

Statement of
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The Consumer Price Index (CPI) is the most visible and widely used measure of inflation. Over 40 percent of federal expenditures are automatically indexed to inflation, and most of that is indexed directly to the CPI. More than one-quarter of the U.S. population has at least a portion of its income formally indexed to the CPI, including 34 million social security recipients, 3 million federal and military retirees, and 9 million wage earners. The wages paid to many other workers are informally indexed to the CPI. It is also used to determine many other income flows such as those covered by long-term contracts and alimony or child support settlements. Two years ago, the Bureau of Labor Statistics (BLS) estimated that for every 1 percent change in the CPI, more than \$1 billion in income is redirected. Recent estimates suggest that a 1 percent change today triggers at least \$1.5 billion in federal expenditures alone. Clearly, we should be concerned with the quality of this index as a measure of inflation.

In this testimony, I would like to discuss two ways in which indexation to the CPI aggravates the problem of inflation:

- o The current CPI mismeasures homeownership costs, so that the recent increases in the CPI exaggerate the actual rise in the cost of living. Use of this distorted measure for indexation results in expanded federal spending and increased earnings and income which, in turn, further fuel inflation by increasing prices and demand relative to supply.
- o Over time the CPI registers many price changes that are meant as signals to change patterns of consumption and production. But indexing incomes to these price changes interferes with these signals, so that the shift to new consumption and production patterns is slowed, the adjustment burden forced onto those whose incomes are not indexed, and inflationary momentum increased as higher indexed wages lead to higher prices.

Measurement of Homeownership Costs in the CPI

Homeownership costs added 2.9 percentage points to the rise in CPI in 1978 and 4.4 percentage points to the rate of increase so far in 1979--nearly a third of the total increase in the CPI over this period. Not much more than half of this could, however, be described as a true increase in the cost of living. There are two interrelated problems with the CPI homeownership cost measure as it is now structured. The first is the conceptual basis for considering these housing costs, and the second is the weight given to homeownership outlays in overall consumer expenditures.

Conceptual Problems. The current concept of homeownership treats houses like any other good--that is, as though they were consumed in the year they were bought. In fact, the services rendered by a house are consumed over its entire lifetime. When a house is recognized as a durable good, it becomes clear that its future value may be affected by changes in housing demand or supply or even by the effect of tax laws. In a very real sense, then, a house is an asset. We invest in it, we can resell it, and it yields a return like other investments. Thus, the price of the house can reflect not only the relative supply and demand for shelter, but also the prospective returns on a speculative asset. In the past several years, while house prices have risen substantially, a parallel increase in rental prices has not occurred. This suggests that the current homeownership price measure has been

inflated by the the capital appreciation that has taken place in housing. As a result, the recorded house price change reflects both the increase in shelter costs and the rise in the asset value of the investment in housing. Including the recorded house price in the CPI overstates the rise in shelter costs during a period of capital appreciation in housing. Since no correction is made for the increase in capital value of a house, this distortion is carried over to the measures of mortgage costs, property taxes, and insurance which, since their size is affected by the price of the house, automatically increase as well.

Weight in Consumer Expenditures. The other problem with the current treatment of homeownership components is that the concepts used lead to an overweighting of these items in the CPI. The current treatment of mortgage costs (and of property taxes) considers only changes in the amount of total outlays. Since these expenditures are deductible from income in computing income taxes, the net costs are not the same as the total outlays. Nevertheless, for purposes of weighting, BLS uses the gross outlays instead of the net amount, thus exaggerating the importance of these items. Moreover, the degree of the exaggeration has grown over time as inflation has pushed everyone into higher marginal tax brackets. Even if there is no change in the mortgage rate, the net cost of mortgage payments is reduced by the amount saved on taxes.

Another cause of overweighting is that, instead of weighting home purchase and mortgage costs by the actual outlays in a given year as a fraction of total expenditures, the current CPI weighting scheme includes the entire purchase price and all of the interest payments over the life of the mortgage as a share of total expenditures. Not everyone purchased a house in the survey year, but, even after allowing for the fraction of people who did, this is an enormous weight--amounting to one-fifth of the total CPI. This means an increase of 10 percent in the CPI homeownership measure causes the CPI to rise 2 percent.

The Size of Distortion. The distortion stems from the introduction of capital appreciation into the CPI as though it were an increase in the cost of living when its effect is just the opposite. When houses appreciate in value, all the existing homeowners experience an increase in net worth. This allows them to increase expenditures through reduction of other indebtedness or through greater use of consumer credit. The effect is as if prices decreased, since with the same incomes, homeowners can buy more by liquidating some of the increased equity in the house they own.

The size of the distortion introduced by the current homeownership measure can be estimated by substituting a more acceptable measure of housing costs. Although at least two alternatives have received serious consideration by BLS, neither was deemed acceptable at the time

of the 1978 revision. The first alternative is the rental equivalence measure. It traces the path of actual rental rates as a proxy for the value of the flow of shelter services from homeownership. This alternative treats the homeowner as though he were an investor who rents out the use of the house to himself. The value of a house as a source of shelter services, as distinguished from the value of the house as a speculative asset, is approximated by the value of rent charged for nonowner-occupied housing. If the CPI rental measure were substituted in place of the current homeownership measure, with a rough adjustment of the weight, the rise in the CPI would have been 1.1 percentage points less in 1978 and 2.0 percentage points less in 1979.

The other alternative is the user cost measure. It attempts to gauge the actual net outlays for owner-occupied housing. It takes into account both the capital appreciation and the foregone earnings on the equity already in place. In addition, it includes the cost of debt service, maintenance, taxes, and insurance. This experimental measure does not, however, take into account the effect of tax deductibility of financing costs and property taxes--and, as a result, is likely to overstate the real cost. Using recalculated weights, this user cost alternative would have reduced inflation by 1.2 percentage points in 1978, although the difference produced in 1979 does not appear to be significant. This experimental measure is somewhat volatile and it may be necessary to observe it over a longer period of time to evaluate its difference from the current measure.

Both of these alternatives have serious technical problems associated with them, as I am sure Commissioner Norwood and Assistant Commissioner Layng will be discussing with you this morning. I know that BLS has been working very hard on this problem for some time.

The effect of the current distorted measure of inflation is, as mentioned before, that it tends to increase the claims on national output without generating any more output to go around, thus causing more inflation. It is this battle for income shares that lies at the root of inflation, and the battle is aggravated by the measurement problems in the CPI.

One final aspect of coping with this CPI measurement problem should be noted. Interest rates tend to follow a cyclical pattern. If the economy continues into a recession, it is likely that interest rates, including mortgage interest rates, are now near a peak and will start to decline. To try to correct the homeownership measure problem while interest rates are at their peak would merely ratchet the price level up to a level higher than necessary. If a decline in mortgage interest rates occurs over the next several quarters, it will exert a substantial downward pressure on the CPI as currently measured, thus reversing some of the damage that has occurred.

The General Problem of CPI Indexation

While the homeownership distortion may, to some extent, be self-cancelling over the period of a business cycle, the same is not true of the general problem created by indexation. Indexation is intended to

offset the impact of price increases. If prices in the CPI go up 10 percent in one year and a person whose income is fully indexed receives a 10 percent increase in income, then, leaving aside the issue of progressive taxation, that person can continue to enjoy approximately the same standard of living. The price increases have not greatly affected that person's consumption behavior.

But some price changes in the CPI are trying to send signals. Prices serve as a guide for allocating resources in production and for determining patterns of consumption. An across the board increase in product prices is a signal that we must consume less or go into debt. An increase in one or a few prices relative to others is a signal to consumers to buy less of that good or an incentive to producers to supply more of that good.

Over any period of time, the CPI can be expected to contain a number of these price movements that are signals of changes in economic production or in consumer demand. For those persons whose incomes are indexed, this signal may be muted somewhat and consumption patterns may not adjust promptly. When production of a particular good has dropped and its price has risen, the indexing of some incomes will keep consumer demand from fully adjusting to the new supply conditions and will lead to another round of price increases. The likely consequence is a prolonged bout of price increases until demand comes into line with supply--with most of the burden of adjustment falling on those with unindexed incomes.

Price changes that are signalling a need for economic adjustment can be grouped into three categories. Indexation of incomes to these price changes through their inclusion in the CPI tends to generate inflationary momentum. These three categories are:

- o Relative price changes,
- o Cost of social goods, and
- o Implicit subsidies.

Relative Price Changes. Relative price changes usually signal a shift in supply or demand. Supply shifts occur frequently in agricultural production and are usually quickly reversed. Higher prices may mean there is less than the usual amount of coffee or beef or fresh vegetables to go around. But higher prices may also signal a shift in demand, such as an increased preference for bottled mineral water. Or, they may signify a change in technology which makes a good, such as pocket calculators, much cheaper to produce.

Cost of Social Goods. Social goods are goods and services that everyone consumes but that are not usually counted as part of our economic output, even though resources are required for their production. The clearest examples are things like cleaner air, cleaner water, safer working conditions, and better levels of support for the unemployed and the poor. The resources that go into the production of these services are paid for by charging higher prices for products whose production, for example, creates waste disposal and pollution problems. Prices would be lower for chemicals, electric power, paper, and steel if firms could dump their effluents into the river or

discharge their smoke and particles into the air. Likewise, if we did not support the unemployed, then firms would not have to pass on part of the cost of unemployment insurance. Thus increases in the supply of such social goods cause higher prices, but those whose incomes are indexed to the CPI, in effect, do not have to pay. The bill for these social goods is picked up by those whose incomes are not indexed.

Implicit Subsidies. The third category covers price changes that occur through implicit subsidies that are allocated by government policy. These subsidies are implicit because they do not occur as a direct transfer from the government but are accomplished indirectly through higher (or, in some cases, lower) prices. One example is provided by trade restrictions. When imports of sugar, steel, textiles, or footwear are restricted, domestic prices for these products are higher than they would otherwise be. This provides a subsidy to domestic producers and offsets the price change that would have signalled a reallocation of resources. The same result occurs in farm policy with price supports for commodities such as dairy products and tobacco. Another way in which implicit subsidies are created is through regulatory policy which limits free market competition. This is prevalent in transportation sectors, such as railroads, trucking, maritime commerce, and, until recently, in air transport. Because it limits entry and restricts price competition, this type of regulation leads to inefficient practices and reduced productivity. It also leads to greater market power for organized labor in these sectors because

increased labor costs can be so easily passed through into regulated prices that are based solely on cost formulas. This strengthens the ability of wage earners in these sectors to obtain wage increases to offset any increase in inflation, including those price increases that result from inefficiency in the transportation sector itself.

These examples illustrate that changes in the CPI sometimes reflect price movements that are signalling us to alter our consumption or production patterns--because there is less of a particular good to go around, because we have to pay for the cleaner air and water we receive, or because we want to protect the standard of living of small farmers or those who work in declining or noncompetitive industries. The indexation of some federal programs and incomes to a CPI that includes these kinds of price changes both interferes with the signals that would modify consumption behavior and attempts to force the burden of adjustment onto a subgroup of the population. Moreover, there is a dynamic character to this process. Take the example of the recent run-up in OPEC prices. This is a signal that the same quantity is no longer available at the old price, that a larger share of our national output must be spent for imported oil. When this price change is registered in the CPI, indexed wages automatically go up. This raises costs in the industries employing this labor and thus their prices go up. As this effect spreads throughout the economy, some groups find they are much worse off, because the largest part of the burden ends

up on those who are not indexed and who have little market power. Then these groups come to the Congress to petition, quite rightly, that they have suffered unduly from inflation and that they want the Congress to do something about it. If the Congress tries to restore their purchasing power, this sets off another round of price increases because the necessary adjustment in real living standards has not taken place.

This is a difficult problem for the Congress and I do not wish to leave the impression that there are easy answers. My attempt here has been to point out the role in this process that is played by the CPI. Whenever the CPI registers either a distorted price increase, or a price change that is a signal for adjustment of real consumption or production, then indexation will lend increased momentum to the process of inflation and prolong its duration. Not only are traditional monetary and fiscal policies not very effective in interrupting this process, but they are painful to apply because the result is a decrease in output that further aggravates the competition to maintain the same standard of living through pursuit of higher incomes.

