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CANADA

EUROPEAN MONETARY UNION AND ITS IMPLICATIONS FOR CANADA

by

Robert Hannah
International Economic Relations and Summit Division (EER)

(March 1997)
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European Monetary Union and its Implications for Canada

Executive Summary

This paper discusses the proposed European Monetary Union (EMU), a landmark event for Europe and world financial markets, and draws out some of the implications. First, the basic framework of EMU and its associated institutions is reviewed, along with the Maastricht criteria for economic convergence. The economic characteristics and implications of a currency union are discussed. Then, in the remaining three sections, the implications for Europe, the international financial system, and for Canada are examined.

While there is considerable debate about the economic benefits and costs of EMU, the underlying motivation is seen to be largely political. Monetary union is viewed as a major step in promoting the integration of Europe. It will also provide a framework for a pan-European approach to monetary policy. The paper concludes that EMU is achievable, but that the economic benefits may be exaggerated. Much of the popular discussion about the benefits of EMU appears to confuse the benefits of a *customs union*, which entails important trade and investment effects, and which the European Union has been for many years, with those of a *currency union* (EMU), which is about monetary policy and exchange rates. Currency unions are best studied through the theory of optimal currency areas. In this context, it is concluded that European economic performance under EMU would be enhanced if Europe tackled the difficult issues of improving labour and product market flexibility.

The transition to EMU involves both a plan for economic convergence for the participating countries based on the Maastricht criteria, and a complex process for the constitution of a new central bank and introduction of the single currency. From a financial economist's point of view, EMU will start with a "big bang" when exchange rates among participating currencies are locked and the new central bank begins operations, the most likely date being January 1, 1999.

With respect to the implications of EMU, the paper concludes that:.

- For Europe, the quantifiable economic benefits of EMU are likely small. However, it could provide the impetus to improve product and labour market flexibility, changes that will enhance the operation of the European economy under monetary union. It may also accelerate the harmonization of securities markets and banking regulation.

- For financial markets in Europe and abroad, the impact should be positive if the transition goes smoothly. Deeper and more liquid markets should enhance the efficiency of financial market intermediation, and financial product innovation may increase as markets mature and become more competitive. The new currency will find a place in official reserve portfolios of non-participating

countries without major impacts on global money or exchange markets. However, volatility and turbulence in financial markets could occur at certain points in the EMU implementation process. Any postponement of revision in the process will result in the rapid unwinding of financial market expectations, with associated market volatility. EMU will also have longer-term implications for the management of international financial issues in such fora as the G-7 and the IMF.

- For Canada, the implications appear relatively minor. Canada will probably be perceived increasingly as part of the North American market in a tri-polar financial world. Secondary impacts on Canada stemming from changes in European competitiveness, trade effects and capital market flows may occur, but differences of opinion exist on the direction and size of these effects. While it is hoped that EMU will stimulate investment and growth in Europe, it is possible that a hard euro currency policy and continued fiscal restraint could produce stagnation. Canada's floating exchange rate and market-oriented economy should accommodate such effects with a minimum of disruption. Canadian firms and financial market participants planning to conduct transactions and operations in the new currency, however, must inform themselves on the technical details.

Résumé

Le présent document analyse le projet d'Union économique et monétaire (UEM) en Europe, événement sans précédent pour les marchés financiers du continent européen et du monde entier, puis met en lumière certaines de ses répercussions. Tout d'abord, nous examinerons le cadre fondamental de l'UEM et des institutions afférentes, de même que les critères de convergence prévus par le Traité de Maastricht. Les caractéristiques et les conséquences économiques d'une union monétaire sont également abordées. Ensuite, dans les trois dernières sections, nous passerons en revue les incidences de l'UEM sur l'Europe, le système financier international et le Canada.

Bien que les avantages et les coûts économiques de l'UEM restent encore largement débattus, les motifs qui sous-tendent l'UEM sont considérés d'ordre essentiellement politique. En effet, l'Union monétaire est perçue comme un pas important dans la promotion de l'intégration de l'Europe. Elle fournit également une approche structurée d'envergure paneuropéenne en matière de politique monétaire. Nous concluons ici que l'UEM est possible, mais que l'on exagère peut-être ses retombées économiques favorables. En effet, une bonne part des discussions dans la population sur les avantages de l'UEM semblent confondre les bénéfices tirés d'une *union douanière*, qui s'assortit d'importants effets sur le commerce et les investissements -- et à laquelle l'Union européenne peut être assimilée depuis de nombreuses années -- et ceux d'une *union monétaire* (telle l'UEM), qui concernent la politique monétaire et les taux de change. C'est au moyen de la théorie des zones monétaires optimales qu'on peut le mieux étudier les unions monétaires. Nous en avons conclu que le rendement économique de l'Europe dans le cadre de l'UEM progressera si le continent parvient à améliorer la souplesse des marchés de la main-d'oeuvre et des produits, ce qui ne va pas sans difficultés.

La marche vers l'UEM suppose que les États membres se dotent d'un plan de convergence économique fondé sur les critères de Maastricht ainsi que d'un processus complexe permettant la constitution d'une nouvelle banque centrale et l'introduction d'une monnaie unique. Du point de vue de l'économiste financier, l'UEM s'amorcera par un big bang lorsque les taux de change entre les monnaies participantes seront bloqués et que la nouvelle banque centrale commencera ses activités, selon toute vraisemblance le 1er janvier 1999.

Nous sommes parvenus aux conclusions suivantes quant aux retombées de l'UEM :

- Pour l'Europe, les avantages économiques quantifiables de l'Union monétaire seront probablement faibles. Toutefois, l'UEM pourrait donner le coup d'envoi nécessaire à l'assouplissement des marchés des produits et de la main-d'oeuvre, ce qui devrait en retour améliorer la tenue de l'économie européenne dans le

cadre de l'Union monétaire. Celle-ci pourrait également accélérer l'harmonisation des marchés de titres et de la réglementation dans le domaine bancaire.

- Pour les marchés financiers de l'Europe et de l'étranger, les conséquences devraient être positives si la transition s'effectue sans heurts. La mise en place de marchés plus diversifiés et liquides devrait accroître l'efficience de l'intermédiation sur les marchés financiers, tandis que la création de produits financiers novateurs pourrait s'intensifier au fur et à mesure que les marchés deviendront matures et plus compétitifs. La nouvelle monnaie trouvera sa place dans les portefeuilles de réserves officielles des pays non membres de l'UEM sans bousculer les marchés monétaires ou les marchés des changes à l'échelle internationale. Cependant, les marchés financiers pourraient devenir instables et connaître des turbulences à certains moments du processus de mise en oeuvre de l'UEM. Tout retard ou toute révision du processus entraînera la révision rapide des attentes sur les marchés financiers, d'où la volatilité de ces derniers. L'Union monétaire aura également des retombées à long terme sur la gestion des grandes questions financières internationales dans des tribunes comme le G-7 et le FMI.

- Pour le Canada, les conséquences semblent relativement restreintes. Le Canada sera probablement perçu de plus en plus comme une partie du marché nord-américain dans un monde financier tripolaire. L'évolution de la compétitivité en Europe, les effets sur le commerce et les mouvements des capitaux peuvent avoir une incidence secondaire sur le Canada, mais les observateurs ne s'entendent pas sur l'orientation et l'ampleur de ces éléments. Bien qu'on espère que l'UEM stimulera l'investissement et la croissance en Europe, il est possible qu'une politique stricte régissant l'euro et le maintien des contraintes budgétaires provoquent la stagnation. Le taux de change variable et l'économie de marché qui caractérisent le Canada devraient lui permettre de s'adapter à cette situation en subissant un minimum de perturbations. Les entreprises canadiennes et les protagonistes sur les marchés financiers canadiens qui prévoient conclure des opérations et exercer des activités dans la nouvelle monnaie devront cependant s'informer des détails techniques pertinents.

European Monetary Union and its Implications for Canada

1. Introduction

This paper discusses the European Monetary Union (EMU) and draws out some of its implications. First, the basic framework of EMU and its associated institutions is reviewed, along with the Maastrict criteria for economic convergence. The economic characteristics and implications of a currency union are discussed. Then in the remaining three sections, the implications for Europe, the international financial system, and for Canada are developed.

The underlying motivation for European monetary union (EMU) is largely political[1]; it is characterized as the next step in binding the Europeans (particularly Germany and France) together. The dominance of Germany and the Bundesbank in European finance and the Europeans' propensity for a fixed exchange rate regime system for managing continental European exchange rates have effectively resulted in much of Europe becoming a Deutschemark bloc. The example of German re-unification illustrated how the currency exchange with East Germany, and the ensuing high interest rates, could affect all Europe and highlighted the fact that German economic interests can diverge from those of its partners. While the German central bank has for the most part been a good (if conservative) manager, EMU will provide an institutional framework which gives the other European countries some voice in managing the European monetary system.

EMU is scheduled to proceed as planned on January 1, 1999. However, several factors could negatively affect its prospects: disagreement on monetary and fiscal policies within the EU leading up to the implementation and throughout the transition; another could be the squabbles over technical issues such as participation in the TARGET clearing system, which remains unresolved at the moment. In the longer run, there could be disillusionment on the part of some member states or regions when they find that their lack of monetary autonomy compromises their ability to attain their other economic and social objectives. However, if EMU is implemented, it is likely to be maintained indefinitely. The costs of leaving a currency union are too high for a country to make that decision without very good and compelling reasons.

A highlight of the December 1996 EU Council meeting in Dublin was agreement on the terms of the Stability and Growth Pact, which removes a major obstacle from the

[1]While some (particularly the EU itself) assert that there are major economic benefits, this paper takes the view that these are exaggerated or that the benefits (such as those stemming from increased labour and product market flexibility) will require further desirable but difficult government deregulation.

implementation of EMU. The Pact is an agreement among EU members that participants in monetary union shall maintain budgetary discipline after EMU is implemented on January 1, 1999.

2. The Framework for EMU

2.1 Background and Main Features of EMU

The Maastricht Treaty established a three-stage timetable which would lead to a European Monetary Union and a single currency.

Stage I of the EMU, which began on July 1, 1990 and concluded on December 31, 1993, mandated the elimination by Member States of all controls on capital movements.

Stage II, which began on January 1, 1994, binds the signatories (except for the UK and Denmark) to proceed with stage III if in the opinion of the EU Council they meet the convergence criteria.

Stage III will see the establishment of the single currency. The most likely date for this is January 1, 1999.

The Maastricht Treaty specifies a set of five economic convergence criteria with which member states are required to comply in order to join the final stage of EMU:

1. The general government deficit must be less than 3% of GDP, unless the ratio is declining and approaching the reference value.

2. The general government debt-to-GDP ratio must be less than 60%, unless the ratio is declining and approaching the reference value. Much speculation surrounds the degree of flexibility to be attached to this and the preceding criterion.

3. The inflation rate must be no more than 1.5 percentage point above the average of the three best-performing member states;

4. The long-term interest rate cannot be more than 200 basis points more than the average for the three member states with the best inflation performance;

5. Exchange rate stability must be demonstrated by each member state.

The intensive preparation for EMU will start in early 1998 and will last until January 1, 1999. It will involve a decision on the starting date and participating countries as early as possible in 1998, when 1997 convergence criteria data will be available; the establishment of the European Central Bank (ECB) and the European System of Central Banks (ESCB); and the approval of legislation for the currency changeover. Individual members must ensure compatibility between their national legislation and the requirements of the Maastricht Treaty and the statute of the ESCB.

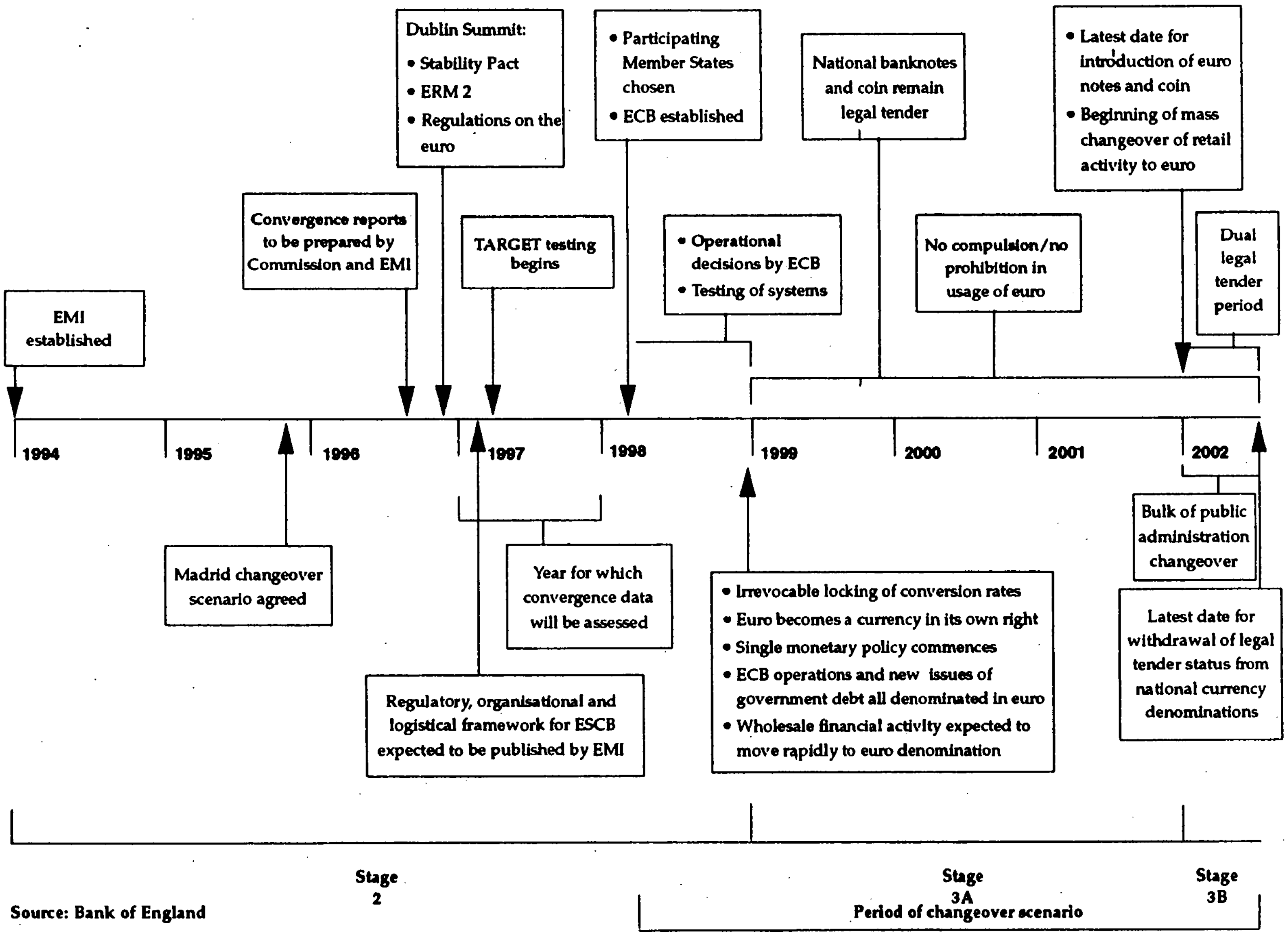
The proposed starting date of January 1, 1999 will be a "big bang" in terms of monetary policy. There will be only one underlying term structure of interest rates and, while the national currencies will continue to exist, they will become merely surrogates for the new euro. The start will involve the irrevocable fixing of conversion rates between the participating currencies and the euro and the transfer of responsibility for monetary policy to the ECB. The ESCB will carry out all its money market and foreign exchange transactions in euro and will convert all accounts held by its counterparties; the ESCB will provide the real-time gross settlement payment system in euro and offer conversion facilities. It is anticipated that a market-driven changeover for large transactions, securities markets, and accounting processes will take place over the three year transition period. Over the last year, European business has begun preparing transition plans and analyses of the technical and legal details. Banks are most advanced in this process, large multinational firms are in the midst of their planning, while small business and the retail sector will follow later.

The replacement of notes and coins and completion of the currency changeover will start on January 1, 2002 at the latest and will last a maximum of six months. Completion of the currency changeover in all sectors is to happen on July 1, 2002 at the latest. National notes and coins will lose their status as legal tender. Chart 1 on the following page illustrates the implementation process.

Only Luxembourg, Denmark, and Ireland (the latter two by virtue of the significant reduction in their public debt) are viewed as meeting the convergence criteria at the moment. Germany, which was one of the first countries to meet the criteria, saw its deficit rise to 3.6% of GDP in 1995, up from 2.5% in 1994, and its debt/GDP is rising, not falling. Denmark has declined to participate and the UK will decide on its participation at the time Stage III is to begin.

Over the last several years public sentiment has swung back and forth between optimism and pessimism over the prospects of achieving a monetary union in Europe. This has compelled EU Finance Ministers and Central Bank Governors to reassure markets frequently of their resolve to achieve the EMU according to the guidelines set out in the Maastricht Treaty. Even if the EMU goes ahead with a core group of strong currency countries, there remains a big question mark about how the union will function under a two-

Chart 1: Planned Timetable for the Introduction of the Euro



Source: Bank of England

speed Europe and the implications this will have for the single market. At present, opinions on balance weigh on the positive side that some form of EMU will begin on January 1, 1999.

A quantitative way to measure market sentiment about the likelihood of EMU is to track interest rate spreads against the Deutschemark over time. If EMU occurs on January 1, 1999, interest rates on "in" currency securities will be the same from that date forward (abstracting from credit differences). As the certainty about EMU has risen over the past year, interest rate spreads among potential "in" currencies have narrowed.

Financial markets are also pronouncing their opinions on the likelihood that various countries will join EMU. The local currency debt of countries expected to join EMU with certainty should exhibit similar yields after 1999 (abstracting from credit risk). Table 1 on the following page presents a notional grouping of European countries with their spreads off German interest rates in basis points (a basis point is one one-hundredth of a percent). The larger the spread, the less certainty is attached by the market to the subject country joining EMU.

The "core" countries in the table have small spreads against deutschemark securities (negative spreads in some cases are caused by liquidity premia and other institutional factors.) In spite of being well outside the Maastricht debt criterion, Belgium is expected to join EMU by virtue of its fiscal reforms, its declining debt/GDP ratio, and the key position of Brussels as the seat of the EU. Recently with Italy declaring its intention to be ready for EMU, rejoining the ERM, and taking steps on fiscal reform, the market's assessment of its chances for EMU participation have risen and lire spreads against deutschemarks have fallen from where they had been in the recent past. Relatively narrow spreads for Portugal and Spain corresponded to a period of enthusiasm about their participation.

Ironically, while the UK is one of the few countries which is close enough to the Maastrict criteria to qualify, it retains its right to opt out. The UK has not yet followed other European countries in making its central bank fully independent as required for EMU, and it remains outside the ERM.[2]

[2]With just less than 2 years until the beginning of EMU, both the UK and Sweden now have no chance of meeting a strict interpretation of the exchange rate criterion (2-year membership in the ERM prior to EMU). However given the potential for flexible interpretation of Maastricht, this may not be a problem.

Table 1
10-Year Interest Rate Spreads over German Bunds
(basis points)

Likely core members of EMU	
Germany	-
France	-21
Netherlands	-14
Belgium	-14
Austria	- 4
Outer Core	
Finland	+39
Ireland	+65
Opt-Outs	
Denmark	+74
United Kingdom	+127
Less Likely	
Portugal	+37
Spain	+44
Sweden	+61
Italy	+76

Source: Paribas Capital Markets. Spreads are based on forward interest rates from January 1999 in the swap market as measured on January 14, 1997. Forward rates as of the EMU commencement date provide the best comparative measure of market expectations on the likelihood of the subject currency joining EMU.

EU political leaders are left facing a number of difficult trade-offs:

- The more stringently the convergence criteria are applied, the more credible and durable will be the monetary union, but the less chance there will be of having a critical mass of participants qualify right from the start.

- Relaxing the interpretation of the convergence criteria will permit the entry of a greater number of EMU participants, but will risk lessening policy credibility in the post-EMU world.

- The decision to delay the startup of monetary union will improve the chances of having a greater number of participants, but it would risk creating considerable uncertainty about the political commitment to actually proceed with the EMU and would require an amendment to the Maastricht Treaty.

Among the many commentators with views on EMU, George Soros (a well-known hedge fund manager) and Rudiger Dornbusch (international monetary economist) both wrote recent articles critical of the Maastricht approach to economic convergence. Soros feels Germany and France should both disregard Maastricht and reflate their economies together. Dornbusch suggests that countries should not join EMU until they demonstrate that their economies can perform with a structural unemployment rate of, say, 6% or less, which would require massive deregulation of European labour markets.[3]

2.2 EMU as an Optimal Currency Area

An optimal currency area is a geographical and economic unit in which one currency and one monetary policy will operate efficiently. The traditional literature suggest four criteria for judging whether regions should form a currency area: mobility of factors of production; flexibility of prices and wages; openness to trade; and diversity of production. Regions that have relatively closed economies, narrow product ranges, strong price and wage rigidities, and low external mobility of labour and capital should not join monetary unions, but should instead retain a separate currency area and permit exchange-rate flexibility.[4]

A casual survey of Europe suggests that:

- regarding factors of production, capital is mobile but labour is less so;
- product prices are flexible, but wages and labour markets are not;
- trade is open, except for certain commodities (agriculture);
- production is generally diversified, except in some smaller countries on the periphery of Europe.

A Bank of Canada study (Chamie et al, 1994) looked at the issue of Europe as an optimal currency area, concluding that there are three country groupings. Germany/Switzerland form a core; this plus Benelux, France, Spain, and the UK form a secondary grouping, and then there is a periphery of Greece, Italy, Norway, Portugal, and

[3]Both wrote in *Foreign Affairs*, September 1996.

[4]Taylor, C. *EMU 2000: Prospects for Monetary Union*, p. 22.

Sweden. The periphery in particular would experience increased costs in the form of variability in output and employment under EMU. At the same time, however, the study concludes that some countries in the peripheral regions have a better ability to adapt to shocks than the core and intermediate countries because they display a higher degree of price and wage flexibility than those in the core where markets are more rigid. EMU optimists would point to the emerging trends in European integration which render studies such as this using historical data less relevant for the future. By the time EMU occurs, Europe will probably be more integrated than it is now. While the EU may not be an optimal currency area, it is a feasible one in the sense that EMU is do-able.

The EU would be the only currency area without a central fiscal authority. Most observers seem to accept the need for some form of fiscal co-ordination among members after EMU; the Stability Pact discussed earlier is a step in this direction. Investment banks in London have specialists who are evaluating the creditworthiness of European governments more closely and conveying their opinions to investors. Without currency risk, creditworthiness will be the key distinguishing feature of regional government debt inside EMU (as it is with provinces in Canada).

3. Issues for the Europeans

3.1 Maastricht Criteria: "Fiscal Masochism", or Prudent Convergence?

The Maastricht Criteria for monetary union, described above in section 2.1, set out a means to bring the European economies into synchronization before the introduction of the euro. The two binding constraints for most countries are the deficit and debt criteria. A case can be made that the concerted actions of several large and small European governments working together to reduce expenditures and deficits is at least partly responsible for the current stagnation in Europe, an effect popularly known as "fiscal drag". From a peak of -5.1% of GDP in 1993, EU countries' structural government balances[5] have tightened to an estimated -3.6% in 1996 and are projected by the OECD to move to -2.5% in 1997.

The preceding discussion is based on short-run aggregate demand effects. However, a growing (even mainstream) opinion in the economics profession now is that fiscal policy is ineffective in the long run. In the Maastricht situation, forward-looking economic agents should foresee the reduced taxes that will result from fiscal contraction, and should increase their spending in response. Reduced interest rates from the lessened borrowing associated with the fiscal contraction also stimulate private expenditure. The fiscal tightening mandated by Maastricht should not in the long run be responsible for stagnation in Europe because private expenditure should be crowded in.

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[5]The structural measures are cyclically adjusted and measure the discretionary changes in fiscal policy.

What can we conclude from this? Fiscal convergence itself is probably responsible for some of the current stagnation in Europe. This fiscal drag may worsen in the short run as several EU countries struggle with last-minute budget cuts to meet the 1997 deficit reduction criterion of 3% of GDP. Perhaps in the long run stronger private expenditure will result in renewed growth. A more deep-seated aspect of the problem is that we are beginning to see the results of a pan-European monetary policy which is suitable for some regions but not others - a situation which will be brought into sharper relief with EMU. Better then, that European monetary policy be formulated by a pan-European institution than by one major player. Another aspect is the underlying inflexibility of wages and labour markets, which as pointed out in the optimal currency discussion above, does not facilitate the functioning of an economy under monetary union.

3.2 The European Central Bank

The designers of the European Central Bank have been careful to make it as independent as possible from political and government influence. By statute, it will be prevented from seeking or receiving directions or instructions from governments. Furthermore, national governments are required to make their legislation compatible with that of the ECB. The model chosen is similar to that of the Bundesbank, which also has a federated structure, is quite independent and enjoys high credibility in financial markets.

Many countries have made or are making the required changes in central bank legislation, most notably the Banque de France, which has been made much more independent of government than it was. Interestingly, the Bank of England's legislation is not in compliance with the requirements for EMU, as the UK Treasury has the power to direct aspects of its operations. To date, there have been no plans to introduce changes, which would be needed before the UK can join EMU.

National currencies will continue to circulate after EMU begins. At the level of retail commerce and banking, the individual worker and shopper will probably not notice any difference; domestic currencies will continue to be used as means of payment, but they will merely be surrogates for the euro. The beginning of EMU will mark the establishment of one monetary policy and one set of interest rates across participating states - a "big bang" approach for financial markets. ECB operations in the interbank money market and the exchange market will begin immediately. Notes and coins, designs for which were unveiled at the Dublin Summit in December 1996, will be introduced by 2002.

3.3 EMU and European Competitiveness

EMU should result in relatively small medium to long run efficiency (productivity) gains for the European participants as foreign exchange transactions costs and the costs of hedging for risk averters disappear.[6] These will be insignificant compared with the year to year changes experienced in traditional cross country measures of exchange rate adjusted price and cost competitiveness (relative unit labour costs and relative producer prices). The gains will be set against significant one-time up front costs in preparing for and implementing EMU, making it very difficult to discern any net competitiveness impact from EMU for a considerable period, if at all. Since exchange rates among the North American, European, and Asian regions will continue to float, emerging differences in competitiveness across these regions, including any minor gains from EMU in Europe, can be accommodated by exchange rate movements.

EMI and EU documents present the case for EMU based on a number of advantages for the European economy. They are categorized as follows:

- lower transactions costs. The EU quantifies the savings from EMU as 0.4% of GDP, an amount which appears rather large.[7] However even this amount is small in comparison with traditional measures of international price and cost competitiveness, which can easily vary by several percent per year.

- elimination of currency risk in intra-EU transactions.

- stimulus to investment, growth, and employment, through better fiscal and monetary policy management, lower interest rates, and enhanced confidence. The EU argues that the risk premia built into European interest rates will be eliminated with EMU, resulting in lower interest rates.

- a contribution to enhanced international monetary stability;

- "enhanced joint monetary sovereignty" - constitution of a pan- European monetary policy institution.

Not discussed here by the EU is the impetus which EMU should provide to the harmonization of legislation and the deregulation of goods, services and labour markets. The financial sector in particular could quickly benefit from deeper and more liquid money and bond markets, consolidation of stock exchange activity, and Europe-wide banking. Remaining national rivalries here would have to be overcome. Regarding labour market deregulation, governments will have to address difficult political issues in the face of the intransigence of

[6]The cost of hedging in the exchange markets as represented by the bid-offer spread on currency forwards is in the order of hundredths of a percent.

[7]This can be interpreted as a one-time upward adjustment to the level of GDP. The UK Treasury, in commenting on the size of the 0.4% estimate, notes: "For a large trading nation such as the UK, with well-developed and competitive financial markets, the actual saving could be considerably smaller than this."

unions and the inertia of state enterprises. French officials for example have declared their reluctance many times to adopt the UK/American flexible approach to labour markets. Some labour market deregulation successes in recent years in Sweden and Denmark, and the beginning privatization of Deutsche Telecom may be the forerunners of a more widespread market-oriented approach in Europe. This will no doubt be an arduous process and the benefits will be seen only after some years.

4. Implications for the International Financial System

4.1. The EU and International Financial Institutions

The IMF

The core function of the IMF is international monetary co-operation, and its main operations involve currency stabilization, exchange and monetary surveillance, and balance of payments assistance. The EMU will affect all of these issues as they relate to European participants. Each country also pays quota based on financial, economic and political criteria, and has representation on the Fund's Board. Given that there would only be only one European central bank, one monetary policy, and one exchange rate, EMU should legitimately imply a review of all these arrangements.

IMF surveillance, to take an example, focuses on a member's monetary and fiscal policies. If monetary policy is run by the independent ECB and fiscal policies are governed by a post-EMU Stability Pact, surveillance of individual EMU members will have to be significantly different from that for other members of the IMF.

The Bank for International Settlements

This "central bankers club" among other things co-ordinates front-line assistance in the form of bridge loans in times of currency and balance of payments crises, recommends bank capital standards, and analyzes implications of evolving payments systems, including issues of systemic risk. It has been rather Euro-centric (it was originally set up to handle German war reparations), but recently has expanded membership to include a number of Asian developing country central banks. Alexandre Lamfalussy, former president of the BIS, now heads the EMI, forerunner to the ECB.

Organizational structures are less formal and governments typically do not get involved in BIS issues (except through their central banks). However EMU could have a major impact on its functions for the reasons cited for the IMF.

Multilateral Development Banks

EMU should have little immediate impact on the World Bank and the regional development banks because their functions are less related to monetary policy.

4.2. Reserve Currency Status of the Euro

This paper concludes that use of the euro as a reserve currency[8] by official reserve holders will not have major implications for global financial markets or for Canada. The euro will become a reserve currency as national holders of official reserves find it useful as an intervention vehicle in exchange markets and as a store of value.

The undertone of some discussion about the dominance of the US dollar in international trade and payments is that it puts Europe at a disadvantage, and that reserve currency status for the euro will correct this imbalance and somehow enhance European trade and finance. This way of presenting the issue is reversed - the euro will most likely become a reserve currency when European financial markets have become more integrated, liquid, secure, and competitive.

Reserve currency status is not an unmitigated blessing. Official capital account inflows associated with foreign purchases of reserve assets require the exchange rate to appreciate enough to reduce the competitiveness of the reserve currency county's traded goods and services sector to generate the current account deficit which must be the counterpart of the surplus on official transactions. For example, in 1995, US dollar reserve accumulation by foreign governments and central banks financed more than half of the US current account deficit. In times of international economic and political crises, the financial markets of a reserve currency country can suffer from "flights to quality" characterized by short-term capital inflows, exchange rate volatility and interest rate fluctuations which complicate the implementation of monetary policy. These phenomena are the "burden" of a reserve currency, and are why Japan and Germany have not been enthusiastic promoters of reserve currency status for the yen and the deutschemark.

The use of euros as a reserve currency will depend on the development of the euro-denominated money market. Official reserves are held in low risk liquid money market interest earning assets, and present there is no market that compares to the US dollar money market for this purpose. While the deutschemark may be an attractive and secure hard currency, the German authorities have until recently discouraged the development of a short-term market for funds. However, if banks find strong demand for euro denominated deposits by (official) investors, they will accept and intermediate such deposits. Presently, much of the

[8] A reserve currency is the (foreign) currency in which official international reserves tend to be held by national treasuries or central banks. These agents hold low risk liquid money market assets, often US treasury bills, as an asset in a reserve account. Some countries hold US dollar, D-mark, Yen, or ECU securities or deposits in the BIS and major banks as well.

non-US dollar holdings of official reserves are held within Europe by European countries themselves. With EMU, these holdings will become domestic funds, so that the ECB will have to hold mainly US dollars for its own foreign exchange reserves.

Reserve holdings by currency and country are provided below in Table 2.

Table 2
G-7 Countries' Holdings of Official Reserves

	US dollars	Ecu	other currencies
	(millions of US dollars equivalent, end-1995)		
Canada	12,127	-	502
France	12,259	4,674	6,233
Germany	50,127	27,520	147
Italy	15,017	6,257	6,531
UK	9,787	11,198	13,623
Japan	65,707	-	6,016
US	-	-	49,096

Source: BIS. Unallocated reserves of Asian industrializing countries total US $246 billion, mostly in US dollars, including large holdings by Taiwan and China.

There are considerable holdings of ECU by the European countries which will become euros on a one-for-one exchange; these will then become domestic assets with EMU (except the considerable UK holdings, if the UK stays out of EMU.) Other countries' reserve holdings of deutschemarks and other European currencies will become redeemable in euros at the locked exchange rates. At least initially, EMU will probably result in a *decreased* share of European currencies in global reserve portfolios as intra-European official foreign exchange claims become domestic assets. The growth of euros as a reserve currency will therefore depend on the willingness of other large reserve holders (US, Japan, Taiwan, and China) to hold them.

The euro will probably come to occupy a significant part of international reserve portfolios after several years as euro capital markets mature and reserve holders become convinced of the prudence of Europe's monetary and fiscal policies. Potential reserve flows occasioned by adjustments of official portfolios, while large in absolute terms, will be dwarfed by the size, liquidity, and elasticity of global money markets. What will be most important for the euro interest rate and exchange rate is the policy stance of the ECB vis a vis the US Federal Reserve, the relative cyclical positions of the Europe and the US, and the perceived safety and stability of euro securities.

4.3 EMU and International Banking and Capital Markets

EMU should go a long way towards facilitating the maturation of European capital markets. It will highlight the need for more coherent EU-wide capital market regulation. There is little of direct relevance here for Canada, save to highlight the fact that although relatively efficient and well run, Canada's banking and capital markets are small in the global context and may be perceived as even more highly integrated with those of the US. Canadian borrowers and investors in Europe will need to monitor the evolution and development of the euro capital markets as part of their portfolio and debt management activities.

1. Money markets

The foundation of the euro money market has been laid with the planning for the ECB and ESCB. Its central bank discount rate will be the anchor for the term structure of interest rates in the new euro money and bond markets. This interbank market will begin operation immediately on the commencement of EMU. Governments will co-operate by issuing all new debt in euros; outstanding debt will be re-denominated. While Germany has begun to promote the development of its money market through the issuance of treasury bills, the likely UK absence from EMU will deny the euro money market the liquidity, the developed infrastructure, and the skills of the participants in the short-term sterling market.

2. Foreign Exchange Markets

The savings of 0.4% of GDP optimistically estimated by the EU from gains in efficiency from EMU means loss of jobs and revenues from exchange trading - resources which will eventually be productively employed elsewhere. It is interesting to consider where most of the job losses will be. London is the main centre of exchange trading, but most of its trading is between Europe and the US, not among the European currencies. On the continent, the situation is reversed - most trading is intra-Europe. So the job and revenue losses may be mostly in Europe.

There will be some gains from improved transparency and simplicity of transactions, mainly on the retail trade, travel, and tourism. It is not clear yet to what extent foreign trade invoicing might shift from the US dollar to the euro in Europe, which would relieve European producers of some short-term foreign exchange risks.

A rather long transition period is envisaged between the implementation date of EMU (Jan. 1, 1999) and the final issue of euro notes and discontinuance of national currencies. The question has arisen as to what type of exchange rate management might occur through this period. One would expect that for small transactions, banks would continue to quote a normal bid-offer spread around the "irrevocably fixed" exchange rates. Most large transactions would be increasingly denominated in euro, as would bank clearing and the money market. It is not clear exactly how banks in Europe and abroad would regard long and short positions on their balance sheets in the national currencies during the transition: if they regard them all as euro, then there is no concern. But if one or more EMU participants were rumoured to be rethinking their participation, national European currencies might assume a separate identity again in markets. Exchange rates can remain "irrevocably fixed" only if major market participants regard them as so.

3. Bond Markets

A key feature in European bond markets at present is the convergence of national interest rates for the "in" currencies. Rates will converge to one level (abstracting from creditworthiness premia) on the implementation date - likely January 1, 1999. Eurobond market participants are fostering this process by arbitraging among markets based on "in" and "out" scenarios and among various currencies and the ecu, which will be exchanged 1-for-1 with euros.

A peculiar feature of the new "Euro-bond" market is that it will not have a benchmark issuer in the sense of a central fiscal authority issuing "risk free" securities across the yield curve. Instead it will have a spectrum of issuers of varying creditworthiness, none of which will have control over central bank finance - similar in appearance to the Canadian provincial bond market. London-based securities houses are hiring credit specialists to enhance their analytic capabilities in this area. There will be a ready supply of euro denominated securities as all outstanding bonds denominated in participating currencies will effectively be converted to euros[9] and "in" governments will be committed to issuing new securities in euro. As a result, the euro-bond market will be liquid and deep almost from the first days of operation.

After EMU, the London eurobond and money market will no doubt adapt quickly to the new currency, and euro denominated issues will be sold to the same groups of investors who had been buying securities denominated in the predecessor currencies. EMU will highlight the fact that much of the continent's financial intermediation will be taking place "offshore" in London, under a different regulatory regime. This might lead the continent to deregulate, hoping to repatriate this activity and attract international finance, or the UK might feel pressure to bring its regulation in line with the rest of Europe. This could become a pressure point within the EU over the next decade.

4. Stock Markets

Unlike bonds, which are traded over the counter, stocks are listed and traded on regulated national exchanges. Stock exchanges compete for company listings and trading

[9]There is a remote possibility of legal challenge to this on the part of bondholders who may argue that they contracted to be paid in a national currency. This challenge may be more important for derivatives; see below.

volume because this is their source of revenue. Interlisting for major companies (that is, listing on more than one exchange) is quite common. Again, London has the edge with its concentration of securities houses, liberal regulatory framework, and the UK "equity culture". Institutions in the UK tend to hold higher proportions of both domestic and foreign equities in their portfolios than is the case in the rest of Europe. However, London has had problems with its stock exchange automation in recent years. Meanwhile, in Germany particularly, the stock market has historically been underdeveloped.

Currency has no particular impact on stock market listing and trading; in North America interlisted Canadian and US stocks trade well in both Toronto and New York, and the same happens with interlisted stocks in Europe now.

The adoption of the euro itself will probably have no direct impact on stock markets. But it may lead officials to promote the idea of "one capital market", with consequent Europe-wide regulation rather than national patchworks. This could lead to wide-ranging changes and consolidation among stock exchanges and the stock market.

5. Derivatives

Notwithstanding recent and continuing bad publicity, derivatives are an important and growing part of financial markets. They have grown because they provide a cheaper and more efficient way of structuring transactions than in the cash markets, facilitating the trading of risk characteristics to those most willing and able to bear them. It is recognized that a well functioning market in derivatives adds depth, liquidity, and efficiency to the cash securities markets. In recognition of this, Canada and Europe have taken steps to promote exchange-traded derivative markets, particularly interest rate futures (the US and the UK have no need for such promotion as well developed markets already exist there.)

In London, LIFFE (the dominant exchange in Europe for derivatives) has merged with the commodities exchange and claims to be ready to dominate Europe's exchange traded derivatives markets with the introduction of the euro. MATIF in France and the German exchange are also active, but it is likely that there will be consolidation when national interest rates and currencies disappear. Exchange traded interest rate and stock index futures need benchmark bonds and stock indexes on which to set and price the contracts, and so one interest rate contract is likely to dominate - LIFFE's.

It is likely that when the "in" countries are chosen for EMU, euro- based interest rate and currency futures and swap contracts will be designed and begin to trade before EMU begins, particularly in the innovative "over the counter" (non-exchange-traded) market. This process should be encouraged because it will facilitate the transition of financial markets towards EMU.

6. Banking

Two issues that emerge are terms of access to the interbank clearing system associated with the introduction of the euro, and the outlook for bank mergers and consolidation in Europe.

A difference of opinion exists between the Bank of England and several other European central banks over access to the new TARGET system for interbank clearing in euros. The Bank of England wants access for itself on the same basis as other central banks, while other Europeans want to restrict the terms of access[10] for non-EMU participants. These arrangements may have the potential to influence the competitive positions of London, Paris, and Frankfurt as financial centres. The issue also has the potential to delay some technical preparations for EMU and harden attitudes, particularly in UK banking and official circles, against EMU. The Governor of the Bank of England has expressed his displeasure with the idea of singling out the UK this way. However if London-based clearing in euros was permitted and London retained its competitive advantage in financial services but the UK stayed out of EMU, one might see a significant part of the euro money market being cleared "offshore" in London.

The successful implementation of EMU will bring into sharper focus the differing regulatory regimes for banks as well as securities markets in Europe. The area is ripe for bank mergers and consolidations, which have already taken place in London (eg. Deutsche Bank's purchase of Morgan Grenfell). The removal of restrictions on U.S. interstate banking led to a wave of consolidations and mergers there. In Europe, two developments will foster financial sector consolidation: a Europe-wide approach to bank regulation, and withdrawal of the state from bank ownership, particularly in France and Italy.

4.4 Implications for Macroeconomic Co-ordination

EMU will have important implications for international monetary co-ordination. As a major new EU policy-making institution with clear independence from governments, the ECB could quickly become a powerful spokesman for European monetary and financial interests.

[10] The controversy is about access to intra-day liquidity. The Bank of England is setting up facilities to clear euros on its books whether or not the UK participates in EMU. Part of the euro interbank market will reside therefore in London. There will be times when with real time settlement within the day, the Bank of England will want clearing banks to cover a euro overdraft position with funds from elsewhere in the clearing system. Since the Bank of England will not be an issuer of euros, it cannot provide overdraft coverage in euros through its own balance sheet, as a central bank can do with its own currency. It is access to this liquidity which is the issue - French and German central banks reportedly are insisting that, while all EU central banks can have access to the clearing, that liquidity within the day should be provided only to EMU participants to preserve monetary control. The Bank of England argues that monetary control is not significantly jeopardized and that safeguards against systemic risks to the system will be enhanced through its (and other non-EMU central banks') participation.

In practice, day-to-day monetary co-ordination occurs through the markets. Interest rates and exchange rates respond to economic data and the markets' perceptions and judgements of policy domestically and abroad. Policy makers adjust based on their objectives, knowledge about other central banks' policy regimes, their own economic projection scenarios, and the estimated response of the economy to various policy alternatives. A large new policy maker and a new set of financial and economic data will change the details but not the process of these arrangements. The euro is unlikely to challenge the US dollar as the benchmark currency until it demonstrates its stability, depth and liquidity, the ECB demonstrates its competence, and Europe itself demonstrates that its economy can adapt and adjust to a single currency and monetary policy.

An emerging issue in monetary policy is that of prudential supervision (eg. ensuring solvency of banks) and systemic risk. The single currency will highlight the question of EU-wide regulation of the financial sector, and the likely clash between the UK and the continental approach.

5. Implications for Canada

EMU will be a major landmark event for Europe and for world financial markets. Given the amount of publicity and the years of planning and official deliberations on the implementation of EMU, one looks for important implications for Canada. However, it is difficult to point to major specific direct implications for Canadian policy or economic performance. Before particular implications are discussed in this concluding section, some general reasons why EMU may pass without major direct implications for Canada are offered.

- Europeans have been trying to implement a more or less fixed exchange rate regime for many years, which is, broadly speaking, equivalent to a single currency zone. In policy approach, the ECB is likely to operate in similar fashion to the Bundesbank. EMU will just formalize more clearly the regime which the Europeans (sans the UK) have been moving towards.

- After a slow start, European banks and businesses are gearing up for EMU. Banks are most advanced in this, and are educating their business clients. The short run objective for a successful EMU will be to make it "transparent to the user".

- Financial markets are very innovative and flexible. One of the reasons Canada has an open and market-oriented financial system, including a floating exchange rate, is that it is able to accommodate and adapt to shocks such as EMU. The biggest EMU event in financial markets (more important than the formal implementation date of 1999) will probably be the designation of EMU participants in early 1998.

There may be some indirect effects on Canadian trade and financial markets from EMU impacts in Europe. However, as discussed earlier, there are divergent views on the direction and magnitude of these impacts, rendering analysis of these indirect effects inconclusive. The conclusion of this paper is that such effects will not be large.

5.1 Implications for Day-to-Day Monetary Policy and Exchange Market Operations

The main direct implication for ***domestic operations*** in Canada will be in the market intelligence we do and how to interpret it. A new market replacing the national money markets of Europe will require surveillance and understanding of its features. An interesting peculiarity is that there will be no central government debt market on which to base a risk-free yield curve. The terms on which the ECB will provide financing to national governments (ie. the sharing of seigniorage) will be more arms-length than it is now with national governments. While for Canada, the US market and Fed policy will continue to be the main focus, interpreting developments in the new euro market and the ECB will be important.

A second aspect of market intelligence is in understanding how the new central bank will implement policy and how it will respond to economic developments. The key targets and indicators will be the interest rate in the overnight market for funds and the central bank's discount rate, as they are with other market-based financial systems. One aspect will be easier - the ECB has a clear independent mandate for price stability in its legislation. Yet to be determined is what time horizon it will use, what its target bands might be, and what its intermediate targets (such as monetary aggregates) might be.

Foreign exchange operations (exchange market intervention) and domestic monetary policy are becoming more and more integrated. Canada has no set target for the Canada/US exchange rate and would not have one for the C$/euro. Canada's intervention policy for the most part is limited to "leaning against the wind" by buying or selling US dollars to preserve orderly market conditions in times of turmoil. Canada must evaluate whether and how to intervene in the new currency, what share of the reserve portfolio would be appropriate to dedicate to euros, and exactly what type of euro denominated securities and deposits to hold in our official reserve portfolio.

While not a matter of day-to-day operations, G-10 borrowing arrangements to support countries experiencing exchange market crises and the very occasional G-7 co-ordinated interventions in exchange markets would no doubt include the ECB as successor to European central banks in these aspects of international monetary co-operation.

At times in the past, Canadian money and exchange markets have been affected by the spillover from financial market turmoil elsewhere. Should EMU be unexpectedly postponed or discord arise among the participants, which would lead to financial market turbulence, Canadian markets could be affected again. Some commentators have suggested that the market is overly optimistic about EMU. Should turbulence occur, given the positive mood in markets about Canada at the moment, Canada could be seen as a safe haven and experience (temporary) capital inflows and an appreciating currency against Europe.

5.2 Canadian Trade and Financial Markets

There will be a number of technical issues for Canadian foreign trade and financial market participants as they deal in a new currency, and, over the transition period, relating the euro to the predecessor currencies.[11]

Contracts

One major issue will be the legitimacy of long-term contracts set for payment in predecessor currencies which will no longer exist after 2002. Europe is aiming to make the euro the legal successor currency to national currencies of EMU participants, and it is likely that UK jurisdictions will adopt the same approach even if the UK stays out of EMU. However, many swap contracts are subject to New York jurisdiction and the litigious and unpredictable nature of USA courts is a worry. It is possible that swap contract parties could, taking advantage of the legal confusion, successfully argue that force majeure existed and so unwind the swap contract prior to its maturity under standard clauses in swap contracts.

Another issue is whether the accounting profession and tax authorities would require realization of gains and losses (and associated tax liabilities) of assets converted to euro. The issue will revolve around whether the restated assets and liabilities are the same as the old or whether they are new ones which replace the old.

International trade practices

Tendering and trade invoicing may undergo some revision. At present the practice is to quote bids and invoice largely in US funds, which requires non-US bidders to hedge against exchange risk if they feel overexposed. Over time, some invoicing might move to euros, as might quotes for commodities such as oil, gold, and base metals. There is no particular economic need to do so, however, as long as exchange markets are liquid and unrestricted and the cost of hedging remains low.

[11] Such issues may appear trivial (ie just multiply everything by the locked exchange rate). However, the issue of reciprocal conversion factors has received considerable attention. The EMI is recommending outlawing the use of reciprocal conversion factors because rounding- induced discrepancies will produce different "round-trip" amounts. Therefore to convert back to the original currency, one should divide by the published exchange factor rather than multiply by its reciprocal. This is one example of the issues Canadian business should be aware of.

Trade diversion

Trade diversion is usually discussed in the context of customs unions - a structure which Europe has already achieved - but has also been raised in the context of EMU. It is difficult to come up with any quantitative measure of the trade diversion potential of EMU. The 0.4% of GDP cost saving identified by the European Commission is not large compared to other factors influencing competitiveness, and will most likely be centred in the smaller value and retail transactions within Europe, which are less exposed to international trade from outside the EU. There may be a small impact from the elimination of intra-EU currency volatility, but the empirical evidence for currency volatility effects on trade is not strong and, in any case, the revealed cost of currency volatility as measured by bid-offer spreads on currency hedges is small. There may be second-round effects if EMU encourages EU wide standards and regulation, which will facilitate more intra-EU trade.[12] In summary, the trade diversion potential of EMU is not large compared to the trade diversion engendered by the formation of Europe's customs union itself, and the subsequent elimination of barriers to trade within the EU.

Trade Protectionism

While some feel that EMU (combined with deregulation in Europe) will foster growth, investment and a more dynamic economy, there is a dark side scenario. A number of policy elements could conspire to result in a stagnant European economy after EMU:

- The inability of national monetary policies to address differing regional economic situations;
- inaction on the hoped-for deregulation of labour and product markets;
- a tight monetary policy protective of the external exchange value of the euro;
- the constraining effect of the Stability Pact on fiscal policy.

The resulting economic stagnation could lead to calls for trade protectionism and could colour Europe's attitude to multilateral trade and investment arrangements.

Euro-Markets and Canadian Financing

Canadian borrowers, including the federal government and crown corporations, make regular use of the London-based eurobond and euro-loan markets. While much of this activity is in US dollars, a considerable part is denominated in those currencies for which the euro will be the successor. In fact, if EMU goes ahead, those Canadian borrowers who have issued securities maturing beyond 2002 in EMU participating currencies will be paying interest and

[12]While we tend to think of the EU's common market as a "done deal", there are still many areas where regulation inhibits intra-EU trade. For example, the EU still does not have common standards for household electrical appliances. Financial sector regulation is also still done on a national basis.

principal back in euros. The federal government has no such securities outstanding at the moment, but crown corporations, provinces, and corporations have a considerable amount.

International Portfolio Diversification and the Canadian Dollar

It has been suggested that EMU will provide international investors with fewer currencies to choose from in building a diversified portfolio, and so more funds might flow into Canadian dollar denominated assets. While market turbulence elsewhere occasionally has had and will continue to have impacts on Canada, it will be hard to discern a sustained impact from the demand for diversification.[13]

- Canada is perceived by global investors as closely integrated with the USA. The Canadian dollar tracks the US dollar more closely than other major currencies do, and so provides little added diversification value for global investors.

- Although there are ±15% margins for European currency fluctuations, in practice European authorities try to keep fluctuations within a much narrower range. As a result, Europe is perceived already as a fixed exchange rate regime. EMU will merely confirm this perception.

- By the time EMU is completed (2002 or later), the world will continue to be multi-polar, providing new opportunity for diversification and currency speculation. While much of the European continent may be under a single currency, other parts of the globe will be emerging as large economic and financial centres - China, other parts of Asia, and Russia.

Foreign Direct Investment (FDI)

It has been suggested that EMU will attract a greater share of global FDI flows into Europe, to Canada's detriment. To examine this argument, we need to look at the distinguishing features of FDI and see how these relate to EMU.

- FDI is patient, long-term, illiquid equity capital. Equity investors accept high risk and, in compensation, expect high returns. Short-run exchange rate volatility (or the lack of it, which EMU will guarantee) should not matter very much to FDI.

- A major traditional use of FDI by firms is to gain market access behind tariff and non-tariff barriers. EMU will not change market access; Europe already is

[13] Some would argue that the presumed motive for the capital flows - to achieve diversification - is not as important as speculative motives based on active currency management principles.

a customs union. The transactions cost savings in the long run associated with EMU will provide minor gains for both EU and foreign firms in Europe.

- Other major distinguishing features of FDI are that it is often motivated by a desire for strategic relationships among firms (vertical or horizontal integration), and that it conveys or provides access to technology. Neither of these are directly related to EMU.

EMU will likely have little if any direct effect on FDI flows. In fact, in the short run since FDI is very sensitive to the stability of the policy regime, EMU could lead some investors to adopt a wait and see attitude, and so reduce FDI into Europe.

There could be indirect effects from two sources. If EMU provides an impetus to other regulatory and market reforms in Europe which raise growth rates and profitability, then perhaps FDI would be attracted as a secondary effect. This situation (a more prosperous Europe with rising incomes and output) should on balance be good for Canada. Another possibility is that even though EMU has no concrete impact on profitability and market access for FDI, the perception of Europe as one market might be enhanced, which might attract FDI for a time (this is more likely to impact liquid portfolio investments first). These kinds of psychological impacts in financial markets can be important. However if the perceptions are not grounded in fact, they lead to "overshooting" and a consequent negative correction. In this case the Europe-bound FDI would not be sustained.

6. Conclusion: Summary of Implications

FOR EUROPE:

- The EMU will force Europeans to come to grips with internal market adjustment policies. National monetary policies and variable exchange rates among countries provided a means for countries to absorb economic shocks. Under EMU, there are no independent national monetary policies, and fiscal independence will be reduced by the recently concluded Stability Pact. Such adjustments will have to be made in national or regional goods and labour markets. Most economic observers agree that European labour markets do not currently have the flexibility for this, which could lead to greater dispersion in unemployment rates across regions and countries. However if EMU provides the impetus for the Europeans to tackle the difficult issues of legislative harmonization and deregulation in labour, goods, and services markets, potential growth, employment, and incomes would expand over the medium to long run.

- Much of the discussion surrounding EMU refers to the supposed investment and growth-creating aspects of the single market created by EMU. This appears to confuse the impact of a *customs union*, which the EU has been for several decades, and which entails significant trade and investment effects, with that of a *currency union* (EMU), which is primarily about monetary policy and exchange rates. The implication is that the expected impetus to investment and growth directly attributable to EMU may be exaggerated.

- A successful EMU will likely accelerate the harmonization of national securities market and banking regulation in Europe as the idea of "one capital market" takes hold. The sharp contrast between the UK approach (which more closely resembles the North American model) and that on the continent will become even more apparent.

FOR INTERNATIONAL FINANCIAL MARKETS:

- The implications should be positive, assuming prudent management by the new European Central Bank (ECB). Deeper and more liquid European financial markets should stimulate competition and efficiency, to Europe's benefit. When the new euro money markets demonstrate their stability and liquidity, the euro will probably find a place in official reserve portfolios of non-EU countries without major impacts on global money or exchange markets. Product innovation may increase in European capital markets when they mature as it has in North America, improving market efficiency.

- Potential volatility and turbulence in financial markets could occur at certain points in the EMU implementation process. The point at which participants are chosen (early 1998), the choice of the "irrevocably fixed" exchange rates, and the long transition period from 1999 to the final introduction of currency notes (2002) could give rise to problems. Given that financial markets have already partly converged on the expectation of EMU, any postponement or revision in the process will result in the rapid unwinding and adjustment of financial market expectations with associated market volatility.

- Further down the road, the EMU could have long-term implications for the management of monetary issues in the international financial system, including the G-7 and the IMF.

FOR CANADA:

- No initial direct impacts are apparent. However, Canada is likely to be seen even more as a part of the North American market in a tri-polar financial world (North America - EU - Japan), at least until other major regions of the globe emerge.

- There may be secondary impacts as a result of changes in European competitiveness, direct investment and capital market flows, and trade diversion effects. However, it is very difficult to measure the impact of such developments on Canada, and after reviewing them, this paper concludes that these indirect effects will not be large. One of the advantages of Canada's open trade and capital markets and floating exchange rate is that such external changes, if they occur, can be absorbed and accommodated with a minimum of disruption. If European productivity, growth and incomes rise in the long run as an indirect result of EMU, Canada's open economy should benefit from the trade creation effects.

- If Europe enters a period of stagnation after EMU as a consequence of a hard euro currency policy, fiscal policy constrained by the Stability Pact, and lack of action to deregulate markets, calls could arise within Europe for a more protectionist approach to trade and multilateral trading arrangements. The official view within Europe, however, is that EMU will stimulate economic activity there.

- There are a host of technical issues which may be relevant for Canadian trade and financial market participants in Europe, not the least of which may be the trade opportunities associated with the information technology upgrades needed for EMU. The Bank of England and the French Conseil National de Crédit among others have published useful technical documents on the EMU transition.

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