$

Here, for the same permanent subsidy of 1 percentage point, the ultimate reduction in the inflation rate is $(1 - \beta)/(2 - \alpha' - \beta)$. In a process that is half wage-wage ($\beta = 0.5$), cuts in indirect taxes are, roughly speaking, one-third less effective than they are in a process that is purely price-wage. Obviously, if the feedback is entirely wage-wage ($\beta = 1$), then shocks that impinge directly on the price level have no lasting effect on inflation rates.

Thus, if the feedback process is mainly wage-wage, the cost-reducing strategy must get a direct handle on wage increases. Any wage-wage feedback must reflect a focus on *relative* wages. However relative wages cannot be altered by policy measures that raise disposable wage income generally, such as across-the-board wage subsidies or cuts in payroll taxes levied on employees. According to empirical investigations for the United States, cuts in the personal income tax do not slow wages, although that finding is questioned by some studies of other countries. Paradoxically, no general measure can break the wage-wage spiral in the same way that cuts in indirect taxes can break the price-wage spiral.

To break the wage-wage spiral, one must turn to penalties and incentives that alter

the process of wage emulation. That is the basic analytical justification for various proposals that Henry Wallich and Sidney Weintraub, Abba Lerner, Laurence Seidman, and the author (1974, 1977) have advanced to slow down wage increases. Individual discretionary wage decisions have huge macro externalities. As the Phillips curve estimates suggest, an autonomous downward shift in the wage equation that produces a hold-down in wages of \$1 permits an increase of roughly \$6 in output, holding the inflation rate constant. In a sense, the social benefit of wage restraint in a slack economy is something like six times the size of the nominal gains forgone by the workers. No advocate of Pareto optimality should pass up such an opportunity for a deal!

So long as the link from wages to prices in the feedback (equation (2)) is reliable, a successful wage-slowness policy will reduce inflation. It is just as effective in a pure price-wage feedback system (like equation (1)) as in a wage-wage system. Finally, the implementation of any credible cost-reducing strategy should have additional favorable effects by lowering the inflationary expectations of well-informed observers, whose actions will then help to bring about the disinflation all the sooner.

All of the cost-reducing proposals are unconventional and unproven; many are inelegant and raise serious administrative problems. Those affecting wages ask business and labor to depart from their established patterns for maintaining career employment relationships. They introduce new elements into public finance choices that are already perplexing. But these difficulties should be weighed against the greatest inefficiency in our society—the waste of idle resources and the sacrifice of living standards and capital formation from maintained slack. The pursuit of efficiency calls for a major effort by the economics profession to design better disinflationary policies.

When the economy is plagued by inadequate or excessive demand, policy-makers—sooner or later—apply the fiscal and monetary remedies that economists

have developed. The use of those remedies contributed mightily to the success story of the American economy in the 1950's and 1960's—a record of growth and stability unmatched in previous history, despite the inappropriate fiscal and monetary policies of two wartime periods.

In the 1970's, however, a new syndrome has emerged for which stimulus alone or restraint alone is not an efficient cure. A prolonged period of excess demand and upward cost shocks brought on the disease of inflationary momentum in our wage-price-wage feedback system. The cost-reducing strategy can cure that present problem efficiently, and it belongs on our shelf of countercyclical remedies for use whenever it is needed.

REFERENCES

- R. J. Gordon, "Can the Inflation of the 1970s Be Explained?," *Brookings Papers*, Washington 1977, 1, 253-77.
- R. E. Hall, "The Process of Inflation in the Labor Market," *Brookings Papers*, Washington 1974, 2, 343-93.
- John Hicks, *The Crisis in Keynesian Economics*, New York 1974.
- A. P. Lerner, "Stagflation—Its Cause and Cure," *Challenge*, Sept./Oct. 1977, 20, 14-19.
- F. Modigliani and L. Papademos, "Targets for Monetary Policy in the Coming Year," *Brookings Papers*, Washington 1975, 1, 141-63.
- A. M. Okun, "The Great Stagflation Swamp," *Challenge*, Nov./Dec. 1977, 20, 6-13.
- , "Incomes Inflation and the Policy Alternatives," in *The Economists' Conference on Inflation: Report*, Vol. 1, Washington 1974, 365-75.
- , "Inflation: Its Mechanics and Welfare Costs," *Brookings Papers*, Washington 1975, 2, 351-90.
- G. L. Perry, "Determinants of Wage Inflation around the World," *Brookings Papers*, Washington 1975, 2, 403-35.
- J. L. Pierce and J. J. Enzler, "The Effects of External Inflationary Shocks," *Brookings Papers*, Washington 1974, 1, 13-54.
- L. S. Seidman, "A New Approach to the Control of Inflation," *Challenge*, July/Aug. 1976, 19, 39-43.
- M. L. Wachter, "The Changing Cyclical Responsiveness of Wage Inflation," *Brookings Papers*, Washington 1976, 1, 115-59.
- H. C. Wallich and S. Weintraub, "A Tax-Based Incomes Policy," *J. Econ. Issues*, June 1971, 5, 1-19.