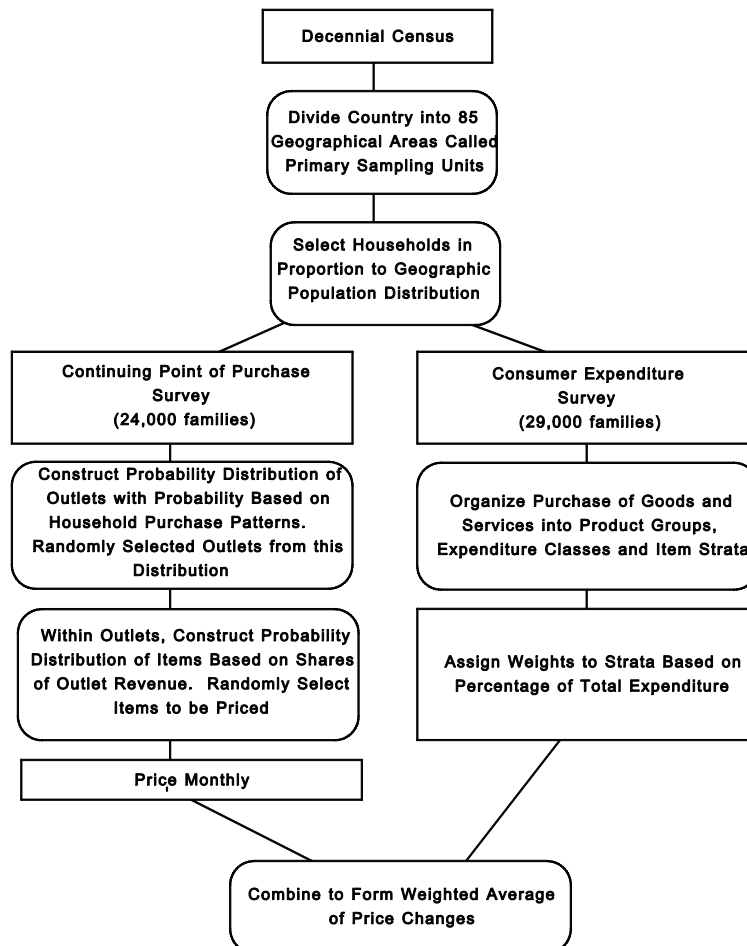


Emad A. Zikry, President and Chief Executive Officer

Position Paper The CPI Calculation

In a report to the Senate Finance Committee, the Boskin Commission (an advisory group set up by the Senate Finance Committee to study biases in the calculation of the consumer price index or CPI) estimated that the CPI overstates inflation by approximately 1.1 percentage points per year. This has triggered much discussion about the need for revisions to the calculation of inflation. If the CPI were reduced, the growth rate of entitlement spending would in turn be significantly reduced. This would mainly affect the elderly whose Social Security and Medicare payments are indexed off the CPI.

The CPI is a measure of price changes for urban consumers, a category that includes approximately 80% of the population. The table below shows how data is compiled and computed to produce the CPI.



The table also shows that the calculations are done in a systematized and precise manner, which has been refined by the Bureau of Labor Statistics since the CPI was first computed in 1921. It is important to note that any significant changes in the calculation of the CPI would make the comparison of historical data irrelevant since the data would not be comparable. This would create problems in measuring the current economy with respect to past cycles.

In studying the CPI, the commission found two categories which cause significant upward bias in the CPI:

Substitution bias - the CPI assumes that consumers buy the same basket of goods even though over time their purchases should gravitate towards cheaper goods;

Quality bias - the CPI fails to fully capture the improved quality of products, particularly for services and for high-tech goods such as new medical procedures and consumer electronics.

The combined upward bias of these two categories is approximately 1.0%, or almost all of the bias found to be prevalent in the commission's study.

The Boskin Commission however, has overlooked an important aspect of the CPI calculation which would offset the substitution and quality biases of the index. The housing component of the CPI accounts for 41% of the total basket of goods that are included in the index. Within this portion of the index, housing costs representing lodging (or the cost of shelter) equals 20% of the total, with the balance going to utilities, furnishings, housekeeping and renters costs. The lodging component of the housing portion of the CPI is currently calculated using an "owners rental equivalent". Homeowners are surveyed to define property type and location and are then compared to similar rentals. This in theory approximates the imputed services which can be derived from America's housing stock. The actual process of market based transactions does not enter into the equation at all. However, the average prices of newly built homes rose about 5.0% and quotes for existing homes rose 6.0% for the twelve months ending December 1996. This is in direct contrast to a 2.9% increase in the housing component of the CPI. Given that the housing or "owners equivalent rental" component is 20% of the CPI, housing *understates* the CPI by about 0.5%, creating a *downward bias* in the calculation of the CPI and offsetting a material portion of the upward bias found in the substitution and quality arguments.

Vanderbilt believes that no action will be taken to adjust the CPI. The housing component helps to offset any artificial increases in other areas. Additionally, the strong growth experienced by the U.S. economy coupled with the simultaneous and automatic reduction in certain entitlement programs has greatly reduced the pressure of technically adjusting the CPI.

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Emad is the Managing Partner and Chief Executive Officer of Vanderbilt Avenue Asset Management LLC. Vanderbilt's client base includes Multi-national Corporations, Public Funds, Foundations/Endowments, and Taft Hartley accounts.

Previously, Emad was Chairman of Institutional Business at Pioneer Investments. Pioneer investments has more than \$300 Billion in assets under management. The parent of Pioneer, UniCredit S.p.A., is the largest bank in Italy and the second largest bank in Europe. Pioneer had purchased Vanderbilt Capital Advisors, of which Emad was the founder and Chief Executive Officer.

Emad has had numerous articles published in professional and academic journals such as The Journal of Forecasting, The American Economist and The Journal of Fixed Income. He is a Board member of The National Investment Company. Emad was a member of the Board of Advisors of the Pacific Institute, The Advisory Committee of Fulcrum Global Partners, The Chief Executive Officers Club and formerly a board member of The Foreign Policy Association. He also served on the Board of Directors of the University of Albany Foundation, NextGen Healthcare Inc., The Park Avenue Bank, AA Bank and The New Providence Fund and Associates LP.

Emad is an FINRA Arbitrator. He is also a member of the National Association for Business Economists and The Economic Club of New York. Emad served as an adjunct professor at the University of Kansas and St. John's University.

Emad holds a Bachelor of Science from the University of Albany, and a M.A. and Ph.D. in Economics from the University of Kansas.