

six quarters than in the same period of past expansions. Larger depreciation allowances increased reported expenses and reduced reported profits, which, in turn, lowered corporate taxes and boosted economic profits on an after-tax basis. The effective average corporate tax rate—that is, the ratio of tax payments to before-tax economic profits—fell sharply from over 40 percent to 26 percent in this expansion. The recent effective tax rates have been at the lowest levels in the postwar period.⁹

In contrast to economic profits, reported profits have been relatively weak since mid-1984. Chart 3 shows that in the last five quarters, after-tax reported profits have lagged behind the annual growth rates registered in past expansions. From the beginning of this expansion in November 1982, nominal after-tax reported profits have risen by an annual pace of only 14 percent, compared to 23 percent recorded in the 1975 expansion and to 20 percent, on

average, registered in the four previous expansions. After-tax reported profits in constant dollars also rose at a slower annual rate in the current expansion. After-tax reported profits have been held down by accelerated depreciation allowances and slower price increases, which have enhanced reported expenses and reduced profits generated from holding inventories.

Conclusion

The disparity between reported and economic profits has expanded in recent years. Depreciation charges under the tax code were substantially below the replacement cost of capital during the 1970s, but as a result of the 1981 tax changes and disinflation, depreciation allowances have increasingly exceeded the estimated replacement cost of capital. While there was a similar movement between the 1950s and 1960s, the magnitude of that shift was insignificant compared to the one of the past decade.

Compared to growth in after-tax corporate profits in expansions since the Korean War, growth in after-tax corporate profits so far in this expansion has been below average on a reported basis, but superior on an adjusted, or economic, basis. Reported earnings were depressed by several factors, including large depreciation write-offs, losses in inventory revenues, disappointing productivity gains, and stiff import competition, which caused intensely competitive pricing and below-capacity operation. Although after-tax reported profits have dipped since mid-1984, the more meaningful profit measure, after-tax economic profits, continues to grow above the pace experienced in previous expansions.

9. The effective average tax rates paid by nonfinancial corporations on economic profits were in the 40 percent and 50 percent range in the four previous expansions.

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ECONOMIC COMMENTARY

How Good Are Corporate Earnings?

by Paul R. Watro

Recent corporate profits from current production could be viewed as weak or strong, depending on how they are measured. On the one hand, after-tax reported profits of nonfinancial corporations have indeed been sluggish, increasing at a 14 percent annual pace over the current expansion. This is substantially below the 20 percent annual rate of growth, on average, for reported profits in post-Korean War recoveries. On the other hand, numbers can be deceiving, and reported profits are not the most accurate indicator of earnings from current production.¹ Reported profits are simply the difference between total receipts and total expenses which include "depreciation" as reported for tax purposes. *Economic* profits, which adjust reported profits for price changes and depreciation allowances, are generally thought to be a better gauge of corporate performance. In contrast to reported profits, after-tax economic profits of nonfinancial corporations have been strong in the current expansion, growing at a 45 percent annual pace, which far exceeds their average annual rate of 19 percent in previous expansions.

An examination of after-tax reported and economic profits of nonfinancial corporations over the last three decades shows that reported profits were not much different from economic profits until the inflationary 1970s, when

reported profits surpassed economic profits. That trend has reversed, and economic profits have surged ahead of reported profits. The slowing in the pace of inflation and 1981 changes in tax laws account for much of the reduction in reported profit growth over the last few years.

After-tax economic profits have been bolstered by the expansion in economic activity and slower increases in costs and taxes. Modest gains in wages and salaries helped firms keep the lid on operating costs in recent years. Moreover, since taxes are based on reported profits, corporate taxes have not risen in proportion to economic profits. Reported profits have grown more slowly because of the greater use of accelerated depreciation, and because inflation profits have declined with the more moderate rate of price increase.

Profit Measures

The fundamental difference between reported and economic profits is on the cost side; measuring expenses is problematic when prices are not stable. Reported profits distort business performance during periods of sharp price changes, because conventional accounting practices record business transactions at original, or historical, costs.

Business operations require that some assets be held for a relatively long time. Due to lags in acquiring raw materials and producing and selling products, goods are held in process, or inventory, for long periods. Inflation increases the final sale prices of these products, but does not alter their cost, which may be measured in prices that prevailed when raw materials, intermediate goods, and finished goods entered inventory. Consequently, reported profits generally are biased upward by inventories being held during periods of inflation—at least under the first-in-first-out (FIFO) method of figuring inventory costs for income taxes.²

Another problem with interpreting reported profits stems from depreciation expenses. Production and sales require the service of fixed assets such as buildings, machinery, and equipment that last several years. Businesses must spread the original cost of these assets over their service lives, but inflation causes the value of depreciation allowances to be less than the replacement cost.

Over the years, tax laws have attempted to deal with this problem by allowing larger depreciation allowances rather than dealing directly with inflation accounting.³ These periodic changes presumably have been intended to reflect changing economic and technological conditions and to provide a more realistic and accurate measure of depre-

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1. Reported profits in the NIPA exclude capital gains and losses and adjust for a few other minor revenue and cost items, which are reported to the IRS. See Bruce T. Grimm, "Domestic Nonfinancial Corporate Profits," *Survey of Current Business*, U.S. Department of Commerce, Bureau of Economic Analysis, vol. 62, no. 1 (January 1982), pp. 30-31.

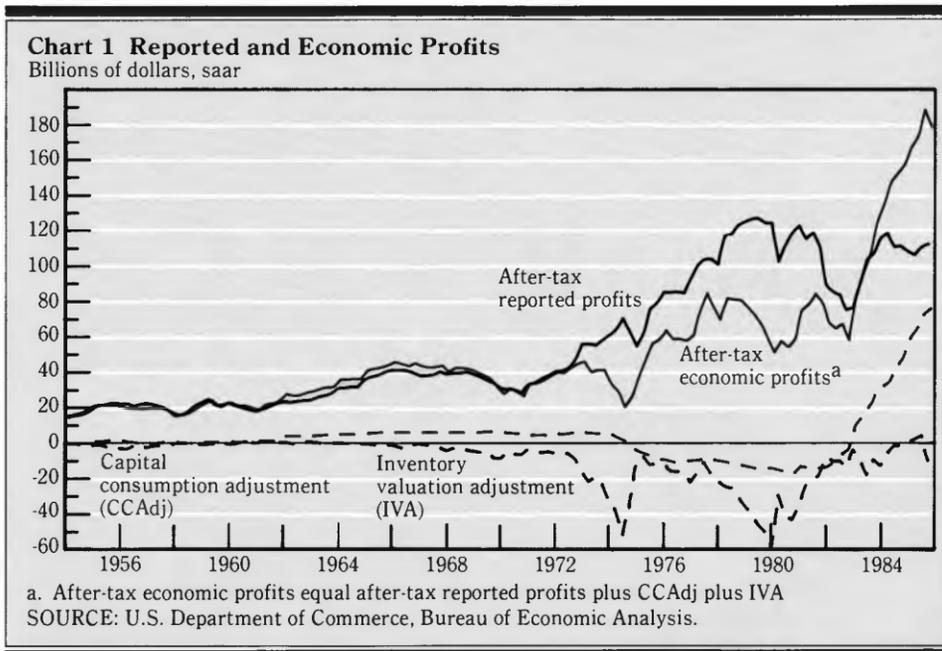
2. The other commonly used inventory accounting is the last-in-first-out (LIFO) method. LIFO attempts to measure the cost of sales in current prices and thereby eliminate inventory profit gains. However, LIFO cannot completely eliminate inventory profits from reported profits, since it does not revalue inventory when prices change. For a detailed discussion, see Richard W. Kopcke,

ciation. Despite these changes, the tax provisions for inflation have not conformed to price movements, and depreciation allowances have either been smaller or larger than the dollar amount required to replace comparable assets. When tax-based depreciation allowances are insufficient to replace worn-out capital, it causes expenses to be understated and reported profits to be overstated.⁴

Economic profits are reported profits adjusted for capital depreciation on a replacement-cost basis and for the inflationary effects on inventories. The U.S. Department of Commerce estimates replacement costs of inventory and capital used up in production for domestic corporations. The adjustment for inventory gains or losses is made in the National Income and Product Accounts (NIPAs) by the inventory valuation adjustment that essentially shifts accounting procedures from a historical-cost to a replacement-cost basis. The inventory valuation adjustment negates accounting gains, since inventory must be replaced at current prices.

The capital consumption adjustment (CCAdj) in the NIPAs estimates the difference between depreciation allowable under the tax code and the funds required to maintain fixed capital stock at replacement cost. This adjustment has two components.⁵ The first component shifts depreciation expenses reported on accelerated schedules to a consistent straight-line, historical-cost basis. The second component is the adjustment made for price changes in fixed nonresidential investment. This is done by converting straight-line depreciation from historical cost to replacement cost. Thus, CCAdj recognizes that tax-based depreciation may differ from economic depreciation because of the actual depreciation schedules used and the rate of inflation.

Chart 1 shows the relationship among after-tax reported profits, the inventory valuation adjustment (IVA),



the CCAdj, and after-tax economic profits. The divergence between reported and economic profits was relatively small in the 1950s and 1960s, but the reported profits exceeded economic profits by a large margin in the 1970s, as inflation accelerated. Reported profits were inflated by inventory gains between 1973 and 1981. Consequently, a large negative inventory valuation adjustment was applied to reported profits in the calculation of economic profits. Since 1981, as inflation has slowed, this negative IVA has become smaller and has even turned positive in the first three quarters of 1985.

Similarly, reported profits during most of the 1970s were overstated, because firms were not able to adjust depreciation fully for the effects of inflation. A large negative CCAdj was added to reported profits in the computation of economic profits for NIPA purposes. More recently, this negative CCAdj has shrunk and become progressively positive. As the IVA has become small, and CCAdj has become positive and quite large, profits reported by corporations for tax purposes have fallen below economic profits.

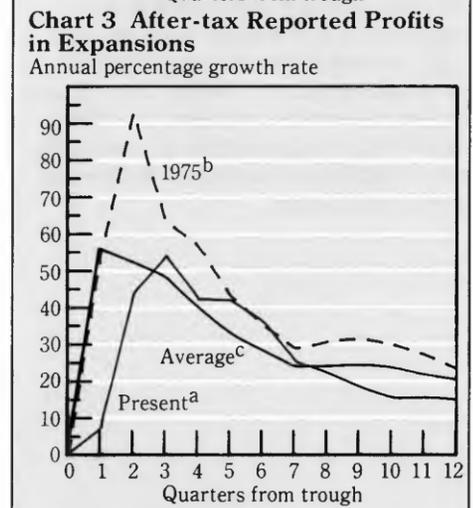
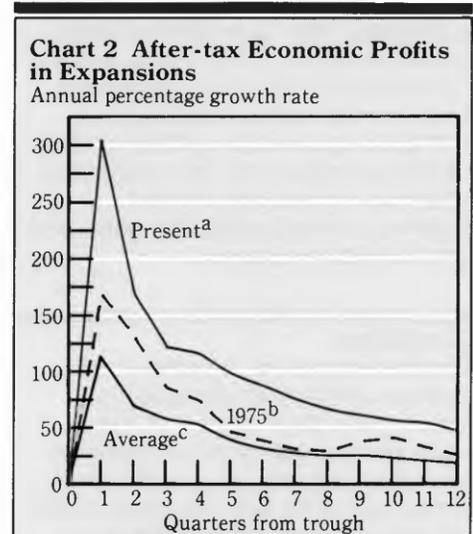
CCAdj's swing to a large positive value is the primary explanation for the current divergence between reported and economic profits and reflects provisions in the Economic Recovery Tax Act of 1981 (ERTA). The Act shortened the period over which assets could be depreciated, which substantially increased depreciation allowances for the early years of most types of assets. The law was structured this way to restore the economic value of depreciation allowances in an inflationary environment. In the years just before the enactment of ERTA, inflation was at historically high levels.⁶ Between 1974 and 1981, depreciation allowances were significantly below the cost of replacing capital, as depicted by the negative CCAdj in chart 1. This trend was reversed by ERTA and by the rapid and dramatic drop in inflation since the early 1980s. Increased depreciation allowances have had the effect of augmenting reported expenses and holding down reported profits. As firms depreciated larger amounts of fixed assets under more liberal depreciation

schedules in a low-inflation environment, the offsetting adjustment to economic profits (the CCAdj) became increasingly positive. Thus, depreciation allowances and price changes have had an important influence on reported profits and have accounted for the disparity between the two measures.

Profits in Expansions

Both reported and economic profits usually rebound dramatically in the initial stage of an economic recovery and then taper off as the recovery matures, and the pace of economic growth declines. Charts 2 and 3 depict the annual growth rates of economic and reported profits respectively, from the final quarter of 1982 (the trough of the last recession) through the final quarter of 1985 (the twelfth quarter of the present recovery). This recent experience is then compared with the growth of economic and reported profits during the 1975 expansion and the average growth of profits over recent cycles.⁷ Although reported profits have been weak, economic profits remain strong.

The charts tell different stories about the health of corporate profits. Chart 2 shows the relative strength of after-tax economic profits over the present expansion. After-tax economic profits have increased faster in this than in previous expansions, in both nominal and constant dollars. So far in the current expansion, nominal after-tax economic profits have climbed at an annual rate of 45 percent—substantially above the annual growth rate of 19 percent and 23 percent for the first three years of past expansions, respectively. After-tax economic profits in constant dollars have been even more impressive in this expansion, increasing about three-and-a-half times faster than the 1975 expansion pace and nearly three times as fast as the average pace of past expansions.⁸



a. The present expansion began in fourth-quarter, 1982.
b. The 1975 expansion began in the second quarter.
c. Average of the 1954, 1961, 1970, and 1975 expansions.
SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

The above-average gains in after-tax economic profits in this expansion have been attributed primarily to stronger sales in the first half of the expansion and to slower increases in both operating costs and taxes throughout the recovery. Corporations implemented significant cost-cutting measures during the 1981-82 recession, which was one of

the steepest and longest downturns in economic activity in the last four decades. Consequently, firms were in a better cost position at the beginning of this expansion compared to past recoveries. Although profit margins are relatively thin from a historical standpoint, they have improved dramatically since 1982. The ratio of before-tax economic profits to gross domestic product of nonfinancial corporations, an approximate measure of profit margins, nearly doubled to 11 percent over this expansion. Unit labor costs have been held down by modest increases in wages and salaries, even though productivity gains were disappointing.

A slowdown in the pace of recovery and stiff import competition has greatly curtailed the growth of sales and after-tax economic profits of nonfinancial corporations since mid-1984. By the early part of 1984, the value of the dollar rose to unprecedented levels, eroding the competitive position of domestic producers. Foreign competition became more intense and widespread, which held down domestic production, sales, and prices, as well as costs. Although the dollar has fallen substantially against foreign currencies over the past year, it did not improve the trade deficit, nor has it enhanced domestic sales in 1985.

Nevertheless, after-tax economic profits have continued to grow at a faster pace than they did in previous expansions. In the last six quarters (ended fourth quarter, 1985), after-tax economic profits rose at an annual pace of 13 percent, compared to an average annual increase of 8 percent over the same stage of past expansions. A large decline in interest rates over the last year-and-a-half has reduced net interest expenses of corporations. Perhaps the great contributing factor to better earnings has been the lower tax burden resulting from the 1981 tax law change, given that before-tax economic profits have grown at a slower pace in the last

"Current Accounting Practices and Proposals for Reform," *New England Economic Review*, Federal Reserve Bank of Boston, September-October 1976, pp. 3-7.

3. For a comprehensive treatment of this issue, see Congress of the United States, Congressional Budget Office, "History of the Corporate Income Tax," *Revising the Corporate Income Tax*. Washington, DC: U.S. Government Printing Office, May 1985, pp. 13-40.

4. Of course this discourages capital formation, but this article does not address the effects of depreciation allowances on investment decisions.

5. For a detailed description of the adjustments, see Bruce T. Grimm, "Domestic Nonfinancial Corporate Profits."

6. The implicit price deflator for fixed nonresidential investment rose by over 8 percent between 1978 and 1981, compared to an average increase of less than 1 percent over the last three years.

7. The 1958 and 1980 expansions were excluded from the analysis because they lasted less than three years.

8. Constant dollars are at the 1982 value. Real or constant-dollar after-tax economic profits are computed by adjusting retained earnings by the implicit price deflator for fixed nonresidential investment and adjusting dividends by the implicit price deflator for personal consumption expenditures. Real after-tax economic profits of nonfinancial

corporations rose by an annual rate of 43 percent over the last three years, compared to annual growth rates of 15 percent in the four previous expansions and 13 percent in the 1975 expansion.