# The Cost of Living and Hidden Inflation

James Devine

*Economists generally argue that inflation is overstated by the federal government because it does not sufficiently account for the improved quality of products. This economist believes that if we account for all pertinent changes in the quality of life, inflation is understated.*

DESPITE low reported inflation rates in recent years and official recalculations of the inflation rate that reduce it even further, these measures underestimate the true increases in the cost of living. Official measures of inflation, such as the Consumer Price Index (CPI) and the Personal Consumption Expenditure (PCE) deflator, are market-oriented, measuring only the decrease in our money's power to purchase products currently available for sale. This article presents a preliminary alternative measure of inflation, the cost-of-living (COL) inflation rate, which brings in nonmarket elements of people's existence, such as the costs arising from pollution. Compared to the

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government's official measures of consumer prices, these elements raise the amount of money income needed to keep real standards of living from falling.

The COL measure suggests that in terms of the issues that working people care about, inflation continues above the officially measured rate, even using the most conservative measure of the COL: For the period 1951–1998, the annual COL inflation rate averaged 4.1 percent, about 0.4 of a percentage point higher than the inflation rate implied by the PCE deflator and about 0.1 percent higher than the inflation rate implied by the CPI. (Since the PCE deflator's method of calculation is similar to that of the COL, the former comparison is more meaningful.) Worse, the gaps between the COL and official inflation have widened: Between 1980 and 1998, on average the COL rose about 0.7 of a percentage point per year more than the PCE price and 0.3 more than the CPI.

These numbers imply that the gap between officially measured real wages and the real benefit received from wages has widened (at an increasing rate). To understand this assertion, however, we must reexamine the basics.

## Measuring Inflation and "Real" Wages

In addition to measuring the inflation rate (the percentage rise in prices), indices such as the CPI are commonly used to find the "real value" of nominal magnitudes. Real wages, for example, are measured as follows:

$$\text{Constant-price wage} = (\text{money wage})/\text{CPI}$$

Thus, for example, because the CPI rose so quickly between 1970 and 1979, real average private-sector weekly earnings fell by 2 percent—even though money (nominal) wages rose by almost 90 percent.

During the late 1990s, controversy raged over technical issues concerning the method of calculation of the CPI.[1] Appointed by Congress to suggest recalculation of the CPI, Stanford professor Michael Boskin and his colleagues argued that the CPI should be reformulated to make it a more accurate measure of the "cost of living." For example, the CPI should be adjusted for the quality improvements that they assumed occurred for many products in the consumption basket used to measure the index, the availability of new products, and the rise of low-cost retail outlets like Wal-Mart.

The Bureau of Labor Statistics (BLS) has accepted many or most of the Boskin recommendations, adjusting their estimates of CPI inflation downward. According to *Business Week*, "a significant chunk of the reported downturn in inflation since 1995—perhaps three-quarters of a percentage point—reflects changes in the behavior of statisticians rather than changes in the underlying pace of price hikes" (Koretz 1999). This estimation trend has gone further, with the Federal Reserve recently shifting its emphasis to the PCE deflator for calculating the inflation rate (Cooper and Madigan 2000). This measure generally rises more slowly than even the revamped CPI, because it reflects the rise in prices of the products that consumers actually buy, while ignoring the costs of the way that inflation pushes people to substitute one product for another (chicken for steak, for example).[2]

Other economists argued that the traditional formulation of the CPI was relatively accurate and did not need Boskin-type revisions.[3] They hoped to protect social security beneficiaries and government workers with escalator clauses in their contracts from getting automatic raises below that of the actual inflation rate, which they saw as being better measured by the old version of the CPI. These revisions may not be all bad, however, since they delayed or moderated the Federal Reserve's use of economic slowdown or recession as a preemptive strike against inflation.

Often forgotten is that the official CPI is not truly a measure of the "cost of living" that people face, with or without Boskin revisions. As one BLS official notes, "A more complete cost-of-living index would go beyond [the CPI] to take into account the changes in other governmental or environmental factors that affect consumers' well-being" (Gibson 1998, p. 3). Robert Kuttner (1996) argues this point more strenuously: Official price indices leave out even more aspects of the true cost that people face in order to live, such as the cost of crime, lawsuits, pollution, and family breakdown. For example, the cutback in hours at the public library raises the cost of living by pushing people to buy books instead or lowers their quality of life by preventing them from reading. However, this cutback does not raise the measured CPI or PCE.[4] This is why I use the term "hidden inflation."

A calculation in light of Kuttner's criticism implies a gigantic and expensive research project, one that only the government could afford—and seems unlikely to engage in. Rather, I follow another hint from Kuttner: He points to the "Genuine Progress Indicator" (the GPI) calculated by the Redefining Progress think tank as an example of efforts to measure our economic welfare or "true living standards"—an alternative to real gross domestic product (GDP) as a indicator of society's progress. The GPI (summarized in the appendix) adjusts the official national income and product account measures for real benefits missed, such as contributions from housework, and costs that should be subtracted, such as that of using up nonreproducible natural resources. This article applies this research to calculate estimates of the "cost of living" and the "COL inflation rates" that are implied.

It is beyond this short article's scope to criticize official measures of inflation. However, even if Boskin-type adjustments are needed, if my estimates are anywhere close to being accurate, the costs of increases in pollution, commuting time, labor time, and the like more than cancel out Boskin-type adjustments.[5] As a first guess for calculating inflation rates, we might split the difference, clinging to the official price level as calculated before Boskin-type adjustments. Better, we should use different inflation rates for different purposes (Mitchell 1998). The CPI and the PCE attempt to measure purchasing power of a dollar in the market, while the COL gauges the actual cost of the benefits of everyday life.

The COL is measured by the amount of money spending needed to buy a constant quality of consumption as measured by the GPI calculations. Thus, a new version of the "real wage" can be calculated:

Constant-COL wage = (money wage)/COL

Figure 1 indicates the impact of this kind of calculation for the total private sector of the United States. During the 1960s, real wages calculated using the COL grew slightly more slowly than those calculated using the CPI or the PCE price. After the late 1970s, real wages calculated using the COL rather than those official price levels fell much more steeply, due to rising hidden inflation. Rises in official real wages since 1995 are also moderated when the COL is used. Similar results can be seen for the manufacturing sector but are not shown here.

## Calculating the COL

The basic idea for calculating the COL index is similar to that behind the PCE deflator. The latter is the average price level implied by calculations of real consumption spending. As a first approximation,

PCE deflator = (money spent on consumer goods)/
(inflation-corrected sum of those goods)

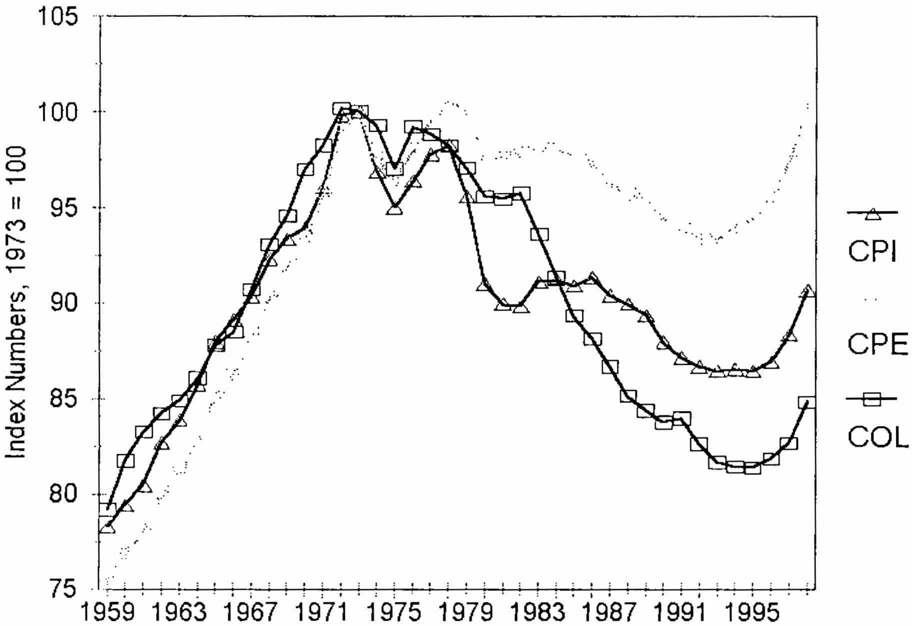


**Figure 1. Alternative Real Wages, U.S. Total Private Sector 1959–99**

The denominator is often interpreted as the "real" benefit to consumers of consumer spending.

Based on the Redefining Progress critique of real gross domestic product as a measure of social welfare, my most conservative COL estimate replaces real consumption with a measure of benefit received:

COL = (money spent on consumer goods)/
(benefit received from current consumption)

where the denominator is a measure of the those parts of the GPI that contribute to an individual's current enjoyment. Like those of the denominator of the PCE deflator, the components of this number are corrected for inflation. But it changes the official estimates of real consumer purchases by including the impact of extra current benefits and costs usually missed by the National Income and Product Accounts.[6]

Two types of examples explain the idea of COL inflation. Assume that consumption spending in both money and inflation-corrected terms is constant, so that the PCE price is constant and the official inflation rate using this measure equals zero. Suppose that the current benefits to consumers missed by the official accounts (extra current benefits) decrease. If the amount of unpaid housework, volunteer labor done, leisure time, or the services provided by publicly supplied streets and highways decreases, this means that fewer real benefits are received. Since money spending is constant, there has been a rise in dollars paid on the market per real benefit actually received. As with the public library example, there has been a decline in the benefit received from money spent.

Second, if the current costs missed by the official accounts (extra current costs) rise, that is, if people are suffering from increased pollution while spending the same amount of money buying consumer goods, it represents a decline in their living standard and a decrease in the value of the money spent. Similarly, if individuals suffer from increased costs of commuting (which are necessary to earn income), increased costs of auto accidents and crime, or decreased leisure time or family stability, the money that they spend is providing them with fewer benefits than it used to. Third, spending more money on necessary defensive goods (such as car locks or insurance) does not raise the real benefits received. Rather, it implies that the real benefits one does receive are more expensive to preserve.

## Alternative COL Estimates

My "most conservative" COL estimates are consistent with common-sense notions of inflation and thus do not go as far away from the GDP calculations as the GPI does. First, the COL discussed above ignores distributional issues. As with the CPI, the PCE price, and most conceptions of "inflation," the concept of the cost of living used above is individualistic, referring to an average individual. While widening gaps in the distribution of income encourage the fraying of the social fabric and go against official societal goals, it is hard to assert that changes in distribution directly imply a higher cost of living for any individual. Those results of rising inequality that raise the cost of living, such as increases in street crime, are already measured as part of extra current costs and thus as part of the COL.

Next, forward-looking costs and benefits, which play a major role in the GPI, play no role in the calculation of the COL discussed above. When calculating the CPI or PCE price, aspects of living that refer to future impacts are omitted, since the concern is with current consumption, not with all benefits and costs received by future generations. In other words, the ecologically crucial cost of the destruction of wetlands or the ozone layer has little or no impact on our current cost of living or on the inflation rate as most conceive it. This attitude is very shortsighted, but exactly the same attitude is implicit in official calculations.

Less conservative estimates of COL inflation not only are higher but show an upward trend relative to official measures of the inflation rate. Though these more radical estimates of COL inflation do not fit with the common-sense meaning of the word "inflation" discussed above, these trends are important.

If we drop the individualistic perspective of both the conservative COL and official numbers to include the effects of distributional shifts, my measures of COL inflation rise more in relation to official inflation rates. On average between 1951 and 1998, bringing in distributional issues added 0.2 of a percentage point to the conservative COL inflation rate and 0.6 of a percentage point to the PCE price inflation rate each year (see Table 1). For the period 1980–1998, these additions are 0.6 of a percentage point and 1.3 percentage point, respectively. This results from the well-known widening of the gap between the rich and poor, as indicated by the falling share of total income accruing to the poorest fifth of the population. Alternatively, this says that COL inflation has hit the poorest fifth the hardest.

Another interpretation is that our ability to maintain low COL and CPI inflation rates simply means that the costs of societal problems are being shoved onto the backs of the poor. In terms of the distributional-conflict theory (cf. Rowthorn 1977), inflation can be reduced if one participant in the conflict—here, the poor—is pushed out. In other words, if the widening distributional gap could have been avoided, there would have been higher official inflation rates (or higher unemployment to restrain such inflation). Improving programs such as the minimum wage, unemployment insurance benefits, or "welfare" that help the poorest earn higher wages in order to allow constancy of the income distribution encourages businesses hiring such labor to raise prices. Recent slowing of official inflation rates despite falling unemployment rates is thus linked not only to measurement changes but to the widening distributional gap.

Both the conservative COL and the PCE-based inflation rates are also falling behind COL rates that include future-oriented costs and benefits, such as the cost of global warming and the loss of old-growth forests and the benefits of net investment. For 1951–1998, including such issues added 0.8 of a percentage points to the conservative COL estimate and 1.2 percentage point to the official inflation rate. These additions rise to 1.3 percentage point and 0.9 of a point for the 1980–1998 period. This result indicates that the paying of more and more of the costs of living on earth is being postponed to the future. We are currently enjoying relatively low inflation, as measured by both the conservative COL estimate and the CPI. However, the long-term costs in terms of the environment or slow growth of potential output (due to inadequate investment) will likely have to be paid in the future, in the form of environmental disaster, slow productivity growth, and the like. My measures suggest that if the nation

Table 1

**Average Annual Additions to Inflation Rates (percentage points).**

| Dates | Conservative COL | With distributional adjustment | With forward-looking adjustment | With both adjustments |
|---|---|---|---|---|
| Additions to "conservative" COL | | | | |
| 1951–98 | n.a. | 0.2 | 0.8 | 1.4 |
| 1980–98 | n.a. | 0.6 | 1.0 | 2.6 |
| Additions to PCE deflator inflation | | | | |
| 1951–98 | 0.4 | 0.6 | 1.2 | 1.8 |
| 1980–98 | 0.7 | 1.3 | 1.7 | 3.4 |
| Additions to CPI inflation | | | | |
| 1951–98 | 0.1 | 0.2 | 0.9 | 1.8 |
| 1980–98 | 0.3 | 0.9 | 1.0 | 2.6 |

n.a.: not applicable.

were paying more of the environmental costs now or investing more in the future, both the official and COL inflation rates would be higher (or unemployment would be higher to restrain such inflation).

## Policy Issues

Should the Federal Reserve make COL inflation its central concern? Under a literal interpretation of the current Fed goal of attaining zero inflation, it would spark slowdowns more than it has done already. But this is a wrong interpretation, since monetary policy cannot raise the extra current benefits or lower extra current costs as defined here. Since the Fed's main constituency (bondholders and bankers) does not care about negative future effects, distributional changes, current external costs, or uncompensated labor, its policy experts understand this point. The job of fixing the extra costs and promoting the extra benefits belongs to other branches of the government. The problems, of course, arise because these other branches are doing inadequate jobs at dealing with these problems.

Where the COL measure is relevant is in indexing. That is, retirees, workers, and taxpayers should have their income protected (via indexing) from rises in the cost of living, not just those reflected by the official measures. Imposing Boskin-type adjustments on the CPI and thus on indexed incomes implies real cutbacks in benefits received not only because these modifications may be technically wrong, but also because they ignore the real meaning of the cost of living and thus overlook hidden inflation. Even though the idea of indexing incomes to prevent loss of real purchasing power seems politically utopian at this point, the Boskin "reforms" are nonetheless attacks on people's standards of living.

## Notes

1. See the discussions in *Challenge* 40, no. 2 (March/April 1997), *Journal of Economic Perspectives* 12, no. 1 (winter 1998), and Baker (1998a, 1998b).

2. These costs are relevant only when inflation occurs relative to nominal incomes, but it is the race between prices and money incomes that evokes interest in measuring inflation in the first place.

3. See Madrick (1997a, 1997b) and the response by Gordon and Griliches (1997).

4. This example assumes that we do not benefit from tax cuts that match the decrease in public services. Throughout this paper, I assume that decreases in the tax burden do not cancel out increases in the COL. Given the relative constancy of tax obligations as a percentage of GDP, this is reasonable. But given the increasing regressivity of the tax system over recent decades, it suggests that the COL has risen faster for the bottom half of the income distribution than is indicated by the most conservative COL numbers.

5. This is in comparison to the similarly calculated CPE deflator, which, like the CPI, reflects Boskin-type revisions.

6. This makes the main assumption of the GPI calculation to calculate the benefits received from consumption, i.e., that pleasures received by people can be quantified and added up.

## For Further Reading

Baker, Dean. 1998a. *Getting Prices Right: The Debate Over the Consumer Price Index.* Washington, DC: Economic Policy Institute.

———. 1998b. "The Boskin Commission After One Year." *Challenge* 41, no. 2 (March–April): 6–11.

Cooper, James G., and Kathleen Madigan. 2000. Economic Outlook. *Business Week,* May 15, 2000.

Gibson, Sharon. 1998. "Understanding the Consumer Price Index: Answers to Some Questions." stats.bls.gov/cpi1998g.htm.

Gordon, Robert J., and Zvi Griliches. 1997. "Comment on Madrick." *New York Review of Books,* June 26: 64–65.

Koretz, Gene. 1999. "Waving a Statistical Wand,"*Business Week,* May 31, p. 34.

Kuttner, Robert. 1996. "An Index That Confuses Apples with Oranges." *Los Angeles Times,* December 6.

Madrick, Jeff. 1997a. "The Cost of Living: A New Myth." *New York Review of Books,* March 6.

———. 1997b. Reply [to Gordon and Griliches]. *New York Review of Books,* June 26: 65–67.

Mitchell, Daniel. 1998. "Calculating the Price of Everything: The CPI." *Challenge* 41, no. 5 (September-October): 99–112.

Rowthorn, Robert E. 1977. "Conflict, Inflation, and Money." *Cambridge Journal of Economics* 1, no. 3 (September): 215–239.