

Maintaining Value of Social Security Benefits During Inflation: Foreign Experience

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In most industrial countries the effect of inflation on old age benefit amounts led, in the 1960's, to the adoption of adjustment processes based on indexing that tied benefit levels to movements in prices or wages. A survey of eight European systems shows that accelerated program costs have shifted the emphasis from a particular index as a guide to adjusting benefit amounts to reviews conducted by advisory groups aimed at keeping pension rises in line with general economic and social developments.

IN THE LATE 1950's most industrial nations had begun to introduce plans for periodic adjustment of pensions so that they could keep up with wage and price changes. Initially, wages rose more rapidly than prices. Recently, however, accelerated inflation has brought a shift in this pattern, and prices have risen more rapidly than wages. Earlier the intent had been to allow retirees to maintain the standard of living that they had during their working lives (by adjusting of price indexes) or to benefit from an expanding economy (by adjusting pensions to wage indexes).

The accelerated inflation of the 1970's has brought with it a need to find ways to limit benefit increases and thus maintain the financial balance of the social insurance system. In all the developed countries, benefit adjustments are required by law and therefore cannot be stopped. The amount of the adjustment may either be limited or can be spread over several years. Increasingly, advisory groups are being asked to evaluate adjustments from an overall economic standpoint and to suggest whether and to what extent limitations should be imposed.

The benefit adjustment mechanisms and problems of eight industrial countries, primarily since 1960, are examined here. The countries—Austria, France, the Federal Republic of Germany, the Netherlands, Sweden, Switzerland, the United Kingdom, and the United States—were selected on the basis of the wide range of methods they

use and availability of their data.

The changes in pension amounts and the indexes on which such changes were based are presented for the period 1960–74 as a measure of how adjustments in these systems have worked out. In theory, the rise in benefits should closely approximate the upward movement in the national indexes on the basis of which they are revalued. The rise should, in fact, be somewhat slower because of the lag between the time it takes to work out the amount of increase and the time it takes to apply the increase and to pay the new benefit amount. The statistics show that in practice, for most of the countries, the benefits have increased more rapidly than the indexes. The reasons for this will be examined.

Since the post-World War II period the principal foreign social security systems have seen the need to find new ways to increase benefit amounts. Inflation has not been the only reason; the expectation of higher standards of living in retirement has given impetus to this search. As discussed in greater detail below, one solution is incrementation—the addition of successive layers of social security benefits, one on top of the other, beginning usually with a small universal benefit and then adding an earnings-related insurance supplement. A second possibility is to come closer to the worker's last earnings in the benefit-computation formula, thus eliminating decades of low-level wages. Under a third alternative, used for some years, earnings have been revalued to permit average covered earnings to be brought up to current levels for use in computing new pension amounts. Ad hoc adjustments have long been used as another approach—as in the United States, for example—to adjust the level of benefits in force on a one-time basis whenever they fell out of line with rising prices or wages. All the developed countries now use a fifth approach—indexing of benefits that ties them either to price or to wage changes. The primary focus of this article is indexing of benefits, but the other four methods are discussed briefly.

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REVALUATION OF BENEFITS WITHOUT INDEXING

Incrementation

Incrementation—adding successive layers of social security protection with the aim of achieving a higher benefit rate—has been adopted in a number of countries, as in Denmark, Norway, and Sweden. These countries had begun with a flat-rate old-age and survivors program, usually covering all residents in order to provide at least a subsistence income to everyone, not only workers. A general desire to make the system equitable for all elements of the society was evident. It soon became apparent that the benefits were inadequate. Not only were the amounts small, but in the early years the benefits were not revalued to keep pace with the cost of living. Benefits were financed by taxation, general or earmarked, and it was considered too costly to raise them to a really sufficient living minimum. Eventually, however, social pressure called for improvement of benefits. In response, these countries added an earnings-related layer to the flat-rate amount in the early 1960's. The full impact of the second layer could not be felt until the program matured in several years. The desired benefit rate still could not be maintained, even with the two systems, and yet another layer was added in the form of mandatory private pensions.

Since 1960 this method has been used by all countries with universal benefit payments, except Iceland, Switzerland, and the United Kingdom, where the flat-rate benefit (based on contributions, not residence) is not considered a universal payment, also added a second layer.¹

Benefit Formula Changes

Another way of coping with inflation, in the computation of new benefits, has been to reduce the number of years taken into account and to change the formula itself. At one time it was not uncommon for an average of lifetime wages to be used in calculating the benefit amount. Earnings from more than 20 years before retirement were often found to be so small that they

¹The earnings-related layer in the United Kingdom (established in 1961) was abolished in 1975, and conversion to an earnings-related system only is scheduled for 1978.

brought the career record down to an extremely low level. A general tendency to reduce the number of years that were averaged for benefit purposes then developed. It is now common to use the last 3 years of earnings, and some countries are discussing relating the calculation solely to final pay. Such limitation, of course, would produce a higher initial benefit already adjusted to current standards. As of 1975, 50 countries base their benefit formulas on 15 years of earnings or less, compared with 28 countries in 1961.

The countries studied here represent the range of possibilities found in benefit-computation methods. The period of computable earnings covers variations from an entire career to the last 5 years only. The Federal Republic of Germany considers all working years in its computation. Switzerland includes all years since the system was set up in 1948. In the United States, earnings since 1951 are the basis for most benefits. In Sweden the earnings-related pension is based on wages since 1960. France uses the highest 10 years of earnings. Austria, which at one time used lifetime earnings for the old-age pension, considers only the last 5 years in its computations.

The benefit-computation formula has been changed a number of times in Switzerland and the United States. In Switzerland the formula is composed of a basic cash amount that is raised from time to time, plus a percentage of earnings that has also been raised (from 1.25 percent in 1970, for example, to 1.67 percent in 1973). In the United States the percentages in the weighted formula have been raised—from a three-part formula of 62.97 percent of the first \$110 plus 22.90 percent of the next \$290 plus 21.40 percent of the next \$150 in 1965, for example, to an eight-part formula in 1975 of 129.48 percent of the first \$110 plus 47.10 percent of the next \$290 plus 44.01 percent of the next \$150, etc.

Revaluing Earnings

Revaluation was introduced initially in France and the Federal Republic of Germany in the late 1950's, and in Austria in 1961, in order to raise benefit levels by compensating for low earnings paid in the period immediately before and after World War II. Prolonged postwar inflation has made the old earnings records virtually meaning-

less More recently, however, in Switzerland a provision was implemented to revalue past earnings to raise retirement income to a level that is more comparable with earnings before retirement Eleven countries have such a revaluation provision—Algeria, Austria, Belgium, Canada, Chile, France, the Federal Republic of Germany, Portugal, Switzerland, Turkey, and Yugoslavia²

Ad Hoc Changes

Changes in benefit amounts were sporadic before the late 1950's Little systematic review of needs existed and benefit increases were made from time to time when social and political pressures on the national legislatures led to improvements When regular adjustments were introduced, it was thought that the need for ad hoc changes had been eliminated since price or wage rises would automatically result in benefit increases In fact, however, ad hoc changes have been continued in some countries and have increased in frequency during the inflation of the 1970's

Ad hoc actions are taken to increase both the amount of an initial award made at the time of retirement and of benefits in force, primarily when existing adjustment provisions and benefit formulas fail to keep pace with rapid inflationary trends Thus, for the most part, such actions are implemented to supplement other forms of adjustment In addition to helping the benefits to keep up with inflation, an ad hoc adjustment may also help improve the ratio of the benefit to preretirement income

Ad hoc changes were made in France in 1972 (a one-time, 5-percent increase), frequently in the Netherlands, in 1964 and 1969 in Switzerland, at least once a year since 1960 in the United Kingdom; and in 1965, 1968, 1970-72, and 1974-76 in the United States

INDEXING BENEFITS TO WAGES OR PRICES

In the post-World War II period, sporadic benefit increases failed to satisfy pensioners fully

²A detailed study of the methods used to revalue earnings is to be released by the Office of Research and Statistics by the end of 1976

Their dissatisfaction centered on a comparison of their benefits with price and wage developments Prices had risen astronomically, requiring currency reforms in some Western European countries As a consequence, pressure from pensioners and other groups mounted Continued prosperity in the late 1950's and early 1960's added to the willingness of many Governments to introduce some form of regular, periodic adjustment of pensions to price or wage changes In the eight countries under discussion, indexing provisions were implemented as follows

1948	-----	Sweden
1957	-----	Federal Republic of Germany
1957	-----	Netherlands
1965	-----	France
1966	-----	Austria
1969	-----	Switzerland
1971	-----	United Kingdom
1975	-----	United States

Once the decision had been made to adjust benefits, the next step was to decide whether a wage or a price index was the most feasible The more conservative approach called for adjustment to price increases The theory then as now was that once an old-age benefit had been granted, its purchasing power should be maintained by increasing it in proportion to price rises This approach was counted on to permit the retiree to continue his old standard of living Some societies were prepared to go beyond this, however, to allow benefit increases in proportion to the improvement in the standard of living currently enjoyed by the active labor force This line of reasoning led to indexing by wage changes

The use of indexing spread relatively rapidly, particularly among the industrial countries, so that by 1975 a total of 33 countries had some form of indexing As the following list shows, most systems (20) primarily use the price index, three use the minimum wage, and 11 use a general wage index

General wage index

Argentina	Germany, Federal Republic
Austria	Israel
Bolivia	Netherlands
Finland (earnings-related pension)	Spain
France	United Kingdom
	Uruguay

Minimum wage index

Brazil
Malagasy Republic
Mexico

Price index

Belgium	Luxembourg
Canada	New Zealand
Chile	Norway*
Colombia	Portugal
Denmark	Sweden
Ecuador	Switzerland
El Salvador	United States
Finland (universal pension)	Upper Volta
Italy	Yugoslavia
Japan	Zaire

* With provisions for adjustment related to work

Most countries use a form of consumer price index that may itself be a composite of several indexes. Consumption patterns differ and weighting of the indexes from country to country, even where the indexes have the same name, tends to differ substantially.

Changes in average covered earnings of insured wage and salary workers constitute the index for adjusting benefits in Austria and the Federal Republic of Germany. In France, also, the adjustment is linked with increases in average covered earnings but less directly. The adjustment factor is based on the annual increase in the average daily cash payments made under the sickness insurance program with these payments, in turn, calculated on the basis of covered earnings of insured wage and salary earners. The Dutch index is based on the hourly wage rates of adult men who are manual workers in industry, transportation, and agriculture. The Finnish adjustment is based on the wage index for all wage and salary earners.

Other countries adjust benefits on the basis of minimum wage changes—Brazil, for example, and, most recently, Mexico. In some instances minimum wages, in turn, are responsive to price increases.

Automatic and Semiautomatic Approach

From the start there were two different approaches to the way in which indexing should be introduced—automatic and semiautomatic. Under the automatic approach a specified increase in the index (2 or 3 percentage points, for example) is automatically applied as an equivalent increase in the benefit amount. Under the semiautomatic approach, a benefit increase is also provided whenever the index rises a specified

amount, but a review process is required to approve by how much the benefit will be increased. In practice this process usually involves legislative debate and a new law each year. Several advantages are generally characteristic of the automatic approach. Assurance that the full amount of the intended increase will be applied to benefits, the adjustment process is speedy, avoiding the possibility of time-consuming debates and parliamentary procedures, more frequent adjustments are possible when prices and wages climb rapidly, and administration is simpler.

Originally the two approaches were completely different, but the distinction between them has become blurred because the consultation process has grown, even under the automatic systems, as a result of rising costs and inflation. Consequently, the term automatic adjustment is accurate for only a limited number of countries with indexing procedures. Growing inflation and less favorable economic conditions in the 1970's engendered considerable concern about how to limit the effects of rapid benefit growth on the financing of the systems. It was feared that sudden and sharp wage hikes or very rapid price increases would throw the financing pattern out of balance. Thus even in some of the automatic systems a consultative process was introduced in an attempt to avoid such difficulties.

Review Process

The consultative process generally is handled through an advisory council, usually made up of representatives of Government, labor or insured persons, and employer associations. In some countries, other interested groups or experts may be included—such as leading economists, academic figures, finance ministers, members of Federal banks, or representatives from the national chamber of commerce and associations of insurance companies. Members are nominally selected by the Ministers in whose sphere social security falls. In general, a council meets regularly when a review is called for by law or when the pertinent index has gone up enough to cause concern.

The advisory council or Minister usually must submit a report to explain to the legislature the basis for its determination, whether or not an

increase in the benefit levels is needed. The national legislature is not required to follow the council's recommendations. Until the early 1970's, however, the practice in the industrial countries was either to adopt the recommended change or increase it.

The scope of the council varies somewhat from country to country. Its members represent both the interests of important groups in that society whose primary concern is in maintaining and improving benefits, and of those economic and financial experts concerned with the financial status of the system and of the economy. The two groups are, in a sense, somewhat opposed. In the pre-1970 inflationary period the emphasis was on raising benefits and the atmosphere was conducive to promoting the welfare of the retirees. As noted, in the 1970's increasingly the focus has been on the program cost and how much the economy can bear, in view of the fact that unemployment and inflation have distorted the projections on which the program operations were based.

More specifically, the council considers the amount by which benefits should be increased. To reach a decision, the members examine not only the social security program, but also how changes in social security benefits influence the entire economy. Conversely, they study how the state of the economy influences the social security program. This review process has always involved study of the wage or price index or both. Before the 1960's, changes in these indexes were generally thought of in terms of increases in benefit levels, benefit maximums and minimums, and contribution ceilings. This study has been extended to include an analysis of the sources of income of the social security system, as well as demographic patterns, unemployment, and the labor force. Possible alternate sources of income also are discussed because in some countries, contribution rates are so high that they are a political issue. Other factors that may be examined include the actuarial balance of the fund and the potential impact of any change on the status of private pension programs.

If, after review, it is found that an adjustment based solely on changes in the national index would be either too high or too low, the council may recommend a modification. Where the increase is automatic, the council may not be able

to change the amount, but it has, in some cases, proposed that the increase be spread over several years in order to even out the effect.

Time As a Factor

Time as a factor in indexing benefits in force has grown increasingly more important as the inflation period has continued. One aspect of the influence of time—shortening of the number of years of earnings considered in computing the benefit—already has been discussed. Another aspect is the lag between the time of the rise in the index and translation of this rise into an increase in benefit payment. A number of the adjustment systems have depended upon changes in wages or prices from one year to the next to determine, for the third year, the amount of the benefit increase (as in France)—that is, the increase of wages or prices from year A to year B was applied in year C. At that time inflation had been no more than about 3 percent, so the length of the interval was not critical. It was not uncommon to measure from one January to the next and apply the addition to the current January. Aside from this administrative arrangement, some countries purposely scheduled a lag from the very beginning in order to reduce the possible inflationary effect of rapid increases and to smooth out the influence of sudden wage hikes on the general economy.

Under review procedures, even when ad hoc adjustments are made frequently and retroactively, the elapsed time between rises in cost-of-living and benefit increases is not eliminated or satisfactorily reduced in most cases. Beneficiaries do not receive an increased benefit during the time it takes for the legislature to determine and implement the new benefit level. Although this is true to some degree in all systems, it is particularly acute where reviews play a substantial role.

Increasing public concern with the effect of inflation on the purchasing power of beneficiaries has brought pressures to reduce the time lag involved in the benefit adjustment process. A number of countries have acted to increase the frequency with which adjustments are made and to shorten the time between the establishment of the index amount and the corresponding benefit change. At the same time, reviews also have be-

come more frequent as the index increases that trigger benefit adjustments have become more frequent

Procedures in several countries illustrate the move toward reduction of the intervals between reviews. In Canada, automatic adjustment of pension levels on the basis of changes in price indexes recently was changed from an annual to a quarterly review. In France and Luxembourg, recent legislation shortens the process by moving from an annual to a semiannual review. Periodic reviews in the United Kingdom have been accelerated from a biennial to an annual procedure that, in practice, has been even more frequent. In contrast to this trend, index-linked adjustments were being made so often based on changes in the wage index in the Netherlands that reviews had to be established on a semiannual basis to reduce the administrative problems involved in frequent increases in benefit levels.

Three countries have recently cut the time lag between index changes and increases in pension levels. In Canada, a new quarterly review system allows for reduced time lag as well as for more frequent adjustments. The lag was reduced from 5 months to 2 months by basing the cost-of-living adjustment on prices at the end of the first month of the last quarter. Adjustments had been made every April, with payments reflecting price changes as of the previous October. In the other two countries, adjustments were formerly determined in January of each year, with lags of 2½–3½ years (Germany) and 2–3 years (Austria) between the average wage calculation and actual pension increases. The process has been accelerated in both countries by making the adjustment on July 1 instead of waiting until January 1 of the next year.

The principal characteristics of the review procedures in these countries are shown in table 1. The data reflect the lag time between reviews and the necessary movement in the national index required (if any) either to adjust benefit levels or to trigger further study by the council. Only Sweden has a fully automatic process in which the amount of benefit increase reflects the exact movement in the index without review. In practice, however, France and the United States also tend to adjust benefit levels to reflect movements in the index without extensive revisions in their respective review procedures.

TABLE 1—Review process for pension adjustments: General characteristics, selected countries, 1974

Country	Review period	Main index	Minimum index movement required
Austria --	Annual --	Wages --	None
France --	Semiannual --	Wages --	None
Germany, Federal Republic	Annual --	Wages --	None
Netherlands	Semiannual	Wages --	At least 3 percentage points
Sweden --	Movement in index	Prices --	At least 3 percentage points
Switzerland	Triennial or movement in index	Prices ¹ --	At least 8 percentage points
United Kingdom	Annual --	Prices or wages ²	None
United States	Annual --	Prices	At least 3 percentage points

¹ Wage review every 6 years

² Increases based on either prices or wages according to greatest movement, recent changes based on wage index

Indexing Trends

In the past, benefits tied to a wage index should have moved up more rapidly than those linked to a price index because wages include both inflation movements and productivity improvements. Another assumption is that the adjustment of benefits should show the close relationship between changes in index and changes in benefits. Also, it is to be expected that in an automatic system benefit changes mechanically follow index changes and thus show greater correlation than in semiautomatic arrangements.

To see whether these widely held assumptions are borne out in fact, the increase in the pension of an average worker in manufacturing is traced here for the period 1960–74 (table 2). The growth in wages and prices is shown for the same years. The annual average of weekly wages earned by a worker in manufacturing, as reported by the International Labor Organization, is the basis for the wage index. The price trend is based on annual changes in the consumer price index, developed and supplied by the US Bureau of Labor Statistics.³

The greatest pension increase occurred in Switzerland, where the index stood at 649 in 1974. Sweden had the smallest pension increase, according to the latest available data. The United

³ Price indexes represent: In Sweden, all types of households, in the United Kingdom, all households, excluding pensioners and high-income families, in the United States, France, and Switzerland, all urban-worker households, in the Federal Republic of Germany and the Netherlands, all households and middle-income households, and in Austria, all households and all income levels in urban areas.

In all these countries, at least until 1974, pensions increased more rapidly when adjustment was geared to wages, not prices. After 1974, prices tended to go up faster than wages as a result of the worldwide inflation. It is however, too early to measure the impact of this change.

SUMMARY OF COUNTRY INDEXING PROVISIONS

For each country, the adjustment procedure, review process, background information, and present status of the provisions for coping with inflationary trends are briefly summarized below.

Austria

Annual adjustment of benefits in force is on the basis of changes in national average covered earnings. A periodic adjustment of pensions in force became effective January 1, 1966, under the Pensions Adjustment Act of 1965. Previously, only ad hoc measures could increase benefit levels, primarily in line with changes in the cost of living. A 1966 law, however, provides for calculation of a coefficient based on earnings. This coefficient is, in turn, used to update the contribution ceiling level, revalue past earnings records, and raise the level of current pensions. The coefficient is determined by dividing the average covered earnings figure for the year before the preceding calendar year by the average covered earnings figure for 2 years before the preceding calendar year. If the average covered earnings were 6,000 schillings per month⁴ in 1972, for example, and 5,500 schillings in 1971, the coefficient applied to pensions in force in January 1974 would be the quotient of 6,000/5,500, or 1.091.

A review procedure for evaluating the size of any increase was included in the adjustment legislation. This evaluation, based on general economic conditions and changes in demographic patterns, is made by the Federal Minister of Social Administration, subject to the approval of an advisory committee (principal committee of the national council) and Parliament.

The review concept was introduced when it was noted that pension levels were not keeping pace with changes in wages and prices. As indicated

⁴One Austrian schilling equaled 5.45 U.S. cents as of March 31, 1976.

by the changes since 1970 shown in table 2, the review process has stimulated action to improve the relative position of pension amounts under the semiautomatic features of the system by reducing the delay in the calculation of the adjustment coefficient from 1 year to 6 months. In addition, a 2-year waiting period previously required before new awards could be adjusted has been eliminated. New benefits can be adjusted in January following the date of award.

Despite measures to reduce the lag time between adjustment and payment, pensions in force have continued to fall behind movements in the cost of living and wage levels. Further action to raise the value of the pension was taken by Parliament in June 1974 and in July 1975 when additional increases of 3 percent each on top of the regular January adjustment factor were enacted.

France

Semiannual adjustment of benefits in force is on the basis of changes in average covered earnings. Periodic indexing of benefits in force became effective in April 1965. The legislation provided for establishment of a coefficient to be used to adjust current pensions and to revalue earnings for new awards. The coefficient is based on the annual increase in the average daily cash benefit amount paid under the national cash-sickness (short-term disability) program. The cash-sickness payments are calculated on the basis of average covered earnings of insured wage and salary earners between 2 successive years.

The indirect manner in which the adjustment coefficient is tied to movements in earnings is designed to prevent the development of any incentives for wages to be raised in order to lift future benefit levels. Thus, no direct way exists for insured workers to increase benefit levels by seeking higher wages.

Although pension amounts have generally kept pace with wage changes, the rate of increase for pensions fell below that of wages in 1970. This failure to make desired improvements in benefit levels led to legislation in 1972 that raised current pensions by 5 percent as a one-time, ad hoc adjustment and also increased the amount of new awards.

To improve the automatic adjustment procedure for benefits in force, in 1974 the time lag between adjustment periods was reduced by 6 months. Under the new biannual adjustment, the coefficient of increase on January 1 is equal to half the overall increase in cash-sickness benefits during the preceding year. An additional adjustment on July 1 takes into account the increase in average wages during the preceding year (April to April).

Federal Republic of Germany

Annual adjustment of benefits in force is on the basis of changes in national average earnings. Implemented in 1957, the "dynamic" adjustment process increases benefits in force (and the contribution ceiling) on the basis of changes in national average earnings. At the end of each year, an average of the national average wage for the 2½-3½ preceding years is calculated. The growth in this figure over the previous average is used in determining pension adjustments for the next year. The increase in the average for 1970-72 over that for 1969-71, for example, is calculated at the end of 1973 and applied to 1974. A certain lag element thus is built into the system, inasmuch as new retirement pensions or pension increases are not based on the existing national wage level, but on the level from 2½-3½ years earlier.

Before 1973, the adjustment was made on January 1 of each year. Under the new legislation, however, the adjustment date was advanced by 6 months to the previous July 1.⁵ This change has narrowed the gap between movements in the pension and wage indexes since 1973.

Although the adjustment process is automatically calculated every year, Parliament must review and approve any pension increase. Subsequent to the review, an advisory council (the social insurance council) submits to Parliament a specific proposal to adjust benefit amounts. The proposal takes into account productivity and changes in the national income for employed persons, both of which influence the rate of increase.

⁵ Gisela C. Wang, "Flexible Retirement Feature of German Pension Reform," *Social Security Bulletin*, July 1973, pages 36-41.

Netherlands

Semiannual adjustments of benefits in force are on the basis of changes in average earnings. The original intent of the indexing legislation in 1957 was to maintain the country's flat-rate benefit at a subsistence level for aged persons. To achieve this end, benefits were adjusted each time the wage index rose by an average of at least three percentage points, provided that the change had been sustained for 6 consecutive months. From 1957 to 1965 the benefit level rose enough to provide a minimum level of income deemed necessary for retirement. Thereafter, frequent adjustments to wage changes were needed. Six adjustments were made in 1967-69 alone. In addition to these adjustments, a number of ad hoc increases designed to compensate for movements in prices have been made since 1960. The frequency of adjustments under this combined procedure, however, created administrative difficulties in making the changes necessary to pay the new amounts. In 1972, the number of increases was limited to two a year.

Sweden

Automatic adjustment of benefits in force is on the basis of changes in prices. Retired workers are entitled to a flat-rate pension plus an earnings-related benefit, both of which are adjusted according to movements in the price index. The amount of the flat-rate pension is 90 percent of a base amount that is adjusted whenever the cost-of-living index rises or falls by three percentage points since the last change in the benefit level. The earnings-related pension amount is also adjusted when the price index moves three percentage points or more.

Since 1948 adjustments have been designed to keep the purchasing power of benefits in force equal to what they were at the time of award. Legislation at that time tied the flat-rate benefit (the earnings-related benefit became effective in 1960) to the consumer price index to protect against inflation. The benefit amount was adjusted whenever the price index rose or fell by five percentage points. The same legislation called for periodic review to adjust pension levels to rises in national income. About every 2 years a supplement was added to the pension, over and

above the price index adjustment. The intent was to ensure that pensioners would share in the rising standard of living that an expanding economy afforded.

In 1956 the adjustment process for pensions in force was revised. The degree of change in the price index needed to trigger a pension adjustment was lowered from five percentage points to three percentage points and, instead of increasing pension levels by the degree of movement in the index, 50 kronor^a was added whenever the index rose three points. At that time, 1951 was established as the base year. By 1958, eight increments (400 kronor) had been added to existing pensions. In addition, periodic increases based on national income continued to be made until the earnings-related benefit was introduced in 1960. The current system of adjusting pension levels to movements in the price index was adopted then. This pattern is reflected in the definite parallel movement of the pension and price indexes shown in table 2.

Switzerland

Triennial adjustment of benefits in force or adjustment is on the basis of specified price changes. Under a 1961 law, the Federal Council was to report every 5 years, beginning with 1967, on the state of pensions in relation to prices and earnings. Before this process was implemented, however, the legislature increased benefit levels by 33⅓ percent in 1964 on an ad hoc basis and by another 33⅓ percent in 1969, as reflected in the pension index for 1965 and 1970.

Under a 1969 revision, adjustment of benefits in force was to be reviewed every 3 years or whenever an eight-percentage point change occurred in the price index. The review is the responsibility of a Federal Council that examines pension levels primarily in relation to maintaining their purchasing power as prices change. Proposals for change are submitted by the Council to the legislature. The 1969 legislation also provided for an examination by the Federal Council, every 6 years, of the status of pension levels in relation to changes in earnings.

^aOne Swedish kronor equaled 22.3 U.S. cents as of March 31, 1976.

United Kingdom

Annual adjustment of benefits in force is on the basis of either wages or prices. Legislation in 1971 initiated an annual review of the flat-rate benefit level with increases primarily on the basis of changes in the price index. Since that time, however, wages have changed more rapidly than prices. Moreover, the rapid rate of wage increases has prompted semiannual ad hoc reviews of benefit levels to keep them in line with earnings. The policy of these reviews is to base increases on the index that is the most feasible in terms of maintaining the real value of pension amounts and raising revenue to pay for the added costs.

Under the Labor Government's new pension act, which becomes effective April 1978, the flat-rate universal benefit will be adjusted according to movements in the earnings index, and increases in the earnings-related benefit level will be based on price changes. Before 1971, ad hoc adjustments occurred biannually.

United States

Annual adjustment of benefits in force is on the basis of changes in the price index. Periodic indexing of benefits in force was implemented in June 1975. A move of at least 3 percent in the index triggers a benefit adjustment for beneficiaries on the roll in June of each year. The benefit amount is raised by the percentage increase in the consumer price index from the first quarter of the preceding year to the first quarter of the current year. Before the adjustment is actually made, however, the Secretary of Health, Education, and Welfare must submit his recommendation and a projection of the impact of the change on the financing of the program both to the House Ways and Means Committee and the Senate Finance Committee. If Congress takes intervening action to adjust benefits on an ad hoc basis, the automatic provisions are disregarded.

Before the 1975 implementation of the automatic adjustment procedure, benefit levels were adjusted solely on an ad hoc basis. This process resulted in benefit levels somewhat paralleling price changes from 1960-70 and wage changes until the introduction of the automatic provision.