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Thank you Mr. Chairman. I appreciate the opportunity to testify before this Task Force on the subject of indexation of federal expenditures.

The practice of automatic indexation of various federal programs has become a topic of increasing public discussion. The reasons for this attention are several. First, the extent of indexation has grown--from 17 programs representing 2 percent of federal expenditures in 1966 to 83 programs representing 55 percent of federal expenditure in 1981. It is now estimated that, for every additional 1 percentage point increase in the CPI, nearly $2 billion will be spent on entitlement program benefits alone. Second, there is a widely shared concern that the CPI, the most frequently used measure for indexation, has significantly exaggerated the actual rise in the cost of living. This conclusion is supported by a comparison of CPI behavior with that of a number of alternative price measures. For example, in 1978 the CPI rose 1.0 percentage point faster than the Personal Consumption Expenditures chain-weighted index. In 1979 the difference was 2.9 percentage points and in 1980 the CPI rose 2.0 percentage points faster. If this conclusion is correct, the significance of this distortion over these three years alone is to have caused federal expenditures to be more than $10 billion higher than necessary. Third, there are concerns as to the fairness of current indexation practices. These concerns range from a belief, on the one hand, that the current CPI is an inadequate measure of the actual price increases for specific demographic groups--such as the elderly and the poor--to the view that it is unfair to protect federal benefits fully against inflation while the wages of those whose taxes fund these programs fail to keep up with the rise in prices.

A reexamination of the practice of indexation should begin with a review of the goals of indexation as well as the circumstances in which indexing operates. This provides a framework for assessing current practices as well as alternatives that would offer some improvement.

The Purposes of Indexation

The ostensible purpose of indexation is to preserve the level and coverage of benefits of various programs against the effects of rising prices. In the absence of rising prices there would be no need for indexation. But, prices are rising. Moreover, many things are changing besides prices and this raises the possibility of alternative approaches to indexing.

One approach is with the goal of holding constant the ability of beneficiaries to purchase a fixed basket of goods. This is the approach that underlies current indexation practices. It has the advantage of being straightforward and relatively easy to measure. Among its disadvantages is that during a period of declining real incomes, its use gives program beneficiaries better protection against rising prices than the working population. Such an instance of benefits increasing faster than wages can lead to financing difficulties as well as to questions of fairness. Another disadvantage of this approach is its inconsistent treatment of taxes. Income taxes do not appear directly in a market basket measure but sales and excise taxes do. For example, if income taxes are reduced and sales taxes increased by a corresponding amount, measures like the CPI will register an increase even though there has been no change in the actual standard of living. Finally, because consumers do not continue to purchase the same market basket--but substitute cheaper goods for those rising most rapidly in price--the fixed market basket approach will tend to be a more costly basis for indexing than one based on holding constant a given standard of living.

A second approach would aim at holding constant a standard of living or level of satisfaction obtainable with a program's benefits. This approach is conceptually attractive, because it would allow for changes in consumption over time due to changes in taste, changes in relative prices, and the introduction of new goods. In its broadest sense, in trying to gauge the level of well-being instead of just the goods being purchased, it would include things such as nonmarket consumption--cleaner air, water, and safer working conditions--whose production leads to higher prices but whose output is not measured in any market basket. Finally, it might take into account changes in wealth or asset values, such as the rising equity values in homes that favorably affect consumption possibilities. All of these things affect one's standard of living and, together with the cost of consuming a basket of market goods, present a clearer picture of the standard of living--clearer, that is, than just the set of prices for a fixed basket of goods. The difficulty with such a cost-of-living measure is that it is more abstract, requires much more information, and is much harder to measure. Despite the difficulties of producing such an index, it can be useful as a standard or ideal to which other measures can be compared.

A third approach would be to hold constant a relative standard of living gauged to the consumption standards of the working population. This approach differs from the first two in seeking a relative rather than absolute level of consumption. This is done by indexing to a wage measure instead of to a price measure. Such a standard would mean that beneficiaries of income transfer programs would share in the burden of economic setbacks such as slower productivity growth, higher import prices, and agricultural shortfalls that cause wages to grow slower than prices. It reduces the problem of questionable fairness and the obvious transfer of income which occurs when programs are indexed to a price index that is rising much faster than the earnings of the working population. The other side of this coin is that over time, as output and productivity grew, indexing to wages would cause program benefits to grow in real terms--that is, recipients would receive a dividend from economic growth.

Finally, a fourth approach would hold constant the purchasing power over a basket of goods that would not include goods subject to uncontrollable price swings. This approach is suggested by the current problems of adjusting to very large changes in relative prices, as with oil imports. Indexing to all price changes attempts to insulate consumers from the effect of those changes, restoring enough income to maintain their previous consumption. If it is clear that the country must make changes in its production techniques and consumption patterns as a result of large relative price changes, the fourth standard would require everyone, including federal beneficiaries, to share in that burden.

The choice of an approach to indexing is undoubtably influenced by notions of equity, of fairness, and of need. Whether the program is targeted at persons below the poverty line or has other purposes may make a difference in choosing how to index. But there will also be pragmatic considerations such as the circumstances in which indexing is to be carried out. Prices rise for different reasons and with different implications. Not only does the economy have an effect on the practice of indexation, but indexation may also affect the behavior of the economy. For these reasons it is useful to examine the implications of different kinds of price behavior.

Types of Price Change

It is common to speak of the rising cost of living, of price increases, and of inflation as though they meant the same thing. While these concepts are related and tend to move together, if one or another of these terms is used to specify an indexing procedure, it is important to bear in mind that they can and do differ.

First, the concept of a cost of living is a somewhat abstract notion; it is concerned with the measurement of a standard of living in the sense of a level of satisfaction or utility. In an economy where nothing changed except the price level, a price index like the CPI could be a good approximation to changes in the cost of maintaining a given level of utility. But this approximation begins to break down if other things do not remain the same. For example, a change in income taxes affects the cost of living but is not captured by a price index. An increase in the value of owned assets like a house shows up in a price index, but without recognition of the increase in welfare of the owner. The same is true of public goods such as cleaner air and water and safer working conditions. The cost of providing these goods is reflected in higher prices but no account is taken of the higher level of utility these goods provide. The existence of such complexities does not render the cost-of-living concept useless, it means only that a price index is not always an accurate measure of changes in the cost of living.

The other terms mentioned above--price change and inflation--can, but need not, refer to the same phenomenon. Prices change for a variety of reasons and for the sake of assessing the implications of indexation it is useful to define two special cases of price behavior. The first of these is what may be called "pure" inflation. It refers to the across-the-board increase in prices throughout the economy at a uniform rate. It is synonymous with a fall in the purchasing power of the dollar. Although unexpected changes in the rate of "pure" inflation can produce short-run redistribution in income between various groups such as lenders and borrowers, in general this kind of price behavior need not have much effect on income distribution except for persons such as retirees whose income is specified in fixed nominal terms.

The second type of price change is relative price change. Relative price changes, in contrast to pure inflation, are changes in prices of one or more goods relative to those of other goods. Such changes are brought about by events that cause shifts in supply--such as a poor harvest, strikes, and trade embargoes--or shifts in demand for particular goods as a result of changing tastes or of new products that reduce the demand for old ones.

A relative price change is a signal that changes should be made in the pattern of consumption and in the allocation of productive resources--the sort of adjustment that takes place if there is a frost that lowers Brazil's output of coffee, or an embargo that reduces the supply of oil. It should be added that, because of the downward rigidity of prices, relative price changes seldom occur without an increase in the overall price level--that is to say, accompanied by a certain amount of pure inflation, the amount determined by the conduct of monetary policy.

What are the Implication of Indexing to Different Kinds of Price Change?

The current practice of indexing with the CPI leads to certain inconsistencies when it is treated as a measure of changes in the cost of living. For example, sales taxes affect the CPI but income taxes do not, although a change in either would presumably have the same effect on one's standard of living. In addition, the CPI does not measure nonmarket consumption or changes in wealth. The net result is that the CPI has probably mismeasured the actual rise in the broadly defined cost of living.

If, however, the behavior of prices were typified by pure inflation, indexation with the CPI would present the fewest complications. The uniform nature of the price increases means that there is no change in relative prices (except the value of the dollar) and thus no signal to change resource allocations. Demographic groups having different consumption patterns will experience the same proportional changes in consumption costs. The major exception to this pattern will be for those with a fixed nominal income who have no market power to bargain with--such as retirees. Indexation of their benefits will, in principle, preserve their income share in both an absolute and relative sense.

In an environment of relative price change, the result of indexing to the CPI is quite different. For example, the increase in oil prices is a signal that consumption of oil and products in which it is used must be reduced or other consumption must be sacrificed. If incomes are indexed to such relative price changes, the beneficiaries are given enough income to keep on purchasing the same basket of goods, including oil products. Although this can be done for some of the population, it clearly cannot be done for everyone.

If only some incomes are indexed, the impact of a relative price change will be initially to shift the distribution of real income, and those without indexing will bear a disproportionate share of the burden. Those who, although not indexed, can exert market power to redress the adverse change in their real income will, by obtaining higher wages, cause a general upward movement in prices. The CPI will rise, and indexation will trigger further price increases. Thus the attempt both through indexation and through the use of market power to offset the effect of a relative price increase will trigger successive rounds of price increase until the burden of reducing real consumption is finally allocated. Indexation of relative price changes affects the speed with which a new equilibrium is reached and the extent to which it is accompanied by rises in the overall price level.

How can this framework be used to evaluate the current practice of indexing with the CPI? It is clear that the CPI was designed to be a measure of the first approach to indexing--that of measuring the cost of a fixed basket of goods. But the CPI was also presumed to be an approximation to the second approach to indexing--that of gauging the cost of a given level of utility. The experience of the past decade has shown the CPI to fall short on both counts. The reasons for these shortcomings are:

- <u>The treatment of homeownership</u>. The CPI fails to recognize the investment aspect of home purchase. The capital gains enjoyed by homeowners, as well as the deductibility of mortgage costs for income tax purposes, mean that true shelter costs have risen far less rapidly than house prices and mortgage costs would indicate. Comparison of the official CPI with one using an alternative homeownership cost measure (rental equivalence) shows the exaggeration of the CPI from this cause to be 1.1 percentage points in 1978, 2.4 percentage points in 1979, and 1.6 percentage points in 1980.

- The fixed market basket. The CPI measures the changes in the cost of a fixed basket of goods over time. This measure will tend to exaggerate the rise in cost from one period to the next, however, as consumers, in response to relative price changes, alter their consumption patterns--buying more of goods whose prices are rising slowly and less of those whose prices are rising rapidly. Inferring from the difference between the PCE fixed weight price index and its chain-weighted counterpart, the resultant bias may have raised the CPI by 0.1 percentage point in 1978, 0.4 percentage point in 1979, and 0.1 percentage point in 1980.

- Overweighting of luxury goods. In constructing the CPI, the weights assigned to different kinds of consumption are determined by aggregating expenditure data over the sample of families surveyed. This means that when a high-income family is averaged with a low-income family, the habits of the wealthier family with its larger expenditures receive a greater weight than the habits of the low-income family. Compared with a democratically weighted index, the current CPI will underweight necessities such as food.

- Inconsistent tax treatment. The CPI measures sales and excise taxes, and, to the extent they are passed on by producers, the higher business costs of payroll taxes. Income taxes, however, have no direct input into the CPI. Even though there is no reason to think one type of tax affects the standard of living any differently than another (provided it cannot be evaded), the CPI will respond to changes in some kinds of taxes but not, directly, to a change in income taxes.

- Nonmarket consumption. Cleaner air, cleaner water, and better worker safety and health require resources for their production and improve the standard of living. The CPI measures the higher costs for these goods but without accounting for the benefits received. The considerable progress toward higher air, water, and safety standards during the 1970s raises the possibility that this has been a source of upward distortion in the CPI.

- <u>Representativeness</u>. The CPI may not accurately reflect the changes in consumption costs for certain subgroups of the population. This will be true the greater is the heterogeneity of consumption patterns and the greater is the unevenness of price increase across various goods. Examination of individual budgets suggests that significant differences can be observed when consumers are grouped by such characteristics as age and income level. Consequently, when indexing payments to a well-defined subgroup of the population, use of the CPI may misrepresent the actual changes in consumption costs for that group.

- <u>Imported inflation</u>. Oil, coffee, and sugar are examples of commodities of which significant quantities are imported, and whose prices have undergone large changes because of forces quite external to the U.S. economy. The U.S. dependence on these imports makes an adjustment in consumption behavior unavoidable. Since the CPI reflects the prices of imports, its use for indexation insulates some of the population from this burden, forcing a disproportionate weight onto others. Depending upon the intention of indexing, this may be an undesirable feature.

What are the alternatives to the current practice? First, if the intent of indexation continues to be the guarantee of a constant purchasing power over a basket of goods that most resembles the actual cost of living then the most important changes to make are in the treatment of homeownership costs and the updating of the basket of goods. It may take considerable time for these changes to be implemented in the official CPI. In the meantime, alternative indexes are available that are improvements over the official CPI. The first is the experimental CPI-X1, which changes the treatment of homeownership. Another is the Personal Consumption Expenditures chain-weighted index, which uses the improved howmeownership concept and also has an updated market basket.

In the long run, further refinements could be implemented in the CPI format by changing from expenditure-weighted aggregation to population-weighted aggregation of budget survey data, and possibly by developing demographic specific CPIs.

Second, in order to move closer to a true cost-of-living measure the main problems to address are those of tax treatment and nonmarket consumption. Progress will be costly, however, because of very difficult measurement problems.

Third, the consideration of a relative indexing standard has received considerable attention in the form of a switching proposal, one which would index to the lower of either a price index or a wage index. Such an approach would require federal program beneficiaries to share in the burden of setbacks that have caused real wages to fall. Although falling real wages have been a rare occurrence in the postwar period, this is a significant concern because of its effect on the means for financing federal benefit programs. A switching mechanism is a sort of safety device that would constrain the rise of indexed programs to reflect changes in society's ability to pay for them. Once real wages resume growing, benefits are tied again to the price index. Unless a catch-up mechanism is included in the switching procedure, however, federal benefits would be permanently reduced in real terms.

In the event a switching mechanism is pursued by the Congress, as much attention must be given to selecting a wage measure as is now focused on price measures. A complete wage index would include the cost of fringe benefits, but some argue that these should be excluded since the largest portion is employer taxes for social benefits. A rise in these taxes should not be allowed to feed back into a further rise in benefits. An alternative to a straight hourly earnings measure might be one which subtracts income and payroll taxes to arrive at a take-home pay measure. The Spendable Earnings series is such a measure.

Finally, if the approach to indexing is one that would exclude the prices of certain goods, such as imports, then the choice is limited to certain price indexes that are not strictly consumption measures. The GNP price index excludes import prices as do certain subsets of GNP such as the indexes for Gross Domestic Business Product and Private Nonfarm Business. Although these measures contain nonconsumption items such as investment goods, they are dominated by goods and services for personal consumption.

This discussion is not meant to rule out more eclectic or ad hoc approaches to indexation. The more frequent occurrence of economic shocks and the difficulty of restoring normal growth to the economy, make it difficult for any rigid formula to perform well in all circumstances. Flexibility is a feature whose value is on the rise. Nor is it implied here that the adoption of any of these approaches will in the longer run result in more budgetary savings than will the current practice. The future behavior of various indexes relative to each other is difficult to predict. What we do know is the damage that has been done so far. Had an alternative to the official CPI--such as the PCE chain index--been in use since 1975, the level of federal benefits in fiscal 1981 would be lower by about $17 billion. Unfortunately, switching to a different index at this point will lock in this distortion.