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## Price Stability, Inflation Targets and Monetary Policy

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### **Session 1 - Discussion**

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I do not envy the Bank of Canada, or any other central bank that has the task of ensuring price stability. A corollary to that task is having to monitor how closely the goal is achieved. Several measures of aggregate prices have been considered for that purpose, and the main issue of the paper by Crawford, Fillion, and Laflèche seems to be which one of them is the best ("true") measure of inflation. Is it proper, though, to interpret the various statistical measures of inflation as being better or worse measures of the same, "generic" phenomenon of price stability? Maybe price stability is a phenomenon with many meanings, and certain differences between statistical measures simply reflect those different meanings. As a result, I have some trouble with the title of the paper, which asks whether the CPI is a suitable measure for defining price stability. I would prefer to have the measure of inflation defined on the basis of a given understanding of price stability, rather than the other way around. The understanding of price stability should be determined, in turn, by those aspects that are crucial in a given economic, social, and political context. Two examples illustrate this point.

Do we want primarily to stabilize prices, so that the dollar spent by final consumers maintains the same purchasing power as before, or do we want to control inflation at the entry transaction level? The answer to this question depends on our priorities and may influence the choice of the aggregate price measure.

Is our goal to achieve a short-term or a long-term price stability? As stated in the paper, there are common trends in the movement of different price indicators. The gross domestic product (GDP) deflator and the index of unit labour costs exhibit similar trends because their denominators are the same, while their numerators (GDP in current dollars and the total remuneration of the labour force in current dollars) tend to move at a similar rate over longer periods of time. Yet this long-term convergence of statistics offers little consolation to the Bank of Canada, which must be able to take rapid decisions when inflation starts changing. The Bank cannot wait decades, or even years, to detect changes in inflation. For the purposes of monetary policy, it might be necessary to make choices between various inflation indicators, because they are likely to exhibit different results over shorter periods of time. I would even find it suspicious if the alternatives were continuously too close to each other.

My subsequent comments relate to the third section of the paper, on measurement bias in the CPI. The authors consider the Canadian CPI relative to a true cost-of-living index. Most economists would probably agree with using a true cost-of-living index as the benchmark, but many price statisticians would have some doubts. This is because one can only speculate what would be a true cost-of-living index, on the basis of more-or-less problematic assumptions. For example, some index formulas are said to provide results that should be very close to the corresponding true cost-of-living index if the underlying preference functions are of certain forms. It is, however, extremely difficult to know whether preferences are actually, say, of a semilogarithmic or of a quadratic form. Moreover, determining which specification of preferences is better becomes particularly hazardous in a typical case of national or regional price indexes. They imply collective preference functions, whose very existence is denied by the economic theory, which recognizes only individual preference functions. This high degree of abstraction does not make the notion of cost-of-living indexes particularly popular among practitioners.

The authors describe various potential sources of bias in the Canadian CPI, and estimate their magnitude. Their ultimate goal is to assess the magnitude of the total CPI measurement bias, a very difficult, almost heroic, task. Indeed, not only is there considerable uncertainty about the importance of specific types of biases, but also some of the biases are interrelated. For example, the introduction of random commodity sampling may make samples more representative of the true population. However, a random commodity sample is also likely to contribute to more frequent discontinuities in price observations of the same items, which would lead, in turn, to more frequent quality adjustments to prices, creating another potential source of bias. These are the reasons why the Prices Division of Statistics Canada is not eager to risk launching a single number as a measure of the total CPI bias.

In fact, only two types of CPI biases have actually been measured in Canada, and are thus less controversial: the commodity-substitution bias (that is, the macro aggregation bias) and the formula bias (that is, the micro aggregation bias). As for other types of biases, the authors make a careful and well-balanced effort to assess their magnitude, but doubts persist, mainly because of the complexity of the task.

The treatment of quality changes in the observed products is certainly the most difficult problem facing price statisticians, and a strong potential source of errors. Not all the errors, however, overstate price increases. Overstatements are likely to happen with respect to products characterized by rapid technological improvements, particularly those sold on very competitive markets. Understatements are likely to happen during high-inflation periods and with respect to more traditional products. It is not easy to conjecture what is the resulting direction of all these combined biases, let alone what is their magnitude. The very notion of a quality improvement or deterioration is blurred in some cases, especially when there is a reversal of tendencies. Not so long ago, for example, skimmed milk was generally considered inferior to whole milk, whereas now consumers often regard it as more desirable.

New goods create even more problems. Some researchers suggest that reservation prices should be used in lieu of non-existent actual past prices. But not only is the estimation of reservation prices controversial, so is their very notion. And finally, while there is a trendy preoccupation within the economics profession with the benefits that result from new products, very little attention is paid to the effect on consumers of the disappearance of existing products.