Revisiting the Case for Canada's Flexible Exchange Rate

John Murray

Recent calls for the adoption of a common currency in Canada and the United States have attracted a great deal of attention and have considerable intuitive appeal. The world, after all, is becoming a much smaller place—courtesy of globalisation. The dramatic growth over the post-war period in international trade and investment led to greater economic integration and made countries increasingly dependent on developments outside their national borders. Just as regions within a country are thought to benefit from a common national currency, so might countries within a broader international trading bloc. Businessmen and households would no longer need to convert one national currency into another, or worry about unexpected movements in the exchange rate. The same money could be used as a unit of account, a medium of exchange and a store of value in several different countries.

In the case of Canada and the United States, the prospective gains from a common currency would seem to be quite large. Canada is one of the most open economies in the industrial world, and the United States is its most important customer. Exports to the United States account for more than 35% of Canada's GDP and have been growing steadily over the past 50 years. By adopting the US dollar as their "national" currency (or perhaps sharing a new currency with the United States as part of a formal monetary union), Canadians could realise significant savings. Rough estimates suggest that the latter could be as high as $3 billion annually. A common currency would also allow Canadians to avoid the uncertainty associated with sharp exchange-rate movements. If 11 reasonably diverse and occasionally antagonistic European countries can implement a monetary union, why shouldn't two close neighbours like Canada and the United States?

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Couched in these terms, there is a certain naturalness and even inevitability to the notion of a Canada-US monetary union. Appearances can be deceiving, however. While it is easy for businessmen and ordinary Canadians to appreciate the microeconomic benefits that a common currency might provide in terms of lower transactions costs and reduced uncertainty, the case for a currency union is not as simple as the earlier discussion might suggest. There are important macroeconomic considerations that must be weighed against these prospective benefits before we race to the common currency solution. If Canada were to move to a common currency with the United States, it would effectively lose its monetary policy independence. The United States, owing to its greater size and importance, would clearly dominate any arrangement that might be contemplated, even if it were willing to share its decision-making power. Canada would only have 1 of 13 votes on the US Federal Open Market Committee, and would clearly be in a minority position.

In addition to losing our monetary policy independence, we would also lose the automatic stabilising properties of a flexible exchange rate. Because of its openness, the Canadian economy is very vulnerable to external shocks such as the ones we experienced during the Asian financial crisis of 1997-1998. Our flexible exchange rate helped cushion the blow by allowing the Canadian dollar to depreciate against its US counterpart, thereby improving the competitive position of our exporters. No such automatic adjustment mechanism would be available under the fixed exchange-rate system implied by a common currency.

The rest of this article explains in greater detail why separate currencies and a flexible exchange rate continue to be the best policy option from a Canadian perspective, given the structure of our economy and the shocks that it experiences.

Why Canada Might Need a Flexible Exchange Rate

Canada is a wealthy and technologically advanced country. Although its average per-capita income is not as high as that of the United States, the two countries have much in common and are closely tied to one another, both culturally and commercially. Significant

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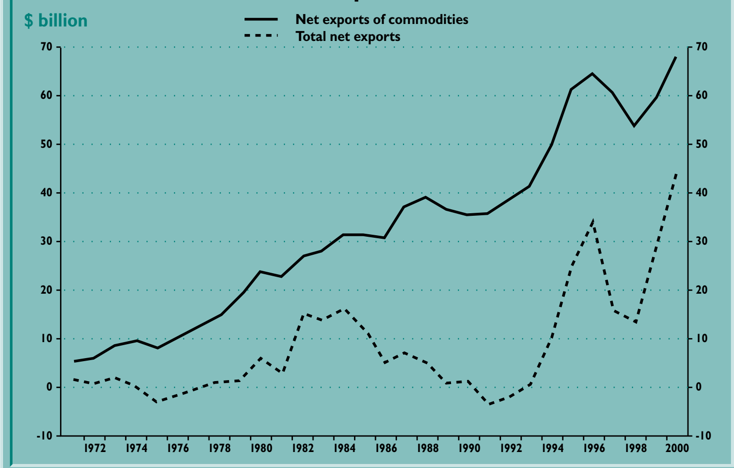
differences nevertheless remain in their underlying economic structures.

Canada is a much more open economy than the United States and is therefore more vulnerable to external shocks, especially dramatic movements in world commodity prices. While manufactured goods are far more important than raw materials as a percentage of our total exports, raw materials still account for more than 35% of our gross export receipts. In addition, their share of GDP has tended to increase gradually through time and currently stands at more than 16%—compared to only 2% for the United States.

CHART 1
Net Exports of Commodities and Total Net Exports in Canada



Correlations Between the Terms of Trade for Canada, the United States and Other Industrial Countries

	Canada	United States	France	Germany
Correlation with US terms of trade	-0.86	—	0.49	0.61
Correlation with G-10 terms of trade	-0.85	0.63	0.82	0.77

Despite the significant changes that have taken place in the Canadian economy over the postwar period, Canada remains a large net exporter of raw materials and a large net importer of manufactured goods (see Chart 1). The United States, in contrast, is a net exporter of manufactured goods and a net importer of raw materials. As a result, the two economies provide what the other needs and appear to have concentrated their production activities in areas that reflect their respective comparative advantages. This is not something that Canadians should resist or feel embarrassed about. The gains from international trade are based on national differences and the efficiency gains that can be realised through specialisation. If there were no differences in tastes or production capabilities across countries, the benefits of trade would disappear.

While these structural differences may be beneficial in an economic sense, they also imply that Canada and the United States must respond in different ways to changes in world commodity prices or the price of manufactured goods. Developments that are good from a Canadian perspective will hurt the United States, and cause its terms of trade to deteriorate. Canada, for example, would likely benefit from an increase in the world prices of lumber or base metals, while the United States would find that the prices of important inputs had gone up, increasing its production costs and worsening its competitive position. The roles would be reversed, of course, if the price of manufactured goods were to rise relative to that of raw materials.

The negative correlation in the two countries' terms of trade that results from this asymmetry is evident in the accompanying data. Note that a negative relationship like this is highly unusual and is not shared by most other industrial countries. While the terms of trade for other countries often display some independent movement vis-à-vis those of their major trading partners, the correlations are still positive—indicating that their terms of trade tend to move together over time. Most of the members of EMU, for example, display a strong positive correlation in their terms of trade. External shocks tend to have a similar effect on their domestic economies and therefore push their currencies in the same direction. Canada and the United States, in contrast, tend to have their economies pushed in opposite directions by external shocks, causing their bilateral exchange rate to fluctuate.

Attempts to fix the Canada-US exchange rate would simply shift these pressures onto other variables such as domestic wages and employment. One country would see the demand for its products increase, causing domestic prices, wages and employment to rise, while the other country would see the demand for its products decrease, causing domestic prices, wages and employment to fall. The same *real* depreciation of the currency would eventually result in either case. But because wages and prices tend to be slow to adjust to shocks, the burden of adjustment necessarily falls more on employment and output. So, by allowing the *nominal* exchange rate to change in response to external shocks, the overall adjustment can be accomplished much faster and with a great deal less disruption in domestic employment and output. In this way, flexible exchange rates act as a "shock absorber", cushioning employment and output in the face of external shocks.

Some Evidence That a Flexible Exchange Rate Actually Works

It is one thing to show that two countries might benefit from a flexible exchange rate; it is another to show that a flexible exchange rate actually delivers better economic performance. One of the criticisms that is frequently raised against flexible exchange rates is that they serve to destabilise economic activity rather than smooth it. Young currency traders in red suspenders, the critics charge, often cause exchange rates to move in an erratic manner, disconnected from any real world fundamentals. Fixed exchange rates and a common currency are recommended, therefore, not so much for the microeconomic benefits that they might provide, as for the macroeconomic damage that they might prevent. If flexible exchange rates simply add additional noise and uncertainty to the system, the best solution might be to fix them.

While casual observation might suggest that these concerns are well founded, a more detailed examination of the Canada-US exchange rate indicates this is not the case. Two sets of results are described below, both of which indicate that Canada's flexible exchange rate moves in a systematic and stabilising manner, helping to reduce output and price fluctuations.

Extensive testing with a simple econometric model of the Canada-US exchange rate has shown that most of the major movements in the exchange rate can be explained with four fundamental variables: world energy prices, world non-energy commodity prices, Canada-US interest rate differentials, and Canada-US inflation differentials. A comparison of the actual values of the exchange rate over the 1973-2000 period and the values predicted by our simple equation is provided in Chart 2. Higher commodity prices, higher Canadian interest rates, lower energy prices and lower Canadian inflation rates, all cause the Canadian dollar to appreciate. Lower commodity prices, lower Canadian interest rates, higher energy prices and higher Canadian inflation rates cause it to depreciate.

As is clear in the chart, there are occasions when the two series have deviated, but for the most part the movements of the Canadian dollar appear to be driven by these four fundamental variables.

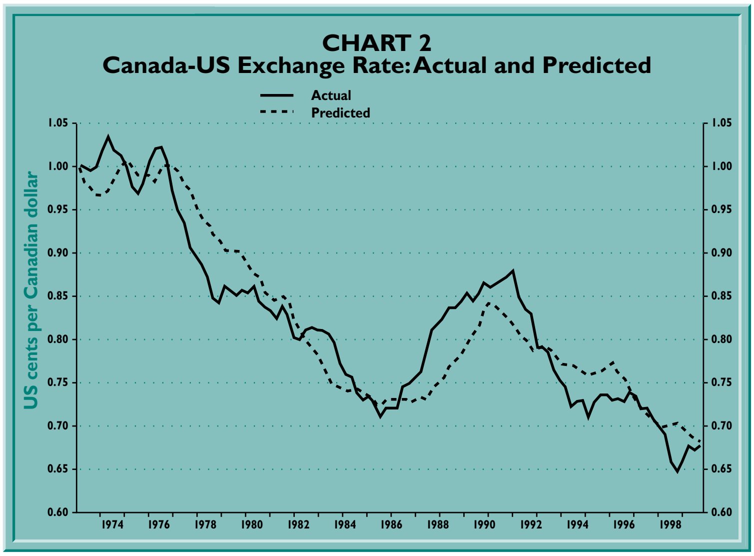


CHART 2
Canada-US Exchange Rate: Actual and Predicted

The performance of the equation is all the more remarkable when one considers that it was first developed in 1990, and that its basic properties have remained unchanged for the past 10 years. Since there can be no presumption that the equation contains all the economic variables that affect the exchange rate, it seems likely that many of the observed differences between the actual and predicted series shown in Chart 2 are also driven by fundamental forces. It is just that we have not been able to identify them. The basic message, therefore, is that our flexible exchange rate has not been misbehaving, but has instead performed the sort of automatic equilibrating function that economic theory suggests it should.

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The response of the exchange rate to changes in commodity prices and the other explanatory variables described above is generally consistent with our theoretical priors and the needs of the Canadian economy, but does it actually help dampen output fluctuations?

One of the best examples of the exchange rate's stabilising properties is probably the period 1997-1998 when Canada (and other countries around the world) had to deal with the effects of the Asian financial crisis. The resulting decline in economic activity in Asia triggered a sharp reduction in world commodity prices and reduced export earnings in commodity-dependent regions of the country such as British Columbia.

The depreciation of the Canadian dollar helped cushion these effects by offsetting some of the losses incurred by commodity producers and improving the competitive position of Canadian manufacturers. The latter were in turn able to expand production and employ some of the excess labour and capital from commodity-dependent regions.

If Canada had been operating under a fixed exchange-rate regime, the consequences would have been much more severe. Higher interest rates would have been required to maintain the value of the Canadian dollar, and economic activity in every region of the country would have been adversely affected. All of the necessary adjustment in the real value of the exchange rate would have been forced to occur via domestic price and wage deflation. Since prices and wages typically display some downward rigidity, however, unemployment would have inevitably increased and output would have remained depressed for an extended period of time. While movements in the flexible exchange rate did not protect us from all of these domestic and external pressures, growth for the economy as a whole managed to remain around 3% throughout this volatile period—not as high as in the United States, which benefited from the fall in commodity prices and large capital inflows from Asia, but higher than those of many other industrial countries.

Are the Benefits of a Flexible Exchange Rate Worth the Costs?

Even if one accepts the fact that flexible exchange rates help stabilise employment and output, it is not obvious that they will always represent the best solution from a Canadian perspective. By choosing to stay with separate national currencies and a floating dollar, we forgo the microeconomic advantages that might have been realised by using a common Canada-US currency. Making the correct decision involves weighing the costs and benefits of each alternative. Some of the arguments that are frequently raised against the use of flexible exchange rates are discussed below.

The most evident costs associated with a flexible exchange rate are those related to the conversion of national currencies and the hedging of foreign exchange risk. A common currency for Canada and the United States would allow businesses and households to avoid these transactions costs. Rough estimates of the amount of money that Canadians spent in 1998 converting Canadian dollars into US dollars, and vice versa, range from $2 billion to $3 billion—approximately 0.25% to 0.30% of GDP. While this may not seem like a large amount, the present value of these payments, discounted to infinity at a 4% real rate interest, totals between $50 billion and $75 billion.

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Against these losses, however, one must also subtract any seigniorage that the Canadian government would lose by opting for a common currency. (Seigniorage is the revenue that governments realise by printing money.) In the case of Canada, this amounts to more than $1 billion per year, and has a present discounted value of approximately $25 billion. The net direct cost to Canada, therefore, of choosing a flexible exchange rate over a common currency might be reduced by at least a third once forgone seigniorage is included in the calculations.

The most important costs associated with flexible exchange rates might not be the direct costs that are incurred by businesses and households, but the indirect losses that they sustain through reduced international trade and investment. Volatile exchange rate movements, the critics claim, create additional uncertainty and reduce economic welfare by discouraging trade and investment.

While logic suggests that there is probably some truth to this argument, economists have had difficulty uncovering any significant relationship—either negative or positive—between exchange-rate variability and the flows of international trade and investment. Careful analysis of the data suggests that if a negative relationship exists, it must be relatively small. The reason for this is not difficult to understand when one considers the number of instruments that businesses have at their disposal to eliminate unwanted risk. The phenomenal rate at which world trade has grown over the last few years, not to mention the volume of international capital flows, also indicates that exchange-rate volatility has not been a major problem. Trade between Canada and the United States, for example, has increased by more than 500% during the last 20 years.

The latest, and in some ways most intriguing, argument against flexible exchange rates is that they reduce productivity. Critics have pointed to the low rates of productivity growth that Canada has experienced during the past few years, compared to those of the United States, and noted that they seem to be correlated with movements in the Canadian dollar. The lower our dollar goes, the larger the Canada-US productivity differential becomes. More sophisticated testing conducted at the Bank of Canada has shown that the relationship actually runs in the opposite direction, with slower productivity growth causing the Canadian dollar to weaken, but critics of the flexible exchange rate remain convinced that the weaker dollar is responsible for our poor performance.

There are a number of channels by which a weak and variable dollar is assumed to reduce productivity. One of them is similar to the argument presented above and suggests that the exchange-rate volatility associated with flexible rates has depressed real investment activity in Canada. A second claims that the trend depreciation of the Canadian dollar has made imports of machinery and equipment more expensive, and thereby reduced our productivity. A third suggests that the flexible exchange rate has made life too easy for Canadian exporting firms and therefore has reduced their incentive to implement the latest cost-saving technology.

Several serious flaws can be identified in each of these arguments. The first, related to the harmful effects of exchange-rate volatility, has already been discussed and dismissed for lack of solid empirical evidence. The second, related to the harmful effects of a weak dollar, is really a recommendation for a stronger currency as opposed to fixed exchange rates. It also assumes that countries can prevent their currencies from depreciating by fixing the nominal value of their exchange rates. As was noted earlier, however, the same *real* depreciation has to be sustained following a decline in world commodity prices (or some other adverse shock) even under a fixed exchange rate. It is just that the depreciation occurs via domestic price deflation, which is often a more painful and protracted process than simply letting your nominal exchange rate adjust.

The third argument—often referred to as the "lazy firm" hypothesis—is probably the most imaginative argument, but also the easiest to dismiss. It assumes there is not enough competition in our domestic markets to force Canadian firms to adopt the latest labour-saving technology. It is also based on the curious notion that "pain is good." It assumes that a strong currency would force Canadian firms to be more efficient because they would have no alternative. But if pain is good, why does it have to come from the exchange rate? Couldn't the same thing be accomplished through higher taxes or higher wages?

Described in this way, the irrationality of the "lazy firm hypothesis" becomes evident. More sophisticated proponents of fixed exchange rates and a common North American currency often counter with a more plausible theory, however. They suggest that a flexible exchange rate reduces productivity by causing resources to be misallocated. Because the exchange rate automatically adjusts to protect the competitive position of inefficient commodity producers, there is no incentive for businesses to shift labour and capital into more profitable areas such as computers and transportation equipment.

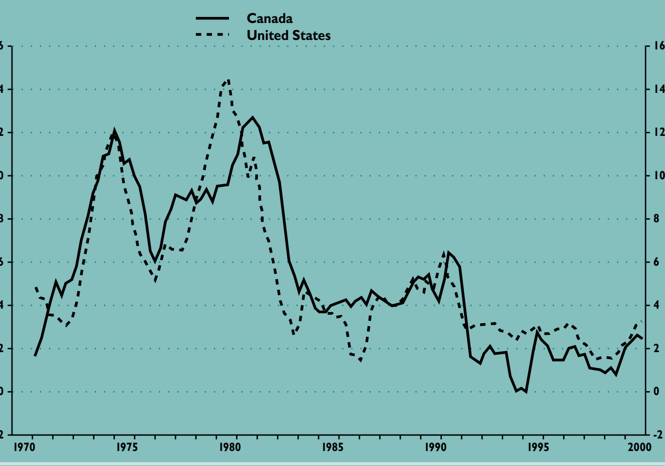
Aside from the fact that the protection offered by currency depreciation is seldom complete, this argument misses another more basic point. Currency depreciations do not distort or diminish the attractiveness of producing computers or any other manufactured good relative to raw materials. While a currency depreciation might help shelter commodity producers from a sharp decline in world commodity prices, it also benefits domestic manufacturers, who gain in two ways. First, the lower exchange rate makes them more competitive in world markets; second, unlike commodity producers, the price of the product that they sell has not declined. In other words, there should still be a net advantage to shifting resources away from the production of raw materials and into manufactured goods.

Lessons from Europe

Many proponents of a common currency point to Europe as an example of what can and should be done in North America. The introduction of the euro in January 1999, and the creation of an Economic and Monetary Union in Europe, produced the second largest currency area in the world. It also generated a mixture of fear and envy on the part of many outside observers. Some have suggested that EMU is the way of future, others that we should form a currency union with the United States simply for defensive reasons.

EMU was formed largely for political reasons. It was viewed as the next stage in the evolution toward complete political and economic integration in Europe. While some of the countries that decided to join were obvious candidates for a monetary union, others, mainly on the periphery, were less likely participants. Economic analysis suggests that many of the countries on the periphery are less advanced than the core countries, like France and Germany, and subject to asymmetric shocks, much like Canada vis-à-vis the United States. The macroeconomic tensions that have emerged in Europe since the euro was launched indicate that some of these concerns were well founded. Some countries, such as Finland, Ireland and Spain, are growing at an unsustainable pace and experiencing strong inflationary pressures, while others, such as Germany and Italy, still have considerable excess supply and could thus benefit from a more accommodative monetary policy.

CHART 3
CPI Inflation Rates in Canada and the United States



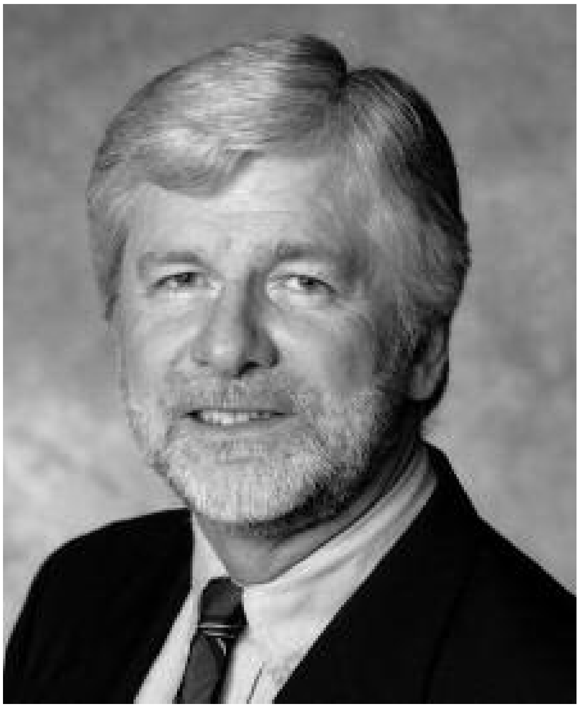
If Canada had been operating under a fixed exchange-rate regime, the consequences of the Asian crisis would have been much more severe.

For most of the countries in Europe, the decision to join EMU was not a matter of carefully weighing the microeconomic benefits of a common currency against the macroeconomic benefits of a flexible exchange rate. Many of them had a disappointing history of high inflation and slow output growth, and had decided to peg their exchange rate to the deutchemark well before 1999. Monetary policy independence had already been sacrificed, in other words, in order to trade on the enhanced credibility of another, more reliable, monetary authority. The decision to join EMU was simple, therefore. Monetary policy independence and a flexible exchange rate held no attraction for these countries, while a common currency would allow them to maximise the microeconomic benefits of a fixed exchange rate and perhaps have a say in the conduct of European monetary policy. Prior to January 1999, their only choice was to follow the lead of the German Bundesbank.

The situation facing Canada is much different. First, we have greater confidence in our ability to conduct an independent monetary policy. Inflation outcomes in Canada and the United States have been roughly similar over time, with Canada's inflation rate being slightly lower than that of the United States over the past 10 years (see Chart 3). In addition, the system of formal inflation targeting that we have had in place since 1991 promises to deliver even better results in the future. There is no reason, therefore, for Canada to form a monetary union with the United States based on the superior performance of the Federal Reserve. We do not have the same sad history of monetary policy abuse as some of our European counterparts, nor a North American Bundesbank whose credibility we need to trade on.

Another way in which our situation differs from that of Europe is that political considerations work against a Canada-US monetary union rather than in favour of it. Whereas many Europeans saw the common currency as a means of achieving greater integration, Canadians would regard this as an additional (political) cost. Those supporting such an arrangement would have to demonstrate that the economic advantages of a Canada-US monetary union easily outstripped the political disadvantages. The burden of proof facing the European authorities was to show why, on economic grounds, the union should not proceed.

Given the size and importance of the United States, as well as the evident nationalism of its citizens, it is doubtful that they would be willing to cede any policymaking power to Canada. Adopting a common currency would be equivalent to dollarising our economy. We would simply start using the US dollar as our unit of account and medium of exchange, without any official blessing from the United States or ability to influence US monetary policy. Even if the United States were willing to share its policymaking responsibilities, and give us a seat on the Federal Open Market Committee, it is unlikely that we would get anything more than a token vote. If other countries in the western hemisphere were allowed to participate in the currency arrangement, the influence of the United States might be diminished, but only slightly. Moreover, the diverse interests and policy needs of these countries would not make them natural allies in any policy debate. Unlike the members of EMU, each of which have an (approximately) equal vote, Canada would be hopelessly outnumbered relative to the United States, and exert very little influence over policy decisions.



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Conclusion

Canada could realise some significant microeconomic benefits by adopting a common currency with the United States. However, it would effectively sacrifice all of its monetary policy independence and whatever insulation its flexible exchange rate provides from economic shocks. On the plus side, moving to a common currency would lower the costs of transacting with its most important trading partner and also reduce the uncertainty associated with unpredictable swings in the exchange rate.

Whether these microeconomic advantages would ever compensate for the macroeconomic disadvantages is unclear. However, research work published by the Bank of Canada and several other organisations suggests that Canada does benefit from having a separate currency and a flexible exchange rate. While Canada and the United States share many characteristics, they also have many differences. The Canadian economy is far more open than that of the United States, and more reliant on exports of raw materials. Fluctuations in world commodity prices have an important effect on economic activity in Canada, therefore, and affect us in different ways. The flexible exchange rate helps insulate us from these shocks and reduces the variability of output and prices in both countries. Adopting a common currency would eliminate this automatic adjustment mechanism. Although some observers have suggested that the flexible exchange rate is a source of instability, most of the available evidence indicates that it is well behaved and responds to changes in economic fundamentals just as theory would predict. The costs of exchange rate volatility, in terms of increased uncertainty and reduced trade and investment, seem to be relatively minor.

While it might be tempting to follow the lead of Europe and introduce a North American euro, the evidence presented above suggests that having separate currencies in Canada and the United States, and a flexible exchange rate, is still our best policy option. The fact that other countries favour different currency arrangements should not be a source of concern. Economic theory and experience teach us that no single exchange rate arrangement is likely to be best for all countries at any point in time, nor for any one country at all points in time. It is always possible that the Canadian economy will change in ways that increase the prospective benefits of having a common currency and reduce the costs of abandoning our flexible exchange rate. The production and sale of raw materials may become less important; domestic wages and prices may become more flexible; and other policy instruments may become available to help stabilise the economy. For now and for the foreseeable future, however, a flexible exchange rate seems to represent the most workable and desirable solution. ◆