

Note on the Profitability of Domestic Nonfinancial Corporations, 1960–2001

The profitability of domestic nonfinancial corporations decreased in 2001, continuing a decline that began in 1998. The decrease was considerably more pronounced in before-tax measures than in after-tax measures.

Before subtracting corporate profits taxes, property income's rate of return on capital dropped from 7.7 percent in 2000 to 6.9 percent in 2001, the lowest rate since 1960 (chart 1 and table 1).¹ After subtracting profits taxes, the picture is different. Because taxes dropped

sharply in 2001, the after-tax rate of return slipped only from 5.7 percent to 5.5 percent, only a little below its median value for the past 42 years. The drop in taxes

1. As explained in detail in the section "Definitions," property income in this article is the sum of profits from current production and net interest payments. In other contexts, a different definition may be appropriate. For example, for the economy as a whole, property income might include some part of proprietors' income.

Property income estimates for 1999 and 2000 have been revised to incorporate the results of the recent annual revision of the national income and product accounts. See Eugene P. Seskin and Stephanie H. McCulla, "Annual Revision of the National Income and Product Accounts," SURVEY OF CURRENT BUSINESS 82 (August 2002): 7–34.

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Table 1. Rate of Return and Income Shares for Domestic Nonfinancial Corporations, 1960–2001

[Percent]

Year	Rate of return					Income share					Addendum: Corporate profits tax liability as percent of produced assets
	Property income before tax	Property income after tax	Corporate profits, before tax	Corporate profits, after tax	Net interest	Property income before tax	Property income after tax	Corporate profits, before tax	Corporate profits, after tax	Net interest	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1960	9.0	5.1	8.3	4.4	0.7	19.8	11.3	18.2	9.7	1.5	3.8
1961	9.1	5.3	8.3	4.5	0.8	19.9	11.5	18.2	9.8	1.7	3.8
1962	10.4	6.4	9.5	5.6	0.9	21.3	13.2	19.5	11.4	1.8	3.9
1963	11.2	7.0	10.3	6.1	0.9	22.2	13.9	20.5	12.1	1.8	4.2
1964	12.0	7.7	11.0	6.8	0.9	22.9	14.7	21.1	12.9	1.8	4.2
1965	13.1	8.6	12.1	7.6	1.0	24.1	15.7	22.2	13.9	1.9	4.4
1966	13.0	8.5	11.9	7.3	1.1	23.6	15.3	21.5	13.3	2.1	4.3
1967	11.7	7.7	10.4	6.5	1.2	22.1	14.6	19.7	12.3	2.3	3.8
1968	11.5	7.1	10.2	5.8	1.3	21.5	13.3	19.0	10.9	2.5	4.2
1969	10.3	6.3	8.7	4.8	1.6	19.5	12.0	16.5	9.0	3.0	3.8
1970	8.3	5.3	6.4	3.5	1.8	16.8	10.8	13.1	7.1	3.8	2.8
1971	8.7	5.8	6.9	4.0	1.8	18.0	11.9	14.3	8.2	3.7	2.9
1972	9.2	6.1	7.4	4.3	1.8	18.4	12.2	14.9	8.7	3.5	3.0
1973	9.1	5.8	7.3	4.0	1.9	18.0	11.5	14.3	7.8	3.7	3.1
1974	7.3	4.4	5.3	2.4	2.0	15.9	9.5	11.6	5.2	4.3	2.7
1975	7.6	5.1	5.9	3.4	1.7	18.0	12.1	14.0	8.1	4.1	2.4
1976	8.0	5.2	6.5	3.7	1.5	18.4	11.8	14.9	8.3	3.4	2.8
1977	8.5	5.5	7.0	4.0	1.5	18.9	12.3	15.5	8.9	3.4	2.8
1978	8.5	5.5	6.9	3.9	1.6	18.5	12.0	15.0	8.6	3.5	2.8
1979	7.5	4.8	5.7	3.1	1.7	16.8	10.8	12.9	6.9	3.9	2.5
1980	6.3	4.1	4.4	2.2	1.9	15.3	9.9	10.6	5.3	4.7	2.1
1981	6.9	5.1	4.8	2.9	2.1	16.8	12.3	11.7	7.1	5.1	1.8
1982	6.2	4.9	4.0	2.7	2.2	15.8	12.6	10.1	6.9	5.7	1.2
1983	6.9	5.3	4.9	3.3	2.0	17.0	13.2	12.1	8.2	5.0	1.5
1984	8.3	6.4	6.1	4.2	2.2	18.9	14.7	13.9	9.7	5.0	1.8
1985	7.9	6.3	5.8	4.1	2.1	18.0	14.2	13.1	9.4	4.9	1.6
1986	7.1	5.3	4.8	3.1	2.3	16.2	12.2	11.0	7.1	5.1	1.7
1987	7.8	5.7	5.5	3.4	2.3	17.1	12.6	12.0	7.5	5.1	2.0
1988	8.6	6.5	6.0	3.9	2.6	18.3	13.8	12.8	8.3	5.5	2.1
1989	8.2	6.3	5.2	3.3	3.0	17.6	13.4	11.2	7.0	6.4	1.9
1990	7.8	6.0	4.9	3.1	2.9	16.8	12.9	10.5	6.6	6.3	1.8
1991	7.2	5.7	4.6	3.1	2.6	15.9	12.5	10.2	6.7	5.8	1.6
1992	7.0	5.4	5.0	3.4	2.0	15.2	11.6	10.8	7.3	4.4	1.6
1993	7.4	5.6	5.6	3.8	1.8	15.8	12.0	12.0	8.1	3.9	1.8
1994	8.3	6.2	6.6	4.5	1.8	17.4	13.0	13.7	9.3	3.7	2.0
1995	8.6	6.5	6.8	4.7	1.8	17.9	13.6	14.2	9.8	3.7	2.1
1996	9.1	6.9	7.5	5.3	1.6	18.8	14.2	15.5	10.9	3.3	2.2
1997	9.5	7.2	7.8	5.6	1.7	19.2	14.7	15.8	11.3	3.4	2.2
1998	8.9	6.9	7.1	5.0	1.8	17.9	13.8	14.2	10.1	3.7	2.0
1999	8.6	6.5	6.6	4.5	2.0	17.1	12.9	13.1	8.9	4.0	2.1
2000	7.7	5.7	5.5	3.5	2.2	15.4	11.3	11.0	6.9	4.4	2.0
2001	6.9	5.5	4.7	3.3	2.3	14.5	11.5	9.8	6.8	4.7	1.4
Averages:											
1960–69	11.1	7.0	10.1	5.9	1.0	21.7	13.6	19.6	11.5	2.0	4.0
1970–79	8.3	5.4	6.5	3.6	1.7	17.8	11.5	14.1	7.8	3.7	2.8
1980–89	7.4	5.6	5.2	3.3	2.3	17.1	12.9	11.9	7.7	5.3	1.8
1990–99	8.2	6.3	6.3	4.3	2.0	17.2	13.1	13.0	8.9	4.2	1.9
Median:											
1960–2001	8.4	5.8	6.6	4.0	1.8	18.0	12.6	14.0	8.5	3.8	2.2

Source: Table 2.

Note. Columns 1–5 and 11 are percentages of the net stock of produced assets (averages of end-of-year values for adjacent years) valued at current cost. Columns 6–10 are percentages of domestic income. All corporate profits (and, thus, property income) estimates include inventory valuation and capital consumption adjustments.

partly reflected retroactive provisions of the 2002 economic stimulus bill.²

Before- and after-tax measures differ even more sharply in the case of property income's share of domestic income. The before-tax share dropped from 15.4 percent in 2000 to 14.5 percent in 2001, the lowest rate in more than 40 years. In contrast, the after-tax share increased slightly, from 11.3 percent to 11.5 percent.

Over a longer period, however, the before- and after-tax measures of rate of return and of income share paint similar pictures. All rose steadily from 1992 to 1997 and then turned down; all then decreased for 4 years. In 2001, all were about 25 percent below their 1997 peaks.

2. See the box "Retroactive Provisions of the Job Creation and Worker Assistance Act of 2002," SURVEY 82 (April 2002): 6.

Definitions. The rate of return may be calculated in many ways.³ In this note, it is calculated as the ratio of "property income" to "produced assets." Property income of domestic nonfinancial corporations is profits from current production—that is, profits before tax plus

3. For example, the numerator could be defined exclusive of net interest or in terms of some measure of profits other than the current-production variant; it could be profits after tax without inventory valuation and capital consumption adjustments, or it could be profits as calculated on the basis of financial-accounting standards.

Similarly, the denominator could be valued at historical cost rather than at current cost; for example, the Census Bureau's *Quarterly Financial Report (QFR)* contains estimates of fixed assets based on historical costs and total inventories based on a mixture of accounting methods. Moreover, the denominator need not be limited to produced assets. For example, land (including subsoil resources), goodwill, and intellectual property could also be included. Alternatively, the denominator could be stockholders' equity or sales, as is done for mining, manufacturing, retail trade, and wholesale trade corporations in the *QFR*.

CHART 1

Property Income's Rate of Return and Share of Domestic Income, Domestic Nonfinancial Corporations, 1960–2001



U.S. Bureau of Economic Analysis

Table 2. Property Income and Related Measures for Domestic Nonfinancial Corporations, 1960–2001

[Billions of dollars]

Year	Property income before tax	Property income after tax	Corporate profits, before tax	Corporate profits tax liability	Corporate profits, after tax	Net interest	Domestic income	Produced assets
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1960.....	44.6	25.4	41.1	19.2	21.9	3.5	225.6	499.3
1961.....	46.1	26.6	42.1	19.5	22.7	4.0	231.3	511.2
1962.....	54.1	33.5	49.6	20.6	28.9	4.5	254.1	528.6
1963.....	60.3	37.6	55.5	22.8	32.7	4.8	271.2	546.5
1964.....	67.2	43.2	61.9	24.0	37.9	5.3	293.7	575.5
1965.....	78.3	51.1	72.2	27.2	45.0	6.1	324.6	615.6
1966.....	84.4	54.9	77.0	29.5	47.5	7.4	358.2	681.8
1967.....	82.7	54.9	73.9	27.8	46.1	8.8	374.9	736.5
1968.....	88.4	54.9	78.3	33.6	44.7	10.1	411.5	803.1
1969.....	86.7	53.3	73.5	33.3	40.2	13.2	445.2	885.0
1970.....	76.5	49.3	59.4	27.2	32.2	17.1	454.6	963.9
1971.....	87.9	58.0	69.8	29.9	39.9	18.1	489.1	1,047.7
1972.....	100.3	66.5	81.1	33.8	47.4	19.2	546.2	1,135.6
1973.....	110.7	70.5	88.2	40.2	48.0	22.5	615.2	1,289.4
1974.....	105.0	62.8	76.7	42.2	34.5	28.3	660.1	1,591.8
1975.....	127.2	85.7	98.5	41.5	57.0	28.7	705.8	1,743.2
1976.....	147.4	94.4	119.9	53.0	67.0	27.5	802.4	1,921.0
1977.....	172.0	112.1	141.3	59.9	81.4	30.7	912.0	2,133.9
1978.....	192.8	125.7	156.5	67.1	89.4	36.3	1,043.8	2,425.6
1979.....	195.1	125.5	150.1	69.6	80.5	45.0	1,161.3	2,807.1
1980.....	190.8	123.8	132.7	67.0	65.7	58.1	1,247.8	3,212.9
1981.....	236.2	172.3	164.4	63.9	100.5	71.8	1,406.1	3,600.2
1982.....	228.8	182.6	146.3	46.3	100.0	82.5	1,444.9	3,788.9
1983.....	263.0	203.6	186.4	59.4	126.9	76.6	1,542.9	3,884.3
1984.....	330.6	257.0	242.9	73.7	169.3	87.7	1,752.1	4,124.0
1985.....	334.2	264.2	243.7	69.9	173.8	90.4	1,856.4	4,301.2
1986.....	309.1	233.5	210.7	75.6	135.2	98.4	1,912.9	4,429.5
1987.....	353.3	259.9	248.3	93.5	154.8	105.1	2,069.7	4,645.5
1988.....	412.2	310.3	288.6	101.9	186.7	123.6	2,256.2	4,931.4
1989.....	416.1	317.2	264.2	98.9	165.4	151.8	2,362.7	5,190.7
1990.....	414.6	318.7	258.5	95.8	162.7	156.0	2,467.3	5,440.1
1991.....	395.7	310.2	252.8	85.5	167.3	143.0	2,482.6	5,515.5
1992.....	392.2	301.0	278.9	91.2	187.7	113.3	2,586.5	5,687.4
1993.....	431.2	326.0	325.3	105.2	220.1	105.9	2,721.9	5,961.7
1994.....	510.4	381.6	402.5	128.9	273.7	107.9	2,940.6	6,308.3
1995.....	558.3	421.6	442.5	136.7	305.8	115.8	3,111.0	6,652.2
1996.....	617.8	467.7	509.1	150.1	359.0	108.7	3,284.9	6,956.5
1997.....	675.6	517.3	555.6	158.3	397.3	120.0	3,510.7	7,325.8
1998.....	668.5	513.9	530.7	154.6	376.1	137.7	3,726.5	7,636.2
1999.....	674.5	507.6	518.5	166.9	351.6	156.1	3,946.5	8,059.1
2000.....	644.5	472.1	461.8	172.4	289.4	182.7	4,186.6	8,621.4
2001.....	604.2	480.7	407.4	123.5	283.9	196.8	4,177.7	8,812.4

1. Produced assets consist of structures, equipment and software, and inventories; they are valued at current cost at yearend. Estimates for fixed assets (structures and equipment and software) for 1925 through 2001 are available on the BEA Web site: go to www.bea.gov/bea/dn/faweb/AIIFATable.asp and choose table 6.1. (The revised estimates shown there for 1999 and 2000 and the new estimates for 2001 are from "Fixed Assets and Consumer Durables" in this issue.) Inventories are from legal-form and industry detail underlying NIPA table 5.12.

NOTE. Property income is profits from current production plus net interest. Thus, column 1 = column 3 + column 6, and column 2 = column 5 + column 6. Corporate profits is profits with inventory valuation adjustment and capital consumption adjustment.

inventory valuation and capital consumption adjustments—plus net interest (table 2).⁴ (In the United Nations' System of National Accounts, the sum of profits and net interest is termed "net operating surplus.") Produced assets for domestic nonfinancial corporations is the current-cost value of the net stock of equipment and software and of structures and the replacement-cost value of inventories.

Property income's share is calculated as the ratio of property income to domestic income; it is the portion of domestic income that is not labor income.

For after-tax measures, property income is profits from current production plus net interest less corporate profits tax liability.

4. Corporate profits and net interest are based on tabulations of "company" data rather than of "establishment" data. As a result, property income for domestic nonfinancial corporations includes income earned by financial establishments of those corporations, and it excludes income earned by nonfinancial units of financial corporations. For a discussion of the industrial distribution of NIPA series, see "A Guide to the NIPAs," on BEA's Web site at <www.bea.gov/bea/an/nipaguid.htm>. For a discussion of produced assets, see Shelby W. Herman, "Fixed Assets and Consumer Durable Goods," SURVEY 80 (April 2000): 17–30.

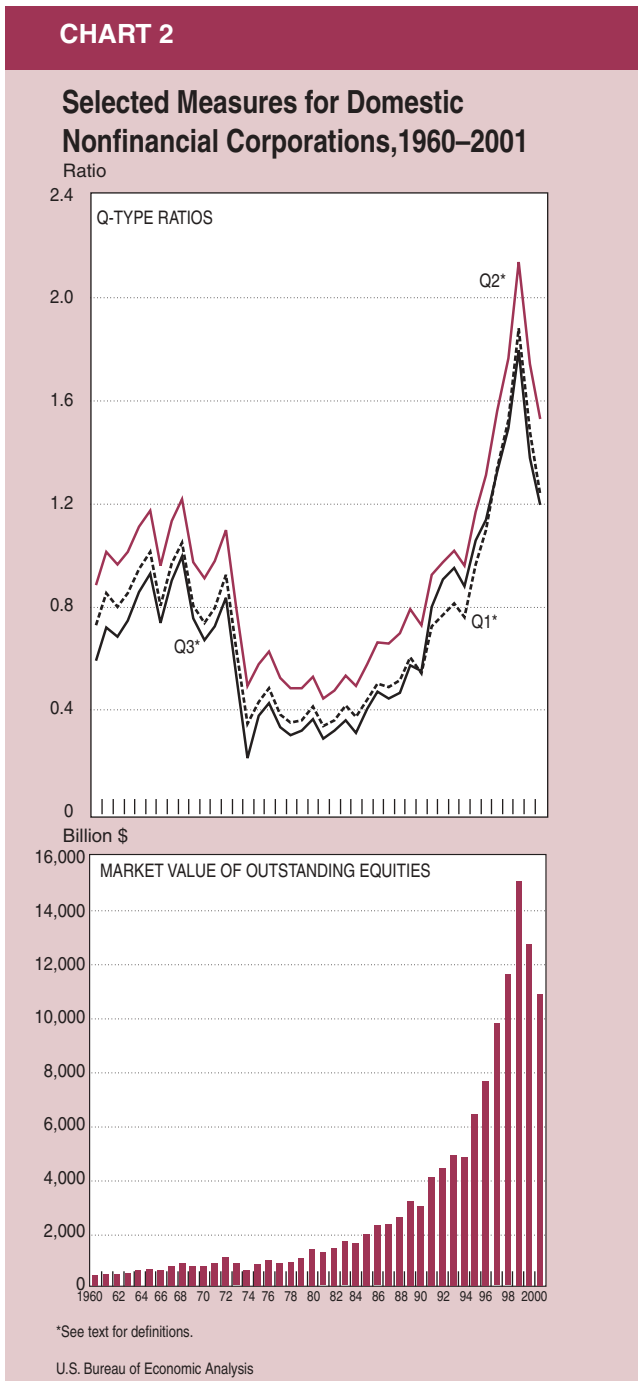
Table 3. Q-Type Ratios for Domestic Nonfinancial Corporations, 1960–2001

	Q1	Q2	Q3
1960	0.73	0.88	0.59
1961	0.86	1.01	0.72
1962	0.80	0.96	0.68
1963	0.85	1.01	0.75
1964	0.95	1.11	0.86
1965	1.01	1.17	0.93
1966	0.80	0.96	0.74
1967	0.97	1.13	0.90
1968	1.05	1.22	0.99
1969	0.81	0.97	0.76
1970	0.74	0.91	0.67
1971	0.80	0.98	0.73
1972	0.92	1.10	0.84
1973	0.64	0.80	0.54
1974	0.35	0.50	0.22
1975	0.44	0.58	0.38
1976	0.49	0.63	0.43
1977	0.39	0.53	0.34
1978	0.36	0.49	0.31
1979	0.37	0.49	0.32
1980	0.42	0.53	0.37
1981	0.34	0.45	0.29
1982	0.37	0.48	0.32
1983	0.42	0.53	0.37
1984	0.38	0.50	0.32
1985	0.45	0.58	0.41
1986	0.51	0.67	0.48
1987	0.49	0.66	0.45
1988	0.52	0.70	0.47
1989	0.61	0.79	0.57
1990	0.55	0.73	0.56
1991	0.73	0.92	0.80
1992	0.77	0.97	0.91
1993	0.81	1.02	0.95
1994	0.76	0.96	0.88
1995	0.96	1.17	1.06
1996	1.10	1.31	1.14
1997	1.33	1.55	1.32
1998	1.52	1.76	1.49
1999	1.88	2.13	1.79
2000	1.48	1.74	1.38
2001	1.24	1.53	1.19

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

Q-type ratios

"Tobin's-Q," or simply "Q," is the ratio of the valuation of assets in financial markets to the current-cost value of produced assets. A value of Q above 1 indicates that newly produced physical assets may be purchased more cheaply than (the ownership claims to) existing assets. Such a situation may induce businesses to purchase newly produced physical assets instead of acquiring existing assets; alternatively, it may induce financial investors to reduce the prices they will offer for financial assets. Likewise, a value of Q below 1 indicates that claims to existing



physical assets may be acquired more cheaply than newly produced assets.

Three Q-type ratios for domestic nonfinancial corporations are shown in chart 2 and table 3.

- Q1 is calculated as the market value of outstanding equity divided by the net stock of produced assets.
- Q2 differs from Q1 by the addition of the book value of outstanding corporate bonds to the numerator.⁵ 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—a comparison of market valuation with replacement costs.
- Q3 differs from Q1 by the addition of an estimate of the market value of outstanding corporate bonds and net liquid assets to the numerator and by the subtraction of the value of land from the numerator (because land is not included in the denominator).⁶

In recent years, the simplest measure (Q1) and the most complex (Q3) have been nearly indistinguishable. Moreover, all three ratios trace similar patterns over time. After reaching record levels in 1999, all three dropped sharply in 2000 and dropped further in 2001. Despite

5. "Outstanding bonds" is a gross estimate; it is not net of financial assets and debt held by nonfinancial corporations.

these drops, all three ratios still remained considerably above 1 at the end of 2001, and all were higher than at any time between 1960 and 1996 (the ratios had moved above 1 in the mid-1990s). The decreases in 2000 and 2001 mainly reflected drops of about 15 percent in the market value of equities in each of those years (bottom panel of chart 2).

6. The market value of bonds outstanding is approximated by a procedure developed by James Tobin and Dan Sommers ("Explanation of Revised Estimates of Tobin's 'q' Ratio, 1950–1997," (April 20, 1999), unpublished). 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. The maturity assumption implies that book value of bonds issued in year t is equal to the change in the book value of bonds outstanding in year t plus the book value of bonds issued 10 years earlier. In year t , the *market value* of bonds issued in earlier years is estimated as the present value of principal and (semiannual) coupons not yet paid on those bonds (discounted by the interest rate on 10-year Baa bonds in year t). Finally, the market value of bonds outstanding in year t is the sum of the market values of bonds issued in years $t-9$ through t .

The value of land is estimated as the difference between the value of real estate and the value of structures and of equipment and software.

Net liquid assets is 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 on the Federal Reserve's Web site at <www.federalreserve.gov/releases/Z1/> and <www.federalreserve.gov/releases/h15/>.