Perspectives on a Potential North American Monetary Union

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In August 2000, President-Elect Vincente Fox of Mexico visited the United States and Canada. He forwarded several ideas regarding the further integration of the three economies that constitute the North American Free Trade Agreement, or NAFTA. Among his proposals was an eventual single currency for NAFTA members.

The idea of a single currency for the United States, Canada, and Mexico is not new and has usually referred to one of two approaches. The first, and most discussed, is the unilateral adoption of the U.S. dollar by Canada and Mexico, otherwise known as dollarization. Dollarization has been advocated for not only Canada and Mexico but also many other countries in the Western Hemisphere (Hausmann 1999; Schuler 1999). Some Latin American countries are already dollarized: Ecuador unilaterally dollarized its economy in September 2000, and Panama has employed the U.S. dollar as its currency since 1904. Monetary union is the other interpretation of the single-currency idea; that is, rather than unilateral adoption of the U.S. dollar, a joint currency could be developed and managed by a number of countries.

This article examines the idea of monetary union in North America. Specific criteria for a single currency for North America are discussed, as are the pros and cons of a monetary union and dollarization in the North American context. On the basis of optimal currency area (OCA) criteria, the article concludes that available evidence suggests that a single currency for NAFTA countries is possible. Canada appears much more suited for joining the United States in a single-currency arrangement than does Mexico. Mexico appears to be moving closer to fulfilling OCA criteria, however. The article also concludes that monetary union appears to hold several advantages over dollarization from the perspective of both the United States and its NAFTA partners. Although monetary union in North America is not likely to be a near-term development, it is an important idea that merits further study and consideration.

The Single-Currency Debate

The idea of a single currency—be it via dollarization or monetary union—gained support following the Mexican crisis in 1995 and more recently the 1998 Asian crisis and its spillover to other emerging markets. However, many analysts noted that recent international financial crises were caused or exacerbated at least in part by the prevailing fixed or semifixed exchange rate regimes among

the affected countries and therefore forwarded the idea that flexible exchange rates were perhaps a better option (Espinosa and Russell 1996; Roubini, Corsetti, and Pesenti 1998; Sachs and Larrain 1999; Chang and Velasco 1998). Indeed, at a more fundamental level, Friedman (1988) found that a system of flexible exchange rates is a fundamental prerequisite for economic integration.

Nevertheless, flexible exchange rate regimes have come under increased criticism, especially as applied to emerging economies. Emerging markets that apply flexible exchange rate regimes are prone to instability and wide fluctuations in exchange rate values that inhibit long-term planning necessary for successful economic development (Hausmann 1999). Recognizing, however, that fixed or semi-fixed regimes are susceptible to the kind of breakdown witnessed in Asia, more formal links with the world's main currencies—the U.S. dollar, euro, or yen—are often considered more preferable than a flexible exchange rate arrangement.

Close economic links among the NAFTA countries can be seen in the growing trade relationships among the United States, Canada, and Mexico and have helped give rise to the debate over a single currency.

In the case of the Western Hemisphere, linking to the dollar via dollarization or monetary union has recently gained more attention and, in one instance, has become a reality. In Ecuador, a financial crisis led to the collapse of the Ecuadorian sucre, and the U.S. dollar is now the official currency. Ecuadorian officials concluded that the best way to restore confidence in the economy was to introduce the dollar as the official currency.[1]

The recent crises in emerging markets are not the only reason dollarization or monetary union has gained attention. The advent of the European Monetary Union and the euro, the single currency for eleven of the fifteen European Union members, has also focused attention on the possibility of such an arrangement for other economically integrating countries, namely, NAFTA countries.

Simply taking the European Monetary Union model and applying it directly to NAFTA countries is not appropriate, however, because of the dissimilar economic and political histories involved and because the current level of economic and political integration is much deeper in Europe than in North America (McCallum 2000). Nonetheless, important lessons can be gleaned from the European experience.

The European Monetary Union is an effort to create greater economic efficiencies among integrated economies. Creating economic efficiency among NAFTA countries is also an appropriate goal. The use of a single currency eliminates some transaction costs, increases economic and financial efficiency, and leads to increased trade and investment within the single-currency area. The close economic links among the NAFTA countries can be seen in the growing trade relationships among the United States, Canada, and Mexico (Chart 1) and have helped give rise to the debate over a single currency for the NAFTA countries. In addition, recent studies show that the potential gains from trade among countries that choose to participate in a monetary union can be significant (Frankel and Rose 2000).

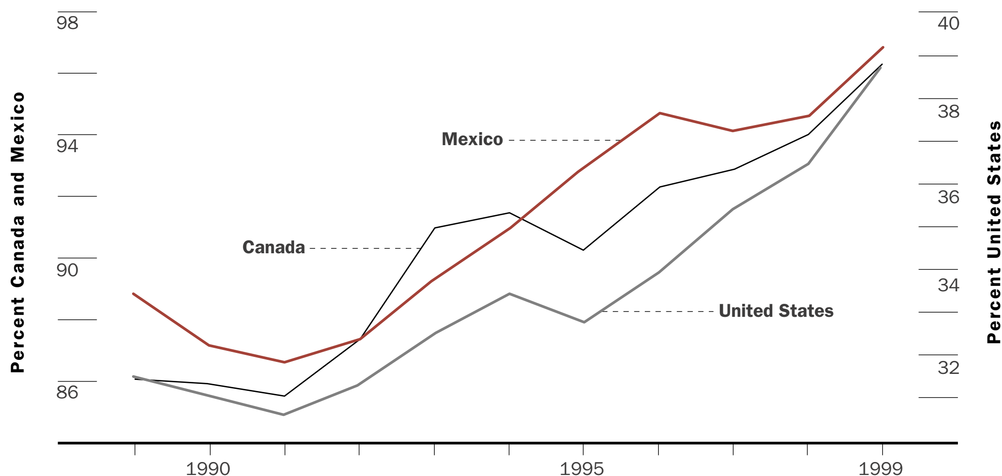
A Single Currency for NAFTA?

Now that the idea of a single currency for NAFTA is on the table, the next step is considering whether such an arrangement is appropriate. The best way to determine its suitability is to apply the literature on OCAs to Canada and Mexico. OCAs are groups of regions with economies closely linked by the trade of goods and services and by some degree of financial and labor mobility. OCA theory predicts that fixed exchange rates are the most appropriate for areas closely integrated through international trade and factor movements (Krugman and Obstfeld 1997). In the classic text on OCAs, Mundell (1961) first noted that factor mobility was a leading requisite for an OCA to exist. Since then, economists have added to the OCA literature and have developed a basic set of criteria for measuring OCAs (Tower and Willet 1976).

A number of these criteria, including size of the economy, openness as measured by total trade as a percent of gross domestic product (GDP), trade concentration by country, and similarity of shocks, are applied by Williamson (2000). He finds that, according to the criteria, Canada would be a good candidate for a fixed-dollar arrangement whereas Mexico may not yet be ready.

Canada's economy is the world's eighth largest, although it equals only about 7 percent of total U.S. GDP. Canada's economy is open in terms of trade as a percent of GDP (70 percent), and nearly 80 percent of Canada's trade is with the United States. Both countries respond similarly to economic shocks although as a major exporter of raw materials Canada confronts different challenges during periods of steep swings in global commodity prices. The flow of capital is open, and there are few barriers to labor mobility. Despite these favorable OCA measurements, Canada's deep financial markets and the prevailing satisfaction with

CHART 1 Interregional Trade as a Percent of Total Trade, 1989–99



Note: Although the scales differ, it is clear that the trend toward increased interregional trade is positive for all three countries.

Source: International Monetary Fund Direction of Trade Statistics; U.S. Department of Commerce

its current floating exchange rate regime make support for a fixed-rate arrangement with the U.S. dollar unlikely in Canada (McCallum 2000; Murray 2000). On the other hand, some critics feel that Canada should have a stronger currency than it does and that the 30 percent depreciation of the Canadian dollar against the U.S. dollar over the last thirty years has contributed to a decline in Canada's living standards and the need to link with the U.S. dollar to arrest these declines (Courchene and Harris 1999).

For Mexico, the case is less compelling. Mexico's economy is a bit smaller than Canada's at just over 5 percent of U.S. GDP. It is also an open economy, with total trade amounting to 58 percent of GDP, and it also trades heavily with the United States (81 percent of total trade). Mexico responds differently to shocks than the United States, however; Mexico is a major oil-exporting nation and also remains vulnerable to changes in international interest rates. Importantly, though, the growing integration between the two countries may to some extent make responses to shocks more similar, especially if Mexico diversifies its economy and becomes less reliant on oil-export revenue. More research is needed in this area before definite conclusions can be reached.

The post-1995 banking crisis restructuring in Mexico is under way, and increased financial integration with Canada and the United States should deepen Mexico's financial system and make it less vulnerable to changes in international interest rates. Capital flows relatively freely between the United States and Mexico even though most of the Mexican petroleum industry remains off-limits to foreign investors. Labor mobility is also a point of contention between the United States and Mexico, with many Mexicans migrating illegally to the United States every year in addition to legal migration. Although Mexico may not yet be an ideal candidate for a fixed exchange rate regime on the basis of OCA criteria, it appears that it may be headed in that direction.

Dollarization versus Monetary Union

It is clear that the NAFTA countries are establishing a foundation suitable to an OCA. The question then becomes whether dollarization or monetary union would be a better fit.

Dollarization occurs when a country or countries adopt the U.S. dollar as their official currency. The United States does not have to be an active participant in the policy-making process because it relinquishes no management of monetary policy. The recent episode in Ecuador's unilateral dollarization exemplifies this situation.

Monetary union, however, requires substantial cooperation since two or more countries are involved in building a new currency regime together. Monetary union differs significantly from dollarization because all national monetary policies are abandoned in favor of a shared policy among participating countries. Fiscal policy coordination is also necessary. The European Monetary Union is an example of this type of arrangement.

1. Gustavo Oviedo, "Ecuador Government Defends Move to Adopt Dollar," Reuters Newswire, January 10, 2000.

Williamson (2000) lists criteria for choosing among fixed exchange rate regimes, including dollarization and monetary union. The criteria to consider when deciding on which fixed rate regime to adopt include seignorage, the interest premium, the lender of last resort, and the decision role in developing monetary policy. The next section discusses these criteria with regard to NAFTA countries.

Seignorage. Seignorage is the revenue governments gain by issuing currency and is an important benefit of issuing one's own currency. Net seignorage is the difference between the cost of putting money into circulation and the value of goods the money will buy. Hausmann (1999) estimates that seignorage accounts for roughly 0.5 percent of a country's GDP, and Schmitt-Grohé and Uribe (1999) note that most estimates of seignorage are understated in that they do not consider increases in the monetary base over time. Regardless of the exact amounts in question, governments have come to rely on seignorage revenue to some extent, and it should not be dismissed as unimportant or insignificant (Chang 2000). A country that unilaterally dollarizes by adopting the U.S. dollar forgoes seignorage revenue. In a monetary union, countries would share seignorage based on a specified formula, either the size of GDP or a predetermined measure of the existing money stock. Therefore, from the Canadian and Mexican viewpoints, monetary union would have an advantage over dollarization because neither country would forfeit seignorage revenue as it would in a dollarization arrangement.

The idea of a single currency, be it via dollarization or monetary union, gained support following the Mexican crisis in 1995 and more recently the 1998 Asian crisis and its spillover to other emerging markets.

From the perspective of the United States, the issue is more complicated. Under dollarization, the U.S. government stands to gain from the increased issuance of currency abroad. However, legislation introduced in the U.S. Senate in 1999 advocates returning 85 percent of this net seignorage gain to countries that dollarize.[2] This effort to share seignorage revenue appears to indicate that U.S. policymakers do not plan to encourage dollarization as a means to enhance U.S. revenue. The net effect of how current foreign holders of U.S. currency would view a new North American currency must also be considered.

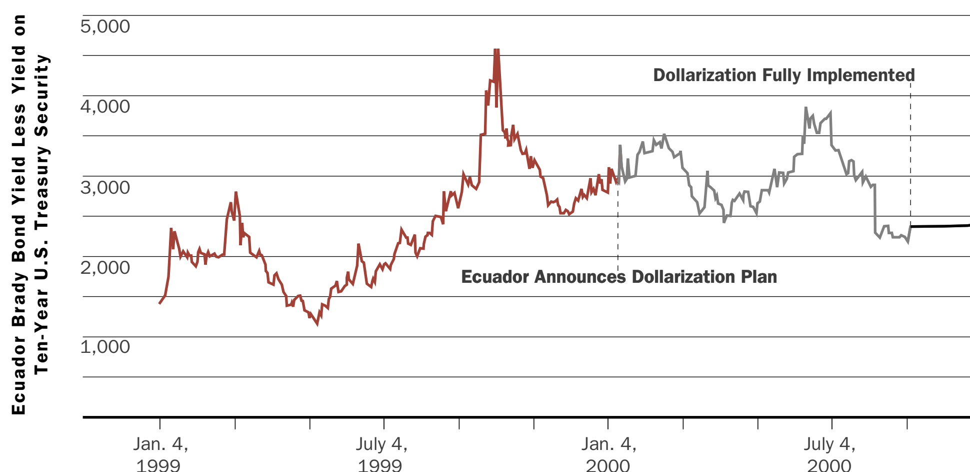
The U.S. Interest Premium. The interest premium is the amount of interest a country must pay above U.S. rates on the international market for issuing debt. The rate is generally higher because other countries' risks of default are considered higher. Default can occur for many reasons, but as the recent crisis in Asia shows, an exchange rate collapse can be a primary cause. Countries with high interest premiums often borrow in dollars because the interest rate is lower than in domestic markets. In the event of a significant exchange rate devaluation, however, the borrowing country can find itself short of funds with which to pay its short-term debts. That is, the weakened value of their currency means more domestic currency is needed to purchase the necessary dollars with which to repay the debt.

Under dollarization or monetary union, the interest premium would presumably be much lower since the risk of default is greatly reduced. There is no risk of devaluation since independent currencies no longer exist. In the case of dollarization, the only way a devaluation, or currency risk, could still come into play is if the country renounces the dollar and reissues its own currency. In the case of monetary union, currency risk can resurface if the union is dissolved and countries reissue individual national currencies. Given the staggering amount of chaos that would probably ensue, these options are not likely.

Importantly, the move to dollarization may not completely erase the interest premium. If a country dollarizes as the result of a crisis, as Ecuador did, investors are likely to demand an interest premium that continues well past the dollarization event because of that country's poor recent track record. Stated differently, dollarization all but eliminates currency risk, but it does not eliminate sovereign risk. Chart 2 shows that even after Ecuador announced its dollarization plan in January 2000, and even after it became fully dollarized in September 2000, a significant interest rate premium has remained. This situation may indicate the elimination of currency risk, but the remaining sovereign risk appears substantial. Chang and Velasco (forthcoming) also find that dollarization may not reduce interest rates in the dollarizing economy.

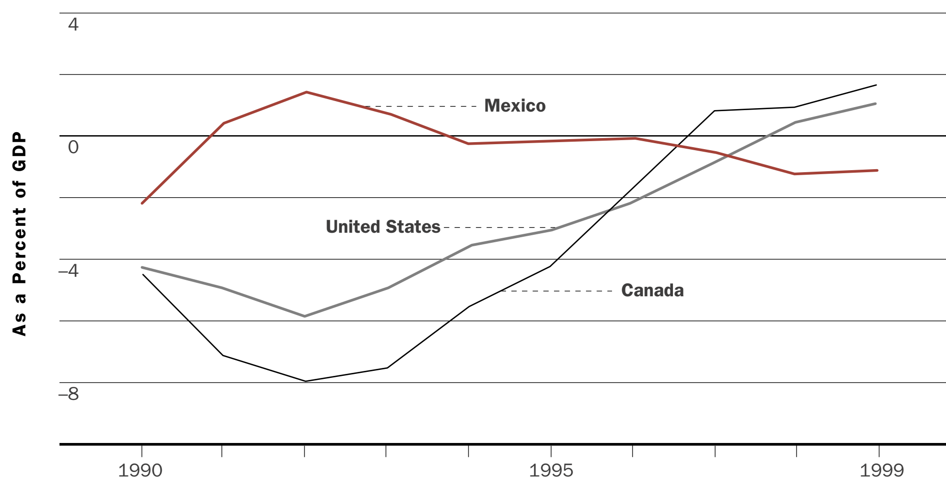
In a monetary union, sovereign risk could be reduced further since it becomes a collective factor spread out among the participating countries. In the case of a monetary union of NAFTA countries, those joining the United States would likely share its sovereign risk profile. This risk reduction would be even more pronounced if the countries involved formally developed joint fiscal policy guidelines as did the members of the European Monetary Union. Yet, even without a formal agreement, fiscal policy among

CHART 2 Ecuador Interest Rate Spread



Source: Standard and Poors

CHART 3 Central Government Budget Balance



Source: Organisation for Economic Co-operation and Development

NAFTA members seems to be converging as countries have been better able to control national government income and spending levels. Chart 3 shows that Canada, Mexico, and the United States have central government budgets that are nearly balanced.

For developing countries like Mexico, the interest premium can be significant depending on domestic and international developments. At the beginning of 1994, Mexico's interest premium was 225 basis points, but it rose to more than 2,000 basis points by March 1995, three months after the peso was devalued. In September 2000 Mexico's interest rate premium averaged 350 basis points, but in January 1999 it had risen to over 1,000 basis points in the wake of the Brazilian devaluation (see Chart 4). This premium is a significant cost to Mexican borrowers and a major roadblock to sustained long-term planning and investment in the Mexican economy. Reducing both the level and volatility of the interest rate premium is a major policy goal of the Mexican government.

The Canadian case is broadly similar to Mexico's, although Canadian currency and sovereign risks are quite low in comparison, and its interest premium has been negligible recently. However, the noted long-term decline in the value of the Canadian

2. In 2000, Senator Connie Mack of Florida introduced legislation that would, if certain criteria were met, share seignorage revenue with countries that dollarize. See <http://www.senate.gov/~jec/dollaract.htm> for an overview and explanation of the bill.

CHART 4 Mexican Interest Rate Spread

Source: Standard and Poors

dollar shows that there is a degree of currency risk at play, and sovereign risk persists as well; the possibility of Quebec's succession from Canada continues even after two referendums favoring continued federation.

Dollarization would likely do little to eliminate the political risk tied to the Quebec question, but it would all but end the threat of devaluation. It is unclear whether monetary union with the United States and Mexico would help eliminate the sovereign risk Canada faces. Therefore, from the Canadian perspective, the interest premium issue can be seen as neutral with regard to dollarization or monetary union.

The Lender of Last Resort. For a country contemplating dollarization, consideration must be given to the fact that it would forgo the lender-of-last-resort facility of its central bank since it could no longer issue currency, that role having been transferred to the U.S. Federal Reserve. In a monetary union, however, the lender-of-last-resort function would survive in all participating countries with the newly created, common central bank fulfilling this role.

The potential loss of this safety mechanism is an important consideration. In their traditional roles as lenders of last resort, central banks provide funds to financial institutions to keep them operating during financial crises. Such a resource is generally recognized as essential during liquidity crises—when an institution is solvent but lacks sufficient liquidity. However, providing funds during a solvency crisis—when the financial institution is insolvent, as occurred in Thailand in 1997—can actually do the overall economy a disservice by allowing insolvent institutions to keep operating and move further into debt (Calvo 2000). A lender of last resort can only serve its purpose if it acts prudently, and Calvo shows that the lender-of-last-resort function in emerging economies has often made bad situations worse.

However, a well-functioning lender of last resort with clear guidelines on when and how funds will be dispersed to financial institutions facing liquidity problems is an important component of a mature financial system. Given the choice between no lender of last resort under dollarization and a solid lender of last resort under a North American monetary union, both Canada and Mexico would likely favor the latter.

As noted above, the United States is not inclined to serve as a lender of last resort for financial institutions in dollarized countries. This position is understandable given the fact that U.S. regulators would have no supervisory or regulatory authority in the dollarizing economy. Without this authority, U.S. regulators would not be in a position to accurately ascertain the health of foreign banks. However, the debate to date has concentrated on the question of the lender-of-last-resort role under dollarization, with little attention being paid to such an arrangement under a monetary union. Under a monetary union, the lender-of-last-resort function could be jointly administered and financial systems could be jointly supervised under a uniform set of guidelines. Such an arrangement would allow U.S. regulators to coordinate with Canadian and Mexican officials in ensuring the safety and soundness of North American banks. Having safe and sound financial institutions in North America is clearly in the best interest of the United States, Canada, and Mexico. Clearly, U.S. par-

ticipation in a lender-of-last-resort function in a North American monetary union would require deep financial and regulatory integration, something that is unlikely to be a near-term development. The lender-of-last-resort issue is clearly an area for future work, especially in view of the possibility of private sector participation in a lender-of-last-resort role.

Developing Monetary Policy. As part of a country's overall economic policy regime, monetary policy is tied to the issue of national sovereignty. A dollarizing country gives up its monetary policy along with its currency, and the national central bank ceases to function as the executor of monetary policy, that role being transferred to the U.S. Federal Reserve.

One of the main arguments against dollarization is that dollarizing countries give up too much when they forgo independent monetary policy. An independent monetary policy is seen as an essential policy tool in implementing changes necessary for successful national economic policy. Many countries that might otherwise contemplate dollarization consider the sacrifice of the ability to make these adjustments too costly.

This is the position of North American countries, where the Bank of Canada and Banco de México are considered to be well-run, responsible institutions highly in tune with the role and function of monetary policy in their respective country's economic policy regimes. It is difficult to see why Canada and Mexico would want to forsake their independent monetary policies through dollarization. To be sure, increased economic and financial integration in North America would theoretically weaken claims to a truly independent monetary policy for either country since the dominant size of the U.S. economy would drive the policy agendas of Canada and Mexico. Nevertheless, both the Canadian and Mexican central banks have excellent track records in recent years with regard to inflation (see Chart 5) during a time when North American economic integration deepened. It is not likely that either would be inclined to unilaterally give up their independent monetary policies.

The United States should also be wary of dollarization from the perspective of monetary policy. While the U.S. Federal Reserve would not be legally compelled to consider the economic and financial conditions of dollarizing countries when developing and implementing monetary policy, ignoring such information would likely be difficult in practice, especially for North American neighbors. Such a development could potentially cause tension within NAFTA, something that is clearly not desirable for any of its members. Therefore, dollarization in North America is not likely to be considered optimal from the U.S. monetary policy perspective.

From both the Canadian and Mexican viewpoints, monetary union seems preferable to dollarization in terms of monetary policy development. From the U.S. perspective, the monetary union issue is more complicated. Monetary union with Canada and Mexico would require sharing monetary policy development and implementation with foreign countries. The idea is anathema to many in the United States, and most studies of a single currency for NAFTA dismiss the possibility of the United States sharing monetary policymaking with Canada or Mexico as wholly unrealistic (McCallum 2000; Vernengo and Rochon 2000). One study that goes beyond this dismissal is by Courchene and Harris (1999). It argues that the United States should pursue monetary union because the euro presents a theoretical threat to the dollar's role as the international reserve currency. If more countries, especially those in Europe, choose the euro as their reserve currency, the United States could find it more difficult to finance its balance-of-payments deficit.

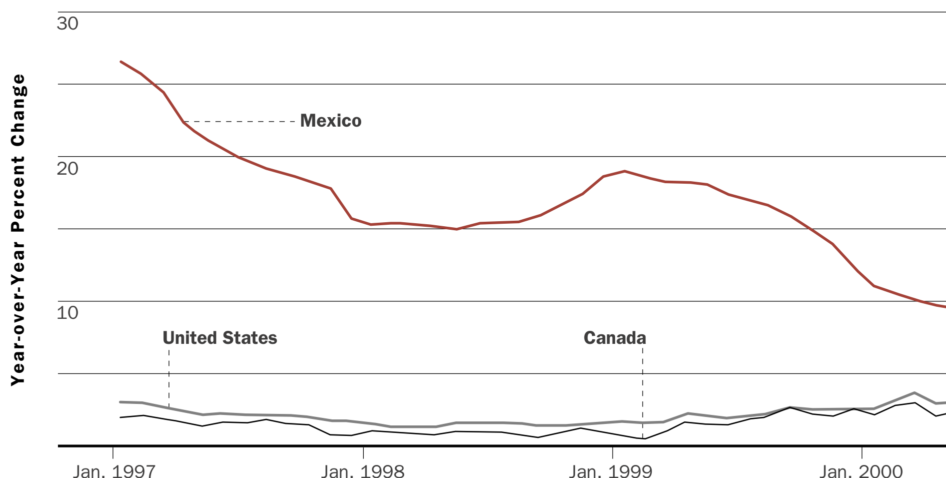
The advent of the European Monetary Union and the euro has also focused attention on the possibility of such an arrangement for other economically integrating countries, namely, NAFTA countries.

Grubel (1999) notes that a monetary union would deliver increased trade and investment opportunities to the United States. Accordingly, he notes that the NAFTA monetary union could eventually spread to include Central America and the Caribbean and perhaps even South America. In addition to increasing trade and investment opportunities, such a broadly encompassing monetary union would bring economic stability to what has historically been an unstable region. Stability would be in the interest of the United States since it would greatly diminish the need for possible future bailouts of countries experiencing severe economic crises by promoting economic growth.

Moreover, there are precedents for U.S. participation in supranational organizations. Participation in the World Trade Organization, the International Monetary Fund, the World Bank, and even NAFTA itself are seen as examples of the United States' having surrendered a degree of pure sovereignty when the economic benefits outweighed the supposed costs of diminished narrowly defined national sovereignty.

Grubel (1999) notes that there are escape clauses in these agreements that can be invoked if the

CHART 5 Consumer Price Inflation



Source: International Monetary Fund

national interest is significantly threatened. However, such a passage is not likely to be written into a North American monetary union treaty because an escape clause would likely be interpreted as showing that the constituents were not fully committed to the union.

Similarly, Buiter (1999) notes that the development of a North American central bank would lack legitimacy if it were not accompanied with appropriate political institutions since some policymakers would be from foreign countries and would therefore lack any democratic accountability to U.S. citizens. Pastor (2000) also makes this point in his call for the development of political institutions as a means to deepen NAFTA.

The lack of multinational institutions is troubling to many observers. Vernengo and Rochon (2000) also note that if a North American central bank were to be created, some sort of supranational political authority would have to be developed as well. In their opinion, the costs of establishing such institutions outweigh the benefits of monetary union for the United States and therefore are not likely to be pursued.

Including Canadians and Mexicans in monetary decisions affecting the United States should not necessarily be seen as threatening from a U.S. perspective. Such a stance presumes that Canadian and Mexican monetary authorities would be predisposed to work against the goals of low inflation and high employment in North America, and there is no evidence to support this argument. Furthermore, policymakers at a North American central bank would be instructed to develop and implement policy for all of North America and not for individual countries, just as the members of the new European Central Bank commit to consider the entire euro area and not their home countries in making policy decisions (Treaty on European Monetary Union 1992, Article 8 of the Statute on the European Monetary Institute).

A further cost-benefit analysis of the application of monetary policy in a North American monetary union is needed, but it seems clear that there are potential benefits to monetary union for the United States that should be closely examined on a systematic basis.

Conclusion: Is NAFTA Ready for a Monetary Union?

The evidence presented in this article suggests that Canada and perhaps even Mexico are candidates for forming a single-currency area with the United States at some stage. A comparison of the two most likely avenues to a single currency, dollarization and monetary union, suggests that monetary union is preferable to dollarization. An important question remains to be answered: Are the NAFTA countries currently ready for a monetary union? The answer involves both economic and political variables as well as some practical implications. It seems unlikely that the United States, Canada, and Mexico will pursue this goal in the near future.

On the economic front, most policymakers and opinion leaders in Canada favor the country's current flexible exchange rate regime. The same can be said for Mexico, but the conviction that a free-floating Mexican currency is the best exchange rate regime for that country appears less certain. Furthermore, NAFTA is still in its infancy, having been in effect for only seven years. Economic integration is still developing, and financial integration has hardly begun.

While it is true that capital and trade flows have risen significantly since 1994, there are still three very distinct financial and banking systems in place. In addition, the lender-of-last-resort issue would need to be resolved before monetary union could proceed. Finally, deeper investigation into the potential economic benefits of a single currency for all NAFTA countries is needed before the idea of monetary union is seriously considered.

On the political front, the obstacles are even more daunting. Yielding their respective independent monetary policies to form an international central bank does not appear to be favored by the United States, Canada, or Mexico at present. In the United States in particular, the idea of sharing monetary sovereignty is unlikely to gain support any time soon. Furthermore, some sort of institutional development would be required giving a North American central bank the democratic legitimacy it would need to operate credibly (Buiter 1999; Vernengo and Rochon 2000; Pastor 2000). Many technical issues such as what a North American currency would look like and how seignorage would be divided also would have to be worked out.[3]

3. Grubel (1999) and Courchene and Harris (1999) offer interesting ideas about what a North American currency could look like. Grubel calls the new North American currency the "Amero," which would be an entirely new currency. Courchene and Harris suggest that the United States would continue to use the U.S. dollar as is and Canada and Mexico could issue new currencies that would bear national symbols but would carry a North American Central Bank mark rather than a Bank of Canada or Banco de México inscription.

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