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Economic Integration, Currency Areas, and Macroeconomic Policy

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Second Revision, September 1992

* Revised version of a paper presented to the Bank of Canada Conference on Exchange Rates, June 1992. I am grateful to my colleagues Tom Courchene and Michael Devereux, and to participants at the conference--especially, Richard Harris, Bill Scarth, my discussant Robert Lafrance, and conference rapporteurs John Helliwell, Paul Masson, and Bill White--for helpful comments and suggestions.

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ECONOMIC INTEGRATION, CURRENCY AREAS, AND MACROECONOMIC POLICY

It is rare for one paper to change the way in which the economics profession addresses an issue, yet that can clearly be said of Robert Mundell's brilliant and now classic 1961 essay, "A Theory of Optimal Currency Areas". That essay was written in large part as a cautionary reaction to the apparent increasing favor that flexible exchange rates were gaining with economists at the time; in contrast, recent interest in the currency area issue has been rekindled by growing interest in and support for fixed exchange rate regimes.

The recent interest in fixed exchange rates, in turn, has been due in part to disappointment in the performance of the flexible exchange rate system that has evolved over the past two decades, as well as to the increased regional economic integration that the world economy has witnessed in the past decade. Regional integration creates interest in fixed exchange rate regimes for two related reasons. First, the economic and political integration that occurs raises the obvious question of whether a currency zone *within* the region should also be established; the question is, at what stage in the process of regional integration does the formation of a monetary union become viable, or necessary? Second, it also raises the question of the appropriate exchange regime to be established *between* regions.

The most notable of these developments is the evolution of the European Community towards a unified market under the aegis of *Europe 1992*. Monetary union is, of course, one of the explicit objectives of many of the proponents of European economic integration, and is given high profile in the *Delors Report* (1989), and is the topic of *One Market, One Money* (EC Commission, 1990). Monetary integration is perhaps the most controversial aspect of the Maastricht Treaty; see, e.g., the discussion in Feldstein (1992).

A number of other agreements to enhance regional integration have also emerged, including ones in Latin America, in Australia and New Zealand, and in East Asia, but these have not to date been associated with much interest in the formation of a new monetary union, and shall largely be ignored in what follows.[1]

Of particular interest to this conference is the Canada-US Free Trade Agreement signed in January 1988, and which now appears likely to evolve into a broader agreement incorporating Mexico--the so called North America Free Trade Agreement, or NAFTA. While the FTA clearly enhances Canada-US economic integration, to date it has not given rise to any strong constituency for a North American monetary union.[2] However, the increased *inter*national integration that the FTA and NAFTA represent, combined with recent and prospective developments which might be viewed as weakening aspects of the Canadian economic union, have led to renewed interest in the debate over whether Canada's national interests might be better served with a fixed exchange rate vis à vis the US dollar. This interest has also been stimulated by Canadian economic performance in the post-FTA era, with many critics identifying an over-valued Canadian dollar as one (or even *the*) reason for the recession in the manufacturing heartland. (See, e.g., Courchene (1991) and Mundell (1990).)

In this essay I explore the implications of regional economic integration for the currency arrangements appropriate within and between regions. The scope of this set of issues is dauntingly broad, and my discussion will inevitably overlap with and draw upon a number of very useful recent surveys--see Frenkel and Goldstein (1992) and especially Masson and Taylor (1992). Much of the focus of the recent literature, and of the above noted surveys, is on the implications for European monetary union. In contrast, in the latter part of this paper I focus on issues particular to the current Canadian situation; the

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[1] For an interesting discussion of integration in East Asia, and of the viability and desirability of an East Asian monetary union, see Goto and Hamada (1992).

[2] Grubel (1992) presents one such proposal, but his case is based solely on a review and assessment of the benefits and costs of monetary union in general, with virtually no discussion of the particular features of the North American situation.

purpose of course is not to assess the need for regional currencies within Canada, but to reassess Canada's exchange rate policy vis à vis the rest of the world, and in particular to return to the question of whether Canada should re-establish a fixed exchange rate with the U.S..

I recognize that one should of course be cautious in identifying fixed exchange rates with a monetary union (or currency area). But as long as the fixed exchange rate is credibly viewed as immutable and there are no restrictions to capital mobility, it is essentially equivalent to a monetary union in which all transactions within the region are conducted using a common currency. While for some purposes, the distinction between a currency area and a fixed exchange rate may be important, in what follows I use the terms as synonymous. (For further discussion in the Canadian context, see Lucas and Reid (1991).) Thus I abstract from the *symbolic* aspect of maintaining a common currency stressed by a number of authors, and from the issue of how a multi-national currency union makes the political choices to exercise its control over its exchange rate, as stressed by Feldstein (1992) and Tobin (1991), among others. Note also that by fixed exchange rate, I do *not* mean an adjustable peg.

I start by reviewing the criteria that have been developed for an optimal currency area (OCA), and then turn to a discussion of the implications of this analysis for regions experiencing increased economic integration. A key distinction between the approaches of these two sections of the paper arises from the relationship between economic and political integration. In the optimal currency area literature the extent of political integration is presumed to be complete (the nation state is the object of analysis) and thus the degree of economic integration is the focus; in contrast, the degree of economic integration achieved in newly integrated regions may match the degree of economic integration within a given nation state, but the degree of political integration is typically incomplete. In this context I review the literature on economic integration with particular emphasis on the European and North

American situations. Here the distinction between various kinds and degrees of economic integration is important--in particular, they have different implications for the viability and necessity of monetary union. The evidence about key structural and institutional aspects of the regions involved, the nature of policy spillovers, and the incentives for strategic dimensions to policy interactions, are all also important.

One can argue that the impact of the OCA concept is so pervasive that it impacts on virtually all of what is thought of as international or open economy macroeconomics. I therefore turn next to a brief and necessarily selective discussion of some issues in the literature on exchange rate regimes. Much of the discussion in this literature, of course, draws on the now classic Mundell-Fleming taxonomy on the relative effectiveness of monetary and fiscal policy, and of the response of the economy to external shocks, under fixed and flexible exchange rate regimes.

Ultimately, the key policy issue is the trade-off between the efficiency gains from maintaining a fixed exchange rate and the potential benefits of maintaining an independent monetary policy (including the option to use a change in the exchange rate to facilitate adjustment). In this paper I do not focus on the monetary-theoretic case for a single currency (the companion "in-house" paper by Paul Fenton and John Murray does an admirable job in this respect), but I stress that the case is important and, if not compelling, certainly persuasive. This is reflected in the structure of the argument in the OCA literature: there is a presumption in favor of a fixed exchange rate if there are sufficient alternative adjustment mechanisms--these mechanisms are the famous "criteria" discussed in the next section.

In a related vein, I would also suggest that the word "optimal" in the expression *Optimal Currency Area* is highly misleading, and conveys a false sense of precision to the debate; the optimality of any particular arrangement is easier to assert than to demonstrate. In fact, the issue is one of *Second Best*, and the policy trade-off identified in the preceding paragraph is hard to assess precisely because the interaction between the market imperfections that create the perceived role for exchange rate changes to facilitate adjustment and the theory of the role of money in the economy is simply not well understood. There are as yet no formal models that are particularly helpful in this context, nor is there sufficient empirical evidence adduced to unambiguously support one or other viewpoint. As a result, any policy recommendations will of necessity involve a good deal of subjective judgement, and accordingly there is lots of room for reasonable and well-informed people to disagree.

1. THE OPTIMAL CURRENCY AREA LITERATURE REVISITED

In his original essay, Mundell challenged the view that exchange rate changes would compensate for wage and price rigidity in facilitating the adjustment to the various shocks that buffet open economies.[3] He argued that the divergence between optimal and national currency areas meant that exchange rate changes could not in fact be counted on to provide the necessary adjustment. In his classic example, a change in the Canada-US dollar exchange rate provides little help in facilitating the adjustment to a change in the international relative price of lumber (produced in the western regions of both countries) and cars (produced in the east).

In the current Canadian context, the focus is on terms of trade shocks--say due to a boom or a crash in world raw material markets. Consider, for example, an export boom. Under fixed rates, the expansionary impact of the boom in exports would, via the usual monetary adjustment mechanism arising from a balance-of-payments surplus, be generalized throughout the entire economy. Under flexible exchange rates, the boom would cause the Canadian dollar to appreciate: if (as the early literature typically assumed) domestic

[3] This view is widely attributed to Milton Friedman; see for example his classic 1953 essay "The Case for Flexible Exchange Rates." For an interesting discussion, see the introduction to Mundell's "The Monetary Dynamics of International Adjustment under Fixed and Flexible Exchange Rates", in Mundell (1968). See also Johnson (1972).

wages and prices are "sticky downwards", this in turn would cause a short-run increase in real wages in the export sector and likely generate unemployment in the manufacturing heartland of Ontario and Quebec.[4]

Thus the choice between fixed and flexible exchange rates in this instance would relate directly to the desirability of external expansionary pressures; i.e., to the current state of the economy and the authorities' views as to the unemployment-inflation trade off. Similar analysis pertains to the potential under fixed rates for 'importing inflation' from abroad and the role flexible rates might play in insulating the economy therefrom.

Mundell's contribution was to argue that in some circumstances flexible exchange rates could not be expected to perform in the manner described above. He argued that well-integrated regions would be best to maintain a fixed exchange rate or common currency within the region, and only then consider the role of exchange rate changes in facilitating adjustment between the region and the rest of the world. His concept of an optimum currency area drew on the pure theory of international trade literature wherein factor mobility is perfect *intra*nationally but nonexistent *inter*nationally. Mundell argued that when nation states (within which there is of course a common currency) do not conform to this ideal, then maintaining currency areas within nation states while allowing for exchange rate flexibility between states would not necessarily be superior to maintaining fixed exchange rates both within and between nation states.

The literature has evolved in a variety of ways, two of which are of particular interest here. First, as reviewed in the remainder of this section, other criteria for an OCA in addition to, or instead of, factor mobility have been identified; here the focus is on conditions that make a common currency

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[4] This is suggestive of the so-called "Dutch disease", and the related concerns that arose in Canada in the late 1980s that a currency appreciation due to an investment boom in manufacturing resulting from the FTA would harm the competitiveness of resource industries.

an attractive option for a group of regions. Second, the issue has been inextricably linked with the broader question of fixed versus flexible exchange rate regimes, where imperfection of national currency areas is taken for granted and where a host of other issues and criteria arise; we return to this issue in Section 4 below. It is, however, worth noting at this stage that one should be careful of the *fallacy of composition* involved in moving from the analysis of once-for-all exchange rate changes as a low-cost way of adjusting to external shocks, on the one hand, to the analysis of a world in which the exchange rate is market determined, on the other. In the latter world, the exchange rate is driven by many factors (including highly-volatile capital movements), and thus exchange rate changes often become something to which the economy has to adjust rather than something which helps the economy adjust to other shocks.

The basic approach of the OCA literature is to set the benefits of a common money (e.g., reduced transactions costs and uncertainty) that argue for extending the currency area as far as possible against the offsetting arguments (usually involving macroeconomic rigidities) that give rise to benefits from exchange rate flexibility.[5] As Mundell said, "The 'optimum' currency area is not the world." Neither, of course, is it the individual. This immediately suggests size--and its correlate, openness--as a second criterion, as stressed by McKinnon (1963).

Other criteria have, of course, also been put forward. Many of them are obviously related to each other; while no explicit criteria have evolved for judging their importance, how they interact (are some forms of adjustment substitutes for others?), or for aggregating them into some composite characteristic whose value would determine the desirability of monetary union,

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[5] Implicit in the benefits from a common currency is the enhanced prospect for monetary stability; nowhere does there appear an argument for joining a monetary union in order to sustain a higher inflation rate--although in my view that would clearly have been one effect of recent proposals to fix the Canadian-US dollar exchange rate.

these criteria are commonly used for comparing various regions and evaluating the prospects for monetary union. Drawing on Masson and Taylor, and on Frenkel and Goldstein, one can identify the following six criteria:[6]

i. Factor mobility. As already noted, this was stressed by Mundell. The basic idea is that even when the exchange rate is fixed, factor flows from recessed to booming sectors can serve to preserve full employment in the face of shocks that affect sectors differentially. McKinnon argues that Mundell meant geographic mobility rather than mobility between sectors, so that exchange rate changes "make up for the lack of labor mobility among areas."

My own feeling is that the factor mobility issue has been a repeated source of confusion in the literature. (One problem, which I shall not take up, is that since prices and wages are implicitly rigid, the mechanism underlying the factor movements is not clear.) This argument does not give rise to a strong case for a fixed exchange rate within the region--high factor mobility apparently renders the exchange rate regime within a region irrelevant. However, what does emerge is a case for a flexible exchange rate between the region and the rest of the world.

ii. Size and Openness. The role of openness, first stressed by McKinnon, is highlighted in the following:

> "Arguments in favour of [such] currency unions include, in addition to the social saving from the pooling of reserves and the potential of a common currency strong enough to compete with the US dollar for seigniorage, the point that small specialized economies--the mythical banana republic-- may not gain unambiguously by fixing the value of their national currency in terms of home goods, this being the implication of adopting a floating

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[6] For an early list of criteria, and an innovative attempt to identify those which have been most important, see Heller (1978). Tower and Willett (1976) provide a useful early survey. Johnson and Swoboda (1973) includes a number of influential early papers.

> exchange rate. Rather, as McKinnon's analysis suggested, such a country may be better off fixing the value of its currency in terms of some broader aggregation of goods by joining a currency area.
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> The broader issue concerns the transmission of business cycles between countries under various exchange rate systems. The generally accepted view is that flexible exchange rates do play a shock absorber role so that if one believes that the domestic economy by itself is more stable than those of its foreign partners then this provides an additional argument for flexible rates. However, if one believes that the domestic economy is less stable, then fixed rates may be the method of dampening the effects of the instability by 'exporting' some of the instability to its foreign partners. Thus the McKinnon argument must be qualified by recognizing the difference between 'exogenously given' prices and 'stable' prices. An open economy may not want to tie its price level to international prices if the international prices are less stable (for example, if the demand for exports is uncertain and highly variable) than what the domestic authorities believe they might be able to achieve under flexible rates."
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> [Purvis (1976), p.213.]

iii. Diversity of production. A third criterion that is closely related to the openness and size issue focusses on the structure of domestic production. A small country that manages to produce a wide variety of traded goods will escape the "banana republic" syndrome, and fluctuations in international markets will tend to net out in terms of their macroeconomic implications for the domestic economy. Peter Kenen (1969) thus argued that the need for exchange rate flexibility to facility macroeconomic adjustment would be offset by production diversity. On the other hand, if diversity is negatively correlated with openness, then fixing the value of the domestic currency in terms of domestic production by adopting a flexible exchange rate will be relatively more attractive the more diversified is the country's domestic pattern of production.

For newly-emerging, relatively small countries that wish to pursue the gains from trade through specialization in production in order to exploit comparative advantage and returns to scale, a fixed exchange rate may be warranted. A strategy of production diversification, say to enhance self-sufficiency, will bear obvious costs in terms of efficiency, but if such a goal is chosen, its success may be enhanced by maintaining a fixed exchange rate, or even a currency union. Once the increased diversification is achieved, it might enhance the viability of the country maintaining its own currency--a goal that may be desired for non-economic reasons or perhaps in order to pursue an inflation tax--but it may decrease the perceived need to do so, at least from the perspective of macroeconomic stabilization.

The production diversity argument invokes the monetary theoretic case relating to "fixing the value of the currency in terms of a large basket of goods". However, experience with flexible exchange rates--in particular, the volatility and misalignment issues discussed in Section 4.1 below--casts doubt on the generality of the case it presents in favor of a flexible exchange rate. For example, a country such as Canada that is diversified--in the sense of having a resource sector and a manufacturing sector--is vulnerable to terms-of-trade shocks which, as discussed above, can be exacerbated rather than mitigated by exchange rate changes.[7]

iv. Wage-price flexibility. As suggested at least as far back as Friedman's seminal essay in favor of flexible exchange rates, exchange rate flexibility might be thought to serve as a substitute for wage and price flexibility, especially in a world dominated by monetary shocks so that changes in relative national price levels is viewed as the most important international adjustment issue. While this notion of the substitutability of wage-price flexibility and exchange rate flexibility remains widely accepted in terms of long-run

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[7] This possibility for "Dutch Disease" effects is, as noted above, a classic example of Mundell's original 1961 message: Since national currency areas do not conform to optimal currency areas, the oft-alleged benefits of a flexible exchange rate may not be realized. For a recent discussion, see Mundell (1990).

responses to nominal disturbances, a number of issues have arisen which cast doubt on it as a general proposition.

First, Mundell himself had in 1960 challenged the substitutability issue in terms of dynamic responses of the system, thus highlighting an important distinction between fixed and flexible exchange rate systems to which we return below. Second, the role of real shocks is generally given a larger emphasis in the current literature than at the time of Friedman's paper, and the notion that the exchange rate system can influence the pattern of response to a real shock but not the need for structural adjustment is now widely accepted. Third, real wage rigidity--widely held to be a feature of European labor markets--vitiates the effectiveness of nominal exchange rate changes in influencing domestic macroeconomic outcomes. (See, e.g., Bruce and Purvis, 1984.) Finally, as noted already and as will be discussed in detail in Section 4 below, a system of market determined flexible exchange rates takes on characteristics of its own that cannot simply be gleaned from analysis of once-for-all exchange rate changes.

v. Structure of exogenous shocks. Implicit in the Mundell analysis is the assumption that countries are experiencing common and symmetric shocks. However, as Frenkel and Goldstein, among others, stress, "the more asymmetric or country-specific are these shocks, the greater the costs of abandoning the [flexibility of] the nominal exchange rate."[8] This issue plays a significant role in the current debate surrounding the desirability of monetary union in Europe. For example, Eichengreen (1991) argues that Europe fails to satisfy either the labor mobility requirement or the condition that shocks are sufficiently common across European countries to warrant a monetary union; Masson and Taylor suggest that shocks in Europe are sufficiently symmetric.

[8] Goto and Hamada (1992) extend the discussion to distinguish between common and specific disturbances and real and monetary disturbances; specific real disturbances are least desirable for a currency union.

For further discussion of the European situation, see DeGrauwe and Vanhauerbeke (1991) and Eichengreen and Bayoumi (1992); below I discuss the nature of the shocks buffeting the Canadian provinces.

vi. Availability of other policy instruments. The final criterion pertains to the role of "other policies" to facilitate adjustment or offset the need for adjustment when regions within a monetary union are affected differentially by shocks. Fiscal policy coordination, whether through automatic mechanisms such as the operation of a federal tax-transfer system, or through discretionary use of sub-federal fiscal stabilization, investment tax credits, regional development spending, etc., is viewed as a necessary counterpart to formation of a monetary union, or to enhanced economic integration more generally.[9]

Note that fiscal policy can be used as a substitute not only for exchange rate changes but also for other adjustment mechanisms, in particular labor mobility. Many economists, perhaps most notably Tom Courchene, have long argued that the tax-transfer system in Canada is geared to "place" rather than "people" prosperity and hence discourages inter-regional labor mobility. Many of the same issues could arise in Europe; see, e.g., Courchene (1991). It might also be noted that by serving as a shock absorber, federalism can compensate for lack of production diversity in sub-regions within a monetary union--the insurance provided by the tax-transfer system amounts to diversified ownership of production even if there is not diversified location of production.

The role of fiscal-federalism in general, and the need for an substantive role for a federal government rather than just coordinated actions by sub-

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[9] Devereux (1991), for example, makes the general case for the necessity of fiscal harmonization. See also Krugman (1990) and Wyplosz (1991). Bayoumi and Masson (1991) present evidence showing that to a considerable extent fiscal-federalism serves this role in Canada and the United States. This issue received considerable attention in the Canadian government's September 1991 Constitutional proposals (see especially the supplementary document *Canadian Federalism and Economic Union*).

federal levels of government, is prominent in the literature, and in the Canadian debate, as we shall see below.

2. IMPLICATIONS FOR INTEGRATING REGIONS

The application of the above criteria to assess the desirability and feasibility of monetary union in Europe has been the subject of an enormous literature, only a small fraction of which can be reviewed here. Basically the assessment is that Europe, by which is meant the twelve member countries of the EC, does relatively well on the criteria of openness and diversity criteria, while the judgement on the others is either mixed or negative:

- Labor mobility within Europe is not nearly at the same level as within, say, Canada or the United States, but the increased integration that has been achieved in the past decade has both increased the degree of labor mobility and perhaps put in place sufficient substitutes for labor mobility that this may not be a problem for monetary integration.
- The prevalence of real wage rigidity likely continues to pose a problem for European economic performance in general, but suggests that giving up sovereignty over monetary policy is not likely to have as big an impact for most European countries as it would were nominal rigidity as prevalent as it alleged to be in the United States and Canada.
- As noted, Eichengreen argues that the lack of commonality of shocks is a problem for the prospects for European monetary integration, but contrasting (or at least mitigating) evidence is adduced by Masson and Taylor, and by Poloz.
- On the surface, the degree of fiscal harmonization in Europe appears insufficient to allow one to be sanguine about the prospects for monetary integration. However, Frenkel and Goldstein review a number of studies which highlight some of the conceptual and measurement issues that arise in assessing the evidence in this respect, and offer a sceptical view of the widespread argument that Europe must move significantly further towards

a federal system in order to achieve the full benefits of economic integration and to make monetary integration viable.

As Bayoumi and Masson's results demonstrate, it is important to distinguish between coordination of sub-federal policies and the effects of the federal policies. Krugman (1992) offers a pessimistic note based on the experience of U.S. state budgets about the prospects for effective fiscal stabilization at the sub-federal level, and hence reinforces the need for fiscal-federalism. (Krugman also provides a defense of pro-cyclical fiscal policies by sub-federal governments in the presence of factor mobility; we return to this below.)

As already noted, there is no natural procedure for aggregating these various indicators, and reasonable people might come to different conclusions about the desirability of European Monetary Union even were they to agree on the above summary of the evidence. Many of the arguments have been summarized by Feldstein (1992), who argues strongly against European monetary integration. Feldstein's basic point is that monetary integration is not needed in order to achieve the efficiency gains from the single market. Indeed, he suggests that, in some circumstances, commitment to a monetary union and hence sacrificing national monetary policies may inhibit specialization, destabilize macroeconomic performance, and reduce the volume of international trade. Krugman's 1992 paper also warns of regional destabilisation resulting from formation of a European Monetary Union (without also putting in place a sufficient fiscal-federal mechanism), but in his analysis--in contrast to Feldstein--this is the result of excess specialization.

Feldstein also touches on the role of the European Central Bank in the proposed monetary union. He notes the democracy deficit involved in national governments devolving monetary policy to the EC, and argues that the terms of the Maastricht treaty will not remove the ECB from political influence of national capitals. This is in contrast to popular impression, and in contrast to the operation of the EMS under the hegemonic leadership of Germany where a number of countries apparently bought into the low-inflation credibility of the Deutchebank. As argued convincingly by Alesina and Grilli (1991), the EMS may not provide a useful guide to the operation of an ECU with monetary policy governed by a European Central Bank as currently proposed; instead it may give rise to a monetary policy consistent with a much higher average inflation rate.

Feldstein goes on to pose the interesting argument that proponents of European monetary union are in fact pushing a hidden agenda--monetary union may provide a back-door to political integration![10] In his view, monetary union without a substantial increase in political integration is the worst possible outcome; countries would lose their monetary independence without any of the presumed political benefits (although Feldstein himself appears sceptical of the alleged benefits of political integration).

Two points that have been given a great deal of attention in the current European debate and that have also arisen in the context of recent Canadian constitutional discussion appear relevant to the Feldstein analysis: the relationship between economic and political integration, and the variety of types of economic integration that arise. Elsewhere [Purvis, (1991)] I have discussed these issues in terms of a spectrum of possible degrees of economic integration. At one end of the spectrum of possibilities (the "not integrated" end) is autarky; at the other end (the "highly integrated" end) is a unified economic space in which there are no jurisdictional or policy distinctions between the regions. (See Figure 1.)

As one moves along the spectrum, the extent of economic integration increases. For example, a *Free Trade Area* provides for the free movement of goods and (perhaps only a specified set of) produced services, while in a *Common Market* the free movement of capital and labour is also provided for.

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[10] It is difficult to identify such a hidden agenda for political integration behind any of the current proponents for a fixed Canada-U.S. exchange rate.

FIGURE 1

AUTARKY → FREE TRADE AREA → CUSTOMS UNION → COMMON MARKET → ECONOMIC UNION → UNIFIED ECONOMIC SPACE

In this lexicon, an *Economic Union* represents an even higher degree of economic integration which extends mobility rights not only to labour but to people; in particular (as discussed in Harris and Purvis, 1991) broad citizenship rights--not only basic freedoms and rights but access to core public goods and social programs--are guaranteed.

Typically, one would expect the economic benefits flowing from integration to increase with a movement along the spectrum from less to more economic integration (although the "shape" of the economic benefits function may vary considerably in different circumstances). Essentially, this follows from the fact that the opportunities for benefitting from increased specialization, improved resource allocation, scale economies, dynamic learning phenomena, reduced transactions costs, and risk-sharing all increase with the degree of integration. (Increased benefits from increased integration is the central tenet of the Cecchini Report (1988) which in turn is the basis for the Europe 1992 programme. See also Baldwin (1991).)

However, to fully understand the implications of economic integration, and its implications for political integration and monetary union, it is also useful to distinguish between *negative* and *positive* economic integration. Negative integration refers to the creation of a single market by *removing* barriers to mobility between regions and or jurisdictions; negative integration thus *constrains* governments. Positive integration involves a more *pro-active* role for government: in order for the benefits of an economic union to be fully realized, "spillovers" of the effects of policies taken in one jurisdiction on the economy of another must be allowed for to ensure efficient outcomes.

I would argue that it is the increased role for positive integration as one moves along the spectrum towards economic union that gives rise to the link between economic and political integration. For example, a Free Trade Area (including the Canada-US FTA and presumably any NAFTA that emerges) involves only minimal political integration (i.e., only little loss of sovereignty) because it involves primarily only negative integration--its main manifestation is the removal of barriers. (The only positive integration involved is that a dispute settlement mechanism must be established.) On the other hand, creation of an economic union of necessity involves considerable political integration since it involves considerable positive integration; for example, an economic union requires the harmonization of a number of policies, particularly stabilization and social policies geared to income distribution, and the establishment of institutions to support and administer those policies. Thus, in this sense, there is a trade-off between economic benefits and political sovereignty.

The need for increased policy harmonization, and thus for increased political integration, also arises when one recognizes that monetary union becomes essential somewhere along the economic integration spectrum. It seems clear that monetary union is *not* necessary for the maintenance of a free trade area, while it also seems clear that a monetary union is a necessary component of a unified economic space and of most concepts of an economic union. Apparently Feldstein's view is that the proposed degree of economic integration under *Europe 1992* (and implicitly his notion of the optimal degree of integration) is not sufficient to require monetary union; others disagree, arguing that the degree of integration is sufficiently strong, and involves enough positive integration in particular, that monetary integration is necessary.

The causal relationship between monetary union and economic union is clearly two-way, and is not yet fully understood. Feldstein, for example, stresses the fact that monetary union requires sufficient policy coordination that it would require substantial political integration; others stress that the benefits of a common money are an essential part of achieving the full benefits from significant economic integration.

Once the degree of economic integration is sufficient to warrant the need for political integration, the issue of whether federalism provides the appropriate political structure arises. Notwithstanding our current Constitutional problems, I think that Canada's history of flexible and creative federalism--with such innovations as tax rental agreements, tax sharing, equalization, opting-out and even use of the federal spending power--stands as testimony to federalism as a mechanism for providing for considerable sovereignty at the sub-federal level while preserving considerable harmonization and coordination of enough economic powers to ensure efficient functioning of the economic union.

All of this makes for fascinating debate in the European context. The European Common Market as currently (pre Maastricht) structured clearly involves mobility of capital and labor (and associated services) in addition to the goods mobility of an FTA, and hence requires increased policy harmonization (e.g., tax policies, labor market policies, additional framework policies) relative to what is required in an FTA. The questions arise when one wishes to be precise about the nature and extent of the increased integration to occur under *Europe 1992*.

A key issue, and in my mind one central to Feldstein's discussion, is whether the movement involves a full Economic Union sufficient to require monetary union and a federal structure. It is hard to envisage a single market and a federal structure of government without a monetary union, although one might well conceive of monetary union and a single market supported by alternative political superstructures.

One issue that might turn out to play a central role in resolving the question of whether Europe moves to a monetary union with a European Central Bank is whether there is sufficient agreement on the *goals* of monetary policy. The fact that monetary union imposes a common monetary policy makes this a central issue, as stressed by Frenkel and Goldstein; Canzoneri and Rogers (1991) suggest that seigniorage considerations are important enough to some European countries (especially southern ones) to cast considerable doubt on the emergence of sufficient agreement. I would suggest that this is also an important issue for the debate over the attractiveness of fixing the Canada-U.S. exchange rate; opponents of fixing the rate fear that persistent deficits and the existence of a large foreign debt denominated in U.S. dollars will render the U.S. much more inflation prone than Canada in the next few years.

Turning to Canada, we might wish to consider the implications of a number of the above issues. To the extent that federalism is at risk, one might wish to ask whether the Canadian monetary union is also at risk. However, such speculation is beyond the scope of this essay; for further discussion, see Laidler and Robinson (1991). Presuming the continuance of Canadian federalism in some form amounts to presuming the survival of the Canadian monetary union. The key question that then arises is whether the enhanced integration with the United States resulting from the FTA, the enhanced integration of the world economy associated with globalization, and the possible weakening of the forces of economic integration within Canada all lead one to reassess the merits of an external fixed exchange rate with the United States.

I precede in three steps. In the next section, Section 3, I give a brief update on the state of the Canadian economic union. I then turn in Section 4 to a review of some of the arguments concerning the performance of the Canadian flexible exchange rate and the international system of flexible exchange rates. In the last section I focus on proposals for Canadian exchange rate policy.

3. THE CANADIAN ECONOMIC UNION

In this section I provide a brief synopsis of the current state of, and changes in, the nature of the Canadian economic union.[11] These include economic, demographic, and political factors, some of which have served to strengthen the integrating forces operating in the Canadian economic union, some that weaken those forces, and some that change the external--in particular the North-South--factors influencing the Canadian economic union.

3.1 The OCA Criteria

It is worth stressing at the outset that Canada is an extremely well-integrated economy, especially with respect to negative integration. To be sure, provincial barriers such as preferential procurement policies and occupational licensing that are harmful to the efficient functioning of the economy exist. But on a wide range of issues, the Canadian economy is a paragon of a strong and effective economic union. Despite demographic changes and policies that are profoundly anti-adjustment, labor mobility is very high; Canadian capital markets are among the most efficient in the world, as is our banking system; and we have achieved, through a variety of formal and informal arrangements, a remarkable degree of tax harmonization.[12]

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[11] There is a great deal of material to draw on in assessing the current state of the Canadian Economic Union. Much of the voluminous output of the Macdonald Royal Commission was directed to this issue, the background document *Canadian Federalism and Economic Union* that accompanied the September 1991 federal *Proposals* provides some useful material on this question, as do many of the contributions in Boadway, Courchene, and Purvis (1991) and in Boadway and Purvis (1991).

[12] For more details on the impediments in and the strengths of the Canadian economic Union, see *Canadian Federalism and Economic Union*, Government of Canada, 1991. For a recent statement of the extensive degree of economic integration in Canada, see R. Howse and M. Trebilcock, "Proposals for the Economic Union and the Division of Powers", in Boadway and Purvis (1991).

With that important background, we now turn to a brief assessment of the state of the Canadian economic union in terms of the six criteria for an OCA identified in Section 2 above. As before, it is important to recognize that many of these factors are closely inter-related.

i. Factor mobility. A variety of forces have been operating to change the nature of the Canadian labor force, and in particular have made the traditional view of the Canadian labor force as being very mobile geographically less applicable now than it was twenty years ago. Foremost amongst these are demographics factors, including the aging of the population and perhaps an increased concentration of ethnic groups in major urban centres. Such demographic factors are supplanted by structural/cultural developments such as the increased importance of the two career family which also contribute to reduced mobility. Policies geared to place rather than people prosperity are profoundly anti-adjustment in their effects, so that again mobility is reduced. Finally, the new buzz-word is training--a remarkable consensus has emerged that lack of opportunity for on-the-job and between-job skills acquisition inhibits sectoral mobility.

On the capital markets side, regulatory overlap and confusion probably inhibits capital mobility within the union, as do a number of aspects of what has become known as *Quebec, Inc.* Some of these aspects, in particular preferential tax treatment for provincial residents who purchase stocks of provincial companies, have been adopted in other provinces as well. Given the continued increase in international capital mobility, the full implications of this fragmentation of the Canadian capital market are not fully understood. In some cases, international capital mobility will circumvent the domestic barriers; in other cases it will raise the costs borne by Canadians.

ii. Size and openness. There has of course occurred a continued if gradual increase in openness that has accompanied globalization of world economy, and over the last twenty years we have seen an increased concentration in the role of the U.S. in both imports and exports. Courchene in particular has stressed this increase in North-South trade as an important factor in the relative weakening of the Canadian economic union.

It is hard to evaluate this proposition, for two reasons. First, it is difficult to document the extent to which North-South trade is growing; the 1984 statistics given in the federal document *Canadian Federalism and Economic Union* (p. 10) still show significant interprovincial trade, and the percent of provincial exports going to other provinces exceeds the percent going internationally in five of the ten provinces (one of which is Quebec). Second, there is no magic number for the critical share of provincial international trade required so sustain the argument. (For example, some knowledge of relevant elasticities might be helpful.) In any event, there is no compelling evidence that exchange rate variability on the scale exhibited by the Canada U.S. rate exerts any significant influence on the volume of trade.

On its own, it seems clear to me that this argument is not so significant as to swing the balance of the argument in favor of fixed exchange rates in order to stabilize the Canadian dollar in terms of US goods, but I guess it is true that at the margin this effect works in that direction.

iii. Diversity of production. Regional specialization continues to be a feature of Canada's production structure, but thee are nevertheless occurring significant changes in regional economies as traditional resource sectors become less important and are replaced by new industries and an expanded service sector. To some extent I would argue that this decrease in regional specialization reflects a weakening of the Canadian economic union as governments seek to diversify provincial economies through the inefficient mechanism of production diversification rather than through ownership diversification.[13] However, one must also be cognizant of Krugman's concerns that an effective economic union may result in excessive specialization and hence regional instability.

An important counter to regional specialization in production is the redistributive aspect of Canadian federalism -- which essentially leads to diversity in ownership by offering "insurance" in the form of regional transfers-net-of-taxes that are sensitive to regional economic conditions. (For an excellent summary of the evidence, see Bayoumi and Masson.) If those transfers are significantly reduced as a result of a breakdown of the process of constitutional renewal, as many commentators suggest might occur, then regional specialization becomes problematic for the cohesiveness of the Canadian monetary union. Against this must be set the changes in the pattern of regional specialization noted in the preceding paragraph.

iv. Wage-price flexibility. There is so far as I am aware no evidence to suggest that Canada is moving in any significant way towards European style wage-price flexibility. Hence there is no argument stemming from this criteria to change the weight of evidence in support of fixed exchange rates. Indeed, there is one argument that arises as a result of the emergence of a low inflation economy in Canada that reinforces the need for keeping the flexible exchange rate. If, as is widely supposed, there is an element of money illusion that provides for strong resistance to reductions in money wages, then in a low-inflation (and low productivity growth environment, the only feasible way to reduce real wages should that be an adjustment that is called for is through currency depreciation. If that mechanism is not available because of the adoption of a fixed exchange rate, and a disturbance calling for real wage

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[13] Recently, most of these policies have been provincial, as captured by the emergence of the term *province building*. However, federal policies have also been important-- the Western Diversification Fund and the Atlantic Canada Opportunities Agency (ACOA) are current examples, as are virtually all the activities of the now-defunct Department of Regional Economic Expansion.

reductions arrives, then the only option left is a long painful recession that slowly grinds down nominal wages.[14]

v. Structure of exogenous shocks. Given the diversity of the regions that comprise the Canadian economy, it is not surprising that terms of trade shocks that affect the regions differentially are an important source of macroeconomic fluctuations. The two OPEC shocks of 1974 and 1979 respectively bear testimony to this, but the differential speeds of recovery in the mid-1980s and the differential severity of the 1990-1992 recession also provide confirming evidence. (The papers by Macklem and by Amano and van Norden at this conference focus on terms of trade shocks.)

There is of course some degree of matching between the shocks hitting Canadian regions and those hitting similar and nearby regions in the U.S. But this does not translate directly into an argument for fixed exchange rates between Canada and the United States; we are back to the world of Mundell's original 1961 paper. There may be a logical case for British Columbia and Washington maintaining a fixed exchange rate, and then floating against the common currency of Ontario and Michigan. But that does not strike me as very interesting as a matter of practical policy.

It is of course possible that in some circumstances this scenario might translate into a case for a fixed Canada-U.S. exchange rate, but the case has to be made. One such argument is presented by Bill Scarth, and is discussed in more detail below.

vi. Availability of other policy instruments. Here the big question is whether fiscal federalism, and the associated regional transfers, is weakening

[14] Given Canada's current relative unit labor costs, that disturbance may have already arrived! Courchene, for example, argues that this is the result of the Bank of Canada's "zero inflation" policy, and that adjustment in the face of low inflation will require a long and painful period of stagnation.

as an adjustment mechanism? Has fiscal restraint and associated "off-loading" led to a weakening of the "national fabric"? Such developments, which at this stage have not been established but are only the source of speculation, would be harmful to the functioning of the economic union and perhaps even to the coherence of the Canadian monetary union.[15] But it is hard to see how the weakening of this adjustment mechanism would in and of itself give rise to an argument for eliminating another one by fixing the exchange rate. Of course, if the whole structure of Canadian fiscal policy were to change so that provinces became more active players, then the possibility posited by Courchene and explored in more detail by Scarth that fixed exchange rates are more compatible with provincial stabilization, has to be considered. I do this in Section 4.2 below.

3.2 Positive Economic Integration Revisited.

Recent focus on constitutional change provides an alternative perspective of the state of the Canadian economic union. Purvis and Raynauld (1992) suggest three broad conclusions that can be identified:

i. The Canadian economic union produces a surplus. There is wide agreement among economists that the Canadian economic union produces a substantial economic surplus which would be lost in the event of Quebec separation. As noted by J. Maxwell and C. Pestieau (1980), there are four main sources for this surplus. The first is the traditional principle of the division of labour and specialization which gives rise to gains from trade. The second is the presence of economies of scale in the production of private and public goods. The third is the pooling of risks--a more diversified and larger economy is more resistant to external shocks, and federal taxes and

[15] As Tom Courchene has suggested to me, the reduction in the role of transfer payments may lead to endogenous changes in the strength of other adjustment mechanisms, such as wage flexibility.

expenditures spread the risks among regions. Fourth, a larger economic space increases international bargaining power and leverage, leading to better terms of trade.

ii. Enhancements to negative integration are largely irrelevant. There are two basic reasons for this view. First, as many economists have stressed, Canada is already highly integrated in this sense, and the welfare gains from further integration are likely to be negligible. (See, e.g., Howse and Trebilcock, *op. cit.*.) This does not, of course, deny the usefulness of measures to prevent fragmentation of the existing union--the costs of disintegration can be high even if the benefits of further integration are small. Second, as Tom Courchene has argued in a number of places--see, e.g., his contribution in Boadway, Courchene, and Purvis (1991)--the forces of globalization make domestic agreements for negative integration largely redundant. Pressures from international market forces and institutions (e.g., GATT, BIS, FTA) will effectively constrain the ability of and incentives for governments to introduce policies which impose barriers and impediments to the mobility of goods, services, and factors of production.

iii. The forces of globalization that make negative integration less important make positive integration more important. In the emerging information-based world economy where prosperity is increasingly tied to human capital and the development of what Michael Porter calls a national advantage, one important development that Canada needs in order to enhance the operation of the Canadian economy is to improve *intergovernmental coordination*. That is, we need enhanced positive economic integration. To avoid being left behind in the race for new sources of high value-added jobs and industries, it is essential that Canada do everything possible to improve coordination and/or harmonization of structural and stabilization policies. Government policies must stop working at cross purposes, and the duplication and overlap of many regulations--that often serve to inhibit innovation--must be addressed. And the current federal-provincial conflict on the financing and delivery of social policies could not be more costly--again, as Tom Courchene stresses, in the information economy where human capital is key, social policy is economic policy.

Thus, in the context of Canada's current constitutional debate, the issue of policy harmonization has received considerable attention. There is broad agreement that the economic policies of the federal and provincial governments need to be better coordinated and rationalized. With regard to fiscal policies, the concerns are about the *interaction* of the policies. In some circumstances, they can have an undesirable cumulative effect. For example, if the majority of governments take an expansionary fiscal stance (perhaps in response to a perceived economic slump) but do so in a decentralized and uncoordinated fashion so that each did not take account of the policies of the other governments, this could lead to an undesirable degree of fiscal stimulus, leading to inflation and increases in interest rates. In other circumstances, the policies can work at cross-purposes. For example, the its September 1991 *Proposals* the federal government argued that the fiscal stimulus of the Ontario government in the late 1980s served to undermine the fiscal restraint being pursued by the federal government and a number of the other provinces.

Bill Scarth has recently outlined the main issues.[16] He starts from the proposition that Canada is not an optimal currency area in which economic adjustments to the prevalent asymmetric shock are smoothly and quickly worked out via changes in prices of goods and factors and via factor mobility. By implication, since national monetary policy and federal fiscal policy cannot address these region-specific problems, there is a legitimate need for regional-specific stabilization policies, by which is meant provincial stabilization

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[16] See his contribution to Grubel, Purvis, and Scarth, 1992; the following draws on my own comments in that volume.

polices. (Courchene has also stressed the need for increased fiscal stabilization at the provincial level.)

Scarth uses a simple analytic model that captures the "spill-over" effects from provincial fiscal policies, and in particular shows that such spill-overs can be either negative or positive--i.e., fiscal expansion in, say, Ontario can have a stimulative or a contractionary effect on Quebec--depending upon the exchange rate regime and the fiscal instruments employed. He refers to negative spill-overs as beggar-thy-neighbor, although he recognizes that whether a positive or negative spill-over is desirable depends upon whether provincial business cycles are positively or negatively correlated.

The important implication of the spill-over effects is that whatever the sign, they cause the interests of the province in question to diverge from the national interest. If the spill-over is beneficial, the province acting in isolation will underutilize its fiscal instrument relative to the national interest since it will not take the beneficial spill-over into account. Conversely, if the spill-over is harmful, the provincial fiscal instrument will tend to be overutilized relative to the national interest. The important point is not that one case is more desirable than the other, rather it is that either calls for *coordination*. Coordination in this case does not necessarily mean fine-tuning, but it does mean some negotiating away of the effects of the spill-overs; some federal role is certainly called for, but, as argued at length in Purvis (1991), this is exactly one area in which a renewed federalism might contribute.[17]

One qualification to the enthusiasm for increased provincial fiscal stabilization that should be mentioned is that raised by Krugman (1992). He argues that in a world where shocks buffeting the jurisdiction tend to be permanent and where the factor mobility is high, sub-federal (in this case, provincial governments should pursue a pro-cyclical policy of balanced budgets. Running a deficit justified by stabilization when the downturn is

[17] Scarth also identifies a case for considering a fixed exchange rate; this is discussed in more detail in Section 4.2 below.

permanent and the region adjusts not by a lowering prices and wages but by shedding factors (and hence future taxpayers) is not in fact a responsible policy.

4. EVALUATING EXCHANGE RATE REGIMES

In this section I first provide a brief review of the emerging concerns about the operation of the flexible exchange rate system, both from a country-specific perspective and from the systemic perspective, and then turn to a number of arguments that have been put forward in support of a fixed Canada-U.S. exchange rate.

4.1 Problems with Flexible Exchange Rates

There has been a great deal written on this subject, and I shall not in any way attempt to provide a comprehensive review of the literature; rather I will highlight the key issues in order to make this essay self-contained.

Probably the major set of problems of the flexible exchange rate system are associated with what are referred to as the *volatility* and *misalignment* problems. One set of lessons that we have clearly learned from the 1980s is that exchange rates can apparently depart from their "fundamental values" by significant amounts for extended periods of time (the misalignment problem), and that they often overreact to current events (the excess volatility problem). Together, these two phenomena probably account for the enormous difficulties experienced by economists in trying to identify a robust equation explaining actual exchange rates, and they certainly combine to provide the major problems for monetary policy.[18]

One key lesson for monetary policy is that to pay too much attention to short term exchange rate developments in such a world seems unwarranted.

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[18] They also motivate my earlier caution above about drawing inferences from the analysis of a once-for-all exchange rate change as a simple way to make an adjustment for a flexible exchange rate world in which the exchange rate is market determined.

Indeed, my major criticism of Bank policy in the 1988-1990 period is that I think it sometimes put too much emphasis in short term movements in the exchange rate, and in so doing took its eye off the medium term inflation ball. This in turn allowed monetary policy to be looser than would have been consistent with the Bank's announced medium term inflation objectives, and ultimately led to subsequent policy being tighter than it might have otherwise been. Thus the excess volatility of exchange rates led to excess volatility of monetary policy.

That being said, I also recognize that the misalignment problem means that exchange rates can have undesirable economic effects for considerable periods of time, and that for political and economic reasons the Bank cannot be completely indifferent to the exchange rate. I interpret the Bank's recent focus on its monetary conditions indicator to be a constructive attempt to integrate exchange rate concerns with its medium term objectives.

Others go further in their policy recommendations. (See, for example, the discussion in Frenkel and Goldstein, 1988). Tobin for example has long advocated a tax on short-term capital movements to effectively "put sand in the gears" of the all-too-efficient international capital markets, and hence mitigate short-term movements in exchange rates that are not related to changes in underlying fundamentals. McKinnon (1988) and Cooper (1990) have each proposed moving to a single world currency, although it is interesting to note that nothing in the optimal currency area literature supports expanding currency zones in this manner. My view is that this "paradox" arises from that curious fact that the criteria advanced in the OCA literature are primarily real, yet the volatility/misalignment issues in particular and the exchange rate literature in general focuses primarily on nominal factors.

A second issue that is posed as a problem for the flexible exchange rate literature concerns the alleged benefits in the form of policy independence. Basically the evidence is that international business cycles remain as coherent under flexible exchange rates as they did under fixed rates. My own conjecture is that this is the result of countries not taking advantage of the opportunity for independent policy, especially monetary policy, afforded by flexible exchange rate. Thus in this view the international transmission of business cycles results not from the lack of scope for independent macro policy, nor from the operation of the "export multiplier" that links economies under fixed exchange rates, but rather from the "transmission of the policies themselves". The key mechanism by which such transmission occurs arises from the beggar-thy-neighbor aspects of monetary policy under flexible exchange rates. For example, foreign monetary restraint will, in the first instance, lead to a weakening of the domestic currency and an increase in domestic inflation; if the monetary authority acts to stabilize the exchange rate, the foreign monetary restraint is mimicked at home. That is, in this view, decentralized policy harmonization aimed at "exchange rate protection" is the principle cause of cycle harmonization.

4.2 Arguments for Fixed Exchange Rates

There are a number of arguments that have been put forward recently advocating that Canada return to maintaining a fixed exchange rate with the United States.

i. Devolving authority for monetary policy. First, some commentators do not wish to give the policy independence to the Bank of Canada that is implicit in a flexible exchange rate. Implicitly or sometimes explicitly they would prefer to devolve authority for Canadian monetary policy to the U.S. Fed. (I am not aware of anyone who would go all the way to closing the Bank of Canada and withdrawing the Canadian dollar from circulation to be replaced by US dollars, but that is the logical implication of this position unless the potential to change the par value of the Canadian dollar is to be retained. But of course there may be someone out there who does hold this view.)

In part, this position is based on the view that the U.S. has done (and will continue to do) a good job of preserving price stability. With persistent record deficits financed in its own currency and a fragile financial sector, I simply do not share the optimism about the outlook for American inflation. In any event, this position is seriously compromised by the argument advanced by David Laidler and William Robson (1990) who effectively turn Mundell's OCA argument on its head. They argue that since flexible exchange rates are necessary for exercising an independent monetary policy, and that monetary policy in turn is an obligation of the nation state, then the nation state is the currency area. That is, political boundaries form the national currency area--it may not be optimal but it is the only politically feasible one there is.

Cooper, in advocating a single world currency, argues that opting for a fixed exchange rate is a legitimate exercise of sovereignty. This view essentially extends the argument advanced in section 2 above that economic integration (in this case, monetary union) and political integration (in this case, ceding sovereignty for monetary policy) are related; this is one argument where the distinction between a fixed exchange rate and a monetary union is paramount. A fixed exchange rate ultimately breaks down because each national government effectively retains the right to alter exchange rate policy in the future. An effective monetary union involves sufficient ceding of sovereignty that such an option is forfeited.

ii. Benefits of flexible exchange rates are limited. This argument builds on the natural rate hypothesis to suggest that the only real benefits that can be derived from a flexible exchange rate is to maintain an inflation rate that is different from that of our trading partners. The benefits from this, if it is achieved, are argued to be small, and the view is buttressed by arguing that given the volatility and misalignment problems we are unlikely even to accomplish this. The conclusion is that we cannot maintain an inflation rate different from that of our trading partners, and hence we should bite the bullet and fix the exchange rate.

In my view, many of the advocates of this position confuse the transition problems from setting out on a course to establish an inflation rate different from the U.S. with the feasibility and desirability of the steady-state.[19] As I stressed in my contribution to the C.D. Howe volume addressing the Bank's zero inflation target (Lipsey, 1990), I think the steady-state is desirable, and I think that the steady-state is not only feasible but that by mid-1992 it has essentially been achieved.

Thus the key issue is whether the costs of the transition are worth it, and that in fact was the subject of some of the other papers at the conference. If for example Richard Harris's conjectures about location decision for international investment being so strongly affected by exchange rate misalignment that the economic costs are substantial (and persistent), then one would indeed worry about the costs of recent Bank policy. Whether this line of argument presents a strong case for a fixed exchange rate is debatable. However, it does identify one transition cost that may make it desirable to give increased weight to foreign (U.S.) policies under setting domestic policies; more generally, it also suggests a need for international policy coordination to pre-empt competitive devaluations.

Of course the real test of whether this "policy harmonization" view is a strong argument for a fixed exchange rate will occur when the U.S. inflation starts to rise, as I expect it will in the very near term. The compelling argument against fixing the exchange rate and thus inflating along with the U.S. is that the costs of reducing our inflation rate have now largely been paid. Whatever one feels about the *ex ante* attractiveness of recent monetary

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[19] It seems ironic that the argument that the only credible inflation rate is the American one is about as well-substantiated as the Bank's oft-stated position that the only credible inflation rate is zero!

policy, it would be a tragedy if the inflation rate were not maintained in the current low range so that the benefits can be reaped.

iii. Increased North-South Integration. Some commentators have argued that the increased North-South integration resulting from increased Canada-U.S. trade and decreased intra-Canadian trade weakens the Canadian economic union to the point where a fixed exchange rate is called for. As already noted, I am not persuaded by this line of reasoning. Essentially, I am with Feldstein on this--I simply do not think that the FTA and the trends in trade patterns represent anywhere near the kind of integration to warrant a monetary union. Further, I have not seen any compelling evidence that exchange rate volatility is a large deterrent to Canada U.S. trade, although businessmen on both sides of the border certainly repeatedly identify it as a major irritant.

iv. Changing fiscal federalism. Here the relationship to the case for a fixed exchange rate is two-way. Some who favor a fixed exchange rate and therefore eschew monetary policy for stabilization purposes advocate that the "void" be filled by an increased role for provincial stabilization. Others who fear that fiscal federalism is breaking down and that provincial fiscal policies will of necessity have to become more actively involved in management of the economy see in that either an opportunity or a need to restrict monetary policy by fixing the exchange rate. I think the case is considerably overstated; I see a case for coordinating fiscal policies and for ensuring that they are harmonized with monetary policy, but I see no compelling argument for a fixed exchange rate.

For example, in the analysis discussed earlier, Scarth explores the case for a fixed Canada-U.S. exchange rate based on his analysis of the spill-overs of provincial fiscal policy. He argues that a fixed exchange rate is most desirable when the provinces are being buffeted by common shocks, so that they experience booms together or slumps together. Given the disparate nature of

Canadian regions and the prevalence of terms of trade shocks that affect them differentially, I would argue that the majority of times that the provinces are experiencing common conditions is when the major shock hitting the economy is from the monetary authority. This could be monetary excess causing all the provinces to experience inflationary pressures, but this is not typical since monetary excess has usually been a gradual cumulative process so that in many provinces its effects are dominated by other factors, including region-specific terms-of-trade shocks. More likely, it occurs when inflationary pressures have built-up to the point where the monetary authority adopts a restrictive anti-inflation policy.

Hence the case for fixed exchange rates (i.e., for abandoning independent monetary policy) applies to situations caused by active use of monetary policy, which in turn can occur only under a flexible exchange rate. One might think that this undermines the case considerably, but there is one situation which I think his analysis is exactly applicable. That case is when there is a common international need for a restrictive monetary policy but not enough political will to pursue it domestically while there is political will abroad. this will lead to the mimicking of the restrictive foreign monetary policy by the domestic central bank attempting to stabilize the exchange rate. Thus in this case there will be a common monetary shock hitting all provinces in conjunction with a *de facto* fixed exchange rate.

Thus a fixed exchange rate becomes a vehicle for coordinating monetary policies. While this is an interesting case, I do not accept that in general Canada's macroeconomic performance would be better enhanced by this kind of international coordination of monetary policy than by improving our efforts at intra-national coordination of fiscal policies and harmonization of those fiscal policies with our national monetary policy.

5. CONCLUSIONS FOR CANADIAN EXCHANGE RATE POLICY

By and large the various arguments that have been advanced in favor of a fixed exchange rate between Canada and the United States amount to rejecting the current flexible exchange rate arrangement. At one level this is a compelling argument, given the well-documented problems that flexible exchange rates exhibit. As the argument goes, if we can't explain a large fraction of exchange rate movements, and if we believe that these movements have important implications for the economy, should we not just fix the exchange rate and get on with it?.

However, I would suggest that the argument does not stand up to scrutiny, for two related reasons. First, there is no reason to believe that our ignorance (reflected in our inability to explain exchange rates) will not manifest in some other form under fixed exchange rates, and hence no reason to be confident that either policy or economic performance will be improved. Second, those putting forward the argument suffer from short memories and thus fail to recognize the lessons of history.[20] The problems experienced by the Bretton Woods system of fixed exchange rates were so severe that it was abandoned. Many attribute the difficulties to the potential for changes in par values in the adjustable peg system, and to the one-way bets that create risk-free opportunities to plunder central bank foreign exchange reserves when changes in par values become likely. Proponents of fixed rates thus propose a system of *permanently* fixed exchange rates (e.g., Cooper's proposal for a single

[20] If the lessons of history are not sufficient, then some heed might be paid to the problems of the ERM in September 1992 when the tension between inconsistent policies and fixed exchange rates led to massive speculative capital flows, leading Sweden for example to raise its overnight interest rate to over 500 percent in order to protect the Krona, and the Bank of England to withdraw the pound sterling from the system when interest rate hikes failed to stem speculative attacks on the pound. A comparison of the US and the UK experience during this episode is instructive. Both were low-interest currencies relative to the mark, and hence subject to speculative capital outflows. The U.S. dollar certainly went through a substantial cycle, but no one-way bets were created for speculators and no *crisis* was experienced.

world currency) in order to avoid destructive speculative flows stimulated by one-way bets. But as long as democratic governments cannot be irrevocably committed to future changes in policy, these problems remain. A currency is an extension of a country's sovereignty, just as is its right to change policies with respect to its currency. Fixed exchange rates collapsed of their own weight, and the flexible exchange rate system, warts and all, is the only game in town.

That is not to say that we have to complacently accept mistakes in the exercise of monetary policy under flexible exchange rates, although credible criticism must be cognizant of the problems facing policy makers in the brave new world of flexible exchange rates in the 1990s. There is no question but that much of the current interest in fixed rates is the result of dissatisfaction with recent and current monetary policy. For my own part, I remain a supporter of the Bank's policy of zero inflation, and of the announced targets for reaching that goal. However, with the benefit of hindsight, I buy into the criticism that monetary policy was too loose in the 1988-1990 period--in part reflecting an over-response to the stock market crash of 1987. I also argue that policy was too tight in 1991 and early 1992; my feeling is that during the course of 1991 when the Bank became aware of its success in fighting inflation, and in particular that the reductions in inflation were running ahead of the schedule set by its targets, it chose not to take advantage of this opportunity to ease and engineer a soft landing. Instead, perhaps buoyed by signals (which hindsight of course shows to have been false) that a recovery was underway in the second quarter of 1991, it chose to exploit the opportunity to over-achieve with regard to its inflation targets while condemning the economy to a deeper recession and a slower recovery than would have otherwise occurred.

But these criticisms, made with the benefits of hindsight, are "fine-tuning" criticisms. Just as I would hope that the Bank would avoid the kinds of mistakes that trying to fine tune invites, I would hope that critics would avoid mistaking errors in fine tuning for errors in choice of regime. Policy is, and always will be imperfect. The current Bank of Canada regime--a flexible exchange rate with a medium-term inflation target--is, I think, not only appropriate but the only one supported by available evidence and theory about how the economy functions. But choosing the right regime is not a panacea; good results still require good policy. I hope that this conference will contribute to continued good, if imperfect, policy.

REFERENCES

Alesina, Alberto and Vittorio Grilli, "The European Central Bank: Reshaping Monetary Politics in Europe", CEPR Discussion Paper 563, 1991.

Baldwin, Richard E., "Economic Integration, Efficiency and Growth", *The Economics of EMU, European Economy*, Special Edition No. 1, 1991, 21-35.

Bayoumi, Tamin and Paul Masson, "Fiscal Flows in the United States and Canada: Lessons for Monetary Union in Europe", unpublished manuscript, IMF, 1991.

Boadway, R.W., T.J. Courchene, and D.D. Purvis, eds., (1991), *Economic Dimensions of Constitutional Change*, (Kingston: John Deutsch Institute, Queen's University).

Boadway R.W. and D.D. Purvis, eds., (1991), *Economic Aspects of the Federal Government's Constitutional Proposals*, (Kingston: John Deutsch Institute, Queen's University).

Bruce, Neil and Douglas D. Purvis, "The Specification and Influence of goods and Factor Markets in Open Economy Macroeconomics", in *Handbook of International Macroeconomics*, Peter Kenen and Ronald Jones (editors), North Holland, 1984, 807-858.

Canzoneri, Matthew B., and Carol Rogers, "Is the European Community an Optimal Currency Area? Optimal Taxation versus the Cost of Multiple Currencies", *American Economic Review 80, 419-433.*

Cecchini Report (1988), *The Costs of Non-Europe* (Luxembourg: Office for Official Publications of the European Communities).

Cooper, Richard, "What Future for the International Monetary System?", (1990), to appear in J. Frenkel and M. Goldstein (eds.), *International Financial Policy: Essays in Honor of Jacques Polak*, IMF, forthcoming.

Courchene, Thomas J., "Reflections on Canadian Federalism: Are There Implications for European Economic and Monetary Union", unpublished manuscript, Queen's University, 1992.

DeGrauwe, Paul and Wim Vanhauerbeke, "Is Europe An Optimum Currency Area? Evidence from Regional Data", CEPR Discussion Paper No. 555, May 1991.

Delors Report, *Report on Economic and Monetary Union in the European Community*, Committee for the Study of Economic and Monetary Union, June 1989.

Devereux, Michael, "Does a Monetary Union Require International Fiscal Policy Coordination?", *The Economic and Social Review* 23, 1991, 35-54.

Eichengreen, Barry, "One Money for Europe? Lessons from the U.S. Currency and Customs Union", *Economic Policy*, 10, April 1990, 117-87.

Eichengreen, Barry and Tamin Bayoumi, "Shocking Aspects of European Monetary Unification", unpublished ms., NBER 1992.

European Community Commission, "One Market, One Money", *European Economy* 44, October 1990.

Feldstein, Martin, "The Case Against European Monetary Union", *The Economist*, June 13 1992, 19-22.
Fenton, Paul and John Murray, "Optimal Currency Areas: A Cautionary Tale", this volume.
Floyd, John, "Stochastic Interdependence of National Policies: Theory, Evidence and Implications", presented at June 1992 CEA meetings, P.E.I.
Frenkel, Jacob and Morris Goldstein, "Exchange Rate Volatility and Misalignment: Evaluating Some Proposals for Reform" in Federal Reserve Bank of Kansas City Conference Volume, 1988, 195-220.
______________, "The Macroeconomic Policy Implications of Trade and Currency Zones" in Federal Reserve Bank of Kansas City Conference Volume, 1992, forthcoming.
Friedman, Milton, "The Case For Flexible Exchange Rates" *Capitalism and Freedom,* University of Chicago Press, 1953
Goto, J. and K. Hamada, "Economic Preconditions for Asian Regional Integration" presented to Third NBER Annual East Asian Seminar on Economics, 1992.
Government of Canada (1991), *Shaping Canada's Future Together: Proposals* (Ottawa: Minister of Supply and Services).
Government of Canada (1991), *Canadian Federalism and Economic Union*, (Ottawa: Minister of Supply and Services).
Grubel, H. G., "The Case for a North American Currency Area", ms., Simon Fraser University, 1992.
Grubel, H., D. Purvis, and W. Scarth, *Limits to Government*, C.D. Howe Institute, 1992.
Harris, Richard and Douglas Purvis, "Constitutional Change and Canada's Economic Prospects", *Canadian Public Policy/Analyse de Politiques* 17, 1991, 379-395.
Heller, Robert, "Determinants of Exchange Rate Practices", *Journal of Money Credit and Banking* 10, 1978, 308-321.
Johnson, H.G., "The Case for Flexible Exchange Rates", in *Further Essays in Monetary Economics*, Allen and Unwin, 1972.
Johnson, H. and A. Swoboda, eds., *The Economics of Common Currencies*, George Allen and Unwin: London, United Kingdom, 1973.
Kenen, Peter, "The Theory of Optimal Currency Area: An Eclectic View", in R. Mundell and A. Swoboda, eds., *Monetary Problems in the International Economy*, Chicago: University of Chicago Press, 1969.
Krugman, Paul, "Policy Problems of a Monetary Union", in Paul De Grauwe and Lucas Papademos, *The European Monetary System in the 1990s*, 1990.
____________, "Lessons of Massachusetts for EMU", paper presented to Banco de Portugal Conference on the Transition to EMU, 1992.

Laidler, David and William Robinson, "The Fix is Out", 1990, C. D. Howe Institute, Toronto.

____________, "Two Nations, One Money", 1991, C. D. Howe Institute, Toronto.

Lipsey, Richard, *Zero Inflation: The Goal of Price Stability*, 1990, C.D. Howe Institute, Toronto.

Lucas, Robert and Brad Reid, "The Choice of Efficient Monetary Arrangements in the Post Meech Lake Era", *Canadian Public Policy/Analyse de Politiques* 17, 1991, 417-433.

Masson, Paul and Mark Taylor, "Currency Areas and Currency Unions: An Analysis of the Issues", CEPR Discussion Paper # 617, 1992. (To appear in *Currency Unions*, edited by Paul Masson and Mark Taylor, forthcoming, Cambridge University Press).

Maxwell, J. and C. Pestieau (1980), *Economic Realities of Contemporary Confederation*, C.D. Howe Research Institute, Montreal.

McKinnon, R., "Optimum Currency Areas", *American Economic Review* 53, 1963, 717-25.

__________, "Monetary and Exchange Rate Policies for International Financial Stability: A Proposal", *Journal of Economic Perspectives*, 2, pp. 83-103.

Mundell, R.A., "A Theory of Optimum Currency Areas", *American Economic Review* 51, 1961, 657-65.

____________, *International Economics*, 1968, Macmillan.

____________, "The Overvalued Canadian Dollar" (manuscript), 1990.

Poloz, Stephen, "Real Exchange Rate Adjustment Between Regions in a Common Currency Area", unpublished manuscript, February 1990.

Purvis, Douglas D., "The Exchange Rate Regime and Economic Policy in Theory and in Practice", *Canadian Public Policy/Analyse de politiques* 3, 1976, 205-218.

____________, "The Federal Proposals and the Economic Union" in R.W. Boadway and D.D. Purvis (eds.), *Economic Aspects of the Federal Government's Constitutional Proposals*, (Kingston: John Deutsch Institute, Queen's University), 1991.

Purvis, Douglas D. and André Raynauld, "Lament for the Economic Union" in D. Brown and R. young (eds.), *The State of the Federation, 1992*, Institute for Intergovernmental Relations, Queen's University at Kingston, 1992.

Scarth, W., "Provincial Stabilization Policy: Coordination Issues", in *Limits to Government*, H. Grubel, D. Purvis, and W. Scarth, (C.D. Howe Institute, 1992.

Tobin, James, "International Currency Regimes, Capital Mobility, and Macroeconomic Policy", Cowles Discussion paper # 993, 1991.

Tower, E. and T. Willett, "The Theory of Optimum Currency Areas and Exchange-Rate Flexibility", *Princeton Special Papers in International Economics* 11, 1976.

Wyplosz, Charles, "Monetary Union and Fiscal Policy Discipline", *The Economics of EMU, European Economy*, Special Edition No. 1, 1991, 165-84.