wage increase. This development suggests that Ford and GM will seek reinstatement of the annual improvement factor in their September 1984 talks. The automobile industry's recent experimentation with profit-sharing may be superior if substituted for the annual improvement factor approach. Not only do the firms reduce their risk exposure, but the profit bonus paid to employees does not add to the wage base.

In addition to the inflation implications of past practices in the industry, some analysts would argue that the costs of U.S. car producers are too high compared with those of their foreign competitors.² If this were true, even a 6 percent per year compensation

2. See Susan A. Loos, "The Japanese Cost Advantage in Automobile Production," Economic Commentary, Federal Reserve Bank of Cleveland, forthcoming.

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settlement in the auto industry would not improve its competitive position. Unless U.S. automobile producers are willing to gamble that a large dollar depreciation would equalize domestic and imported car prices, they would need to press hard for reductions in unit costs or even more protection from foreign automobile producers.

Conclusion

Labor compensation trends are important determinants and indicators of long-run price trends. Although recent wage developments indicate a substantial reduction in unit labor costs, there is little assurance that these developments will endure. In fact, experience

suggests that a lasting moderation in unit production costs would be difficult to achieve.

Though wage- and price-setting decisions are inherently private ones in our society, public policy is affected by the outcomes and, in turn, can influence the outcomes of such decisions. Because this is an election year, public policy actions may be limited more than usual. To the extent that decisions are made, we would prefer that microeconomic policies would be used to enhance competition in individual markets (i.e., automobiles) and that macroeconomic policies would be used to prevent the acceleration in inflation to which wage negotiators inevitably react.

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Wages tend to be the most slowly adjusting set of prices in the economy, and union wages tend to adjust to inflation and competitive factors even more slowly than nonunion wages. The inertia stems from the multi-year duration of labor contracts. Because of their high visibility, union wage settlements may provide standards for nonunion wage decisions. For the economy as a whole, a sharply lower trend in wage increases helps to restrain inflation, improving the choices facing policymakers who are confronted with other problems in the economy.

It is, of course, difficult to judge how many of the changes in the current bargaining climate will continue in the 1984-85 period. because it is difficult to separate the 1981-82 experience into cyclical influences and longer-term structural aspects affecting U.S. industries. Downward wage adjustments have occurred before; significant labor-contract concessions appeared in the textile industry in the 1950s, in the meatpacking industry in the 1960s, and in public employee unions in the mid-1970s.



Mark Sniderman is an assistant vice president and economist and Dan Littman is an economist, both with the Federal Reserve Bank of Cleveland. Amy Kerka provided research assistance for this article.

Federal Reserve Bank of Cleveland

Collective

Disinflation

by Mark S. Sniderman

and Daniel A. Littman

Labor relations and collective bar-

gaining have changed markedly in recent years. Although economic

recessions usually bring deescala-

tion of wages and increased labor

recession years of 1981 and 1982.

to its slowest pace since the early

1970s. At the same time, roughly

settling union contracts in 1982

accepted wage freezes or cuts. An

saving changes in work rules and

highly visible key industries, such

ditional bargaining patterns among

as automobiles and steel, and tra-

unions deteriorated. Strike activ-

ity dropped to a postwar low, and

unions lost more than one-half

of their representation elections.

fringe benefits. Concessionary

labor contracts were settled in

even larger number acceded to cost-

one-half of the 3.3 million workers

concessions, an inordinate number

of labor concessions occurred in the

Economy-wide wage growth dropped

Bargaining and

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ISSN 0428-1276

economic beruary 13, 1984 Commentary 13, 1984 February 13, 1984

> Meanwhile, many employers seemed more willing to accept the notion that their firms' survival depended on improving productivity and cut

It might be argued that we should not be particularly surprised by the magnitude of recent wage deescalation, given the fact that the 1981-82 period witnessed the deepest and most prolonged postwar downturn and the greatest slowdown in price inflation since the mid-1950s. Although the 1981-82 labor-relations experience has been perceived by some analysts as a permanent break from the past, there are reasons to be careful about reaching such a conclusion.

Wage Behavior over the Business Cycle

A number of theories explain the process of wage-setting and, more importantly, how wage-price spirals are initiated and sustained. Regardless of one's view of the entire inflation process, it is useful to examine the behavior of wages over the business cycle (see figure 1). The turning points and trends shown here suggest that wages are not the driving force of wageprice spirals. The substantial increases in consumer prices in 1973-74 and 1978-79 preceded, and were much larger in magnitude than, the increases in economywide wage rates. Although union wage costs are somewhat more responsive to sharp changes in inflation, they appear to be more



sluggish than total hourly earnings in response to longer price trends. Also, union wages resist downward adjustments to disinflation. Second, observe the moderation of unionlabor wage rates relative to economy-wide wage rates in the

mid-1970s. Escalation of union labor rates responded slowly to the rapid price increases of the late 1970s, while economy-wide wage increases responded more promptly. A third and very significant point is the current steep adjustment in economy-wide wage rates, from about 10 percent to 4 percent, relative to the adjustment after the 1975 downturn.

In the 1973–83 period effective union labor wage rates increased at an average annual rate of 8 percent. Because productivity growth was small in this period, the 8 percent annual labor cost trend flowed directly to price pressures, consistent with an 8 percent rate of inflation. Cost pressures strongly influence prices when the trend in wages is above trend productivity growth.

In a given year, the economy's union labor rates will change for any of three reasons: deferred wage *increases* contained in previously negotiated contracts, cost-of-living adjustments (COLAs), and wage increases contained in current settlements. The weighted sum of these three components, where the weights reflect the proportion of the union labor force receiving each type of wage adjustment, equals the economy's effective union wage increase. These weights shift over time, because different industries follow different bargaining practices, and because over time the rate of inflation affects the prevalence of COLAs. The behavior of these three components over the past ten years illustrates the dynamics of the overall wage adjustment process (see figure 2).

Over the business cycle, deferred increases are the primary source of the observed cyclical lags in union labor rates. Deferred increases prevent downward adjustment in the early stages of recession, while they dampen wage increases in the early stages of economic expansion.

The contribution of deferred increases to total wage changes appears to fluctuate moderately around a mean of 3 percentage points per year, with little change in the mean over this period. Although deferred increases averaged 4 percentage points in 1981, they will contribute an unusually low 1.8 percentage points in 1984 because of concession activity in the past few years.

In the early part of the 1970s, COLAs contributed only 1 percentage point per year to union labor costs; even during the worst ravages of inflation at the end of the decade, COLAs contributed just above 3 percentage points per year. Because they generally are tied to increases in the Consumer Price Index, COLAs move coincidentally with inflation, i.e., respond to inflation with only a short delay. Because of the large decline in the inflation rate in 1982, COLA contributions became small again during 1983. Most forecasters now anticipate that consumer prices will rise from the current 4 percent rate to perhaps 5 percent in mid-1984 and somewhat more by yearend. In 1983 the combination of effective COLAs and deferred pay increases amounted to union labor rate changes of 5 percent per year.

Being highly sensitive to the business cycle and price inflation. effective current settlements probably are the first place where upward wage pressures are apparent. Effective current settlements contribute 3 percentage points per year on average to total union wages. As shown in figure 2, current settlements declined markedly since 1981, although most analysts believe that current settlements will begin to increase soon.



Automobile Industry Talks

Over long periods, prices in the automobile industry and the nation as a whole follow the trend in unit production costs. These costs in turn depend on resource costs and productivity. Since labor accounts for nearly three-fourths of gross income in the motor vehicle industry, labor productivity and compensation trends are extremely important determinants of automobile price trends (see table 1).

The transportation equipment industry has established a productivity growth trend of 3 percent per year over the past 30 years. Output changes have been more volatile than productivity over cyclical subperiods, reflecting the ability of the industry to regulate labor hours effectively. The productivity performance of the industry, when compared with 30 other U.S. industries, has fluctuated wildly during the past three decades. This record makes a long-term trend hard to discern over short periods of time.¹

Based on industry trends, it seems that the best productivity growth the industry could expect in an economic expansion would be 4 percent to 5 percent per year. In light of the most recent industry performance, a 3 percent average would be a more realistic standard for a sustained period of time. Using this 3 percent productivity trend as a guide, if future automobile price increases are to be no more than 3 percent per year, total labor compensation per hour can increase by no more than 6 percent per year, on average. This goal will not be easy to achieve, for several reasons. First, the automobile industry agreements typically begin with a 3 percent annual improvement factor wage increase. This contract provision stems from the long-term 3 percent productivity growth trend in the industry. Second, even if the overall inflation rate in the country were to remain around 4 percent. the automobile workers probably would recover about 90 percent of that amount through COLAs, adding another 3.5 percent per year to labor costs in the automobile industry. Thus, COLAs and the annual improvement factor together are likely to total more than 6 percent, without considering any deferred amount. It seems clear



Table 1 Price and Unit Labor Cost **Increases in the Motor** Vehicle Industry^a

Period	Average percent change		
	Prices	Unit labor costs	Produc- tivity
1957-60	2.0	1.0	5.1
1960-66	1.1	1.2	3.8
1966-69	3.6	5.2	2.4
1969-73	3.5	4.7	3.8
1973-79	9.2	10.0	2.6
1979-82	5.7	7.7	2.4
1957-82	4.3	5.7	3.2
1977-82	7.0	13.9	1.0

a. The motor vehicle industry includes motor vehicles and car bodies, truck and bus bodies, motor vehicle parts and accessories, and truck trailers SOURCE: U.S. Department of Commerce, Bureau of Labor Statistics, national income

and product accounts

that the 3 percent annual improvement factor is not compatible with additional current increases of any large magnitude. In light of recent productivity trends, the annual improvement factor should be reduced or abandoned.

Uniformity in the bargaining cycle of the automobile industry contracts was broken in the autumn of 1979, after Chrysler Corporation independently negotiated contract concessions amid rumors of the firm's impending failure. Ford and GM subsequently agreed to concessions in 1982, including elimination of the 3 percent annual improvement increase. Chrysler and the United Auto Workers (UAW) bargained again in September 1983; the resulting 25-month agreement called for a \$2.42 hourly wage increase and may become a bellwether for 1984 bargaining.

Chrysler's September 1983 agreement with the UAW reinstated the usual 3 percent annual improvement increase, along with a COLA clause and a large discretionary

1. See John W. Kendrick, Interindustry Differences in Productivity Growth, Washington, DC: