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Stopping Hyperinflations

If there is a key to stopping runaway inflation, it may be found in history. NBER Research Associates **Rudiger Dornbusch** and **Stanley Fischer** examine four successful stabilizations from high inflation—Austria in 1922, Germany in 1923, Poland 1920–27, and Italy 1947—and find many common measures taken in those countries, but no single secret for success. In all but the Italian case, though, major reductions in budget deficits were essential, and the currency was devalued and pegged to gold or the dollar. In each case, foreign loans were in prospect or negotiated as part of the stabilization package. Surprisingly, rapid money growth continued after many of the stabilizations.

In **Stopping Hyperinflations Past and Present** (*NBER Working Paper No. 1810*) Dornbusch and Fischer compare these episodes with two current attempts to stem rapid inflation, in Israel and Argentina. Successful stabilizations typically start with a substantial devaluation of the currency, they observe, and then with fixing of the exchange rate. But exchange rate pegging is not sufficient to stabilize the inflation rate. In all but the Italian case, the government had tried at least once previously to stop inflation by fixing the exchange rate. Dornbusch and Fischer thus conclude that: "Exchange rate pegging may be a necessary condition for stabilization, but it is certainly not sufficient—as failed attempts at stabilization through exchange rate pegging in Germany, Austria, Poland, Israel, and Argentina establish."

The most important factor, everywhere but Italy, was a sharp reduction in the budget deficit. Typically, the deficit is swollen as rapid rates of inflation reduce the efficiency of the tax collection system;

growing deficits are financed by the printing of money, leading to even more rapid inflation. Therefore, there is a real fiscal bonus just from reducing the inflation rate, causing the efficiency of the tax system to increase rapidly.

While it is usually believed that the key to stopping inflation is a reduction in the growth rate of money, Dornbusch and Fischer argue that "perhaps the most overlooked lesson of the stabilizations is the need to print money after stabilizing. . . . Thus any policy package that makes a fetish out of limits on money growth to secure credibility is heading for trouble." The reason is that the demand for money increases rapidly after stabilization. During the hyperinflation, people try to hold as little money as possible, perhaps one-fifth to one-tenth of the normal amounts. Once stabilization takes place, people want to increase the share of money in their portfolios back to normal levels. With stable prices, this means that the money stock has to increase by a factor of as much as five to ten over the next year or few years.

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If the government places strict limits on the growth of the money supply, high real interest rates will result. Indeed, Dornbusch and Fischer find that real interest rates were extremely high after most of the

stabilizations, including the ongoing Israeli and Argentinian cases. If the government had strictly limited money growth, either it would have created a serious recession, or it would be forced to violate its proclaimed limits on money growth and thus the credibility of its anti-inflation program.

In several hyperinflations, the government imposed legal restrictions on the amount of money that could be issued and on the size of budget deficits. In Poland, the central bank was not permitted to issue large bank notes to finance the deficit, but the Treasury could mint coins and print small notes. The result was a large increase in the total stock of currency, and what has been dubbed "small-change inflation." The two authors comment: "The lesson is that a government determined to circumvent restrictions on deficit financing will find a way."

Foreign loans or their prospect also appeared in all the successful stabilizations. In general, Dornbusch and Fischer say, these loans provide reassurance to the public that the new foreign exchange rate can be maintained. The loans establish that foreign governments are sufficiently impressed by the stabilization plan to bet on it with their own money.

Despite such loans, these anti-inflation programs were followed by a credit squeeze, high real interest rates, and then, typically, some unemployment. "The creation of unemployment following a stabilization does not mean that the previous hyperinflationary situation was better," the authors write, "but it does mean that it is not credible to promise painless disinflation even when it is a stabilization from economic disorder."

The ongoing stabilization attempts of Israel and Argentina differ from the 1920s cases in that the two governments have imposed wage and price controls at the same time as they cut the budget deficit, devalued and subsequently pegged the exchange rate, and exercised monetary restraint. Their goal is to get a new low level of inflation quickly. Another difference is that the economies of these two nations were in better shape in 1985 than those of Germany, Austria, and Poland in the 1920s.

By imposing wage and price controls, Dornbusch and Fischer explain, the governments hope to kill the inflationary expectations of the private sector. Otherwise, it can take a lengthy recession and high unemployment to beat down the level of price and wage increases demanded by business and labor when they still anticipate continued rapid inflation. Governments are aware of the price distortions caused by temporary wage and price controls, but they figure such distortions are far less costly than the unemployment otherwise needed to drive down inflation.

The authors warn, however, that unless the Israeli and Argentine governments quickly reach and maintain budget levels that are sustainable without inflationary financing (that is, without printing money to pay for the deficits), their anti-inflationary programs

will fail. They also warn that maintaining recessionary pressures for too long may prompt a reflationary reaction.

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The Effects of Tax Rules on Nonresidential Fixed Investment

Changes in tax rules, by affecting the profitability of investment, have a powerful impact on corporate investment in plant and equipment. Moreover, recent NBER research by **Martin Feldstein** and **Joo-sung Jun** (*NBER Working Paper No. 1857*) shows that some of the tax proposals now being considered would substantially reduce the future growth of the capital stock.

Net nonresidential fixed investment peaked at around 4 percent of GNP during the second half of the 1960s, fell to under 3 percent in the second half of the 1970s, and rose to 3.9 percent of GNP in 1984-85. One way to understand such changes in investment, Feldstein and Jun write, is by studying movements in the real aftertax rate of return on debt and equity in the nonfinancial corporate sector. In the second half of the 1960s, the real return was 6 percent. It fell to 2.8 percent in the second half of the 1970s, then rose to 4.1 percent in 1983. In 1984 it increased to 5.4 percent. Virtually all of the increase in those latter two years, Feldstein and Jun propose, was spurred by changes in effective tax rates resulting from tax legislation and reduced inflation.

Feldstein and Jun estimate that each percentage point of increase in real net return raises the investment-to-GNP ratio by about 0.4 percentage points. That increased return is equivalent to a reduction of 10 percentage points in the overall effective tax rate. The high inflation rates of the late 1970s, by eroding the value of depreciation and producing artificial capital gains and inventory profits, caused effective tax rates to rise. If effective rates had not fallen since that time, investment in 1984-85 would have been about 20 percent lower than it was.

Using the same type of analysis, Feldstein and Jun estimate that the administration's tax proposal would raise corporate tax liabilities by about 25 percent and would reduce the share of investment in GNP by about one-fourth of its increase from 1979-81. The House of Representatives plan, which raises corporate taxes twice as much, would reduce the investment-to-GNP ratio by about half of its increase from 1979-81.

To check the robustness of their results, the authors analyze another factor in the corporate decision to invest: the difference between "potential net return" and the cost of funds. They define potential return as what corporations can profitably pay to the providers of capital for funds invested in a "standard investment" in plant and equipment. Like the real rate of return, potential net real return was quite high in the mid-1960s, was eroded by inflation and depreciation rules in the 1970s, and rose sharply after the 1981 tax act. The difference between potential real return and the cost of funds doubled between the end of the 1970s and the first three years after the 1981 tax act, they find.

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Feldstein and Jun estimate that each percentage point of increase in the difference between potential net return and the cost of funds raises investment's share of GNP by about 0.3 percentage points. This implies that about two-thirds of the rise in investment since 1980 can be accounted for by increases in the difference between potential return and the cost of funds.

Further calculations show that the tax bill passed by the House of Representatives in 1985 would reduce investment's share of GNP by 10 to 15 percent of its 30-year average, or one-half to three-fourths of the increase since the 1981 investment incentives were adopted.

Too Many Babyboomers Mean Less Work, Lower Pay

America's "babyboomers," now aged 21 to 39, comprise roughly one-third of the U.S. population; economic life has not been easy for them. In the 1970s, when they were starting to work, the labor market was weak; productivity and real wages were growing slowly at best. These problems, combined with the large number of babyboomers, initially led to low earnings and high unemployment. The group's relative wages and employment rates have improved, but they are still worse off relative to older workers than were previous, less populous generations.

In **The "Youth Problem": Age or Generational Crowding?** (NBER Working Paper No. 1829) NBER

Research Associates **David Bloom** and **Richard Freeman** examine the labor market problems faced by young workers in the United States and a number of other industrialized countries in the 1970s and early 1980s. They find that the relatively low earnings and high unemployment rates experienced by the baby-boom generation compared to earlier generations of youths were a consequence of their large numbers. There are so many of them that as they entered the labor market they drove down wages among inexperienced workers and boosted youth unemployment rates. Although young workers typically have lower wages and higher unemployment rates than more experienced workers, the youth of the baby-boom generation had unusually low wages relative to older workers. In 1967, before babyboomers had begun working, young men aged 20 to 24 earned 74 percent of adult male earnings. By 1983, when the peak of the baby boom was 20 to 24, earnings of male youth were only 55 percent of adult male earnings.

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Bloom and Freeman observe that not all industrial nations experienced baby booms. Some countries, such as the United States, Canada, and Australia, had large increases in the share of youth in the population. Others, notably Japan and Sweden, had large decreases. Bloom and Freeman find that in those nations with a large increase in youths, the baby-boomers have experienced relatively higher unemployment and much lower relative wages than have previous generations.

However, in most industrial countries other than the United States, the crowding of the baby-boom generation has increased unemployment more than it has depressed earnings. In the United States, the unemployment rate for young men relative to adult males fell as the peak of the baby-boom crest entered the labor market in 1983. In contrast, the ratio of youth to adult unemployment rates actually rose in some countries such as Japan and Sweden between 1965 and 1983. Moreover, in Japan and Sweden, where the number of youths entering the job market declined, their relative earnings increased proportionately. In France, where the proportion of youths remained about the same, relative earnings also changed very little. In the United Kingdom, despite a lack of change in the relative proportion of young workers, an increase in youth apprenticeships boosted relative earnings. In general, Bloom

and Freeman find that countries in which relative youth wages increased paid for this increase with higher relative youth unemployment.

Bloom and Freeman further find that American babyboomers did not all find jobs in expanding industries. Rather, young workers were absorbed into all parts of the economy, including slowly growing sectors such as manufacturing as well as the rapidly growing service industries. This pattern of youths finding employment in all sectors also occurred in other countries, including Japan, Germany, Sweden, Finland, and Norway.

Finally, Bloom and Freeman report that the wages

received by the babyboomers are now catching up with the wages they would have received if their generation had been smaller. Nevertheless, their hourly earnings were still less than they might have been if the group were smaller even as they reached ages 29-32 in 1977 and 1981.

Speculating on the future, Bloom and Freeman predict that the post-baby-boom generations will enjoy an upswing in their fortunes because of a relative shortage of entry-level workers. They foresee a need for additional training of the larger, older groups to facilitate adjustment to changing technology and demands for workers with different skills. DF

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