## 1997 conference

## Price Stability, Inflation Targets and Monetary Policy

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## Session 1 - General Discussion

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In response to Carmichael's remark that a "conditional" inter-pretation of the Fisher effect would make the expected inflation rate sensitive to any deviation between the observed price level and its trend value, Coulombe pointed out that under a monetary regime where the price level is integrated of order one there is no long-term price standard that individuals can use as a basis for anticipating a correction in the price level.

Commenting next on Côté's discussion, Coulombe agreed that it would be interesting to analyse individuals' behaviour under the hypothesis of a price-level targeting regime operating under conditions of imperfect credibility. Nevertheless, his hypothesis that individuals' expectations were consistent with the monetary regime under the gold standard was, he maintained, perfectly reasonable, given the long history during which the gold standard was sustainable. In response to the criticism that the hypothesis of price stationarity could not stand up to the statistics, he claimed that the weakness of the tests in effect gave him the latitude to accept the stationarity hypothesis. With respect to the weaker correlation between the contribution of prices and the nominal interest rate that Côté obtained using the short-term treasury bill interest rate rather than that on perpetual annuities, Coulombe claimed that this was consistent with his approach, since the data would show that the deviations between the price level and its standard of value persisted over long periods. He concluded that, because of this weaker correlation, a measure of the real interest rate based on a nominal short-term rate would not necessarily be more volatile than a measure obtained from a more stable, long-term interest rate.

William Allen pointed out that no cost-of-living indicator was available for the period that Coulombe had studied. A monetary policy aimed at stabilizing the cost of living would have been different from the one that was actually pursued. Given the major technological progress that occurred over the period, the cost of living would have tended to decline between 1717 and 1914, rather than remaining stable as commodity prices did.

Pierre Duguay noted that we must not judge the relevance of Coulombe's thesis solely on its applicability to the gold-standard period. He offered three suggestions for advancing the analysis: modelling the formation of expectations with a regime-switching model, which would incidentally allow us to retain the wartime periods within the statistical sample; taking account not only of the price level but also of the interest rate level, the second variable in the model, in analysing inflation expectations; and finally, replacing the nominal interest rate on perpetual annuities with a measure of their ex ante holding-period yield, to ensure greater consistency between the measures of nominal interest rates and of expected price changes, with the latter limited to one year. According to Duguay, this approach would most likely produce much more variable real interest rates than those that Coulombe had calculated.

Next, Cliff Halliwell commented that the importance of the future price-level trend for an individual depends on the type of nominal contract being signed, and that, from this viewpoint, we must pay attention to the length of time it would take the price level to adjust to its standard of value, and the nature of the costs that price-level instability would produce. Coulombe replied that, in the present-day context, a stationary price regime would perhaps require prices to adjust more swiftly to their standard of value than they did during the gold standard, and he reiterated that the Summers effect would not apply if the price level were to become stationary.

David Johnson estimated that long-term bond holders would have had to be just as concerned with possible capital gains (or losses) over the course of the business cycle as they would with the future trend of the

price level. Coulombe replied that, by sticking to the hypothesis of a price level integrated of order one, the economic literature has interpreted nominal interest rates on perpetual annuities as real yield rates, which implies that anticipated capital gains must be zero.

In reply to Schultz's discussion, Fillion said that, while he shared the doubts Schultz expressed regarding the true measures of prices and inflation in the economy, he maintained that the clear concordance between the various measures of inflation presented in the paper must be more than a coincidence. He added that divergences between the different inflation rates, which may persist for several successive periods, are a sign that caution is needed. To Schultz's question about just what the new statistical measures of inflation were capturing, Laflèche replied that they are an attempt to measure the fundamental price trend, as opposed to other indexes that have more specific uses. Both commentators noted that the uncertainty about the magnitude of certain categories of bias in the measure of the CPI made it difficult to obtain an accurate estimate of overall bias in the CPI. Crawford replied that one way of dealing with these biases, when their uncertainty is particularly high, is to allow a margin in estimating them. He added, however, that if the monetary authority wants to achieve a specific inflation target, it must have an idea of the size of the total bias.

Allen mentioned that one of the attractions of targeting the price level is to provide a degree of certainty for the long-term value of money, but he noted that the conclusions of the Boskin Commission in the United States suggest that this certainty is limited by the price-level measuring techniques currently in use. In response, Crawford said it was not clear why the Boskin Commission's results showed such a wide margin of error in bias estimation, and he suspected it was probably overestimated.

Nicholas Rowe said that, if one believes that price-adjustment costs represent the main source of inflation costs, then substitution effects, new-product effects, and the effects of all possible biases in the CPI are irrelevant, since they have no impact on these adjustment costs. He went on to suggest that the Bank of Canada should be using a broader index to monitor price behaviour.

Thomas Rymes said that the notion of a bias caused by the appearance of new goods is based on a totally inoperable concept, since we cannot measure the price of a good that does not yet exist. Crawford admitted the difficulty of estimating the reservation price of any good. He referred to a study in which Hausman had attempted to estimate such a reservation price, but said he suspected that the estimated bias for the price of a new good was too high. He concluded his response by adding that we must be cautious when it comes to estimating the bias resulting from the introduction of new products.

Duguay suggested that the absence of cointegration among the different price indexes is not very significant from a monetary policy viewpoint, if that policy is focussed on the trend inflation rate. He added that this is currently the case in Canada, where monetary policy explicitly allows for some drift in the price level. The absence of cointegration would, however, become significant if the monetary authority were to seek to target the price level. We need to ask, he said, whether price stability is intended to promote macroeconomic stability or microeconomic efficiency; in short, should we seek to stabilize the value of the goods that we consume or those that we produce? In his view, this important question has not been sufficiently explored in the recent economic literature. He concluded his remarks by suggesting that there were lessons to be drawn from the literature of the late 1970s on optimal inflation.