Returns for Domestic Nonfinancial Business

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THE PROFITABILITY of domestic nonfinancial corporations rose in 2010, before and after taxes, after 3 years of declines, according to statistics from the Bureau of Economic Analysis (BEA). A similar but broader measure of profitability for nonfinancial industries—including proprietors' income—fell for the fourth consecutive year in 2009, the most recent year for which these statistics are available.

Once a year, BEA presents aggregate rates of return for domestic nonfinancial corporations, nonfinancial industries, and a few major industry groups—mining, construction, and utilities; manufacturing; wholesale and retail trade; and "other" nonfinancial industries. Various Q ratios, which compare the financial market value of assets with their replacement costs, are also presented.

These broad measures of profitability may be useful to economists and policymakers. They show which industries are gaining or losing in returns, and they show the relative annual movement of those returns. Industry sector performance is available through 2009, and corporate returns are available through 2010. Thus, the statistics presented in this article show the full effect of the recession that began in December 2007 and a full year of recovery in 2010.

The returns in this article are calculated as the ratio of the net operating surplus to the net stock of produced assets. For nonfinancial corporations, the net operating surplus is the return accruing to capital after labor costs, taxes on production and imports (less subsidies), consumption of fixed capital, and intermediate inputs are deducted from receipts (table 1).[1] Produced assets refer to the net stock of capital plus inventories valued at current cost.

These statistics are based on preliminary estimates from the national income and product accounts (NIPAs) and the fixed assets accounts. The statistics on industry returns are calculated using data from the annual industry accounts, the NIPAs, and the fixed assets accounts. To calculate the Q ratios, additional data were drawn from the Federal Reserve Board's flow of funds accounts.

1. Corporate profits and net interest are based on tabulations of "company" data rather than "establishment" data. As a result, net operating surplus of nonfinancial corporations includes the income earned by the corporation's financial services-producing establishments, and it excludes income earned by the nonfinancial establishments of financial corporations.

Table 1. Net Operating Surplus and Produced Assets of Domestic Nonfinancial Corporations and Nonfinancial Industries, 1999–2010

[Billions of dollars]

	Nonfinancial corporations	Nonfinancial Industries					
		Total	Mining, utilities, and construction	Manu-facturing	Wholesale and retail trade	Other industries [1]	Addendum: ICT-producing industries [2]
	Net operating surplus (before tax)						
1999	745.1	1,367.5	173.1	311.8	215.2	667.4	32.1
2000	708.2	1,320.1	197.9	298.8	219.4	604.0	–28.2
2001	626.7	1,310.4	204.5	248.7	215.2	642.1	–45.3
2002	647.1	1,395.6	181.6	272.3	221.8	719.9	33.2
2003	699.2	1,492.3	215.9	269.5	237.8	769.1	55.5
2004	877.5	1,756.4	257.0	373.7	248.6	877.1	98.9
2005	1,025.1	1,900.9	279.1	432.9	260.9	928.0	118.3
2006	1,163.7	2,017.5	303.7	482.7	273.5	957.7	115.9
2007	1,137.4	2,109.5	293.7	507.4	285.9	1,022.5	112.2
2008	1,061.1	2,055.6	298.0	443.6	246.0	1,068.0	128.6
2009	962.5	1,958.5	215.3	443.8	259.1	1,040.3	136.3
2010	1,156.1	....	....	....	....	....	....
	Produced assets, average of yearend values						
1999	7,729.9	9,438.4	1,658.6	2,111.9	1,591.1	4,076.8	371.2
2000	8,219.5	10,036.4	1,736.4	2,200.7	1,698.8	4,400.6	413.4
2001	8,648.3	10,574.7	1,859.1	2,253.4	1,760.8	4,701.5	448.0
2002	8,952.1	10,973.8	1,989.1	2,275.2	1,802.9	4,906.7	455.9
2003	9,238.2	11,360.3	2,096.4	2,290.4	1,877.3	5,096.3	453.6
2004	9,746.6	12,019.3	2,267.4	2,350.2	2,007.0	5,394.8	464.1
2005	10,550.8	13,030.7	2,565.9	2,474.8	2,179.7	5,810.3	486.0
2006	11,405.9	14,101.2	2,884.9	2,610.7	2,339.4	6,266.3	510.3
2007	12,155.1	15,048.0	3,161.3	2,762.1	2,477.4	6,647.2	534.1
2008	12,806.9	15,864.2	3,442.3	2,908.3	2,567.9	6,945.7	562.8
2009	12,919.5	16,002.8	3,529.0	2,937.1	2,530.4	7,006.3	573.2
2010	13,000.4	....	....	....	....	....	....

1. Consists of agriculture, forestry, fishing and hunting; transportation and warehousing; information; rental and leasing services and lessors of intangible assets; professional, scientific, and technical services; administrative and waste management services; educational services; health care and social assistance; arts, entertainment, and recreation; accommodation and food services; and other services, except government.

2. Information-communication-technology (ICT)-producing industries consists of computer and electronic products; publishing industries (includes software); information and data processing services; and computer systems design and related services. Computer and electronic products are included in manufacturing; the other ICT-producing industries are included in "other" industries.

NOTE. Industrywide net operating surplus for 2010 will be available from the fall 2011 update of the annual industry accounts.

Corporate returns

In 2010, the rates of return for nonfinancial corporations, both before and after taxes, increased after 3 years of annual declines. Before taxes, the rate of return rose to 8.9 percent in 2010 from a recent low of 7.5 percent in 2009 (chart 1 and table 2). The before-tax rate of return recently peaked in 2006 at 10.2 percent and bottomed at 6.5 percent in 1982. The after-tax rate of return rose to 6.7 in 2010 from a recent low of 6.1 percent in 2009.

Other measures of profits—such as BEA's measure of corporate profits from current production—have shown a rising trend over the last 30 years. The measures presented in this article exclude the volatile financial sector and compare returns with business assets rather than with gross domestic product (GDP) or corporate value added. Business assets have grown at roughly the same rate as profits, and returns on these assets have remained in a stable range over the last 30 years as shown in chart 1.

In 2010, nonfinancial corporate-produced assets in current dollars—the denominator in rates of return—rose again. Such assets have risen every year since 1960.

Industry returns

Rates of return can also be calculated for industry sectors using data from the annual industry accounts, which provide annually updated data on 65 industries that together account for total economic activity. Similar to the method used for nonfinancial corporations, rates of return are calculated as net operating surplus divided by the net stock of produced assets.

Table 2. Rates of Return and Shares of Net Value Added for Domestic Nonfinancial Corporations and Nonfinancial Industries, 1999–2010

[Percent]

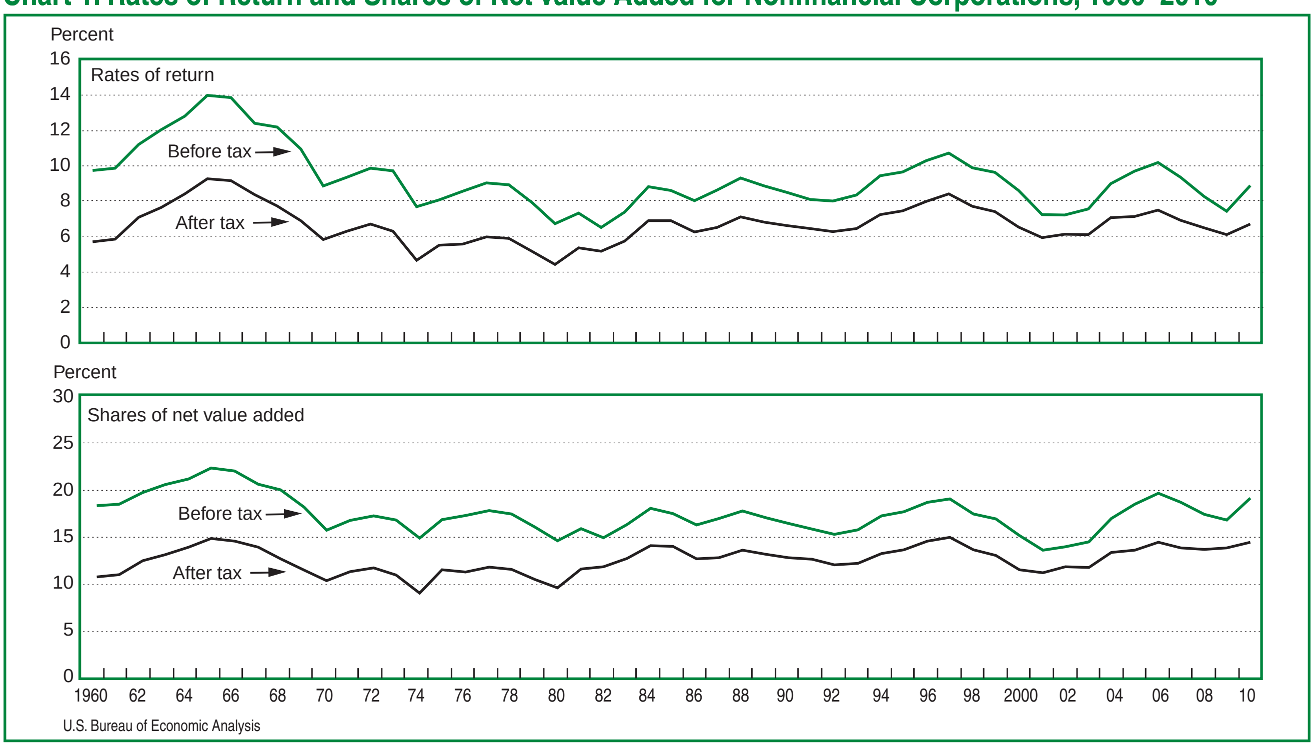
	Nonfinancial corporations		Nonfinancial Industries (before tax)					
	After tax	Before tax	Total	Mining, utilities, and construction	Manu-facturing	Wholesale and retail trade	Other industries [1]	Addendum: ICT-producing industries [2]
Rates of return								
1999	7.4	9.6	14.5	10.4	14.8	13.5	16.4	8.7
2000	6.5	8.6	13.2	11.4	13.6	12.9	13.7	–6.8
2001	6.0	7.2	12.4	11.0	11.0	12.2	13.7	–10.1
2002	6.1	7.2	12.7	9.1	12.0	12.3	14.7	7.3
2003	6.1	7.6	13.1	10.3	11.8	12.7	15.1	12.2
2004	7.1	9.0	14.6	11.3	15.9	12.4	16.3	21.3
2005	7.1	9.7	14.6	10.9	17.5	12.0	16.0	24.3
2006	7.5	10.2	14.3	10.5	18.5	11.7	15.3	22.7
2007	6.9	9.4	14.0	9.3	18.4	11.5	15.4	21.0
2008	6.5	8.3	13.0	8.7	15.3	9.6	15.4	22.9
2009	6.1	7.5	12.2	6.1	15.1	10.2	14.8	23.8
2010	6.7	8.9	....	....	....	....	....	....
Shares of net value added								
1999	13.0	16.9	22.4	29.9	25.8	18.6	21.1	8.9
2000	11.5	15.1	20.4	30.9	23.9	17.9	18.1	–7.9
2001	11.2	13.6	20.0	30.5	21.3	17.4	18.4	–14.0
2002	11.8	13.9	20.7	27.6	23.1	17.6	19.8	9.1
2003	11.7	14.5	21.1	30.3	22.5	18.1	20.1	14.5
2004	13.3	16.9	23.1	32.8	28.6	18.0	21.3	22.6
2005	13.5	18.4	23.5	32.7	31.2	17.9	21.2	24.8
2006	14.4	19.6	23.7	32.5	34.1	17.8	20.7	23.3
2007	13.8	18.6	23.6	30.8	34.9	18.0	20.7	21.8
2008	13.7	17.4	22.8	30.4	31.9	15.9	20.9	23.9
2009	13.8	16.8	22.8	26.2	33.5	17.4	20.9	25.8
2010	14.4	19.1	....	....	....	....	....	....

1. Consists of agriculture, forestry, fishing and hunting; transportation and warehousing; information; rental and leasing services and lessors of intangible assets; professional, scientific, and technical services; administrative and waste management services; educational services; health care and social assistance; arts, entertainment, and recreation; accommodation and food services; and other services, except government.

2. Information-communication-technology (ICT)-producing industries consists of computer and electronic products; publishing industries (includes software); information and data processing services; and computer systems design and related services. Computer and electronic products are included in manufacturing; the other ICT-producing industries are included in "other" industries.

NOTE. Industrywide rates of return for 2010 will be available from the fall 2011 update of the annual industry accounts.

Chart 1. Rates of Return and Shares of Net Value Added for Nonfinancial Corporations, 1960–2010



Like nonfinancial corporations' net operating surplus, the nonfinancial industries' net operating surplus includes corporate profits, business transfer payments, and net interest. However, it also includes proprietors' income, which reflects the income of sole proprietorships and partnerships.[2] For this article, real estate, which includes owner-occupied housing, is excluded from the nonfinancial industry data—the net operating surplus and produced assets—to allow for a better comparison with the nonfinancial corporate returns data, which do not reflect home ownership.

Most of the difference between the total industry rates of return and the corporate rates of return can be attributed to the inclusion of proprietors' income in industry net operating surplus. However, several statistical differences between the annual industry accounts and the NIPAs also affect the estimates. Notably, the annual industry accounts include adjustments that (1) exclude the financial services-producing establishments of primarily nonfinancial corporations and (2) include the nonfinancial services-producing establishments of primarily financial corporations as well as a share of the NIPA statistical discrepancy. Despite the differences between the total industry rates and the pretax corporate rates, the annual patterns of change of each are similar (chart 2).

The rate of return for total nonfinancial industries fell for the fourth consecutive year to 12.2 percent in 2009 from 13.0 percent in 2008; it declined 2.4 percentage points from a recent peak in 2005 (table 2). The nonfinancial industries' share of net value added was 22.8 percent in 2009, unchanged compared with 2008.

2. Proprietors' income reflects both the return accruing to capital and the return to proprietors' and partners' labor, but these returns are not identified separately in the data.

Specific industry groups

Along with the nonfinancial industry total, returns were calculated for the following four nonfinancial industry groups: mining, construction, and utilities; manufacturing; wholesale and retail trade; and "other" nonfinancial industries (table 2 and chart 3).[3]

Of the four industry groups, the mining, construction, and utilities industry group had the largest decline in the rate of return, falling to 6.1 percent in 2009 from 8.7 percent in 2008. The rate of return for the wholesale and retail trade industry group increased to 10.2 percent in 2009 from 9.6 percent in 2008, the largest increase among the four industry groups.

The mining, construction, and utilities industry group's share of net value added fell for the fifth consecutive year to 26.2 percent in 2009 from 30.4 percent in 2008 and represented the only decline among the four industry groups. The manufacturing industry group experienced the largest growth (1.6 percentage points) in share of net value added, increasing to 33.5 percent in 2009 from 31.9 percent in 2008. Shares of net value added remained unchanged for

3. The "other" nonfinancial industry group consists of agriculture, forestry, fishing, and hunting; transportation and warehousing; information; rental and leasing services and lessors of intangible assets; professional and business services; administrative and waste management services; educational services, health care, and social assistance; arts, entertainment, recreation, accommodation, and food services; and other services, except government.

Chart 2. Rates of Return for Domestic Nonfinancial Corporations and Industries, 1999–2010

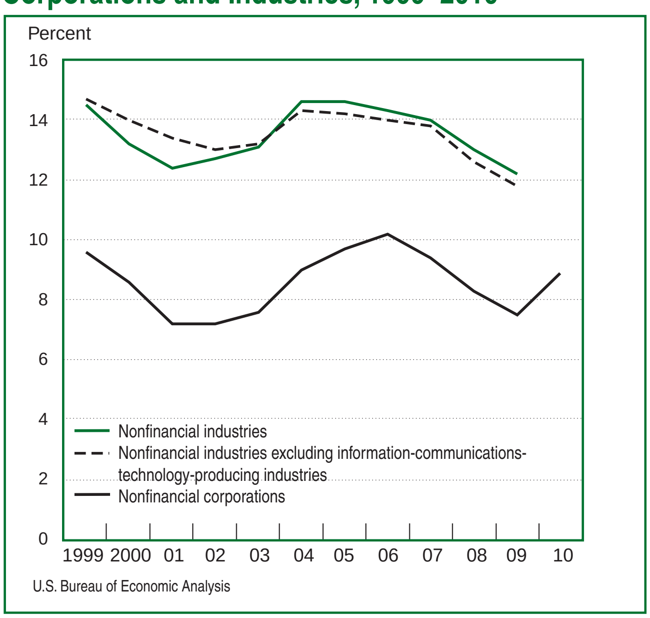
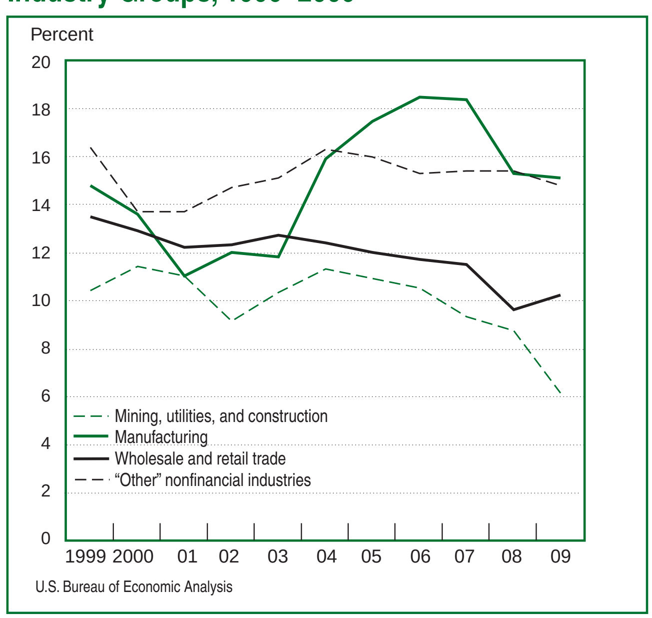


Chart 3. Rates of Return for Domestic Nonfinancial Industry Groups, 1999–2009



the nonfinancial industries total as well as for "other" nonfinancial industries.

Rates of return were also calculated for the information-communication-technology (ICT)-producing industries.[4] The rate of return for the ICT-producing industries increased to 23.8 percent in 2009 from 22.9 percent in 2008, its second consecutive year of growth. Likewise, this industry group's share of net value added increased for the second straight year, increasing to 25.8 percent in 2009 from 23.9 percent in 2008.

Users may find these consistent series of nonfinancial industry returns and capital stock helpful for comparative studies. For example, from 2005 to 2009, the mining, construction, and utilities industry group consistently had the lowest rates of return but achieved the highest average percentage growth in produced assets, which grew at an annual rate of 8.3 percent. Conversely, while returns to the manufacturing industry group regularly exceeded the national average, the group's annual produced asset growth was one of the slowest over the same period, averaging only 4.4 percent.

4. The ICT-producing industries consists of computer and electronic products; publishing industries (includes software); information and data processing services; and computer design and related services. Computer and electronic products are included in the manufacturing group; the other ICT-producing industries are included in the "other" nonfinancial industries group.

Q ratios

Tobin's Q, or simply "Q," is the ratio of financial-market valuation of corporate assets to the current-cost value of the assets. A Q ratio above 1 indicates that financial markets value corporate assets above the replacement costs. As a Q ratio rises above 1, companies may be more inclined to make direct investments in plant and equipment. A Q ratio below 1 indicates that the financial markets value corporate assets below the replacement costs. As a Q ratio falls below 1, companies may be more inclined to buy other companies for their capacity and make fewer direct investments.

Three Q-type ratios for domestic nonfinancial corporations are defined as follows:

- Q1 is calculated as the market value of outstanding equity divided by the net stock of produced assets.
- Q2 adds the book value of outstanding corporate bonds to the numerator used in Q1. The inclusion of bonds makes Q2 a more complete measure of invested capital, but including them at historical cost is clearly inconsistent with the underlying rationale for Q, which is to provide a comparison of market valuation with replacement cost.

Chart 4. Q-Type Ratios and Market Capitalization of Domestic Nonfinancial Corporations, 1960–2010

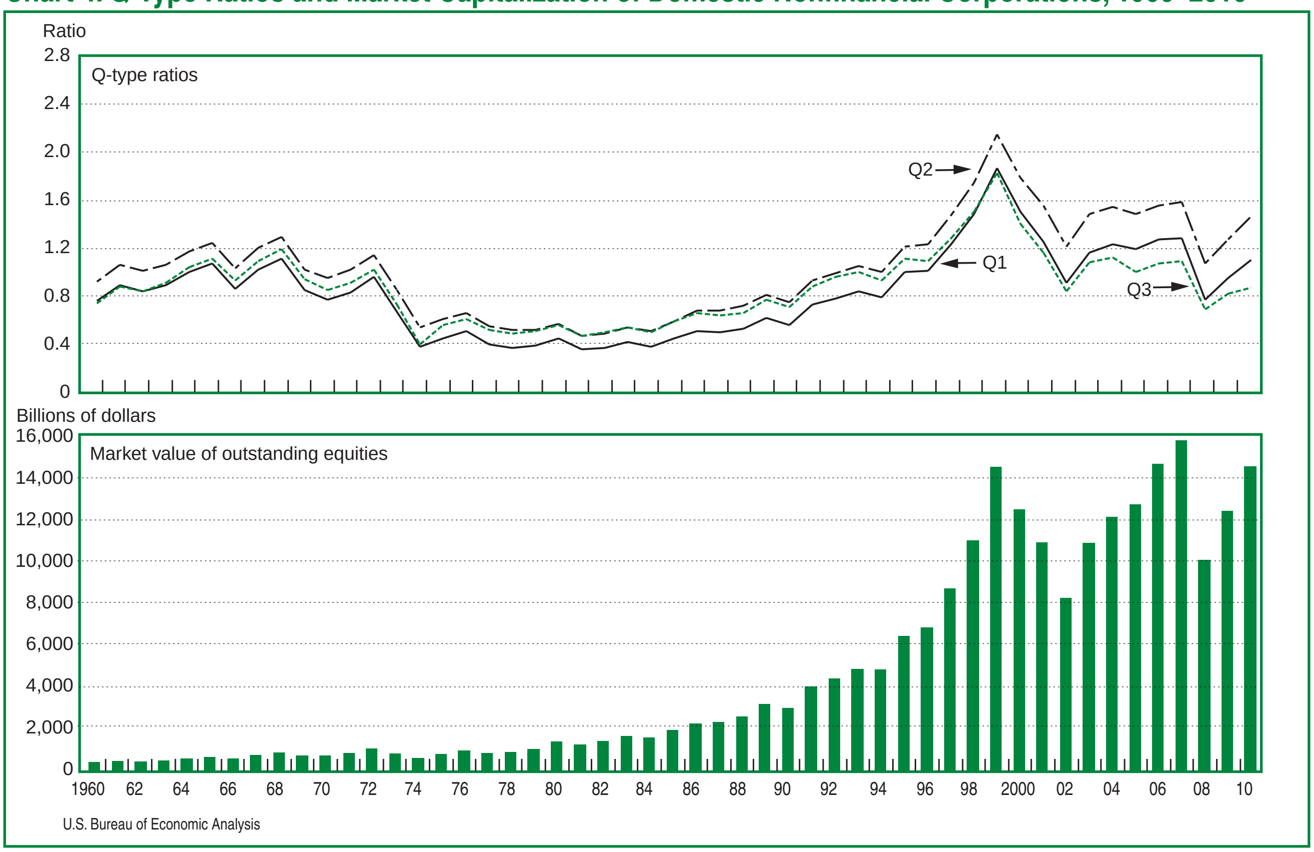


Table 3. Q-type Ratios, 1960–2010

	Q1[1]	Q2[2]	Q3[3]		Q1[1]	Q2[2]	Q3[3]
1960	0.77	0.93	0.75	1985	0.46	0.60	0.60
1961	0.90	1.07	0.89	1986	0.52	0.69	0.67
1962	0.85	1.02	0.85	1987	0.51	0.69	0.65
1963	0.90	1.07	0.92	1988	0.54	0.73	0.67
1964	1.01	1.18	1.05	1989	0.63	0.82	0.78
1965	1.08	1.25	1.12	1990	0.57	0.76	0.72
1966	0.87	1.04	0.94	1991	0.74	0.94	0.89
1967	1.03	1.21	1.10	1992	0.79	1.00	0.97
1968	1.12	1.30	1.20	1993	0.85	1.06	1.01
1969	0.86	1.03	0.95	1994	0.80	1.01	0.94
1970	0.78	0.96	0.86	1995	1.01	1.22	1.12
1971	0.84	1.03	0.92	1996	1.02	1.24	1.10
1972	0.97	1.15	1.03	1997	1.24	1.48	1.29
1973	0.68	0.86	0.74	1998	1.49	1.75	1.51
1974	0.39	0.55	0.41	1999	1.87	2.15	1.83
1975	0.46	0.62	0.57	2000	1.51	1.79	1.41
1976	0.52	0.67	0.62	2001	1.26	1.56	1.17
1977	0.41	0.56	0.53	2002	0.92	1.22	0.85
1978	0.38	0.53	0.50	2003	1.17	1.49	1.09
1979	0.40	0.53	0.52	2004	1.24	1.55	1.13
1980	0.46	0.58	0.57	2005	1.20	1.49	1.01
1981	0.37	0.48	0.48	2006	1.28	1.56	1.08
1982	0.38	0.50	0.51	2007	1.29	1.59	1.10
1983	0.43	0.55	0.55	2008	0.78	1.08	0.70
1984	0.39	0.52	0.51	2009	0.96	1.28	0.83
				2010	1.11	1.47	0.88

1. Q1 is the market value of outstanding equity divided by the net stock of produced assets valued at current cost.
2. Q2 is the market value of outstanding equity plus book value of outstanding corporate bonds divided by the net stock of produced assets valued at current cost.
3. Q3 is the market value of outstanding equity plus book value of outstanding corporate bonds plus net liquid assets divided by the net stock of produced assets valued at current cost.

- Q3 adds an estimate of the market value of outstanding corporate bonds and net liquid assets to the numerator used in Q1.[5 6]

All three ratios reached record lows for the decade in 2008, though only Q1 fell below 1. The 2007 and 2008 declines for the Qs reflected the massive stock market declines and the continued growth of the capital stock denominator in 2007 and 2008. The capital stock denominator continued its rise in 2009 and 2010.

The stock market recovery started in April 2009. Average financial asset values were higher for the year on all three Q ratios, and all three measures continued their rise in 2010 to a range of 0.88 to 1.47.

5. The market value of bonds outstanding is approximated by a procedure developed by James Tobin and Dan Sommers. In brief, the process begins with published book values of bonds outstanding and the assumption that a bond matures in 10 years and carries a coupon rate equal to the Baa rate that prevailed in the year the bond was issued. Net liquid assets are estimated as financial assets less liabilities other than municipal securities, corporate bonds, and mortgages. The data are from the Board of Governors of the Federal Reserve System, *Flow of Funds Accounts of the United States,* statistical release Z.1 and "Selected Interest Rates," statistical release H.15 (Washington, DC: Board of Governors). The data are available at www.federalreserve.gov/releases/Z1 and www.federalreserve.gov/releases/h15.

6. In previous years, the Q3 ratio reflected an adjustment to remove the value of land from the market value of outstanding equity. BEA no longer makes this adjustment. For more information, see page 6 of www.bea.gov/papers/pdf/Sectoral_Balance_Sheets_for_Nonfinancial_Assets.pdf.