Indexation of Social Security Benefits — A Reform in Need of Reform

NEIL A. STEVENS

SOCIAL security benefits for retired workers, their dependents and their survivors are indexed or linked to movements in the consumer price index (CPI).[1] Price indexing, a method of making adjustments to inflation, is the linking of nominal (dollar) magnitudes, such as wages, interest rates, government expenditures or taxes, to movements in a price measure. The purpose of indexing is to ensure that the purchasing power over goods and services is not changed by movements in the general level of prices.[2] Under current law, social security payments are automatically increased in June "whenever the CPI in the first quarter of the calendar year exceeds the CPI in the first quarter of the previous calendar year by at least 3 percent."[3]

---

[1]The price index specified in legislation is the consumer price index for urban wage earners and clerical workers rather than the more recently constructed and more broadly based series for all urban workers.

[2]For background information on indexing, see Thomas M. Humphrey, "The Concept of Indexation in the History of Economic Thought," *Economic Review* (Federal Reserve Bank of Richmond, November/December 1974), pp. 3-16; Herbert Giersch, Milton Friedman, et al., *Essays on Inflation and Indexation* (Washington, D.C.: American Enterprise Institute for Public Policy Research, 1972); and Jai-Hoon Yang, "The Case For and Against Indexation: An Attempt at Perspective," this *Review* (October 1974), pp. 2-11.

[3]*An Analysis of the Effects of Indexing for Inflation on Federal Expenditures,* Report to the Congress of the United States by the Comptroller General (GAO, August 15, 1979), p. 18.

The current provision for the automatic indexing of social security benefits was contained in social security legislation enacted in 1973. Initially, however, automatic indexing of benefits was included in the social security legislation enacted in 1972. The first effective date was to have been January 1, 1975, based on increases in the CPI from the third quarter of 1972 to the second quarter of 1974. In subsequent years, possible benefit increases were to be based on second-quarter-to-second-quarter changes in the CPI and made effective January 1. Legislation enacted in 1973 amended these provisions by providing the first possible automatic increase in benefits to be effective in June 1975, based on the change in CPI from the second quarter of 1974 to the first quarter of 1975.

For example, effective June 1, 1981, social security payments were increased 11.2 percent, reflecting the increase in the consumer price index from the first quarter of 1980 to the first quarter of 1981.[4]

Social security programs are funded by a tax on wage and salary income.[5] Currently, benefits for retired workers, their dependents and survivors, are rising faster than revenues into the Old Age and Survivors Insurance (OASI) trust fund from which these benefits are paid. According to estimates by the trustees of the social security system[6] and the Congressional Budget Office (CBO), the OASI trust fund will face a financing problem beginning in late 1981 or early 1982 that will continue through the decade.[7] CBO estimates show that outlays from the OASI trust fund in fiscal year 1981 will exceed income into the fund by $4.8 billion. Furthermore, estimates are that the trust fund balance will be depleted by the end of fiscal year 1983, and that the fund will be approximately $64 billion in deficit by the end of 1986 (table 1).

---

[4]Increases are effective June 1 and are payable July 1.

[5]Social security benefits are provided under three separate programs. The Old Age and Survivors Insurance program, the largest, with expenditures of $87.6 billion in 1979, pays benefits to retired workers, their dependents and survivors. The Disability Insurance program pays benefits to disabled workers and their dependents, and the Hospital Insurance program pays benefits to workers covered by the previous two programs and the railroad retirement program.

[6]The trustees include the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health and Human Services.

[7]*1980 Annual Report* of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, H. Doc. 96-332, 96th Congress, 2nd session (GPO, 1980), p. 50; and *Paying for Social Security: Funding Options for the Near Term,* Congressional Budget Office of the Congress of the United States (February 1981), p. 13.

3

Table 1

Outlays, Income and Balances for the Old Age and Survivors Insurance Trust Fund (billions of dollars)

	Actual[1]			Projections[2]					
	1970	1975	1980	1981	1982	1983	1984	1985	1986
Outlays	$27.3	$56.7	$103.2	$122.6	$141.4	$158.7	$178.0	$199.3	$222.6
Income	31.7	58.8	100.1	117.8	129.0	143.0	159.1	181.9	203.7
Year-end balance (fiscal year)	32.6	39.9	24.6	19.7	7.4	−8.2	−27.1	−44.5	−63.5

[1]Social Security Bulletin (April 1981), p. 43.

[2]*Paying for Social Security: Funding Options for the Near Term*, (Congressional Budget Office of the Congress of the United States, February 1981).

This short-term financing problem will begin to dissipate in the next decade but only because of sizable increases in payroll taxes scheduled as a result of the 1977 amendments to the Social Security Act. In the next century, however, an imbalance again will emerge between promised social security benefits and projected revenues. The solution to this problem will require either larger increases in taxes than those already scheduled or a reduction in promised benefits.

This article examines the role that the price indexing of benefits has played in creating these financing problems, particularly in the short term. The article shows that the use of the CPI for indexing probably has overstated the benefit increases necessary to keep the purchasing power of benefits constant, and that price indexing is inconsistent with the way benefits are funded. In addition, it discusses modifications of indexing formulas that would help eliminate the current imbalance or avert the development of future financial imbalances.

The Rationale for Price Indexing

Over time, the price level varies as the stock of money changes relative to the available amount of goods and services. Price indexing first came about to rectify the fact that prices or incomes administered by government agencies or fixed by private contractual agreements, such as wage contracts or fixed payment mortgage contracts, do not adjust rapidly to changes in the price level. Market-determined prices of goods and services eventually will adjust to changes in the price level. However, social security benefits and payments under other government programs, which are

Table 2

Increases in Social Security Benefits and the Consumer Price Index

Effective date of increase	Increase in benefit level	Increase in CPI from last effective date of benefit increase[1]
Before automatic indexing		
September 1954	13%	0.5%[2]
January 1954	7	8.0
January 1965	7	7.8
February 1968	13	9.3
January 1970	15	10.8
January 1971	10	5.2
September 1972	20	5.9
June 1974	11[3]	16.4
After automatic indexing		
June 1975	8.0%	
June 1976	6.4	
June 1977	5.9	
June 1978	6.5	
June 1979	9.9	
June 1980	14.3	
June 1981	11.2	

[1]Computed from not seasonally adjusted data for urban wage earners and clerical workers.

[2]Increase in CPI from September 1952, the previous date benefits were increased.

[3]Effective in two steps – a 7 percent increase in March 1974 and a 4 percent increase in June 1974.

Table 3
Alternative Measures of Changes in the Price Level[1]

Period	Consumer price index				
	Official series[2]	Experimental rental equivalence series	Official series minus experimental series	Personal consumption expenditures deflator	Official CPI minus PCE deflator
1947-77	3.4%	n.a.	n.a.	3.3%	0.1%
1977	6.6	6.2%	0.4%	5.9	0.7
1978	9.0	7.8	1.2	7.5	1.5
1979	12.7	10.6	2.1	9.5	3.2
1980	12.5	10.8	1.7	10.1	2.4

[1]Changes are from fourth quarter to fourth quarter, except the 1947-77 period which was computed from yearly average data.
[2]All urban worker series.

not directly determined by market forces, must somehow be adjusted to changes in the price level if Congress desires to offset the impact of these changes on the payments' purchasing power.

On a practical level, an advantage of price indexing is that it is automatic, so it relieves Congress from having to devote considerable attention to frequent increases in benefits in an inflationary environment. Also, given the tendency of Congress in the late 1960s and early 1970s to increase benefits faster than the price level (table 2), indexing may have acted to put a cap on benefit increases, and thus may have averted an even larger financing crisis. Nevertheless, there are problems with the price indexing of benefits that should be discussed.

The Vexing Problem of Measuring Changes in the Price Level

Price indexation requires a statistical measure of the price level, which in practice, is measured by price indexes. Typically, a price index is designed to answer the question, "How much does the cost of a basket of goods and services change over time?" Unfortunately, there are numerous technical problems in providing an answer.[8]

[8]For a more thorough discussion of the problems in measuring the price level, see William H. Wallace and William E. Cullison, *Measuring Price Changes: A Study of the Price Indexes*, 4th ed. (Federal Reserve Bank of Richmond, 1979); and R.G.D. Allen, "Index Numbers in Theory and Practice" (Chicago: Aldine Publishing Co., 1975).

Two widely used price indexes — the consumer price index and the personal consumption expenditures (PCE) deflator — demonstrate the differences that can arise between price measures. Though these indexes have followed similar patterns in the past, their movements diverged substantially in 1979 and 1980 (see table 3). For example, the CPI increased 3.2 percentage points more than the PCE deflator in 1979 and 1.7 percentage points more in 1980. While there are several differences in the way these two price indexes are computed, two of the more significant differences are the choice of period in which to define the market basket — either current or past — and the methods used to measure housing costs.

Fixed Versus Variable Weights — The CPI-W, which is used to index social security benefits, is a "fixed-weight" index. The procedure for calculating this index is to regularly survey prices of a large number of items consumers typically purchase (the so-called market basket) and compare the aggregate cost of these items with the cost of the same market basket in a selected base period. The weights given to various expenditure categories in the market basket are kept constant or fixed from period to period. Currently, the CPI market basket is based on a survey taken in the 1972-73 period. In the past these weights have revised approximately every 10 years. The PCE deflator, on the other hand, is essentially a variable or current-weight index. This index, unlike the CPI, takes into account the prices of personal consumption items in the current period and, in effect, weighs them by the quantities currently pur-

chased. Since expenditure patterns can change, the weights can vary from period to period.

Economists have recognized that both fixed- and variable-weight indexes present problems. One problem is that consumption patterns change over time as people alter their preferences or respond to changes in relative prices. For example, in the 1970s the price of oil rose sharply relative to other prices. As a result, consumers curtailed their consumption of gasoline and other oil-based products and purchased substitutes for these products. Yet, in calculating the CPI, the 1972-73 consumption pattern for oil-based products continues to be used. As a result, the CPI overstates changes in the price level. On the other hand, the PCE deflator, which uses the current expenditures for oil-based products in its calculation, understates the price level, since substitutions and curtailed energy consumption lowered the living standard of consumers.

While over past periods changing expenditure patterns have been a rather insignificant problem, as evidenced by the small difference between the CPI and PCE deflator from 1947 to 1977, the problem has been somewhat more pronounced in recent years. For example, in 1979 it is estimated that about half of the 2.9 percentage-point difference between the CPI and the PCE deflator can be attributed to changing weights or differences in weights on gasoline purchases.[9] Also important was the approximately 1.8 percentage-point difference caused by the different treatment of homeownership costs in the two indexes.

Homeownership Costs — Much recent criticism of the CPI has focused on the measurement of housing costs. Durable goods, such as houses, are consumed over an extended period of time. Thus, the purchase of a durable good represents an act of saving (future consumption) with relatively minor effects on current consumption.

The cost of owner-occupied housing, like other items in the CPI, are calculated by using weights derived by surveys in the early 1970s. In this period, about 6 percent of households purchased homes. As currently measured, the CPI assumes that 6 percent of households will purchase and consume the total value of the house and one-half of the mortgage that usually goes along with it in the current period, while those living in previously purchased houses will spend nothing for housing services except for mainte-

nance, taxes and insurance. Aside from numerous technical problems, this view of housing costs gives a misleading estimate of the cost to the "average" consumer.[10] A sharp rise in mortgage interest rates, for example, raises the cost of housing, though few homeowners may actually bear the cost.

While there is no "right" way to measure housing costs, economists generally accept a procedure called the "rental equivalence" approach. This method involves the sampling of rents from rented houses. If homeowners charge rents that cover all the costs of maintaining a home, then the price of a house, the cost of credit, etc., are included in the rent charged by the owner to the renter.

The Bureau of Labor Statistics, which computes the CPI, has experimented with several methods to calculate homeownership costs, including rental equivalence.[11] A comparison of the experimental rental equivalence series and the official CPI measure shows considerable differences in recent years (table 3). In 1980, for example, the official CPI measure grew at a 12.5 percent annual rate compared with only a 10.8 percent increase in the experimental series.

Price Indexing and Real Wage Declines — The Financial Implications

In essence, the price indexing of social security payments is a promise by the government to keep benefits unchanged in terms of their purchasing power. As just seen, this may be hard to attain because of problems in measuring the price level. In addition, the promise of fixed real benefits is sometimes inconsistent with the methods used to finance social security benefits.

If Congress wants to maintain the purchasing power of benefits received by current social security recipients, it must levy an appropriate level of taxes to pay for these benefits. Social security benefits are currently funded on a pay-as-you-go basis; that is, benefits for currently retired workers are funded by payroll taxes on the wages and salaries of those currently working.[12] A problem crops up whenever wages

[9]Alan S. Blinder, "The Consumer Price Index and The Measurement of Recent Inflation," *Brookings Papers on Economic Activity* (2:1980), pp. 539-65.

[10]Ibid, p. 546.

[11]As a proxy for rents on rented houses, this experimental series uses the CPI rent index, which includes rents on apartments as well as rented houses.

[12]One-half of the payroll tax is levied directly on an employee's earnings and the other half is paid by employers. Studies, however, indicate that the portion of the tax paid by employers is, for the most part, borne by employees. For a discussion of this point, see John A. Brittain, *The Payroll Tax for Social Security* (Washington, D.C.: The Brookings Institution, 1975), Chapters I and II.

and salaries rise more slowly than the price level. When this occurs, the benefits of current social security recipients, which rise with increases in the price level, increase more rapidly than revenues, which rise with increases in wages and salaries.

Historically, wages have generally advanced more rapidly than prices; that is, real wages have generally risen (table 4). These increases reflect advances in labor productivity (output per manhour worked). In recent years, however, real wages have declined with the decline in labor productivity.[13] The adjusted hourly earnings of workers,[14] after allowances for increases in the CPI, have declined or remained unchanged in five of the past eight years and, on average, have declined at about a 1 percent annual rate since 1972.[15]

The decline in real wages has contributed substantially to the financing problem the social security system now faces. Moreover, if this financing problem is resolved by increasing payroll taxes rather than reducing benefits, the price indexing of benefits will further redistribute the ability to consume the nation's output from those working to those receiving social security benefits. When nominal wages rise more slowly than the price level, a tax increase imposes a further decline in real wages. In effect, this decline imposes an additional reduction in living standards for workers in order to leave the purchasing power of social security benefits unchanged.

The CPI's overstatement of the cost-of-living increase in recent years magnifies the income transfer. This overstatement results in benefit increases above those necessary to maintain the same level of real benefits, and implies an even greater increase in taxes and a further reduction in the real after-tax wages of

Table 4

Changes in Consumer Price Index and Hourly Earnings (year-over-year changes)

Year	Consumer price index[1]	Adjusted hourly earnings[2]	
		Current dollars	1967 dollars[3]
1952-72[4]	2.2%	4.5%	2.2%
1972	3.3	6.4	3.0
1973	6.2	6.2	0.0
1974	11.0	7.9	-2.7
1975	9.1	8.3	-0.7
1976	5.7	7.3	-1.3
1977	6.5	7.5	1.0
1978	7.6	8.2	0.6
1979	11.3	7.9	-3.1
1980	13.3	9.3	-3.6
1972-80[4]	8.8	7.8	-0.9
1952-80[4]	4.1	5.5	1.3

[1]Data are for all urban consumers.

[2]Total private nonagricultural earnings for production or nonsupervisory workers adjusted for overtime and for industry employment shifts.

[3]Current dollar index divided by consumer price index.

[4]Annualized rates of change.

workers than would otherwise have been necessary.[16]

Alternative Indexing Rules

Modifying the indexing rules to tie benefits to nominal wage movements rather than price index movements appears to be a way to alleviate some of these problems. With benefits linked to nominal wage rates, real benefits would change commensurately with real wages; that is, when nominal wages rise faster than the price level, indicating rising productivity and a rising standard of living for workers, real social security benefits would also increase. Conversely, when wages increase more slowly than the price level, indi-

---

[13]Several explanations have been offered by economists for the recent decline in productivity and, hence, the decline in real wages. One explanation points to the sharp rises in the relative price of energy in 1973-74, and again in 1979-80. According to some studies, these sharp increases in the relative price of energy made part of the capital stock economically obsolete, thereby reducing workers' productivity. For details of this and other explanations, see John A. Tatom, "The Productivity Problem," this *Review* (September 1979), pp. 3-16.

[14]Average hourly earnings are reported before deductions for taxes, social insurance, fringe benefits, etc. The adjusted hourly earnings index takes into account such factors as variation in the amounts of overtime pay or shifts of workers into higher or lower paying industries.

[15]As discussed earlier in this paper, to the extent the CPI has overstated the rate of price increases in recent years, this decline in real wages is also overstated.

[16]Another potential problem is the difference in expenditure patterns of social security beneficiaries, and urban wage earners and clerical workers. To the extent there are differences in expenditure patterns, relative price changes would affect the purchasing power of social security benefits differently than earnings of urban wage earners. A study by the Bureau of Labor Statistics, however, indicated that a consumer price index based on purchasing patterns of retired workers would not be substantially different from the official CPI measure. See Janet L. Norwood, "Cost-of-Living Escalation of Pensions," *Monthly Labor Review* (June 1972), pp. 21-24.

Table 5

Outlays, Income and Balances for the Old Age and Survivors Insurance Fund, Assuming the Minimum Rule in Effect (billions of dollars)[1]

	1979	1980	1981	1982	1983	1984	1985	1986
Outlays	$ 89.8	$100.3	$114.7	$131.6	$149.0	$168.3	$189.6	$212.9
Income	86.9	100.1	117.8	129.0	143.0	159.1	181.9	203.7
Year-end balance	28.1	27.9	31.0	28.4	22.4	13.2	5.5	-3.7

[1]Estimates are based on actual OASI trust fund data for 1979-80 and Congressional Budget Office projections of outlays and income under current indexing procedures for 1981-86, as shown in table 1. Modifications of these outlay data were computed by assuming that the minimum rule had been in effect in 1979, 1980, 1981, all years in which average hourly earnings rose less rapidly than the CPI. For subsequent years, it is assumed that the hourly earnings rose more rapidly than the CPI.

cating lower productivity and a declining standard of living for workers, real benefits would decline.

Had social security benefits been indexed to average hourly earnings during the recent period of real wage declines, much of the current short-term financial problem would have been averted. Benefits indexed to adjusted average hourly earnings during 1979, 1980, and 1981 would have resulted in social security benefit increases of 8.2 percent in June 1979, 8.4 percent in June 1980 and 9.8 percent in June 1981, instead of the respective 9.9, 14.3 and 11.2 percent increases actually granted. In total, during these three years, benefits of retired workers rose 35 percent as average hourly earnings of current workers rose only 26 percent.

To initiate the indexing of social security benefits to nominal wages at this point, however, would probably still increase future deficits in the OASI trust fund. Since, historically, nominal wages have risen faster than the price level, the continuation of this trend would result in greater increases in benefits than under a price-indexed scheme and hence greater deficits in the OASI trust fund than those currently projected.

A variant of a wage indexing scheme is the "minimum-rule" scheme, which indexes benefits to the *lower* increase of the wage or price index. This rule implies that real social security benefits will decline when real wages decline, but remain unchanged when real wages rise.[17] This rule would largely remove the fi-

nancial problem that occurs when real wages decline. For example, if the minimum rule had been in effect in the past three years so that benefits would have increased with hourly earnings rather than the CPI, the estimated year-end balance in fiscal year 1986 would be $3.7 billion in deficit rather than the CBO estimates of $63.5 billion (see tables 1 and 5). Unfortunately, to introduce the minimum rule at this point would not solve the financing problem of the OASI trust fund, since this rule would not reduce benefits from their present level.[18] Thus, the minimum rule will not cure the present budget problems, but will prevent larger deficits in a future period of declining real wages.

New measures will have to be taken to solve the current short-term financing problem. The CBO for example, has investigated a number of possible options, including a "partial" indexing to the CPI. It estimated that if benefits were increased by only two-thirds of the actual increase in the CPI over the next several years, the financing problem over this decade would be eliminated.[19] Several other proposals have also been suggested to eliminate the short-term financing problem. These include the reapportionment of

---

[17]One objection to this rule is that real wages often decline and rise in business cycles. For instance, if real wages fell in year one but recovered that loss in year two, under the minimum rule real social security benefits would be reduced in the first year but kept at that same lower real level in the second year. However, Congress could easily monitor this kind of problem and remedy it by ad hoc increases in benefits.

[18]The CBO has considered the effect of this rule on the impending deficit of the OASI trust fund. According to their estimates, the minimum rule would reduce outlays of the trust fund over the next five years by $26 billion, or cut about 40 percent of the projected deficit over the next five years. Their estimate, however, is based on the assumption that the indexing rule goes into effect in 1981 when the CBO projects the nominal wages to rise about 3 percent slower than the official CPI measure. In fact, if this rule were instigated at a later date when the CBO projects wage increases to again exceed price increases, the minimum rule would do nothing to eliminate the short-run financing problem of the OASI trust fund. See *Paying for Social Security: Funding Options for the Near Term*, (Congressional Budget Office of the Congress of the United States, February 1981).

[19]Ibid, pp. 29-31.

funds in other social security trust funds into the OASI trust fund, the taxation of social security benefits and the reduction or elimination of certain benefits. The administration recently has proposed a plan that would cut back the benefits of future early retiring workers, while only marginally reducing the benefits of current recipients. While these various proposals would eliminate, to varying degrees, the estimated deficit over the next several years, they would not remove the basic inconsistency between price indexing and the pay-as-you-go financing of the social security benefits. In other words, none of these proposals would preclude additional deficits from developing in the OASI trust fund should future declines in real wages occur.

INDEXING AND THE LONG-TERM FINANCIAL IMBALANCE

Analysts also project a long-term financial imbalance in the social security trust funds for the next century, when outlays again are projected to exceed inflows into the social security system. One of the major factors underlying this imbalance is the increasing ratio of retirees to workers.

Since benefits are now funded on a pay-as-you-go basis, the benefits of current workers will be funded by payroll taxes paid by the next generation of workers. This funding scheme is subject to changes in demographic patterns. Past increases in benefits were granted on the assumption that birth rates would be higher than current projections now indicate. With declining birth rates, there will be fewer workers to pay into the social security trust funds when the post-World War II baby-boom generation begins to retire. In addition, the increased life expectancy has increased the ratio of retirees to workers.

This problem is potentially quite serious, despite the substantial increases in social security taxes that have already been scheduled as a result of the 1977 amendments to the Social Security Act (see table 6). If the current law is left intact until 2025, taxes on payrolls would have to rise, according to estimates of the chief actuary of the social security system, by at least 8 percentage points in order to fund benefits at that point, implying nearly a 24 percent tax on taxable payrolls.[20] To compensate for these scheduled in-

[20]A. Haeworth Robertson, "Financial Status of Social Security Program After the Social Security Amendments of 1977," *Social Security Bulletin* (March 1978), pp. 21-30. The 24 percent rate includes the tax on both the employer and the employee.

Table 6

Social Security Taxes on Payrolls Before and After the 1977 Amendments

	Tax rates (percent)[1]		Taxable base[2]	
	Before	After	Before	After
1977	5.85%	5.85%	$16,500	$16,500
1978	6.05	6.05	17,700	17,700
1979	6.05	6.13	18,900	22,900
1980	6.05	6.13	20,400	25,900
1981	6.30	6.65	21,900	29,700
1982-84	6.30	6.70		
1985	6.30	7.05		
1986-89	6.45	7.15		
1990-2010	6.45	7.65		
2011 and after	7.45	7.65		

[1]Includes taxes for old age, survivors, disability insurance and hospital insurance.

[2]Beginning in 1982, the amounts will be determined automatically under the new law on the basis of the annual increase in average earnings on covered employment.

creases in social security taxes, alternatives to reduce benefits have been suggested. One proposal is to increase the retirement age from 65 to 68, thereby reducing the average period that benefits are paid out; another is to tax social security benefits, which would generate additional general revenues that could then be used to fund social security benefits.[21]

The modification of current indexing procedures is another alternative. Under current law, the benefits of retired workers increase with the price level, but the benefits of future retirees are tied to average wage movements.[22] Wage indexing is essentially a promise

[21]An argument for the taxation of social security benefits can also be made on the basis of equity considerations. Taxation of social benefits, or some portion of benefits, would treat such income more equally with that of other pension incomes. Also, it would tax social security income according to the ability-to-pay criteria applied to other income.

[22]Benefits of future retirees are indexed in two ways. First, the wage history of retiring workers is indexed to the average wages of U.S. workers so that earnings in past years are brought up to current average wage levels. For example, if the average earnings doubled from 1970 to 1980, the wage that a retiring worker actually earned in 1970, say, $10,000, would be doubled to $20,000. After a certain number of years are dropped out, the worker's indexed earning history is averaged to obtain the average indexed monthly earnings (AIME). A formula to compute benefits, prescribed by Congress, is then applied which in 1979 was 90 percent of the first $180 plus 32 percent of the next $905 plus 15 percent of the excess over $1,085. This formula is indexed to average U.S. wage movements. The "breakpoints," namely $180 and $1,085, are adjusted automatically each year to reflect changes in average U.S. wages.

to keep the benefits of retiring workers at a certain proportion of their real income during their lifetime. Thus, as discussed earlier, when wages rise faster than prices, the initial benefits of future retiring workers will increase in real terms in step with increases in wages over their working years.

This procedure itself is consistent with the current financing scheme that taxes payroll income, in the sense that future benefits and taxes will rise or fall together. However, large benefit increases were granted in the late 1960s and early 1970s based on what now appears to have been incorrect assumptions about birth and death rates. As a result, a long-term financing problem is expected to emerge if current demographic trends persist.

An indexing procedure that would insure that benefits grow at a lower rate than revenue is a "partially-indexed" wage rule. This rule would specify that benefits be indexed to wage movements, but by a smaller percentage than the wage increase. When real wages are growing, benefits would rise over time, but not as rapidly as wages or revenues. While the purchasing power of promised benefits to future retirees would be reduced from where they are now, they would normally be at a substantially higher level than those of current retirees.

CONCLUSION

Congress has indexed social security benefits to movements in the consumer price index, a reform intended to protect the purchasing power of these benefits. Recent U.S. experience, however, has shown that there are problems with this procedure. One problem is that the CPI has seriously overstated the rise in prices in recent years; thus, it has contributed to higher benefits than were necessary to keep the purchasing power of benefits unchanged. The Bureau of Labor Statistics is currently contemplating certain technical changes in the official CPI calculations, such as the measurement of home ownership costs by the rental equivalence method. These changes, if implemented, may result in a better measure of changes in the price level.

In addition, price indexing of benefits can be inconsistent with the method currently used to finance the social security system. The system is essentially financed on a pay-as-you-go basis by taxes on wages and salaries, so when prices rise faster than wages, benefits rise faster than revenues into the OASI trust fund. To remedy such a situation, once the small trust fund balances are depleted, requires that the government either levy additional taxes on workers or reduce the growth of benefits.

One reform of the indexing procedure that would greatly diminish the likelihood of such financial imbalances in the OASI trust fund in a future period of declining real wages is the so-called minimum rule. This rule would limit benefit increases to either average wage movements or the price level, whichever is smaller, and implies that benefits would decline in real terms when real wages of workers decline and remain constant when real wages rise, as the current law provides. Such a rule does not reduce benefits from those promised under current law except when real wages of workers are declining. Thus, at this point, it would neither solve the short-term financing problem faced in the 1980s nor the long-term problem that is expected to develop in the next century. It would, however, preclude them from becoming worse should prices rise faster than wages in the future. To solve these financing problems, other measures must be taken to either increase taxes or reduce benefits.