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Institutions and Laws Can Limit Budget Deficits

Over the past 30 years, nearly all of the major industrial nations have run chronic budget deficits and consequently accumulated large public debts. In Belgium, for example, debt went from 68 percent of GDP in 1965 to 135 percent of GDP in 1994—the highest level in the OECD. Italy's debt rose from 35 percent of GDP to 124 percent of GDP; U.S. debt as a proportion of GDP went from 43 percent in 1975 to 63 percent in 1994. These rising debt levels have alarmed citizens, economists, and policymakers everywhere.

In the United States since the early 1980s, for instance, the question of how to limit deficit spending has dominated the national debate about taxes, spending, and the role of the government. Many institutional and legal approaches exist or have been proposed to slow or reverse the growth of public debt, here in the United States and elsewhere. In a series of recent NBER papers, several leading public finance economists who are research associates of the NBER review the history and efficacy of these reform attempts.

In **Do Budget Rules Work?** (*NBER Working Paper No. 5550*), **James Poterba** looks at three strands of empirical evidence from studies of: the U.S. federal experience with antideficit legislation in the 1980s and early 1990s; the experience of the U.S. states with antideficit rules; and international comparisons of budget outcomes in nations with different fiscal institutions. The preponderance of evidence, he concludes, suggests that budget institutions and rules do matter. "Tightly drawn antideficit rules," Poterba says, "especially when coupled with limits on governmental borrowing, induce smaller deficits and more rapid adjustment of taxes and spending to unexpected fiscal shortfalls." However, Poterba finds that the results from the various studies of budget rules are not refined enough to permit detailed judgments about the impact of specific provisions in budget policy.

> "[S]tate balanced-budget rules do work to limit deficit spending if three conditions are met."

Henning Bohn and **Robert Inman** take a close look at the budget rules and institutions of the U.S. states in **Balanced Budget Rules and Public Deficits: Evidence from the U.S. States** (*NBER Working Paper No. 5533*). All but one of the 50 states have constitutional or statutory limitations restricting deficit spending. Reviewing the data from 1970 to 1991, Bohn and Inman conclude that state balanced-budget rules do work to limit deficit spending if three conditions are met: First, the rules must enforce balanced budgets at the end of each year, not prospectively. Second, they must be enforced via the state's constitution rather than by statute. Finally, they must be enforced by a politically independent supreme court. States with such systems, the authors find, tend to run budget surpluses that accumulate in "rainy day" funds, driven by spending cuts rather than tax increases. Bohn and Inman conclude that a successful federal balanced-budget rule could be written for the United States, if it reflected these three institutional features.

There is a very wide variance in the fiscal positions of the Caribbe-

an and Latin American countries, ranging from an average annual surplus of 3 percent of GDP in Jamaica from 1989–93 to an average annual deficit of 13.6 percent of GDP in Guyana. While it is hard to explain these different outcomes on purely economic grounds, some of the variance can be attributed to differences in these nations' budget institutions. In **Budget Institutions and Fiscal Performance in Latin America** (*NBER Working Paper No. 5586*), **Alberto Alesina, Ricardo Hausmann, Rudolf Hommes,** and **Ernesto Stein** construct an index of budgetary institutions for 20 nations. They find that the nature of budget procedures strongly influences fiscal outcomes in a sample starting in 1980. Specifically, legislative constraints on deficit spending in Caribbean and Latin American countries seem to be effective, and a strong government in relation to the legislature is important in enforcing fiscal discipline. A country that ranks fairly high on the budgetary index is expected to have average deficits nearly 3 percentage points of GDP lower than a country that ranks fairly low on the index.

"[L]egislative constraints on deficit spending in Caribbean and Latin American countries seem to be effective."

In **Budget Deficits and Budget Institutions** (*NBER Working Paper No. 5556*), **Alesina** and **Roberto Perotti** discuss several issues surrounding the relationship between fiscal outcomes and budget institutions. They note that while American institutions, and in particular the U.S. Congress, have been studied extensively, several issues remain open for parliamentary democracies. Also, after considering the available empirical evidence, they conclude that budget institutions are indeed important determinants of fiscal outcomes: more hierarchical (that is, top-to-bottom) procedures are conducive to fiscal discipline. In fact, the authors point out similarities in the empirical evidence drawn on different samples that they examine: U.S. states, OECD countries, and Latin American countries. Alesina and Perotti also emphasize that in addition to voting procedures, the transparency of the budget documents and of the budget process are crucial ingredients of satisfactory fiscal control. They point out that several OECD countries with high ratios of debt-to-GDP have very cumbersome procedures.

In summary, these four studies provide encouragement for economists and policymakers who favor institutional and legislative reforms to limit the future accumulation of government debt. RN

Relative U.S./Mexican Wages Affect Illegal Immigration

Attempted illegal immigration into the United States from Mexico is very sensitive to changes in Mexican wages, said NBER researcher **Gordon Hanson** of the University of Texas and **Antonio Spilimbergo.** In **Illegal Immigration, Border Enforcement, and Relative Wages: Evidence from Apprehensions at the U.S.–Mexico Border** (*NBER Working Paper No. 5592*), they find that a 10 percent decrease in the Mexican real (that is, inflation-adjusted) wage leads to a 7.5 to 8.8 percent increase in apprehensions at the border. Conversely, there is a positive link between the U.S. real wage and border apprehensions, they find. Their analysis also indicates that illegal attempts to cross the U.S./Mexico border are at least as sensitive as apprehensions to change in U.S. and Mexican wages.

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Hanson and Spilimbergo analyze the number of individuals apprehended by the U.S. Border Patrol between 1976 and 1995 while trying to cross the U.S./Mexico border illegally. They find that economic volatility in Mexico contributes to

border apprehensions: they are higher in the month following a large devaluation of the peso, and higher when the change in the Mexican real wage is negative. On the other hand, "each additional hour the U.S. Border Patrol spends policing the border yields an additional 0.25 to 0.33 apprehensions," they find.

Finally, Hanson and Spilimbergo conclude that "it is the purchasing power of U.S. wages in Mexico, more than the purchasing power of U.S. wages in the United States, that matters for border apprehensions." This suggests that prospective migrants expect to maintain links with Mexico, either by planning to return someday or by supporting family members who remain behind.

Effective Growth in Inflation Has Declined

A recent study by NBER Research Associate **Christina Romer** shows that the relationship between prices and output in the United States is more complicated than conventionally thought. In particular, for most of the last century, the rate of inflation has depended not just on the deviation of output from trend, but even more strongly on the growth rate of output, she finds. (The possible relationship between inflation and output growth was first noted in a series of studies by NBER Research Associate Robert Gordon, she points out.)

> "[A] growth rate effect can explain much of the puzzling behavior of prices in the prewar era."

In **Inflation and the Growth Rate of Output** (*NBER Working Paper No. 5575*), Romer observes that the strength of this effect appears to vary with the importance of materials in the economy. Since materials prices are particularly sensitive to the growth rate of output, the growth rate effect was stronger when the U.S. economy was still based heavily on agriculture and mining in the late 1800s and early 1900s, and weaker when advanced manufacturing and services had become the dominant sectors in the postwar era.

The existence of this growth rate effect can explain much of the puzzling behavior of prices in the prewar era, Romer concludes. The rapid growth of output in the mid- and late 1930s—8.3 percent per year between 1933 and 1937—can help account for the moderate inflation during the recovery from the Great Depression. The growth rate effect was strong enough, and the rate of output growth was high enough, that prices rose during this period even though output was substantially below trend. The growth rate effect can explain a similar puzzle in the late 1890s (1897–1900), when prices rose nearly 3 percent per year despite the fact that output was on average 1 percent below trend. Just as in the 1930s, the solution to this puzzle is the fact that real output, while substantially below trend, was rising rapidly in this period (around 4.5 percent per year). This rapid growth pushed up materials prices and fed through to general inflation.

More generally, Romer notes, the growth rate effect can explain why prices rose at the start of most prewar recoveries. Judging from the actual turning points in real GDP, there were six troughs from 1884–1929. In the year following these troughs, inflation averaged 2.6 percent, despite the fact that the average deviation from trend was –2.7 percent. The explanation for this puzzling behavior is that prewar recoveries typically were quite sharp. In the years following these six troughs, average real growth was 5.9 percent. This rapid growth pushed up prices in most of these recoveries well before the economy was back to its trend level.

Because the growth rate effect has declined over time in the United States, it has more implications for our historical experience than for current policy analysis, Romer points out. Indeed, the decline in the effect over time may suggest that modern inflation forecasters should pay less attention to growth

rates and materials prices than they currently do. However, this is not necessarily true for less developed countries. Since the growth rate effect works largely through materials prices, it is still likely to be important for countries that are major producers of raw materials. Thus, many of the highly agricultural economies of Latin America and Africa need to consider the implications of the growth rate effect even today.

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