

# Indexation of wages and retirement income in the United States

Should wages be automatically adjusted in line with the cost of living? Should pension benefits be tied to a price index? These questions have been debated at union meetings, labor contract bargaining sessions, and in the legislatures of local, state, and national governments. Economists, too, have examined indexation and raised some provocative questions about the desirability of indexation from the viewpoint of inflation and unemployment.

The idea of indexing income is more than two centuries old and has been used in many nations. During the American Revolution, Massachusetts linked soldiers' pay to an index composed of beef, corn, wool, and leather prices. In nineteenth century Britain, some firms offered wage scales which were tied to the prices of certain staple commodities. In Belgium, many wage indexation plans date back to the 1930's. Then, during the two decades following World War II, a large number of other European countries experimented with wage indexation of one form or another; Israel and Brazil also put extensive indexation programs into effect. In the United States, several major unions negotiated wage escalators during the 1950's. Over the past ten years, however, a new surge of interest in cost-of-living protection has developed in the United States, as the inflation rate accelerated sharply. Among unionized workers, escalator clauses have now become more common. As for the retired, social security benefits are now indexed, and many of those who worked for Federal, state, or local governments are entitled to price-linked retirement benefits.

Is indexation a desirable thing? Indexation may make the individual feel more secure about the purchasing power of income. But, under some circumstances, indexation of wages might make layoffs more common and actually reduce workers' well-being. As regards inflation, there is the question of whether indexation

would make it easier to curb inflation or whether it would aggravate it.

## **What is the purpose of indexation?**

Indexation ties the dollar size of a payment to an index of prices. For example, wage indexation typically provides for the hourly wage rate to rise automatically by 1 cent whenever the consumer price index increases by a certain amount. The basic purpose of this linkage is to provide an automatic mechanism for protecting the purchasing power of income if prices should rise. Its major use has been in long-term contracts, particularly long-term union contracts. Indexation is not so common in short-term wage contracts, since wages and salaries can adjust to changing prices without long delays.

In long-term union contracts, indexation is basically an insurance policy protecting the worker against unexpectedly high rates of inflation. Insight into the nature of wage indexation can be gained by considering the wage negotiations in two contracts which differ only in one respect—one has a cost-of-living adjustment clause or "COLA" and the other does not. In the wage contract without a cost-of-living escalator clause, the negotiating parties must *estimate* the likely inflation rate and provide for a wage pattern that reflects this inflation adjustment. For example, if prices are expected to rise at a 6 percent annual rate, and the parties decide on a real wage increase of 2 percent a year, annual wages would be slated to rise 8 percent in each year of the contract; 8 percent would allow a 6 percent "purchasing power adjustment" plus a 2 percent "real" increase. Consider next a contract with a cost-of-living clause which provides that the wage rate will increase by the same percentage as the cost of living. (The hypothetical escalator for this example gives 100 percent protection, whereas most

escalator clauses fall short of complete protection. See page 18.) For this wage contract, only the real wage increase of 2 percent per year would need to be specified; the COLA would provide whatever adjustment in the nominal wage rate that was necessary for an annual real wage increase of 2 percent.

In the contract without the COLA, the actual real wage increase depends upon the inflation rate. If prices rose at 6 percent per year over the duration of the contract, workers would get a 2 percent real wage increase. In contrast, if prices rose at a 7 percent annual rate, they would gain a real wage increase of only 1 percent per year (the 8 percent increase in wages less the 7 percent increase in prices), a full percentage point less than expected.

The importance of a COLA clause depends upon the duration of the contract. In a short contract without a COLA, say of one-year duration, the loss (or gain) would typically be small. For example, a 1 percent per year error in the price forecast would cost the worker a dollar amount equal to only ½ percent of annual wages over the course of a one-year contract. (The real wage falls short by a full 1 percent only at the end of the year.) The same incorrect inflation estimate over a three-year contract, however, would cost the worker a total of 4½ percent of annual wages: ½ percent in the first year, 1½ percent in the second, and 2½ percent in the third.

For employees whose expenses depend upon current prices, a COLA clause reduces the employee's uncertainty about the likely purchasing power of wages from his job over the ensuing contract period. Does it also reduce the uncertainty of the employer? If the employer's expenses and sales revenues were closely related to the general price level upon which the COLA is based, real profits might be more certain under a contract with a COLA: both the price of the goods sold and the wage rate paid would move together. In an alternative contract without a COLA, the employer could do better than one with the COLA, if prices rose at 7 percent, but might also do worse if prices rose at only a 5 percent rate.

Thus, under generalized inflation—all prices increasing at the same rate—indexation might insure both parties against unexpected loss. However, higher inflation usually absorbs some resources, detracting from the economy's productivity, so that it is rarely possible for everyone to remain as well off. Of great concern to the firm is the possibility that inflation will not proceed at the same pace in all sectors. If the prices of other goods rise more rapidly than expected while the price of the goods the firm is producing does not, the COLA clause would erode real profits.

### **Who has cost-of-living protection in the United States?**

Escalator clauses of one form or another appear in a wide variety of circumstances today. According to the Bureau of Labor Statistics, about half of the United States population is affected in some way. Food stamp allotments are based upon an index of food costs, eligibility for some governmental assistance programs is based upon a poverty line linked to the price level, and business contracts for the delivery of goods and services may specify that payments depend upon the level of certain prices. The focus here is on two major concerns of the typical American worker—whether his or her wage rate keeps pace with inflation and what the outlook is for the purchasing power of retirement benefits.

### **Wage COLAs**

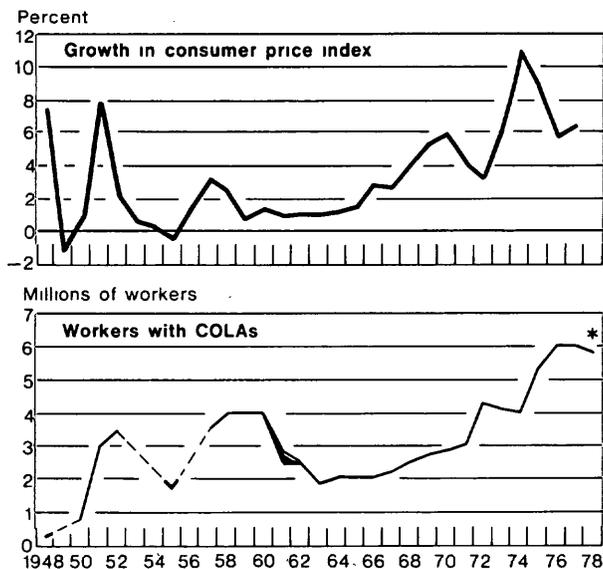
The union sector in the United States consists of 19.4 million workers. Of this group, more than 8½ million workers are covered by contracts that call for automatic adjustments of wage rates based upon changes in the cost of living.<sup>1</sup>

In "major" bargaining agreements—private nonfarm sector agreements which cover 1,000 or more workers—COLA clauses are fairly common. Of the roughly 10 million workers who are covered by such agreements, about 6 million currently have some form of escalator clause. The United Automobile Workers was the first major union to gain cost-of-living protection; its COLA with General Motors Corporation dates back to 1948. Since then, there have been ups and downs in the number of contracts containing COLAs. Periods of inflation typically have led to the adoption of escalator clauses, while periods of price stability have resulted in the dropping of such clauses (chart). After the run-up of prices associated with the Korean war several other major unions got COLAs, and by 1958 some 4 million workers covered by major agreements had cost-of-living provisions. Then, in the early 1960's several large unions, including the steel and communications workers, dropped the COLA from their contracts, and the number of workers covered by COLAs declined to below 2 million in 1963.

Beginning in the late sixties, however, accelerating inflation created renewed interest in cost-of-living provisions. The steel and communications workers had their COLA clauses reinstated, and other large unions obtained cost-of-living provisions. Particularly noteworthy was the surge in COLA coverage between 1974 and 1976; 2 million workers covered by major

<sup>1</sup> A good review of wage escalator clauses may be found in an article by Nicholas S. Perna, "The Contractual Cost-of-Living Escalator", *Monthly Review* (Federal Reserve Bank of New York, July 1974), pages 177-82.

**Inflation Rate and the Number of Workers Covered by Escalator Clauses (Private Nonfarm Agreements Involving 1,000 or More Workers)**



\* Preliminary for 1978.

Source. United States Department of Labor, Bureau of Labor Statistics.

agreements obtained COLAs, bringing the total to 6 million workers for this sector of the union work force. There are now many private-sector industries in which virtually all major labor contracts contain COLAs (Table 1).

As might be expected, unions with longer contracts are more frequently covered by escalators. In bargaining units with three-year contracts, for example, about 71 percent of workers were covered by COLAs in 1978, whereas in bargaining units with annual contracts only 9 percent of workers have COLAs.

COLA clauses have also been obtained by unions representing workers employed by state, county, and city governments. The Bureau of Labor Statistics surveyed the collective bargaining agreements of many of these governmental units in 1975.<sup>2</sup> About 25 percent of the state, county, and local government workers covered by the survey had wage escalators.

<sup>2</sup> *Characteristics of Agreements of State and Local Governments* (Bulletin 1947). The survey covered all states and those counties and cities with population of 100,000 or more but excluded agreements covering workers in public education.

Federal Government workers do not have a COLA clause for salaries, although since 1967 they have normally received an annual structural increase which was judged to be comparable to wage increases in the private sector. (See article on Federal pay scales beginning on page 7 of this issue.) However, the Postal Service, now a quasi-independent agency, does have a COLA clause in the agreements with four postal unions which represent about 570,000 employees.

What are the escalator clauses that cover American workers like? Although, in principle, an escalator clause could be designed to compensate the employee fully for rises in the price level, most escalators provide substantially less than 100 percent protection. One feature which leads to less than full compensation is the adjustment formula. This is usually specified as 1 cent per hour for each 0.3 or 0.4 percentage point rise in the consumer price index—over half the workers with escalators under major contracts have this type of formula. Another popular type of formula gives cost-of-living increases in the *base wage*. These types of formula seldom compensate high wage workers fully and usually do not compensate even the average worker fully for cost-of-living changes. For example, consider a worker with hourly earnings of \$7.75 per hour in July 1977. Between July 1977 and July 1978 the consumer price index rose 7.7 percent. By the 1 cent per 0.4 percentage point formula, the COLA would be 35 cents, equivalent to a 4.5 percent wage increase. With the 1 cent per 0.3 percentage point formula, the worker would get a 47 cent COLA, equivalent to a 6.1 percent wage increase.

Second, many COLAs require that the rate of inflation exceed a minimum level (called the "trigger" level) before workers get any adjustment at all; others specify a range within which the usual escalator formula does not hold; and some escalators have "caps" or maximums on the size of the allowable cost-of-living adjustment. Almost 1½ million workers covered by major contracts in 1978 had capped escalators.

Finally, there is generally some time lag between the occurrence of inflation and the compensation for it. Of workers covered by major agreements, about 2½ million receive annual adjustments and 0.9 million receive semiannual adjustments; only 2.3 million get quarterly adjustments. If inflation accelerates, the time lag in receiving the corresponding wage adjustment causes some loss in real income. One analyst estimated that these features have restricted wage increases from escalator clauses to about 50 percent of the consumer price index rise.<sup>3</sup>

<sup>3</sup> H. M. Dooty, *Cost-of-Living Escalator Clauses and Inflation* (Council on Wage and Price Stability, August 1975), page 28.

Another way that unionized workers with long-term contracts have tried to reduce price uncertainties is through "reopener" clauses which allow renegotiation during the contract period under certain circumstances. In fact, some contracts specify that cost-of-living increases greater than some amount permit reopening. Although in some circumstances the reopening will produce a wage adjustment similar to a COLA clause, other factors such as market conditions and firm profits may come into play when the wage discussion reopens. Because of this, reopener clauses may avoid some of the problems associated with COLAs. (See page 21.)

Table 1

**Industries with Escalators Covering Over 50 Percent of the Workers**

Collective bargaining agreements in the private nonfarm sector covering 1,000 or more workers

Industry	Workers covered by escalator clauses (in thousands)	(in percent)
Metal mining .....	51	97.5
Anthracite mining .....	2	100.0
Bituminous coal and lignite mining .....	120	100.0
Ordnance and accessories .....	25	74.3
Tobacco manufactures .....	28	94.9
Printing and publishing .....	37	58.1
Rubber and plastic products .....	86	89.8
Primary metal industries .....	555	96.1
Fabricated metal products .....	70	79.1
Machinery, except electrical .....	267	89.5
Electrical equipment .....	432	91.6
Transportation equipment .....	1018	94.8
Railroad transportation .....	472	100.0
Local and urban transit .....	115	97.6
Motor freight transportation .....	551	98.1
Transportation by air .....	101	62.3
Transportation services .....	2	100.0
Communications .....	679	93.7
Wholesale trade .....	44	61.8
Food stores .....	400	72.6
Finance, insurance, and real estate .....	51	65.1

Source: United States Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review* (January 1978).

**Retirement income COLAs**

Many retired workers receive social security benefits plus a pension from their previous employer. Old-age and survivors benefits provided by the social security system have been adjusted upward many times since 1965, and public-sector employees frequently do receive cost-of-living pension adjustments. However, private pension plans with COLAs are extremely rare.

Adjustments that have been made to the benefits of retired persons collecting social security are shown in Table 2. Until 1972, each of these increases required special legislation. Now, however, benefits are automatically increased annually to reflect cost-of-living changes. Belgium, Canada, France, Germany, Norway, and Sweden also provide automatic cost-of-living adjustments to social security payments. According to the United States Public Law 92-336, passed in 1972, automatic cost-of-living adjustments are paid in years when there is no legislation giving a general social security benefit increase.<sup>4</sup> Special legislation raised OASDI benefits in the years 1972-74; the first cost-of-living increase was effective June 1975. Cost-of-living adjustments were also paid in 1976, 1977, and 1978. A cost-of-living adjustment would be made only if the consumer price index were at least 3 percent higher than it was when the most recent adjustment was made.

In February 1978, about 18 million people were receiving retirement benefits from the social security system. Also, those qualifying for survivors benefits and disability benefits under OASDI—about 16 million persons—got similar cost-of-living adjustments. The social security system as a whole, therefore, is providing 34 million people with price-linked benefits in 1978. By 1985, about 40 million persons will be receiving such benefits, according to projections.

Because social security benefits were frequently changed prior to their indexing in 1972, there never was a long lag between inflation and an increase in benefits. What then was accomplished by indexing benefits? The price linking of social security benefits may prevent the temporary losses in real income of the retired that could occur when special legislation was required and may thereby make people feel more secure. In addition, it may save the United States Congress some time.

The situation regarding private pensions is very different: their purchasing power has been greatly eroded. Very few companies provide indexed pension benefits. Indeed, a 1972-73 Conference Board survey indicated that only 4 percent of the firms questioned provided

<sup>4</sup> The 1977 amendments to the Social Security Act corrected a feature that "double-indexed" newly retired people's benefits, giving payments which rose with wages and with prices.

Table 2

**The Consumer Price Index and OASDI\* Benefits for a Person Who Retired in 1959**

Date	OASDI benefits*		Consumer price index	
	Percentage change	Cumulative‡	Percentage change	Cumulative‡
January 1965 . . . . .	7.0†	7.0	7.8†	7.8
February 1968 . . . . .	13.0	20.9	9.3	17.8
January 1970 . . . . .	15.0	39.0	10.8	30.6
January 1971 . . . . .	10.0	53.0	5.1	37.2
September 1972 . . . . .	20.0	83.5	5.8	45.2
March-June 1974 . . . . .	11.0	103.7	16.4	69.0
June 1975 . . . . .	8.0	120.0	9.4	84.9
June 1976 . . . . .	6.4	134.1	5.9	95.8
June 1977 . . . . .	5.9	147.9	6.8	109.1
June 1978 . . . . .	6.5	164.0	7.5	124.8

\* OASDI = old-age, survivors, disability, and hospital insurance system under the Social Security Administration.

† Since 1959 There were no adjustments between 1959 and 1965

‡ Because of compounding, exceeds the sum of the items in previous column. For example, (1.07) (1.13) = 1.209 which yields the 20.9 percent for the second item in column (2).

Sources: OASDI benefits *Social Security Bulletin*, selected issues. Consumer price index for all urban consumers, seasonally adjusted. Bureau of Labor Statistics.

pension benefits that were price linked<sup>5</sup> (However, 17 percent of the plans did allow some portion of the pension to be taken in the form of an annuity, whose annual payment would vary with an investment portfolio of stocks and bonds.) The tremendous erosion of pension purchasing power in recent years has led some firms to raise voluntarily the pensions of the already retired. However, such adjustments have been insufficient to maintain purchasing power. Few unions have expressed interest in obtaining indexed pensions. And those indexed pensions that have been negotiated typically provide only for new retirees.

There are two major exceptions to the general lack of price linking for pensions. One is the College Retirement Equities Fund (CREF), a nationwide plan for college teachers that was established in 1952 by the Teachers Insurance and Annuity Association of America (TIAA). Many United States colleges make pension contributions to this plan on behalf of their faculty, rather than provide their own pension plans. CREF invests pension money in common stocks and pays retirement benefits based upon the earnings of its portfolio. When it was established, economists believed that the stock market would keep pace with the cost

of living so that CREF would in effect provide a price-linked pension. As it turned out, however, stock prices have not kept pace and CREF beneficiaries have not received dollar benefits sufficient to compensate for the cost of living. The pension plan for retired railroad workers is the second major exception to the general lack of price linking for pensions in the private sector; this plan did in fact provide a pension with price protection. Railway workers have been covered by special Federal legislation since 1937 and so in many respects are more similar to public employees than to private ones. According to the 1974 amendments to the Railroad Retirement Act, retired railway workers receive a substitute for social security, which provides identical price-linked retirement benefits, plus an added payment which is partially price linked.<sup>6</sup> About 1 million workers are receiving retirement benefits under this program.

In sharp contrast to the private sector, the public sector does provide extensive cost-of-living protection to retired workers. The first COLA for Federal pensions was legislated in 1962. However, no adjustment was called for in the years 1962, 1963, and 1964 under the original wording. The procedures were changed in 1965,

<sup>5</sup> Mitchell Meyer and Harland Fox, *Profile of Employee Benefits* (Conference Board, 1974)

<sup>6</sup> Prior to the 1974 amendments, many railway workers received both social security and a full pension from the railway retirement system

1969, and again in 1976.<sup>7</sup> According to the 1976 legislation, increases based upon the June-December consumer price index change are given each March 1 and increases based upon the December-June change are given to retired civil service workers each September 1. Retired military personnel are also entitled to indexed pensions. About 2.8 million retired Federal civil service workers and military personnel and their survivors were receiving such pensions at the beginning of 1978.

At the state and local level, there is some indexation of pension plans, although considerably less than at the Federal level. A recent Bureau of Labor Statistics study of the municipal pension plans of twenty-seven large cities found that about one third of the plans provided benefits connected to movement in the consumer price index. However, most of these cost-of-living adjustments were limited to a maximum of 5 percent a year.

Why have private companies not indexed their pension plans, while the Federal Government and many state and local governments have indexed theirs? Perhaps this difference reflects the fact that retired persons are voters and so retain influence on Government decisions whereas their influence on the company and/or union ceases when they retire. The company management and union leadership may feel that it is not in their interest to distribute money to the retired that might instead be used to boost the pay of current workers.

### **The outlook for indexation**

Because the union sector is relatively small in the United States, compared with many other industrialized countries, escalator clauses *per se* are unlikely to apply to the bulk of the work force. For example, there is a total of 19.4 million unionized workers, compared with a work force of 100 million. This comparison, however, understates the possible impact of wage indexation in the United States. For one thing, there is a tendency to maintain wage differentials by giving similar increases to nonunion employees in the firm and for some nonunion firms to give cost-of-living adjustments to keep in line with other firms' wages. Second, governmental units frequently award civil service workers increases comparable to those in the private sector. As for the future, there are some unions without COLAs who have expressed some interest and there are some groups who would like to tie the minimum

wage to the general wage level. Further wage indexation may, therefore, occur unless inflation abates.

There is very little indexation of private pensions currently, and it is not apparent whether there will be much movement in this direction. The public sector, which had been fairly generous with providing price-linked retirement benefits, appears to be under pressure to cut costs. In addition, many localities have discovered that their pension plans are underfunded even under current provisions. Finally, there is new awareness of possible pitfalls in designing pension escalators; benefits were inadvertently indexed for both prices and wages, *i.e.*, "double-indexed", in the 1972 Social Security Act and there was a "kicker" in the 1969 civil service retirement amendments which overindexed pension benefits. These factors suggest that public pension plans will probably not move further toward indexation very fast in the near future. As far as private pensions go, there is relatively little movement toward indexation, although this may change if inflation continues at current high levels. There has already been an increased awareness of the possibility that pension benefits may become severely eroded. Combined with the rising average age of the work force, this may cause wider interest in pension indexation. On the other hand, if people work longer years because of the rise in the mandatory retirement age, erosion of pension values will be a less serious problem.

### **Consequences of indexation**

Economists and policymakers, union leaders, and corporate representatives have all argued about the desirability of indexation. The differences in opinion arise not only from differences in their respective interests but also from certain implicit assumptions about how the economy works and what causes prices to change.

One important characteristic of indexation is that it speeds up the response of prices and wages to changes in the economy. In some circumstances this faster response may be desirable, but in other circumstances it is not.

Several economists, including Milton Friedman and JoAnna Gray, have argued that the fast response is desirable in the case where the money supply grows faster or slower than expected.<sup>8</sup> Without indexation, nominal wages are set to provide some compensation for expected inflation. If nominal wages have been set to provide for a large inflation adjustment, then a deceleration in money growth and in price inflation would

<sup>7</sup> The 1969 amendment (Public Law 91-93) gave an extra 1 percent each time there was an adjustment to compensate for the time lag. However, because this 1 percent became part of the base, there was over-compensation for the cost of living.

<sup>8</sup> See Milton Friedman's article "Using Escalators to Help Fight Inflation", *Fortune Magazine* (July 1974), pages 94-96, 174-76, and JoAnna Gray's article "Wage Indexation: A Macroeconomic Approach", *Journal of Monetary Economics* (April 1976), pages 221-35.

cause the real wage rate to rise. Under these circumstances, firms could no longer afford to maintain the same employment and output. In contrast, with indexed wages, a slowing of money growth and inflation would not have this effect on the real wage and employment. Therefore, the indexed wage scenario is less likely to produce changes in employment and output when the money supply shifts.

Friedman goes one step further, arguing that a tight monetary policy to curb inflation would be more palatable in an indexed economy, because a reduction in money supply growth would cause less unemployment. If money growth were reduced, the inflation rate might actually be lower under indexation. The Friedman argument is indeed intriguing, and there are some economists who agree with his argument and are in favor of wage indexing for just this reason. However, others point out that numerous political forces impinge on our policies toward inflation. If large well-defined groups who have strong lobbying power are protected against accelerations in inflation, the pressures to restrain it could be much moderated. Already, a large fraction of the union sector and a substantial portion of workers in the government sector have wage and salary protection. Moreover, through social security, many of the elderly receive price protection, and those who had government jobs commonly have indexed pensions. These groups who could contribute to an effective campaign against inflation no longer have a big incentive to do so.

A more fundamental difficulty with indexation is its affect on the economy's ability to adjust to changes in output, productivity, or international competitiveness—situations which usually require a change in the real wage rate. Consider, for example, the situation in 1973-74. Food prices skyrocketed in 1973, because world grain harvests were much smaller than normal. The price of petroleum, an important United States import, was doubled by the Organization of Petroleum Exporting Countries in the fall of 1973 and again in early 1974. As a result, the overall cost of living, which includes food and energy, increased much more than the price of domestic nonagricultural goods. United States producers of nonagricultural goods could not afford to maintain the same employment if workers insisted on wage increases commensurate with the overall cost of living. Yet, with wage indexation, wages increase automatically with the overall cost of living. This forces nonagricultural business to lay off workers, leading to more unemployment. Furthermore, if monetary and fiscal policy are more stimulative—to ease the unemployment problem—then there is much more inflation in this scenario of wage indexation.

The damage on the price front might be offset dur-

ing periods when farm prices fall or when imported goods become cheaper. However, in the short run, indexation does make changes in the supply of certain goods and services much more painful for the economy, both in terms of unemployment and in terms of inflation. Indeed, Finland abandoned wage indexation in 1968, shortly after it devalued, to prevent some of these consequences.

The faster response of wages produced by indexation has led to criticism on other grounds. Some people argue that an economy without indexation has a second line of defense against rampant inflation. They postulate the following example: the demand for goods and services expands beyond the economy's ability to produce, and prices begin to rise. Clearly, one defense against this excessive demand situation is restrictive fiscal and monetary policies. But sometimes there are difficulties in sizing up the near-term situation, or there are delays in obtaining necessary legislation. (And, in some cases, political forces prevent the implementation of restrictive policies.) In these cases the redistribution of real income caused by inflation might help to curb it: If wages were not indexed, the price rise would lower the real income of workers who have wage contracts and raise the real profits of firms and the real tax revenue of the government. (The government gains both from inflation *per se* and from the fact that corporate profits are taxed at a higher marginal rate than the typical wage or salary income.) As a result of their real income loss, workers will cut their purchases of goods and services. But the gainers of real income—business firms and government—do not usually step up their purchases much when real income is higher than expected. The cut in spending by workers therefore exceeds the rise in spending by business and government and, on balance, total spending declines, helping to curb inflation.

Turning to a different perspective, some people argue that indexation permits the lengthening of union contracts, thereby saving on negotiation time and the danger of strikes. However, longer term contracts build in a real wage structure for the length of the contract that may turn out to be unsuitable. For example, suppose the demand for good A increases and that for good B declines. Typically, wages in industry A will increase, as the industry tries to attract workers, while wages in industry B fall relative to the average. A long-term contract tends to postpone the relative wage decline in industry B and may therefore lead to more layoffs and higher unemployment. Generalizing this phenomenon, changes in relative demand and supply for various goods could lead to more unemployment under a system of long-term contracts.

To the extent that escalator clauses provide only

partial cost-of-living compensation, all these problems may not be very serious at the present time. However, if indexation becomes more widespread and fuller price protection for those with escalators develops, the economy may have a higher unemployment rate and periods of more rapid inflation.

#### **Problems with the consumer price index as the basis for COLAs**

While the potential increases in inflation and unemployment have concerned the majority of analysts, some economists are concerned about the use of the consumer price index in escalator clauses. They point out that at least some of the other problems mentioned above could be either aggravated or mitigated by the particular price index that is used.

From the perspective of the consumer, the consumer price index fails to measure the true cost of living on a number of scores. One problem is that sales taxes and property taxes are treated as consumer prices; income taxes, on the other hand, do not affect the index. Therefore, if a state or local government replaced an income tax with an excise or property tax or vice versa, the index would change when in fact there was no change in the cost of living. Or, if a state or local government were to impose a new excise or property tax and undertake provision of some service that was formerly provided by the private sector, the index would rise, even though the consumers' true purchasing power at the current level of income is in fact unchanged. Thus, decisions that should be based upon efficiency considerations may be hampered; with indexing based upon the consumer price index, these decisions will have wage and price ramifications.

Perhaps more important are factors that cause changes in the consumer price index to overstate changes in the true cost of living. For one thing, the index uses the same market basket of goods and services to determine the price level at different times. But, other things being equal, people will try to substitute cheaper goods for the ones whose prices have risen more rapidly. Thus, the fixed market basket probably gives too much weight to items with rapid price increases.

Another source of upward bias is the way the cost of home ownership is calculated. When inflation ac-

celerates and higher inflation is expected to continue, the mortgage interest rate, like other interest rates, tends to rise. As currently calculated, home-ownership cost reflects the rise in home prices and the entire rise in mortgage interest rates even though most of the interest rate increase is offset by the greater expected appreciation in home prices. Thus, the rise in the cost of home ownership is overstated. (The Bureau of Labor Statistics is currently working on a revised "user cost" of homes to correct for this problem.)

Turning to even tougher criticism, it is argued that price linking should not be based upon a cost-of-living index at all. A cost-of-living index will reflect import prices, but domestic producers are in a poor position to give wage increases based upon import prices. (More detailed arguments on this issue can be found on page 22.) Instead of a cost-of-living index, some economists propose that a price index of domestic goods and services be used. While this would have advantages from some viewpoints, there has been little enthusiasm on the part of workers when it was proposed in other countries.

#### **Conclusion**

The worsening of inflation in the United States over the past decade has sparked interest in the price linking of wages and retirement incomes. Many Americans are now favorably disposed toward indexation, regarding escalator clauses as a good protection mechanism against inflation. From an economy-wide perspective, however, the merits of indexation are questionable. In many circumstances, indexation could have undesirable effects on inflation and unemployment. There are some circumstances where it could protect the incomes of those who have escalator clauses with relatively few harmful ramifications for unemployment and inflation—in economywide inflation where all prices are rising in proportion. In such general inflation, however, there would be other groups who suffer inequities and certain economic costs that could not be avoided. Consequently, indexation will not make inflation either equitable or costless. Moreover, if indexation reduces the political pressures to curb inflation, price inflation could be worse in an economy with indexed wages. Faster inflation would, of course, be more costly for the nation as a whole.

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