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A Monetary Rule Could Cut Inflation and Smooth GDP Growth

The Federal Reserve probably could reduce both fluctuations in the annual growth rate of GDP and the long-term average rate of inflation by actively controlling the growth of M2 (the broad measure of the money supply), according to a new NBER study by **Martin Feldstein** and **James Stock**. Their calculations show that a strict rule for varying M2 in response to observed changes in nominal GDP would reduce the variance of annual GDP growth over a typical decade by more than 20 percent.

In **The Use of a Monetary Aggregate to Target Nominal GDP** (*NBER Working Paper No. 4304*), Feldstein and Stock test the strength and stability of the relationship between M2 and growth of nominal GDP from 1959 through 1992. They find that there has been a systematic relationship for the entire 30-year period, and that M2 is a statistically significant predictor of nominal GDP growth. This evidence contradicts earlier researchers who have asserted that the short-run instability of the M2-GDP relationship makes M2 unusable for smoothing nominal GDP growth. The authors also examine whether one of the narrower measures of the money supply, such as the monetary base or M1, might perform better than M2. They find that neither is a good predictor of GDP over the full sample period.

Feldstein and Stock estimate what the volatility of key economic variables would be if the Fed-

eral Reserve targeted nominal GDP. Their optimal rule, which involves multiple lags of several variables, would reduce the average ten-year variability of annual GDP growth by more than 20 percent. It would produce at least some reduction in the variance of GDP growth in nine out of ten decade-long spans. Strikingly, the results are almost as good when a simpler rule, based on a single equation, is used: 85 percent of the simulated decades show reduced volatility of GDP.

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Feldstein and Stock find that their models predict nominal GDP with the same accuracy as the median of private forecasters. They consider these results “sufficiently encouraging to lead us to conclude that the systems provide a plausible empirical framework for the discussion of alternative monetary policy rules.”

One problem in implementing such rules is that a shift in Fed policy to control M2 might itself weaken the statistical relationship between M2 and GDP growth. The authors note, however, that

many changes in financial institutions and Federal Reserve policy during the 30-year sample have not altered the relationship significantly.

Another problem is that the Federal Reserve no longer controls the growth of M2 directly, and persistently has missed its announced targets for M2 growth in recent years. Feldstein and Stock suggest that the Fed could achieve accurate control over M2 by extending reserve requirements to all the components of M2 and paying interest on those extra reserve requirements.

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The Self-Employed Are Happier

People who work for themselves are more satisfied with their jobs than those who work for others, according to a new NBER study by **David Blanchflower** and **Andrew Oswald**. In **Entrepreneurship, Happiness, and Supernormal Returns: Evidence from Britain and the United States** (*NBER Working Paper No. 4228*), Blanchflower and Oswald analyze data on nearly 9000 British workers who were age 23 in 1981 and 15,000 American workers of various ages during 1972–90. In the British group, nearly 6 percent were self-employed; about 5 percent of the Americans of similar age were self-employed.

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Both groups were asked how satisfied they were with their current jobs, and 80 percent of the Britons and 87 percent of the Americans reported that they were satisfied. But in both countries, the self-employed reported more satisfaction than the other workers: in Great Britain, 46 percent were “very satisfied” versus 29 percent of the other workers; in the United States, it was 63 versus 47 percent. Women and married people also reported more satisfaction with their jobs, and blacks in the United States less satisfaction, than other workers.

The authors then control for other factors that might influence job satisfaction, including age,

education, sex, marital status, race, union membership, and region. After doing so, they are able to confirm that “self-employment has a major effect on reported satisfaction levels . . . the self-employed report significantly higher levels of well-being than employees.”

U.S. Union Membership Continues to Fall

In 1977, 22 percent of the U.S. private-sector, nonagricultural labor force were members of trade unions, or employee associations similar to unions. This fell to 16 percent by 1984 and 12 percent by 1991. Now a new study by NBER Research Associates **Henry Farber** and **Alan Krueger** concludes that virtually all of the decline in union membership between 1977 and 1991 was caused by a decrease in worker demand for union representation. They report that the percentage of nonunion workers who would vote for a union in their workplace fell from 39 percent in 1977 to about 33 percent in 1984 and 1991.

In **Union Membership in the United States: The Decline Continues** (*NBER Working Paper No. 4216*), Farber and Krueger note that “there was almost no change over this period in the relative supply of union jobs.” Further, only about one-quarter of the decline in unionization can be accounted for by industrial and demographic shifts, they calculate.

The unionization rate in the public sector, by contrast, has risen from 33 percent in 1977 to 36 percent in 1984, and 37 percent in 1991. By 1991, fully 40 percent of union or employee association members in the United States worked in the public sector, up from 26 percent in 1977. Since 1984, this trend can be explained by higher demand for unionization, the authors write. Fully 64 percent of workers in the public sector prefer union representation.

Combining public- and private-sector unionization rates, 24 percent of the nonagricultural labor force were members of unions or employee associations in 1977, 19 percent in 1984, and 16 percent in 1991. Farber and Krueger point out that public-sector workers have a choice between an administered wage system set by the government (the Civil Service) and an administered wage system set through the collective

bargaining process. In contrast, private-sector workers typically have a choice between a more individualized market-oriented wage system, in which pay is more sensitive to skills, and an administered wage system set through the collective bargaining process.

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The two economists also examine the situation in Canada, where a larger proportion of the work force is unionized (36 percent in 1990), and where trade union membership has declined relatively little compared to the United States. As in the United States, though, the Canadian public sector is much more heavily unionized than the Canadian private sector. Moreover, unionization has grown rapidly in the Canadian public sector while declining somewhat in the Canadian private sector. Farber and Krueger conclude that the difference in unionization rates between the United States and Canada is accounted for in roughly equal measure by differences in demand for and supply of union jobs between the countries.

Farber and Krueger use data on workers' preferences for union representation from the 1991 General Social Survey, and for 1992 from their own small-scale household survey (by telephone with 201 workers). They combine this information with data for 1977 from the Quality of Employment Survey, and for 1984 from a survey conducted for the AFL-CIO that asked workers if they would vote for or against union representation at their current job if an election were held. The Canadian data come largely from a survey sponsored by the Canadian Federation of Labour in 1990 and the Canadian Labour Activity Survey.

DRF

Are the Elderly Gaining at the Expense of Children?

In America today, approximately 13 million children, or one in five, live in poverty. Forty per-

cent of black children, and 33 percent of Hispanic children are poor, **Laurence Kotlikoff** and **Jagadeesh Gokhale** report in a new NBER study. This represents an increase from 1970, when fewer than 15 percent of all children were poor. Yet the percentage of Americans over age 65 who were poor fell from 25 in 1970 to 12 today. In **The Equity of Social Services Provided to Children and Senior Citizens** (*NBER Working Paper No. 4305*), Kotlikoff and Gokhale explain that this disparate experience of the young and the old is largely the result of changes in marital patterns and in government transfer payments.

In 1970, 85 percent of all American children, 78 percent of Hispanic children, and 59 percent of black children lived with both parents. By 1989, the percentages had fallen to 73, 67, and 38, respectively. Single parents, usually women, often have great difficulty supporting their families. Thus almost half of children living with only one parent are poor, compared to only 10 percent of children living with both parents.

Kotlikoff and Gokhale report that the increase in single-parent families was caused by higher rates of divorce and illegitimacy. Today, nearly 13 percent of Americans aged 35 to 44 are divorced, compared to only 3 percent in 1960. Further, in 1970, 6 percent of white babies and 38 percent of black babies were born to unwed mothers. By 1988, the rates had risen to 18 percent for whites and 64 percent for blacks.

“The children of today could end up paying more than 50 percent of their lifetime income to the government, while the current elderly will pay only 25 percent.”

Kotlikoff and Gokhale estimate the taxes paid and transfers received by different age and sex groups, and adjust these figures for inflation. They calculate that in 1970 the average 70-year-old woman received \$5120 in transfer payments, including Social Security, Medicare or Medicaid, and welfare benefits, while the average 10-year-old girl received \$350. In 1990, the 70-year-old received \$10,467 and the young girl received \$410. Although differences in taxes paid by a household offset the transfers received to some extent, the authors find “an enormous difference in the net flow of income from the government to the elderly versus children.”

Finally, Kotlikoff and Gokhale calculate average levels of consumption of food, clothing, and other goods and services by age in 1972-3 and 1987-90. They estimate that average consumption by 10-year-olds relative to 70-year-olds fell by over 16 percent between the two periods. At the same time, the consumption of 70-year-olds relative to younger adults also increased substantially.

However, the authors caution about comparing individuals at a point in time, at different stages of their lives. To refine their comparisons, they project "lifetime net tax rates" and estimate that, under certain assumptions, the children of today could end up paying more than 50 percent of their lifetime incomes to the government, while the current elderly will pay only 25 percent.

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