ECONOMY

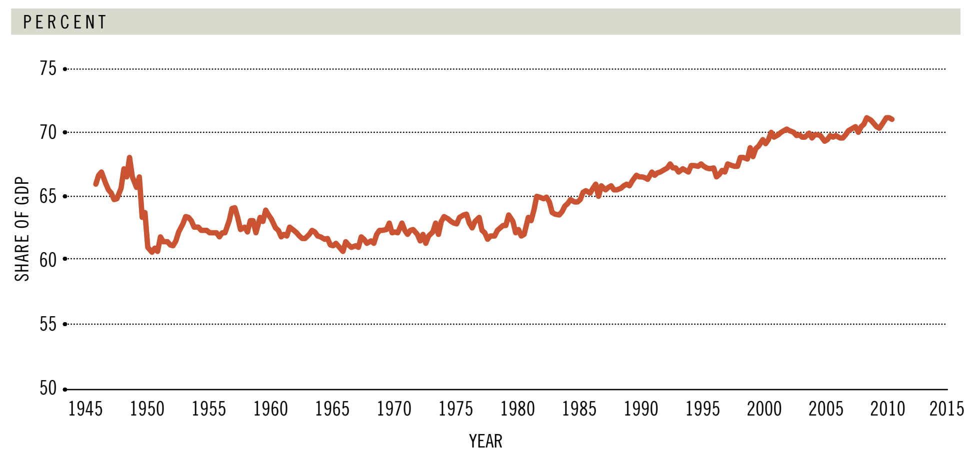
Don't Expect Consumer Spending To Be the Engine of Economic Growth It Once Was

By William R. Emmons

Can American consumers continue to serve as the engine of U.S. and global economic growth as they did during recent decades? Several powerful trends suggest not, at least for a while. Instead, new sources of demand, both domestic and foreign, are needed if we are to maintain healthy rates of growth. Unfortunately, this won't be easy because consumer spending constitutes the largest part of our economy, and replacements for it—more investment, more government spending or more exports—either can't be increased rapidly or might create unwanted consequences of their own.

FIGURE 1

Personal Consumption Expenditures (PCE) as Share of Gross Domestic Product (GDP)



SOURCE: Bureau of Economic Analysis; quarterly data through 2011:Q3.

How We Got Here: The Consumer-Driven U.S. Economy

It is no exaggeration to say that consumer spending was the dominant source of economic growth in the United States during recent decades. For example:

- During the 10 years ending in the last prerecession quarter (third quarter of 2007), inflation-adjusted personal consumption expenditures (PCE) grew at a continuously compounded annual rate of 3.47 percent, while overall inflation-adjusted annual growth of gross domestic product (GDP) averaged only 2.91 percent.
- During that period, the remainder of the economy—consisting of investment (I), government purchases of goods and services (G), and net exports (NX)—grew at only a 1.70 percent inflation-adjusted annual rate.
- Expressed in terms of its contribution to average quarterly real GDP growth during the decade ending in the third quarter of 2007, PCE accounted for 81.3 percent, while the other components (I, G and NX) contributed only 18.7 percent.
- Over the quarter-century ending in the third quarter of 2007, consumer expenditures grew, on average, at a 3.50 continuously compounded annual rate, while the rest of the economy (I, G and NX) grew at a 2.79 percent annual rate.
- PCE accounted for 70.8 percent of average real GDP growth during those 25 years (1982: Q3 through 2007: Q3), while all other components (I, G and NX) contributed 29.2 percent.

Consumer spending accounts for a majority of spending in all advanced nations. What makes the U.S. experience of recent decades unusual is that the share of consumer spending in GDP was relatively high already before it began to increase substantially further during the 1980s, 1990s and 2000s. In dollar terms, PCE's share of GDP in the third quarters of 1977, 1987, 1997 and 2007 were 62.5, 65.9, 66.7 and 69.5 percent, respectively. (See Figure 1.) Thus, consumer spending was a large and increasingly important part of the American economy during the decades preceding the recession and remains so today.

International dimensions of U.S. consumer spending. As consumer spending grew rapidly in the U.S., we imported consumer-oriented goods and services even more rapidly. Imports of all goods and services increased at an annual, inflation-adjusted rate of 6.5 percent during the decade ending in the third quarter of 2007. But imports of consumer goods—44 percent of all imports—increased at an annual average rate of 7.5 percent. U.S. imports contributed importantly to growth in many exporting countries around the world. U.S. consumers, therefore, served as the locomotive not only for the U.S. economy but for the global economy. Because we incurred large trade deficits, we required a corresponding inflow of foreign capital to finance them.

These three facets of U.S. and global economic growth—high-spending and low-saving American consumers, large U.S. trade deficits, and substantial inflows of foreign capital—are important contributors to the so-called "global imbalances" long noted by international economists and policymakers. These imbalances may have contributed to the U.S. housing bubble, the global financial crisis and the ensuing Great Recession.[1]

A neighborly comparison: the U.S. and Canada. To illustrate how striking the growth of consumer spending in the U.S. has been, Table 1 shows decade averages of the four major sectoral expenditure categories for the U.S. and Canada since 1961. After remaining little changed during the 1960s and 1970s, the consumer share of U.S. GDP averaged 64.6, 67.3 and 70.0 percent during the 1980s, 1990s and 2000s, respectively. The consumer-spending share in Canada showed no pronounced movement in either direction over the five decades. Note that to "make room" for the increased role of consumer spending in U.S. GDP, our investment, net exports and—perhaps surprisingly—even government expenditures were "crowded out."

What's wrong with a consumer-driven economy? In a pure accounting sense, an additional dollar of consumer expenditure increases GDP just as much as an additional dollar of business investment or exports. So what's wrong with a 70 percent share of consumer spending in GDP? There are both theoretical reasons and empirical evidence that suggest U.S. long-term growth prospects may have been harmed by the consumer boom that played out in the decades before the crash.

Standard economic-growth theory suggests that an economy must continuously invest in new capital goods and structures in order to grow, become more productive and raise citizens' living standards over time. Empirical evidence confirms the prediction that economies that invest a higher share of their incomes (or that have access to relatively inexpensive investment goods, which presumably results in more investment) tend to grow at faster rates.[2] If consumer spending "crowds out" investment spending, the economy may not grow as fast.

TABLE 1

Composition of GDP in the U.S. and Canada

Average annual share of GDP (percent)	Consumer expenditures	Investment	Net exports	Government expenditures
U.S.				
1961-70	61.8	20.5	0.6	17.1
1971-80	62.5	20.6	–0.3	17.2
1981-90	64.6	20.3	–1.9	17.0
1991-2000	67.3	18.9	–1.5	15.3
2001-10	70.0	18.6	–4.5	15.9
Canada				
Average annual share of GDP (percent)	Consumer expenditures	Investment	Net exports	Government expenditures
1961-70	58.8	23.3	0.7	17.1
1971-80	54.4	23.8	0.5	21.2
1981-90	54.9	21.5	1.7	21.7
1991-2000	57.6	19.2	2.1	21.2
2001-10	56.4	21.4	2.4	19.8
Differences: U.S. minus Canada				
Average annual share of GDP (percent)	Consumer expenditures	Investment	Net exports	Government expenditures
1961-70	3.0	–2.8	–0.1	0.0
1971-80	8.1	–3.2	–0.7	–4.0
1981-90	9.7	–1.2	–3.6	–4.8
1991-2000	9.7	–0.2	–3.6	–5.8
2001-10	13.6	–2.8	–6.9	–3.9

SOURCE: Organisation for Economic Co-operation and Development.

Indeed, during our own economic history, higher investment generally has been associated with lower consumer spending, and vice versa, where both are measured as shares of GDP. This is at least circumstantial evidence of some crowding out going in one direction or the other. During the period 1951-2010, consumer spending generally was lower than its average in years in which investment was higher than its average; and consumer spending generally was lower than average when investment was higher than average.[3]

Moreover, just as in cross-country studies, higher investment spending has been associated with higher economic growth, while years of relatively high consumer spending have been associated with relatively low economic growth in the U.S. This is true whether we look at long or short periods of years considered individually or decade-long averages, as shown in tables 2 and 3.

Table 2 shows that the relationship between the share of U.S. GDP accounted for by consumer spending and the rate of economic growth generally has been inverse—that is, they are negatively correlated. Looking at 10-year periods after World War II one by one, the correlation between the consumer-spending share of the economy in a given year and the economic growth rate in that year ranged between a low of –0.58 and a high of 0.53, with an overall value of –0.31 for the 60-year period 1951-2010. The bottom panel of the table shows decade-long averages of the consumer share of GDP and decade averages of real economic growth rates. The correlation between the variables in these two columns is –0.82, indicating a very strong tendency for decades of relatively high consumer spending in GDP, such as 2001-2010, to be ones in which economic growth was weak.

Table 3 provides analogous information for private investment spending. The correlation between the share of U.S. GDP accounted for by private investment spending and the rate of economic growth generally has been positive. Looking at 10-year periods, the correlation between the private investment-spending share of the economy in any year and the economic growth rate in that year ranged between a low of 0.43 and a high of 0.68, with an overall value of 0.50 for the 60-year period 1951-2010. The bottom panel of the table shows decade-long averages of the private investment-share of GDP and decade

TABLE 2

Correlations between the Share of *Consumer Spending* in the U.S. Economy and Economic Growth

	Correlation between share of consumer spending in GDP in a given year and real economic growth rate in that same year	
1951-60	–0.54	
1961-70	–0.57	
1971-80	–0.36	
1981-90	0.06	
1991-2000	0.53	
2001-10	–0.58	
1951-2010	–0.31	
	X: Average share of consumer spending in GDP during decade	Y: Average annual rate of real economic growth during decade
1951-60	62.3	3.4
1961-70	61.8	4.1
1971-80	62.5	3.1
1981-90	64.6	3.2
1991-2000	67.3	3.3
2001-10	70.0	1.5
Correlation (X, Y) = –0.82		

SOURCE: Bureau of Economic Analysis.

TABLE 3

Correlations between the Share of *Private Investment Spending* in the U.S. Economy and Economic Growth

	Correlation between share of private investment spending in GDP in a given year and real economic growth rate in that same year	
1951-60	0.75	
1961-70	0.64	
1971-80	0.43	
1981-90	0.49	
1991-2000	0.76	
2001-10	0.68	
1951-2010	0.50	
	X: Average share of private investment spending in GDP during decade	Y: Average annual rate of real economic growth during decade
1951-60	15.5	3.4
1961-70	15.5	4.1
1971-80	17.0	3.1
1981-90	16.7	3.2
1991-2000	15.7	3.3
2001-10	15.3	1.5
Correlation (X, Y) = 0.14		

SOURCE: Bureau of Economic Analysis.

averages of real economic growth rates. The correlation between the variables in these two columns is 0.14, indicating a tendency, albeit a weak one, for decades of relatively low private investment spending, such as in 2001-2010, to also be decades in which economic growth was low.

In sum, the primary reason a consumer-dominated economy may not be desirable is that consumer spending may crowd out investment spending, which is a key determinant of long-term growth. Of course, the tendency of consumer spending in the U.S. to be high when private investment spending and economic growth are low may be due to more complex causes or pure chance, but the simple correlations presented here are at least suggestive of a more direct connection.

Five Trends Working Against Consumer Spending

At least five major trends currently evident suggest that U.S. consumer spending may grow more slowly in the near future than it has for decades.

Lower wealth. First and foremost, U.S. household wealth took a beating during the Great Recession. The inflation-adjusted average wealth of an American citizen, which plateaued at about $210,000 during the first half of 2007, remained about 24 percent lower on Sept. 30, 2011 ($160,000), despite having rebounded from the depressed level of the first quarter of 2009 ($152,000; all figures are expressed in terms of 2005 dollars).[4] Many lower- and middle-income households are feeling especially strong balance-sheet pressure as house prices—representing their principal asset in many cases—continue to weaken even as stock-market values—overwhelmingly owned by high-income households—have recovered some of their losses. Negative equity—a situation in which a household's mortgage debt exceeds the market value of the house—now affects between 22 and 29 percent of all households with mortgages, according to various estimates.[5] In sum, the loss of significant amounts of wealth and the severe pressure in some households to deleverage their balance sheets (reduce debt) are likely to contribute to restrained consumer spending for some time.

Stagnant incomes. The economic recovery under way since mid-2009 has been mediocre, at best. Job growth barely matches population growth, while incomes of the typical worker are barely keeping up with inflation. Average weekly earnings, after inflation adjustment, for a private-sector worker increased just 12 cents, or 0.03 percent—from $350.80 to $350.92—during the five years through October 2011.[6] Continuing a trend in evidence even before the recession, most of the overall gains in income appear to be flowing to high-income workers.

Tight credit. Consumer lenders either have disappeared altogether or are offering credit on a much more restricted basis than before the downturn. By all accounts, mortgage credit is less available to all but the strongest borrowers than was the case just a few years ago. Even borrowers with high credit scores need substantial equity in order to borrow for house purchase or mortgage refinancing. According to Federal Reserve surveys of banks' lending officers, credit standards for nonmortgage consumer loans have begun to loosen only since 2010, after tightening for about four years.[7] Credit standards for mortgage loans have not loosened significantly, after having been tightened sharply between 2006 and 2010.

Fragile confidence. Major consumer-confidence indexes have rebounded from their lowest levels during 2009 in the immediate aftermath of the recession, but they remain below the levels that prevailed just as the recession began in late 2007.[8] Inflation-adjusted per-capita consumption expenditures grew at a 2.4-percent annualized rate during the decade ending in December 2007, but have grown at only a 1.4-percent annualized rate in the 28 months since the recession ended (June 2009 through October 2011).

Looming reversal of stimulus. Unprecedented doses of monetary- and fiscal-policy stimulus since the recession began partly offset the contractionary forces on consumer spending noted above. Government support for consumer spending on this scale is not feasible indefinitely, however. The Federal Reserve has explored options to

"exit" its extraordinarily accommodative monetary policy, while Congress and the president agree that budget consolidation is necessary in the not-too-distant future. In both cases, a tightening of policy measures represents a withdrawal of support for household incomes and wealth and, therefore, consumer spending.

Individually, any of the five obstacles noted above might be surmountable. But combined, these contractionary forces make the outlook for broad-based consumer spending growth challenging. To be sure, some households weathered the economic and financial storms well, but we can't count on these fortunate few to step up their spending sufficiently to offset the lost spending caused by declines in wealth, income, access to credit, confidence and government support.

Rebalancing the U.S. and Global Economies

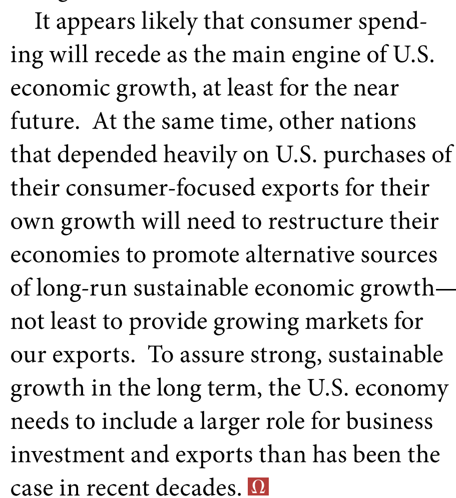
Unfortunately, it will take time for business investment and exports—the sectors essential for creating robust, sustainable growth for years to come—to expand sufficiently to replace the spending power long provided by consumers. Business investment and exports today are relatively small sectors of the U.S. economy.

To see the scale of the restructuring challenge, consider this simple thought experiment. A sustained one percentage-point decline in the average growth rate of consumer spending would require either business-investment growth or export growth to double immediately from their prerecession long-term average rates in order to make up the shortfall. More realistically, both investment and export growth might increase to offset slower consumer-spending growth, but the required accelerations still would be substantial.

If consumer spending indeed grows more slowly for some time than it did before the recession, and if business investment and exports take some time to ramp up to become permanently larger components of the U.S. economy, we are left with two undesirable short-term alternatives. Either the overall economic growth rate will decline, as slower consumer-spending growth cannot be fully compensated by faster investment and export activity, or one could attempt to fill the private-demand shortfall with increased direct government spending, tax cuts and transfer payments to households.

In fact, these dismal scenarios are not hypothetical; they've already happened. The recession itself could be described as a period in which consumer spending contracted sharply, while other sources of private demand were unable to offset the shortfall. The subsequent recovery, such as it is, largely has been the result of massive government interventions in the form of financial rescues, unprecedented monetary stimulus and record-breaking government budget deficits. We're left with extremely low short-term and long-term interest rates, as well as historically large budget deficits—all of which must reverse at some point.

Only a few policymakers have discussed the significant challenges posed by our consumer-dominated economy.[9] Our objective is clear, if not easily attainable: We must actively restructure our economy to become more friendly to business investment and exports in order to put long-term growth on a sustainable foundation. We must come closer to balancing our trade and our government budgets, and we must generate a far higher share of the savings we need for investment in our own economy.[10] Higher saving rates also would insulate us somewhat from potential disruptive shifts in capital inflows and outflows initiated by foreign investors.



It appears likely that consumer spending will recede as the main engine of U.S. economic growth, at least for the near future. At the same time, other nations that depended heavily on U.S. purchases of their consumer-focused exports for their own growth will need to restructure their economies to promote alternative sources of long-run sustainable economic growth—not least to provide growing markets for our exports. To assure strong, sustainable growth in the long term, the U.S. economy needs to include a larger role for business investment and exports than has been the case in recent decades. Ω

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ENDNOTES

1. See Bernanke.
2. For evidence of the former, see Barro. For evidence of the latter, see Doppelhofer et al. It is, of course, difficult to isolate the direction of causation—do economies that invest more grow faster, or do economies that grow faster invest more—but these studies carry out careful tests to ensure that the causation runs from investment to growth, and not the reverse.
3. To be precise, the correlation between the annual investment and consumer shares of GDP during the 1951-2010 period was –0.31.
4. Data are from the Federal Reserve Board (household net worth); Census Bureau (population); and Bureau of Economic Analysis (personal-consumption expenditures price index).
5. See estimates of negative equity from CoreLogic (www.corelogic.com/about-us/research-and-trends.aspx) or Zillow (www.zillow.com/blog/research/).
6. Bureau of Labor Statistics (www.bls.gov/news.release/realer.nr0.htm).
7. See the Federal Reserve Senior Loan Officer Opinion Survey on Bank Lending Practices (www.federalreserve.gov/boarddocs/SnLoanSurvey/201111/default.htm).
8. For example, the Conference Board's Consumer-Confidence Index was 90.6 during December 2007, just as the recession was beginning, but has not yet exceeded 72.0 during the recovery. Meanwhile, the University of Michigan's Consumer-Sentiment Index was 74.7 during December 2007 (after seasonal adjustment), but has spent only two months above that level since then (March 2010 and February 2011).
9. Two notable examples are Ben S. Bernanke, "Rebalancing the Global Recovery", speech in Frankfurt, Germany, Nov. 19, 2010 (www.federalreserve.gov/newsevents/speech/bernanke20101119a.htm) and Chapter 1 in International Monetary Fund, World Economic Outlook, April 2011 (www.imf.org/external/pubs/ft/weo/2011/01/pdf/text.pdf).
10. During 2010, foreigners provided almost 21 percent of the total of domestic and foreign savings in the United States. Borrowing from foreigners amounted to $480 billion, compared to domestic sources of saving of $1,821 billion, for a total of $2,300 billion (Bureau of Economic Analysis).

REFERENCES

Barro, Robert J. "Economic Growth in a Cross Section of Countries," *Quarterly Journal of Economics,* Vol. 106 , No. 2, May 1991, pp. 407-43, Table 4.

Bernanke, Ben. "Global Imbalances: Links to Economic and Financial Stability," speech at the Banque de France Financial Stability Review Launch, Paris, France, Feb. 18, 2011. See www.federalreserve.gov/newsevents/speech/bernanke20110218a.htm

Doppelhofer, Gernot; Miller, Ronald I.; and Sala-i-Martin, Xavier. "Determinants of Long-Term Growth: A Bayesian Averaging of Classical Estimates (BACE) Approach," *American Economic Review,* Vol. 94, No. 4, September 2004, pp. 813-35, Table 2.