

**WOULD A NORTH AMERICAN MONETARY UNION PROTECT
CANADA AND MEXICO AGAINST THE RAVAGES
OF “DUTCH DISEASE”?**

By Robert A. Blecker
Department of Economics
American University
Washington, DC 20016-8029 USA
blecker@american.edu

and

Mario Seccareccia
Department of Economics
University of Ottawa
Ottawa, Ontario K1N 6N5 Canada
Mario.Seccareccia@uottawa.ca

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Introduction

After the formation of the North American Free Trade Agreement (NAFTA) in 1994, enthusiasts of regional integration in North America turned their attention to “deeper” forms of integration, such as a possible customs union or monetary union.¹ Although the unilateralist turn of U.S. foreign policy since 2001 has lessened enthusiasm for deeper integration with the United States in both Canada and Mexico (and the United States has been sacrificing regional cooperation efforts to the Bush administration’s “security” agenda and the anti-“illegal” immigrant backlash), these sorts of proposals remain “in the air” and could easily be revived by future North American governments, either as a result of pressure from business leaders or simply in order to demonstrate more “progress” toward regional integration and improved “competitiveness.”²

Economic as well as political conditions have changed since the turn of the millennium, when interest in deeper integration peaked both south of the Rio Grande (Río Bravo) and north of the 49th parallel. One perhaps unexpected turn of events has been the boom in energy and raw material prices in the first decade of the 21st century, which has induced oil- and resource-rich countries around the world to specialize more intensively in energy and other primary commodity exports. For both Canada and Mexico, this has meant large influxes of foreign exchange from energy and (in Canada) other raw material exports; in Mexico, the increased foreign exchange

¹ In theory, a group of countries should form a customs union—and a common market (with free mobility of labor as well as capital)—*before* forming a monetary union, as occurred in Europe (where the European Economic Community and its successor, the European Union, preceded the European Economic and Monetary Union). However, this has not stopped supporters of a monetary union in North America from proposing one before a customs union or common market could be formed in this continent. In practice, however, examples of dollarization in this hemisphere suggest that a customs union is not a necessary precondition to greater monetary integration.

² In this context, we should not forget that NAFTA was sold to the American public (by U.S. presidents George H. W. Bush and Bill Clinton) as a means of preventing migration, and that Mexican president Carlos Salinas de Gortari famously predicted that NAFTA would enable Mexico to “export goods, not people.” In spite of NAFTA’s rather notorious failure in this regard, future politicians (hoping that the public has a short memory) could try to sell other integration initiatives as ways of bolstering the Mexican economy in order to reduce migration pressures or for other dubious reasons.

earnings from oil exports have been augmented by record levels of remittances from Mexican migrants working in the United States. In both countries, the rising inflows of foreign exchange have contributed to high values of the national currencies that have inhibited the competitiveness of their manufacturing sectors—the very industries that earlier economic policies, including the formation of NAFTA, were intended to promote. In this context, many economists in both Canada and Mexico are now arguing that their countries are suffering from the so-called “Dutch disease”—a term coined in the 1970s to describe the experience of the Netherlands during the 1960s when the discovery of North Sea gas pushed up the exchange rate. The high value of the Dutch guilder at the time rendered Holland’s manufacturing sector less competitive and resulted in a certain degree of de-industrialization of the country.

This paper seeks to investigate whether some sort of North American Monetary Union (NAMU) could be a viable solution to the Dutch disease problem currently afflicting both Canada and Mexico and, even if it was, whether it would create other problems so that the “cure” could be worse than the disease. The argument for a NAMU, in this context, is a fairly obvious one: since the North American economy (which is dominated by the U.S. economy) as a whole is not a major net exporter of oil, gas, and other primary commodities, a single North American currency would be unlikely to appreciate in response to a boom in energy and commodity prices. However, the potential gains for Canada and Mexico from eliminating exchange rate fluctuations driven by resource prices could be offset, depending on the exchange rate parities at which the Canadian dollar and Mexican peso would be converted to a new North American currency or (under some scenarios) to the U.S. dollar, as well as the exchange rates that would then prevail between the North American currency (either a new currency or the U.S. dollar) and currencies in other global regions.

Also, based on the precedent of the European Economic and Monetary Union (EMU), the type of fiscal policies that the member countries would be allowed to pursue and the nature of the monetary policy that the regional central bank would follow are extremely important determinants of how a monetary union would affect its member countries. Ironically, both Canada and Mexico currently (and independently) follow monetary and fiscal policies that are similar in spirit (if not in exact design) to those of the EMU: their monetary policies are focused mainly on controlling inflation,³ while their fiscal policies are targeted on preventing large budget deficits or achieving surpluses. How a NAMU would be regulated in this regard—what sort of monetary policy its central bank would follow, and what sorts of fiscal policies it would allow its member states—would therefore be a critical factor affecting whether the cure of monetary integration would be worse than the disease of an overly strong currency.

Although enthusiasm for a NAMU has waned at present, the proposals for creating one have engendered a significant amount of analysis and discussion that have, at least, clarified some of the likely parameters if a NAMU is ever to be formed. Unlike in the EMU, where the countries are more similar in size, the extreme asymmetries in North America (where Canada and Mexico's gross domestic products [GDPs] are, respectively, only 8% and 6% of U.S. GDP) seem likely to ensure a subordinate role for these two countries in the formulation of monetary policy in a NAMU. Many observers have argued that the United States would be unlikely to want to create a new, euro-like North American currency, and hence the formation of a NAMU could mean that Canada and Mexico would have to adopt the U.S. dollar. This could be done unilaterally by each country, in which case it would be known as "dollarization," but it could

³ Technically speaking, Canada and Mexico are considered to have "inflation-targeting" monetary policies, while the EMU has an apparently looser commitment to more vaguely defined "price stability," but we believe that in practice the ECB has effectively focused on the inflation rate as the main (de facto) target of its monetary policies. Canada and Mexico's adoption of inflation targeting is, of course, part of a broader international trend over the past two decades to anchor monetary policy to precise (and explicitly stated) inflation targets via real interest rate setting.

also be accomplished by expanding the U.S. Federal Reserve System (Fed) to include Canada and Mexico.

Since it is difficult to imagine the U.S. Congress agreeing to give up Fed control of monetary policy, some have argued that Mexico and Canada would essentially have to become mere Fed districts, similar to the existing 12 regional Feds in the United States—with at most one seat on the Federal Open Market Committee (FOMC) for each country.⁴ However, even if the United States did give up its dollar, and even if a new North American currency and North American Central Bank (NACB) were created, the profound asymmetries in North America make it likely that U.S. interests would still have a preponderant role in setting monetary policies (see Smith, 2002). Needless to say, the prospect of such a diminished role for Canadians and Mexicans in setting their own monetary policies has been a factor diminishing enthusiasm for a NAMU in their respective countries; in effect, a NAMU that was politically acceptable in the United States might not be politically acceptable in the other two countries. Nevertheless, the idea of taking monetary policy even further out of the hands of national political leaders could still be appealing to business interests and free-market ideologists in Canada and Mexico, not to mention politicians eager for a bold policy initiative, and therefore we proceed to analyze how a NAMU would or would not address the exchange rate and competitiveness problems of those two countries under today's circumstances.

⁴ Smith (2002, pp. 386-87, 394n31) cites Bergsten (1999, p. 6) as making this argument. Smith (2002, pp. 390) also cites Drummond et al. (2001) as arguing that “dollarization is the only viable fixed exchange rate regime for Canada since a pegged rate is not sustainable and the United States is not interested in a currency union.” See, as well, Seccareccia (2006); and see Kenen and Meade (2007, chapter 5) for a discussion of proposals to construct an augmented Fed including Canada and Mexico. It should be noted that several of the Fed's regional districts today have larger GDPs than either Canada or Mexico. Canada's GDP approximates that of Texas, while Mexico's is slightly bigger than that of Florida (and neither of those states comprises an entire Fed region).

Canadian Perspectives

Canadian interest in greater North American monetary integration since the 1990s seems to have followed the ebbs and tides of the Canadian dollar vis-à-vis the U.S. dollar. With the international value of the Canadian dollar hitting unprecedented lows and with the proportion of trade with the United States peaking under NAFTA during the late 1990s and the early 2000s, a growing number of academics, pundits, and politicians in Canada began to propose greater monetary integration with the United States.⁵ This reached its peak just after the launching of the euro in 1999 when, among other things, a motion proposed by Canada's political opposition to study the possibility of a currency union in North America, especially along the lines of the EMU, was entertained and defeated in the federal House of Commons. However, several alternatives to the current floating rate have been proposed, including the adoption of a fixed exchange rate, the abandonment of Canada's national currency in favor of the U.S. dollar ("dollarization"), and the formation of a NAMU with a new single currency in the region.

Historically, interest in greater monetary integration appears to have been strongest in those sectors of the Canadian economy that are most heavily involved in foreign trade. Firms in the foreign sector often view the Canadian dollar as a "nuisance cost" largely because business revenues are in U.S. funds but their costs are in Canadian dollars. A rising value of the Canadian dollar puts a squeeze on firms engaged in the export sector. Hence, industries with a certain degree of exchange rate exposure must engage in exchange rate risk-management strategies. Exchange rate hedging is commonplace, and companies can shield themselves over a short

⁵ See Smith (2002) for a balanced but largely sympathetic discussion of proposals for greater monetary integration in North America from that time period. See Grubel (1999) for a specific proposal involving the creation of a new currency, the "amero," to be issued by a North American Central Bank. See also Kenen and Meade (2007, chapter 5) for further discussion of Canadian support for North American monetary integration.

period by various currency options. These special administrative and transactions costs are faced only by business enterprises engaged in foreign trade, thereby making the latter more receptive to any proposal that would eliminate such costs.⁶ Advocates of greater monetary integration have, therefore, traditionally emphasized the argument for the static efficiency gains from the reduction of transactions costs, relating not only to the elimination of exchange rate risk for business firms, but also to the elimination of the costs of converting currencies for the millions of Canadians who travel regularly to the United States and Mexico for work or pleasure.

In addition to eliminating certain transactions costs, those partial to greater monetary integration have at times referred to at least one other important benefit of a NAMU that is often connected with the name of Robert Mundell, who has argued that the regional configuration of a currency area is very important. Canada is characterized by a great diversity of industries across regions, such as manufacturing in Ontario (where growth depends on low energy costs) and oil in Alberta (where economic performance depends on high energy prices). A common external shock to these regions, such as a major jump in the international price of oil, naturally hurts Ontario manufacturers and benefits Alberta's oil producers. However, the existence of a floating exchange rate only compounds the negative effect on Ontario exporters, since Canada's exchange rate would also be facing upward pressure from the rising price of oil. In this case, Ontario manufacturing exporters would be better off either with a fixed exchange rate vis-à-vis the principal importer of Canada's exports—the United States—or with an outright monetary union. On the assumption that Canada is not an “optimal currency area” (OCA) but, somehow,

⁶ Estimates of the likely magnitude of Canadian savings in transactions costs from switching to a North American currency vary widely, but those savings are not likely to be large (and at most would be a one-time gain) that must be pitted against the cost of converting to a single currency. Grubel (1999, p. 9) provides some casual estimates in the range of 0.1% to 0.4 % of GDP. See Seccareccia (2002, 2006) for a critical discussion of these estimates.

North America is, Canada's floating exchange rate has been perceived as a negative externality whose removal would be beneficial to Canadian manufacturing exports.⁷

Interestingly, with a falling nominal and real exchange rate during the pre-2002 period (see Figure 1), it was the former argument over the need to eliminate the above-mentioned transactions costs for Canadian consumers and the exchange-rate risk to exporting firms (much as the euro had been sold to the Europeans (see Emerson et al., 1992) that held sway. However, since 2002, with rising international energy prices accompanied by the meteoric rise in the Canadian dollar (and concomitant fall in the US dollar), it is the Mundellian argument relating to OCAs that now seems to be in vogue among those partial to greater monetary integration. In the Canadian media, this has been associated with the debate over whether Canada is slowly being afflicted by the Dutch disease. Some are now pointing to the floating Canadian dollar as the cause of a similar growing distress in Canada's manufacturing sector. Since this controversy over the role of Canada's exchange rate hinges on whether or not the Canadian dollar has become strongly sensitive to fluctuations in oil prices internationally with perverse effects on the exchange rate, let us first discuss briefly the debate over the growing importance of energy in the determination of Canada's exchange rate.

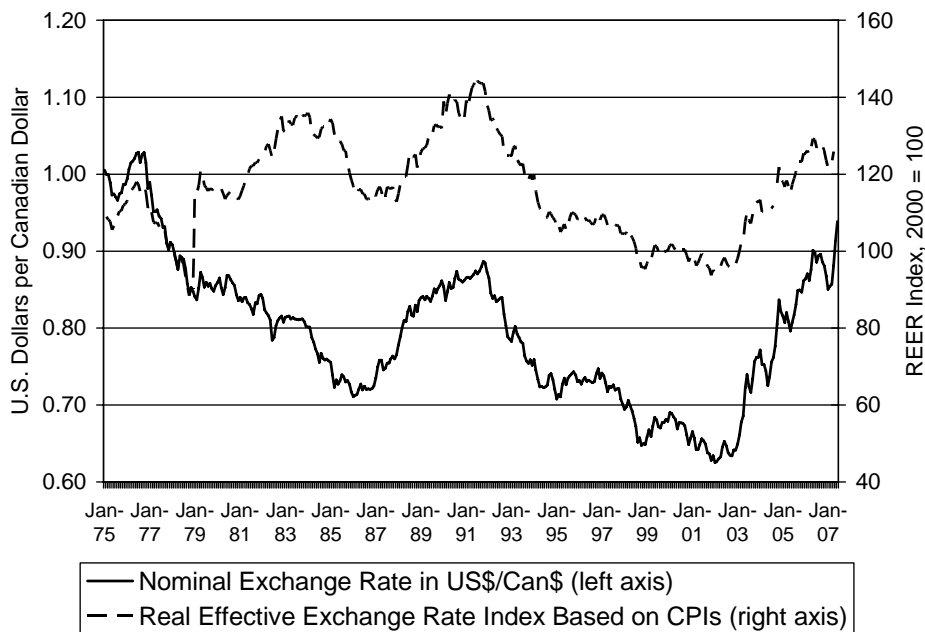
Is the Canadian Dollar a Commodity Currency or a Petro-Currency?

As displayed in Figure 1, in nominal terms the Canadian dollar was roughly at par with the U.S. dollar at the end of the Bretton Woods era. Since the mid-1970s, the Canadian dollar went

⁷ See Courchene (1998); see also Bayoumi and Eichengreen (1994), who argue to the contrary that North America is not an OCA. Indeed, as emphasized by McKinnon (2000), Mundell's (1961) original insight was to show that OCAs ought to be smaller rather than larger. Both Mundell (1961) and Bayoumi and Eichengreen (1994) argue that, based on OCA criteria, North America should be divided north-south instead of east-west in terms of optimal currency zones. Hence, OCA criteria traditionally do not favor a large North American currency area as some current supporters of greater monetary integration have argued.

through two successive waves of depreciation until it hit bottom at the beginning of 2002. The first wave was associated with the oil price shocks of the 1970s followed by the major recession of the early 1980s. As the only one of the G-7 industrialized nations that is a major net exporter of primary products (with primary commodities constituting somewhat less than one-third of Canada's overall merchandise exports), Canada was hit badly not only by the oil price hikes that caused havoc in its industrial heartland, but also by the accompanying slump in primary commodity prices internationally, as industrial economies faced slower growth and descended into recession.

Figure 1: Evolution of Canada's Nominal and Real Exchange Rate, Monthly, January 1975 to June 2007



Source: International Monetary Fund, *International Financial Statistics* (on-line).

Things did turn around to some degree during the late 1980s, as strong economic growth internationally pushed up primary commodity prices and, with it, the value of the Canadian dollar. However, following the 1990-91 recession, the Canadian dollar resumed once more its

downward trend. The low primary commodity prices during the 1990s coupled with the strong economic growth of the Clinton era in the United States led to a soaring U.S. dollar vis-à-vis the anemic Canadian dollar, and the latter hit bottom only after the U.S. economy slipped into recession, particularly after 2001.

Hence, despite Canada's growing importance as an exporter of manufactured products since the 1970s, the value of the Canadian dollar still remains strongly tied to the volatile behavior of primary commodity prices. Indeed, much like the currencies of Australia and New Zealand, the Canadian dollar is still viewed by currency traders as a "commodity currency"—a currency whose international exchange value mirrors mainly the movement of commodity prices. This fact is reflected in an econometric equation developed by researchers at the Bank of Canada to forecast the evolution of the Canada-U.S. exchange rate (see Murray et al., 2003). According to the Bank of Canada equation, changes in the Canada-U.S. exchange rate depends on three key market "fundamentals": a primary commodity price index (excluding energy), an energy price index (mainly oil, natural gas, and electricity), and a measure of the Canada-U.S. short-term interest rate differential (the difference in the Canada-U.S. 90-day commercial paper rates).

Estimates of this equation have always shown that an *increase* in (non-energy) international commodity prices and an *increase* in Canadian short-term interest rates vis-à-vis U.S. rates lead to an *appreciation* of the Canadian dollar, as expected. However, the results concerning the role of energy prices in influencing Canada's exchange rate have varied over time. In the original estimates based mainly on the experience of the pre-1990s era, an *increase* in world energy prices, after controlling for the other variables, was found to lead to *depreciation* in the international value of the Canadian dollar (Murray et al., 2003). Hence, during the period when Canada had not yet become an important net exporter of energy, an increase in the

international price of oil would have slowed down the world economy and would have reduced demand for Canadian exports, thereby putting *downward* pressure on Canada's exchange rate, as occurred during the late 1970s and early 1980s (see Issa, et al., 2006).

Since the 1990s, however, Canada has become a significant energy exporter in the context of the North American energy market, the development of which was first facilitated by the Canada-U.S. Free Trade Agreement of 1989 and subsequently reinforced under NAFTA. Because of Canada's vast oil sands reserves (officially second only to Saudi Arabia's conventional reserves) and the new continental energy environment, when the price of oil goes up, this now pushes up the demand for Canadian dollars and therefore leads to a significant appreciation in the international value of Canada's currency—as is now confirmed by more recent estimates of the Bank of Canada exchange rate equation and other estimates (see Issa, et al., 2006; Bayoumi and Mühleisen, 2006). Some have therefore suggested that, given the growing importance of energy exports, Canadian industry is now ailing from Dutch disease—i.e., a jump in the international price of oil puts *upward* pressure on the Canadian dollar and bleeds manufacturing exports. In light of this, it would seem that the continued rise in Canada's "petrocurrency" accompanying the increasing price of oil in recent years spells difficult times ahead for Canada's manufacturing exports unless something is done to prevent its continued appreciation.

It is primarily in this context that the issue of greater monetary integration is currently being posed in some circles. For instance, a survey of Canadian CEOs by COMPAS Inc. in October 2005 raised the issue of forestalling Dutch disease through monetary integration, so as to avert conflict between central Canada's manufacturing industry and Alberta's oil and gas sector. Indeed, because of the growing power of the oil-rich Western provinces related to the growing oil revenues that, in turn, are attracting the massive foreign investments in Alberta's tar

sands development, there are those who see a fixed exchange rate or a monetary union as a way of mitigating the negative effect of high oil prices on a weakened central Canadian manufacturing sector. Interestingly, although it might seem that the timing for greater monetary integration is now appropriate, particularly since the Canadian dollar has recently reached parity with the U.S. dollar, this survey shows that a majority of Canadian business leaders remain opposed to a monetary union (COMPAS Inc., 2005).

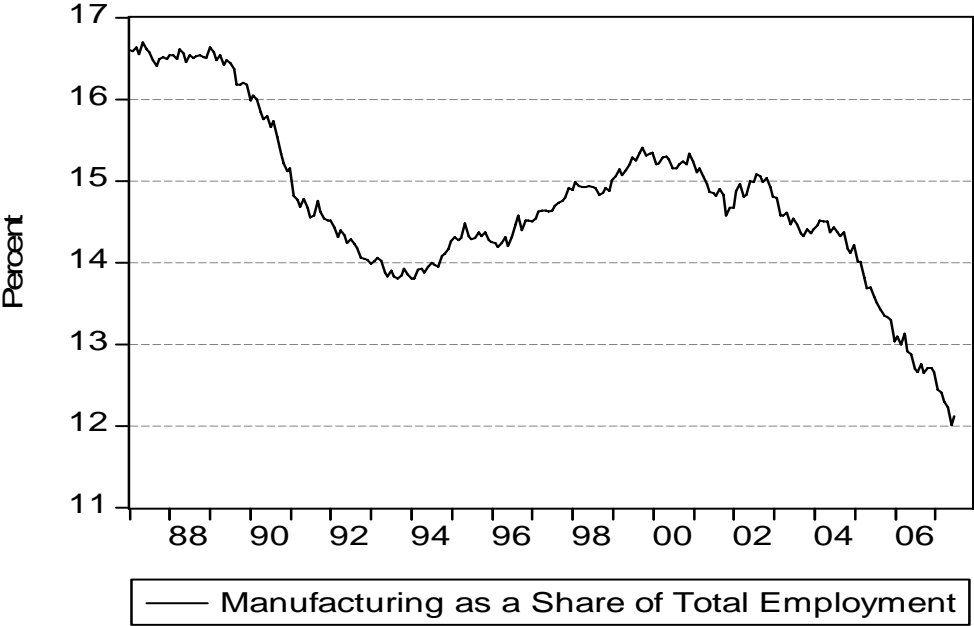
The Dutch Disease in Canada

In the media, there are numerous examples that provide anecdotal evidence of serious problems faced by Canadian firms resulting from the high Canadian dollar. One striking example that has made headlines is the Canadian movie industry—“Hollywood North”—which grew rapidly under the protection of a low Canadian dollar and is now being seriously battered by Dutch disease. However, the most strongly hit sector is manufacturing, which, in absolute terms, has seen significant net job losses since late 2002 and early 2003. Rising oil prices and the appreciating Canadian dollar have negatively affected the manufacturing sector. As shown in Figure 2, despite the relatively high growth of the Canadian economy that has been spurred on by high consumer spending and rising commodity prices, the share of manufacturing employment in total Canadian employment has declined sharply since its local peak in 2002.

The data in Figure 2 reveal that, over the last twenty years, the manufacturing share of employment has not suffered such a dramatic decline since the deep recession of 1990-91. Hence, while high oil prices have favored western Canadian producers and have led to a tripling of the share of oil exports out of total merchandise exports from about 5% in, say, 1996 to

approximately 15% in 2006 (see Figure 3), this growth has occurred largely at the expense of manufacturing exports, which have been declining as a share of the value of total exports.

**Figure 2: Manufacturing Employment as a Share of Total Employment
Canada 1987-2007 (Monthly Observations)**

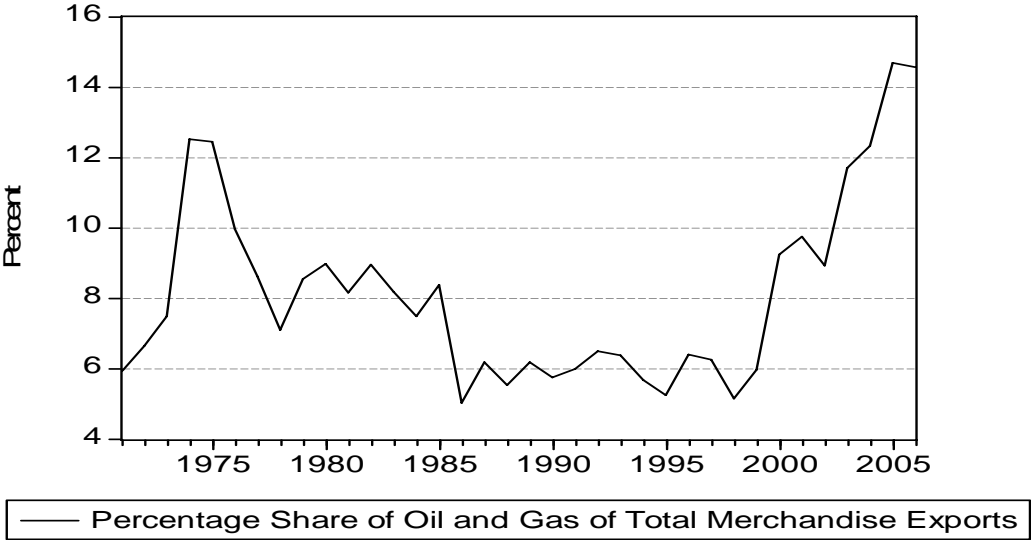


Source: Statistics Canada, CANSIM II Series V13682073 and V13682079.

There is thus growing evidence that Canada is experiencing some of the symptoms of the Dutch disease (see CCPA, 2007), although some researchers argue that it is perhaps still too early to tell whether the boom in the oil sector will turn out to be a terrible curse for the Canadian economy (Bergevin, 2006). If the oil-and-commodity boom does indeed turn out to be a curse, then policy makers will surely want to find remedies to this problem. Policies such as limiting wage growth (so as to ensure that unit labor costs do not rise by further compounding the problem of declining competitiveness) or limiting public and private spending in an overheated

economy (so as to curb inflationary pressures) have been proposed. But these measures are hardly more than what the Bank of Canada already does indirectly through its inflation targeting. A more interesting proposal, based on the Norwegian experience, is to constitute a separate petroleum fund financed by oil revenues upon which governments could rely so as to intervene and compensate sectors that are suffering as a result of the Dutch disease. However, this could become a jurisdictional nightmare, not unlike the federal National Energy Policy of the early 1980s, because of the federal-provincial squabbling that would inevitably ensue.

Figure 3: Share of Crude Petroleum and Natural Gas as a Percentage of Total Merchandise Exports, Canada 1971-2006



Source: Statistics Canada CANSIM II Series V173905, V173931 and V173932.

An alternative and more straightforward solution to the problem of the ailing Canadian manufacturing sector would be to do away with the exchange rate—and the Canadian dollar—altogether! Needless to say, this is what would be preferred by all those partial to greater monetary integration. In principle, any one country in a currency union can be effectively

insulated from Dutch disease, as long as the other member countries are not specialized in the same energy or commodity exports, and as long as the conversion to a single currency occurs at a competitive exchange rate. Could a monetary union therefore be the appropriate response to the Dutch disease problem for Canada, or could it turn out to be worse than the disease itself? We shall discuss this question below, after we turn to an examination of Mexican attitudes toward a possible NAMU and how the Dutch disease phenomenon is currently unfolding in Mexico.

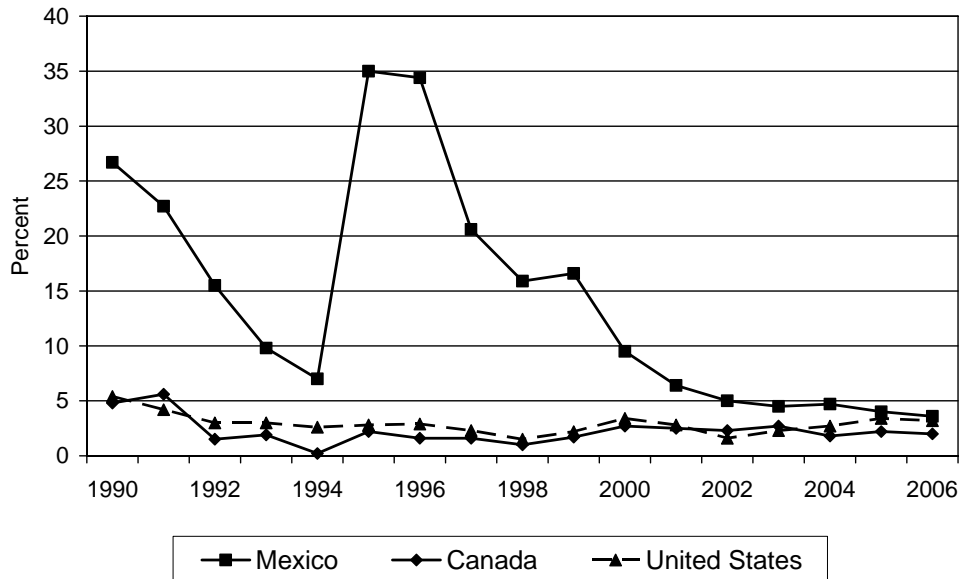
Mexican Perspectives

In Mexico, as in Canada, enthusiasm for a possible monetary union or dollarization policy has receded since it peaked around the turn of the millennium. In the late 1990s, the apparent success of NAFTA in stimulating trade and foreign direct investment (FDI) led some integration enthusiasts in Mexico to promote a monetary union as the next step in the country's regional integration.⁸ At that point, memories of the 1994-95 peso crisis were still fresh, and a monetary union was seen as a way of stabilizing the Mexican financial system and preventing another crisis. A monetary union was also seen as a means of ensuring price stability in a country where inflation had risen to a 35% annual rate in 1995 following the devaluation of the peso, and did not return to a single digit rate until 2000 (when it was a still high 9.5%), as shown in Figure 4. Since the U.S. dollar was strong at the time, inflation hawks were interested in linking Mexico's currency to a stronger one (or simply adopting the stronger one). Moreover, the launch of the euro in 1999 naturally led to interest in emulating Europe's monetary integration in Mexico as

⁸ For example, Kenen and Meade (2007, chapter 5) cite the Mexican Bankers Association as voicing support for a single currency in North America in 1999. Bowles and Moreno-Brid (2006, pp. 14-15) cite the Centro de Estudios Económicos del Sector Privado and the Mexican Council of Businessmen (the latter of which is described as "the voice of the Mexican entrepreneurial elite") as supporting dollarization in 1998-99.

well as in Canada.

Figure 4: Average Annual Inflation Rates, Based on Consumer Price Indices, Mexico, Canada, and the United States, 1990-2006



Source: International Monetary Fund, *World Economic Outlook*, on-line database, April 2007.

Some of the reasons why Mexicans subsequently lost interest in a NAMU are well known, and mostly (although not entirely) political.⁹ Under President George W. Bush, the United States took an extremely unilateralist and aggressive stance in its foreign policy, especially after the events of September 11, 2001 and the invasion of Iraq in March 2003. No one in Mexico, anywhere along the otherwise fractious political spectrum, could be enthusiastic about further integration with the United States while the latter was violating principles of non-intervention that are fundamental to Mexican foreign policy. Furthermore, after Mexican President Vicente Fox Quesada made it a priority of his administration (2000-2006) to obtain

⁹ See Ibarra and Moreno-Brid (2001) and Bowles and Moreno-Brid (2006) for critical perspectives on Mexican proposals for monetary integration or dollarization circa 1989-2000; the latter study also provides a retrospective on why the idea subsequently lost support in Mexico.

better treatment of Mexican migrant workers in the United States, he was effectively rebuffed by the Bush administration, which focused instead on its “anti-terrorist” crusade in other parts of the world, and pushed Mexico to join the United States and Canada in a “Security and Prosperity Partnership” that was mostly aimed at obtaining Mexican and Canadian support for an American (Bush administration) vision of continental security. In spite of the growing problem of millions of “illegal” or “undocumented” Mexican migrants living in the United States, the U.S. Congress never passed a comprehensive immigration reform bill, but in 2006 it passed a punitive law mandating tougher enforcement of border security measures and the construction of a 700-mile fence. The announcement of the wall, coupled with the lack of progress on comprehensive immigration reform, have been widely viewed as an affront in Mexico, leaving most Mexicans in no mood to pursue wider integration efforts with the United States.¹⁰

Furthermore, the political realities about monetary integration discussed earlier implied that a monetary union that was acceptable in the United States might be utterly unacceptable in Mexico. If, for example, the United States would only be likely to agree to a NAMU in which Mexico would effectively be reduced to a Fed district with one seat on the FOMC, many Mexicans would find that objectionable, if not downright offensive. As these political realities sank in, Mexicans’ willingness to consider giving up the peso naturally ebbed. Furthermore, for anyone who thought that Mexico should simply abandon an independent monetary policy and link the peso rigidly to the U.S. dollar (for example, by establishing a currency board or unilaterally dollarizing), the Argentine crisis of 2002 provided a sharp lesson that such a policy

¹⁰ Ironically, the increasing *de facto* integration “on the ground” in the form of unregulated labor migration appears to have made it politically more difficult to contemplate greater *de jure* integration through a monetary union or other formal arrangements. This is all the more ironic, because the theory of OCAs holds that a monetary union is more optimal when two or more countries’ labor markets are integrated. But of course, the U.S. does not allow free legal mobility of labor, and if anything appears likely to clamp down more on illegal/undocumented immigration over the next several years.

was no sure route to financial stability.¹¹

Macroeconomic Stabilization and Slow Growth in Mexico

The economic incentives for Mexico to seek a monetary union have also diminished since 2000. For Mexico, given its history of recurrent debt and currency crises from the 1970s to the 1990s, the attractiveness of a monetary union derived mainly from the promise of greater macroeconomic and financial stability, rather than from the more conventional efficiency gains contemplated in the concept of an OCA or the reduced “nuisance costs” that were formerly seen as most important in Canada. In 2000, the Banco de México set a goal of making the country’s inflation rate converge to approximately U.S. levels (about 3% annually).¹² In combination with fiscal restraint, this monetary policy has led to exactly the sort of macroeconomic stabilization that advocates of a monetary union had promised. Consumer price inflation fell to 3.6% in 2006, close to the U.S. rate of 3.2% and only slightly above the Canadian rate of 2.0% for the latter year (see Figure 4). This was the first time since 1972 that Mexico came so close to achieving convergence of its inflation rate with that of its two neighbors to the north. Although the Mexican economy suffered a mild recession in 2001 and a sluggish recovery in the next two years—coincident with a similarly prolonged slowdown in the U.S. economy—there has been no repeat of a major crisis of the 1982-83 or 1994-95 variety.¹³

¹¹ One could, of course, argue that Mexico is very different from Argentina and possibly a more appropriate candidate for dollarization or fixing its currency to the U.S. dollar, given the much greater commercial integration of Mexico with the United States compared with Argentina. Nevertheless, from a political perspective, the Argentine crisis effectively deflated the credibility of the fixed exchange rate *cum* currency board option for large Latin American nations.

¹² According to Ramírez de la O (2004), the initial target date for this convergence was 2003—a date which he viewed as too ambitious, and which was not actually met. He argued that this policy was inappropriate, because it was bound to result in a real appreciation of the peso that would be detrimental to the country’s long-run growth.

¹³ The U.S. economy had an actual recession in 2001, followed by a sluggish (“jobless”) recovery in which growth was positive but so slow that employment remained depressed for the following two years. Similarly, Mexico’s

In addition, although the Banco de México does not officially target the real value of the peso, Mexico's real exchange rate has nonetheless stabilized to a remarkable degree in the past few years. As can be seen in Figure 5, the peso exhibited tremendous volatility from the 1970s to the 1990s, with repeated real appreciations and crashes mirroring the boom-bust cycles in the Mexican economy. But, since coming down from its 2002 peak, the peso has fluctuated within relatively narrow bands in real terms in 2003-2007. With Mexican and U.S. inflation rates converging at slightly over 3% per year, Mexico has been able to maintain a steady nominal exchange rate in the range of 10-11 pesos per U.S. dollar for the past few years. In this environment, the financial interests that might otherwise be supportive of creating a monetary union (or dollarizing) have no immediate reason to do so.

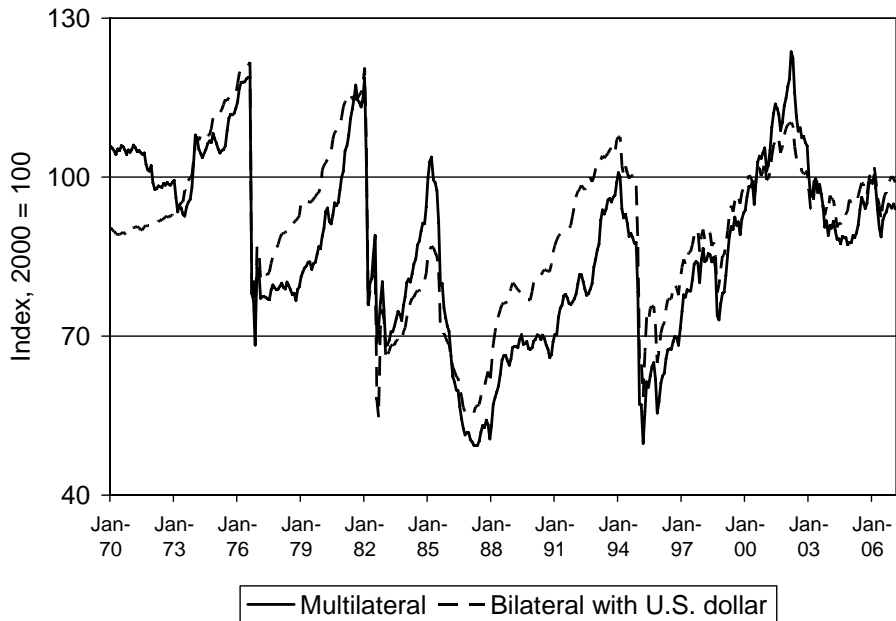
Mexico's macroeconomic stabilization has been achieved at a considerable cost, however, in terms of slow growth in the short run and limited progress toward long-term development goals. While developing countries in south and east Asia (for example, India and China) have been growing at annual rates in the range of 6-10%, Mexico has been lucky to reach a 4% annual growth rate of GDP in the last few years. Since Mexico opened its economy in 1987, its growth rate has averaged only 3.1% per year (in 1987-2006); starting with the year when NAFTA went into effect in 1994, the average growth rate for 1994-2006 is a mere 3.0%, or 3.7% if we consider only 1996-2006 following the recovery from the peso crisis.¹⁴ This is a very disappointing growth performance, considering that Mexico's growth rate averaged 6.4% per

growth rate fell from 6.6% in 2000 to 0.0% in 2001, and then recovered only to 0.8% in 2002 and 1.4% in 2003 before finally reaching 4.2% in 2004. However, during the earlier crises, Mexico's growth rates were -3.5% in 1983 and -6.2% in 1995. Data from International Monetary Fund, *World Economic Outlook*, April 2007 (on-line).

¹⁴ Data from International Monetary Fund, *World Economic Outlook*, April 2007, and earlier editions (on-line).

year during the *three decades* from 1951 to 1980 (Urquidi, 2003).¹⁵

Figure 5: Real Value of the Mexican Peso, Bilateral and Multilateral Indices, Monthly, January 1970 - February 2007



Sources: Banco de México, www.banxico.gob.mx; International Monetary Fund, *International Financial Statistics*; and authors' calculations.

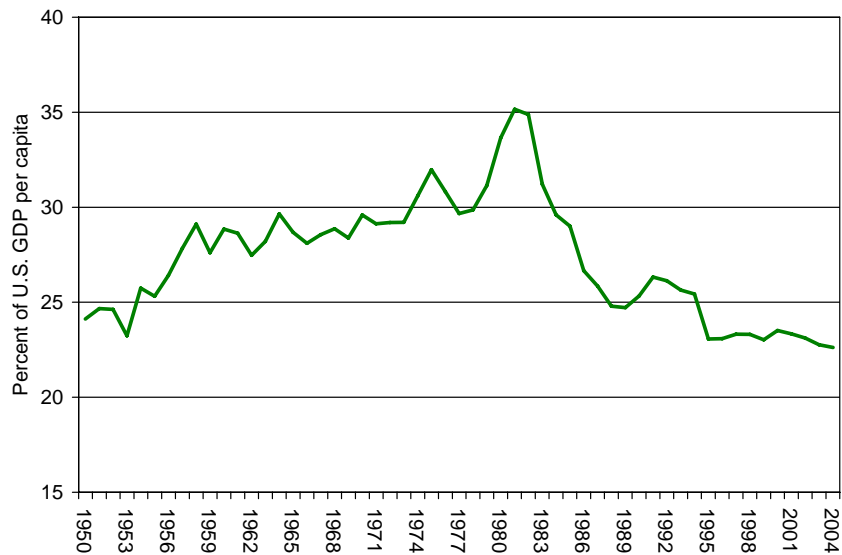
In per capita terms, Mexico has slipped further behind the United States than it was when it joined NAFTA in 1994. In fact, in the most recent year for which data are available on a purchasing power parity basis (2004), Mexico's real per capita GDP as a percentage of real U.S. per capita GDP was at its lowest point of any year in the preceding half century (see Figure 6).¹⁶ The continued migration of hundreds of thousands of undocumented Mexican workers to the United States every year, under very difficult and dangerous conditions, speaks volumes about

¹⁵ For additional perspectives on the slow growth of the Mexican economy in recent years, see Nadal (2003), Moreno-Brid, et al. (2005), Blecker (2006), and Ibarra (2006), among others.

¹⁶ Of course, most of the decline in this series from its peak around 1980 occurred during the debt crisis of the 1980s, and there was another one-time drop during the peso crisis of 1994-95. However, it is notable that all of the neo-liberal reforms of the last two decades (including NAFTA) have not led to any recovery in this percentage, which instead has continued its gradual downward trend albeit at a slower rate in the last several years.

the lack of job opportunities at decent wages in Mexico, where real wages have stagnated since 1994 and have fallen further behind U.S. levels.¹⁷

Figure 6: Mexican GDP Per Capita as a Percentage of the United States, in Constant Purchasing Power Parity Dollars, 1950-2004



Source: Penn World Table Version 6.2, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, September 2006 (pwt.econ.upenn.edu), and authors' calculations.

Paradoxically, then, by adopting a policy of macroeconomic stabilization at the expense of long-run growth, Mexico has effectively accomplished some of both the promises and the pitfalls of an EMU-type monetary union, without actually joining one. Similar to the European countries that have joined the EMU, Mexico has achieved low inflation and price stability at the expense of inadequate job creation (at least in the formal sector—there is little open unemployment in Mexico, but a large number of workers there are consigned to the informal sector at low incomes or else driven to emigrate), sluggish output growth, stagnant real earnings, and an

¹⁷ See Hanson (2006) for evidence on the wage differentials and incentives that induce Mexicans to migrate to the United States.

overvalued currency.¹⁸ At present, Mexico uses its monetary policy strictly to achieve price stability—more like the European Central Bank (ECB) and less like the U.S. Fed, which at least in the short run has demonstrated a relatively greater willingness to engage in countercyclical monetary policy (and, in the late 1990s, tolerated higher growth than inflation hawks thought prudent at the time). Nevertheless, in the absence of a monetary union that would completely deprive it of an independent monetary policy, Mexico has the potential to change this policy framework, for example by targeting a lower real value for the peso or using monetary policy to stimulate output, if the political climate in the country should change.¹⁹

The Dutch Disease in Mexico

The application of the Dutch disease diagnosis to Mexico may seem less appropriate than in the Canadian case, since Mexico has not been a major net exporter of primary commodities (other than oil) in recent decades. Since a brief oil boom in the late 1970s—which ended abruptly in the debt crisis of 1982-86—Mexico has become increasingly specialized in manufactured exports, which reached a peak of about 85% of the value of total exports in 1998-2001.²⁰ Nevertheless, the concept of Dutch disease can be applied to Mexico, partly because Mexico remains a significant oil exporter, and especially if the concept is widened to incorporate other sources of sudden windfalls of foreign exchange inflows—such as the “hot money” portfolio capital investments of the early 1990s, which went bust in the peso crisis of 1994-95, and more recently

¹⁸ See Ramírez de la O (2004), who warned that, “any explicit attempt to integrate Mexican monetary conditions with those of the United States, to be effective, must not be at the expense of output and employment, which typically occur[s] when the authorities try to accelerate the process of integration by tightening monetary policy” (p. 87).

¹⁹ See Murray et al. (2003) for evidence that the Mexican peso has adjusted to its “long-run equilibrium” level in the past, albeit more slowly than the Canadian dollar due to Mexico’s greater use of fixed exchange rates prior to 1995. Murray et al. emphasize the importance of retaining the ability for the real exchange rate to adjust in both Canada and Mexico.

²⁰ Data are from World Bank, *World Development Indicators*, on-line database. These data show that Mexico’s exports of manufactures did not surpass 50% of its total exports (in value) until 1991.

the upsurge in remittances from migrant workers in the United States.

The same Bank of Canada research team that has developed an econometric equation for Canada's real exchange rate has also developed a parallel one for Mexico (see Murray et al., 2003). Primary commodity prices other than oil are not included in the Mexican equation, since Mexico is not a major exporter of other primary products. With data estimated through the late 1990s, the equation shows unambiguous evidence for a positive, long-run effect of oil prices on the real value of the peso. Presumably, the rise in oil price since 2000 and the continued strength of the peso since that time would confirm the same positive relationship, if the data set were extended to include more recent years. The Bank of Canada researchers did not include worker remittances in their exchange rate equation for Mexico, since those have only become important since Murray et al. (2003) was published, but one may surmise that inflows of foreign currencies (mostly U.S. dollars) from migrant workers would have analogous effects to inflows of foreign currencies for oil exports (which are priced in U.S. dollars, and mostly sold to the United States).

Although the value of the peso has stabilized in the last few years, as noted above, it has unfortunately leveled off at a real exchange rate that makes Mexico a relatively uncompetitive location for export production and export-oriented FDI, especially in manufactures. As one can see from Figure 5, even after declining somewhat from its 2002 peak, the peso remains at a real value close to its level in the early 1990s, just before the collapse of December 1994, at which time the peso was widely regarded as overvalued.²¹ Partly as a result of the once-again high peso, Mexico's export revenue has grown very slowly and its FDI inflows have stagnated since around 2000-2001. The U.S. dollar value of Mexican exports to the United States increased by only 47%

²¹ Galindo and Ros (2007) find evidence that the Banco de México has followed an asymmetrical monetary policy that is biased toward peso appreciation, in the sense that the Banco generally tightens credit when the peso is falling but does not loosen credit when the peso is rising. But see note 20 below for possibly contrary evidence, which suggests that the Banco has attempted to limit the appreciation of the peso to some extent.

over the period 2000-2006 (only about 41% excluding oil), while Chinese exports to the United States rose by 188% during the same years, and China surpassed Mexico as the second-largest source of U.S. imports (after Canada) in 2003.²²

Although reliable, comprehensive data on Mexican employment comparable to those shown in Figure 2 for Canada are not available, the best available estimates show that the number of manufacturing jobs has fallen since 2000. The data in Table 1 show that manufacturing employment in Mexico has declined since peaking in 2000, both in the export-oriented maquiladoras and the other (non-maquiladora) manufacturing industries—more so in the latter, which produce both for export and for the domestic market, but also in the former, where employment has stagnated after rising rapidly in the 1990s after NAFTA was formed and the peso was devalued.²³

Under these circumstances, Mexican growth would have been even lower in the last few years if it were not for fortuitous increases in two major sources of foreign exchange, oil revenue and worker remittances. Thanks to rising oil prices in the global market, as well as the Fox administration's earlier decision to promote oil exports from the state energy monopoly Pemex,²⁴

²² Data from U.S. Department of Commerce, Bureau of Economic Analysis, U.S. International Transactions Accounts, Release Date: June 15, 2007, Table 2a, U.S. Trade in Goods, available at www.bea.gov; except the 41% figure for the growth of Mexican non-oil exports is for total Mexican exports to all countries, based on data from INEGI, Banco de Información Económica, Sector externo, Exportaciones petroleras y no petroleras, <http://dgcnesyp.inegi.gob.mx/cgi-win/bdieintsi.exe/NIVJ100005>. Since about 87% of Mexico's non-oil exports go to the United States, it seems reasonable to conclude that Mexican non-oil exports to that country also grew "about" 41% during this period.

²³ The data for total manufacturing employment in the first column are apparently estimated data, since the source states as follows: "The data in this table do not represent, in the strict sense, the number of persons occupied in each activity, but rather the average number of paid positions that are estimated to have been required for production" (translated by the authors). The source further cautions against relying on the total number for all sectors, which could include some double-counting of individuals who worked in more than one sector. Therefore, although we do not rely upon this source to calculate the share of manufacturing in total employment, the data in this table do suggest that most employment growth in Mexico in the period shown has occurred in various non-manufacturing (and non-agricultural) sectors, principally construction, commerce, restaurants and hotels, and other services. Unfortunately, the data currently available from this source do not go beyond 2004.

²⁴ See Puyana (2006) on Mexican energy policies under Fox and the prospects for energy reform in a country that has not made adequate investments in its energy sector for several decades.

Table 1: Total Employed Persons in Manufacturing Industries, 1993-2006

| | Total Manufacturing Industries ^a | Maquiladora Industries ^b | Non-Maquiladora Industries ^c |
|------|---|--|--|
| 1993 | 3,309,755 | 542,074 | 2,767,681 |
| 1994 | 3,238,906 | 583,044 | 2,655,862 |
| 1995 | 3,066,717 | 648,263 | 2,418,454 |
| 1996 | 3,278,436 | 753,708 | 2,524,728 |
| 1997 | 3,566,045 | 903,528 | 2,662,518 |
| 1998 | 3,773,206 | 1,014,006 | 2,759,200 |
| 1999 | 3,913,387 | 1,143,240 | 2,770,147 |
| 2000 | 4,102,052 | 1,291,232 | 2,810,820 |
| 2001 | 3,898,763 | 1,198,942 | 2,699,821 |
| 2002 | 3,637,115 | 1,071,209 | 2,565,906 |
| 2003 | 3,531,030 | 1,062,105 | 2,468,925 |
| 2004 | 3,505,818 | 1,115,230 | 2,390,588 |
| 2005 | NA | 1,166,250 | NA |
| 2006 | NA | 1,203,455 | NA |

Sources:

^aInstituto Nacional de Economía, Geografía e Informática (INEGI), *Anuario Estadístico de los Estados Unidos Mexicanos, Edición 2006*, Cuadro 9.15; *Edición 2005*, Cuadro 9.8, y *Edición 2000*, Cuadro 9.7, “Personal ocupado remunerado según gran división de actividad económica”; the 2006 edition is available at www.inegi.gob.mx/prod_serv/contenidos/espanol/bvinegi/productos/integracion/pais/aeum/2006/Aeum062.pdf.

^bINEGI, Banco de Información Económica, industria maquiladora de exportación, indicadores mensuales, total nacional, total personal ocupado, www.inegi.gob.mx (averages of monthly data calculated by the authors).

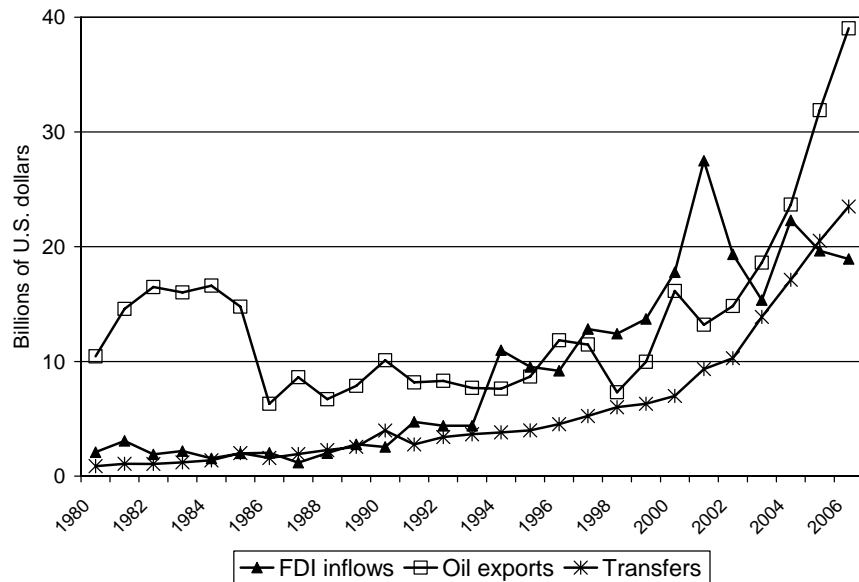
^cDifference between total manufacturing industries and maquiladora industries.

oil export revenue tripled from US\$12.9 billion in 2001 to US\$38.6 billion in 2006.²⁵ In proportional terms, this represented an increase in oil export earnings from 2.1% of GDP in 2001 to 4.6% in 2006, or an increase of 2.5 percentage points of GDP. During the same period, family (worker) remittances more than doubled, from US\$9 billion in 2001 to US\$23 billion in 2006, or from 1.5% to 2.8% of GDP (an increase of 1.3 percentage points of GDP). For the last few years, these inflows of oil revenue and worker remittances have surpassed FDI inflows, representing a

²⁵ These are total “petroleum” exports as reported in the Mexican balance of payments, from the INEGI source listed in note 16, above. From the underlying data (see Pemex, 2007, p. 5), one can verify that, as of 2006, 90% of this revenue came from exports of crude oil, but there were also small amounts of exports of refined oil products, natural gas, and petrochemicals.

stunning reversal of the pattern in the early post-NAFTA years when, as can be seen in Figure 7, FDI inflows were usually greater than either oil revenue or worker remittances (this was true in every year but one between 1994 and 2002). FDI inflows into Mexico peaked at \$27 billion in 2001 (when Citibank bought Banamex), and receded to \$19 billion in 2006 (see Figure 7).

Figure 7: FDI Inflows, Unilateral Current Transfers, and Oil Export Revenue in Mexico, 1980-2006



Sources: Banco de México/INEGI and International Monetary Fund, *International Financial Statistics*.

Note: Worker remittances are represented in this table by total transfers, since data on remittances were not available for years prior to 1995. However, the share of remittances in total transfers increased steadily from 92% in 1995 to 98% in 2006, indicating that virtually all of the growth in transfers was accounted for by remittances over that period.

The combined increase in oil exports and worker remittances of 3.8 percentage points of GDP between 2001 and 2006 undoubtedly has helped to revive Mexican growth in the short run, in spite of stagnant earnings from other exports and stagnant FDI inflows. This is especially true because about 60% of Pemex’s revenue is captured by the government and thereby relieves the fiscal balance constraint on government spending in the absence of a comprehensive tax reform (Puyana, 2006). Nevertheless, there is also a negative feedback effect from the increased foreign

exchange inflows, which help to sustain the peso at its overvalued exchange rate (from the standpoint of industrial competitiveness) and thereby to perpetuate the sluggishness of other exports and FDI inflows. In other words, Mexico, like Canada, is suffering from Dutch disease, as rising foreign exchange inflows from resource exports lead to currency appreciation that “crowds out” industrial exports.²⁶ What distinguishes Mexico from Canada in this respect is that one of the main “resources” being exported from Mexico is people.²⁷

Would a NAMU Solve the Dutch Disease Problem for Canada and Mexico?

It is of course true that creating a supranational North American currency comparable to the euro, such as the “amero” proposed by Grubel (1999)—or even the adoption of the U.S. dollar by Canada and Mexico—would protect Canadian and Mexican industries from future increases in their regional exchange rates, i.e., relative to the U.S. dollar or a new single currency. However, creating a single regional currency (whether it is called the amero or the dollar) would not protect the industries of the member countries from future increases in the value of that currency relative to other national or regional currencies, such as the euro, British pound, and Japanese yen. For both Canada and Mexico, however, the United States is by far their largest trading partner, so those fluctuations might not be as important for them as they would be for other countries that might want to link to the U.S. dollar—as, for example, when Argentina adopted its fixed

²⁶ There is evidence that the Banco de México has, to some extent, tried to mitigate this effect, in the fact that its international reserves increased by between about US\$4 billion and US\$10 billion per year every year from 2001 to 2005 (International Monetary Fund, *International Financial Statistics*, on-line database). Although some of these increases could be due to other factors (e.g., accumulation of interest on U.S. treasury securities or increases in the value of non-U.S. dollar currencies), it is likely that a significant portion of these reserve increases represented intervention that effectively prevented the peso from rising even higher than it actually did. Notably, the largest increase in reserves came in 2003, when the peso actually fell from its post-crisis peak (see Figure 5).

²⁷ Hanson (2006) estimates that, as of 2004, Mexican immigrants living in the United States were equivalent to about 10% of the population of Mexico.

(1:1) peso-dollar exchange rate, in spite of having relatively little trade with the United States.

In terms of avoiding Dutch disease, North America as a whole has a pattern of trade and migration flows that would probably dampen fluctuations in the value of a single regional currency related to energy prices and worker remittances.²⁸ If anything, the three NAFTA countries combined are probably net importers of energy products, since the United States absorbs most of Canada and Mexico's oil and gas exports but still imports about two-thirds of its oil from other countries.²⁹ Since so much of the three countries' energy trade is intra-regional (a trend encouraged by NAFTA as well as geography), global "oil shocks" would probably have much less impact on the exchange rate of the North American single currency (amero or dollar) with other global currencies than it presently has on the exchange rates of the Canadian dollar and Mexican peso. Similarly, because the vast majority of Mexican migrant worker remittances come from the United States (and another portion comes from Canada, which has a legal guest worker program), those financial flows are almost entirely intra-North American and hence would have no effect on the value of a North American single currency.

By the same token, however, fixing the Canadian and Mexican exchange rates permanently to the U.S. dollar (or to a new currency) would prevent those rates from depreciating in the event of unfavorable "shocks," such as future declines in oil prices. Unless a compensating regional fiscal transfer mechanism was put in place (an unlikely prospect), Canada and Mexico would suffer more severe adjustment costs when hit by those sorts of shocks. This is especially

²⁸ As already alluded to in footnote 7 above, in a well-known study of the prospects for monetary integration, Bayoumi and Eichengreen (1994) found that the effects of supply shocks vary not only between Canada, Mexico, and the United States, but also across regions of each country, with resource-exporting regions in each country experiencing shocks that are more correlated on a north-south basis—that is to say, correlated with those of similar regions in the other countries than with other regions in their own country.

²⁹ In 2006, Canada and Mexico together accounted for only 32% of U.S. imports of crude oil (measured by quantity in barrels), according to data in U.S. Census Bureau (2007, FT900 Supplement, Exhibit 3). Nevertheless, 81% of Mexico's exports of crude oil were sold to the United States in 2006 (Pemex, 2007, p. 48).

true because the United States is a large net importer of oil and other commodities from non-NAFTA countries, and hence would benefit from such a supply shock that was detrimental to Canada and Mexico—in which case, the dollar (or amero) might actually go up, just when the latter two countries would need it to go down. Adjustment would then require a severe deflation in prices and incomes within each of those countries to absorb future negative oil price shocks, with potentially devastating effects on their manufacturing sectors. Thus, the loss of this important instrument of adjustment would mean that any future adverse shocks would have greater negative repercussions on incomes domestically in Canada and Mexico (see Bougrine and Seccareccia, 2004).³⁰

A further problem would arise if a NAMU was formed during a period like the current one, in which both Canada and Mexico's manufacturing sectors are already suffering from Dutch disease because of high real exchange rates. If the Canadian dollar and Mexican peso were converted to a North American currency (ameros or U.S. dollars) at anything like the present exchange rates, this would merely lock-in the current situation of currency overvaluation for Canada and Mexico. This would permanently institutionalize the negative effects of the Dutch disease in both countries—or else it would require severe deflation to adjust to the fixed conversion rates, not unlike what happened when Britain pegged the pound to gold at an overvalued rate after World War I, as famously described by Keynes (1925).³¹ Therefore, it would be a profound and tragic mistake to lock-in the present exchange rates in a NAMU in the

³⁰ See also Murray, et al. (2003), who emphasize importance of the shock-absorbing role of the floating exchange rate in Canada, and who also note that Mexico's adherence to a fixed nominal exchange rate in the past contributed to its repeated economic crises (up to and including the 1994-95 crisis).

³¹ Keynes (1925) attacked Winston Churchill's policy of returning Britain to the gold standard in 1925 and argued against the deflationary consequences of the British pound's return to its pre-war parity. One could also argue that Germany joined the EMU at an overvalued exchange rate for the deutschemark in the 1990s, following German reunification, with adverse consequences for the German economy (we are indebted to Ellen Meade for suggesting this point).

name of preventing an epidemic of Dutch disease that has already broken out.

Fiscal and Monetary Policies under a NAMU

There is, however, a further problem concerning whether an EMU-type arrangement would be a positive improvement over the current status quo of independent floating exchange rates for Canada and Mexico. As pointed out elsewhere (see Seccareccia and Lequain, 2006), the establishment of the euro has been an historic monetary experiment that, some have argued, for the first time in centuries has given birth to a monetary system that formally separates money from the individual nation state. The policy system that underlies the two main pillars of the EMU—the Maastricht Treaty (1992) and the Amsterdam Stability and Growth Pact (1997)—was put in place specifically to secure this separation. This has meant a complete loss of the two principal instruments of macroeconomic stabilization policy—discretionary fiscal and monetary policy—at the national level.

For instance, under the rules of the Treaty, fiscal policy is severely constrained. Governments of EMU member states must not only fulfill the two fiscal requirements of containing budget deficits within 3% of GDP and their public debt-to-GDP ratios within the 60% ceiling, but they must also target zero budget balances over the medium term, with strong sanctions against those who do not meet these legal obligations. Although there have been some prominent short-term exceptions to the 3% rule, they require cumbersome petitions for permission under the “severe recession” clause of the Treaty. With the practical disappearance of activist fiscal policy as tool for macroeconomic stabilization for the current twelve member states, control over the macroeconomy rests almost exclusively on monetary policy conducted by the ECB—a supra-national, independent institution over which the European Parliament has no direct power.

Hence, if such an EMU structure were to be parachuted into the North American context, more active fiscal policy would no longer be possible in any one NAMU member. With a “one shoe fits all” monetary policy within the NAMU, the NACB (or expanded Fed) would not cater sufficiently to Canada’s or Mexico’s regional needs, since the latter countries would, as noted earlier, probably hold only one seat each on the governing board of a NACB or an expanded FOMC.

However, North America is not Europe, and the likely predominance of the United States in a NAMU would create some special opportunities and challenges for the two smaller partners. In terms of monetary policy, the Fed has shown itself to be more willing to adopt countercyclical interest rate cuts during recessions than the ECB, which only targets price stability. Much research has shown that the Fed’s policies can be described by a so-called “Taylor Rule” (Taylor, 1993), according to which interest rates are adjusted in response to deviations of both inflation and unemployment rates from their desired or targeted levels, whereas the ECB adjusts interest rates mainly in response to inflation objectives.³² Even though the Fed is strictly concerned with U.S. business cycle conditions at present, Canada and Mexico nevertheless benefit from the Fed’s more flexible stance to the extent that their business cycles are positively correlated with U.S. cycles.³³ To the extent that the Fed ameliorates business cycle fluctuations in the United States through countercyclical monetary policies, therefore, it also (to some extent) ameliorates cyclical fluctuations in the Mexican and Canadian economies as well.

³² Of course, in the process of seeking to maintain a low rate of inflation, the ECB (like other central banks that focus on inflation) necessarily examines how interest rate policies affect output and employment, insofar as the latter influence inflation. But this does not contradict the claim, which we maintain, that the ECB views inflation control as its primary ultimate objective. We also wish to clarify that we are not saying that the Fed literally “follows” a Taylor rule equation; rather, it exhibits behavior that, over time, has proved to fit a Taylor rule specification. For an analysis and critical assessment of Taylor-type central bank reaction functions, see articles by M. Lavoie, M. Setterfield and J. Smithin in M. Lavoie and M. Seccareccia, eds. (2004).

³³ This positive correlation has existed between Canada and the United States for several decades, but is a relatively recent phenomenon for Mexico and the United States, for which the correlation is strong only since the formation of NAFTA *and* the end of the peso crisis (i.e., since the late 1990s). See Chiquiar and Ramos-Francia (2004), Blecker (2005, 2006), Lederman (2005), and Mejía Reyes, et al. (2006), among others. However, see also the next note on possibly diminishing synchronization of the U.S. and Canadian economies.

If Mexico and Canada were to join a NAMU in which the central bank (NACB or expanded Fed) followed current Fed procedures, those countries would actually be subject to a less strict inflation-targeting monetary policy than they currently have today. Nevertheless, they would not give up inflation control, since the Fed—in spite of its lack of official inflation targets and its relatively greater flexibility—has effectively contained U.S. inflation within rather narrow bands since the early 1990s (see Figure 4, above). The problem for Canada and Mexico, of course, is that an expanded Fed or Fed-like NACB would be likely to put more emphasis on business cycles conditions in the United States, rather than in Mexico or Canada, which would be a problem for the latter given their different exposure to international shocks. In fact, Canadian and U.S. business cycles appear to have become less strongly synchronized in recent years.³⁴ Moreover, under present conditions, Canada and Mexico already enjoy some degree of countercyclical spillover effects from the U.S. Fed, without giving up their own monetary policy autonomy or their ability to adjust their exchange rates as they would have to in a NAMU.

It is unclear whether Canada and Mexico would have to agree to strict fiscal targets in a NAMU, similar to those that have been imposed on EMU members. On the one hand, the United States is unlikely to want to tie its own hands by giving up the right to run large budget deficits or to have the Fed hold U.S. government debt. Therefore, if Mexico and Canada were to be treated as co-equals with the United States, they should not be subject to any fiscal restrictions as a condition of joining a NAMU or having a seat on the FOMC. On the other hand, insofar as Mexico and Canada might be treated as mere Fed districts, they could possibly be required to

³⁴ In the past, Canada's business cycles have been known to be strongly synchronized with those of the United States. However, over the last two decades, this has changed somewhat. For instance, Canada suffered a more severe "Made in Canada" recession in 1990-91 with only a milder counterpart in the United States, while the latter went through a recession in 2001 when Canada experienced only slower growth but not an actual fall in output. For a discussion of the problems faced by policy makers when trying to implement a "one shoe fits all" monetary policy in a non-optimal currency area, see Palley (2003).

have balanced budgets or to meet certain arbitrary fiscal targets, more on the model of the U.S. states, which cannot run current budget deficits as the U.S. federal government can. It is possible that an expanded North American Fed or NACB would not be allowed to hold Canadian or Mexican government debt, and even that the Bank of Canada and Banco de México might similarly be prohibited from doing so (although the Banco de México does not currently hold any Mexican government debt anyway).

In some ways, Mexico would have an easy time adjusting to EMU-like fiscal restrictions, because the Mexican government already operates a fiscal policy that targets the fiscal balance itself, and which is therefore procyclical rather than countercyclical (see Ros 2006). Furthermore, in Mexico the procyclical bias of fiscal policy is amplified by the reliance of the government on the oil sector for a substantial part of general government tax revenue. But for this very reason, a monetary union could lock-in a type of fiscal policy that Mexico would otherwise retain the option of changing in the future (for example, if the country were to focus more on infrastructure investments aimed at promoting long-run development).

Indeed, one should not discount the possibility that, at some future time, some interests in Mexico might seek a NAMU as a means of locking in the current monetary and fiscal policy regime, i.e., a monetary policy focused exclusively on price stability and a procyclical fiscal policy targeted on the fiscal balance itself. After all, one of the chief arguments in favor of NAFTA in the early 1990s was precisely that it would lock-in Mexico's liberalizing reforms of the late 1980s, especially the opening to foreign trade and investment, by preventing future Mexican governments from abandoning the country's commitment to liberalized trade and investment policies (see, e.g., Lustig, 1998). A similar case could be made by proponents of the current "consensus" macro policies, in the not-too-distant future, that Mexico should similarly

lock-in its commitments to price stability and a balanced government budget by joining a monetary union that would force it to maintain those commitments in perpetuity—especially if there appeared to be a realistic prospect of a future left-wing government that might seek to change those policy priorities (and regardless of whether a NAMU would be a true OCA or would otherwise be beneficial for Mexico)—as noted by Bowles and Moreno-Brid (2006, p. 19).

Canada also would not encounter any significant political or institutional barriers in abiding by EMU-style fiscal rules under present conditions. In the Canadian context, respective governments since the mid-1990s have been committed not only to balanced budgets, but also to targeting budget surpluses so as to achieve a pre-established, long-term decline in the ratio of federal debt to GDP. As shown elsewhere, these persistent federal surpluses have been achieved at the cost of destabilizing private household finances, thereby leading to ever declining personal saving rates and rising household indebtedness (Seccareccia, 2005). In much the same way, on the monetary front, Canada's central bank has already achieved the EMU's commitment to price stability via its official inflation targeting and, much like the federal government's commitment to "sound finance" and fiscal surpluses, the Bank of Canada has been officially targeting a 2% inflation rate over the last fifteen years or so.

Nevertheless, there is some evidence for countercyclical fiscal policy in Canada, in spite of the high average level of the budget surplus. According to Seccareccia and Lequain (2006), primary (cyclically adjusted) fiscal balances respond negatively to the unemployment rate in both Canada and the United States, unlike in the EMU where the authors find a negative response. Therefore, if a NAMU imposed any restrictions on Canada's fiscal autonomy, it could lessen the ability of the Canadian government to adopt countercyclical fiscal policies attuned to

short-run conditions in the Canadian economy (and it would also prevent Canada from rethinking its current commitment to long-run, average budget surpluses).

Some Global Considerations Affecting Mexico

One factor that complicates the prospects for a regional monetary union in North America is the fluctuating value of the predominant North American currency, the U.S. dollar, relative to other currencies outside the region. Since it peaked in early 2002, the U.S. dollar has declined significantly versus all the major floating rate currencies, except the Japanese yen. As of mid-2007, the U.S. dollar was at or near thirty-year record lows vis-à-vis most other floating rate currencies, including the UK pound, Swiss franc, and euro (and, by extension, its predecessor currencies), as well as the Canadian dollar (as discussed earlier). By keeping the peso relatively constant in terms of the U.S. dollar over the past several years, therefore, Mexico has allowed the peso to depreciate relative to other floating rate currencies (thus the peso has fallen more on a multilateral basis since 2002 than it has bilaterally with the U.S. dollar, as shown in Figure 5). This may help Mexican exports to some extent, but Mexico does not export much to Europe or in competition with European exporters, and the depreciation of the peso relative to European currencies also makes imports of European capital equipment and intermediate goods more expensive. What is more important for Mexico is the cross-exchange rate of the peso with the currencies of the other semi-industrialized countries that export labor-intensive manufactures.³⁵

However, the U.S. dollar has not depreciated much (if at all) relative to most Asian currencies, which tend to have fixed or managed exchange rates, including notably the Chinese

³⁵ See Razmi and Blecker (2008, forthcoming) and Blecker and Razmi (2008, forthcoming) on how changes in real exchange rates among different semi-industrialized countries (including Mexico) foster a “fallacy of composition” that limits these countries’ ability to simultaneously pursue export-led growth. For a contrary view, see Levy Orlik (2007), who argues that lowering the value of the peso cannot help Mexican industries because it is likely to result in higher inflation in a highly import-dependent economy.

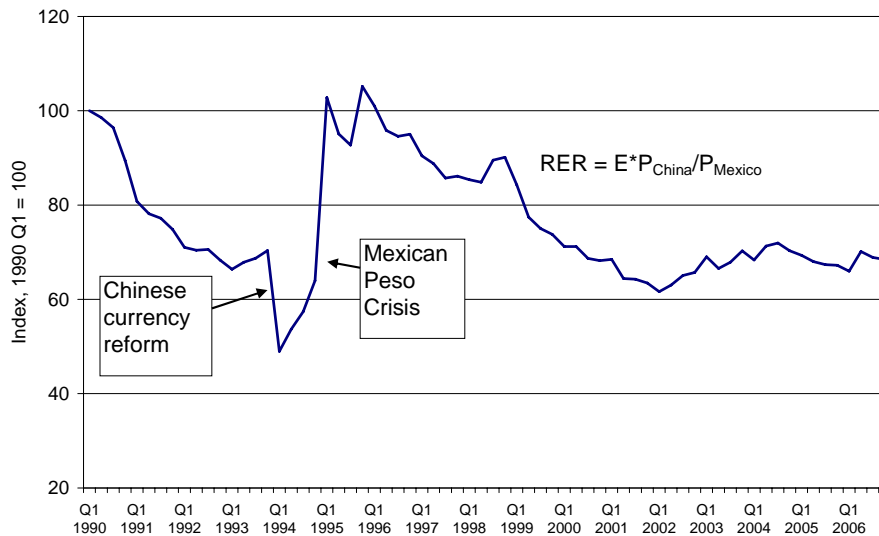
yuan. The yuan was fixed in nominal terms at 8.27 per U.S. dollar from 1994 to 2005, when it was switched to a (heavily) managed float under which the yuan slowly appreciated to 7.58 per U.S. dollar (or by a cumulative 8%) as of July 2007.³⁶ Given the lower inflation rate in China compared with Mexico and this minimal appreciation of the still-undervalued yuan, Mexico has experienced a real appreciation relative to China since the mid-1990s, when China completed its currency reform and Mexico escaped from the peso crisis (see Figure 8). The real depreciation of the yuan relative to the peso since 1995, coupled with China's admission to the World Trade Organization (WTO) in 2001, partly explains the growing shift of labor-intensive manufactures from Mexico to China.

Of course, China's wages would still be an order of magnitude lower than Mexico's at any conceivable exchange rate, and China has used much more activist industrial policies to promote exports compared with Mexico's more "neo-liberal" approach. But forming a monetary union with the United States would prevent Mexico from ever devaluing relative to the U.S. dollar in an effort to become more competitive vis-à-vis the Asian exporters. Instead, joining a NAMU would make Mexico completely dependent on the United States and other industrialized countries to pressure China and other Asian countries to allow their currencies to appreciate more—something that the United States and European Union (EU) have thus far shown little willingness to do, given how much their own multinational corporations benefit from outsourcing in China and the rest of Asia as well as for other foreign policy reasons.³⁷

³⁶ See Federal Reserve Statistical Release G.5, Foreign Exchange Rates (Monthly), www.federalreserve.gov/releases/g5/, release of August 1, 2007, and earlier (historical) data from the same website.

³⁷ Although most European countries (with a few notable exceptions, such as Netherlands, Norway, and the United Kingdom) are net importers of energy and primary commodities generally, European industry has been badly ravaged by its own variety of Dutch disease in recent years, insofar as the European currencies have risen much more against the U.S. dollar than the latter has thus far fallen against the still-managed Chinese yuan, leading to an enormous influx of cheap Chinese imports.

**Figure 8: Mexico's Real Exchange Rate with China
(Real Value of the Yuan Relative to the Peso),
Quarterly Q1 1990 to Q4 2006**



Source: International Monetary Fund, *International Financial Statistics* (on-line).
Notes: E is measured in pesos/yuan (ratio of pesos/USdollar to yuan/USdollar),
period average; P_i is the consumer price index for country i.

Overall, the formation of a NAMU or dollarization of Mexico would allow Mexico no ability to realign its currency with currencies outside North America by adjusting its exchange rate relative to the U.S. dollar, an ability that Mexico could potentially exercise even if it has so far chosen not to do so. Paradoxically, then, the formation of a NAMU could put another nail in the coffin of the NAFTA trade strategy, in which Mexico sought to become a manufacturing export powerhouse (and create large numbers of industrial jobs) by attracting massive amounts of export-oriented FDI. Mexico would have to continue its search for a new economic growth strategy, perhaps focused upon service sector activities (e.g., construction, tourism), and much more oriented toward the domestic market—although such a reorientation may be inevitable and even desirable anyway, regardless of the monetary policy regime.

Conclusions

Under any politically conceivable scheme for North American monetary integration, neither Canada nor Mexico would retain adequate instruments to implement national stabilization policies in response to foreign demand shocks, or to pursue other, longer-run objectives (such as addressing Mexico's profound development needs). Hence, even though a NAMU might possibly solve those countries' Dutch disease problems—and even that is dependent on the exchange rates at which the Canadian and Mexican currencies would be converted to a new North American currency or U.S. dollars—it might create a still deeper problem of disarming national authorities from pursuing macroeconomic stabilization policies or long-term growth strategies. An example of this is the incapacity of European countries to address their problems of deindustrialization and mass unemployment through both macroeconomic and exchange rate policies. Despite Europe's problem of long-term unemployment, under the EMU's constraining framework no national government is able to pursue a rigorous pro-growth policy, and the EU as a whole lacks the capacity to do this. Hence, greater monetary integration with the creation of currency blocs of either "peer groups" (as with the EMU) or "client states" (as with a NAMU) is not a viable solution to international currency problems, such as Dutch disease. What is needed is a more fundamental reform of the global payments system that would maintain intact the ability of national governments to pursue independent macroeconomic policies while still retaining their respective national currencies.³⁸ But such could only be achieved at a broader international level that the proliferation of regional currency blocs would preclude.

³⁸ See D'Arista (1999, 2004) for suggestions along these lines.

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