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**CANADA, THE EU AND MULTILATERALISM
DISCUSSION PAPER**

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Acknowledgments

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Abstract

Despite the fact that Canadian trade with Europe is dwarfed by the bilateral trade flows with the United States, trade with the EU is still important to Canada, and reflects not only historical, cultural and linguistic ties, but also a major component of our total trade outside of NAFTA. The level of bilateral Canada-EU Foreign Direct Investment is also significant, hence any major change in the EU will undoubtedly have both direct and indirect effects on Canadian individuals, businesses and governments. The implications for Canada may be on two levels. On one level, the most immediate concern, for Canadian individuals, businesses and governments, will be to adapt to the new currency, the euro, ensuring acceptability, recognisability, and transfer of legal contracts currently denominated in Member State currencies, into the new currency, where appropriate. On another level, concerned Canadians will also have to monitor developments in the EU, as events will unfurl fairly rapidly during the next five years, and these may be profound, posing both threats and opportunities for Canadian individuals, businesses and governments. This paper explores some of the possible and potential developments in the EU over the next decade, and draws some conclusions as to the extent that these changes will impact Canada.

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1. Introduction

This paper reviews the current state of affairs with European Monetary Union (EMU) and draws out some of the implications for trade in goods and services and foreign direct investment, both within Europe and outside of Europe, and with particular reference to Canadian interests. This first section lays out the background to EMU, the timetable for the process, the convergence criteria for EMU and possible scenarios for the European Union (EU) up to the beginning of the next millennium.

In the 1980s and 1990s a radical shift took place in Europe. The European Economic Community (the EEC) came into existence after the Intergovernmental conference (IGC) of 1957, and was based on the general framework for integration embodied in the Treaty of Rome of 1958. In the Treaty of Rome, the underlying premise was to foster closer economic and political associations between the signatories, principally because of latent fears that Germany could once again threaten the stability of Europe at some future time. The EEC countries, or "Member States" as they are now called, have, after years of stalling, particularly in the 1970s and early 1980s, forged ahead over the last decade and constructed an ambitious integration project that is unprecedented in its depth and scope. Much of the recent progress is due to the visionary leadership of Jacques Delors, who came to be either despised or admired by the political classes throughout Europe. The attempts at creating a single European market in goods, services, labour and capital were embedded into the Treaty of Rome, but there had never been the coincidence of interests to bring unanimity to achieve such an aim. The breakthrough came through the work of the Dooge Committee, which produced a blueprint for the Single European Act (SEA) - only when it was signed at the European summit in 1986 did the prospect of a single market look likely. After ratification of the SEA, with controversial referendums in both Denmark and Ireland, the European Commission began to propose directives for creating a single market, most of which have now been ratified by all Member State parliaments.

Following on from the success of the exchange rate mechanism (ERM) of the European Monetary System (EMS), an adjustable peg exchange rate regime that was put in place in March, 1979, it was conceivable that further attempts to introduce a common European currency might now be feasible (- a failed attempt had been initiated in 1971). The Delors committee of experts produced a report in 1989 that laid out a blueprint for achieving EMU which was then taken forward as the discussion document for the Intergovernmental negotiations of 1991 that culminated with the Maastricht Treaty.

While the original motivation for EMU was mostly economic (see Commission of the European Communities (1990) where the justification for EMU was as a logical extension to the single market), it is undoubtedly the case that since the incorporation of the EMU process into the Maastricht Treaty in 1991, the essential motivation is now political (see Sutherland (1997)). From an economic perspective, there was certainly some doubt about the gains to be made from adopting a single currency, apart from the obvious savings from eliminating the cost of converting currency between Member States. Many of the arguments for a single currency related to the single market, and indeed the main rationale still given by the European Commission is to entrench the economic gains from the single market and to improve on its operation by removing currency costs.

The Delors report of 1989 (Committee on the Study of Economic and Monetary Union (1989)) was the initial catalyst for the inclusion of the subject of EMU in the 1990 IGC. It had as its lynchpin, the ERM, which is officially centred around the European Currency Unit (ECU), a composite currency, but in reality the Deutschemark had become the *de facto* anchor for the system. The ERM had assisted in lowering volatility among European exchange rates (see Artis and Taylor (1994) and Crowley (1995)) and had helped to foster economic convergence among EU Member States. The

credibility afforded to the ERM could apparently even compensate for large inflation differentials between Member States, so it was deemed that fixing of exchange rates and then adopting a single currency would not be inconsistent with the recent history of the ERM at that time. The Delors report suggested a three stage process for adopting a single currency, the European Currency Unit (ECU), and the creation of a European Central Bank (ECB) to conduct monetary policy for the single currency.

The Maastricht Treaty of 1991 (Council of the European Communities (1992)) amended the Treaty of Rome to incorporate new provisions for EMU and other questions such as majority voting at the European Council, the future role of the European Parliament and the development of a common European defence policy. The provisions for EMU were largely as in the Delors report, although these provisions represented a dominant position for those economists who believed that economic convergence should proceed before monetary union, and those that believe that monetary union would promote economic convergence, so should occur first (- mirroring the "economists" versus "monetarists" debate in the early 1970s, which emanated from the Werner report of 1971 and the "All Saints Day" manifesto of 1975). EMU was to occur by 1999 at the latest, but there would be economic convergence criteria that had to be satisfied before Member States could qualify to join. The five Maastricht convergence criteria were concerned with budget deficits, public debt, inflation, long-term interest and the ERM of the EMS. The United Kingdom negotiated a derogation (an opt-out) and after Denmark's population refused to ratify the Treaty in 1992, the Danes also obtained a derogation. For more details on the Maastricht convergence criteria see Buiter, Corsetti and Roubini (1993) and Crowley (1996a).

Unfortunately, the re-unification of Germany presented particularly difficult problems for the ERM of the EMS in coping (unmodified) with a sudden medium term divergence of interest and inflation rates between Germany and its EU partners. The divergence in interest rates between Member States eventually precipitated the ERM crisis of 1992/93, when the UK pound and the Italian lira left the mechanism (September 1992) and the fluctuation margins for the mechanism were widened to +/-15% (August 1993) from the standard +/-2.25% before the crisis (see Eichengreen and Wyplosz (1993)). The currency crisis removed one of the principal "stepping stones" that EMU was based upon, a stable and narrow-fluctuation-margin ERM. Nevertheless, EMU proceeded with assurances that the "normal" fluctuation bands which were written into the Maastricht Treaty convergence criteria would be (re)interpreted as +/-15% fluctuation margins.

The agreement on EMU incorporated in the Maastricht Treaty specified a three stage process for EMU, the first consisting of closer monetary cooperation between EU Member States, the second stage (beginning in 1994) established the European Monetary Institute (EMI) in Frankfurt, enabling it to begin preparations for the final stage, and encouraged governments to enact legislation to make their central banks independent and to avoid "excessive" budget deficits. The third stage was not well specified in the original Treaty agreement, but it was agreed that the stage could start at earliest in 1997, and at latest in 1999. In May 1995, the Commission published a comprehensive document (which emanated from the Haas Committee's report) in the form of a Green paper (Commission of the European Communities (1995)), detailing the proposed three phase introduction of the new currency within the third stage of the EMU process. The green paper was subsequently agreed upon (with a few minor amendments) at the Dublin summit of the EU Council which was held towards the end of the IGC in December 1996. When the Maastricht Treaty was signed, it was agreed that the Treaty should be reviewed in 1996/97 as part of another IGC which would look at common security, voting procedures for the European Council and admission of Eastern European countries to the EU. The Amsterdam meeting of EU leaders took place in June 1997, and produced the Stability and Growth pact (which ties EMU-participating Member States to specified fiscal policies), and a further amending Treaty to deal with various issues in preparation for the expansion of the EU to the east.

Recent concerns regarding EMU had centred on the unexpected socialist victory in France and consequent doubts as to whether the French would meet the convergence criteria for EMU for 1997. Germany, on the other hand had been particularly concerned about the interpretation of the convergence criteria and how fiscal policy would be coordinated in a post-EMU EU. In the Maastricht Treaty it clearly states that by the beginning of July 1998, "the European Council, acting by a qualified majority on a recommendation from the Commission" (Article 109j:2 of the Treaty) will decide "which Member States fulfil the necessary conditions for the adoption of a single currency". This left some doubts as to whether the rather complicated voting procedure used in the European Council might enable a Member State to use one of the "dynamic let-out" clauses (Article 104c:2a) to play what Fratianni and von Hagen and Waller (1992) have referred to as "end games" (- basically adopting short-term economic policies which would be reversed as soon as the decision on EMU is made) in order to be allowed to proceed to EMU. The Stability and Growth pact (Commission of the European Communities (1997a)) was basically a re-commitment to the economic criteria of Maastricht, but extending these criteria to the operation of fiscal policy beyond the 1999 inception. The pact entails adherence to the 3 percent budget deficit criteria (as an upper limit), coupled with detailed rules concerning penalties that could be imposed on Member States that transgress these criteria.

The political debate concerning EMU in the EU will likely continue over the next two years, at least, as controversial decisions will have to made in early 1998 as to which Member States proceed to EMU, and these decisions will no doubt take on a political overtone. The United Kingdom, which traditionally brings up the vanguard on many EU initiatives, was, up until recently, the flashpoint for much of the political debate surrounding this issue. The furious debate that took place before the general election of May 1997 over the desirability of EMU has led to a myriad of political reasons to justify moving to EMU, some connected with "two-level" political games (which allow certain countries to enact policies which without EMU as an excuse would be unacceptable to the electorate - see Puttnam (1988)) and some which stress the need to bind Germany into a pan-European framework so as to "neutralise" and incorporate its political and economic aspirations into a wider political context (see Johnson (1996)). These groupings have sprung out of the perception that EMU represents a political watershed in the development of a more integrated EU, and differing views as to the desirability of any formal ties beyond that of a common market have helped to crystalise the approaches of these various camps. In France, the electorate have begun to question whether so many economic sacrifices for EMU are in the interest of the country, given public sector expenditure cuts and high levels of unemployment. In Germany, the debate has largely revolved around either the issue of whether the single currency would, if introduced, be as stable as the Deutschmark, but with high levels of structural unemployment and a stubbornly high budget deficit, there are now lingering doubts as to whether EMU will be in Germany's best interests. While the sacrifices which have been made in order to meet the convergence criteria are deeply unpopular with the general public, there is a long-term political commitment to EMU among the EU political elite that will likely ensure that political events do not completely derail the process

As of writing, it is expected that EMU will likely proceed in 1999, with either a small core of Member States being permitted to take part in the final stage of EMU, or that a larger number of participants may be permitted to participate. The "first wave" is to be complete in 2002, according to the transition plans (Commission of the European Communities (1995)), and other Member States will be permitted to proceed when a review of economic performance of Member States is completed, set to be scheduled every two years after the final stage begins. The "first wave" of Member States is currently an extremely contentious issue in European political and economic circles, with countries like France, Belgium, Spain and Italy making valiant attempts to reduce budget deficits and public debt to at least qualify under the "dynamic let-out" clause of the Maastricht Treaty. Table 1.1 below reproduces the important dates in the process that was based on the Commission Green paper changeover scenario.

This plan was adopted by all Member States at the December 1996 Dublin summit of the EU first ministers.

The realisation that EMU will likely occur has led to intense speculation about the likely and possible effects on countries outside of the EU (see Financial Times (1997a) and the Economist (1997)). Indeed, like the US, Canada has until recently largely ignored these turbulent and tumultuous events in Europe, unless foreign exchange market volatility surrounding these events affected the Canadian dollar (with perhaps the exception of the report of the Senate of Canada (Standing Senate Committee on Foreign Affairs (1996))). It is therefore timely that this report should consider the implications of EMU for Canadian trade and foreign direct investment.

The following section reviews recent Canada-EU trade and investment trends to place the possible changes in proper context. The third section reviews the merchandise trade issues for the EU members and Canada and the fourth section reviews the trade in services issues. The fifth section reviews some of the economic issues regarding the effects of EMU on foreign direct investment (FDI) flows. The sixth section considers other scenario-dependent potential effects, and the seventh presents an assessment of the overall effects on Canadian companies based on a survey of exporters to the EU which was undertaken as part of this project. Section eight concludes.

Table 1.1
Timetable for the Final Stage of the EMU Process

Timing	Actions	Responsibility	Phase
As soon as possible in 1998	Decision on participating Member States	Council	
As soon as possible after the decision on participating Member States	Start production of euro banknotes; Start production of euro coins	ESCB Council and Member States	A
January 1, 1999	Irrevocable fixing of conversion rates and entry into force of legislation related to the euro (legal status, continuity of contracts, rounding, etc.)	Council	A
From January 1, 1999	Definition and execution of the single monetary policy in euro; Conduct of foreign exchange operations in euro; Operation of TARGET payment system; Issue new public debt in euro.	ESCB ESCB ESCB Member states	B
January 1, 1999 to January 1, 2002	Exchange a par value of currencies with irrevocably fixed conversion rates; Monitor changeover in the banking and finance industry; Assist the whole of the economy in an orderly changeover.	ESCB ESCB and public authorities in Member States ESCB and public authorities in Member States	B
January 1, 2002 at the latest	Start circulation of euro banknotes and withdrawal of national banknotes; Start circulation of the euro coins and withdrawal of national coins; Complete changeover in the public administration.	ESCB Member states Member states	C
July 1, 2002 at the latest	Cancel the legal tender status of national banknotes and coins.	Council; Member states; ESCB	C

Notes: ESCB (European System of Central Banks),
TARGET (Trans-European Automated Real-time Gross settlement Express Transfer).
Source: Association for the Monetary Union of Europe (1996)

2. Recent Canada-EU Trade Trends

2.1 Canada-EU Merchandise Trade

Since the advent of the North American Free Trade Agreement (NAFTA), trade with Europe has declined in importance, both strategically and economically. While the underlying economic logic of the 1980s and 1990s has been to form regional trading blocs, in Canada's case this has undoubtedly resulted in trade creation with the US, but has increased Canada's dependency on this trade. The Government of Canada has been attempting to develop trade with Asian countries (with, for example, Team Canada visits), and coupled with the rapid growth in these countries trade with this region has now surpassed that of Europe. Nevertheless, after the US and Asia, Europe is still of strategic importance for Canada, and particularly for Central and Eastern Canada. Also, it should be noted that although the EU is the third most important Canadian trading partner after the US and Asia, in the US, the ordering for Asia and Europe is reversed, with the EU the second most important trading partner after Asia. The trends in the trade statistics for Canada-EU trade flows are clearly important, so an analysis of the statistics is now be presented.

Table 2.1 shows summary statistics for the evolution of Canadian-EU trade in goods over the period 1980-96. The table includes countries that were members of the EU in each year, so the trade statistics represent the trade for a growing number of countries over time. The most immediately obvious trend has been the deterioration in the trade balance over the period as a whole, but with two definite phases. In the period 1980-88, the trade balance deteriorated almost consistently year-on-year. From 1989-92, the trade balance then showed an improving trend, followed by a rapid deterioration from 1993-96.

Inspection of the export and import statistics with the EU reveals several interesting phenomenon. First, the trade balance for goods and services for Canada with the world has increased from $6.9 billion in 1980 to $42.0 billion in 1996, whereas Canada's trade balance with the EU has moved from nearly a $5 billion surplus to over a $7 billion deficit. So the EU component has actually been going against the trend. This could suggest that the formation of the NAFTA has caused trade diversion to occur with EU. On what grounds might such a view be justified? The reasons why the creation of a trade bloc stimulates trade with bloc partners are complex, and include such factors as exchange rate policy with trade bloc partners as well as associated hysteresis effects, geographical distance and changes in common external tariffs. In addition, the development of NAFTA roughly coincided with the measures taken by the EU to complete the single market, so trade diversion effects might have taken place on both sides of the Atlantic. In terms of NAFTA, Waschik (1996) uses a computable general equilibrium model to show that there was a small amount of trade diversion in the NAFTA as a whole, and a significant amount of trade diversion for Canada individually, given constant external tariffs during the NAFTA implementation[1]. Sapir (1992) argues that regional integration in the EU did not create any net trade diversion effects, as the process of EU integration boosted intra-EU trade, but also was a catalyst for reduction in Europe's external trade barriers through the General Agreement on Trade and Tariffs (GATT) Kennedy and Uruguay rounds of negotiations. Winters (1993) partially dissents from this view, asserting that the EU fostered a minor amount of trade creation on balance, but in certain sectors, such as agriculture, the Common Agricultural Policy (CAP) and other measures have acted as a distortionary and protectionist trade barrier.

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[1] Other useful references on the welfare effects of NAFTA are Brown, Deardorff and Stern (1992) and Cox (1994).

In terms of whether trade diversion exists, it is extremely difficult to isolate this particular economic effect, as in theory it assumes *ceteris paribus* conditions are met for variables such as exchange rates, growth rate differentials, inflation differentials, as well as micro considerations such as the extent of variety and the scale of production. In more recent work, Winters (1997) has suggested that neighbouring countries linked tightly to the EU economy could lose significantly from the latter's integration, but that for other countries the losses are likely to be very small.

Second, it is apparent that there was a long term decline in exports to the EU as a percentage of total exports over the period, with a over a 60 percent reduction in the proportion of exports to the EU as a proportion of the total value of exports. This secular decline appears to have largely occurred in the early 1980s and 1990s. On the import side, the trend is very different, with a growth in EU imports as a proportion of total Canadian imports to 1988, followed by a decline in EU import proportion to the early 1990s, and then little trend in the figures from 1992 to date. In other words, the total percentage of Canadian imports from the EU as a proportion of total imports has remained fairly constant over the period, but the proportion of Canadian exports to the EU to total exports has been in long-term decline.

Third, these trends are borne out by the export to GDP and the import to GDP ratios. Exports to the EU have declined over the period, with some rebound in 1995, but imports from the EU have remained roughly steady as a proportion of GDP. Clearly, imports from the EU are still an important component of foreign trade, but exports to the EU have been of declining importance. This must give some rise for concern, as there appears to have been little improvement in the trade imbalance with the EU, even with the Canadian currency at very competitive levels in world markets, and structural adjustments in response to the establishment of the NAFTA being supposedly completed since the recession of the early 1990s.

Table 2.2 shows nominal Canadian dollar trade values for exports from Canada to the EU, split down by product group, while table 2.3 shows nominal Canadian dollar trade values for imports from the EU to Canada, using the same format. Canadian exports and imports are recorded on a customs basis, but for exports the standard commodity classification is used, and for imports the harmonised commodity classification is used. Canadian exports appear to be concentrated in the areas of fabricated materials, inedible crude materials, food, feed, beverages and tobacco and most recently in aircraft and other equipment and tools. This reflects the widely reported export successes of the large Canadian beverage companies, telephone equipment companies and transportation manufacturers.

In table 2.3, EU imports appear to be less concentrated in specific areas, but the highest import categories by value are in the areas of fabricated materials, machinery, other equipment and tools and inedible crude materials. It is immediately apparent that imports from the EU are much more diversified among the classifications presented in the tables than are exports. One reason for this might be that the specialisation required to compete in the NAFTA bloc has caused Canada to orient its export production so as to concentrate in specific areas for the US market, but these areas, due to economies of scale, then become Canada's main areas of exports to the rest of the world. To shed some light on this, tables 2.4 and table 2.5 show the proportion of exports to the EU and imports from the EU in each category as a percentage of the total EU exports and imports.

In table 2.4 the export proportions for each product category show that the larger categories have declined in importance, whereas several smaller categories have shown significant growth. These categories are aircraft, other equipment and tools and to a lesser extent, communications and related equipment. This points to an emerging trend to export goods with a higher technical component to the EU.

In table 2.5 the import proportions for each product category show that the larger categories have been largely consistent through time, but that significant growth has been noted in categories such as inedible crude materials, aircraft and communications and related equipment. Taken together with the export figures, tables 2.4 and 2.5 suggest that in certain emerging sectors, a greater degree of intra-industry trade seems to be occurring across the Atlantic. This is likely due to an increasing dominance of Canada-EU trade by multinational companies than was the case in the early 1980s.

Tables 2.6 and 2.7 complete the analysis of trade statistics by computing exports and imports by category for Canada-EU flows as a percentage of total exports and imports by category. In table 2.6, most categories show that EU exports have declined in importance in relation to total exports in each category, as would be expected from the aggregate figures presented in table 2.1. There are a couple of notable exceptions here though, with machinery exports to the EU roughly remaining constant as a proportion of total machinery exports, and exports of aircraft, which show a dramatic increase to over one fifth of total exports by 1996. In table 2.7, though, imports suggest a very different picture. Here, many import categories have remained fairly constant over the 1980s and 1990s, but declines are notable in the other transportation and equipment category, personal and household items and special transactions, and notable increases occurred in inedible crude materials, machinery and aircraft. These figures once again suggest that an increasing amount of intra-industry trade is occurring in the machinery and aircraft sectors.

Table 2.1
Summary Statistics for Canadian Exports and Imports
(1980-96)

Year	Exports to EU (C$m)	Total Exports/GDP (%)	EU Exports/GDP (%)	EU Exports/Total Exports (%)	Imports from EU (C$m)	Total Imports/GDP (%)	EU Imports/GDP (%)	EU Imports/Total Imports (%)	Trade balance with EU (C$m)
1980	12,768	24.6	4.1	16.8	7,847	22.4	2.5	11.3	4,921
1981	12,296	23.5	3.5	14.7	9,218	22.3	2.6	11.6	3,078
1982	10,258	22.6	2.7	12.1	7,930	18.1	2.1	11.7	2,328
1983	9,253	22.3	2.3	10.2	8,116	18.6	2.0	10.7	1,138
1984	9,575	25.2	2.2	8.5	11,405	21.5	2.6	11.9	(1,830)
1985	9,299	24.9	1.9	7.8	13,724	21.8	2.9	13.2	(4,425)
1986	10,741	23.9	2.1	8.9	16,436	22.3	3.3	14.5	(5,695)
1987	9,550	22.7	1.7	7.6	13,763	21.0	2.5	11.9	(4,213)
1988	11,200	22.8	1.8	8.1	16,058	21.6	2.7	12.3	(4,858)
1989	11,900	21.4	1.8	8.6	14,914	20.7	2.3	11.0	(3,014)
1990	12,200	22.2	1.8	8.2	15,616	20.3	2.3	11.5	(3,416)
1991	11,800	21.6	1.7	8.1	14,705	20.0	2.2	10.9	(2,905)
1992	11,700	23.6	1.7	7.2	14,437	21.4	2.1	9.8	(2,737)
1993	11,100	26.4	1.6	5.9	14,808	23.8	2.1	8.7	(3,708)
1994	11,800	30.2	1.6	5.2	17,699	27.2	2.4	8.7	(5,899)
1995	16,600	34.0	2.1	6.3	22,570	29.1	2.9	10.0	(5,970)
1996	15,500			5.6	22,733			9.8	(7,233)

Sources: Exports and Imports: trade with EU: CANSIM matrices: 3889 and 3689: balance of payments basis.
Exports and imports: trade with UK: CANSIM matrices 3693 and 3893
Exports and Imports with world: CANSIM matrices 3888 and 3688
GDP Expenditure based/annual at market prices: CANSIM matrix 6628

Table 2.2

Value of Canadian Exports to the European Union

(in C$ millions)

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	Total
1980	11.3	1,789.0	2,823.6	6,240.0	263.0	56.5	160.3	203.8	103.4	334.6	204.5	432.7	6.1	12,628.8
1981	11.5	2,024.0	2,704.9	5,630.0	262.7	58.8	226.0	259.5	19.1	408.8	168.2	301.5	58.3	12,133.2
1982	10.0	1,775.9	2,105.8	4,590.0	268.3	55.7	206.2	247.6	27.0	378.5	118.3	252.4	8.3	10,044.1
1983	15.5	1,641.2	2,222.5	3,850.0	196.5	49.2	177.2	230.3	12.1	410.6	83.1	182.7	6.2	9,077.1
1984	14.5	1,255.1	2,511.5	4,080.0	212.0	46.9	193.1	284.2	11.7	447.1	63.9	213.4	6.7	9,339.9
1985	5.3	1,159.4	2,804.8	3,679.2	192.0	51.2	269.2	230.9	10.0	404.4	61.5	211.8	9.9	9,089.3
1986	11.1	1,389.2	2,699.0	4,520.0	312.4	84.3	294.1	232.2	26.0	429.9	78.1	305.5	7.9	10,389.6
1987	9.5	1,040.0	2,070.0	4,230.0	230.6	101.8	281.2	209.8	17.9	480.2	83.1	356.7	3.6	9,114.3
1988	12.8	1,070.0	2,080.0	5,320.0	283.8	128.0	418.9	219.2	24.4	889.6	94.2	355.1	23.6	10,919.5
1989	19.2	932.8	2,200.0	5,830.0	347.7	97.7	569.0	212.4	32.7	820.7	92.7	329.1	39.3	11,523.3
1990	19.0	1,010.0	2,200.0	5,790.0	426.0	79.5	650.2	208.3	60.7	821.5	91.9	328.7	32.4	11,718.0
1991	10.4	941.6	1,990.0	5,310.0	449.8	171.2	723.9	216.2	78.8	776.7	102.6	332.3	36.8	11,140.4
1992	9.9	1,020.0	1,900.0	5,280.0	438.9	256.6	645.5	241.6	123.2	724.2	100.7	416.9	60.3	11,217.7
1993	8.1	903.0	1,840.0	4,470.0	418.4	267.6	1,002.3	252.6	107.9	664.8	129.0	426.5	70.5	10,560.7
1994	10.8	957.0	2,250.0	5,170.0	398.1	153.8	529.7	303.8	134.0	770.8	143.8	414.4	40.0	11,276.1
1995	8.3	1,360.0	2,990.0	7,090.0	602.4	245.6	1,187.2	504.5	93.1	1,140.0	206.7	523.9	36.9	15,988.7
1996	7.7	1,210.0	2,740.0	5,890.0	719.2	243.5	1,329.4	523.2	102.7	1,170.0	280.5	615.9	33.5	14,865.6

Key: Section I: Live Animals, Section II: Food, Feed, Beverages and Tobacco, Section III: Crude Materials Inedible, Section IV: Fabricated Materials, Section V: Machinery, Section VI: Total Motor Vehicles and Parts, Section VII: Aircraft, Section VIII: Communications and Related Equipment(TV's, Radios, etc.), Section IX: Other Transportation and Communication Equipment(railway stock, boats, etc.), Section X: Other Equipment and Tools (heating, refrigeration, cooking, office machines), Section XI: Personal and Household Items, Section XII: Miscellaneous End Products (medicinal, printed matter, photographic goods), Section XIII: Special Transactions

Source: Statistics Canada, CANSIM Matrices 3689 and 3693

Table 2.3

Value of Canadian Imports from the European Union

(in C$ millions)

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	Total
1980	3.4	699.1	279.5	1,925.9	1,544.4	599.2	228.9	151.6	269.3	559.5	704.1	757.6	124.6	7,847.1
1981	4.4	744.9	950.3	2,534.5	1,657.8	444.0	252.1	129.9	500.1	582.9	606.1	689.8	126.6	9,223.3
1982	4.0	800.5	790.7	2,093.6	1,361.6	471.3	206.4	111.4	194.9	533.4	601.0 -	630.5	124.5	7,923.7
1983	3.5	799.5	612.7	2,216.8	1,188.7	441.5	136.7	144.6	410.5	617.8	695.6	721.7	122.1	8,111.5
1984	2.7	1,069.7	1,578.4	3,125.5	1,665.0	707.4	174.2	211.1	217.3	752.6	867.4	844.9	186.3	11,402.6
1985	2.9	1,094.0	2,109.9	3,611.4	2,022.3	908.5	287.3	230.0	200.9	1,035.9	1,095.6	922.4	199.2	13,720.2
1986	5.3	1,256.3	2,620.0	3,677.2	2,831.4	1,239.5	293.4	302.4	209.7	1,338.7	1,344.0	1,121.0	198.9	16,437.8
1987	4.3	1,060.0	1,870.0	3,310.0	2,380.0	1,090.0	274.0	242.6	230.5	1,120.0	1,040.0	997.3	153.0	13,771.6
1988	2.8	994.5	1,870.0	3,900.0	2,360.0	1,450.0	1,400.0	294.1	206.7	1,290.0	1,010.0	1,100.0	171.8	16,049.8
1989	5.8	1,080.0	1,790.0	3,640.0	2,290.0	1,140.0	788.7	309.5	220.6	1,280.0	1,070.0	1,090.0	214.4	14,919.0
1990	5.4	1,140.0	2,190.0	3,560.0	2,330.0	1,160.0	678.2	328.2	192.3	1,420.0	1,170.0	1,220.0	223.0	15,617.0
1991	2.5	1,110.0	1,760.0	3,090.0	2,030.0	1,190.0	1,040.0	480.8	162.5	1,490.0	1,030.0	1,080.0	235.0	14,700.9
1992	2.1	1,160.0	1,520.0	3,240.0	1,760.0	1,040.0	1,170.0	361.5	144.0	1,580.0	1,030.0	1,170.0	249.2	14,426.7
1993	4.2	1,210.0	1,640.0	3,740.0	1,990.0	815.1	614.0	448.4	221.3	1,610.0	1,040.0	1,240.0	245.2	14,818.2
1994	6.4	1,350.0	1,670.0	4,710.0	2,650.0	1,120.0	500.5	800.4	221.5	1,930.0	1,190.0	1,360.0	203.6	17,712.4
1995	4.6	1,430.0	1,810.0	5,750.0	4,120.0	1,480.0	926.2	1,120.0	374.0	2,180.0	1,390.0	1,720.0	262.5	22,567.2
1996	4.2	1,480.0	2,020.0	5,700.0	3,660.0	1,610.0	1,190.0	1,170.0	421.4	2,220.0	1,280.0	1,700.0	274.3	22,729.8

Key: Section I: Live Animals, Section II: Food, Feed, Beverages and Tobacco, Section III: Crude Materials Inedible, Section IV: Fabricated Materials, Section V: Machinery, Section VI: Total Motor Vehicles and Parts, Section VII: Aircraft, Section VIII: Communications and Related Equipment(TV's, Radios, etc.), Section IX: Other Transportation and Communication Equipment(railway stock, boats, etc.), Section X: Other Equipment and Tools (heating, refrigeration, cooking, office machines), Section XI: Personal and Household Items, Section XII: Miscellaneous End, Products (medicinal, printed matter, photographic goods), Section XIII: Special Transactions

Source: Statistics Canada, CANSIM Matrices 3889 and 3893

Table 2.4
Export Categories as a Proportion of Total Exports to the European Union
(in %)

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	Total
1980	0.09	14.17	22.36	49.41	2.08	0.45	1.27	1.61	0.82	2.65	1.62	3.43	0.05	100
1981	0.09	16.68	22.29	46.40	2.17	0.48	1.86	2.14	0.16	3.37	1.39	2.48	0.48	100
1982	0.10	17.68	20.97	45.70	2.67	0.55	2.05	2.46	0.27	3.77	1.18	2.51	0.08	100
1983	0.17	18.08	24.49	42.41	2.16	0.54	1.95	2.54	0.13	4.52	0.92	2.01	0.07	100
1984	0.15	13.44	26.89	43.68	2.27	0.50	2.07	3.04	0.12	4.79	0.68	2.28	0.07	100
1985	0.06	12.76	30.86	40.48	2.11	0.56	2.96	2.54	0.11	4.45	0.68	2.33	0.11	100
1986	0.11	13.37	25.98	43.50	3.01	0.81	2.83	2.23	0.25	4.14	0.75	2.94	0.08	100
1987	0.10	11.41	22.71	46.41	2.53	1.12	3.09	2.30	0.20	5.27	0.91	3.91	0.04	100
1988	0.12	9.80	19.05	48.72	2.60	1.17	3.84	2.01	0.22	8.15	0.86	3.25	0.22	100
1989	0.17	8.10	19.09	50.59	3.02	0.85	4.94	1.84	0.28	7.12	0.80	2.86	0.34	100
1990	0.16	8.62	18.77	49.41	3.64	0.68	5.55	1.78	0.52	7.01	0.78	2.80	0.28	100
1991	0.09	8.45	17.86	47.66	4.04	1.54	6.50	1.94	0.71	6.97	0.92	2.98	0.33	100
1992	0.09	9.09	16.94	47.07	3.91	2.29	5.75	2.15	1.10	6.46	0.90	3.72	0.54	100
1993	0.08	8.55	17.42	42.33	3.96	2.53	9.49	2.39	1.02	6.29	1.22	4.04	0.67	100
1994	0.10	8.49	19.95	45.85	3.53	1.36	4.70	2.69	1.19	6.84	1.28	3.67	0.35	100
1995	0.05	8.51	18.70	44.34	3.77	1.54	7.43	3.16	0.58	7.13	1.29	3.28	0.23	100
1996	0.05	8.14	18.43	39.62	4.84	1.64	8.94	3.52	0.69	7.87	1.89	4.14	0.23	100

Key: Section I: Live Animals, Section II: Food, Feed, Beverages and Tobacco, Section III: Crude Materials Inedible, Section IV: Fabricated Materials, Section V: Machinery, Section VI: Total Motor Vehicles and Parts, Section VII: Aircraft, Section VIII: Communications and Related Equipment(TV's, Radios, etc.), Section IX: Other Transportation and Communication Equipment(railway stock, boats, etc.), Section X: Other Equipment and Tools (heating, refrigeration, cooking, office machines), Section XI: Personal and Household Items, Section XII: Miscellaneous End, Products (medicinal, printed matter, photographic goods), Section XIII: Special Transactions

Source: Statistics Canada, CANSIM Matrices 3689 and 3693

Table 2.5

Import Categories as a Proportion of Total Imports from the European Union

(in %)

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	Total
1980	0.04	8.91	3.56	24.54	19.68	7.64	2.92	1.93	3.43	7.13	8.97	9.65	1.59	100.0
1981	0.05	8.08	10.30	27.48	17.97	4.81	2.73	1.41	5.42	6.32	6.57	7.48	1.37	100.0
1982	0.05	10.10	9.98	26.42	17.18	5.95	2.60	1.41	2.46	6.73	7.58	7.96	1.57	100.0
1983	0.04	9.86	7.55	27.33	14.65	5.44	1.68	1.78	5.06	7.62	8.58	8.90	1.51	100.0
1984	0.02	9.38	13.84	27.41	14.60	6.20	1.53	1.85	1.91	6.60	7.61	7.41	1.63	100.0
1985	0.02	7.97	15.38	26.32	14.74	6.62	2.09	1.68	1.46	7.55	7.99	6.72	1.45	100.0
1986	0.03	7.64	15.94	22.37	17.23	7.54	1.79	1.84	1.28	8.14	8.18	6.82	1.21	100.0
1987	0.03	7.70	13.58	24.03	17.28	7.91	1.99	1.76	1.67	8.13	7.55	7.24	1.11	100.0
1988	0.02	6.20	11.65	24.30	14.70	9.03	8.72	1.83	1.29	8.04	6.29	6.85	1.07	100.0
1989	0.04	7.24	12.00	24.40	15.35	7.64	5.29	2.07	1.48	8.58	7.17	7.31	1.44	100.0
1990	0.03	7.30	14.02	22.80	14.92	7.43	4.34	2.10	1.23	9.09	7.49	7.81	1.43	100.0
1991	0.02	7.55	11.97	21.02	13.81	8.09	7.07	3.27	1.11	10.14	7.01	7.35	1.60	100.0
1992	0.01	8.04	10.54	22.46	12.20	7.21	8.11	2.51	1.00	10.95	7.14	8.11	1.73	100.0
1993	0.03	8.17	11.07	25.24	13.43	5.50	4.14	3.03	1.49	10.87	7.02	8.37	1.65	100.0
1994	0.04	7.62	9.43	26.59	14.96	6.32	2.83	4.52	1.25	10.90	6.72	7.68	1.15	100.0
1995	0.02	6.34	8.02	25.48	18.26	6.56	4.10	4.96	1.66	9.66	6.16	7.62	1.16	100.0
1996	0.02	6.51	8.89	25.08	16.10	7.08	5.24	5.15	1.85	9.77	5.63	7.48	1.21	100.0

Key: Section I: Live Animals, Section II: Food, Feed, Beverages and Tobacco, Section III: Crude Materials Inedible, Section IV: Fabricated Materials, Section V: Machinery, Section VI: Total Motor Vehicles and Parts, Section VII: Aircraft, Section VIII: Communications and Related Equipment(TV's, Radios, etc.), Section IX: Other Transportation and Communication Equipment(railway stock, boats, etc.), Section X: Other Equipment and Tools (heating, refrigeration, cooking, office machines), Section XI: Personal and Household Items, Section XII: Miscellaneous End, Products (medicinal, printed matter, photographic goods), Section XIII: Special Transactions

Source: Statistics Canada, CANSIM Matrices 3889 and 3893

Table 2.6
Percentage of Exports to Europe as a Percentage of Total Canadian Exports
(in %)

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	Total
1980	4.5	22.3	19.1	21.3	8.6	0.5	11.4	20.0	9.8	16.9	33.0	24.0	2.7	17.0
1981	5.0	22.0	17.8	18.5	7.3	0.4	12.6	18.9	2.2	17.7	25.8	18.1	8.7	14.9
1982	3.1	17.9	14.2	16.5	8.5	0.3	11.9	17.7	2.2	15.3	18.7	15.9	3.1	12.3
1983	4.6	16.2	15.5	12.8	6.7	0.2	11.7	14.3	1.3	14.9	14.0	10.4	2.8	10.3
1984	2.8	12.2	14.4	11.3	6.1	0.2	10.8	11.3	1.0	13.0	8.3	9.3	1.7	8.5
1985	1.1	12.6	14.5	10.0	5.4	0.2	12.9	8.4	0.9	10.8	7.4	7.8	2.7	7.8
1986	3.2	14.6	17.5	11.8	8.0	0.2	12.3	9.2	1.8	10.1	8.3	10.1	2.5	8.9
1987	2.6	10.2	12.3	10.1	5.8	0.3	11.1	8.2	1.3	9.6	7.8	10.9	1.1	7.5
1988	2.1	9.6	12.0	11.0	6.4	0.4	15.7	8.3	2.0	13.5	7.6	10.5	3.4	8.1
1989	3.1	9.9	12.0	12.1	7.1	0.3	17.6	6.6	1.9	12.4	7.9	10.2	5.5	8.5
1990	2.1	9.4	11.2	12.2	8.5	0.2	16.0	4.6	3.3	11.4	8.1	10.1	2.0	8.3
1991	1.1	8.5	10.4	11.6	9.5	0.5	16.5	4.6	4.6	10.5	8.0	10.7	2.3	8.0
1992	0.8	7.9	9.3	10.5	8.6	0.7	17.4	4.8	6.2	8.3	5.9	10.4	3.4	7.3
1993	0.6	7.3	8.4	7.9	6.4	0.6	24.9	4.8	4.2	6.7	5.6	8.5	3.5	5.9
1994	0.8	6.9	9.3	7.4	4.4	0.3	12.1	4.8	4.0	5.8	4.7	7.0	1.6	5.3
1995	0.5	8.8	10.9	8.4	5.5	0.4	21.4	6.6	2.4	7.2	5.4	7.3	1.4	6.4
1996	0.4	7.3	9.3	7.0	6.4	0.4	20.5	5.6	2.4	7.2	6.3	7.6	1.1	5.8

Key: Section I: Live Animals, Section II: Food, Feed, Beverages and Tobacco, Section III: Crude Materials Inedible, Section IV: Fabricated Materials, Section V: Machinery, Section VI: Total Motor Vehicles and Parts, Section VII: Aircraft, Section VIII: Communications and Related Equipment(TV's, Radios, etc.), Section IX: Other Transportation and Communication Equipment(railway stock, boats, etc.), Section X: Other Equipment and Tools (heating, refrigeration, cooking, office machines), Section XI: Personal and Household Items, Section XII: Miscellaneous End, Products (medicinal, printed matter, photographic goods), Section XIII: Special Transactions

Source: CANSIM Matrices 3688, 3693 and 3689

Table 2.7

Percentage of Imports from Europe as a Percentage of Total Canadian Imports
(in %)

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	Total
1980	3.0	14.9	2.5	15.2	17.5	4.4	18.6	6.8	27.6	9.6	26.4	20.8	16.4	11.4
1981	2.2	14.8	7.7	17.5	17.1	2.7	14.7	4.7	43.1	8.1	19.9	16.9	13.6	11.7
1982	2.9	16.7	9.1	17.7	18.6	3.1	21.2	4.3	23.4	7.5	20.2	16.0	12.3	11.8
1983	2.6	16.4	8.5	15.8	17.5	2.3	10.8	4.4	29.5	7.7	20.3	16.7	12.5	10.8
1984	2.9	18.4	19.7	18.2	19.9	2.7	11.9	4.5	13.9	7.2	20.7	16.4	12.2	12.0
1985	2.7	18.9	26.9	19.3	20.9	2.9	16.3	5.1	15.6	9.5	24.9	17.8	12.2	13.3
1986	3.3	19.2	36.1	18.4	26.0	3.7	16.2	6.0	14.0	11.4	25.6	19.3	11.4	14.8
1987	2.6	16.0	25.3	15.8	21.1	3.3	18.4	4.5	14.0	8.5	18.5	16.2	7.7	12.0
1988	2.3	14.2	26.8	15.5	17.9	4.3	41.4	4.4	10.4	7.9	16.7	16.2	6.4	12.3
1989	4.2	14.4	22.8	13.8	17.0	3.6	34.1	4.1	10.4	7.2	16.1	15.0	7.4	11.1
1990	4.7	14.3	23.6	13.4	18.5	3.8	36.0	3.9	9.8	7.9	16.6	15.6	7.5	11.6
1991	1.8	13.4	22.1	12.5	18.3	3.8	41.7	5.4	8.5	8.1	14.2	13.1	6.5	10.9
1992	1.4	12.9	18.7	11.9	15.4	3.1	43.3	3.7	7.1	7.6	12.5	12.3	6.1	9.8
1993	2.4	12.0	18.3	11.7	14.4	2.0	39.1	4.0	9.5	6.6	11.1	11.7	5.6	8.8
1994	3.0	11.6	16.6	12.3	14.8	2.3	32.7	5.8	7.8	6.6	11.4	11.4	4.2	8.8
1995	2.4	11.7	14.6	13.2	20.1	2.9	37.7	6.5	10.5	6.8	12.3	13.3	4.8	10.1
1996	2.5	11.5	14.8	12.6	18.3	3.1	39.1	6.8	12.8	6.8	11.4	13.0	3.9	9.8

Key: Section I: Live Animals, Section II: Food, Feed, Beverages and Tobacco, Section III: Crude Materials Inedible, Section IV: Fabricated Materials, Section V: Machinery, Section VI: Total Motor Vehicles and Parts, Section VII: Aircraft, Section VIII: Communications and Related Equipment(TV's, Radios, etc.), Section IX: Other Transportation and Communication Equipment(railway stock, boats, etc.), Section X: Other Equipment and Tools (heating, refrigeration, cooking, office machines), Section XI: Personal and Household Items, Section XII: Miscellaneous End, Products (medicinal, printed matter, photographic goods), Section XIII: Special Transactions

Source: Statistics Canada, CANSIM Matrices 3888, 3889 and 3893.

Is the picture that this data presents being distorted by the addition of countries to the EU over time[2]? To observe the evolution of merchandise trade exports from Canada to several of the key EU Member States, table 2.8 reproduces the data split down according to Member State. Table 2.9 goes on to reproduce the import data also split down by Member State.

Table 2.8
Canadian Exports to the EU by Member State
(in C$ millions)

Year	Belgium	France	Germany	Italy	Netherlands	UK
1980	1,000	1,020	1,670	1,000	1,442	3,240
1981	856	1,010	1,320	928	1,208	3,360
1982	791	755	1,290	705	1,060	2,730
1983	714	654	1,180	569	975	2,510
1984	702	736	1,230	601	1,089	2,540
1985	722	743	1,230	542	956	2,480
1986	846	1,010	1,310	712	1,010	2,730
1987	1,170	1,090	1,610	869	1,072	3,030
1988	1,330	1,230	1,780	1,030	1,437	3,610
1989	1,430	1,320	1,890	1,130	1,599	3,570
1990	1,250	1,300	2,320	1,190	1,649	3,540
1991	1,100	1,420	2,430	1,070	1,726	3,040
1992	1,110	1,460	2,320	1,180	1,517	3,130
1993	1,040	1,320	2,570	969	1,383	2,980
1994	1,360	1,390	2,330	1,320	1,243	3,330
1995	1,860	1,950	3,310	1,840	1,664	3,880
1996	1,510	1,740	3,310	1,360	1,633	4,000

Sources: Statistics Canada CANSIM matrices 3694, 3695, 3696, 3697, 3698, 3693,

It is apparent that the trends of total exports to the EU are largely replicated on a country by country basis. In the table above, it is clear that the largest portion of Canadian exports to the EU go to the UK and Germany, but also compared with their size, a significant portion of Canada's exports go to Belgium and the Netherlands. The jump in exports in 1988 in the total figures is largely replicated in all countries, and it is particularly noteworthy that exports to Germany appear to have grown significantly between 1994 and 1995.

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[2]   Greece was added to the data from 1981 onwards, Portugal and Spain from 1986 onwards and Austria, Finland and Sweden from 1995 onwards.

Table 2.9
Canadian Imports from the EU by Member State
(in C$ millions)

Year	Belgium	France	Germany	Italy	Netherlands	UK
1980	237	808	1,493	641	230	1,970
1981	297	912	1,676	738	260	2,360
1982	270	941	1,439	755	235	1,880
1983	291	885	1,642	830	323	1,800
1984	430	1,260	2,250	1,170	509	2,470
1985	499	1,430	2,791	1,410	591	3,000
1986	549	1,660	3,573	1,750	664	3,570
1987	542	1,590	3,650	1,790	743	4,280
1988	588	2,880	3,841	1,950	762	4,630
1989	541	2,030	3,703	2,010	822	4,570
1990	539	2,450	3,837	1,950	720	4,840
1991	427	2,670	3,741	1,790	599	4,160
1992	428	2,690	3,532	1,750	599	4,100
1993	503	2,280	3,522	1,940	666	4,470
1994	606	2,510	4,384	2,590	858	5,030
1995	728	3,120	4,801	3,270	948	5,480
1996	817	3,400	4,820	2,720	931	5,910

Sources: Statistics Canada CANSIM matrices 3894, 3895, 3661, 3897, 3898, 3893.

The import figures in table 2.9 above also tend to also reflect the trends observed in the total figures for imports from the EU. Noteworthy here is the rapid growth in imports from Germany, the Netherlands and Belgium over the last few years.

In summary, what emerges from this analysis of Canada-EU merchandise trade trends is that relatively speaking, although exports to the EU have been in long-term decline, perhaps due to an increased concentration on the part of Canadian exporters on US markets, imports have largely remained unchanged as a proportion of total Canadian imports. This could point to some trade diversion away from traditional European markets to newer more accessible NAFTA markets, but it is unclear whether the data suggest trade diversion resulting from the EU single market initiative. The analysis also points to an increased concentration on a greater technological component to Canadian exports to the EU, and allied to this trend, there also appears to be an emergent tendency for more transatlantic intra-industry trade.

2.2   Canada-EU Trade in Services

Exports and imports of services are notoriously difficult to measure and coverage of such items, unlike merchandise trade, is usually done at the aggregate level, rather than at a disaggregate level. Despite these statistical problems, services exports and imports have grown rapidly in importance over the last decade, so they should not be ignored.

Table 2.10 shows the Canada-EU service exports, imports and trade balance. The table also shows Canada-EU service exports and imports as a percentage of total Canadian service exports and imports. It should be stressed that figures on services trade are not considered to be as reliable as those for merchandise trade because of recording errors and data collection problems.

Table 2.10
Canada-EU Services Exports and Imports
(in C$ millions)

Year	Total EU Service Receipts	Total EU Service Payments	Services Balance with the EU	Total Services Balance
1980	2,050	2,559	(509)	(3,130)
1981	2,114	2,841	(727)	(3,414)
1982	1,956	2,882	(926)	(3,600)
1983	1,684	2,922	(1,238)	(3,846)
1984	1,748	3,243	(1,495)	(4,434)
1985	1,907	3,946	(2,039)	(4,861)
1986	2,483	4,328	(1,845)	(5,195)
1987	2,969	4,694	(1,725)	(6,307)
1988	3,270	5,007	(1,737)	(5,992)
1989	3,504	5,432	(1,928)	(8,237)
1990	3,884	5,841	(1,957)	(11,002)
1991	3,882	5,598	(1,716)	(11,574)
1992	4,131	5,978	(1,847)	(12,267)
1993	4,245	6,501	(2,256)	(12,487)
1994	5,064	7,261	(2,197)	(10,512)
1995	6,148	7,813	(1,665)	(9,357)
1996	6,229	7,642	(1,413)	(9,350)

Source: Statistics Canada CANSIM matrices 2335 and 2336

From the table, it is apparent that while both service exports and imports have been growing over the 16 years under consideration, the balance on Canadian services to the EU was deteriorating up until 1993, and since that time a modest improvement can be noted. Also, Canada runs a services deficit with the EU. In comparison to the overall balance on services, which is also in deficit, there appears to be a very similar pattern in the balance data for the EU.

The data for the EU was then disaggregated for both imports and exports to see the composition of these receipts and payments and to identify any discernable trends, as with merchandise exports. Table 2.11 presents the results of this exercise for services exports in percentage terms.

Table 2.11
Canadian Service Exports to the EU
(in percentage terms)

Year	Travel Receipts	Freight and Shipping Receipts	Business Services Receipts	Government Transactions: Receipts	Total Service Exports
1980	20.6	61.2	15.4	2.8	100.0
1981	21.1	58.4	17.5	3.0	100.0
1982	23.7	53.6	19.6	3.2	100.0
1983	24.1	55.3	16.1	4.5	100.0
1984	23.8	52.3	19.1	4.9	100.0
1985	21.8	48.2	24.5	5.5	100.0
1986	23.0	44.1	27.7	5.2	100.0
1987	23.4	40.7	31.1	4.8	100.0
1988	25.4	40.4	29.9	4.3	100.0
1989	25.6	41.4	29.3	3.8	100.0
1990	29.9	38.3	27.5	4.3	100.0
1991	31.7	37.1	28.1	3.2	100.0
1992	31.3	36.2	29.9	2.5	100.0
1993	34.3	32.6	30.5	2.6	100.0
1994	33.4	33.4	30.9	2.3	100.0
1995	33.1	32.7	32.1	2.0	100.0
1996	35.5	33.5	28.9	2.1	100.0

Source: Statistics Canada CANSIM matrices 2335 and 2336

The table suggests that transportation exports have risen throughout the period, but that freight and shipping receipts have fallen substantially in percentage terms (- in fact they have risen slightly in dollar terms from a trough in the early 1980s), and business services receipts have risen over the period. Government service receipts, although erratic, showed no discernable trend. Government service exports and imports relate to services provided to other governments or provided by other governments - in this category the costs of defence bases might appear, or the payments made for housing international organisations in Canada. Transportation exports might be expected to remain roughly level, as competition in the airline industry intensified quite dramatically in the late 1980s and early 1990s, forcing prices down, even though volumes increased. The fall in freight and shipping receipts might be expected to reflect merchandise export volumes to the EU, but as this would suggest a spurt in growth during the latter half of the 1980s, this does not appear to concur with the data presented above. It may be that intense competition in the freight and shipping industry forced many Canadian companies to cut prices considerably over this period, masking any volume effects, or perhaps Canadian shipping companies lost business during this period to lower-cost competitors.

The equivalent disaggregation for services imports is presented in table 2.12.

Table 2.12
Canadian Services Imports from the EU
(in percentage terms)

Year	Travel Payments	Freight and Shipping Payments	Business Services Payments	Government Transactions: Payments	Total Service Imports
1980	21.6	41.2	19.1	18.1	100.0
1981	18.5	42.6	22.9	15.9	100.0
1982	20.0	36.8	27.6	15.5	100.0
1983	24.4	37.5	23.5	14.6	100.0
1984	26.4	38.9	22.5	12.2	100.0
1985	26.8	37.5	26.8	9.0	100.0
1986	25.9	34.7	30.2	9.1	100.0
1987	27.2	33.6	29.0	10.2	100.0
1988	28.0	32.7	30.2	9.1	100.0
1989	26.4	31.9	32.5	9.1	100.0
1990	31.9	33.0	26.1	9.0	100.0
1991	26.6	32.7	31.0	9.8	100.0
1992	29.1	31.5	29.8	9.6	100.0
1993	28.0	33.1	30.6	8.3	100.0
1994	27.0	32.7	35.0	5.3	100.0
1995	28.7	35.1	31.3	4.9	100.0
1996	29.4	35.5	30.1	5.0	100.0

Source: Statistics Canada CANSIM matrices 2335 and 2336

Service import disaggregated categories paint a rather different picture from imports though. In travel payments, percentages of totals remained roughly level over the period, as did freight and shipping payments from around 1983 onwards, but while business services payments rose modestly, government payments abroad fell quite substantially.

The main messages from tables 2.11 and 2.12 are that the business services sector is probably of greatest strategic importance to Canada-EU services trade, but it is also apparent that transportation services are of considerable importance, and that the freight and shipping industry is becoming less important in the figures (but perhaps just as important from a strategic perspective).

Tables 2.13 and 2.14 now look at the disaggregated figures as a percentage of Canada's world services exports and imports in these categories. From table 2.13, travel receipts seem to range between around 10 to 18 percent of total travel receipts, with notable lows in the mid-1980s, which were probably related to the fall off in transatlantic bookings after the Scottish air disaster. Since the early 1980s, freight and shipping receipts have stayed fairly static, at between approximately 15 to 20 percent of total Canadian freight and shipping receipts. Business services receipts from the EU have been somewhat erratic as a proportion of total business services, but appear to represent between around 10 to 15 percent total Canadian receipts. Receipts from government transactions are also fairly erratic, but range from between around 15 to 20 percent of total receipts. All in all, service exports to the EU appear to be just above 15 percent of total receipts on average.

Table 2.13
Canada's Services Exports to the EU as a Proportion of Total Services Exports
(in percentage terms)

Year	Travel Receipts	Freight and Shipping Receipts	Business Services Receipts	Government Transactions: Receipts	Total Service Exports
1980	14.2	24.7	12.8	15.2	18.8
1981	13.2	22.6	11.6	15.5	17.0
1982	13.3	19.6	12.8	13.6	16.0
1983	10.9	17.8	7.9	14.8	13.1
1984	9.9	15.3	8.3	16.9	11.9
1985	8.8	15.5	10.0	20.4	12.0
1986	9.7	18.1	12.9	22.8	13.9
1987	12.0	18.6	15.2	19.7	15.6
1988	13.2	18.2	13.5	18.5	15.2
1989	13.4	19.4	13.7	17.7	15.7
1990	15.7	19.4	14.3	20.9	16.6
1991	16.0	17.9	13.3	16.6	15.8
1992	16.4	18.2	13.8	14.7	16.0
1993	16.9	16.0	12.7	16.0	15.1
1994	17.4	16.3	13.0	14.1	15.4
1995	18.5	17.1	15.3	15.1	16.8
1996	18.4	17.3	12.8	16.1	16.0

Source: Statistics Canada CANSIM matrices 2333, 2335 and 2336

Table 2.14 presents similar disaggregated figures for Canadian service imports from the EU as a proportion of total service imports. Here travel payments have been erratic but relatively stable at around 15 percent of total travel payments, and both freight and shipping payments and business services payments seem to show no discernable trend over the period. Business services payments have been volatile, but freight and shipping receipts have been remarkably constant as a proportion of the equivalent total service import. Government payments though appear to have fallen from highs of around 50 percent in the early 1980s, to current levels of just over 30 percent of total payments. In total, EU service imports appear to have been remarkably stable as a proportion of total services imports, at between 15 and 19 percent on average.

Table 2.14
Canada's Services Imports from the EU as a Proportion of Total Services Imports
(in percentage terms)

Year	Travel Payments	Freight and Shipping Payments	Business Services Payments	Government Transactions: Payments	Total Service Imports
1980	14.4	21.2	11.5	49.1	18.2
1981	12.9	21.8	12.2	50.7	17.9
1982	13.7	21.1	14.2	44.1	18.2
1983	13.9	21.7	12.4	42.1	17.5
1984	15.6	20.0	11.7	36.6	16.9
1985	17.5	22.4	15.1	32.5	19.0
1986	17.5	22.3	14.9	36.8	18.8
1987	17.0	21.4	14.5	43.6	18.5
1988	16.6	21.6	14.4	45.2	18.2
1989	14.6	21.7	15.1	46.5	17.7
1990	14.6	22.3	12.9	44.1	17.0
1991	10.8	20.5	14.2	42.7	15.5
1992	12.2	19.5	13.9	42.9	15.7
1993	12.7	20.6	13.7	41.3	16.0
1994	14.3	20.8	14.8	34.6	16.7
1995	16.0	21.6	13.6	34.6	17.0
1996	14.8	21.6	11.9	31.9	15.8

Source: Statistics Canada CANSIM matrices 2333, 2335 and 2336

Both tables 2.13 and 2.14 tend to suggest that Canada-EU trade in services is relatively more important as a proportion of total Canadian services trade than merchandise trade is. Of course, part of the reason that services trade with the EU is likely to be more important than merchandise trade relates to the factor of geographical distance, which is now an important determinant for merchandise trade patterns, in terms of transport costs, but is less important for the provision of services (with the exception of freight and shipping services, and to a certain extent travel services).

Many countries now acknowledge the strategic importance of a growing business services sector for international trade, and although statistics in this area are sparse, it is likely that a well-educated workforce with developed human capital will tend to promote exports in this area. Also included in business services are financial services, which are also of significant importance, and particularly as the single EU market offers opportunities for financial service companies to develop and expand into some of the EU Member States where financial sectors have just been opened up to the rigours of a more competitive environment.

3.   Merchandise Trade Issues

The introduction of the euro in the final phase of monetary union will occur during the period 1999-2002, and during this period, companies in Member States that are chosen to proceed with EMU will be under no obligation to use the new currency, but will be encouraged to adopt the currency. If the Commission's changeover scenario (Commission of the European Communities (1995)) is to be believed, then there will be little point in using national currency for intra-EU trade as all national currencies will be "irrevocably" fixed from 1999 onwards. Hence, although the euro will not circulate as currency, it will operate as money, in the sense that it will fulfil the four standard characteristics of money[3]. There are clearly both internal effects of adopting the euro, and external effects. To properly understand the external effects, it is necessary to appreciate the internal effects, and it is to these that we turn first.

3.1   Internal (EU) Effects of Adopting the Euro

There are several important consequences of the "irrevocable" fixing of exchange rates for EU participating and non-participating Member States, as well as for nations outside the EU. We first turn to the internal (EU) effects of the adoption of the euro. These include elimination of foreign exchange costs, associated real resource costs of converting currencies, the one-time real resource costs of switching to a new currency, the costs of converting contracts denominated in old currencies, and miscellaneous one-time costs or "vending machine" costs.

The elimination of foreign exchange costs should, in theory, be easily estimated by the bid-ask spreads in the foreign exchange market. This spread represents the competitive rentals of the physical and human resources currently employed in the exchange of currencies which will become redundant once monetary union takes place. As the foreign exchange market might best be described as an imperfectly competitive market, the spread will not represent the social opportunity costs of exchanging currencies as there will likely be some excess profits made by foreign exchange market participants. Of course, most companies also tie up some human and physical resources in exchange of currencies, so the associated real resource costs of converting currencies to companies that trade will exceed the bid-ask spread in the foreign exchange market. Although the Commission (Commission of the European Communities (1990)) estimated these real resource costs, there is little doubt that the estimates were very rough.

The one-time costs of adopting the euro were reviewed by Dowd and Greenaway (1993), and include the in-house costs of creating parallel accounting systems for dealing with euros, the "menu costs" of converting current price lists into the new currency, the legal costs of converting existing contracts into the new currency (if the contract goes to or beyond 2002) and the learning costs (time, training and administration) of dealing with a new currency. Also, there will be a variety of miscellaneous costs associated with the one-time conversion, which do not fall under any particular category ("vending machine" costs).

Once the euro has been adopted there are potentially further costs that may be incurred by EU businesses and governments. One such cost is associated with differing Value Added Tax (VAT) rates in Member States (- VAT rates are not currently harmonised between Member States, and tax bases vary), as there may be increased trade between Member States where the costs of paying the extra

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[3]   The four characteristics of money are medium of exchange, store of value, unit of account and standard of deferred payment.

VAT in the home country were offset by higher foreign exchange costs. Thus, there may be more goods being shipped between EU Member States simply to avoid VAT, when real resource costs associated with exchanging currencies have disappeared. Another potential cost relates to the redeployment of human resources that were formally involved in the foreign exchange market, in terms of unemployment costs to the companies and governments and wastage of human capital. As for governments, there are small seigniorage revenues likely to be foregone, but this largely depends on how seigniorage revenues are to be divided, and this has yet to be determined.

In terms of benefits, there are clearly benefits relating to elimination of exchange rate volatility between national currencies that are chosen to participate, not only in terms of uncertainty but also in terms of the cost of purchasing exchange rate hedges for trading currencies (although most forward contract costs are not large, usually amounting to a few basis points). On a national level, there will likely be further microeconomic benefits relating to a more stable monetary environment for business planning purposes (union negotiating, pricing policies etc.), as after adoption monetary policy will be removed from the national political arena, and placed in the hands of the ECB.

The overall net welfare effects of adopting the euro will depend on the balance of one-costs versus the continuing gains from operating with a single currency. While the Commission claims that these welfare effects will be positive, there is little a priori evidence to support this claim, as Buiter (1995) points out.

3.2   Short-term International Effects of EMU on Trade

Little work has been done on the external effects of EMU, although the European Commission has recently issued a working paper on the issue (see Commission of the European Communities (1997b)).

One of the main reasons for using a currency is because of the existence of so-called network externalities (or "thick-market" externalities). A network externality occurs when the usefulness of using a particular medium of exchange is increasing in the number of other people that accept the currency for goods and services. This concept obviously is closely related with the notion of liquidity, as the greater the network externality, the easier it is to dispose of the currency in exchange for another currency or goods and services, and therefore the more liquid is the medium of exchange. It should be noted that network externalities are a microeconomic notion, and do not take into account whether a country should adopt a currency, a decision which is dealt with in the optimal currency area literature.

Usage of currencies on an international level relate not only to the preferred method of international trade invoicing, but also to other broad categories of international capital flows recorded in the balance of payments (FDI, portfolio capital and reserves). International trade clearly has an impact on capital flows and to a lesser degree on FDI flows (as MNEs are major traders and international investors in physical capital), so it suggests that international trade is the most logical place to start. Table 3.1 documents the usage of currencies for trade invoicing in the world trading zones plus the OPEC countries.

Table 3.1

Breakdown of World Exports by Currency Denomination and by Region
(1992)

Region	US$	DM	¥
North America, Australasia	15.0	0.3	0.3
Asia	15.5	0.6	4.2
Western Europe	6.7	13.6	0.3
OPEC	5.4	0.1	0.0
Other	4.9	0.7	0.1
TOTAL	47.6	15.3	4.8

Source: Ilzkovitz (1994)

The table clearly shows that the dominance of the US dollar is largely because there is no single European currency, plus the fact that Asia tends to use the US dollar for trade invoicing rather than domestic currencies. It has been well documented that the Japanese have not been anxious to encourage international use of the yen (see Iwami (1994)), so this void has been filled by the US dollar. But the question arises as to why there should be an accepted international vehicle currency in a region such as Asia, when the currency being used for invoicing isn't even issued in that region. Part of the reason lies in the US dollar's traditional role as numeraire for commodities, and the Asian preference for using the US currency for exporting to the US.

Use of a currency in trade invoicing is clearly an important result of the size of the network externality that a particular currency possesses. A number of empirically "stylised facts" have been observed for trade invoicing (see Hartmann (1996)):

)   "Grassman's law" (Grassman (1973)): for trade in manufactured goods between industrial countries, the exporter's currency dominates, and of the remainder of currencies, the importer's currency will take the lion's share.

)   For north-south trade flows the north country's currency will be used or the US dollar;

)   Inflation-prone currencies are used less than less inflationary currencies;

)   Trade in primary products is usually invoiced in dollars (but sometimes in UK pounds); and

)   The US dollar is the only currency for which the share of foreign trade invoiced substantially exceeds the share of the US in world trade.

The stylised facts suggest that the choice of invoicing currency tends to be made in regard to the type of good being traded and monetary stability. Little research has been done to explain these five stylised facts, but Viaene and de Vries (1992) suggest that Grassman's law might be explained because there are usually more import companies than export companies, so exporters will, on balance, retain a higher degree of bargaining power. They do not, however, provide any statistical proof that the numbers of import companies will exceed the number of export companies on average, or in any particular circumstance, so this hypothesis remains unsubstantiated.

What are the benefits of invoicing exports in domestic currency? The benefits are three-fold: elimination of exchange uncertainty (assuming no hedging), elimination of hedging costs and elimination of some real resource costs (that would otherwise have had to have been devoted to

monitoring or reducing exchange rate risk). Of course, there may be advantages to invoicing in foreign currency, as is frequently observed with Asian exports, in that market share gains might be more easily realised if exporters attempt to carry these costs themselves. Clearly much depends on the intensity of competition in the importing country market, and the type of good or service being traded (- that is, whether the good or service is relatively homogeneous or not).

A study by the ECU institute (1995), which in turn was based on a paper by Ilzkovitz (1994), estimated invoicing practices from a variety of sources for 1992. Hartmann (1996) used this as well as United Nations data to make some predictions about invoicing after EMU using various simplifying assumptions. These results are reproduced below.

Table 3.2
Trade Invoicing in Major Currencies Before and After EMU for 1992
(in percentage terms)

Currency	World 1980	World 1992	Intra-EU	Extra-EU[1]	Extra-EU[2]
US$	56.1	47.6	3.9	43.7	59.4
¥	2.1	4.8	0.1	4.7	6.3
DM	13.6	15.3	8.1	7.2	9.8
Ffr	6.2	6.3	3.2	3.1	4.2
UK£	6.5	5.7	2.8	2.9	3.9
I lira	2.2	3.4	1.7	1.7	2.4
Hfl	2.6	2.8	1.3	1.5	2.0
EU5[3]	31.1	33.5	17.1	16.4	22.2
EU4[4]	24.6	27.8	14.3	13.5	18.3
EU15	na	na	na	16.6	25.2

Notes: 1 - this column refers to % of world trade including trade between EU Member States.
        2 - this column refers to % of world trade excluding trade between EU Member States.
        3 - France, Germany, Italy, Netherlands, United Kingdom.
        4 - Excluding United Kingdom.

Source: Hartmann (1996)

The table shows in the first column the invoicing currencies used in world merchandise trade in 1980 (services are omitted from the analysis, due to poor data quality), and in the second column the state of affairs in 1992. The drop in US dollar invoicing between 1980 and 1992 occurred largely because of the fall in exports from OPEC (Oil Producer Exporting) countries, and the Japanese yen (¥) and the German mark (DM) largely filled the gap. Taking the 1992 figures, if it is hypothetically assumed that EMU occurred in 1992, then the third column describes what might happen to this breakdown. If national invoicing practices outside the EU are unchanged, then as EMU occurs a large portion of foreign trade effectively "disappears", as it becomes regional trade using the European "domestic" currency. The assumption here is that all trade that was denominated in a European currency is now denominated in euros. The rows marked EU5 and EU4 report the trade invoicing in EU Member State currencies as a proportion of total world merchandise trade invoicing. EU4

represents the "core" EU Member States (Germany, France, Italy, Netherlands) but excludes the UK, whereas EU5 includes the UK.

Thus, if the UK participated in EMU, then intra-EU trade would be at least 17 percent of world exports, and this would be now denominated in euros. But intra-EU trade would not be counted as international trade, as it would take place between EU Member States. So now treating the EMU bloc as one region, this implies that total euro invoicing will be 16.4 percent of pre-EMU world trade or 22.2 percent of post-EMU world trade. Additional assumptions used in this simulation were that there is no difference in the currency distribution of trade invoicing for intra-EU trade invoicing and extra-EU trade invoicing, and that the trade invoicing practices of EU5 are the only relevant EU data to be incorporated (as they are the only data available for the EU). The former assumption will tend to overstate the use of the euro in extra-EU trade, whereas the latter assumption will understate the amount of euro invoicing in extra-EU trade. To compensate for the usage of only EU5 data, Hartmann assumes that half of the exports from the remaining EU Member States are invoiced in home currency. Using this assumption, the figure in the last row of the table (EU15) is calculated. In order to ensure that the results do not suffer from bias because of an overestimation of euro usage, then several assumptions could be made about the nature of euro invoicing after EMU, perhaps taking the view that invoicing would follow the same pattern as currently used in the US, Germany, France or the Netherlands. Table 3.3 shows the results of making such assumptions.

Table 3.3
Example Scenarios for Euro Invoicing Post-EMU
(in percentage terms)

Example for Export Invoicing Share	Euro Invoicing in EU Exports (%)	Euro Invoicing in World Exports (%)
US	92	28
as per 1992 patterns	82	25
Germany	77	24
France	55	19
Netherlands	43	16

Source: Hartmann (1996) and own calculations.

Under these most optimistic and pessimistic scenarios, Hartmann claims that euro invoicing would be at minimum 19 percent of world exports and at maximum 28 percent of world exports. The US dollar would no doubt retain its pre-eminent role as the world's vehicle currency, but these calculations suggest that the euro would have a initial level of at least 16 percent of world trade invoicing and may grow significantly once the euro has gained acceptability as an invoicing currency.

There are several grounds on which these results can be challenged. First, even if firms decide to switch from the national currency that they were using before the EMU process began to the euro, they will likely do so over the three year period to 2002, as specified in the Commission's changeover scenario. So even though EMU will likely begin in 1999, there will not be a sudden once-and-for-all shift into euros for export invoicing - it will happen over several years.

Second, given a non-zero probability of EMU failure, there is an incentive to delay any changeover to the euro to the end of phase B of the final stage of EMU - in other words to 2002, and

to use the "hardest" domestic currency chosen as a potential EMU participant. Why? First, if there is any possibility of EMU not succeeding, then as exchange rates are "irrevocably" fixed, there is no real incentive to change over to the euro, as the costs of doing so, in terms of drawing up new contracts, and the problems of reconciling accounts in different currencies, will dictate that leaving the changeover until the last minute will be most advantageous for companies that do not engage in a large volume of intra-EU Member State trade. Second, if there is a chance that EMU might fail, then unless the exporters currency is the perceived hardest currency in the EU, there is, in fact, an incentive to use (or convert contracts into) the strongest currency in the EU or to use an extra-EU currency, rather than leave them in current currency terms. In that case, as Crowley (1996b) points out, in the event of a speculative attack on the "irrevocably" fixed rates, currency losses would be eliminated and the probability of currency gains would be maximised.

Third, the results assume that exporters choose the denomination that is currently used for trade. If, for instance, export financing can only be made available in certain currencies that are preferred by financial institutions, then it is not certain that the euro will take the place of the national currencies that are chosen to participate in the final stage of EMU.

Fourth, these results do depend on several strong assumptions, such as full credibility of the new European monetary authorities at the outset, complete and tacit agreement by importers to be billed in euros or the implicit conversion written into the trade contract. For example, importers outside the EU may simply not wish to trade with the euro as they are unfamiliar with it, and request that trade take place in US dollars instead.

In terms of the effects of trade invoicing effects on Canada, there are a several possible approaches that can be taken - each one is presented in turn below.

The first approach is to use the Hartmann (1996) approach given a disaggregation of Canadian imports by country, using very broad assumptions relating to the invoicing practices of EU exporters and the nature of the types of goods being exported. This approach also depends on the Member States that are chosen to proceed to the final stage of EMU, as this will determine the volumes of Canadian imports and exports that might be denominated in euros. Because there is limited data on individual Member States available in the CANSIM database, essentially the data from table 2.9 is used to derive invoicing proportions coupled with the assumptions given in table 3.3 for imports with additional data from Ilkovitz (1994). The results for individual Member States are then weighted and pro-rated across the totals for EU exports from, and imports into Canada. Table 3.4a below summarises the results of this exercise for exports and table 3.4b repeats the exercise for imports.

Table 3.4a
Calculating Euro Invoicing for Canadian Exports applied to 1996 Data
(using percentage breakdown of EU imports for 1992)

Country	Imports from Canada	% EU Imports denominated in national currency	Total amount of imports denominated in national currency
Belgium/Netherlands	3,143	25.1	1,223
France	1,740	46.7	813
Germany	3,310	55.9	1,850
Italy	1,360	34.0	462
UK	4,000	43.0	1,720
Total for above	13,553	44.8	6,068
Total Exports to the EU	15,500	44.8	6,944

Sources: CANSIM matrices 3694, 3695, 3696, 3697, 3698, 3693; Ilzkovitz (1994) and own calculations.

Table 3.4b
Calculating Euro Invoicing for Canadian Imports applied to 1996 Data
(using percentage breakdown of EU exports for 1992)

Country	Exports to Canada	% Exports denominated in national currency	Total amount of exports denominated in national currency
Belgium/Netherlands	1,748	43.1	753
France	3,400	54.6	1,856
Germany	4,820	77.0	3,712
Italy	2,720	40.0	1,088
UK	5,910	62.0	1,686
Total for above	18,598	51.5	9,096
Total Imports from EU	22,733	51.5	11,708

Source: CANSIM matrices 3894, 3895, 3661, 3897, 3898, 3893; Ilzkovitz (1994) and own calculations.

Table 3.4a suggests that roughly 44.8 percent of all Canadian exports to the EU might be denominated in euros, which in turn represents about 4.3 percent of total Canadian exports. Table 3.4b suggests that roughly 51.5 percent of Canada's imports from the EU will be euro-denominated, when applied to 1996 data, and this would translate into roughly 5 percent of all Canadian imports. One benefit to this approach is that it enables a sequential analysis to be undertaken, as Member States join EMU. If, for instance, Italy and the UK remain outside EMU, then the table above implies that roughly 34 percent of Canadian imports from the EU would be denominated in euros.

A second approach is to take the figures from table 2.2 on Canadian imports and note which categories appear to be manufactured goods (categories IV to XII) and then to assume that none of the non-manufactured merchandise goods will be invoiced in euros, but that the proportions of EU exports given under the various scenarios given in table 3.3 would be used to invoice Canadian importers. On the export side, figures given in Ilzkovitz (1994) for EU import invoicing can be used for the same categories given in table 2.3 to derive euro invoicing for Canadian exports. Table 3.5 shows the results of this exercise.

Table 3.5
Calculating Euro Invoicing for Canadian Exports and Imports applied to 1996 Data
(in percentage terms)

Scenario for Euro Invoicing Share	Canadian Exports to EU	Total Canadian Exports	Canadian Imports from EU	Total Canadian Imports
US	80.0	2.98	92.0	6.81
as per 1992 patterns	na	na	82.0	6.07
Germany	55.9	2.09	77.0	5.70
France	46.7	1.74	54.6	4.07
Netherlands	38.9	1.45	43.1	3.22

Sources: Ilzkovitz (1994) and own calculations

The calculations clearly show that for exports, the percentage of total Canadian exports that will be invoiced in euros is extremely small, ranging from around 1.5 percent to 3 percent, depending on which scenario is used. For Canadian imports (equivalent to EU exports) the figure is, as expected, higher, ranging from just over 3 percent of total imports to nearly 7 percent of total imports.

The third approach is to use data that was collected as part of the survey that accompanies this report. The results (reported in an annex), indicate that roughly 16 percent of total exports by sales volumes were invoiced in European currencies. Translated into figures comparable with those presented in table 3.5 above, this suggests that less than 1 percent of total Canadian exports would be invoiced in euros. This method suffers from a variety of shortcomings - most notably that the survey responses might not be representative of Canadian exporters as a whole (- the survey results do not represent a random sample of exporters).

Given the above results, there appears to be little immediate concern for a country like Canada in terms of the effects of EMU on current trade invoicing practices. From the three approaches employed above, even if EMU is extremely successful, only 2 to 5 percent of Canadian exports and between 5 and 7 percent of Canadian imports will be denominated in euros. There may, however, be "follow-on" effects, as the currency gains greater acceptability, and becomes a major trading currency in the foreign exchange market. These "follow on" effects are now considered.

3.3   Longer-term International Effects of EMU on Trade

In the longer term, if the launch of the euro as a single European currency is successful, and Member States other than those chosen as the "first wave" of countries decide to adopt the euro, then a critical mass of users may create significant "network externalities", so that significant growth in usage of the currency occurs outside the EU (see Reynolds (1993) for an interesting model which tries to capture these externalities, but specifically in the EU during the transition period). This scenario is only likely in certain circumstances, and although the sanguine assumptions necessary for such an outcome currently seem unlikely, if such a scenario did come to pass, it would profoundly affect the world economy and international macroeconomic policy coordination.

The "follow on" issue is dealt with by Ilzkovitz (1995), Hartmann (1996) and the Economist (1997). The issue is clearly difficult to anticipate, so most of the arguments are qualitative in nature. The share of world output of the EU is currently greater than that of the US, plus the share of world trade for the EU is also greater than that of the US, even when intra-EU trade is excluded. Thus, if most of the EU adopts the euro, then it is likely that a critical mass of usage will be attained over time, such that network externalities will exist, creating an environment where the euro could challenge the US dollar as the principal currency used in international trade invoicing. Clearly, the monetary policy of the ECB would have to be credible, and supportive of low and stable inflation. Also, as the ECB is a central bank, with complete independence of government (as no EU government currently exists), then political pressure would largely be absent, so it may be that the ECB's policy would generate a more stable currency than the US dollar.

But where, in regional terms would the euro challenge the US dollar as an international currency for trade invoicing? Hartmann (1996) points to Asia as a prime candidate for euro trade invoicing. The main planks of this argument rest on several observations about Asian trade. First, Japanese exporters, for strategic reasons, prefer to bear exchange risk themselves so as to maintain market share - their chosen international currency has usually been the US dollar. Second, although EU exports to Asia are less than US exports to Asia, the growth in EU exports is higher than that of US exports, so that within a decade, the share of EU exports and imports in Asia may exceed those of the US. At this point, so the argument goes, Asian exporters and importers may decide to denominate their international trade in euros rather than US dollars. Another fast-expanding market is the Eastern and Central European market. In these markets there has been a tendency to denominate trade with Western Europe in Deutschemarks, and outside of Europe in US dollars. Several Baltic states have exchange-rate policies that anchor the national currency to the Deutschemark (in the form of a currency board arrangement), so post-EMU if these countries decided to adopt the euro for exchange rate and monetary policy purposes, there would be a greater incentive to also adopt the euro as a trade-invoicing currency. Clearly, in both Asia and Eastern and Central European markets much depends on events in other markets such as the foreign exchange market and derivative markets, as trade financing in dollars is currently relatively easy to arrange because of the depth and liquidity of the US dollar markets. Thus any switchover into euros would have to be made with no loss of liquidity in the foreign exchange market and maintenance of equivalent levels of financing services that exporters and importers require.

If this scenario were to be realised, what would be the effect on Canada? Canadian trade is largely denominated in US dollars, because Canada's major trading partner is the US. Table 3.6 shows the breakdown of the destination of Canadian exports and origin of imports, and a possible scenario whereby roughly 20 percent, 35 percent and 50 percent of exports to non-EU and non-US destinations are denominated in euros.

Table 3.6
Three Long-term Scenarios for Euro-Invoicing of Canadian Trade
(using 1996 regional trade breakdown)

Region	Exports %	20% ROW Euro Invoicing	35%ROW Euro Invoicing	50% ROW Euro Invoicing	Imports %	20% ROW Euro Invoicing	35% ROW Euro Invoicing	50% Euro Invoicing
NAFTA	81.9	0.0	0.0	0.0	70.0	0.0	0.0	0.0
EU	5.6	4.3	4.6	5.2	9.8	7.5	8.0	9.0
ROW	12.5	2.5	4.4	6.3	20.2	4.0	7.0	10.1
Total	100.0	7.1	9.0	11.5	100.0	11.5	15.0	19.1

Notes: NAFTA trade is not assumed to use euro invoicing
         EU trade is assumed to use the proportions laid out in table 3.4 for euro invoicing i.e. when ROW uses a
         proportion of 20%, the EU is assumed to use 77% euro invoicing; the ROW 35%, the EU 82%; and ROW
         50%, EU 92%.
Source: Own calculations

Table 3.6 suggests, as with the short-term effects, that the impact of trade invoicing in euros
will be felt more greatly on the import sector of the Canadian economy, rather than the export sector.
At most, using the 1996 export disaggregation, only 11.5 percent of total exports would be
denominated in euros (representing roughly C$31.9 billion of trade in 1996), whereas, at most, just
under 20 percent of imports might be denominated in euros (representing C$44.5 billion in 1996).
Although these figures pale in significance with the US trade flows, which clearly dominate Canadian
trade, it cannot be said that they are insignificant.

The conclusion on trade invoicing, therefore, is that in both the short-term and the longer-term,
the US dollar is likely to still represent the preferred currency of denomination of trade for Canada, but
that the euro, if its launch is successful, may come to be the second most used foreign currency for
trade denomination, and particularly for imports. For Canada, under a best case for scenario for EMU,
this means that up to just under 12 percent of exports may eventually be denominated in euros, and
just under 20 percent of imports may be denominated in euros. Of course, this assumes that the
percentage of exports and imports to the EU remains identical to the 1996 levels, but this may change,
particularly if more countries join the EU, or if Canada actively seeks to diversify its trade interests
away from the US. In the present circumstances, neither scenario appears likely over the next
decade, so using data for 1996 should not be distortionary. In addition, it would seem presumptuous
to extrapolate current trends for exports and imports, as this would entail further assumptions about
exchange rates and other macroeconomic variables. There are several other issues that are also of
concern in relation to Canada's trade and the beginning of EMU. These items will be dealt with in
section 7. We now turn to services issues.

4. Services Issues

The trade invoicing issues discussed above are clearly relevant to the services sectors, but in the absence of any data on service trade invoicing, the above analysis for merchandise trade will be assumed to carry over to services as well. Once again, the pattern of trade invoicing is likely to depend on the service and individual industry and market conditions, both world and regional. As many of the services are less dependent on location, and therefore do not incur transportation costs, it can be assumed that the market conditions for many of these services are less likely to be subject to Grassman's law, but once again it is difficult to quantify such things, as data on this topic does not exist..

In the Canadian services sector, there are various industries which will not be directly affected by the changeover as much as other industries, as these industries tend to be involved in foreign exchange transactions on a daily basis. In particular, the travel transportation industry will probably not be adversely affected by the change, and could benefit from the change, particularly as the costs of converting amounts into different currencies may fall due to the use of only one currency[4]. Specifically, the airline industry and shipping and freight industries will likely benefit from the lower costs of conversion, as European currency management can be rationalised to dealing with only one currency the euro. In other words, the analysis of conversion to a single currency presented earlier in section 3.1 will likely be also applicable to most firms in these industries - that is the one-time conversion costs will probably be more than offset by the longer-term ongoing savings from using just one European currency, as long as the company uses more than one European currency. These economies of scale effects will also likely apply to Canadian MNEs with subsidiaries in Europe that have either supply contracts with these subsidiaries or that conduct ongoing trade with their subsidiaries.

Here, though, the business services industry deserves separate attention, as this industry tends to be involved in trade on a contract by contract basis. Also, the financial services sector will clearly be affected by the changeover to the single currency and as this sector is strategically important it also deserves separate attention. For most business services companies with long-term contracts, these contracts will be converted into euros according to the "irrevocably" fixed exchange rates that will be announced at the beginning of stage three of the Maastricht process (January 1, 1999). Companies whose contracts expire before January 1, 2002, will likely retain their existing contracts denominated in national currencies, but those whose contracts expire after July 1, 1999, should be converted into the euro and re-issued if the date of expiration of the contract is after this date, as national currencies cease to be legal tender as of this date. In addition, there is provision for contracts that do not expire till after July 1, 1999, to have legal status after this date, as long as conversion takes place according to the official conversion rates.

The issue of how the rate of conversion of contracts is to handled has recently been decided by the European Council (see European Council (1997) for the legal version and vanTuyll (1996) for a more user-friendly version). Essentially the Council will decide on the conversion rates at the beginning of 1999, and then these conversion rates will immediately come into force (supposedly without any cost for conversion, although this is not stipulated in the Council's regulation).

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[4] The European travel industry is also likely to reap significant benefits from the adoption of the euro (see Financial Times (1997b)).

The conversion rates are to be expressed in national currencies per euro defined with six significant figures, and inverse rates will not be used (which is not the case with most exchange rates): thus conversion rates will be defined for all conversions from euros into Member State currencies by dividing or multiplying by a pre-defined conversion factor.

For example, if the DM/euro rate is 1.92692 and the Italian lira/euro rate is 1935.41, then to convert DM1,000 into lira, one would divide by the DM/euro rate and then multiply by the lira/euro rate. All cross rates have to be defined in terms of euros (with not less than three decimals) so that there can be no different methods to convert currencies. In the above example, this should yield a sum of L1,004,406 for the Lira/DM conversion factor.

Who will bear the costs of these changes? There are essentially two types of costs that must be distinguished: one-time conversion costs, and the costs of doing business with essentially two currencies in each Member State. The costs of rewriting contracts or converting amounts will be borne by the contract holders themselves, but in terms of the cost of converting financial instruments (such as cheques) denominated in different Member State currencies, the costs will be borne by the customers, as banks may charge a fee for the service. As Member State currencies are only legal tender in their country of issuance, this does create an incentive for companies to convert accounts into euros at their earliest convenience, as the euro should be legal tender in all participating Member States. Again this assumes that there is zero probability of EMU being unsuccessful.

How are the rates of conversion to be chosen? This is an unresolved issue, and has been the subject of recent research (see Giovannini (1991) and De Grauwe (1996)). There are essentially three ways in which the conversion rates can be chosen, as De Grauwe (1996) discusses: first, it could be announced in advance that the conversion rates will be a weighted average of market rates during a given period prior to the start of the third stage (the so-called Lamfalussy rule); second, a pre-announced set of rates could be used, regardless of where market rates happen to be at the time, and; thirdly, the conversion rates could be set using the market rates as of the beginning of stage three. Clearly, in the first two cases, the setting of the conversion rates could involve a discrete jump in exchange rates. A discussion on the competitiveness and volatility effects of a discrete jump in exchange rates will be considered in a later section, suffice to say, minimisation of administrative costs of conversion during the transition phase would dictate the use of rounded conversion rates, so a discrete jump in exchange rates is a distinct possibility, although again this largely depends on the chosen approach to defining conversion rates. Canadian business service exporters and importers should be aware of this possibility, and there may well be a marked preference to enter into only short-term contracts during the period in the run-up to the transition phase. Once the transition phase has started, this uncertainty will be removed, and there will be a greater incentive to write contracts in terms of the euro. Clearly, contracts denominated in Canadian dollars could also be affected by these conversion issues, as the Canadian currency will be quoted against the euro after 1999.

Canadian financial institutions that provide services abroad or EU financial institutions that provide services to Canadians will also be affected by several details surrounding the continuity of contracts. The majority of outstanding contracts between Canadian companies, governments and individuals are financial instrument contracts, such as bonds, equities and other more specialised financial instruments such as those relating to derivatives and trade financing etc.. The prices of all equities will be converted into euros from the start of the third stage, although it is clear that dual pricing of all equity instruments will be necessary during the transition phase, as members of the general public will not be using the euro during this period. As for the debt markets, face values and prices will be converted into euros using the conversion rates, although fixed interest rates will not be changed - thus a 5 percent bond denominated in a Member State currency will become a 5 percent bond denominated in euros.

It still remains unclear as to what will happen to floating rate notes - it may be that Member State central banks will specify how financial instruments with floating rates are to be converted into euro floating rate instruments, as current national differences in specification may cause adverse effects in these markets. As for derivatives, it is likely that as these instruments are to a large extent traded as "risky" instruments, then contractual provision will be issued to specify that the introduction of the euro will not "of itself" permit termination of the contract.

Canadian financial institutions are no doubt aware of some of the technical issues surrounding the introduction of the euro, and will make appropriate changes to their contracts with clients both in Canada and abroad.

After the transition phase, the most important consideration for services exports and imports will be the exchange rate policy and associated monetary policy of the ESCB and the ECB in particular. There have been some suggestions that the ECB will target monetary policy on maintaining a relatively stable exchange rate against the US dollar, and if this is the case, then this may enhance the prospect of transatlantic trade in services.

5.   Canada-EU Foreign Direct Investment

While exports and imports appear on the current account of balance of payments, foreign direct investment appears on the capital account. Much of the world's foreign direct investment (FDI) is undertaken by multinational enterprises (MNEs), approximately 60 percent on average during the 1980s. The nature of FDI flows is very unlike merchandise trade flows, as FDI largely consists of equity and debt held by firms in affiliated corporations located in nations other than the home nation of the investor firm. The key defining characteristic of FDI is corporate control, which separately identifies FDI from foreign portfolio investment. The normal criterion for a foreign investment to be deemed a FDI is the ownership or control of 10 percent or more of an enterprise's voting securities.

The majority of the investment in the 1980s took place between the regional blocs of the EU, North America and Japan (see Graham and Krugman (1993)), but emerging trends in the 1990s suggest that much of the FDI being undertaken by MNEs is directed towards newly industrialised nations, especially in Asia. Much of the FDI flows in the 1980s replaced trade flows, as MNEs opened new subsidiary production facilities in North America and the EU. In contrast, the rapid growth in the Asian economies, and in particular China, suggests that much of the FDI flows in the 1990s created trade flows. The question, though, as to whether FDI is on balance a trade complement or substitute remains a largely unanswered question (see Graham (1996)), and in any case is clearly state-dependent.

5.1   Canada-EU FDI Flows

The subject of Canada-EU FDI flows has not been explored in any depth, although Buckley and Clegg (1996) provide an interesting statistical summary of transatlantic FDI flows (including Canada), and Canzoneri, Ethier and Grilli (1996) also provide some useful insights into the nature of transatlantic FDI flows.

Table 5.1 provides some statistics on FDI flows between Canada and the EU. The first column represents the balance of net flow of Canadian FDI in the EU, and it is almost uniformly negative, representing a net increase in assets held by Canadians in the EU. As expected, the second column which records EU FDI in Canada shows largely positive numbers, indicating an

increase in EU holdings of Canadian assets. The third column represents the balance of these net FDI flows, a positive figure indicating greater FDI by EU entities in Canada than Canadian entities have invested in the EU. None of the figures show any discernable trend, with erratic changes in the statistics year on year. This is usual for FDI data, which can vary greatly according to the international strategies adopted by various MNEs or groups of MNEs. It is apparent from the table, though, that during the 1980s, a large amount of EU FDI arrived in Canada, particularly from the UK, which largely confirms the anecdotal evidence at the time, when many British MNEs reportedly decided to initiate some kind of market presence in the North America. This surge in FDI to Canada has not continued apace in the 1990s, as media reports suggest that many EU MNEs have decided to use the US as their principal North American base for production and distribution to the NAFTA member countries. In the 1990s the data also suggests that Canadian MNEs have sought to exploit the advantages of the single market, the opportunities that have arisen in a unified Germany and the favourable trading agreements that have been established for EU companies to trade with the newly emerging Eastern European economies (see Greenaway (1993) for an analysis of the effects of the single market on EU incoming FDI).

The final column in the table shows that the net flows in FDI between Canada and the EU seem to be largely in the same direction as the total transatlantic capital flows (in simple terms net FDI plus changes in Canadian and EU capital market portfolios plus net changes in official reserves). These figures might suggest that the return on capital market financial instruments largely reflects the return on FDI. Classical economic theory would tend to suggest that investment should flow to the nation with the highest marginal rate of return on physical capital, but in fact research by van Nieuwkirk and Sparling (1995) suggests that average rates of return on Dutch investment in the US or Japan during the period 1986-1990 was 6.3 percent compared with 10.5 percent in Canada or Mexico and 7.7 percent in the rest of the EU. Graham (1996) suggests that although these rates are average rates rather than marginal rates, they should approximate the marginal rates fairly well, and if a similar calculation is done for US FDI abroad over the same time period, then FDI in Canada would yield an average rate of return of 9.3 percent versus an average rate of return of 15.1 percent in the EU and 13.9 percent in Japan. Clearly the relative transatlantic FDI flows cannot be explained by differential rates of return, and other factors must predominate. It is therefore somewhat surprising to note that the direction of the pattern of FDI net flows largely mirrors the balance on the capital account of the Canadian balance of payments as financial capital flows are, in theory, sensitive to real rates of return.

Table 5.1
Canada-EU FDI Flows

Year	Canadian FDI in the EU	EU FDI in Canada	Net Canada-EU FDI Flow	Balance on Canadian Capital Account
1980	-624	238	-386	-148
1981	-2479	-1005	-3484	-4489
1982	-868	374	-494	-120
1983	-450	1258	808	2066
1984	-1100	1936	836	2772
1985	-1730	1143	-587	556
1986	483	3578	4061	7639
1987	-1724	2502	778	3280
1988	-1014	3140	2126	5266
1989	-892	1822	930	2752
1990	-1760	4035	2275	6310
1991	-1997	-127	-2124	-2251
1992	-1090	1170	80	1250
1993	-3130	536	-2594	-2058
1994	-1730	-1205	-2935	-4140
1995	-1287	3354	2067	5421
1996	-1224	2547	1323	3870

Note: Capital account data are net flows - for example a minus sign in a figure in the Canadian FDI in the EU column represents a decrease in liabilities to non-residents or an increase in the claims on non-residents. Reinvested earnings are excluded. Official reserves are excluded from 1996 data for the Capital account balance.

Source: CANSIM matrices 2335 and 233

5.2   Canada-EU FDI Stocks

As FDI flows are somewhat erratic, as table 5.1 demonstrates, it is perhaps more instructive to look at FDI stocks, which then equate to the ownership patterns of Canadian enterprises in Europe and vice-versa. Table 5.2 shows outward FDI stock of Canada into Europe over the period 1985 to 1995 in terms of the percentage of total Canadian FDI stocks. Table 5.3 shows inward FDI stock from Europe over the same period. Both tables are adapted from Buckley and Clegg (1996). The most striking thing about both the tables is that the UK dominates in both inward and outward FDI stocks. This is perhaps to be expected, as the cultural and linguistic ties between the Canada and the UK would suggest that Canadian companies would tend to establish subsidiaries in the UK, as they can access the single market from any base within the EU, and similarly for UK companies to establish subsidiaries in Canada as a means to accessing the NAFTA markets.

In summary, FDI flows appear to take advantage of emerging situations in nations and regions, whether it be deregulation, trade liberalisation initiatives or inexpensive labour. There does not appear to be any pattern to Canada-EU FDI flows, although these net flow amounts do seem to have increased in magnitude over the last decade.

Table 5.2
Outward FDI Stock of Canada
(as a percentage of total FDI stock)

Destination	1985	1990	1995
EU	13.21	20.10	19.46
Bleu	0.24	0.61	1.72
Denmark	0.08	0.05	0.02
France	0.34	1.91	1.35
Germany	1.12	0.96	1.66
Greece	0.50	0.10	0.07
Ireland	1.47	1.09	3.11
Italy	0.34	0.42	0.59
Netherlands	0.93	1.46	1.07
Portugal	0.01	0.13	0.05
Spain	0.49	0.59	0.13
United Kingdom	7.69	12.80	9.67

Source: Statistics Canada (1995)

Table 5.3
Inward FDI Stock of Canada from the EU
(as a percentage of total stock)

Origin	1985	1990	1995
EU	17.08	23.91	20.53
Bleu	0.41	0.51	1.64
Denmark	0.04	0.01	0.11
France	1.68	2.92	3.15
Germany	2.89	3.87	2.96
Greece	0.01	0.01	0.02
Ireland	0.21	0.06	0.12
Italy	0.04	0.24	0.15
Netherlands	2.21	2.41	2.56
Portugal	na	na	na
Spain	0.02	0.03	0.02
United Kingdom	9.57	13.85	9.80

Source: Statistics Canada (1995)

6.   FDI Issues

Little attention has been given to the issue of FDI in Europe and the effects of the single currency on investment flows. Indeed, the European Commission expects that there will be no significant effects, so that the issue is generally being ignored by EU officialdom. The Commission's view is that if there are any effects then these will already have happened as part of the single market, and EMU will not have any significant impact on FDI, apart from determining locational preference. This view may have been orchestrated by recent, well-publicised decisions by Japanese MNEs as to where to locate incoming FDI in the EU, the decision being initially made apparently on the basis of likely Member State participation in the third stage of EMU.

Irrespective of the lack of any research in this area, a qualititative analysis will be attempted below. In the Canadian context, the issue of FDI in Europe can be characterised on two levels;

- ◆   it is largely undertaken by MNEs; and
- ◆   it is usually in the form of portfolio capital rather than physical capital.

Both these characterisations have economic implications for FDI flows. Each is dealt with in turn.

6.1   MNEs and FDI

The theory of the multinational (see Buckley and Clegg (1996), who summarise the so-called Dunning (1979) approach) states that there are three key motives for FDI - first, market-oriented FDI, where firms choose to invest in a market rather than alternative forms of foreign market servicing; the second is input-oriented FDI, where investment abroad is chosen as the best means of gaining access to key factors of production (raw materials, specific labour skills for example); and third, cost-oriented FDI where investment abroad is aimed at reducing costs of production.

The form of FDI is also important - issues here include the ownership strategy (joint ventures or wholly-owned subsidiary) and the choice between takeovers and "greenfield" entry.

Other factors are also of importance in determining the level of FDI. First, cultural similarities help to reduce "psychic distance" - hence, given Canada's heritage, it would suggest that FDI between Canada and the UK, and Canada and France and Belgium should be particularly strong: to a certain extent this is borne out by the data. Second, FDI tends to take place between countries at similar levels of development - therefore it is likely that there should be a higher level of exchange of FDI between Northern Europe and Canada than Southern Europe. Lastly, FDI takes place in an environment of increasing regional integration in both North America and the EU.

In terms of general trends in Canada-EU FDI, the dominant trend from a sectoral point of view is the shift in the composition of national FDI from manufacturing industries to the services sector, where the leading investors in recent years have been the finance industry and the telecommunications industries. As far as the transatlantic FDI is concerned, the leading recipient of North American FDI has been the UK, and likewise, the prime origin of transatlantic FDI has also been the UK, with over 25 percent of US FDI, and just under 10 percent of total incoming Canadian FDI. This largely reflects the fact that the UK now possesses an extremely open economy and the largest EU sectors in both finance and telecommunications, due to the elimination of many trade barriers in the early 1980s and the extremely competitive environment that has transformed these two strategic industries.

The effects of EMU in this area are rather intangible and not easily quantifiable. The effects also largely depend on the dynamics of integration and the configuration of "insiders" and "outsiders" in the EU. Martin and Ottaviano (1995) raise concerns about the emerging integration dynamic for the EU, given that EMU goes ahead, and point to "agglomeration" effects, whereby those Member States that proceed in the first wave of EMU may benefit from the formation of a stronger but smaller "core" single market. This could attract economic activity away from those Member States that do not participate in the first wave either because they do not meet the Maastricht convergence criteria or because they decide not to participate in EMU. The authors then suggest that this dynamic might exacerbate any shortfall in meeting the convergence criteria, thereby creating a permanent group of Member States that are "outsiders". In the longer term this scenario seems unlikely to materialise, but it may characterise a short term problem with EMU. The direct implications for Canadian FDI mostly fall on the outgoing FDI side, in that it might create incentives for Canadian FDI to concentrate on the "core" Member States, rather than the traditional recipients (such as the UK). There may also be indirect implications, as third countries (such as the US and Japan) decide to concentrate investment on this "core" single market, rather than in Canada ("FDI diversion" effects analogous to those with trade).

Agglomeration effects, if they occur, might also reduce constraints on FDI inflows into the EU, as competition for this incoming FDI intensifies[5]. The Multilateral Agreement on Investment (MAI) which is currently in negotiation under the auspices of the OECD, may eliminate differences between regulatory environments so that differentiation by appealing to country characteristics (such as economic policies, labour regulations and adoption of a single currency) is the only way in which countries can attract FDI at the margin. For example, the previous UK conservative government, which had refused to sign the social chapter (which sets minimum labour standards, including a maximum number of hours a week that can be legally demanded of employees), allowed a differentiation with continental Europe on the basis of labour regulations, attracting a significant inflow of Japanese FDI in the early 1990s. With a new government in the UK, this differential characteristic is likely to be eliminated, as the new Labour government is committed to signing the social chapter. Even so, the new UK government has also committed itself to a referendum on the single currency, which may result in the UK remaining permanently outside of EMU. This could have two effects - firstly, agglomeration effects could occur in the manufacturing sector in continental Europe, and secondly, the financial services sector may begin to shift some operations from London, and the City may begin to lose its dominant position as Europe's financial centre. Thus there is the possibility of a change in the pattern of FDI between Canada and the EU, notably in the case of the UK, and also perhaps in the level of FDI, although the direction of this change is less certain. As for incoming Canadian FDI, there is unlikely to be any direct effects, but depending on how successfully EMU enhances the EU single market, there is a possibility that there may be a fall in incoming FDI from third party countries.

Another aspect to FDI is its relationship with trade. If FDI is market-oriented, then it will tend to substitute for trade, but if it is input-oriented or cost-oriented then it will tend to be complementary to trade. With Canada-EU FDI, flows in both directions across the Atlantic are most likely to be market-oriented, so this would suggest that increased economic integration would tend to reduce FDI, given no effects on trade patterns. As Caves (1991) points out, this does not seem to be the case, as trade

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5   The reasons for EMU giving rise to agglomeration effects are rather intangible, but could potentially relate to demonstration of the political commitment to a deeper level of economic integration in the EU and the centralisation of firm functions in a central location as EMU reduces the requirement for individual Member State operations. There are also reasons to believe that FDI is fickle - relatively minor political or economic decisions can act as a catalyst to trigger large amounts of FDI, as in the case of China after Tiannamen square.

and FDI appear to be complementary with respect to formation of regional trading blocs. But this also suggests that a decrease in incoming FDI to Canada, perhaps due to agglomeration effects in the EU, could also negatively impact trade.

Fisher and Vousden (1996) attempt to capture the relationship between trade and investment in an overlapping generational framework, and find that the interaction of tariffs and FDI can affect growth. For example, in countries that are net sources of foreign investment, a tariff on labour-intensive consumption will increase domestic real wages, and hence encourage savings. These savings will encourage the outflow of FDI to the rest of the world. To apply this idea to the notion of a customs union (like the EU), the key variable is the average rate of protection of the consumption sector - if the average rate increases with the formation of a union, then FDI should increase and hence world growth will increase. To carry the model one step further to look at a monetary union, the key effect would be whether the use of a single currency increases the average rate of protection or not. Clearly, in the long run, the adoption of a single currency will reduce the "domestic" costs of trading in the EU, thus effectively increasing the average level of protection, thereby reducing trade and increasing the level of outward FDI. This implies that EMU would increase FDI outflows from the EU to Canada over the longer term. It is therefore encouraging to find, from the perspective of FDI, that nearly all the EU Member States that are likely to participate in the first wave of EMU already have total net outflows of FDI (see OECD (1994)). This inflow of FDI to Canada would likely be market-oriented FDI, and would likely take advantage of Canada's strategic position in NAFTA as a specialised supplier of specific merchandise goods and services to other NAFTA members. This effect is called "dynamic" trade creation in the academic literature.

6.2   Completing the Single Market in Financial Services

There is a growing body of academic literature that addresses the question of EMU and its interaction with the deregulation of the financial services sector in the EU (see Majnoni, Rebecchini and Santini (1992) and Frankel (1996), for example).

The general consensus in the literature and the media is that the adoption of a single currency will lead to significant structural changes in European financial markets, forcing a greater degree of competition, and thus reducing transaction costs. A reduction in transaction costs, in turn, would tend to suggest that FDI might be encouraged, as the fixed costs of equity acquisition would fall. Further, adoption of the single currency could also lead to increased liquidity in European financial markets, hence making borrowing less expensive, once a subsidiary is established, or once a company is acquired. In short, all these effects would tend to encourage inward FDI.

. Of course, the one caveat that needs to be placed on these assertions is that any structural changes in European financial markets would lead to industry economies of scale, and this implies a concentration of financial markets in regional centres, or at least the establishment of a single European bourse. This would certainly be hampered by resistance from national interests, or an unwillingness to allow financial centres that are already established, whether in a Member State that is proceeding to the third stage of EMU or not, to expand and accumulate activity previously located elsewhere. A particular concern here, naturally, is the position of the UK government towards EMU.

Leaving the above caveat aside, it is likely that adoption of the single currency would lead to an improvement in the environment for FDI in Europe, and thus increased inflows can be anticipated. The effect of greater financial market integration in Europe would not necessarily impact EU FDI flows to Canada, as most of the inward flows relate to market oriented FDI.

6.3 Net Effects on FDI

As the reader is aware from the above discussion, there is no unifying theoretical underpinning that allows the economist to predict the net effect of EMU on FDI, as there are both short and longer term effects, and also second round effects on trade. In an attempt to summarise the effects of EMU for the reader, table 5.4 categorises and tabulates the discussion from above.

Table 5.4
EMU Effects on FDI
(Canada to EU/EU to Canada)

Effect	MNE effects	Financial services effects
Agglomeration	+ ("core") / [-]	+ ("core")/ [-]
Dynamic	0 / +	
Liquidity		+ / 0
TOTAL	+ / [+]	+ / [-]

If table 5.4 accurately represents FDI flows, then EMU should result in an increase in inflows of FDI in the short term into the "core", with little effect on FDI inflows to Canada, but in the longer term, FDI inflows into Canada may increase, due to the dynamic interplay between trade and FDI. On the financial services side, agglomeration effects may also be noted in the financial services sector, which should induce inflows of FDI into the EU, and because of liquidity effects, this will also make it more attractive for MNEs to set up subsidiaries in the EU: there may be a small negative impact on inflows of FDI to Canada, if this diverts FDI away from Canada.

7. Other Scenario-Dependent Potential Effects

There are several other effects that could potentially have an impact on Canadian trade and investment, but each of these effects is dependent either on how EMU is implemented or on the configuration of insiders and outsiders as EMU progresses. A non-exhaustive list of these items might be classified as follows:-

- ◆ changing trade patterns due to the insider-outsider configuration;
- ◆ exchange rate volatility effects;
- ◆ a one-time discrete jump in exchange rates at the beginning of stage three;
- ◆ internal EU competitiveness effects; and
- ◆ third country competitiveness effects;

Each of the above effects is addressed below.

7.1   Insider-Outsider Effects

The issue of the insider-outsider configuration has recently arisen in the academic literature (see Ghironi and Giavazzi (1997). The adoption of a small core grouping of Member States that decide to adopt the euro, may foster further trade creation, and given that the future monetary and exchange rate policy link between those Member States that decide to stay out, and those that decide to join, is currently vague, this may exacerbate the level of convergence between the so-called "ins" and "outs". Another issue that has not been addressed in the literature is the possibility that Member States and countries outside the EU might decide to unilaterally adopt the euro, thereby enlarging the single currency zone and the extent of trade creation. Although it is widely acknowledged within the EU that qualification for adopting the single currency entails satisfaction of the Maastricht criteria, what would stop a country that did not sign Maastricht from adopting the euro as legal tender?[6] Clearly, the Baltic states and Central European countries are the most likely to consider this, but this, in turn, may create two different sets of countries in terms of economic versus monetary union, with unforeseeable results.

7.2   Exchange Rate Volatility Effects

EMU is equivalent, in economic terms, to fixing participating Member State exchange rates against each other, with infinite foreign exchange reserves to defend the fixed rates, thereby eliminating exchange rate volatility. Hence, if exchange rate volatility has deleterious effects on trade and investment, then EMU could be growth enhancing, as it could produce a one-time increase in trade and investment.

Exchange rate volatility effects have also recently been the subject of a considerable amount of economic research (see Friberg and Vreden (1996), Smith (1996), Arize (1995), Frankel and Wei (1995) and Gagnon (1993)). If exchange rate volatility is to affect trade, then it will do so via the costs of uncertainty, which relate to the invoicing currency used for trade. On a macroeconomic level, there is no strong evidence of a link between exchange rate variability and the level of international trade, although weak evidence of an effect does exist, according to some economists (see Frankel and Wei (1995)).

Smith (1996) claims that commodity price volatility has been much larger in magnitude than exchange rate volatility, and for many commodities, exchange rate volatility tends to offset commodity price volatility to create a hedge in overall price risk faced by domestic firms. But this will not affect the vast majority of traded merchandise goods, as either exchange rate volatility will add to commodity price volatility, or else foreign price volatility will not be as great, as would be expected with semi-manufactured and manufactured goods.   Nevertheless, all the literature cited above, with the exception of Arize (1995), points to negligible or small and insignificant exchange rate volatility effects on trade volumes. As Eichengreen and Ghironi (1995) point out though, just because economic studies have not managed to identify significant trade volume effects from exchange rate volatility does not mean that such effects may not exist. Certainly all anecdotal evidence (and the evidence provided by the survey which accompanies this study) suggests that exchange rate volatility does affect trade - but it may be that exporters and importers do not let short term exchange rate losses (or profits) influence their longer term decision regarding their prospects for gaining or consolidating market share. Or, as Wihlborg (1996) notes, if exporters and importers do not hedge, they may decide to incorporate

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[6]   The fact that Cuba uses the US dollar for most economic and financial transactions is not politically desirable as far as the US is concerned, but there is little that the US can do about it.

larger profit margins into their pricing, to reflect the greater exchange rate uncertainty. Lastly, it could be that our current level of econometric sophistication does not allow us to uncover these volatility effects.

On a macroeconomic level, as the Economist (1997) has pointed out, EMU could make other exchange rates more volatile, if it is assumed that an equal amount of exchange rate trading is concentrated on fewer exchange rates. In addition, European policymakers currently pay close attention to exchange rates against the US dollar, as dollar movements tend to affect European exchange rates differently, implying bilateral movements which then have an impact on ERM participants. With a single currency, European policymakers may decide to pay less attention to US dollar rates, thereby intervening less and permitting a greater degree of volatility. Recent research by Martin (1997), however, suggests the opposite - he concludes that the US dollar-euro exchange rate should be less variable compared with past variability of the US dollar-DM exchange rate. According to Martin's model, the decrease in the volatility of the euro should be more important the larger the size of EMU. Clearly, these results are extremely scenario-dependent, so are taken solely as an indication of the lack of consensus on this issue.

As part of the third stage of EMU, the European Commission proposed a revamped ERM (already nicknamed ERM2) for Member States that remain outside the EMU "core" (see Commission of the European Communities (1996)). A confirmatory decision on the ERM2 was taken in Amsterdam in June, 1997, and there is now a commitment to voluntary membership of this mechanism with a +/-15 percent margin of fluctuation (which is the current width of the fluctuation band) for those Member States not in the first wave of EMU participants. Although the ERM2 will most certainly be a pre-requisite for EMU membership, there is unlikely to be any significant reduction in exchange rate volatility for Member States that participate in the new mechanism.

If EMU leads to more investment because of a reduction in uncertainty caused by elimination of exchange rate volatility, then this could be growth-enhancing. Once again, though, there exists little in the form of empirical evidence to determine the direction of these effects (see Leahy and Whited (1995) for a survey with respect to uncertainty, and with respect to exchange rate volatility, Campa and Goldberg (1995)). Campa and Goldberg (1995) only find a weak, and generally insignificant effect of exchange rate volatility on investment.

7.3   A Discrete Change in Exchange Rates?

At the beginning of stage three it is likely that there will be a discrete jump in exchange rates, when the Council announces the conversion rates for all transactions between currencies participating in EMU on January 1, 1999. Inevitably there will be a discrete change in some exchange rates, just from the fact that bid-offer rates will collapse onto a single conversion factor, but there is the possibility that the Council will decide to use "rounded" rates so as to make the transition to the single currency as easy as possible for the business community and the general public. Giovannini (1991) analyses the last stage of EMU, but in terms of a currency reform. As Giovannini notes, if market rates at the end of 1998 are significantly different from those established by the Council at the beginning of 1999, then there will be macroeconomic effects, and these effects will depend on the degree of price and wage rigidity in each individual Member State. For instance, if prices were perfectly flexible then the discrete change in exchange rates would act like a tax on holders of balances of the depreciating currencies. If, however, prices were not perfectly flexible (due, say, to long-term contracts and adjustment costs) then the exchange rate change would affect the relative valuation of goods and services whose prices do not move freely. The macroeconomic effects would be in terms of the wealth and substitution effects of the changes in the real stock of money, which would give rise to a decrease in spending, a fall in output and the relative price of non-traded goods and an increase in output of traded goods and a trade surplus. The opposite effects would occur in countries whose currencies underwent an appreciation. The point here is that if expectations of economic agents are altered by the changeover, because of long-term contracts and adjustment costs, then it may not be in the interest of the private sector to adopt the official conversion rate, as this would change real payments as contracts are specified in nominal terms. In this sense mandating a changeover at a specified point in time acts like an incomes policy.

In order to eliminate any adverse economic effects of devaluing the currencies of Member States, Giovannini advocates the marking-to-market of contracts at the conversion date and the choice of a conversion rate that induces exactly the same exchange rate depreciation that was expected by wage and price setters (and so gave rise to any relative price distortions in the first place). In reality, this is unlikely to happen, as the calculations involved in such an exercise would be extremely difficult to extract from the economic data available. Nevertheless, it should be acknowledged that certain Member States might seek a discrete jump in exchange rates so as to effectively give them a "final devaluation" as EMU begins. It should also be noted that both Germany and the Netherlands will vigorously resist such a strategy, as it implies a discrete "revaluation" in their currencies, which would have adverse effects on their export sectors.

What would be the effect of this be on Canadian exporters? Canadian exporters will effectively face a discrete jump in exchange rates for their exports to these Member States, and this will likely either make exports less price competitive compared with domestic producers, or shrink profit margins. The opposite would occur for Member States whose currencies revalued. This scenario, although it appears possible, is one which Germany appears most resolutely opposed to, so the likelihood of a significant jump in exchange rates is not high.

7.4   EU Competitiveness Effects

It is now well known that exporters in large economies pursue policies of price discrimination. The empirical evidence suggests that firms in this position can "price to market" (that is, price exports in fixed terms for the importing country's currency). But is it always desirable to "price to market"? Because of real exchange rate changes, this will not always be the case, as increases in aggregate demand abroad will cause exporters to want to raise export prices in relation to the domestic market. Thus relative export prices will rise.

But "pricing to market" will depend not only on real exchange rates (because of price discrimination), but also on nominal rigidities in the domestic price level. See Giovannini (1988) for a more detailed discussion.

In international economics, the role of exchange rate "pass-through" is also closely related to "pricing to market". "Pass-through" refers to the effect on import prices from changes in exchange rates. If exporters "price to market" and fix prices in terms of the importer's currency, the degree of "pass-through" will theoretically be zero, as exchange rate fluctuations will only affect the exporter's mark-up. Clearly, though, the role of competition is important here, as if the exporter decides to price and invoice in the importer's currency, then the exporter is essentially carrying all the exchange rate risk (note here that pricing and invoicing do not necessarily occur in the same currency). The greater the degree of competition, the more likely it is that the exporter will be forced to "price to market", and therefore the lower the degree of exchange rate "pass-through" to the importing country. As Friberg and Vredin (1996) note, the degree of "pass through" to the importer's currency price decreases with the degree of market concentration, and increases with the extent of substitutability between goods and with the market share of foreign firms relative to local competitors. Thus it is clear that "pass through" should be high for imports from a country with a large market share.

Applying these theoretical results to the Canada-EU situation implies that Canadian imports from the EU should, as trade invoicing is higher for Canadian imports, and the EU clearly has a larger market share in many goods and services than Canada does, result in a non-negligible level of "pass through". Canadian exporters, on the other hand, will likely have to increasingly adopt "price to market" tactics, if Canadian exports are to remain competitive in the EU, thus increasing the level of risk for Canadian exporters and increasing the amount of euro trade invoicing in the future. These are the direct effects on competitiveness, but there may also be effects emanating from competitors in third countries. If these third countries are outside the EU, then the only differentiating factor in terms of exchange rates would be the level of volatility in the domestic currency versus the euro. The links between market share and pass-through suggest that the role of the location of Canadian export competitors is important in assessing the competitiveness effects of EMU on Canada in this area.

If the Canadian export competition comes from the EU, then this may have a deleterious effect on Canadian exporters, as they will be forced to carry the exchange rate risk in order to compete with EU companies, and also the degree of competition will increase as agglomeration effects occur (discussed above). The extent of this exchange rate risk effect will clearly depend in the degree of exchange rate volatility between the euro and the Canadian dollar, as this would represent the single largest disadvantage for Canadian exporters. There could also be costs in terms of trade financing for Canadian importers, particularly if they had only limited access to financial institutions that were willing to finance in euros. On the other hand, European companies that now practice price discrimination between different EU markets, will no longer be able to do so as easily, given a single currency, which would immediately eliminate excess profits.

Despite the non-quantitative nature of invoicing practices (such as "pricing to market") there

are other potential competitive effects of EMU, which stem from the increase in the relative rate of protection in the EU due to the elimination of internal costs relating to the introduction of the single currency. This effect is not strictly speaking "trade diversion", as it does not result from the formation of a customs union Also there is another key distinction between this effect and "trade diversion": this effect applies to all extra-EU trade, but "trade diversion effects are differentially applied given the product and service specialisations of the union participants[7]. To be accurate, these effects should perhaps be labeled negative "external trade pattern" effects, rather than as "trade diversion" effects.

Lastly, the role of competition and protectionism must not be ignored. It is a general rule that large countries (in terms of population rather than geographical area) tend to more protectionist than small countries. While protectionist pressures in the EU have not been so alarmist as in the US, it is possible that after EMU the stronger international position of the EU Member States could lead to more protectionism with respect to countries outside the EU than hitherto has been the case.

8.   Assessment of Effects on Canadian Companies: Survey Results

As part of this study, a survey was distributed to Canadian companies and they were asked to respond to various questions regarding their activities in the EU, and their attitudes and opinions about EMU. The questionnaire used for the survey is located in annex A, while a statistical analysis and commentary on the results is located in Annex B.

The survey form was distributed to a wide variety of Canadian exporting companies, the distribution list being obtained from a list of Canadian exporting companies that were known to be exporting to the European Union in 1994. The list was compiled and notated by the Department of Foreign Affairs and International Trade (DFAIT). The companies were sent a form, together with a stamped, addressed envelope and they were asked to complete and return the survey form with an extremely short deadline. Although the response rate of 7 percent was disappointing, this was partially due to the fact that the DFAIT listing was out of date, as many companies had moved their headquarters or had simply gone out of business in the intervening three years. Even so, the response to the survey did include a wide variety of exporting companies to the EU, ranging from small companies to large MNEs and ranging across nearly all industry classifications. In this sense, and in this sense alone, the survey can be thought of as representative.

The survey covers only Canadian exporters, and does not incorporate any information regarding Canadian importers. This clearly leads to further caveats being placed on the results, as importers are more likely to be invoiced in euros after 1999, so the results could be viewed as a lower bound for Canada-EU trade in general.

8.1   Trade and Investment Interests in the European Union

Most of the companies surveyed had a small proportion of their sales as exports to the EU. Of the exports to the EU, the most popular destination countries were the UK, Germany, Ireland and France. The most popular invoicing currencies were the Canadian dollar by volume of exports, but by number of times mentioned, the Canadian dollar tied with the US dollar followed by the Deutschemark and the French franc.

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[7] I wish to thank André Sapir of CEPS for a useful discussion in Montreal in May, 1997, on this issue.

The majority of the respondents were aware of their foreign exchange risk, and they either used the Canadian dollar for trade invoicing or they pooled their risk among several markets. Over 15 percent of respondents hedged against foreign exchange risk.

The fastest growing markets for Canadian exporters appear to be in the UK or in Germany, and these two Member States appear to hold out the best prospects for future export growth.

The most popular destination for FDI in the EU appears to be the UK in terms of numbers of subsidiaries, but Germany in terms of the amount of export sales accounted for by the subsidiary. The majority of companies were satisfied with EU exporting prospects or were optimistic - around 20 percent of respondents were pessimistic about prospects for their exports in the EU.

8.2   The Single Currency

Nearly all of the respondents had heard about the introduction of the single currency in the EU, so awareness among Canadian exporters is fairly high. Just over half of the respondents (55 percent) plan to use the single currency as part of their export invoicing, and most of the respondents found out about the introduction of the single currency either through their bank (45 percent) or else through a consultant (27 percent). The high percentage of respondents that plan to use the euro for invoicing purposes tends to reinforce the tentative conclusions reached earlier, in section 3 of the study.

On a scale of 1 to 5 (no impact to large and significant impact), respondents thought that the single currency would have some impact on Canadian trade and investment (- an average response of 2.35 was obtained). Respondents thought that the competitiveness of their businesses would not be affected by the adoption of the euro in the EU (on a scale of 1 to 5, 1 being adversely affected, 3 no effect, and 5 beneficially affected, a score of 3 was obtained), and that the competitiveness of their business with the rest of the world would also not be affected (with the same scale, a score of 2.9 was obtained).

Although most companies had some information about the introduction (on a scale of 1 to 5, 1 being not enough information and 5 being more than enough information, a score of 3.1 was obtained), but most companies perceived that little more preparation needed to be done (on a scale of 1 to 5 with 1 indicating nothing and 5 indicating a lot, an average score of 2.4 was obtained. In terms of internal considerations, many companies expect to have to modify their internal accounting procedures to take into account the introduction of the single currency (at 43 percent), and many companies also expected to have to change their banking arrangements (at 29 percent).

As might be expected, the majority of respondents thought that Germany and France would be the most likely Member States to proceed to EMU in the first wave, followed by Belgium, the Netherlands and Luxembourg. Strangely enough, fewer than half of the respondents thought that Austria or Ireland would be in the first group of Member States, but not surprisingly most thought that both Italy and the UK would not be in the first wave.

9. Conclusions

Although Canada-EU trade is not a large proportion of Canada's trade, the direct effects of EMU will be felt by Canadian companies, particularly if the single currency becomes a world trading currency outside the EU. Indeed, the consensus is now leaning towards the view that the introduction of the single currency will cause considerable changes in certain aspects of world trade. These changes will likely be in terms of:

- an increase in intra-EU Member State trade;
- a reduction in trade with third countries outside the EU;
- a significant change in the pattern of world trade invoicing; and

Other factors will also influence the level of exports to the EU from countries outside EU, notably:

- the level of exchange rate volatility for external currencies versus the single currency;
- the configuration within the EU of those Member States participating in EMU, versus those Member States that do not qualify or that decide to remain outside of EMU;
- emergent trends in intra-industry trade;
- competitiveness effects from the elimination of currency conversion costs for those exporters that are already in the EU, putting exporters in countries outside the EU at disadvantage;
- the possible one-time discrete jump in exchange rates when the European Council decides on the fixed conversion rates between participating EU currencies; and
- the effects of a restructuring of financial markets in the EU, which should increase liquidity and increase competition in the European financial services sector, thereby reducing transaction costs.

For Canada, the following specific issues need to be monitored and addressed where needed:

- the position of the UK with respect to EMU is of importance for Canada-EU trade;
- the amount of euro invoicing that occurs in the longer term in other parts of the world, such as Asia, will be of strategic importance;
- arresting the long-term decline of exports to the EU, as a proportion of total Canadian exports;
- the method used by the European Council to derive conversion factors for intra-EU currency conversion;
- ensuring that financial institutions can provide trade finance of up to 20 percent of Canadian imports denominated in euros; and
- that Canadian exporters are aware of the provisions that are being made for contract conversion and introduction of currency conversion rates in the EU.

As far as FDI is concerned, there is little theoretical or empirical evidence to enable an informed prediction as to the net effects on FDI flows both into and out of the EU. In addition to some of the effects noted above, EMU could have the following effects on inward and outward EU FDI:

- a greater incentive to concentrate FDI on the "core" EU Member States that participate in EMU;
- an increase in inward FDI flows relating to the financial services sector as this sector becomes more concentrated in certain locations; and

♦ a long term increase in outward FDI flow from the EU as increased EU growth spurs more external market-oriented FDI.

Specifically for Canada, FDI in Europe is of significant importance, and is related to MNE investment in subsidiaries, and the financial services sector, largely centred on London, UK. The possible effects on Canada-EU FDI flows are as follows:

♦ "agglomeration" effects which result in economies of scale, hence attracting FDI from external sources;

♦ "liquidity" effects in the financial services industry, which in turn may induce FDI inflows so as to take advantage of restructured and more competitive pan-EU financial markets;

♦ FDI diversion effects from Canada as third parties decide to concentrate new investments on the EU; and

♦ in the longer term, an increase in FDI outflows to Canada, to take advantage of Canada's strategic position in trading specific goods and services within NAFTA .

Lastly, it should be stressed that these results are not definitive, as they are based on ongoing research in this area, all of which is extremely scenario dependent. Clearly, most of the conclusions presented in this paper depend on a successful implementation of EMU, which is still not yet assured.

10.   Recommendations

The following recommendations flow from the discussion and analysis presented in the study, and the logic of the study conclusions, presented in section 9 above:

a)   Further studies should be commissioned to explore the long-term consequences of the decline in trade with the EU, in terms of i) to what extent this decline is the counterpart to NAFTA integration, and the long-term consequences of NAFTA on Canadian trade outside of NAFTA; ii) the extent to which this decline can be arrested by unilateral trade agreements with the EU; and iii) the extent to which the US has followed the same trends in transatlantic trade.

b)   A study should be commissioned to determine the trade invoicing practices of Canadian exporters and the invoicing practices of countries exporting to Canada. This study should also incorporate an evaluation of how these practices are changing over time.

c)   Substantial effort needs to be directed towards an evaluation of market opportunities for Canadian companies in the EU. In particular, there appears to be significant scope for an increase in service exports to the EU. The means whereby Canadian service companies can access such market information and establish a market presence in the EU should be addressed.

d)   Canada should explore the possibility of negotiating further trade agreements with the EU, perhaps not along the lines of a Transatlantic Free Trade Area (TAFTA) because of the reticence of the US on this issue, but in areas where reciprocity can be meaningfully applied. Also in this regard, trade agreements should be sought so as to encourage further increases in transatlantic intra-industry trade. Such trade agreements would also be beneficial in enhancing trade prospects with Central and Eastern European countries that hope to join the EU in the near future.

e)   The possibility of mounting a "Team Canada" mission to the EU should be explored, with particular reference to encouraging transatlantic trade and advocating Canada as a desirable location to service the NAFTA bloc of countries.

f)   Development of business education courses (such as in International MBA programs) in Canada (perhaps sponsored by DFAIT) to encourage greater understanding of what doing business with EU companies entails, so as to enhance the level of awareness of EU issues and foster a greater understanding of the opportunities that exist for Canadian companies in the EU.

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YOU AND YOUR COMPANY

1. What is the name of the company which you represent? _____

2. Where are you located? _____

3. Who may we contact if we have further questions?   Name: _____
    Tel: _____
    email: _____

TRADE INTERESTS IN THE EUROPEAN UNION

4. Approximately what percentage of your total export sales are accounted for by European Union countries? _____

5. Please rank the EU countries that are most important to your company (beginning the most important), along with the approximate total value of trade and the currency/currencies used for invoicing with each respective country:

Country	Value of trade (in C$)	Invoicing Currency/Currencies

6. After the new EU currency is introduced (the "euro"), do you anticipate changing the currency you use for trade invoicing for the countries listed in question 5? If so, which countries?
_____
_____

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7. What is the attitude of your company towards foreign exchange risk? Check one or more boxes.

     ☐ - we ignore it

     ☐ - we invoice and transact in C$ (or base currency)

     ☐ - we protect each foreign exchange transaction with a hedge

     ☐ - we try to anticipate currency moves to add value

     ☐ - currency risk is pooled and handled in the context of overall asset/liability risk managment across our divisions.

IF YOU HEDGE FOREIGN EXCHANGE RISK GO TO QUESTION 8, OTHERWISE GO STRAIGHT TO QUESTION 9.

8. If you hedge, which currencies do you typically hedge against, what is the approximate cost of hedging as a percentage of sales, and what is (are) the principal hedging instrument(s) that you use?

Currency	Cost of hedging (as % of sales)	Principal hedging instrument(s)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. If you hedge against foreign   **AND/OR**   If you do not hedge foreign exchange risk
exchange risk when trading   when trading with EU countries, why not?
with EU countries, why?

     ☐ - Risk high compared with cost   ☐ - Too expensive

     ☐ - On insistence of bank   ☐ - Minimal risk

     ☐ - Other reasons   ☐ - Other reasons

    - Please state: - Please state:

_____

_____

10. For your current European Union export markets, please rank your fastest growing markets, by country.

     Country

     1st _____

     2nd _____

     3rd _____

     4th _____

     5th _____

     6th _____

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11. Looking ahead five years, which European Union countries do you think will represent your fastest growing export markets?

Country

1st _____
2nd _____
3rd _____
4th _____
5th _____
6th _____

12. Please circle on a scale of one to five, what you feel the outlook is for strong export sales growth for your product(s) /service(s) to European Union countries over the next five years -

[Very Pessimistic]   1   2   3   4   5   [Very Optimistic]

INVESTMENT INTERESTS IN THE EUROPEAN UNION

. Does your company have a (wholly owned or partially owned) subsidiary/subsidiaries operating in a European Union country?

Yes   ☐   No   ☐

- if yes, in which countries?   - if no, do you plan to establish a subsidiary in
                                                    the EU over the next five years?

                                                    Yes   ☐   No   ☐

                                                    - if yes, in which country/countries?

Country   Country

_____   _____
_____
_____   _____
_____

PLEASE CONTINUE TO   PLEASE TURN OVER AND GO
QUESTION 14   TO QUESTION 15

14. Approximately what proportion of the value of your exports are directed to your subsidiary/subsidiaries in the European Union?

Country   Percentage

_____   _____
_____   _____
_____   _____
_____   _____
_____   _____

VERSION FRANÇAIS AU VERSO

THE SINGLE EUROPEAN CURRENCY (THE "EURO")

15.   Before doing this survey, were you aware of the plan to adopt a single European currency (the"euro"), as specified in the Maastricht Treaty?   Yes ☐   No☐
- if no, go to end of survey.

16.   Which of the 15 European Union member countries do you expect will be part of the first wave of countries to adopt the "Euro"?
Please circle either "all EU countries", <u>or</u> select individual EU countries:

all countries

Germany	France	Belgium	Netherlands	Finland
Luxembourg	Denmark	Italy	Spain	Greece
Portugal	Ireland	Sweden	United Kingdom	Austria

17.   Which of the 15 European Union member countries do you expect will eventually become part of the single currency area (including those countries circled in Q16) in Europe?
Please circle either "all EU countries", <u>or</u> select individual EU countries:

all EU countries

Germany	France	Belgium	Netherlands	Finland
Luxembourg	Denmark	Italy	Spain	Greece
Portugal	Ireland	Sweden	United Kingdom	Austria

18.   On a scale from 1 to 5, do you think that the introduction of the euro in the European Union will have an impact on Canadian trade and investment in Europe?
Please circle the appropriate number -

[No impact]   1   2   3   4   5   [Large and significant impact]
[Moderate]

19.   What impact do you think that the introduction of the euro will have on Canadian trade and investment in Europe, if any?
_____
_____
_____

YOUR BUSINESS AND THE INTRODUCTION OF THE EURO

20.   Do you plan to use the "euro" for any part of your European business with clients?

Yes ☐   No   ☐ - if no, please go to end of survey

21.   On a scale of 1 to 5, how prepared do you feel your business is for dealing with the introduction of the "euro"?

[Not prepared]   1   2   3   4   5   [Very prepared]

VERSION FRANÇAIS AU VERSO

22. On a scale of 1 to 5, how do you think that the competitiveness of your business in Europe will be affected by the adoption of the "euro" in the European Union?

[Adversely affected]   1   2   3   4   5   [Beneficially affected]
                                    [No effect]

What are the reasons for your answer? _____
_____

23. On a scale of 1 to 5, how do you think that the competitiveness of your business with the rest of the world will be affected by the adoption of the "euro" in the European Union?

[Adversely affected]   1   2   3   4   5   [Beneficially affected]
                                    [No effect]

What are the reasons for your answer? _____
_____

24. Have you received any advice from any source regarding the type of preparation that your company should be making for the introduction of the "euro"?

Yes   ☐   No   ☐
- if yes, from where?

Bank   ☐
Consultant/advisor   ☐
Media articles   ☐ - if so, please name the publication(s) _____
Other   ☐ - please specify _____

25. On a scale of 1 to 5, do you feel that your company has sufficient information to start planning for the introduction of the "euro"?

[Not enough info]   1   2   3   4   5   [More than enough info]

26. On a scale of 1 to 5, how much more do you think that your company needs to do to be prepared for the changeover to the "euro"?

[Nothing]   1   2   3   4   5   [A lot]

27. If you anticipate that there will be significant change-over costs to your company associated with the introduction of the "euro", in what area(s) of your business will these costs occur?
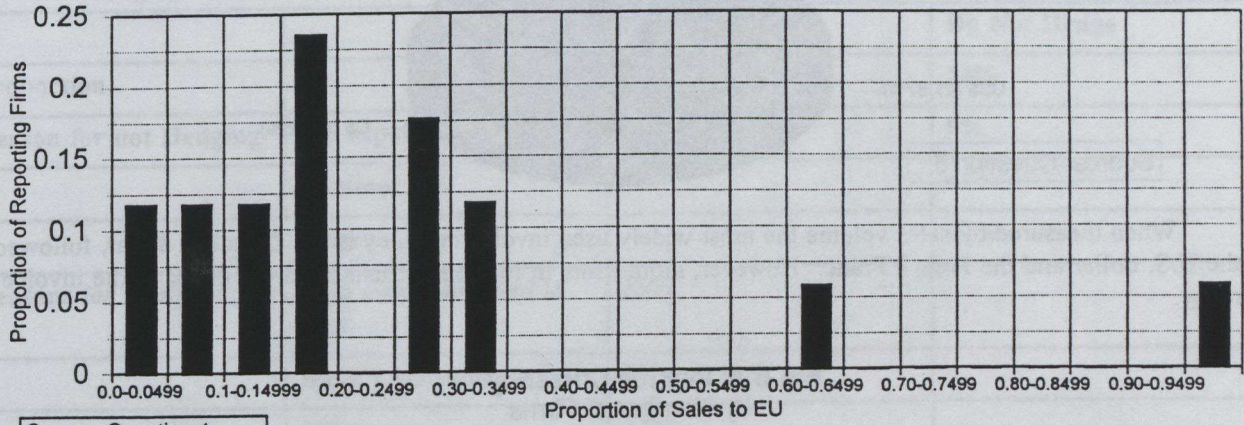
☐ - accounting systems
☐ - banking arrangements
☐ - internal reporting
☐ - other: please describe _____

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Fig.B.1: Average Exports to Europe
### As Proportion of Total Sales

Annex B
Questionnaire Results
(by Darren Byers)

Trade Interests in the European Union

Of the participating firms, the average reported proportion of sales to EU countries was 24.7%. The distribution of sales to EU ratios can be seen in Figure B.1.

The firms that responded indicated that the UK and Germany were at present, the more important markets, followed by France and Ireland.
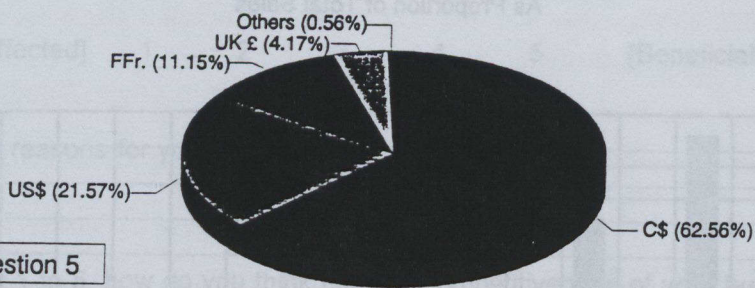
Fig. B.2: Exports to EU
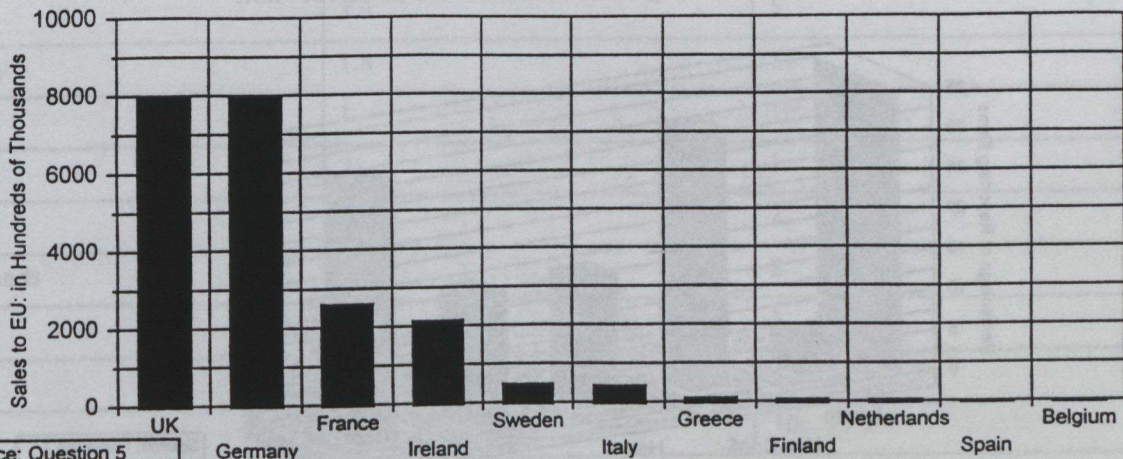
Fig. B.3: Invoice Currency
by sales volume

Others (0.56%)
UK £ (4.17%)
FFr. (11.15%)
US$ (21.57%)
C$ (62.56%)

Source: Question 5

When measured by sales volume the most widely used invoice currency is the Canadian dollar, followed by the U.S. dollar and the French Franc. However, more firms in total report using the US dollar as the invoice currency.

Fig B.4: Invoice Currency
by Number of Firms

FM (3.33%)
SDR (3.33%)
BFr. (6.67%)
ECU (6.67%)
Hfl (3.33%)
DM (13.33%)
UK £ (10.00%)
FFr. (13.33%)
US$ (20.00%)
C$ (20.00%)
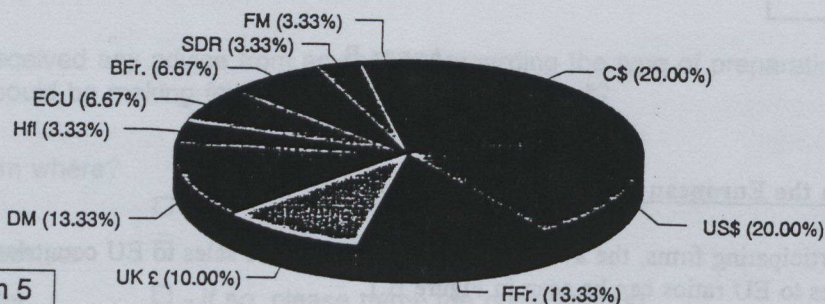
Source: Question 5

There appears to be a generally high level of awareness of foreign exchange risk. Only one firm indicated that they ignored it outright, while most firms reported either invoicing in Canadian dollars or pooling foreign exchange holdings as a risk management strategy.

Fig. B.5: Attitude Towards FX Risk

Percentage of Reporting Firms

Ignore
Use Cdn$
Hedge
Speculate
Pool
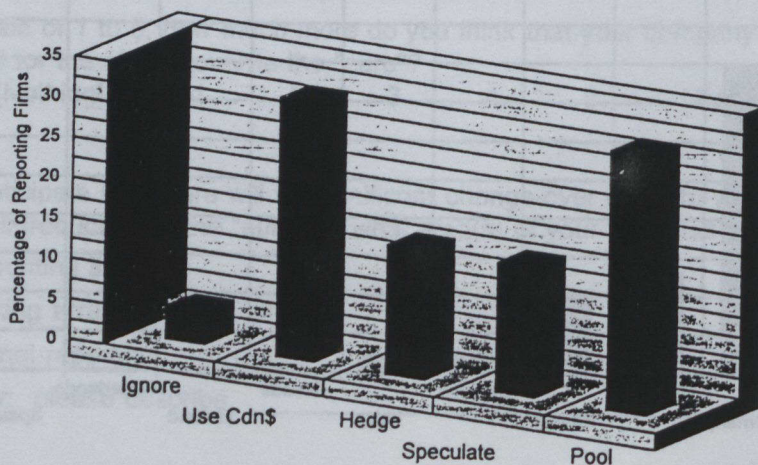
Source: Question 7

Of the firms that do hedge, the most popular instruments are forward contracts, either by themselves, or in combination with some other hedging instrument such as swaps or options. No company reported using forwards and futures together.

Table B.1: Hedging with European Currencies

		Hedge	Do Not Hedge
Proportion		46%	54%
Reason for not Hedging	too expensive		9%
	minimal risk		64%
	other		27%
Reasons for Hedging	high risk compared to cost	50%	
	Bank's insistence	17%	
	other	33%	

Source: Question 9

Just over half of the firms reported hedging with EU countries. Of those that do hedge, the risk of the country compared to the low cost of hedging is the main reason for doing so. Of those that do not hedge, the main reason given is the low risk of the country.

Table B.2: Fastest Growing Markets:

Country	Average Rank	Number of Times Mentioned
Austria	2	1
Belgium	3	2
Denmark	4	1
Finland	2	1
France	3.6	5
Germany	1.8	11
Greece	1	1
Ireland	2	1
Italy	3	2
Netherlands	2.5	2
Spain	3.6	3
Sweden	3	1
UK	1.8	10

Source: Question 10

Fig. B.6: Outlook for Firm's Exports
1= very pessimistic; 5=very optimistic
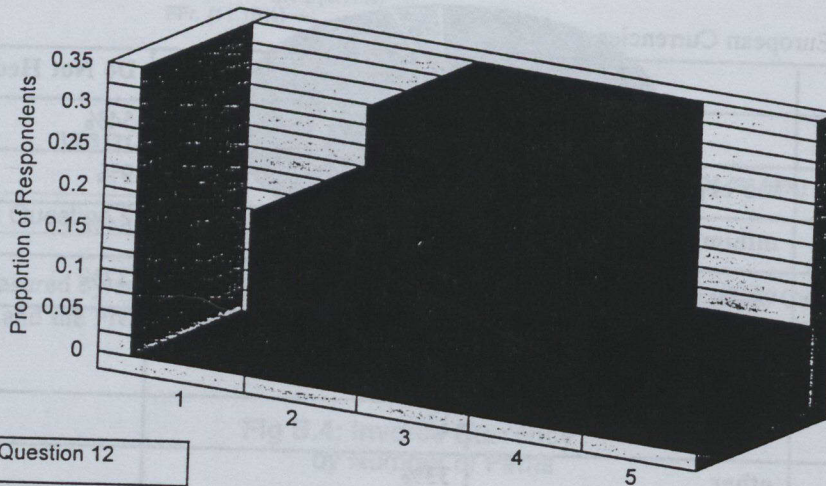
Source: Question 12

Table B.3 : Future Fastest Growing Markets

Country	Average Rank	Number Times Mentioned
Belgium	3	1
Denmark	3.5	2
Finland	3	1
France	2.4	9
Germany	2.6	11
Greece	4	1
Ireland	2	1
Italy	2.5	2
Netherlands	3	2
Spain	3	1
Sweden	5	1
UK	1.7	11

Source: Question 11

Firms are on average, fairly optimistic about their growth prospects in Europe, with no firms very pessimistic and some reporting to be very optimistic.

Investment Interests in the European Union

Sixty percent of the firms reported having subsidiaries in EU countries. Mostly, these subsidiaries were located in the UK and Germany.

Table B.4: Firms with Subsidiaries in the EU

Country	Percentage of Firms with EU Subsidiary*	Average Percentage of Export Sales Accounted for by Subsidiary
UK	67%	53.2%
Germany	40%	77.0%
France	33%	5%
Belgium	20%	36%
Netherlands	13%	20%
Portugal	13%	NA
Ireland	13%	4.9%
Italy	7%	NA
Finland	7%	NA
Austria	7%	NA

* of those who report having an EU subsidiary
Source: Question 13.

The Single European Currency

There appears to be a high level of awareness of the euro's introduction: only 4.2% of the firms surveyed had not been aware of the proposed euro. Just over one half of these firms (54.5%) intend on using the euro for business purposes upon its introduction [source: Question 20]. In addition, many firms have been receiving some form of advise regarding the new currency, mainly from Banks, with Consultants also being an important source of advice. This can be seen in Figure B7.

Of the firms that reported needing to change their business processes, mostly it was Accounting processes that needed to be changed.

Table B.5: Changes Required in Business Processes

Accounting Systems	42.8%
Banking Arrangements	28.5%
Internal Resources	14.3%
Other	14.3%

Source: Question 24

Fig.B.7: Sources of Advice

Other (9.09%)
Media (18.18%)
Bank (45.45%)
Consultant (27.27%)
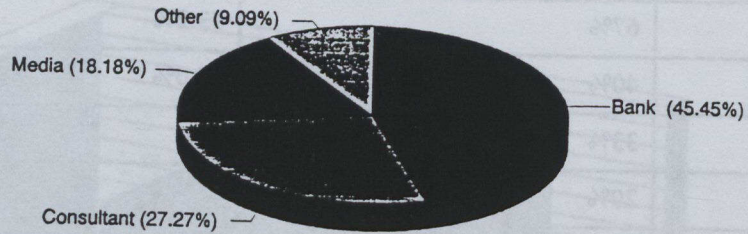
Source: Question 24

Of the countries that are expected to adopt the euro, Germany and France are considered to be the most likely to be in the first wave of countries, with Belgium also considered to be fairly likely. The UK, is seen to be relatively unlikely to adopt the euro in this round, with only 34% believing they will. Italy and Spain are considered unlikely to adopt the euro in the first round.

Table B.6: Countries Adopting the Euro in the First Wave

Country	Probability
Germany	0.96
Luxembourg	0.61
Portugal	0.17
France	0.96
Denmark	0.57
Ireland	0.22
Belgium	0.78
Italy	0.43
Sweden	0.43
Netherlands	0.70
Spain	0.26
UK	0.35
Finland	0.22
Greece	0.09
Austria	0.30

Source: Question 16

Annex C
List of Interviews

As part of the project, I visited the European Commission in Brussels, Belgium, and interviewed and discussed various issues relating to the project, as well as other more general issues relating to European integration. The persons I met on this trip (in February, 1997) were as follows:

- Fabienne Ilzkovitz, Head of Unit, International Aspects of Monetary Union, DGII, Economic and Financial Affairs;

- Jürgen Kröger, Head of Unit, Monetary Union: Exchange Rate and Domestic Monetary Policies, DGII, Economic and Financial Affairs;

- Mary McCarthy, Analyst, DGII, Economic and Financial Affairs; and

- Elena Flores, Head of Unit, Monetary Union: Technical and Market Questions, DGII, Economic and Financial Affairs.

These individuals that I met in Brussels were extremely helpful and all expressed great interest in the project. I would like to thank them for their time and input into the study.