It is interesting to contrast the approach taken by Blinder to that recently taken by Truman Bewley and Bill Brainard in asking firms about wage setting (Bewley and Brainard 1993). Bewley and Brainard also start from the idea that we can learn a lot from listening to firms. But in sharp contrast to Blinder, Bewley and Brainard act like psychoanalysts, remaining mostly silent as personnel officers explain what they do and why they do it. The picture which comes out is both rich and confusing. Whether and how the arguments used by firms relate to our theories of wage setting is often unclear. But what is clear is that the interviewees would not have felt at ease evaluating the relevance of our various theories of fairness, efficiency wages, and so on, had they been put to them as short statements.

**On Price Stickiness**

Macroeconomists have long believed in two stylized facts about price-setting by firms. The first is that, given factor costs, prices do not respond to demand shifts very much. The second is that most prices are not set continuously, leading to lags in the response of prices to their underlying determinants. In the 1980s, these two stylized facts have come to be known as “real rigidities” for the first, and “nominal rigidities” for the second. I am not sure the terminology is felicitous. But it is convenient, and I shall use it.

Both facts have been seen as contributing to the slow adjustment of the price level to movements in aggregate demand. But they have also been seen as requiring quite separate explanations. To explain the first, the weak effect of demand shifts on prices given factor prices, most of us have looked for explanations based on imperfect competition. The intellectual challenge here, and not a small one at that, has been perceived to be the development of a theory of imperfect competition which delivered such behavior. In contrast, explaining the second has appeared to most of us to be rather trivial: continuous price setting is obviously very costly. Rather, the challenge has been perceived to show how small lags at the microlevel may, through the interactions between the firms’ decisions, lead to large price-level inertia and large macroeconomic costs.

Obviously the dichotomy I have drawn between “real” and “nominal” rigidities is too sharp. Rather trivially, one can only have discrete price setting if there are price setters; there can be price setters only if they have at least transient monopoly power, thus if there is imperfect competition. Also, if firms decide not to change prices in response to demand shifts, then everything else being equal, there is one less reason to change prices, and thus prices will be changed less often. Or, to take yet another interaction, if fluctuations in demand are mean-reverting, then less frequent changes in prices will also mean a smaller average response of prices to demand. But while they interact, they are about two different phenomena.

This distinction is not made explicitly in the survey. Some of the theories are clearly about why prices may not respond to demand given factor prices,
and some are about why there may be lags in the response of nominal prices to their determinants. Roughly, theories B1, B4, B8, and B9 are primarily about nominal rigidities, the others primarily about real rigidities. Is it because the distinction is one which economists may see but firms would have had a hard time grasping? I do not think so. Real rigidities correspond to questions such as When you sit down to change prices, how do you take into account changes in demand and changes in factor prices? Do you react differently to changes in demand if they are industrywide or specific to your firm? Nominal rigidities correspond instead to questions such as How often do you change prices? Does this happen on regular dates, or is it triggered by events, such as large changes in factor prices? Do you change most prices at once? Do you try to get the price right now, or later when it is still fixed and inflation has taken place?

I think the survey pays a large cost as a result of not making this distinction. At the presentation stage, organizing theories along those two lines would have helped at least this reader to map the results to macro implications. But the cost is higher. Not making the distinction leads Blinder to ask what I think are incorrectly phrased questions, and thus get what are quite possibly misleading answers. A number of theories which are designed to explain why prices may respond little to demand shifts are phrased in terms of explaining a slow response rather than a lack of response. I shall take one example. Question B7 reads:

It has been suggested that many firms base prices on costs. Hence firms with constant variable costs per unit have no reason to change prices when production changes.

How important is this idea in explaining the speed of price adjustment in your company? (emphasis added)

Take a firm which uses a fixed markup rule and has constant variable costs. It may interpret the question as "How important is this idea in explaining why you do not change prices in response to demand?" and answer "Very important." But it may instead interpret the question literally and conclude that flat marginal cost has nothing to do with the speed of adjustment, and thus answer "Totally unimportant."

This point is more than nitpicking. Very surprisingly—at least given my priors—of those firms which declared to have roughly constant variable cost per unit, 73 percent turn out to answer "Totally unimportant" to the question. What do they have in mind? That markups are not constant, or that markups are constant but this has nothing to do with slow adjustment? This takes me to my third set of points.

On the Picture of Price-Setting Which Emerges

Together, the three top-ranked theories point to imperfectly competitive markets, in which (a) firms worry about the reaction of other firms to price changes ("coordination failures," ranked first); (b) firms rely on simple cost-based pricing rules, perhaps as coordination devices ("cost-based pricing with lags," ranked second); and, (c) partly in contradiction to the rationale for using simple price rules as coordination devices, goods have many attributes other than price that are adjusted in response to demand ("delivery lags," ranked third). This is a very interesting picture. But in each case one would like to know more.

Blinder emphasizes that he is looking for a particular kind of "coordination failure," one which can emerge even in markets with large numbers of firms. As he himself acknowledges, however, what firms have in mind when they answer "Very important" to that question is in fact unclear. He indicates that a number of firms appear to be thinking of a leader-follower relations. Thus I see those answers as confirming the notion that most firms worry very much about other firms' reactions, but as telling us little beyond that. The black box of short-run movements in prices in response to demand shifts in imperfectly competitive markets remains closed.

What firms mean by cost-based pricing also remains unclear. Do firms have more or less flat marginal cost? The answer to that question is clear. Only 11 percent of the firms report upward sloping marginal cost; the others report either flat or decreasing marginal cost. Do firms use more or less constant markups? Here there are conflicting answers. Of those reporting constant marginal cost, 73 percent dismiss that as "totally unimportant" in explaining the speed of price adjustment. I discussed earlier how we might interpret the answer. One interpretation is that firms do have highly variable markups. But this interpretation is contradicted by the answers to question B6, which describes cost-plus pricing, and finds substantial support among firms, being ranked second overall.

Nominal rigidities do not score high. Costs of adjustment of prices come in in sixth place. But, as I suggested earlier, this is probably as it should be, even if nominal rigidities are important. The theme of the research on nominal rigidities is that they appear to be relatively unimportant to individual price setters, yet they may cumulate to have large macro effects. This may be a case where asking firms is indeed not the way to go. And for the same reasons, namely since they see these aspects of price-setting as minor, asking them to compare the costs of adjusting quantities to those of adjusting prices may not elicit very useful answers.

Where the survey could have been more useful here would have been in asking such questions about whether firms tended to adjust prices at regular intervals, or in response to specific changes in the environment, whether firms adjusted the price to a level which was right at the time of price setting, or took into account future inflation and set the price higher as a result. We have learned that the answers to the first set of questions are of much importance in determining how individual price rigidities get amplified or eliminated in the aggregate. I have come to the conclusion that the answers to the second have important macro implications. If there is positive inflation, and if firms cor-
rectly anticipate that their real price will decline throughout the period during which it is set in nominal terms, they will choose a price which is too high today, but right on average. Average profit margins will be roughly invariant to inflation. If instead firms set prices so that they are right at the time of price-setting, then there will be a systematic inverse relation between profit margins and inflation. Recent work I have carried out on the evolution of profits in France suggests to me that some of the large increase in profit margins in France in the 1980s has come from this effect combined with the decrease in inflation (Blanchard and Muet 1993). If I am right, this is an important implication of nominal price-setting. This is clearly a case where we would learn much from asking firms.

References

5 What Determines the Sacrifice Ratio?
Laurence Ball

Disinflations are a major cause of recessions in modern economies—perhaps the dominant cause. In the United States, for example, recessions occurred in the early 1970s, mid-1970s, and early 1980s. Each of these downturns coincided with falling inflation caused by tight monetary policy (Romer and Romer 1989).

Is there an iron law that disinflation produces large output losses? Or can favorable circumstances and wise policies reduce or even eliminate these costs? Economists have suggested a wide range of answers to these questions. One traditional view is that disinflation is less expensive if it occurs slowly, so that wages and prices have time to adjust to tighter policy. An opposing view (Sargent 1983) is that quick disinflation can be inexpensive, because expectations adjust sharply. Some economists argue that disinflation is less costly if tight monetary policy is accompanied by incomes policies or other efforts to coordinate wage and price adjustment. Finally, a number of authors suggest features of the economic environment that affect the output-inflation trade-off, such as the initial level of inflation (Ball, Mankiw, and Romer 1988), the openness of the economy (Romer 1991), and the nature of labor contracts (Gordon 1982).

Despite this debate, there has been little systematic empirical work on these issues. The speed of disinflation, the nature of incomes policies, and so on...

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