C.D. Howe Institute
Institut C.D. Howe
e-brief

Reading the Currency Compass: Keeping Monetary Policy on Course Through a Choppy Exchange Rate

By William Robson

June 14, 2005

Between February 2002 and November 2004, the Canadian dollar rose some 35 percent against its U.S. counterpart. Between November 2004 and early June 2005, it fell more than 5 percent. Those changes rekindled the hoary debate about why the exchange rate moves and what, if anything, the Bank of Canada should do about it.

Most views about why the exchange rate moves and how monetary policy should respond sit somewhere between two poles.

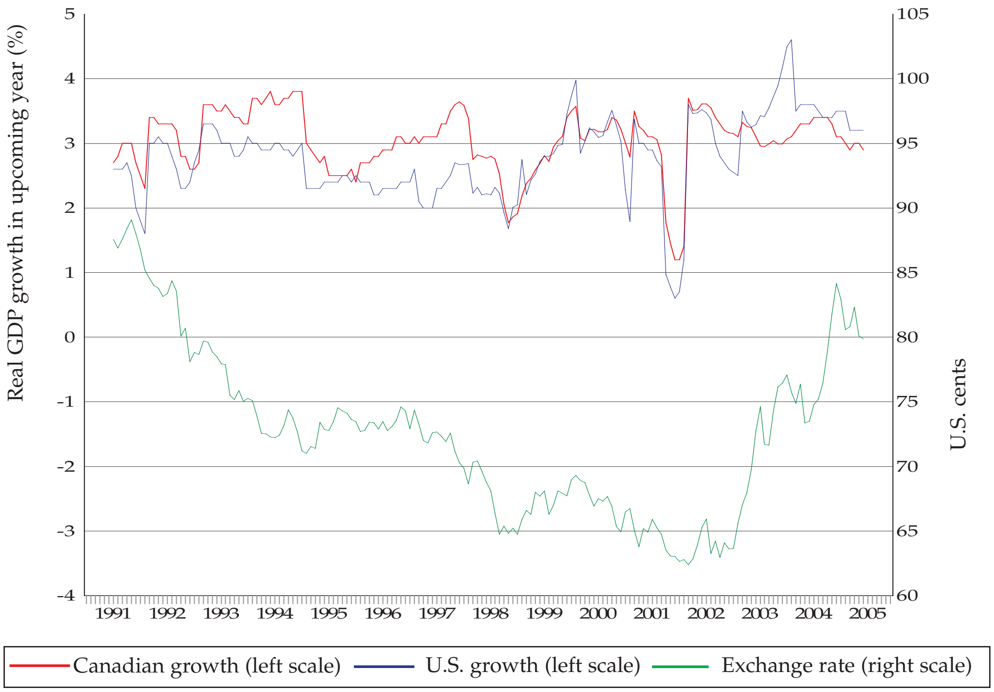
At one extreme is the view that exchange-rate moves are external shocks. Those who hold this opinion argue that a stronger Canadian dollar heralds a weaker economy because a rising currency worsens Canada's net trade balance. A lower dollar has the opposite effect.

This position gets support from economic models in which exchange-rate movements and short-term interest-rate changes have similar effects: Currency depreciations and interest-rate reductions are stimulative, while currency appreciations and interest-rate increases are restrictive. An estimated 3-percent-to-1-percent ratio of their respective influences inspires the Bank of Canada's monetary conditions index (MCI), designed to track their combined effects on the economy. The MCI view supports moving the overnight rate when exchange-rate movements threaten to push inflation away from the Bank's two-percent target — a stronger dollar, for example, would indicate that the Bank should cut interest rates.

At the other pole is a fundamentalist view: that movements in the dollar reflect changes in the economic outlook. Even if those changes — with possible portfolio adjustments by investors worried about the course of federal fiscal policy being a recent case in point — are not visible in other economic indicators at the time the currency moves, the same pressures that move the dollar up or down will likely boost or depress Canadian output.

This argument gets support from the correlation of the Canada-U.S. exchange rate with such fundamental factors as bilateral differences in inflation and the prices of Canada's commodity exports (Amano and Van Norden 1995; Guillemette et al. 2004). Fundamentalists contend that a higher dollar is not a shock from

Figure 1: *Canadian and US Growth Forecasts and the US$/C$ Exchange Rate*



Source: The Economist Poll of Forecasters, Bank of Canada.

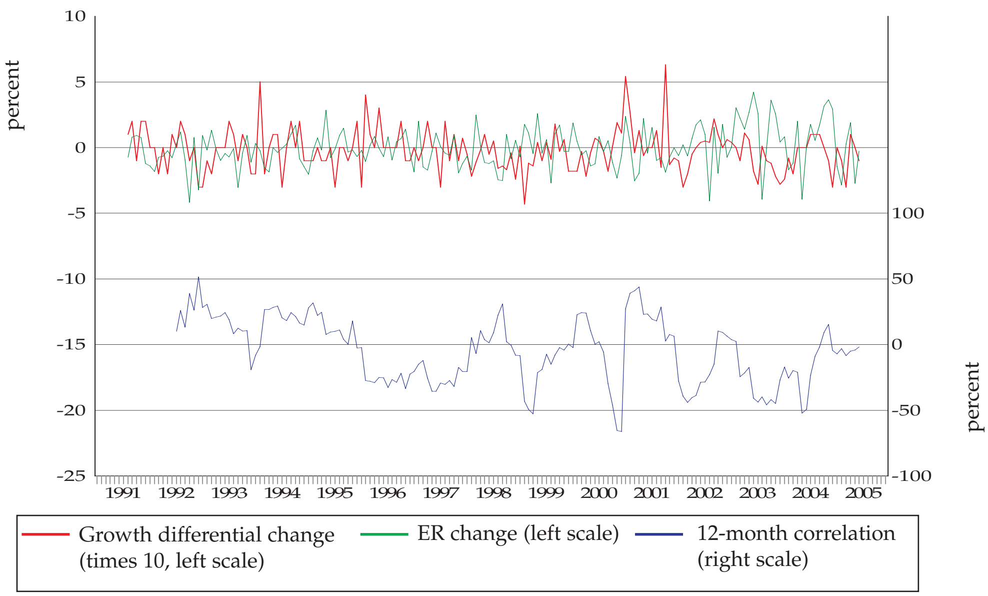
Note: Because of lags in publishing economic figures, the "upcoming year" is the current calendar year in the January and February Economist surveys — only in March 2005, for example, does the forecast for 2006 appear — which is why the lines often jump between February and March.

nowhere; rather, it reflects a stronger appetite abroad for Canadian exports, say, or investors raising their expectations for returns on Canadian, as opposed to U.S., assets. Fundamentalists say a stronger dollar presages a more robust economy, and that the rising currency should prompt, if anything, a higher overnight rate.

The Bank has recently (Bank of Canada 2005) taken a middle position. Some movements in the currency, which the Bank labels "Type 1" movements, reflect changes in direct demand for Canadian goods and services; others, which the Bank labels "Type 2" movements, do not. The latter category would be the kind of exogenous shocks that would require an MCI-style offset from short-term interest rates. The former category, which do reflect changes in direct demand, would merit no such offset, and might require moving short-term interest rates in the same direction as the exchange-rate change.

If the economic effect of exchange-rate changes, and the impact on the exchange-rate of economic changes, show up in economic forecasts, surveys about the relative outlook for the Canadian economy may shed light on the MCI/fundamentalist debate and the merits of the Type 1/Type 2 distinction. On the first Monday of every month since July 1991, the Economist magazine has polled forecasters around the world for their views on growth in the current and upcoming years for 15 major developed countries. Figure 1 shows the forecasts for Canadian and U.S. growth for the upcoming year over the period covered by the poll, as well as the average daily close of the Canada-U.S. exchange rate recorded by the Bank of Canada during the week before the survey.

Figure 2: *Correlation between Growth Forecast Differential and the Exchange Rate*



Source: Economist Poll of Forecasters, Bank of Canada, authors' calculations.

Note: To avoid the February-to-March jumps, this calculation uses each March's forecast for growth in the current year — the same reference year that applies for the February forecast.

Suppose forecasters think in MCI terms — that is, an exogenously driven exchange-rate affects output. Then, a rising Canadian dollar against its U.S. peer would coincide with a downward revision in their outlook for Canadian versus U.S. growth, and vice versa. If both forecasters and the exchange rate are responding to fundamentals, by contrast, increased strength against the U.S. dollar would coincide with a boost in the outlook for Canadian relative growth, and vice versa.

What is the story since 1991? Figure 2 compares month-to-month changes in the forecasted margin of Canadian over U.S. growth and in the bilateral exchange rate. Since the jagged pattern of monthly changes is hard to read, the figure also shows the 12-month correlation between the two measures. To the extent that changes in the expectations of buyers and sellers of goods, services and assets are reflected in the Economist's survey of forecasters, different forces appear to have dominated the relationship between the exchange rate and the growth outlook at different times.

There are periods when ups and downs in the exchange rate were associated with opposite-direction movements in relative growth forecasts, as the MCI would predict. In 1996 and 1997, the correlation was negative for an extended period, and again in 2003 and early 2004, when an exchange-rate appreciation well beyond what past associations between commodity prices and the dollar would justify prompted forecasts of a slump in Canadian manufacturing.

At other times, exchange-rate fluctuations have been associated with movements of relative growth forecasts in the same direction, as fundamentalists would predict. The most prominent such patterns were in the early and mid-1990s, but positive correlations are evident in 2000/2001, and even in 2004, when an appreciating dollar coincided with a more upbeat take by forecasters on what they had previously seen as a badly underperforming Canadian economy.

This mixed picture could reflect alterations in forecasters' views about the links between the exchange rate and the economy, rather than any shift in the relative strength of competing influences. The MCI view was stronger both inside and outside the Bank of Canada in the early and mid-1990s than it has been lately.

The degree to which the MCI has steered monetary policy could also affect the correlations. At times in the early and late 1990s, the Bank reacted rapidly to exchange-rate movements with interest-rate changes in the opposite direction. Forecasters taking those interest-rate changes into account in revising their predictions could have produced negative correlations between exchange-rate movements and relative growth forecasts that would disappear when the MCI view had less impact on policy. (A comparison of changes in forecasts and changes in the exchange rate one week and two weeks before the Economist survey produces progressively stronger positive correlations in the early 1990s, raising the suspicion that MCI-inspired offsetting interest-rate moves by the Bank might have affected forecasts then.)

Some links between the exchange rate and the economy, moreover, likely click in faster than others. More complex correlations will arise from a mixture of shocks that rapidly move the relative growth outlook and the exchange rate in the same direction, while more lagged effects from the exchange-rate to the economy are occurring in the opposite direction. Different patterns emerge when the correlations between growth-forecast revisions and exchange-rate changes are measured at longer intervals.

In any event, one key message from both figures is that neither strong MCI nor strong fundamentalist views get much support from the high-frequency interplay of exchange-rate movements and forecasters' predictions. That, and the recent near-zero reading of the 12-month correlation between changes in growth-forecast differentials and changes in the exchange rate, calls into question the widespread view that the Bank of Canada should steer its overnight-rate target with one eye — or even both eyes — on the exchange rate.

Sorting out the reasons for a given move in the exchange rate can be difficult even with hindsight, and doing it at the six-week intervals over which the Bank of Canada sets its policy interest rate is harder yet. Does the dollar's decline since the turn of the year foreshadow a stronger net export performance and higher output — and perhaps an offsetting hike in the overnight rate? Or is it a signal that Canada's part of the North American economy is flagging, and thus a signal that an overnight-rate cut is in order? Because we cannot confidently answer that question, the Bank of Canada should make price pressures in the Canadian economy, and hints in current data on output, demand, money and credit about where those pressures are going in the future, its main guides in setting interest rates to hit its two-percent inflation target.

Note

I thank Tom Roberts, C.D. Howe Fellow at the Institute for 2004/2005, for assistance with data, and three anonymous reviewers for comments.

References

Amano, Robert, and Simon van Norden. 1995. "Terms of Trade and Real Exchange Rates: The Canadian Evidence. *Journal of International Money and Finance:* 14 (1) 83-104.

Bank of Canada. 2005. *Monetary Policy Report Update*, p. 3. Ottawa: Bank of Canada. January.

The Economist poll of forecasters, various months.

Guillemette, Yvan, David Laidler and William Robson. 2004. *The Real Reasons for the Canadian Dollar's Power Trip — And What Not To Do About It*. C.D. Howe Institute e-brief. December.