

*Comments and Discussion:
The Fellner, Okun,
and Gordon Reports*

James Tobin: It is certainly desirable to find tests of the accelerationist hypothesis. The usual test is the value of the coefficient of “expected inflation,” for which the proxy is lagged inflation, in a regression explaining money-wage inflation. Professor Fellner’s interest in a more direct test is understandable. But, as he is quite aware, simple correlations like his (2) and (4) are not decisive. The trouble is correlation (5), the positive association of ΔU and U . This leaves us uncertain whether observed acceleration is to be explained by ΔU in conventional Phillips nonaccelerationist terms. Further calculations are required.

Let me propose specifications for wage acceleration under Phillips and accelerationist assumptions:

$$(1) \quad g_w = f(U) + ag_p^e + bg_x$$

$$(2) \quad g_p = g_w - g_x$$

$$(3) \quad \dot{g}_p^e = c(g_p - g_p^e),$$

where

g_w = proportionate rate of increase of the money wage

g_p = proportionate rate of increase of the price level

g_p^e = expected rate of inflation

g_x = trend rate of growth of productivity.

The accelerationist hypothesis is that $a = 1$. The Phillips hypothesis is

that $a < 1$. If $a < 1$, differentiating (1) and then using equations (1) through (3) gives:

$$(4) \quad \dot{g}_w = f'(U)\dot{U} + cf(U) - c(1-a)g_w + c(b-a)g_x.$$

Another way of writing (4) comes from using the long-run steady rate of wage increase associated with any level of U , $g_w^*(U)$, where "long run" means $g_p = g_p^e$:

$$(5) \quad g_w^*(U) = \frac{f(U) - (a-b)g_x}{1-a}.$$

Using (5), (4) can be rewritten:

$$(4a) \quad \dot{g}_w = f'(U)\dot{U} + c(1-a)[g_w^*(U) - g_w].$$

In other words, wage acceleration depends on the rate of change of unemployment (inversely) and on the difference between equilibrium wage inflation for the prevailing unemployment and actual wage inflation (directly).

If $a = 1$, the natural rate of unemployment is U^* , such that

$$(6) \quad f(U^*) = (1-b)g_x,$$

and wage acceleration is given by

$$(7) \quad \dot{g}_w = f'(U)\dot{U} + c[f(U) - f(U^*)].$$

Under both hypotheses, as (4) and (7) show, wage acceleration depends on \dot{U} as well as U . Under the Phillips hypothesis but not the natural rate hypothesis, acceleration also depends on the actual rate of wage inflation. This implies a way of testing for acceleration empirically, although the data are unlikely to yield a conclusive answer.

When I read Arthur Okun's paper, I wondered whether we were living in the same country at the same period of time. At the end of the paper, he writes that "Americans should not be promised a steady and painless inflation, a new mirage offered in place of old myths about the safeguards of balanced budgets and balanced international accounts."

I have not heard anybody offering the country a steady and painless inflation. To the contrary, I have heard a barrage of propaganda and statements and maybe facts about what a terrible evil inflation is, and how it must be expunged from the country.

As I understand the substantive points in Okun's paper, he does not believe that the private economy, left to itself, has an expectations mechanism that produces acceleration. Nevertheless, he suggests, the same acceleration result may come about because of the responses of expectations, not to previous price movements, but to public policy.

I do not understand that, unless it is hitched to an asymmetry in public policy that I find unlikely. If public policy were firmly directed to the maintenance of 4 percent unemployment; and if, contrary to the beliefs of Fellner and other people, there is nothing in the private economy that produces acceleration of inflation at 4 percent unemployment; and if we knew what the expected value of inflation is at 4 percent unemployment; and if the government actually stuck to its unemployment target—assuming all this, we would have the ordinate of the Phillips curve at 4 percent unemployment as the average rate of inflation. Around this average, we would have such variability in the rate of inflation as comes from surprises up and down in the level of the Phillips curve, and from the failure of the government actually to succeed at every moment of time in maintaining 4 percent unemployment.

Okun gets acceleration only because, in his political theory, the government would take advantage of every favorable surprise in the Phillips curve to reduce unemployment but would not symmetrically increase unemployment when there are unfavorable surprises. Sticking with an unemployment target through thick and thin is not itself accelerationist.

That inflationary expectations have in years past been influenced by government policy cannot be doubted. And if people now believe that government policy will aim, on average, for lower unemployment than in the past, naturally they expect the higher rate of inflation that would be associated with that aim. But that is not the same thing as Okun's asymmetry that leads to acceleration.

The other thing that may be new about today's inflationary expectations is that we may have been wrong in the past about the rate of inflation associated with any level of unemployment. So, as they received this unfavorable news, people have had to revise their inflationary expectations upward.

The historical record does not seem to support a generalization that we have been so soft on inflation and so committed to low unemployment in this country as to produce the kind of asymmetry in policy that Okun refers to. If that were so, I do not see how the President could keep repeating that we never have full employment in peacetime. Certainly, over the years, un-

employment rates have averaged above the level that people have regarded as full employment.

Finally, I do not quite appreciate the significance of the greater variability of inflation with higher average inflation rates. What is so terrible about greater variability? I am willing to protect against it with the proper purchasing-power assets.

Saul Hymans: In contrast with the papers presented at earlier meetings by R. J. Gordon and George Perry, which supported the existence of a stable inflation-unemployment tradeoff, this set of papers, as a whole, lends more support to the accelerating inflation hypothesis.

In his paper, Arthur Okun asserts that the inflation rate may tend to accelerate over the long run, not because of any accelerationist mechanism in the private economy, but simply because of the strategy of public policy. But I would argue that, if the inflation rate actually accelerates when the government shifts its tolerance to a higher inflation rate, it must be precisely because there is an accelerationist tendency in the private economy. Only the government's prior stance against a high inflation rate could have prevented the accelerationist outcome.

I suspect recent actual experience has altered economists' views of whether the accelerationist model is correct. Until the rate of wage inflation proved so stubborn as to continue to increase despite a rising unemployment rate, many good professionals found grounds for rejecting what I find to be a most compelling piece of neat theorizing, namely, that the elasticity of wage changes with respect to expected price inflation should be unity. Surely a unitary elasticity seems eminently reasonable. Why should the representative wage earner modeled in an aggregate wage equation even bother to have an expectation about inflation if he would not act rationally with respect to it? And why should not employers be willing to grant the full expected inflation premium if any resulting increase in unit labor cost can be passed on as a price increase?

Furthermore, is there any reason to suppose that the expected rate of price inflation would not either be equal to the actual rate of inflation or depend on the rate of change of the actual rate? Taken together with a unitary elasticity of wage changes with respect to the expected inflation rate, either one of those ways of generating inflationary expectations gives an accelerationist outcome.

I would come to a somewhat different conclusion with a model that might also shed light on why empirical studies are hard to interpret. Suppose that

the wage determination mechanism of the Phillips hypothesis simply does not apply in an imperfectly competitive economy in which the settlements made by strong unions set the pattern for all wage changes. Instead, wage increases are simply equal to the sum of a consensus productivity standard and the expected rate of inflation. No measure of market tightness or excess demand appears at all in the structural wage equation of this model.

If it then turns out that the inverse of some appropriately defined unemployment rate or other labor market variable seems to work in a wage equation, it must be because it is a determinant, or a proxy determinant, of the unobservable expected rate of inflation that enters wage decisions. If the actual rate of inflation appears in the wage equation with a coefficient below unity, it must be because a change in the inflation rate per se is not expected to reproduce itself, regardless of the general state of excess demand in labor and other markets.

This represents a far more complex expectation mechanism than is usually offered. And it has important special implications for policy. In simplest terms, an expectations mechanism of the kind I am suggesting gives rise to a range of natural unemployment rates rather than a single one. That is, there is a range of unemployment rates within which a stable tradeoff exists at sufficiently low rates of excess demand or factor utilization. In this range, the expected rate of inflation will fall short of the actual rate, thus yielding a stable tradeoff relation.

At some point, as demand or utilization pressures increase, the expected rate of inflation will be driven up to the actual rate and from that point on, if utilization pressures are not relieved, the inflation rate will accelerate. The economy may have reached that point by 1969, and it is likely that such a threshold corresponds to greater utilization of resources than is currently implied by the now fashionable 5 percent natural unemployment rate figure.

If this is at all reasonable, it would imply that, because in existing wage equations the demand pressure variables that really represented price expectations were related only to labor markets, they failed to account for price expectations in the selective recession of 1971 as well as they had up to the 1969–70 period.

General Discussion

Several participants discussed the question of whether a higher average inflation rate would be associated with a more variable inflation rate. Okun

was not dissuaded by Gordon's argument that the correlation between mean and variance for the inflation experience of various countries was cut in half if only the years since 1960 were considered. He argued that this was a period of unusually low world-wide inflation, yet the correlation remained distinct even if not statistically significant by standard tests. Thomas Juster agreed that more inflation would also mean a more variable rate of inflation and argued that this had important social welfare implications. The poorest, least educated members of society would inevitably be the most hurt by the variability since they are the least able to adjust to it. The gains and losses imposed by variable inflation rates would thus be distributed in a highly inequitable way. Fellner reasoned that the high variability was associated with stop-go stabilization policies. For the United States, this would mean that a tolerance of more inflation would produce a more variable unemployment rate. R. J. Gordon, however, reiterated his intention to tolerate more inflation precisely for the purpose of stabilizing the unemployment rate.

Charles Holt disagreed with Gordon's assumption that the economy was fully adjusted to recent rates of inflation. For full adjustment it was not enough for bond rates to rise and government transfer programs to escalate; many other public and private institutions had to be altered, and this took a long time. He also noted that all cushions against inflation were not automatically destabilizing, as Okun had implied. To the extent that they transferred purchasing power from one part of the private sector to another, rather than from the government to the private sector, they need not be. Warren Smith emphasized the need for purchasing-power bonds as a protection against inflation, even if the nation does not adopt a high target for the inflation rate.

On the question of whether the economy really was accelerationist, the participants agreed that existing empirical models had not proven the case one way or the other. Juster noted that empirical models assumed inflationary expectations were revised in a standard way as actual experience deviated from previous expectations. He thought that the form of this adaptive model that was appropriate when deviations occurred randomly would not be appropriate when deviations were consistently on one side, as he believed they were in the late 1960s. William Poole cited a model in which inflation had to exceed a threshold level before it influenced expectations. In this model, the weight given to actual past inflation in forming inflationary expectations depends on the proportion of recent quarters in

which the inflation rate had exceeded some minimum amount. Okun emphasized that his view of the inflation problem, which did not accept the private economy as inherently accelerationist, did not lead him to approve a high unemployment policy. Shifting the inflation-unemployment relation in a favorable direction was for him the important task for policy, and a high employment economy helps accomplish this task by reducing artificial barriers to employment and improving the skills and mobility of the work force. He supported the view in Perry's conclusion that present inflation rates have an important "habitual" component and that a strong incomes policy could be successful and should be used along with a policy to reduce unemployment.