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Notes and Numbers on the Profits Squeeze

DURING 1969, CORPORATE PROFITS averaged 9.2 percent of gross national product (GNP), a dramatic contrast to the 11.0 percent share of 1966. Still more striking, the indicated share in 1970 of 8.0 percent is much lower than that of the recession years 1961 (9.1 percent) and 1958 (8.7 percent), even after adjustment for the depreciation reform of 1962.[1]

The puzzling recent behavior of the corporate share is important in a great many economic issues, ranging from the calculation of full employment revenues (which depend on the estimated profit share at full employment) to the explanation of fluctuations in equity prices. This note attempts to pull together some calculations and clues on recent experience, and to offer a few tentative judgments on their implications.

The Magnitude of the Squeeze

During the 1955–65 decade, the share of corporate profits was a well-behaved function of economic activity. A growth of GNP greater than that

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1. All profits figures cited throughout are before taxes and inclusive of inventory valuation adjustment, as reported by the Department of Commerce in the national income accounts, with the exception of a depreciation adjustment for 1954–61. The reform of depreciation guidelines in 1962 is estimated to have subtracted from corporate profits $2.4 billion, or approximately 0.5 percent of GNP. Official figures on the profit share for 1954–61 are adjusted downward by 0.5 percent of GNP to put the entire post-Korean-war time series on a consistent depreciation basis.

of potential raised profits more than proportionately, and a very rapid rise in GNP had an extra-large temporary impact on profits. Thus, the profits share of GNP (R/Y) could be estimated from the current and lagged size of the gap between potential and actual GNP, expressed as a fraction of actual (G/Y). On an annual basis for the period 1954–66, this relationship was summarized by the following regression equation:

$$R/Y = 0.1086 - \underset{(0.021)}{0.269}\, G/Y + \underset{(0.022)}{0.081}\, (G/Y)_{-1}. \tag{1}$$

$\bar{R}^2 = 0.937$, standard error of estimate = 0.00193.
Figures in parentheses here and in subsequent equations are standard errors of coefficients.

According to equation (1), profits would absorb 10.9 percent of GNP in a steadily growing full employment economy. The positive impact of the lagged gap shows that the share would be temporarily larger on a quick runup to full employment. The large negative effect of the current gap shows the extreme short-run sensitivity of profits: At any given point in time and, hence, at a given potential GNP, an extra dollar of GNP pulls profits up by some 38 cents (the sum of 0.109 and 0.269).

"Reduced-form," or rule-of-thumb, profits equations like (1) were developed shortly after the concept and measurement of potential GNP were set forth by the Council of Economic Advisers in 1961. For several years this aggregative method yielded good predictions, better than many more elaborate and more ambitious efforts to tackle step by step the movements of the key items in the corporate income statement. Equation (1) fits the data of 1954–66 remarkably well, as shown in Table 1, typically coming within 0.2 of a percentage point (or $1.0 billion to $1.5 billion) of truth during that period. It is reasonably clear how this shorthand technique managed to track the real world during this period. Years of large gains in real GNP raised the profits share in two ways. First, they permitted overhead charges to be spread across a larger volume of output; second, they yielded above-average gains in output per manhour. Since real compensation of labor per manhour did not vary greatly with the annual size of productivity gains, most of the bonus of extraordinary productivity performance was captured in the profits share. Conversely, years of sluggish growth in real GNP typically meant a lower profits share as both unit fixed costs and unit real labor costs tended to increase.

While the empirical regularity of the full employment profits share could

Table 1. Corporate Profits Share, Error in Predicted Share, and Gap in Gross National Product, 1954–70

Percent of gross national product

	Corporate profits share of GNP		*Corporate profits plus net interest share of GNP*		
Year	*Actual*	*Error in predicted share using equation* (1)[a]	*Actual*	*Error in predicted share using equation* (2)[a]	*Gap in GNP as percent of GNP*
1954	9.88	0.22	9.47	0.21	4.20
1955	11.25	0.11	10.78	−0.01	0.21
1956	10.48	0.10	9.95	−0.06	1.84
1957	9.82	−0.14	9.35	−0.21	3.87
1958	8.67	−0.15	8.26	−0.04	8.74
1959	10.16	0.15	9.62	0.10	5.80
1960	9.38	−0.10	8.83	−0.17	6.85
1961	9.15	0.01	8.67	0.05	8.47
1962	9.93	−0.17	9.47	−0.16	5.36
1963	9.98	0.03	9.57	0.08	4.99
1964	10.48	0.11	10.09	0.14	3.32
1965	11.11	0.20	10.82	0.27	0.81
1966	10.99	−0.38	10.86	−0.20	−1.67
1967	9.91	−0.90	9.89	−0.60	−0.33
1968	9.88	−1.23	9.98	−0.82	−1.05
1969	9.21	−1.53	9.42	−1.00	0.11
1970[b]	8.00	−1.68	8.25	−1.01	4.42

Sources: U.S. Department of Commerce, Office of Business Economics, *The National Income and Product Accounts of the United States, 1929–1965: Statistical Tables* (1966), Tables 1.1, 1.10, 1.14; and *Survey of Current Business*, various issues, Tables 1.1, 1.10, 1.14.

a. Actual minus predicted. See text for description of the equations.

b. Average of second and third quarters.

not be expected to endure forever, neither was there any good reason to anticipate a major breakdown in the relationship. Yet it did collapse abruptly. After 1966, the equation seriously and increasingly overestimates the profits share by amounts ranging up to an indicated 1.7 percentage points (a huge $16 billion) in 1970.

One source of error is readily identified and corrected. That is the major shift in net interest payments by the corporate sector in recent years. Between 1954 and 1965, financial and nonfinancial corporations taken as a group were net lenders to the noncorporate economy and annually received net interest ranging between 0.3 and 0.6 percent of GNP ($2 billion to $3 billion). Given the stability of the interest component, it did not need to be separately considered. After 1965, however, the corporate sector moved

steadily into a position as a net payer of interest; the net payment is currently $2.5 billion a year.

Any analytical view of shares of factor income would suggest that profits plus net interest of the corporate sector should show more stability in relation to output than profits taken separately. Both interest and profits are incomes earned on property. To be sure, an important legal distinction separates the two types of income. But the division of property income between the holders of claims and holders of equities results from decisions of corporate finance. By any theory of maximizing behavior in product and financial markets, a shift by corporations toward greater debt financing would be reflected in a lowering of profits as a fraction of gross product or sales, although not as a fraction of equity. Similarly, greater interest payments reflecting higher yields on securities would cut into profits. This analytical judgment is confirmed by refitting equation (1) to explain the share of profits plus net interest paid by the corporate sector (S/Y):

$$S/Y = 0.1052 - \underset{(0.019)}{0.287}\, G/Y + \underset{(0.019)}{0.076}\, (G/Y)_{-1}. \tag{2}$$

$\bar{R}^2 = 0.956$, standard error of estimate $= 0.00173$.

Equation (2) improves results for the sample period and does considerably better in estimating the 1967–70 period, as Table 1 reveals. Despite the improvement, equation (2) leaves a puzzle of major proportions. The GNP gap and the interest shift explain 2 points of the 3 percentage point drop in the profits share from 1965–66 to 1970; or, alternatively, 0.8 point of the 1.8 percentage point drop in the profits share from the 1965–66 average to 1969, when the gap impact was slight. It is worth emphasizing that the drop of 1.2 percentage points from 1969 to 1970 is fully explained by equation (2). For both 1969 and 1970, the unexplained profits squeeze is 1.0 percent of GNP—a squeeze of $9 billion to $10 billion.

It is clear that the squeeze is centered in the domestic nonfinancial corporate sector. Financial and foreign corporate earnings expanded steadily from 1966 to 1969—their sum rising from $13.0 billion to $16.4 billion. Even when the large negative interest payment of the financial corporate sector is netted out, the figure rises from $4.7 billion in 1966 to $5.7 billion in 1969. That is roughly par for the course. In sharp contrast, the domestic earnings of nonfinancial corporations were $69.4 billion coincidentally in both 1966 and 1969. The sum of profits plus net interest paid for the sector rose only moderately from $76.7 billion to $82.0 billion. The nearly $10 billion squeeze is here.

Shares within the Nonfinancial Corporate Sector

In order to investigate the recent performance of profits in this sector in terms of costs, prices, and productivity, the shares of gross product originating in the domestic nonfinancial corporate sector are shown in Table 2. It is clear that both labor's share and the share of other costs have bitten into the share of profits plus interest in recent years, reversing the situation from 1960 to 1966, when both fell and contributed to a rising profits share.

Some reverse shift of shares was to be expected between 1966 and 1969. Equation (2) would have been right on track in 1969 if the share of profits plus net interest for this sector had been 18.0 percent—down 0.6 from the 18.6 percent of 1966; but the actual share in 1969 was only 16.2.[2] A share of 18.0 percent might reasonably have been expected to be accompanied by 18.4 percent for the share of nonlabor ("other") cost components (compared with the actual 18.2 percent in 1966) and 63.6 percent for labor's share (compared with 63.2 percent in 1966). Thus, the actual 18.7 percent share of nonlabor costs in 1969 was larger than one might have expected

Table 2. Profits and Labor Shares of Gross Product Originating in the Nonfinancial Domestic Corporate Sector, Selected Years 1955–70

Percent

Year	*Profits plus net interest*	*Compensation of employees*	*Other*[a]
1955	18.6[b]	63.9	17.6[b]
1958	14.5[b]	65.9	19.6[b]
1960	15.1[b]	65.5	19.4[b]
1963	16.6	63.9	19.5
1966	18.6	63.2	18.2
1967	17.2	64.0	18.8
1968	17.2	64.1	18.7
1969	16.2	65.1	18.7
1970[c]	14.4	66.1	19.5

Source: Table 1.14 in the sources listed for Table 1. Apart from rounding differences, the rows add to 100 percent.

a. Capital consumption allowances plus indirect business taxes plus transfers less subsidies.

b. For 1955, 1958, 1960, the profits share was moved down 0.8 percent and "other" up 0.8 percent to adjust for 1962 depreciation reform.

c. Average of second and third quarters.

2. The ratio of nonfinancial corporate gross product to GNP is about 55 percent typically. It has a slight cyclical tendency—rising from 54.2 percent in 1960 to 55.1 percent in 1966 and retreating to 54.4 percent in 1969.

by perhaps 0.3 percentage point ($1.5 billion). The big move in labor's share up to 65.1 percent in 1969 represented a rise in compensation $7.8 billion larger than one might have expected. The main source of the profits squeeze is clearly this extra rise in labor's share from 1966 to 1969.

That unexpectedly large increase in labor's share implies that (a) productivity did worse than normally and/or (b) prices rose less than normally in relation to hourly compensation. Unpublished data on manhours worked in the nonfinancial corporate sector have been made available to the authors by the Office of Business Economics. These data permit some disentangling of the two elements making up labor's share. They show that, during the postwar years, the average annual percentage increase in compensation per manhour has exceeded the average increase in the price deflator for the domestic nonfinancial corporate sector by roughly 3 percentage points, just about matching the trend productivity of the sector and holding labor's share approximately constant over the longer run. But years of above-average productivity gains widen the excess of wage increase over price increase only slightly, and years of poor productivity gains narrow it only slightly. Thus, labor's share falls in years of good productivity gains while it rises in poor ones. A fully "normal" performance thus involves (a) trend growth of productivity—3.0 percent a year for this sector, and (b) hourly compensation outpacing the price deflator by that same 3.0 percent a year.

In fact, from 1966 to 1969, the wage-price ratio rose 10.4 percent rather than the 9.3 percent implied by (b). In this respect, 1968 was the one unusual year, with an extraordinary spread between a 7.2 percent gain in hourly compensation and a 2.6 percent rise in the price deflator. This kept the profit squeeze on in 1968 despite its fine productivity performance (a gain of 4.3 percent in this sector). Hourly compensation then outpaced the price deflator by a rather normal amount (6.7 versus 3.4 percent) in 1969, and appears to be doing much the same in 1970 (7 versus 4). Over the period, the above-normal rise in the wage-price ratio added $3.3 billion to labor's compensation in 1969.

The remaining $4.5 billion of the abnormal rise in labor's compensation is attributable to the particularly disappointing record of productivity. Productivity rose 7.0 percent from 1966 to 1969, instead of the 9.3 percent par for the course. The resulting productivity shortfall of a little more than 2 percent added $7 billion to corporate labor costs in 1969. Allocating $4.5 billion of the rise in labor's share to a disappointing productivity perfor-

mance implies that about one-third of the total productivity shortfall was to be expected because of the subnormal growth of output during the period.

So far as we can see, the sag in productivity during 1967 and 1969 does not require a lower estimate of the level or slope of the long-term trend line for productivity. Rather, it seems attributable to transitory factors like labor hoarding that characterize an economy slowing down after an extended period of rapid growth and tight labor markets. The year 1956 provides an historical analogy to this view. Then, a slowdown in the growth of real output was not promptly accompanied by a cutback in employment growth; and productivity actually declined for the year. Yet the economy got back on its productivity trend path with especially large gains in subsequent periods of brisk growth in 1959 and 1962–65. And the encouraging returns on productivity during the second and third quarters of 1970—quarters of very little output growth—support the hypothesis that the sag of the late 1960s was transitory.

Thus, it seems reasonable to expect a "make-up" of productivity in nonfinancial corporations amounting to 4 percent (the 2 percent shortfall of 1969 and an extra 2 percent in 1970) when this nation returns to full employment. We find it more difficult to make a judgment on the $1.5 billion deviation in nonlabor costs and the $3.3 billion wage-price bump discussed above. If capital spending remains sluggish in the upswing, the share of nonlabor costs could well retreat. It does not seem likely that the extra wage (or substandard price) hike of 1968 is built into the economy forevermore. More likely, prices began to lag behind wages at that stage in the inflationary process and have not yet caught up because of the weakening economy. Yet, we cannot dismiss these recent shifts as entirely transitory. If we assume that the bump in the ratio of wages to prices is maintained and that compensation per manhour rises simply 3 percent faster than prices in this sector from now on, we would adjust equation (2) downward by about ⅓ of 1 percent of GNP, so that the profits plus interest share at steady full employment would become 10.2 percent. Assuming no further major change in the debtor-creditor balance of the corporate sector, 10.0 percent would be a good round estimate of the profits share at full employment. If, happily, 1973 should turn out to be a full employment year, corporate profits would probably be in the neighborhood of $125 billion, about 60 percent above their level of mid-1970.

Discussion

BARRY BOSWORTH SUGGESTED that one reason that the GNP-gap equation overpredicted profits in recent years was that the relationship between the GNP gap and the utilization of capital had changed drastically. Operating rates in 1969 were far below those of 1966, while the GNP gap had changed only modestly. Investment has been very strong in recent years, and has tended to push down the return to capital.

The authors replied that excessive capital accumulation should be primarily reflected in a higher share of nonlabor cost, rather than in a jump of labor's share, such as actually occurred. Alan Greenspan noted, however, that excess capital could add to labor's share by increasing the need for nonproduction workers, that is, by requiring more overhead labor.

Bosworth also felt it was no mystery that a simple relationship that worked when most of the increase in GNP represented real growth would break down in a period when most of the increase reflected inflation. More generally, Lawrence Klein joined Bosworth in arguing that the report really pointed to the desirability of a structural explanation of profits in terms of the key items affecting the income statements of corporations on both the revenue and cost sides. The group could not agree on whether structural approaches had been successful in tracking profits during recent years.

There was agreement that any set of relationships that accurately explained prices, wages, and productivity in the corporate sector would supply good answers on profits taken as a residual. The authors said that if the productivity and wage-price behavior that accounted for the recent overpredictions by the profits equation could, in fact, be explained by structural relationships, they would feel even more confident in projecting a rebound in the profits share.

R. A. Gordon reminded the panel that Wesley Mitchell had, even before the First World War, discussed the encroachment of costs on profits as a normal feature of late stages of a boom. In view of the unprecedented length and strength of the boom in the late sixties, he was not surprised that the usual cyclical buildup of costs on profits has been especially and increasingly intense.