In sum, we conjecture that of the \$122 billion per year in additional foreign investment of the current expansion, about \$71 billion (58 percent) went for additional investment spending, and the remaining \$51 billion (about 42 percent) allowed for higher levels of pure consumer spending (see chart 1).

The experience of the past several quarters is roughly consistent with these estimates. Since the third quarter of 1988, there has been a rather sharp decline in the flow of both foreign investment and business saving compared with levels of just two years ago (see table 3). As a share of national income, foreign investment fell from a 1987 peak of 4.4 percent to only 2.6 percent in recent quarters, and business saving fell from 15.3 percent to 14.3 percent. Overall, there has been a decline in foreign and business saving of about 2.8 percent of national income since 1987.

Despite this decline in the pool of saving, there has been little change in the relative size of the government deficit. Instead, the business and foreign saving shortfall appears to have crowded out domestic investment and consumer spending. Measured as a share of national income, personal saving, adjusted to include investment-type consumer

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Material may be reprinted provided that the source is credited. Please send copies of reprinted materials to the editor. spending, rose by 1.5 percent, and gross business investment plus investment-type consumer spending fell about 1.0 percent.

### **■** Conclusion

Foreign capital has been a gift horse, predominantly used in ways that bode well for future U.S. productivity. Of the approximately \$122 billion per year in additional foreign investment that this nation has enjoyed over the current expansion compared with previous expansions, we conclude that about 58 percent of it, or \$71 billion, allowed additional domestic investment and investment-type consumer spending. The remaining \$51 billion per year, or about 42 percent, seems to have been used for additional consumption. This differs substantially from surface appearances, which suggest that foreign investment is being used entirely to finance consumption and government outlays.

#### **■** Footnotes

- 1. See Gerald H. Anderson, "Three Common Misperceptions About Foreign Direct Investment," *Economic Commentary*, Federal Reserve Bank of Cleveland, July 15, 1988; and Mack Ott, "Is America Being Sold Out?" *Review*, Federal Reserve Bank of St. Louis, March/April 1989.
- 2. For an example of an article that has those concerns, and with which we disagree, see Jon Faust, "U.S. Foreign Indebtedness:

Are We Investing What We Borrow?"

Economic Review, Federal Reserve Bank of Kansas City, July/August 1989.

- 3. The government deficit includes deficits and surpluses of state and local governments.
- 4. This estimate of "pure" consumption spending is hardly pure, because there is almost certainly some investment-type spending beyond the types we have identified. Thus, our estimate of consumer investment-type spending is conservative. Also, we do not mean to imply that the pure consumption component is necessarily undesirable or unwise. Such spending may be perfectly sensible, but a discussion of that issue is beyond the scope of this article.
- 5. The results are available from the authors on request.
- State and local government borrowing probably has some sensitivity to interest rates, but we believe it to be relatively small.
- 7. The estimates are in Lawrence A. Summers, "Issues in National Savings Policy," in G. Adams and S. Wachter, eds., Saving and Capital Formation, Lexington, Ky: D.C. Heath, 1986. Economists' estimates of crowding out vary substantially; we prefer Summers' estimates because his accounting framework is similar to ours.

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The views stated herein are those of the authors and not necessarily those of the Federal Reserve Bank of Cleveland or of the Board of Governors of the Federal Reserve System.

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## **ECONOMIC**COMMENTARY

Federal Reserve Bank of Cleveland

# Foreign Capital Inflows: Another Trojan Horse?

by Gerald H. Anderson and Michael F. Bryan

At least since that fateful day when the ancient Greeks offered a giant wooden horse to the citizens of Troy, unsolicited gifts from foreigners have been viewed with a certain skepticism. One is tempted to make a parallel case in the 1980s regarding the tremendous level of foreign investment occurring in the U.S. economy.

Since 1982, the cumulative net inflow of funds into the United States from foreign nations has totaled more than \$700 billion. As this river of dollars flows into the United States, many in this country are worried that there may be some hidden costs associated with the seeming windfall.

One concern is that the influx of foreign capital may ultimately allow foreigners to gain control of our economy—a view that has been dismissed in several recent publications. Another concern is that we are using these funds in unproductive ways—primarily to finance additional spending by the U.S. government and consumption by households, instead of for productivity-enhancing investments. <sup>2</sup>

This Economic Commentary examines aspects of recent foreign investment in the United States. We calculate how much of the recent net capital inflow benefits different kinds of spending. Our measures are not precise, but should be regarded as ballpark

estimates of foreign investment's role in U.S. resource allocation.

### ■ Going With the Flow

To examine the uses of foreign investment, it is helpful to understand the accounting relationships among foreign capital inflow, gross private domestic investment, and domestic saving.

For every use of funds, there must be a source of funds. In the case of the national economy, there are three broad sources of funds: saving by domestic households, or personal saving; saving by domestic firms, or business saving; and saving by foreigners, or foreign investment.

To complete the identity, saving in an economy must be "used," or borrowed, by others in the economy. In this case, the total value of saving must be matched by gross investment in the private economy plus deficit spending by the government.<sup>3</sup>

From this investment-saving identity (see table 1), we see that increases in foreign investment will have at least one of four possible effects. They can finance additional gross investment, finance larger government deficits, or induce an offsetting saving decrease by either U.S. businesses or households.

The fluid operation of markets should ensure that foreign investment is put to

The U.S. economy has been awash in foreign investment for nearly the entire decade of the 1980s. A close look at the destinations of this net inflow of funds reveals that, contrary to popular perception, most of the windfall is being used to fund U.S. investment.

work where it is most wanted. But the long-run implications of debt, foreign or otherwise, on U.S. prosperity would seem to depend on whether that debt was being used for investment purposes or to finance consumption.

If the capital inflow is financing investment, then U.S. productivity is enhanced by the foreign capital inflow. Conversely, if the foreign capital is compensating for reductions in personal or business saving, or is financing an increase in the government deficit, then foreign investment might be financing current U.S. consumption, and might therefore have a negative effect on future U.S. living standards.

Following the flow of foreign money to its ultimate destination is not an easy task: it is comparable to tracking a drop of water after it drips into a full bucket. Consequently, we must infer from indirect evidence exactly how the foreign funds are being used. At first glance, the indirect evidence strongly argues that the foreign saving inflow is supporting

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household consumption and government spending rather than business investment. More detailed analysis, however, indicates that a majority of the inflow of foreign funds is financing business investment and investmenttype spending by consumers.

Table 2 shows data on saving, investment, and the deficit, each expressed as percentages of national income, and compares averages for the five expansionary periods between 1954 and 1980 with the current expansion.

On average over the previous expansions, foreign investment tended to be small and, on balance, slightly negative, averaging about -0.5 percent of national income. That is, in the five previous expansions, the United States tended to be a small net lender of funds to foreigners. Since 1982, the United States has become a large net borrower from foreigners, with these funds averaging about 3.1 percent of national income. Therefore, compared with previous expansions, the United States has increased its inflow of foreign saving by a magnitude of about 3.6 percent of its national income, or by about \$122 billion per year.

Foreigners were not alone in saving more in the United States. Business saving as a share of national income was at record-high levels early in the expansion. A number of factors, prominent among them the major tax reform of 1982, have encouraged more business saving. Averaging 16 percent of national income in the current expansion, business saving is about 1.3 percent of national income, or \$44 billion per year, larger than previous expansionary averages would have suggested.

Gross business investment, however, at 19.5 percent of national income over the current expansion, is identical to its expansionary average, indicating that the disproportionately large flow of foreign and business saving has not financed a disproportionately higher level of investment.

Two uses of funds clearly broke from previous expansionary experience, however. Personal saving has been lower, averaging only 4.1 percent compared with 6 percent over earlier expansions. Translated into dollars, personal saving is about \$64 billion per year less than what was indicated by earlier expansion averages. More important, the government deficit has been larger. Since 1982, the size of the government deficit has averaged about 3.6 percent of national income, which is about 2.9 percent of national income or \$98 billion per year larger than in prior expansions.

In short, comparisons with the five expansions of the past 35 years indicate that about 40 percent of the increase in foreign and business saving has financed consumer spending and about 60 percent has supported the government deficit. Because savings from all sources are likely to be interchangeable, those percentage distributions should also apply to foreign investment taken alone. Consequently, of the additional \$122 billion annual inflow of foreign investment, it appears that about \$49 billion has financed additional consumer spending and \$73 billion has gone toward financing the government deficit. The ratio of gross investment to national income, on the other hand, appears to have been unaffected.

■ Consumption as Investment
Before concluding that Americans are
using such a large fraction of foreign investment to finance consumption, we
need to make a few adjustments to the
data.

Suppose that the personal saving rate has declined because households have increased their purchases of goods with relatively long lives (such as cars and appliances) and services that improve their long-run earnings potential (such as education). These may be classified as "investment" expenditures because these goods and services can be expected to provide benefits or income in the future

By subtracting consumer spending on durable goods and private education and research from total consumer spending, we can roughly separate consumer expenditures into two broad categories—consumer investment spending and "pure" consumer spending.<sup>4</sup>

Using simple statistical techniques, we have attempted to separate the effects of trends, the business cycle, and changes in foreign investment on household investment spending versus household consumption spending. The results were illuminating. Of the two broad spending types, consumer investment spending seems to be disproportionately linked with foreign capital inflows.

An increase in foreign investment tends to increase total consumer spending by about 40 percent of the additional capital inflow—the same share that we calculated above from the data reported in table 2. However, 40 percent of the additional consumer spending occurred in the investment-type spending group. Given that investment-type spending traditionally represents a small share of total consumer spending (about 15 percent in 1988), it therefore seems to benefit disproportionately from the rise in consumer spending induced by foreign capital inflow.

If the previous averages hold up, then of the roughly \$49 billion per year in foreign-financed consumer spending during this expansion, at least 40 percent, or about \$20 billion per year, would be for goods and services that are more accurately classified as investments. The fruits of that spending improve future living standards, either by producing future services for consumers or by enhancing future income.

### **■** Crowding Out

The foregoing analysis includes an interpretive problem that overstates the link between foreign investment and the government deficit, and understates the impact of foreign investment on domestic investment and consumption.

Imagine a scenario in which foreign investment is reduced by some artificial means, thereby shrinking the pool of saving available to the United States.

TABLE 1 THE INVESTMENT-SAVING IDENTITY—1988 VALUES (Billions of dollars)

Personal Saving	+	Business Saving	+	Foreign Investment	=	Gross Investment	+	Gov.  Deficit	+	Statis. Discrep.
(\$147.7)		(\$587.5)		(\$128.1)		(\$761.4)		(\$92.8)		(\$9.1)

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

TABLE 2 CURRENT SAVING-INVESTMENT DEVIATIONS FROM PREVIOUS EXPANSIONS (Percent)

		Business + Saving	Foreign + Investment =	Gross Investment	Gov. + <u>Deficit</u>
Share of National Income	:				
Average Expansion	6.0	14.7	-0.5	19.5	0.7
1982:Q4-1989:Q2	4.1	16.0	3.1	19.5	_3.6
Share Difference	-1.9	1.3	3.6	0.0	2.9
Difference in \$ Billions <sup>a</sup>	-\$64	\$44	\$122	\$0	\$98

Share difference times weighted average annual national income in 1982-87.
 NOTE: Totals may not add exactly due to rounding and statistical discrepancies.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; and Federal Reserve Bank of Cleveland.

TABLE 3 RECENT SAVING-INVESTMENT DEVIATIONS FROM 1987 PEAKS (Percent)

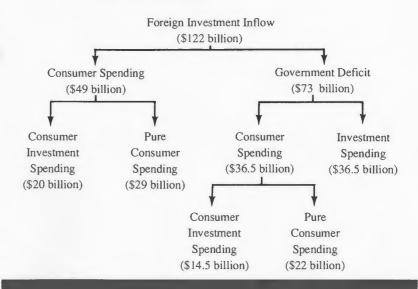
	Personal Saving <sup>a</sup>	Business + Saving	Foreign + Investment	Gross = Investment	Gov. + Deficit
Share of National Income	e:				
1987 Peak	15.7	15.3	4.4	32.2	2.9
1988:Q4-1989:Q2	17.2	14.3	2.6	31.2	2.6
Share Difference Difference in \$ Billions	1.5 \$63	−1.0 −\$42	-1.8 -\$75	-1.1 -\$46	-0.3 -\$13
Difference in \$ Biffions	ΨΟϽ	-ψ42	-\$13	-φ+0	-φ15

a. Data adjusted to include consumer expenditures on durable goods and private education and research.

NOTE: Totals may not add exactly due to rounding and statistical discrepancies.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; and Federal Reserve Bank of

### CHART 1 FLOW OF FOREIGN INVESTMENT SPENDING DURING THIS EXPANSION



The resulting saving shortfall would need to be made up by some combination of domestic spending cuts. Most of this adjustment would occur as domestic borrowers, competing for a reduced pool of saving, bid up interest rates until the appropriate number of borrowers drop out of the credit market, an occurrence economists have dubbed "crowding out."

Naturally, the borrowers most sensitive to interest-rate increases will be the first to go. These are likely to be consumers and domestic investors, rather than the federal government, because the government will borrow whatever is necessary to cover the gap between its spending and its revenue, regardless of the interest rate that it must pay. 6 It is therefore somewhat erroneous to conclude that foreign investment is "allowing" the government deficit. Rather, foreign investment is preventing some of the crowding out of consumption and domestic investment that the deficit otherwise would have caused.

Estimating what *might* have occurred in the absence of foreign investment is a very difficult empirical problem. There seems to be no consensus in the literature about the magnitude of crowding out. Two recent estimates suggest that federal deficits have historically tended to crowd out domestic investment and consumer spending in roughly equal proportions.<sup>7</sup>

It seems reasonable that, other things being equal, declines in the saving pool would have crowding-out effects similar to those of government deficits. If so, we estimate that the \$73 billion portion of foreign investment that appears to be financing the government deficit is actually preventing the crowding out of about \$36.5 billion of domestic investment and \$36.5 billion of household consumption. Moreover, our study suggests that of the \$36.5 billion of additional household consumption, 40 percent (\$14.5 billion) is channeled to investment-type purchases, while 60 percent (\$22 billion) is directed to pure consumption purchases.