

Have International Developments Lowered the Neutral Rate?

by Owen F. Humpage

Since June of 2004, the FOMC has increased the federal funds target rate from 1 percent to 4.25 percent in an effort to remove policy accommodation. Policymakers look to establish a target rate that will promote long-term economic growth without generating inflation.

Many economists conceptualize the FOMC's actions in terms of a neutral federal funds target rate. In this framework, a funds rate below its neutral level eventually creates inflation. A funds rate above the neutral level suppresses inflationary pressures, but at the risk of inducing subpar economic growth. Policymakers must continually assess where the current federal funds rate is relative to its neutral value. Unfortunately, the neutral federal funds rate is not a constant, and economists' estimates of it have been notoriously imprecise. Moreover, the neutral rate is not a "closed-economy" phenomenon; international developments affect it.

Drawing on two recent International Monetary Fund (IMF) studies, this *Economic Commentary* explains how international developments—chiefly, the lackluster performance of worldwide investment and the growing globalization of international financial markets—help explain the recent unusual behavior of U.S. long-term interest rates and suggest that the neutral federal funds target rate may be lower than many believe.

■ The Neutral Rate of Interest

The neutral rate of interest is a real (or inflation-adjusted) rate that equates real savings with real investment in a fully employed, competitive, and frictionless economy; that is, an economy persistently growing at its full potential. It is a

theoretical construct, and as such, it is unobservable and difficult to estimate.

The day-to-day economy, of course, contains many frictions: Prices are often set by contract or custom, which slows their response to changing economic conditions. Information typically is costly to acquire and often takes time to disseminate, and just the act of adapting to economic change involves resource costs that slow the process. As a consequence of these types of frictions, inflation-adjusted market rates can diverge from their neutral levels following any kind of economic shock, like an unanticipated change in monetary policy, a major oil price hike, or devastating hurricanes.

The neutral real interest rate is also not constant; it changes in response to anything that affects long-term real saving and investment patterns. Such things as an aging population, persistent budget deficits, or technological change will raise or lower the neutral real interest rate. Some changes emanate from beyond our borders, making the neutral federal funds rate an open-economy concept. In a world where obstacles to the globalization of financial markets are rapidly disappearing, events that affect foreign saving and investment choices can also raise or lower the neutral real rate of interest in the United States.

■ Financial Globalization

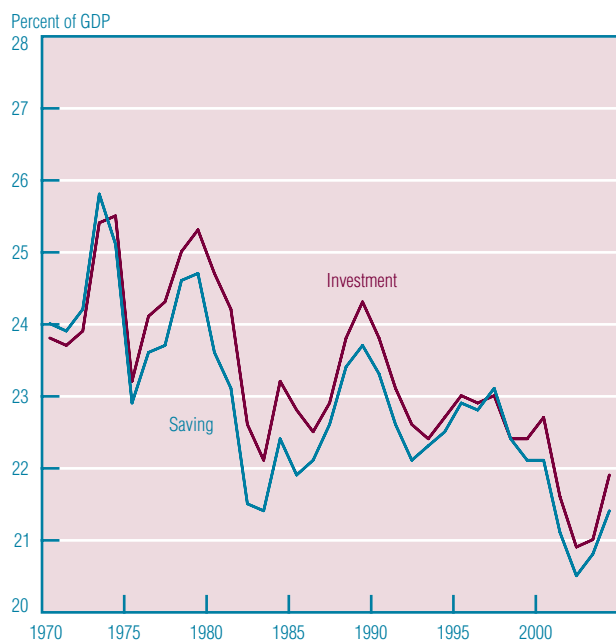
Over the past 15 years, the world has witnessed a marked increase in the globalization of financial markets. According to IMF estimates, gross external assets and liabilities of industrialized countries—and to a lesser extent emerging-market economies—quadrupled during the 1990s to 200 percent of GDP by 2003. While private investors in most

One way to think about monetary policy is in terms of a neutral federal funds rate, one that exerts neither inflationary nor deflationary pressures. Recent declines in worldwide investment, coupled with the growing globalization of financial markets suggest that the neutral rate may be lower than the current stance of monetary policy and the stage of the business cycle may lead one to believe.

countries and regions—particularly the United States—still exhibit a home bias in their portfolio choices, the rapid expansion of gross external assets and liabilities together with other statistical measures clearly suggests a trend toward greater international diversification. Associated with this financial globalization has been a substantial net flow of foreign savings into the United States, although not to such an extent that foreign portfolios seem burdened with too many U.S. equities and bonds.

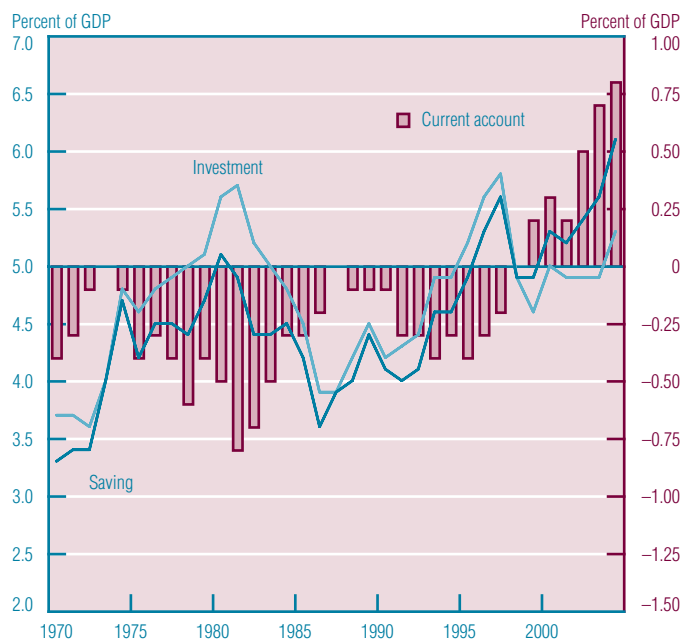
Even allowing that the size and breadth of our financial markets protects the United States from foreign financial shocks, the increased globalization of financial markets suggests that investment returns in the United States should be more sensitive to global developments than in the past. If so, then global saving and investment patterns may help explain why real long-term U.S. interest rates seem low given the removal of policy accommodation, our growing net external liabilities, and the current state of the U.S. business cycle—a phenomenon dubbed the interest rate "conundrum."

FIGURE 1 GLOBAL SAVING AND INVESTMENT



SOURCE: International Monetary Fund, *World Economic Outlook*.

FIGURE 2 SAVING AND INVESTMENT IN EMERGING-MARKET AND OIL-PRODUCING ECONOMIES



SOURCE: International Monetary Fund, *World Economic Outlook*.

■ Global Investment

In a closely connected world, if one nation hiccups the rest will feel it, and according to the IMF, the world has lately been hiccupping. Global investment fell from approximately 23 percent of world GDP in 1997 to roughly 21 percent in 2002 and, according to the latest available data, has since recovered to approximately 22 percent in 2004 (see figure 1). While the net change in this ratio may not seem large, estimates suggest that the current pace of worldwide economic recovery and the recent decline in the cost of capital are capable of supporting a higher level of global investment than we have recently seen. Most of the investment decline among industrialized countries has been concentrated in Japan and in the euro area. Investment in other industrialized countries remained flat as a percent of GDP on balance between 2001 and 2004. In the United States, fixed investment has advanced as a share of GDP since early in 2003, but remains below its past peak.

The recent investment pattern among emerging-market economies is not much different than that of the industrialized countries (figure 2). Investment in most East Asian countries fell precipitously in the mid-1990s following the Asian financial crisis and has not yet rebounded.

China, however, is a notable exception. Investment there has risen sharply. Among the oil-producing nations and other emerging-market nations, investment has been lackluster.

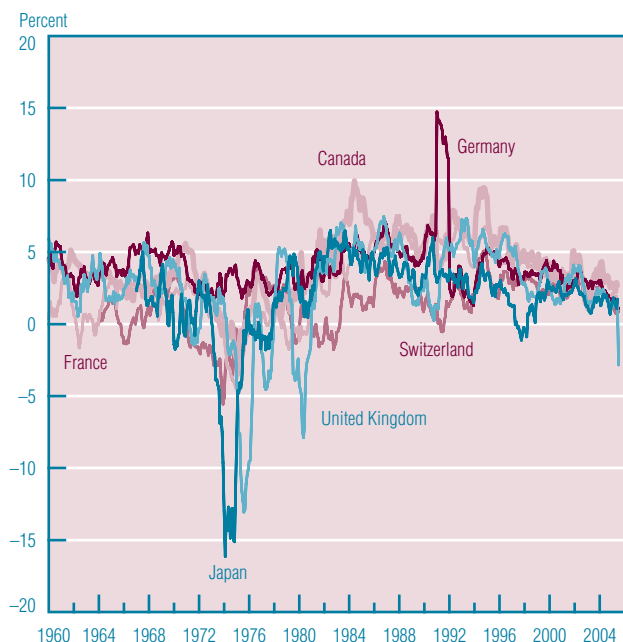
In the aggregate, saving must equal investment, and so global saving has also fallen as a share of world GDP. That real long-term interest rates have declined along with the drop in saving and investment suggests that the underlying “shock” to financial markets emanated from the investment side (figure 3). As noted above, historical experience suggests that the recent pace of output growth and the decline in the cost of capital could support a higher investment demand. In its analysis, the IMF attributes a large portion of the drop in investment (and saving) among industrialized countries to common global factors related to productivity and asset prices. Higher, more variable oil prices could be a key factor. In addition, declines in the relative price of capital goods—notably computers and information technology—may account for part of the drop in investment relative to GDP, even while promoting a higher level of real investment. Common global factors seem less important in explaining investment patterns among emerging-market economies.

■ Financial Flows

Although saving and investment must be equal in the aggregate, saving within any country or region can—and typically does—differ from local investment. Divergences between domestic saving and investment patterns are mirrored in nations’ current-account positions. Countries running current-account surpluses save more than they invest, while countries experiencing current-account deficits invest more than they save. In most foreign countries and regions since 1997, saving has generally paralleled investment, but has exceeded it somewhat. Consequently, most countries and regions maintain small current-account surpluses.

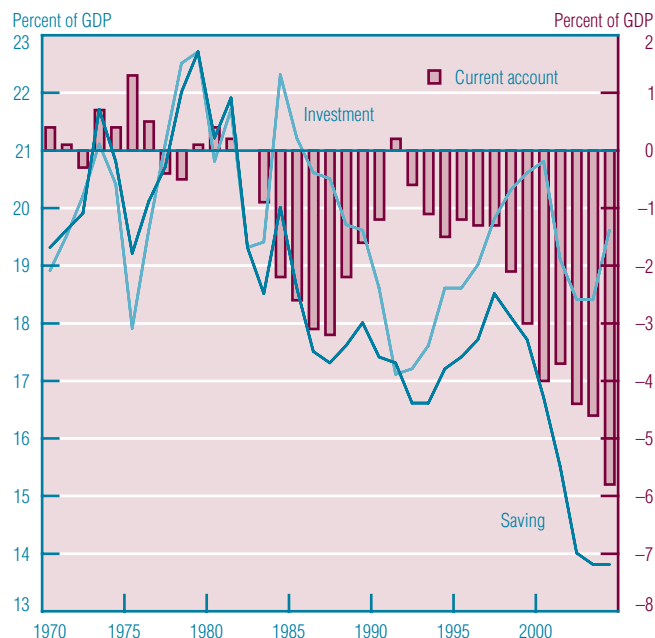
There are, however, some notable exceptions. As a consequence of a low private savings rate and expanding federal budget deficits, overall saving in the United States has fallen sharply since 1997 and has remained well below investment (figure 4). In contrast, most East Asian countries and oil-producing countries maintain saving substantially in excess of local investment (figure 2). These countries have been increasing their public-sector saving, building reserves as a buffer against potential future financial crises. Corporate saving in emerging-market countries has also risen over the current business upturn

FIGURE 3 REAL LONG-TERM INTEREST RATES^a



a. Calculated using 12-month change in the CPI.
SOURCE: International Monetary Fund.

FIGURE 4 SAVING AND INVESTMENT IN THE UNITED STATES



SOURCE: International Monetary Fund, *World Economic Outlook*.

according to the IMF, but corporate saving has generally gone to improve balance sheets rather than to finance real investment.

According to the IMF, the inflow of savings from emerging-market and oil-producing countries has financed approximately two-thirds of the divergence between U.S. investment and saving. Although foreign savings are accommodating a larger U.S. current-account deficit, expanding domestic aggregate demand seems the leading causal factor. If a “glut” of foreign savings was the dominant causal factor behind the growing current-account deficit, as was the case from mid-1995 through 2001, the dollar would have appreciated in real terms as the U.S. current-account deficit expanded. Since early 2002, however, the dollar has depreciated as the current-account deficit increased—a pattern that is consistent with expanding domestic aggregate demand and accommodating inflows of foreign savings.

In any event, because foreign savings from East Asian and oil-producing countries have poured into dollar assets, the real dollar depreciation has been smaller than many people previously expected it to be, given the size of the current-account deficit and our

outstanding dollar-denominated liabilities. We have not experienced the perennially predicted “hard landing.” Similarly, real interest rates in this country have not increased as much as people previously anticipated given our external position and the stage of the business cycle. Weak empirical evidence, which the IMF offers, suggests that industrialized countries with large net external liabilities tend to experience higher real interest rates than those with net external assets. As financial globalization has progressed, however, this relationship has virtually vanished, implying that countries with large net external liabilities are finding it easier to finance their positions without changes in real interest rates or exchange rates.

■ The Neutral Rate

In an era of growing financial globalization, the lackluster performance of foreign investment has channeled foreign savings into the United States, keeping interest rates lower than they otherwise might be given the stance of monetary policy and the stage of the business cycle. As a consequence, the neutral federal funds rate target may be lower than many economists expect. As financial globalization proceeds, achieving domestic policy objectives—a low inflation rate and sustained growth at potential—may require increased attention to

global developments. Continued recovery abroad, for example, would open up more investment opportunities outside the United States and could eventually put stronger upward pressures on domestic interest rates and downward pressure on dollar exchange rates than has heretofore been the case. As world markets become more closely integrated, the neutral rate will become even more of a global phenomenon.

■ Recommended Reading

My information on the globalization of financial market and global saving and investment patterns came from two excellent IMF survey articles, each of which contains an extensive bibliography of the relevant literature:

International Monetary Fund. 2005. “Globalization and External Imbalances,” *World Economic Outlook* (April), pp. 109–56.

International Monetary Fund. 2005. “Global Imbalances: A Savings and Investment Perspective,” *World Economic Outlook* (September), pp. 91–124.

**Federal Reserve Bank of Cleveland
Research Department
P.O. Box 6387
Cleveland, OH 44101**

Return Service Requested:

Please send corrected mailing label to the above address.

Material may be reprinted if the source is credited. Please send copies of reprinted material to the editor.

**PRSRT STD
U.S. Postage Paid
Cleveland, OH
Permit No. 385**

Owen F. Humpage is an economic advisor at the Federal Reserve Bank of Cleveland.

The views expressed here are those of the author and not necessarily those of the Federal Reserve Bank of Cleveland, the Board of Governors of the Federal Reserve System, or its staff.

Economic Commentary is published by the Research Department of the Federal Reserve Bank of Cleveland. To receive copies or to be placed on the mailing list, e-mail your request to 4d.subscriptions@clev.frb.org or fax it to 216-579-3050. Economic Commentary is also available at the Cleveland Fed's site on the World Wide Web: www.clevelandfed.org/research.

We invite comments, questions, and suggestions. E-mail us at editor@clev.frb.org.