JOINING TRADE ASSOCIATIONS:

CANADIAN AND BRITISH EXPERIENCES

JOINING TRADE ASSOCIATIONS: BRITISH AND CANADIAN EXPERIENCES COMPARED

By

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ABSTRACT

Trade blocs are becoming very significant in the world economy as countries increasingly find it difficult to maintain economic and political power on an individual basis. Britain and Canada are two countries who have recently chosen to join one of these blocs; Britain joining the European Economic Community in 1973 and Canada joining the North American Free Trade Area in 1988. Although the two countries took similar action, their experiences were in many ways quite different, which makes comparing the two cases particularly interesting.

First, the historical evidence for both Britain and Canada is examined. The way in which each has developed its past and present international trade relations has considerable bearing upon how it perceives itself in the world and therefore the role it might be prepared to play in a trade association. Second, the methodological evidence is considered. The type of economic models, and the philosophical framework behind them, which a country's analysts use to determine what the likely impacts from trade bloc accession will be, are particularly indicative of that country's national priorities, and often show what its government hopes to gain from any agreement which has been made.

From the comparison of the two countries' experiences, emerges a unifying theme; namely that both their historical trade relations and their methodological approaches can be explained by reference to their, and their analysts', situation in time and space. This finding therefore has encouraging implications for the possibility of establishing a uniquely geographical approach to the study of such complex phenomena as international trade associations.

TO NANNY AND GRANDPA

WITH LOVE

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There are many people I would like to thank for their help in the preparation of this thesis. I was particularly lucky in having Dr. W.P. Anderson as my supervisor. In spite of having no say in my place at the department, he generously took me on and has allowed me to grow academically in my own way, while always being available with advice and encouragement when I needed it most. Special thanks should also go to Dr. A.F. Burghardt who very kindly took time out of his busy schedule to read and comment on the final document.

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My mother, even though now considerably further away in a geographical sense, has continued, as always, to be emotionally by my side and, in this particular case, has been of great practical help by keeping me supplied with information on the US-Canada agreement from the other side of the border.

Up-to-the-minute information concerning Britain's place in the EEC was provided for me by my grandfather with a little help from the *Times*. Perhaps more importantly however, both my grandparents helped to give me the confidence I needed to come to Canada and to finish this degree. Their commitment to my personal development and happiness is unwavering and they should know that I am deeply grateful to them for this.

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CHAPTER 1

INTRODUCTION

1. Background to Trade Associations

The 1980s have seen the rise of the multi-national corporation as a result of an unprecedented number of mergers and take-overs. Concomitant with this is an increase in the scale at which companies operate; frequently maintaining their headquarters in their home country while having subsidiaries abroad. This has resulted in a concentration of economic power into trade blocs within which trade flows freely, but outside which there are strong barriers to commercial entry. Canada and the US form one such bloc, the North American Free Trade Area (NAFTA). The European Economic Community (EEC) and its free trade partners, the six nations of the European Free Trade Association (EFTA) form others, and a fourth bloc is emerging around Japan in the Pacific Rim. In addition there are an Australia and New Zealand Free Trade Agreement, a Council for Mutual Economic Assistance (Comecon) to cover the Communist bloc, and several smaller associations such as the Caribbean Community and Common Market (CARICOM).

Political power is also beginning to reside with these economic groupings so that other free-market economies are finding it increasingly difficult to compete alone (either economically or politically) at the world scale and are becoming keen to place themselves inside rather than outside trade bloc boundaries. To achieve this they can either join a group of other nations similarly affected by external economic influences, as Britain did when she joined

the EEC, or they can join directly with one of the dominant economies generating such influences, as Canada did when she joined the NAFTA.

In any kind of trade association members will always grant preferences to other members but the degree of economic integration can vary considerably as is shown in Table 1 which defines the various types of trade associations suggested by Grubel (1977). For example in a free trade area, such as the NAFTA, members remove intra-area obstacles to free trade but retain their national barriers to trade against the rest of the world. By contrast, a common market, such as the EEC, should have unified economic policies in addition to the free movement of capital and labour.

2. Provision of a Natural Economic Experiment

Britain became a member of the EEC on the 1st January 1973 under the Conservative government of Mr. Edward Heath, who was finally able to close the negotiations begun by his Conservative colleague, Mr. Harold Macmillan, in July 1961 (HMSO, 1983). After similarly frustrating, but not quite so lengthy, negotiations, the free trade agreement between Canada and the US was signed by then President Ronald Reagan and Prime Minister Brian Mulroney on January 2nd last year. (Globe and Mail, 5 January 88). For anyone interested in international economics, particularly trade associations, and the various socio-politico-economic impacts resulting from such associations, both Britain and Canada make interesting case studies. At last, after years of theorising, a solid agreement is in place which can be tested in something approaching a scientific manner. The potential for ex-post studies and their comparison with already completed or running ex-ante studies is enormous and excitement mounts in the academic community as visions of long-term government-funded research

Table 1: The Definition of Trade Associations after Grubel, 1977

Trade Association	Definition
1. Free Trade Area	Members remove intra area obstacles to free trade but retain their national barriers to trade against the rest of the world.
2. Customs Union	Members remove obstacles to free trade and in addition harmonise trade policies towards the rest of the world.
3. Common Market	Members agree to the same policies as in a customs union and in addition remove obstacles to the free movement of capital and labour.
4. Economic Union	Countries surrender their national sovereignty over their exchange rate, monetary and fiscal stabilisation policies, and the provision of union-wide public goods to a union government which also determines the common exchange rate towards the rest of the world in one of three ways: i) payments union ii) financial policy coordination iii) monetary integration.

Definitions taken from the text in Grubel, 1977.

programmes emerge.

In physical geography there are often chances to set up natural experiments (difficult though the inputs and outputs may be to determine and control). For example part of a small river catchment might be logged to establish what the impacts on sediment discharge from the basin could be. Economic geographers on the other hand are rarely, if ever, allowed to control economic systems and generally have to be content with modelling hypothetical impacts on computers. However, a distinct change in a country's economic circumstances, such as is created by joining a trade association, does provide the opportunity for just such a natural experiment. The experiences of Britain joining the EEC and Canada joining the NAFTA allow the observation of two of these experiments and the subsequent comparison of the results.

3. A Specifically Geographical Approach

The impacts of a trade association may be studied from many different perspectives. The economist compares the actual with predicted results of the relevant trade theory. The politician considers party doctrine and assesses on which side the most political points may be scored. The sociologist considers the potential impacts of any change in legislation on various groups in society. The historian tracks the series of events which culminated in, and resulted from, the event of union. What then can the geographer bring to bare on this complex subject? Clearly geographers can synthesise the views of other workers, but this is not sufficient.

If anything is central to the discipline of geography it is the simultaneous study of the dualism of the two variables: space and time. In geography neither time nor space can be discussed without reference to the

other, and both in turn have an enormous impact on geographical events and the explanation of them. From this emerges the hypothesis that the character of events and the subsequent analysis of them is determined (at least in part) by their (and our) location in space and time.

4. The Aim of the Report

Such an hypothesis could be suggested in many areas of geography, but the aim of this report is to test it in the trade association arena. The two specific sets of evidence provided by the British and Canadian experiences will be used to establish how far the nature and form of the accession agreements, and the analysis of their likely present or future success, can be explained by the time-space framework in which they were constructed and assessed.

To achieve this aim, two types of evidence need to be considered. First, the "constructional environment" should be explored. This has built up through time and might be referred to as the *historical* evidence (though this should not be considered synonymous with the temporal aspects alone, rather this evidence consists of a whole series of time-space frames superimposed upon and juxtaposed with each other through time). How a nation has developed, its past and present international relations, may give a clue as to how it perceives itself in the world and how therefore it might approach the subject of a trade association.

Second, the data from the "analysing environment" should be discussed. This *methodological* evidence indicates how the models used to determine the impacts of association on the two countries (their whole approach and the yardsticks they used) were also influenced by the time and location in which they were created.

Chapters 2 and 3 present the historical and methodological evidence which has arisen from Canada joining the NAFTA and from Britain joining the EEC. Chapter 4 then analyses this evidence, drawing on a comparison of the experiences of the two countries, and allows some conclusions to be reached in Chapter 5 as to the usefulness of the suggested time-space hypothesis.

5. Limitations

The idea that the influence of time-space frameworks is central to explanation in geography is not new or revolutionary. Yet it is a simple framework for discussion, an advantage which, in its simplicity, may be overlooked. It is also a potentially unifying framework in an age when geography often seems in danger of splitting into the subsidiaries of various other disciplines (Haines-Young and Petch, 1986). It certainly has many applications of which this report is just one example.

The essentially deductive approach taken below attempts to follow the critical rationalist view of science described by Popper (1972). This is the method of proposing hypotheses and then exposing them to the severest criticism possible in order to discover whether they are false. The discussion of the evidence presented in Chapters 2 and 3 attempts this. However, the potential scope of both the subject matter and the evidence mean that this is not a totally comprehensive critique. Certain key assumptions may unwittingly go unquestioned as Lakatos (1970) suggested often happens when hypotheses are tested. However, it is hoped that the coherent structure of a deductive argument remains.

CHAPTER 2

THE HISTORICAL EVIDENCE:
BRITISH AND CANADIAN EXTERNAL TRADE RELATIONS

This chapter reviews the historical international trade relations of Canada and Britain. This is necessary because their respective present approaches to trade agreements are likely to be determined by the amalgamation of a whole complex series of past trade relations, shaped by the age concerned and the geographical relationship to various trading partners. For a considerable part of the time since 1763, and really before that (Roberts and Roberts, 1980) Canadian and British trade relations have been inextricably linked either directly in the sense that one country's trade policies impacted on the other or indirectly in the sense that both have reacted (though not necessarily in the same way) to exogenously determined changes emanating from another country or from economic developments in the world at large.

Their historical trade relations therefore can be presented simultaneously and can be divided into four main periods. The first covers relations up to 1846 starting with the Roman Empire in the British case and with the trading routes of the Native peoples in the Canadian case. The second begins in 1846, the year when the corn laws were repealed in Britain. This was highly significant since it marked the start of the trend towards free trade for Britain, and hence the end of the mercantile tradition which had had such a strong impact on the empire including Canada. The latter was now free to pursue a more independent trade policy and for the first time looked towards a reciprocity treaty with the

American States.

The third period begins in 1930 because in this year Bennett's Conservative government was elected in Canada and, under its new policies, Canadian tariffs were to reach their peak. 1930 was also the beginning of the decade known for its deep economic depression; a depression which, in 1932, led the British government finally to abandon almost a century of free trade.

The fourth and final period encompasses the signing of the two agreements beginning with Britain and the EEC in 1972, and considers some recent economic, social and political debates related to the EEC and NAFTA trade blocs.

Lastly, Part 5 of the chapter summarises the historical evidence which emerges from the review in Parts 1 to 4.

1. Pre-1846 Britain: Trade with Europe widens to trade with the Empire

Canada: Traditional N-S trade links become E-W links with Europe[1]

By AD 47 the Romans had conquered the lowlands of Britain and had begun to incorporate the country into their huge trade empire. It is this *Res Romana* ideal which Kerr (1983) suggests was maintained through European history to become the idea of the Common Market. If this is so the continuum was at times extremely tenuous. Acceptance of Kerr's theory requires that nearly four centuries of large-scale extra-European trade between Britain and the Empire be seen as a temporary blip in a general trend. Nevertheless it is an

[1] Since Canada was only united as a nation in 1867 there is less trade history of relevance to her in this period. Some pre-confederation trade relations are important but the difference in the relative lengths of recorded history in Britain and Canada means that the former receives more attention in this part.

interesting idea that both Britain and Canada have eventually formalised trading relations with their more "natural" (i.e. nearest) partners.

The collapse of the *Pax Romana* also ended the currency system so that trade was difficult in fifth century Britain. However by the seventh century currency and hence trade was revived. By the time of Charlemagne's death in 814 the link with Europe was firmly reestablished. Charlemagne's empire (with minor exceptions such as the heel and toe of Italy) took in the six original founder-states of the Common Market, together with Switzerland, most of Austria, and north-eastern Spain (Figure 1). Britain was never part of this empire, but Charlemagne maintained friendly contact with Offa, the most powerful of the English rulers at the time (Kerr, 1983). The treaty of Verdun 843 which divided Charlemagne's empire amongst his three grandsons gave Lothar (the eldest) the imperial title and a kingdom which included bits (in two cases the whole) of all the original EEC States. This is significant because these are also the most "European-minded" of the present EEC members.

English links with Europe grew with the arrival in 1066 of William the Conqueror. William tied England commercially and culturally to Europe and this link was cemented under Henry II in the Angevin Empire which, at its greatest[1], extended from the borders of Scotland to the foothills of the Pyrenees (Figure 2). It was during this time that the wool trade began to emerge as the great cornucopia of English wealth and hence also as a great potential source of income for the Crown. Until 1275 there had been no systematic levying of customs except a duty in-kind on wine, (Thomas, 1957) which was probably worth collecting because wine accounted for one-third of all English imports (Roberts

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[1] From 1175 to 1182

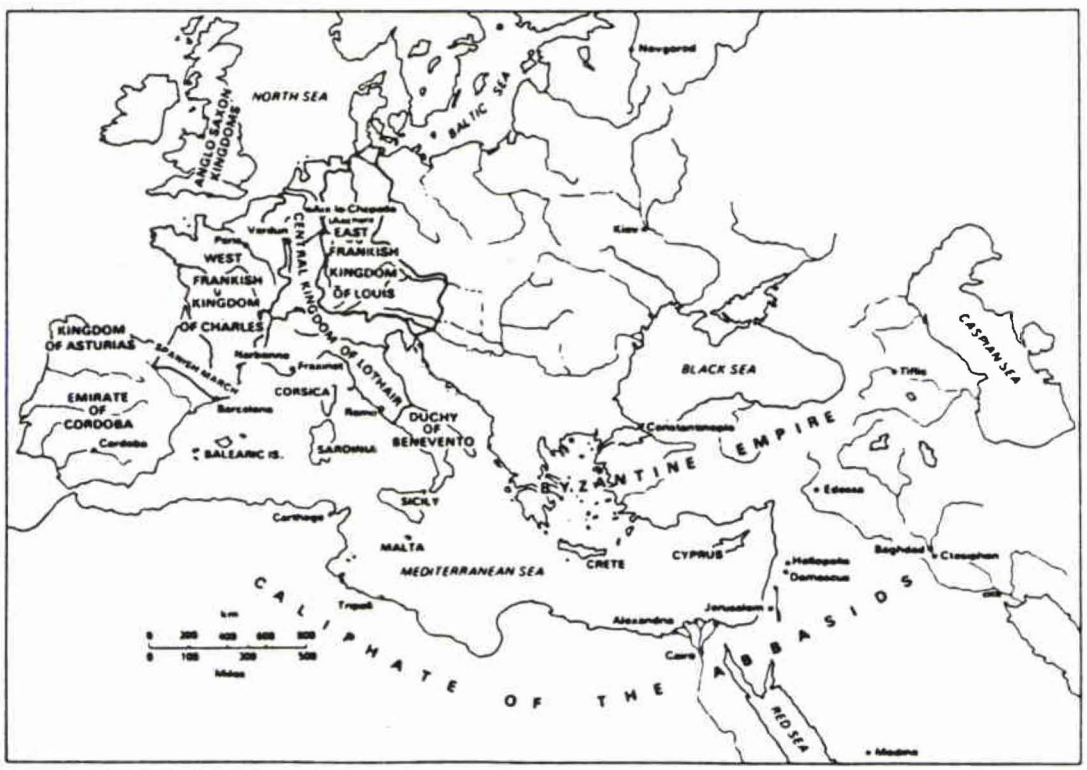

Figure 1: Charlemagne's Empire AD 814. Boundary fixed on the division of the empire between his three grandsons in AD 843. After Kerr, 1983, p.27.

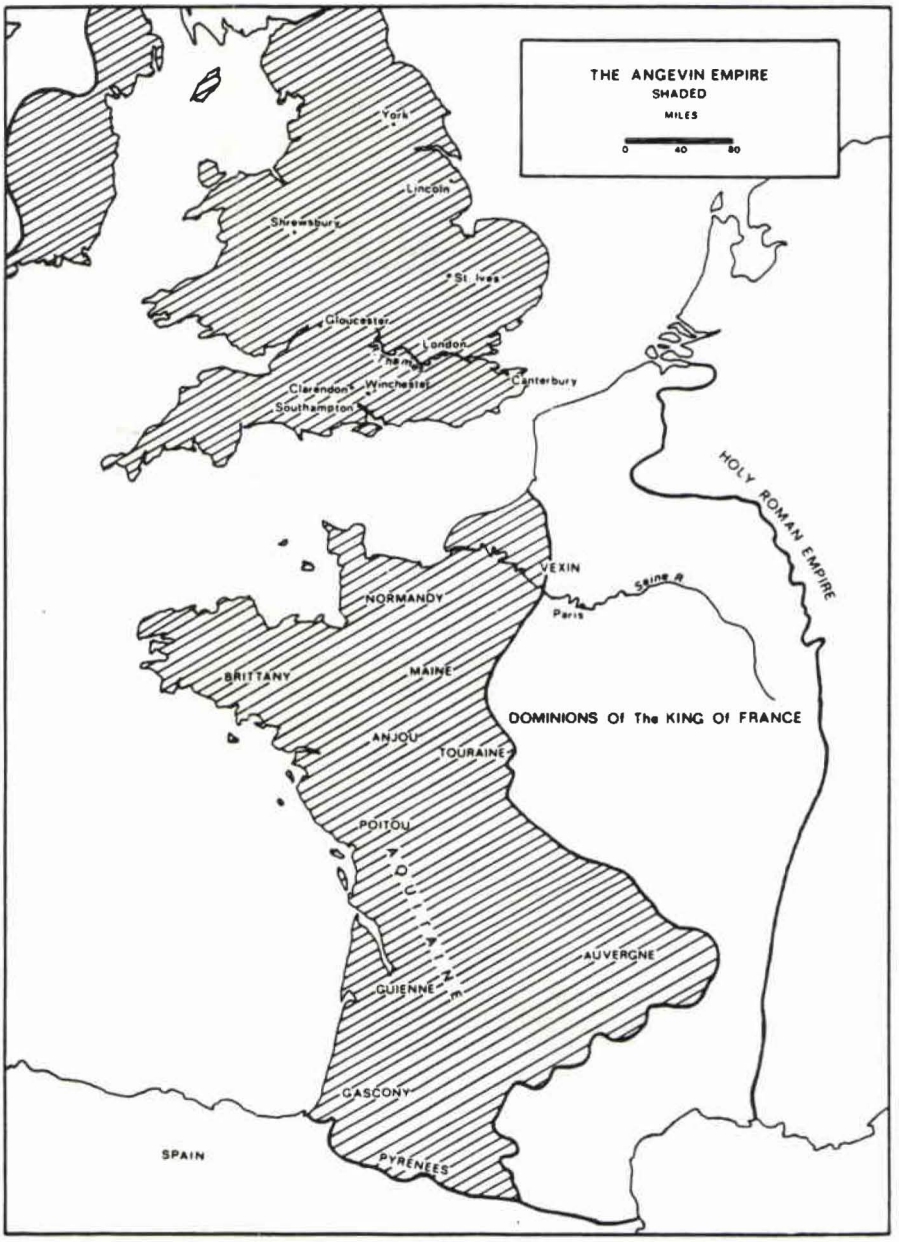

Figure 2: The Angevin Empire 1175-1182. After Roberts and Roberts, 1980, p.114.

and Roberts, 1980). In 1275 the customs system began with the levy of the "Ancient Custom" of 6s. 8d. on a sack of wool, later increased in 1303 by the addition of the "New Custom" of 3s. 4d. per sack. From 1307 onwards these duties were used to help finance wars on the Continent. In 1307 The Hundred Years War with France began. War often disrupted the wool trade, and promoted a more insular nationalism in contrast to the cosmopolitan early Middle Ages, but it also provided new trade links (Figures 3 and 4).

Wool and later (in the fifteenth century) wool cloth was always closely tied to the fortune of the English monarch. Whether or not the customs from wool were granted to the King or Queen "for life" by Parliament was very important since this determined the degree of independence the monarch had available to wage foreign wars and, given this, it was in the interest of the monarch to find ways to encourage trade. For example Edward IV launched an invasion of France in 1475 paid for by a subsidy granted him by Parliament in 1474. He then quickly allowed Louis XI to pay him to end the invasion. The resulting treaty of Picquigny gave Edward a pension for life, but, more importantly, permitted English merchants to renew their trade with Gascony and other parts of France. Peace increased trade which increased customs and from 1475 onward Edward was free from any dependence on parliamentary grants.

Between 1470 and 1510 the export of cloth overseas tripled to 90,000 broadcloths a year by which time it accounted for 90% of all English exports (Roberts and Roberts, 1980) and travelled as far as Scandinavia, the Baltic and the Mediterranean. However, English ships carried only half the cloth exported because of the monopoly of the Hansards and the Italians over shipping. Attempts were made to obtain more of this shipping profit for English merchants by the passing of two Navigation Acts. The first (1485) forbade the import of

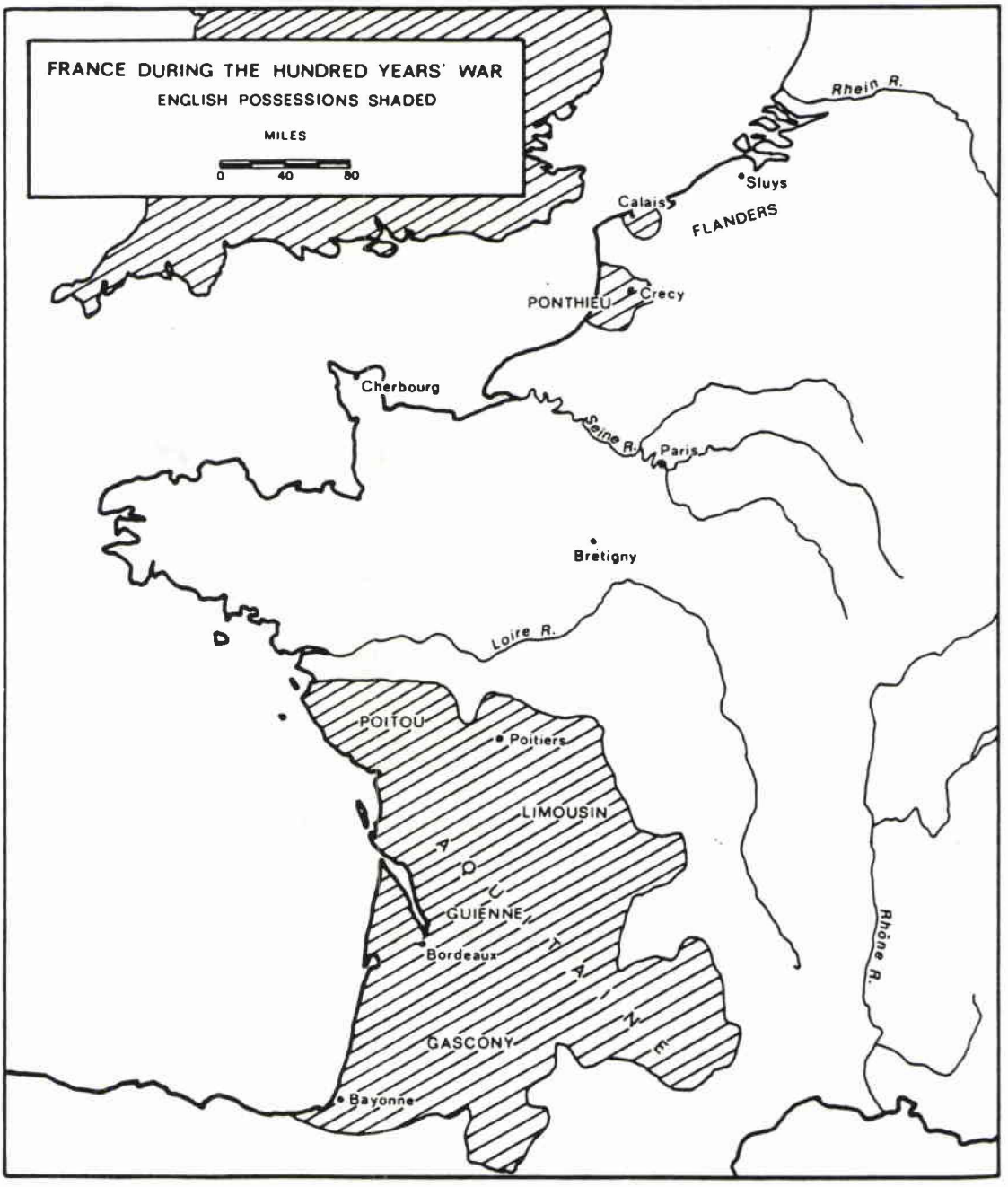

Figure 3: The new opportunities for trade links between England and Aquitaine provided by the Hundred Years' War. After Roberts and Roberts, 1980, p.168.

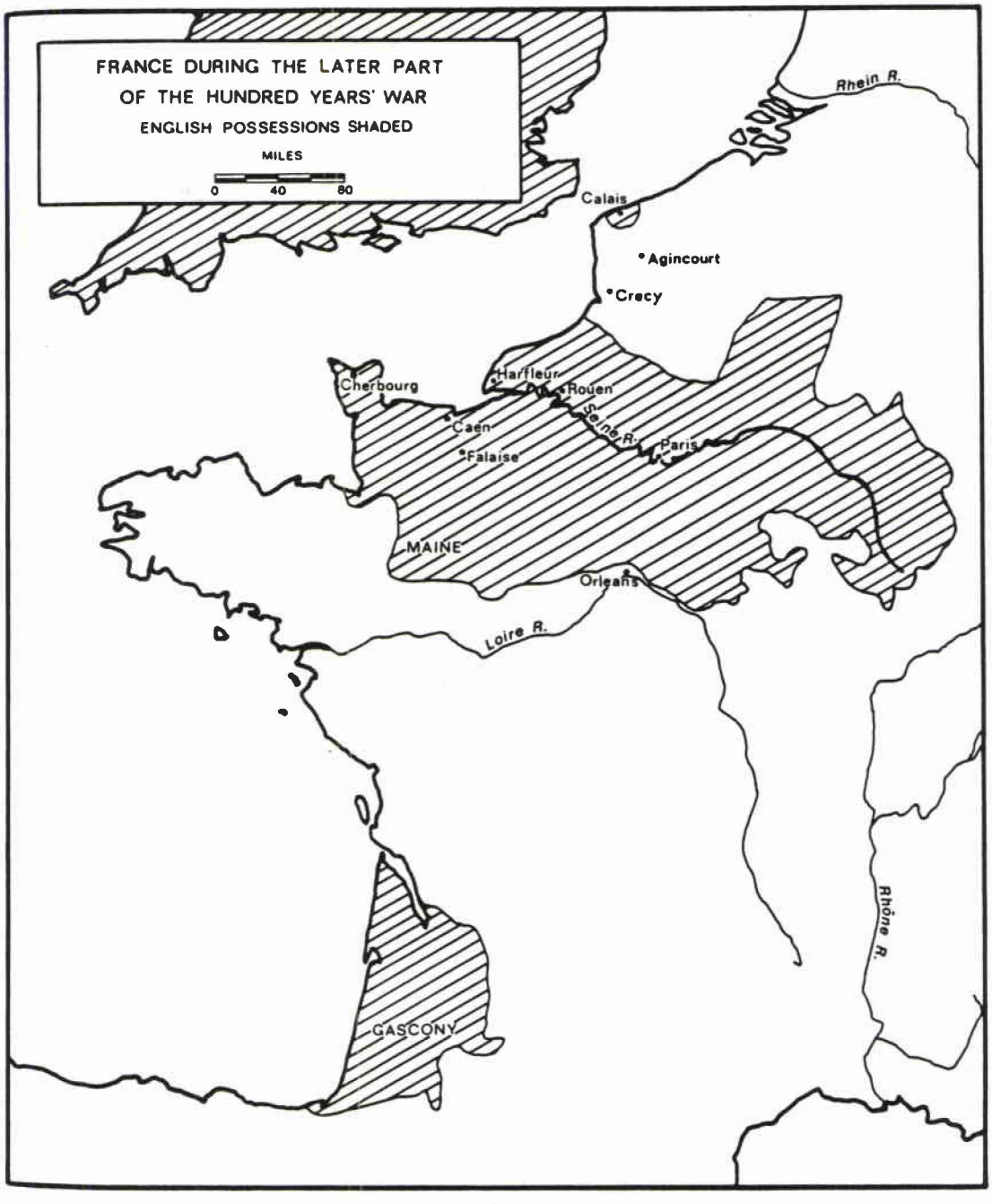

Figure 4: The new opportunities for trade links between England and both Northern France and Gascony provided by the Hundred Years' War. After Roberts and Roberts, 1980, p.193.

Gascon wine in foreign ships. The second (1489) forbade the import of Toulouse woad[1] in foreign ships and required English exporters to use English ships whenever possible. In addition to the Navigation Acts, Henry VII used treaties to promote trade with Europe and hence further increase his revenues. He signed treaties with Denmark in 1490, the Netherlands in 1496, France in 1497 and Spain in 1499.

Yet the English were already looking beyond the European commercial sphere. In the same year that Henry VII signed the commercial treaty with France, Cabot, backed by the merchants of Bristol, sailed to Newfoundland, and by 1508 his son had sailed as far as Hudson's Bay. The potential for trade in the part of the North American continent that was to become Canada was considerable. Large well-defined trading areas belonging to the indigenous peoples already existed. These areas comprised natural trade routes such as the large river and lake systems. They therefore tended to follow a north-south orientation and spanned what is now the US-Canadian border.

On the Pacific coast there were the distinctive Indian tribes such as the Salish of the mainland, and the Haida of the Queen Charlotte Islands. North of the Prairies and west of Hudson Bay were the tribes belonging to the Athabaskan linguistic group. Significant though these tribes later became, two other great linguistic groups: the Algonquian and the Iroquoian, were of particular importance for early European trading ventures.

The Algonquian group stretched across early Canada from the Atlantic almost to the Rockies, and their racial affinities and linguistic similarities greatly facilitated trade and exploration. The group included tribes such as the Micmacs

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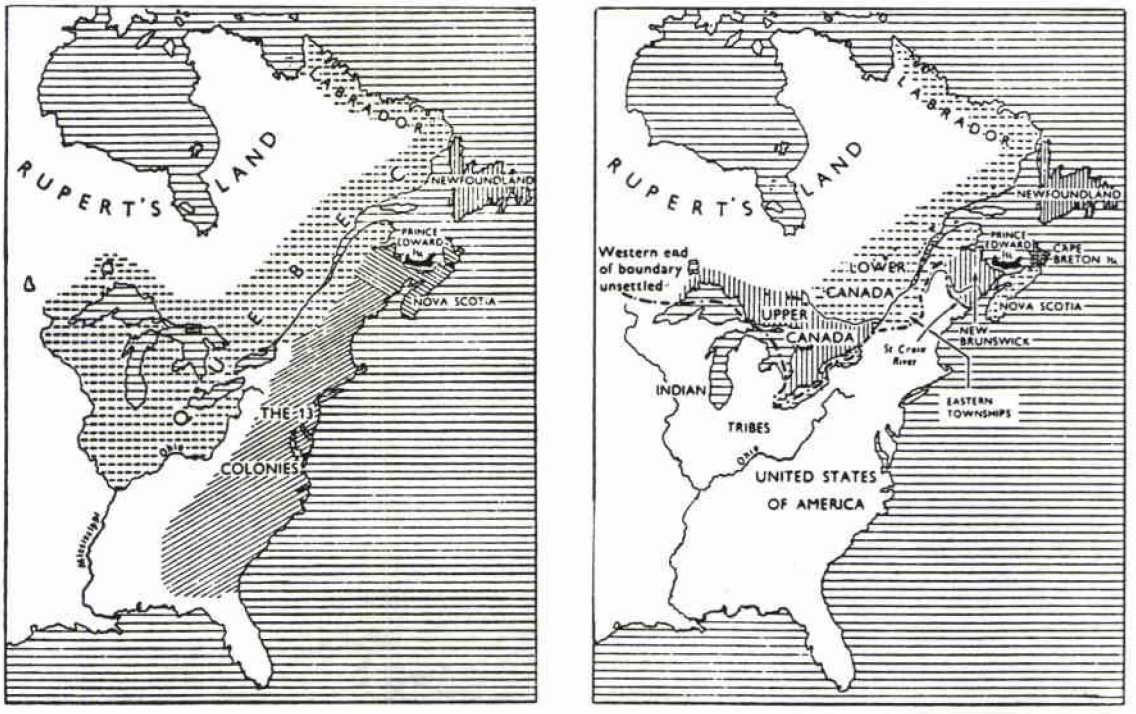
[1] Used for dying cloth

and the Montagnais. In particular various Algonquian tribes, to which the name "Algonkin" was specifically (though rather confusingly) applied by explorers, lived westward along the Ottawa .

The Iroquoian tribes, by contrast, chiefly inhabited the Ontario Peninsula. This group included the Huron who occupied the region between Lake Simcoe and Georgian Bay, and a sub-group of tribes known as the Five Nations, whose territory extended from that of the Mohawk (who lived around Lake Champlain and the Richelieu) to that of the Seneca (who lived toward the western end of Lake Ontario and who covered most of present northern New York State). The Five Nations was a strong grouping which traditionally feuded with its Huron relations. This pushed the Iroquoian Huron into an alliance with the Algonquian Algonkin, causing a division which could be subsequently exploited by European traders (McInnis, 1969).

Beginning with Cartier in 1534, it was actually the French who set up early trade connections in Canada. They first concentrated on gaining a trade monopoly for fur in the St. Lawrence region, using the Huron natives. However, once linked into the Huron-Algonkin trade system, they were quickly able to expand into the interior through the wide network of other Algonquian tribes. Indeed, at the height of New France the French trading system was so large that it linked the St. Lawrence with the Mississippi through the continental interior. Some indication of this is given in Figure 5a which shows the Old Province of Quebec in 1774. Although this is much later, it shows the extent of French influence which had developed since the latter part of the sixteenth century. Since the Five Nations Iroquois were allied against the Huron (and hence the French for whom the Huron worked) they naturally chose to barter with the Dutch, who were the early trading opponents of the French in Canada.



a. 1774 **b. 1791**

Figure 5: French and British areas of trade influence in British North America 1774 and 1791.
a. The Old Province of Quebec 1774.
b. Upper and Lower Canada in 1791.
Adapted from Careless, 1970, p.126-7.

Using the Five Nations territory, the Dutch were therefore able to establish posts in the Hudson river valley running north from what is now New York.

However, by the mid-sixteenth century, continual war with France, problems with maintaining the balance of power in Europe, and frustration with the Dutch control of trade, coupled with the 1551 economic crisis and improvements in shipping technology persuaded English merchants also to look more seriously further afield. Trading companies were created in the hope that they could bring back!wealth for the Crown. They were often granted a monopoly because of the adverse circumstances under which they operated. The Russia Company and the Africa Company were created in 1553, the Spanish Company in 1577, the Levant Company in 1581, and the East India Company in 1600 (Thomas, 1957). Not all of these companies were successful but they formed the basis of the idea which was later to establish an extensive system of trading routes centred on Britain.

In addition the extravagance and glory-seeking of the Elizabethan Age encouraged those such as Drake and Raleigh to undertake voyages of discovery which opened up the globe, and the North American continent in particular (Figure 6). The by-product of these voyages was an increase in colonial trade which gave a much-needed diversification to existing English commerce. For example, Newfoundland really began as an English colony in 1610 when an English company was chartered to found a settlement on the island as a resident fishery (Careless, 1970).

During the Civil War England largely turned in upon itself. However, after the defeat of Charles I in 1646, Cromwell emerged to head the Rump Parliament championing principles of freedom for the individual (in the sense of 'freedom from the Crown'). In this spirit Parliament removed some of the

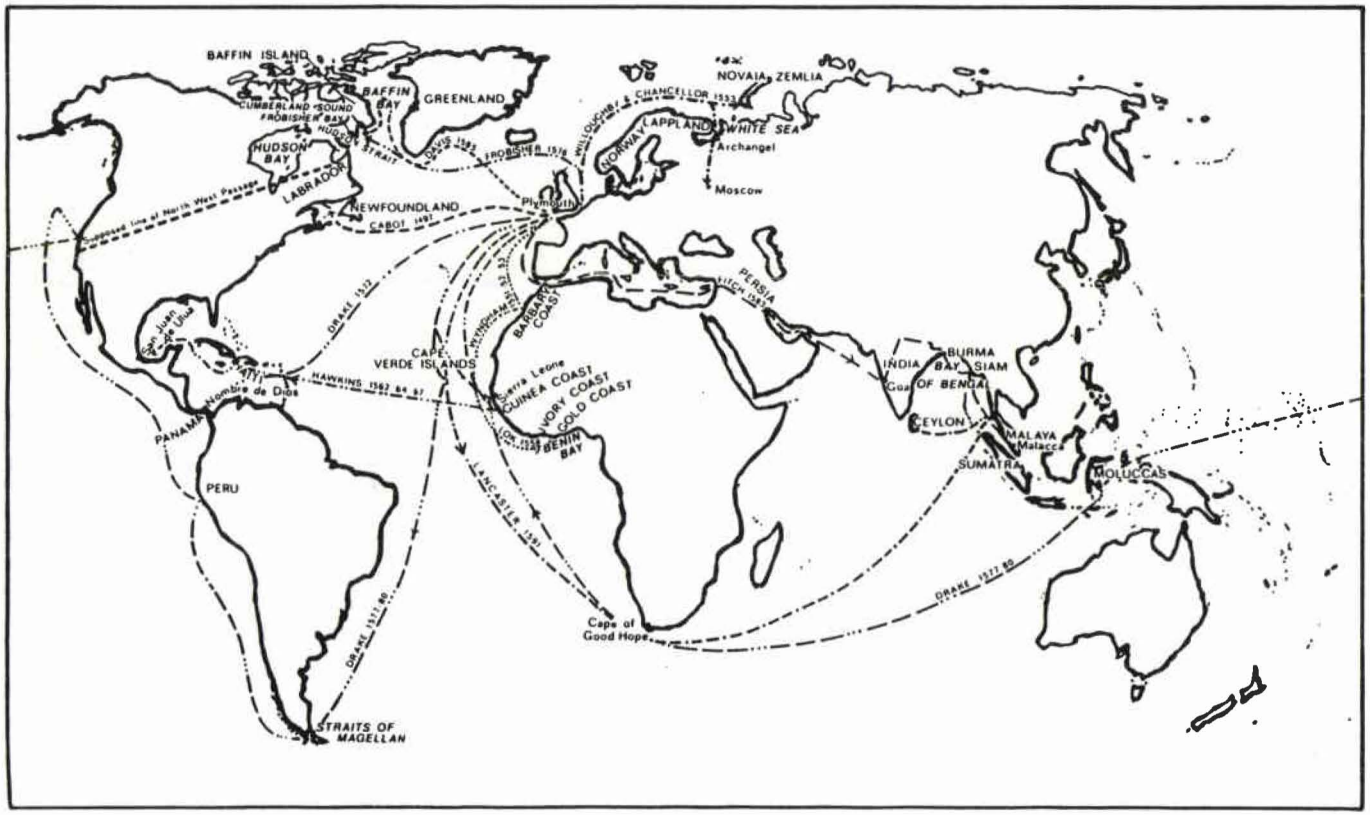


Figure 6: Tudor Voyages of Discovery. After Roberts and Roberts, 1980, p.298.

monopolies on trade and passed the Navigation Acts of 1651 to protect the property of English merchants. These Acts required the use of English shipping wherever possible and were aimed at removing the Dutch monopoly of the transport of goods.

Growth was encouraged during the Restoration by the passing of the 1660 Navigation Acts (which strengthened those of 1651) and the 1663 Staple Act (which required colonists to purchase their European goods from England). The English began to take over from the Dutch in the Hudson river valley system, and the struggle between the English and the French trading systems in early Canada began, backed by the Huron-Algonkin and the Five Nations Native groups respectively. The strong European links of the two trading systems, together with the work of the Hudson Bay Company (established by charter in 1670), increasingly acted to pull early Canadian trade routes into an east-west direction extending across the Atlantic.

This struggle between the French and English trade empires in early Canada was mirrored in commercial disputes between the two in Europe. After a tariff war with France in the 1670s, the English passed an Act in 1678 prohibiting importation of many of the staple French exports to England. English home industries were also protected by, for example, prohibiting all woollen manufactures in the colonies in 1699 (Thomas, 1957).

By 1700 England had overtaken Holland as the greatest commercial power in Europe (Roberts and Roberts, 1980). At home prosperity from the mercantile tradition brought Scotland into a union[1] with England specifically because the Scots wished to participate in the English trading empire. More generally

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[1] The Scottish and English Parliaments were united in 1707 to form Great Britain.

England was no longer dependent on Europe for trade. Her concerns with Europe mainly lay in wanting to maintain the balance of power there. During the Georgian era Britain's outside trade strength was used to maintain this balance and also to achieve further expansion elsewhere, particularly at the expense of the French in North America.

For example although trade suffered as a result of the 1689-1713 wars with Europe, the final settlement in the Treaty of Utrecht gave Britain a further hold on North America. Nova Scotia was recognised as British as were Newfoundland and the Hudson's Bay region. Similarly, the Treaty of Paris of 1763, which settled the Seven Years' War (1756-1763) between Britain and France, not only restored the balance of power in Europe but also recognised the transfer of New France to British rule. This enabled the British to tie the valuable Canadian fur trade even more firmly into their own trading system and, although the French maintained much of the control they had developed in the interior, the British increasingly captured the lucrative external trade, using the Navigation Acts to both promote British shipping and protect their home industries.

An economic monopoly of power did not always mean a political one however. The taxes which had been imposed on the North American colonies to pay for the Seven Years War in Europe in part resulted in the successful War of Independence 1775-83. Although the war further truncated French trading routes in early Canada (Figure 5b), and thereby helped the British fur trade, this hardly compensated for the loss of economic control in America. The British Prime Minister, Pitt the Younger, therefore had to encourage commerce with the States in other ways. This he did by setting up lucrative entrepôts in the West Indies with the result that, in spite of the War of Independence, the United States

emerged as the largest single nation market for British exports; taking in the 1830s and 1840s about 16% of the total, sometimes over 20%. Indeed in some years during these decades the whole North American Continent took as much as 60% of British exports (Thomas, 1957).

In his measures of 1786-7, Pitt made the first real attempt to free trade from the web of complex duties which had grown up during the eighteenth century, some of which stretched back to Charles II's Tonnage and Poundage Act of 1660. Re-establishing the Board of Trade helped in this aim, and while his free trade treaty with Ireland ended in failure, a subsequent treaty with France was more successful. French tariffs on most English manufactured goods were lowered to 10 or 12% and in return England lowered her tariffs on French wines and brandy. Yet these measures did not really prevent British-French trade from suffering again during the Napoleonic Wars (1793-1815). Napoleon's boycotts of British trade were particularly bad in 1807-8 1810-12 and were only lifted because they were as damaging to France as Britain.

After the final defeat of Napoleon in 1815, Castlereagh's foreign policy tried to create a "concert of Europe" ideal, primarily to maintain peace, but also to protect trade. This envisaged a Europe acting somewhat in political and economic harmony; an idea previously suggested by Wolsey in the reign of Henry VIII[1]. However this ideal lasted no longer than Wolsey's had. The collapse of Europe's wartime markets caused the profits of the politically powerful land-owning classes to drop and meant that the Liverpool government, in which

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[1] An early version of the concept of a unified "European approach" was created by Wolsey for Henry VIII in 1518 when England and France signed a treaty, which was extended into a collective security pact requiring all signatories to come to the aid of the victim in the event of an act of aggression. However the treaty collapsed in 1521 because it could not survive the fierce rivalry between France and Spain.

Castlereagh served, was forced to pass the Corn Laws in 1815. These laws excluded all foreign grain unless the price of grain in England reached 80s. for a quarter hundredweight[1] (Cross, 1971). Above these prices, corn was admitted at a duty which decreased as the price level at home rose (a sliding scale).

Following Pitt's reorganisation of customs duties, Huskisson, who served in Liverpool's second term, effected a number of reductions and simplifications to tariffs during 1824-5. These measures allowed trade to increase but, although Huskisson himself was in favour of free trade, the rest of the cabinet would still not permit him to lower the grain tariffs which were threatening to wreck the whole European economy, by making it impossible for continental countries to pay for their British manufactures.

Not only were many British manufacturing industries being unnecessarily protected but in addition foreign tariffs remained very high and much needed to be done to open up European markets. For example, the French tariff of 1816 included 58 prohibitions of imports and 25 of exports and the tariff was raised subsequently in 1820 and 1821 before reaching its peak in 1826 (Pollard, 1974). In Germany, although tariffs were more moderate, the separate "Lände" (small countries) formed a Zollverein (Customs Union) in 1834, which impeded trade with countries outside Germany (Thomas, 1957).

In Britain the demand for reform over the corn issue grew; fuelled by the poor harvests of 1838-42 which made bread expensive, and by the powerful and well-organised Anti-Corn Law League. Yet the Corn Laws were still stoutly defended by Peel who led the Conservative government in 1845.

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[1] There were some concessions to colonial wheat which could be imported when the price reached 67s.

2. 1846-30 Britain: The Importance of Extra-European Relations

Canada: Early Reciprocity Increasingly Becomes Protectionism

By 1846 however there had been another poor wheat crop in England, and a disastrous potato blight in Scotland and Ireland which convinced Peel that repeal was necessary. He therefore introduced a bill to abolish the Corn Laws (even though he knew it would split his party) and this was passed in the same year. Other measures accompanied repeal. The prohibition on the export of machinery was removed, the import duty on raw cotton abolished in 1845, and the timber import duties reduced, as well as those on a number of manufactured goods and certain food-stuffs. The Navigation Acts were also repealed in 1849 and 1854. Finally Gladstone's great budget of 1860, which abolished all duties on manufactured articles and only levied revenue duties on commodities which could not be produced in Britain, virtually completed the free trade structure which was to last until 1932. Only the timber duties (1866) the sugar duties (1874) and the nominal registration duty on corn (1869) remained to be repealed (Thomas, 1957).

In the European sphere, trade restrictions were also lifted a little, beginning with the Anglo-French Commercial Treaty of 1860. This ended all prohibitions on French imports and British exports, and greatly reduced the rates of the French import duties. Rather more jingoistic means were used to increase trade with China involving Three "Opium Wars" overseen largely by Lord Palmerston between 1842 and 1860 (Pollard, 1974).

The repeal of the Corn Laws in Britain formed the lynch-pin of the new free trade policy. Although their repeal was achieved largely to resolve a British crisis at home (and arguably gave little thought to the impact on the colonies), it also had very important implications for Canadian trade relations.

Free trade for Britain and the Empire meant that by 1849 the old colonial system had largely gone. The privileged market in Britain for Canadian flour and grain had ended, as had that for bacon, beef and hides (Masters, 1963). Other free trade measures badly affected lumber as the duty on foreign[1] timber was reduced to 21s. and then further cut to 7s. by 1851 (Cross, 1971). This was particularly devastating because it was a reversal of policy which had previously encouraged the Canadas[2] to export to Britain.

Ironically, although the repeal of the Corn Laws had an adverse direct effect on the Canadian provinces, indirectly it enabled them to attain self-government and thereby protect themselves from the worst effects which it might otherwise have brought upon them. By splitting the British Tory party over the Corn Laws issue, Peel dealt a final blow to the old colonial system. Mercantilism was finished and the motives for holding the colonies in political dependence were weakened by the relaxation of economic ties. Although the opportunity to give the first province (Nova Scotia) responsible government did not arise until 1848, Lord Grey, who served at the British Colonial Office, had already acknowledged to Canadian Governor John Harvey in November of 1846 that it was "neither possible nor desirable to carry on the government of any of the provinces of British North America in opposition to the opinion of the inhabitants" (McInnis,1969).

The provinces therefore were able, for the first time, to act in their own interests and against those of Britain. In a show of their new-found freedom the Canadas responded in two ways to the adverse effects which they

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[1] i.e. outside the Empire.

[2] Upper (English) and Lower (French) Canada.

experienced as a result of the repeal of the Corn Laws. First there was a retaliatory reduction of British preferences in the Canadian market in 1847, by a combination of increased duties on British goods and decreased duties on American products. Second an Annexation movement arose, putting out a manifesto in 1849, which aimed at Union with the United States (Wonnacott, 1987). Although the movement was unsuccessful it did heighten awareness that a closer link with the US would be required for future economic survival and that, in order to achieve this, some chink would have to be created in the US tariff wall. Attempts at reciprocity failed in 1851 (Wonnacott, 1987) but an agreement was reached in 1854. It provided for a free exchange of natural (not manufactured) products between the United States and British North America, free navigation of the American-controlled Lake Michigan and the Canadian-controlled St. Lawrence, and free access to each other's fisheries. Most important in practice was that the Americans could now share freely in the northern fisheries, while the Canadas could send grain and timber, and the Maritimes their fish and timber, to the United States (Careless, 1970). The treaty was to remain in force for ten years and could then be terminated by either party after twelve months notice (Masters, 1969), an option which the US later took up.

As a result of the Reciprocity Treaty and the later wartime boom associated with the American Civil War (1861-65) British North American trade with the US rose rapidly. Table 2, adapted from Masters, 1963, shows how total trade between the US and the British North American colonies increased during the operation of the Treaty. It is interesting that the balance of trade which had, with the exception of 1860, favoured the US, turned in 1864 (the year in which the US abrogated the Treaty), in favour of the colonies. Half of the

Table 2: Trade of the US with the British North American Provinces 1850-1890

Year Ending June 30	Exports from the U.S. ($m)	Imports by the U.S. ($m)	Total Trade ($m)*
1850	9.5	5.2	14.7
1851	11.8	5.3	17.0
1852	10.2	5.5	15.7
1853	12.4	6.5	19.0
1854	24.1	8.8	32.9
1855	27.7	15.1	42.9
1856	29.0	21.3	50.3
1857	24.1	22.1	46.2
1858	23.6	15.8	39.4
1859	28.1	19.3	47.4
1860	22.7	23.6	46.3
1861	21.7	22.7	44.4
1862	20.6	18.5	39.1
1863	27.6	17.5	45.1
1864	26.6	29.6	56.2
1865	28.8	33.3	62.1
1866	24.8	48.5	73.4
1867	21.0	25.0	46.1
1868	24.1	26.3	50.3
1869	23.4	29.3	52.7
1870	25.3	36.3	61.6
1875	36.2	28.3	64.5
1880	30.8	33.2	64.0
1885	40.1	37.0	77.1
1890	41.5	39.4	81.0

* Figures may not add exactly due to rounding

Adapted from Masters, 1963. The Table on p.108 and Table no.4, p.147.

Canadas' and two-thirds of the Maritimes' trade was still with Britain, but now their commercial activities were expanding rapidly on the North American continent as well so that a dual dependency on Britain and on the States was developing.

Some authors claim that the actual impact of reciprocity was unclear and that the Treaty really represented a more subtle form of annexation by the US (Cross, 1971). However, it does mark the beginning of an independent trade policy for the colonies while they were still ultimately under British rule[1]. This point was further emphasised in 1859 when the Canadas imposed a tariff of their own against manufactured goods from abroad including Britain. This tariff and others introduced during the period 1858-1860 by Cayley and Galt, successive Canadian Ministers of Finance, also adversely affected the US. In addition Galt subsidised ships to use the St. Lawrence ports instead of American ones (Masters, 1969).

These changes in Canadian fiscal policy, together with the fact that Northern US resentment had developed against Great Britain and the British North American colonies during the Civil War, as well as pressure from a growing US protectionist movement, led the US to announce its intention to

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[1] Although the provinces had been granted responsibility for all acts of government and the governor had ceased to direct policy, he retained both influence and authority. He was still guided by his instructions from the British Colonial Office and could press his own views, as well as those of the British government, on the ministry. He could reject bills or reserve them for the approval of the imperial authorities, and the British government could disallow colonial legislation. British laws that applied to the whole empire took precedence over local measures. Foreign affairs were still wholly under British control, and defence was largely an imperial concern. In practice however, imperial interference in matters of local concern grew steadily rarer. The lack of a clear dividing line between imperial and provincial topics resulted in a wide flexibility, which allowed the colonies to extend their activities into ever-broadening fields (McInnis, 1969).

end the Reciprocity Agreement in 1865 and it lapsed the following year. The general feelings of hostility renewed thoughts of Canadian annexation and therefore contributed to the birth of the nation of Canada in 1867. Confederation was seen as a defence against American economic or political aggression.

Yet economic dependence on the US remained. US tariffs had risen to 47% during the Civil War and so between 1866 and 1897 Canadians made a series of attempts to secure another reciprocity agreement (Masters, 1969). In particular, the start of a large world trade depression in 1873 persuaded the Liberal Mackenzie government to seek renewed reciprocity in 1874. However the US was opposed to the idea and actually followed the opposite policy to free trade, by continuing to increase tariffs.

Since the tide was turning in favour of protectionism, MacDonald seized the opportunity to get a Conservative ministry back in power in Canada. In 1878 he fought, and won, an election on the platform of a "National Policy" which would bring about the national revival of trade by increasing duties to protect the home market and to foster Canadian industry. In 1879 he introduced a systematic scheme of protective customs duties, on farm products as well as manufactures, and raised the duties on manufactured goods from 17.5% to 25% and over. The tariff represented a great change from previous Canadian commercial policy. Tariffs were still not as high as US ones but Canada was a far cry from the British free trade situation.

In the same year as MacDonald introduced his tariff, cheap grain from the North American continent and from Eastern Europe caused the collapse of the price for British grains, and British farmers suffered great losses. Some joined with other advocates of protection (from the trades affected by foreign

tariffs) to form the Fair Trade League in 1881 (Thomas, 1957). They wanted a system of imperial preference (a kind of customs union within the Empire), an idea which some in Canada were also suggesting around the same time (Careless, 1970).

However mainstream British thought remained pro-free trade. Only the Dutch and the British could afford such a system. In the British case it was feasible because of the size and power of the Empire acquired from 1583-1898 (Pollard, 1974). For most of its existence the basis of its power lay in textiles but by the 1880s production had shifted in favour of capital goods (Thomas, 1957) and world trade circumstances were beginning to change. In the 1890s the US overtook Britain's output of the old staple products as well as creating large new industries of her own. In addition there was increased competition from Europe, particularly Germany.

By 1903 the idea of limited reciprocity was starting to reach more mainstream politics in Britain and Chamberlain (in Balfour's Conservative government) again proposed that the Empire become a free trade area with tariffs directed only at those outside. However Balfour would not support this suggestion because it was unpopular with the electorate, who saw it as bringing higher food prices. Nevertheless the idea of limited tariff introduction subsequently split the Conservative party and had much to do with them losing the 1906 election to the Liberals, who remained pro-free trade.

By contrast, being pro-free trade lost the Canadian Liberals the 1891 election. Laurier, their leader, raised reciprocity as an issue in the election as an alternative solution to the Conservative National Policy. However the Liberals' suggestion were defeated and with them the idea of reciprocity. When they finally did take office in 1896 the Liberals instead built on the MacDonald

policies of a protective tariff and in that sense were directly opposed to the Liberal philosophy in Britain[1].

Laurier's first tariff of 1897 did not really alter the protective system which he had inherited and further, it left out, for the first time, the offer of reciprocity with the US which had long been included in the various Canadian tariffs. He announced that there would be "no more pilgrimages to Washington" to seek reciprocity (Careless, 1970). A by-product of this was that east-west trade was strengthened and Canadian trade relations with Britain grew closer as Britain became the best customer for Western grain. The 1897 tariff recognised this by including the principal of imperial preference (a lower rate of customs duty especially granted to British goods). Britain was unable to respond in kind because of the adherence to general free trade principles, so imperial preference remained one-way. However, in spite of this, close trade ties were built at this time and these later became very important to Britain's survival during the First World War.

Ironically as Canada turned from north-south to east-west relations, a new suggestion for reciprocity came from the US in 1910. Americans were reacting to the high prices of US goods which had resulted from the imposition, by their own government, of a yet-higher tariff in 1909. Now Canada had the upper hand but Canadian opposition to reciprocity was high and the suggestion by Laurier that the proposal should be accepted led to a split in his Party and the defeat of his government in the 1911 election.

Although Canada and Britain maintained their respective attitudes to free trade during the 1914-18 War, the War did change their trade relations. During

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[1] The Canadian Liberal 'U' turn stemmed largely from the change in their political backing from purely farm interests to largely business ones.

the War convoys were used to continue much-needed trade between the North American continent and Britain. That Britain's focus was mainly extra-European is shown by the very small percentage of her total investment (5%) which was in Europe in these years (Table 3). After the War, Britain did gain some benefits from the division of the German colonies in the Treaty of Versailles and from the 1919 post-war boom, but these benefits were rather short-lived and Britain generally emerged from the War in a rather less advantageous trade position. She faced high tariffs from the rest of the world and much greater competition from the other industrialised nations (Roberts and Roberts, 1980).

Some limited protection for a number of key industries was therefore introduced, after the repeal of war-time import controls. For example chemicals were protected by the Dyestuffs Act (1920). In addition, the Safeguarding of Industries Act (1921) could be extended to meet unfair competition from abroad. Yet Britain was still not ready to abandon its free trade ideal. When Baldwin became the leader of the new Conservative government in 1923 he held an election on the issue of introducing protection and was swiftly removed from office by Britain's first ever Labour government. In 1924 when this government collapsed Baldwin regained power by promising to adhere to a laissez-faire economy.

By contrast Canada emerged from the War surrounded by a high tariff wall. The Liberal opposition, now under King[1], continued to call for tariff reductions but, once in office in 1921, they were rather slow to carry the idea through. Yet Canada boomed in the 1920s and, in spite of the tariffs, the main market for the new Canadian staples (base metals, pulp wood and newsprint) was

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[1] Laurier had died in 1919

Table 3: UK Investment in Europe Compared with other Major Investors in 1914

	Total Foreign Investment	Investment in Europe	
	(£m.)	(£m.)	(% total)
UK	4,000	220	5.5
France	1,850	1,050	56.8
Germany	1,200	650	54.2
USA	750	150	20.0
Other Countries	1,900	530	27.9
Total	9,700	2,600	26.8

Adapted from Pollard, 1974, p.73.

the US. The US became Canada's best customer for exports in 1921 (Careless, 1970) and it was also during the 1920s that the US took over from Britain as being the largest investor of foreign capital in Canada as is shown in Table 4 from McCann, 1987.

3. 1930-1972 Fluctuating Trade Loyalties

In many ways 1930 marked a turning point in trade relations for both Canada and Britain, and indeed for much of Europe. 1930 was the beginning of a very severe world depression to which most of the world's governments had to react in order to alleviate some of its worst economic effects. In Canada, as economic problems developed, the Liberal King government seemed unable to give a lead and so a Conservative government under Bennett was returned to power in 1930 and immediately raised the protective tariff to an unprecedented level (Careless, 1970). In the same year the Americans passed the Hawley-Smoot Act which drastically raised tariff rates and meant that European countries would be very hard pressed to meet their dollar obligations. There was a quick retaliation against American goods in 1930 in countries such as Spain and Italy. By 1939 there were nineteen countries in Europe (and twenty-eight the world over) which were operating quotas or licensing systems (Pollard, 1974).

While the depression was causing some countries to raise tariffs to unprecedented levels, perhaps the most dramatic change occurred in Britain. A country that had not been ready for tariffs in 1923, almost a decade later, under economic hardship and the additional monetary crisis of 1931, finally gave in. In 1931 the Board of Trade was given the power to impose temporary tariffs. Then in 1932, with unemployment rising, the Import Duties Act signalled the end of British free trade. The Act placed a fixed duty of 20% on nearly all

Table 4: Estimated Distribution of Foreign Capital Invested in Canada, Selected Years 1900-1980

	Percentage by Country of Origin			
Year	Great Britain	United States	Other Countries	Total ($ m.)
1900	85	14	1	1,232
1905	79	19	2	1,540
1910	77	19	3	2.529
1915	69	27	4	4,017
1920	53	44	3	4,870
1925	41	56	3	5,714
1930	36	61	3	7,614
1933	36	61	3	7,365
1939	36	60	4	6,913
1945	25	70	5	7,092
1950	20	76	4	8,664
1955	18	76	6	13,527
1960	15	75	10	22,214
1965	12	79	9	29,603
1970	9	79	12	44,037
1975	8	77	15	68,649
1980	7	69	24	129,000

After McCann, 1987, p.52.

manufactured imports (up to 33% on some) and 10% on most semi-manufactures and food-stuffs (Pollard, 1974).

Britain's abandonment of free trade meant that some kind of imperial preference for Commonwealth countries was at last possible. Such an agreement was negotiated during the Imperial Economic Conference in Ottawa in 1932 and was generally implemented by raising the rates of tariffs to foreign importers. Lower rates were charged on British steel, coal and manufactures entering Canada in return for similar reductions in British rates on Canadian wheat, lumber and farm products. Preferences were limited because Canada was by now an industrial nation and wanted to protect her own industry and because Britain did not want to become too dependent on one supplier, but they did help the two nations through the worst of the crisis.

The Ottawa agreement was extended to the Crown colonies in 1933. It was of greater benefit to the rest of the Empire than to Britain, for while the share of British imports from the Empire countries rose from 25% to 37.5%, that of British exports to them only rose from 33% to 40% between 1931-37.

In spite of the preferential system, Britain experienced a great contraction of trade in the 1930s as did Germany and France (Table 5). The trade that suffered particularly was triangular trade. Each European country independently tried to balance its trade relations with the other European countries, while experiencing the additional problem that the industrial countries as a whole were losing trade share to the rest of the non-European world.

Having instigated tariffs, the Conservative British government, under Baldwin, protected agriculture by a combination of fixing prices, giving subsidies, and imposing quotas. In 1936 Baldwin also created committees to set quotas for the collieries and the textile industry, gave the steel industry a 50% tariff and

Table 5: The Contraction of UK Trade 1913-1938 Compared with other European Economies

	Foreign Trade (% Nat. Income) in			% Manuf. Exported in		
	1913	1928	1938	1913	1929	1937
UK	59.3	49.1	28.3	45	37	21
Germany	41.6	36.0	14.6	31	27	15
France	42.5	46.4	21.3	26	25	12
Italy	29.5	30.5	16.6			
Belgium	-----	113.5	68.4	18	23	21
Netherlands	-----	77.6	51.7			
Sweden	56.8	41.7	35.3			

After Pollard 1974, p.152.

granted subsidies to shipbuilders and house-builders.

By 1935 the worst of the depression was over. In Canada, King and the Liberals returned to power. Trade was recovering and King aided Canada's revival by tariff reductions that increased trade with both Britain and the US. In 1935 and 1938 he was able to reach mutual trade agreements with the Roosevelt government of the US which did not share the extreme high-tariff ideas of previous US governments. Canada kept her basic policy of protection, and the Empire preferences as well, but also reduced the duties on about half of her American imports in return for similar concessions by the US. Further, the Hyde Park Agreement of 1941, necessitated by the outbreak of war in Europe, tied the Canadian and US economies even closer together. In 1940 a permanent Joint Defence Board was established to plan the protection of North America and, after the US entered the War, there was a good deal of joint planning of production on a continental basis.

In spite of the creation of the League of Nations in the 1920s and the introduction of the phrase "The Common Market" by Aristide Briard to its Assembly in 1929, Europe returned to War in 1939. During the Second World War (1939-45) British trade with Europe declined dramatically, as it had done in the First World War (1914-18), and was compensated for by a corresponding increase in trade with Canada and the US (Tables 6 and 7). Britain was again particularly in need of imports from the Empire and America to sustain her. As indicated in Table 6, imports from Western Europe to Britain declined from 35.7% of total average annual imports in 1905-13 to 17.9% in 1914-18, and from 25.9% in 1934-38 to 6.6% in 1939-45. There was a corresponding increase in imports from North America during both the first period, when imports from the US increased from 19.7% to 32.3% and from Canada increased from 4.3% to 7.2%, and

Table 6: UK Imports by Source 1900-1964

Years	Total Av. Annual Value £m.	Western Europe[1] %	Sterling Area[2] %	Canada %	USA %	ROW %
1900-04	533	38.6	16.5	4.3	24.8	15.8
1905-13	657	35.7	19.8	4.3	19.7	20.6
1914-18	976	17.9	24.5	7.2	32.3	18.1
1919-20	1,780	18.8	25.9	6.1	31.2	17.9
1921-29	1,183	29.7	25.1	5.1	19.0	21.0
1930-33	821	32.2	26.5	5.1	12.9	23.2
1934-38	857	25.9	30.1	8.4	11.7	23.9
1939-45	1,086	6.6	28.5	15.4	32.6	16.9
1946-51	2,321	22.4	35.3	9.6	11.0	21.8
1952-62	3,916	27.3	37.2	8.4	10.2	16.9
1963-64	5,163	31.6	33.4	8.0	11.0	16.0

Notes:
1. Western Europe includes the EEC and EFTA countries together with Yugoslavia and Turkey.

2. The Sterling Area includes all Commonwealth countries (except Canada) together with Burma, Iceland, Ireland, Jordan, Libya, Muscat and Oman, and South Africa.

After Johnson *et al* 1967, p.106.

Table 7: UK Exports By Destination 1900-1964 (excluding re-exports)

Years	Total Av. Annual Value £m.	Western Europe[1] %	Sterling Area[2] %	Canada %	USA %	ROW %
1900-04	289	33.6	33.2	3.5	7.3	22.5
1905-13	420	32.9	30.0	4.3	6.7	26.2
1914-18	454	-----	-----	3.7	6.6	-----
1919-20	1,067	43.0	27.2	2.9	5.2	21.6
1921-29	730	27.9	38.2	4.1	7.0	22.7
1930-33	424	30.0	41.3	5.2	5.0	18.6
1934-38	451	26.9	43.1	5.3	5.3	19.3
1939-45	332	13.2	51.7	8.1	7.5	19.5
1946-51	1,688	25.0	48.7	4.9	4.5	17.0
1952-62	3,148	28.9	42.8	5.7	7.8	14.7
1963-64	4,168	37.5	35.6	4.4	8.4	14.1

Notes:
1. Western Europe includes the EEC and EFTA countries together with Yugoslavia and Turkey.

2. The Sterling Area includes all Commonwealth countries (except Canada) together with Burma, Iceland, Ireland, Jordan, Libya, Muscat and Oman, and South Africa.

After Johnson *et al* 1967, p.107.

the second, when the corresponding increases were from 11.7% to 32.6% and from 8.4% to 15.4% respectively (Johnson *et al*, 1967).

By the end of World War II it was now Britain who was receiving loans from the US and Canada. The US also invested a great deal in the booming postwar Canadian economy and obtained a large amount of control of certain industries such as petroleum and natural gas as shown in Table 8. As the Canadian economy became much more dependent on its large southern neighbour, the free trade issue, since 1911 considered too dangerous to discuss politically, re-emerged. In 1944 the US and Canada agreed to eliminate tariffs on agricultural machinery. This was significant because it reduced the grievances of the western provinces concerning Canadian tariff policy which had previously obstructed any wider trade agreements. In 1947 confidential negotiations aimed at free trade between the two countries were started and even reached the stage of a draft agreement in March 1948 (Wonnacott, 1987). However King, the Canadian Prime Minister, balked at the magnitude of the agreement's implications and decided not to proceed.

This was probably a politically astute move since there was still much anti-US sentiment amongst Canadians at the time. Indeed Pearson's Liberal government was ousted by Dieffenbacker in the 1957 election largely because it had just passed a Pipeline Bill which would give the go ahead for a Trans-Canada Pipeline to be built by a company in which US interests dominated (Careless, 1970). In an attempt to play to this anti-US feeling, Dieffenbacker then pledged to shift 15% of Canada's trade from the US to Britain (Wonnacott, 1987).

In spite of shying away from any mention of reciprocity (or free trade), US-Canada trade relations moved steadily closer during the 1950s and 1960s,

Table 8: US Investment in Canada and Control of Canadian Non-financial Industries, Selected years 1914-1979 (millions $ and % share of control)

Sector	1914		1929		1950		1970		1979	
	$	%	$	%	$	%	$	%	$	%
Manufacturing	221	--	819	31	1897	39	10,050	47	24,400	39
Petroleum & Natural Gas	25	--	55	--	418	--	4,809	61	14,700	40
Mining & Smelting	159	--	400	32	334	37	3,014	59	5,100	37
Others	205	--	737	--	929	--	4,927	--	5,800	--
Total Investment	618		2010		3579		22,801		50,000	

Note:
-- denotes "not available".

After McCann, 1987, p.59.

strengthening the existing north-south ties. For example the two countries undertook the joint development of the St. Lawrence-Great Lakes waterway which took five years to complete and was opened in 1959. In 1958 the two countries negotiated the Defence Production Sharing Agreement. This increased the ability of Canadian firms to compete for US defence contracts, and acted as a balance of payments to offset heavy US purchases by the Canadian armed forces. During this period US corporations multiplied their branch plants across Canada or bought out Canadian firms. The more the economy grew the more its dependency increased until about 1965 when US foreign capital invested began to peak (see Table 4 above).

Also in 1965 came perhaps the first really significant free trade move with the signing of the Auto Pact. This allowed for duty-free trade in new cars and original equipment parts between Canada and the US. Although it was not necessarily intended as part of a free trade "grand design" (Wonnacott, 1987), it did greatly increase trade and therefore may have given some support to the idea. Yet leaders were still not keen to see it extended to a general agreement. In the 1970s Prime Minister Trudeau tried to switch some of Canada's trade away from the US and towards Europe and the developing countries. He may have had some success in terms of investment since between 1970 and 1980 the percentage of foreign capital invested in Canada by the United States fell from 79% to 69% while the investment from other countries (excluding Britain) experienced a corresponding rise from 12% to 24% (see Table 4 above). In addition Table 8 indicates that US control of industries such as petroleum and natural gas declined in the period 1970-9. However in terms of the destination of Canadian exports Trudeau was largely unsuccessful in lessening Canadian dependence on the US (as Figure 7 shows) and so the issue of free trade began

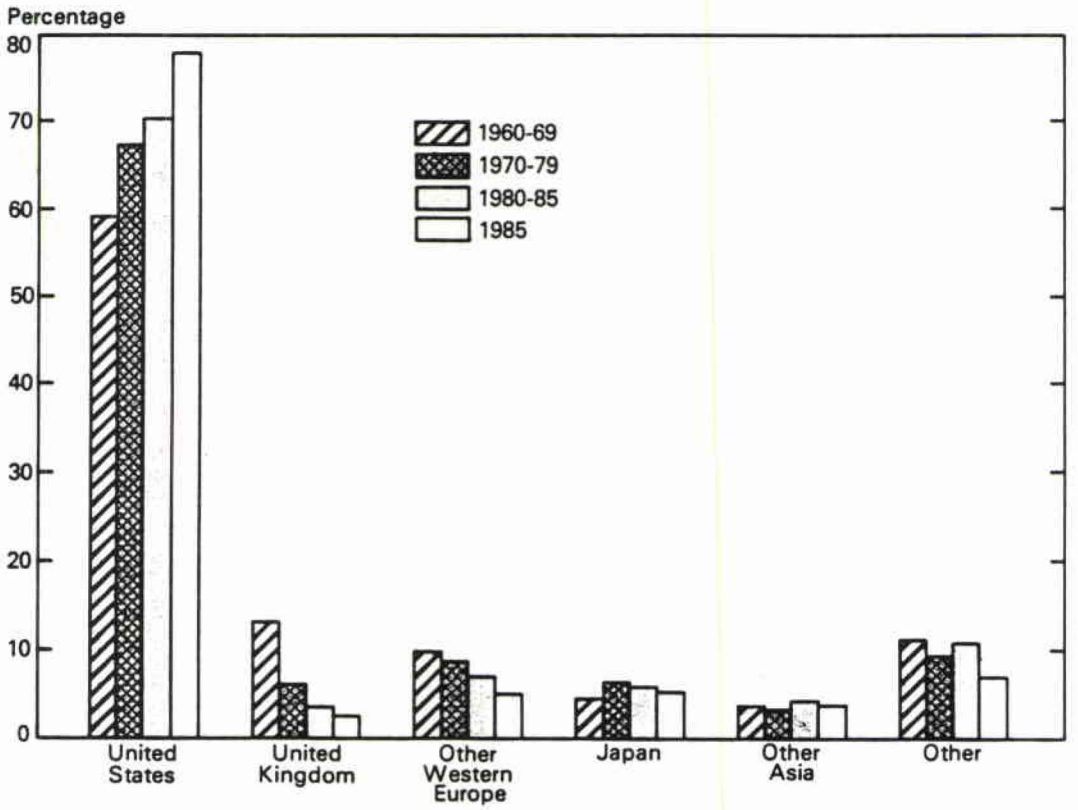

Figure 7: Destination of Canadian merchandise exports 1960-85. After Wonnacott, 1987, p.60.

to re-emerge.

If Canada spent the period from 1930-72 trying to stem the economic tide of the US, Britain spent much of it trying to turn the European one. Britain emerged from the Second World War without a clear orientation in her world trading patterns. America and many of the Commonwealth countries (especially Canada) had grown so strong that Britain needed protection from their imports, as well as the ones from Europe, yet she had good reason to be linked closely in economic terms with all three of the American, Commonwealth and European spheres and found it hard to decide which route to take.

There was cooperation with the US over the Cold War after 1945 and over Korea in 1951 when British troops were sent to help with the fighting. However after the 1956 Suez Crisis, when Britain became a dependent nuclear power receiving US-funded polaris submarines, the possibility of an equal US-UK partnership receded.

Britain did also take part in various post-war agreements which involved forging links with Europe. One was the North Atlantic Treaty Organization (NATO) which began in 1949. Another was the Organisation for European Economic Cooperation (OEEC)[1] which was set up in 1948 to instigate the Marshall Plan of 1947. Britain also adhered to the General Agreement on Tariffs and Trade (GATT). However all these agreements were Atlantic in scope. Britain tended not to join in the purely European schemes such as the proposed European Defence Community of 1952 (which failed), the European Coal and Steel

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[1] This later (1960) became the Organisation for Economic Cooperation and Development (OECD) which included Canada and the US.

Community (ECSC) of 1951, and the EEC of 1958[1]. As a result Britain retreated somewhat into insularity, while Europe developed on her doorstep. This is perhaps surprising since it was Churchill who had called for a "United States of Europe" in an address to the University of Zurich in 1946 (Pollard, 1974).

This apparent insularity probably resulted from a traditional British philosophy, as to the objectives of any potential European union, which differed radically from those of the other countries involved. Jensen and Walter (1965) suggested that there were two major schools of thought as to what a United States of Europe should entail. The "Functionalist" countries de-emphasised political unity. They were only interested in the common organisations and institutions which were necessary for effective cooperation in economic matters. For them, ultimate national supremacy was vital. Countries which held this opinion gravitated towards the idea of a European free trade area. They therefore formed the European Free Trade Association in 1960 (following the ratification of the Stockholm Convention of the previous year). The original members were Austria, Denmark, Great Britain, Norway, Sweden and Switzerland (with Finland as an associate member). Their objective was to form a loose commercial association, enabling members to preserve their traditional economic relations with other parts of the world. This was to be achieved by removing all tariffs within the association while allowing members to retain their own tariffs with the rest of the world so that they maintained a considerable amount of economic autonomy.

By contrast, the "Federalist" countries viewed the solution to the political and economic problems of Europe as lying in the formation of effective

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[1] Although Britain was one of the founder members of the politically-weaker European Free Trade Association (EFTA) in 1960.

and responsible supranational institutions. In order to achieve this they were prepared to surrender some of their national interests[1]. These were therefore the countries (Belgium, France, West Germany, Italy, Luxembourg and the Netherlands) which originally formed the European Economic Community in 1958 (ratifying the Treaty of Rome signed in 1957). The EEC began as a common market, intending to harmonise not only its internal tariffs (like EFTA) but also those with the outside world, and it is often still familiarly referred by this name ("Common Market"). However even this can give a misleading impression of the EEC's intentions because it was envisaged as becoming a full economic union as the more formal term "Economic Community" suggests, and thus is philosophically-speaking even further from the EFTA than might at first appear to be the case[2].

The relationship between the two European trade blocs has always been one of political rivalry, but economic relations have been good with 25% of EEC exports going to EFTA countries (more than to the US or Japan) and 50% of EFTA exports going to the EEC in 1986 (Owen and Dynes, 1989). However, relations are now becoming much more strained as a result of the Community's drive for complete economic integration by 1992, a move which could destroy EFTA. At present the EFTA countries (now the six small but highly-industrialised nations of Austria, Finland, Iceland, Norway, Sweden and

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[1] Interestingly, a later classification by Taylor (1983) groups both France and Britain under the 'functionalist' heading. Taylor suggests that, while Britain was openly nationalistic (by remaining outside the EEC for some time), France chose to demonstrate her nationalism from within.

[2] See Table 1 for the definitions of different types of trade associations.

Switzerland) receive privileged access to Community markets[1] but they make no contribution to the Community budget, so the indications are that this access will end in 1992. It is possible that certain EFTA states (particularly Norway and Austria) will apply to join the EEC if this option becomes available in 1992[2]. At a meeting between the two groups in 1984 there was also a suggestion of an intention to create a "European Economic Space", comprising all eighteen nations, but this is probably unlikely in the foreseeable future.

The division of opinion as to how Europe should be economically and politically structured almost inevitably remains, stemming as it does from its deep roots in national cultures[3]. As discussed earlier, the British approach to European trade relations may have existed even in the ninth century when she stayed outside the Charlemagne empire but maintained a functional and pragmatic relationship with it. Britain's long-held difference of opinion on this matter is important because it suggests one reason why has found it so emotionally difficult to switch from her traditional philosophy (whose modern manifestation would be to support a European free trade area) to a new one (which leads it into an economic union).

Britain's independent stance can be traced through the first part of the chronology of events in the history of the EEC 1946-86 given in Appendix A. Agreements were made with the original six members but membership itself was

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[1] The EEC has expanded from six to twelve members with the addition of Britain, Denmark and Ireland in 1973, Greece in 1981, and Spain and Portugal in 1986.

[2] The EEC has already stated that it is not prepared to open any new accession negotiations until after 1992 because it is preoccupied with the problems of integrating its internal market.

[3] See Appendix E for a definition of the various European economic blocs.

not considered. Despite this, Britain's trade with Europe revived and the importance of a strong future economic link with the Continent became evident. In 1950 26% of British exports went to Western Europe and 46% went to the Commonwealth, but by 1960 32% went to Europe and 40% went to the Commonwealth. This ratio was soon to tip in favour of Europe which received 37% of goods in 1968, in contrast to the Commonwealth which received 28% of goods in the same year (Roberts and Roberts, 1980). It was this shift in trade emphasis which led the Conservative government under Macmillan to apply to join the EEC in 1961. Ironically it was also for this reason that the French vetoed the application. For Britain her links with her other two world trade spheres (the US and the Commonwealth) were becoming too weak to be of economic value; for the French these links were still too strong to make British membership acceptable (Roberts and Roberts, 1980).

In 1967, the Labour Wilson government was facing strong inflationary pressures and balance of payments problems, together with an increasingly poor British performance in world markets. In 1953 British exports had made up 20.9% of the world trade in manufactured goods; in 1964 this figure had fallen to 13.7% (Murphy,1973). Wilson renewed the British application to join the EEC in May 1967 but it was again refused (see Appendix A) largely on the basis of French opposition[1].

It is for this reason that Davidson (1971) maintains that a United States of Europe was far less inevitable than Kerr (1983), suggests. Kerr, of course, had the benefit of hindsight. Davidson, writing in the heat of the political debate in 1971, saw the European ideal as seemingly frustrated at every twist

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[1] This lends some weight to Taylor's (1983) argument concerning France's functionalist "destruction from within" approach to the EEC (see note 1, p.47).

and turn. He suggested that the fortunes of the Community depended much more on the whims of leaders of individual nations (particularly de Gaulle who led the French opposition) than on any collective unity felt by the ordinary people (Davidson, 1971).

4. Post-1972 The Signing of Agreements and Present Relations

By 1972 de Gaulle had retired in France and Britain was finally able to enter the EEC under Heath's Conservative government[1]. Ironically, in spite of his efforts to take Britain into Europe in 1967, by the time Wilson regained office in 1974, he was less convinced of the virtues of EEC membership. He therefore called for a referendum on the issue but the electorate voted 2-to-1 to remain in the Community (Roberts and Roberts, 1980)[2].

Did this represent a change in traditional British philosophy from functionalist to federalist? In one sense it did not because Britain had exchanged one common market (the Commonwealth) for another. However the Commonwealth trade area had involved a much larger number of countries and was therefore considerably closer to the (functionalist) free trade ideal. The 1972 Conservative government claimed that market forces would be able to operate more freely as a result of the removal of trade barriers within the EEC, but the apparent benefits from freer European trade were, of course, relative. Free trade may take place within a union but that union can be highly protectionist in its dealings with the outside world. It is also possible that the British population did not realise the full nature of the commitment being made

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[1] See Appendix A for details.

[2] This was helped by the fact that Wilson had obtained a more advantageous arrangement for Commonwealth trade.

in 1972. Yet for whatever reason, Britain finally seemed ready to take her place in Europe. In its publication "Background to the Negotiations: Britain and the European Communities", (HMSO, 1962), the British government emphasised the dynamic benefits which would arise from being part of a larger market. It argued that there would be a more efficient pattern of production in Europe, resulting from specialisation by each country. Costs therefore would be lower and the standard of living would rise.

Particular emphasis was put on the size of the market which would enable large-scale production methods to be employed by the efficient producer. Interestingly the increase in potential market size has also been emphasised in the Canadian case. Indeed many other arguments put forward by the British government in its 1962 document have also been used by the Canadian government taking Canada into the NAFTA. For example, it was argued that both opportunities to compete abroad and competition at home would increase. This would improve efficiency and, in the long term, the balance of payments would therefore benefit (HMSO, 1962, Magun *et al*, 1987). However, unlike in the Canadian case, Britain had to consider what the impact of joining the Common Market would be on trade relations with the Commonwealth. It was emphasised that, while there would be changes in the pattern of trade, the Commonwealth would continue to receive aid and investment, so that close relations could be maintained (HMSO, 1962).

Even when Britain joined the EEC therefore, she still conducted a large proportion of her trade outside Europe. It was only after joining that trade with Western Europe became really significant as Table 9 from Winters (1987) shows. British imports from the EEC (six original members) rose to over one third of all imports of manufactures after 1972 but still had not reached 50% by 1984.

Table 9: British Imports and Exports of Manufactures 1962-84[a]

	EC(6)	EFTA and Ireland	Rest of the World	
Year	Shares of Imports			Ratio of Imports to GDP[b]
1962	30.0	15.3	54.7	18.2
1965	28.3	15.7	56.0	19.1
1968	27.3	18.0	54.7	30.0
1970-72	31.4	22.1	46.5	31.9
1973-75	37.9	20.6	41.5	46.2
1976-78	43.2	18.9	37.9	51.2
1979-81	45.1	17.1	37.8	55.0
1982-84	45.9	17.4	36.7	67.1
Year	Shares of Exports			Ratio of Exports to GDP[b]
1962	18.5	14.5	67.0	38.3
1965	18.6	15.1	66.3	37.8
1968	19.7	16.1	64.2	45.2
1970-72	21.2	17.8	61.0	48.3
1973-75	24.0	16.8	59.2	56.5
1976-78	27.3	16.4	56.3	65.4
1979-81	30.8	16.5	52.7	64.7
1982-84	31.6	15.1	53.3	----[c]

[a] Source: Winters' calculations from British Government Trade Statistics.
[b] GDP deriving from manufacturing industry.
[c] Not available in the original.

Adapted from Winters, 1987, p.318-319.

British exports are even less closely tied to the EEC. The Community received about one quarter of all British exports of manufactures by 1973 but, although it increased after accession, this figure still remained below one third in 1984.

By contrast, Canada had much closer pre-entry ties with the US. In 1987 78.5% of Canadian exports went to, and 72.8% of imports came from, the US (Watson, 1987). As in the British situation however,this figure might be expected to increase even further post accession, if the results of reciprocity in 1854 (see Table 2 above) are anything to go by. In the Canadian case it seemed as if the economy was heading for increased trade dependency with or without political encouragement. Such encouragement was decidedly lacking during the 1970s (as already mentioned) and there was what Fry and Radebaugh (1985) describe as a "sombreness" which characterised Canada-US relations between 1980 and 1983. Following the introduction of the National Energy Program (NEP) in 1980 and the pledge by the Trudeau government to strengthen the Foreign Investment Review Agency (FIRA) accusations came from the US that Canada was gradually abandoning free-market principles and discriminating against the American business community. Canadians in turn voiced concern about growing protectionism in the US and the large variety of buy-American provisions which were preventing Canadian firms from competing effectively in the American market-place.

There is little doubt that the election of Mulroney's Conservative government, in September of 1984, eased the path to the re-emergence of the free trade issue. Mulroney's government was certainly more sympathetic to, if not wholly in agreement with, the "New Right" philosophies propounded by the Reagan administration. However authors disagree as to the amount of influence this change in government had on securing a free trade agreement. Fry and

Radebaugh (1985) feel that it was very important. Wonnacott (1987) points out that in 1983 the Trudeau government had already published a review of trade policy, in which it was proposed that bi-lateral sectoral agreements should be negotiated with the US.

In either case other factors were also clearly important. First, north-south trade was growing anyway as was shown in Figure 7 above, and tariffs, though still high in the Canadian case, had slowly been coming down since the War (Table 10). In 1987, most of the trade between Canada and the US was duty free (about 65% of US exports, and 80% of US imports) and by the end of the Tokyo Round of GATT tariff cuts in 1987 an additional 25% of US exports and 15% of US imports from Canada faced tariffs of 5% or less (Wonnacott,1987)[1]. Second, there was an increasing awareness amongst the business community, academics and politicians that it was difficult for Canadian manufacturing to achieve large-scale, efficient, production without assured access to a large market. When Britain entered the EEC, Canada suffered a major disadvantage as one of the very few industrialised countries without free access to a market of at least 100 million people (Wonnacott, 1987).

Third, what was perhaps more important than one Canadian political party or another supporting free trade was that both Canadian and US governments supported the idea at the same time. As Reisman (1984) pointed out this is rather unusual. Canadian interest in free trade has historically been at its highest during periods of economic hardship or when Canada has experienced difficulties with other trading partners, especially Britain and Western Europe. In contrast the US has tended to turn inward and become more protectionist in

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[1] Although considerable non-tariff barriers still remain.

Table 10: Canadian and US Tariffs by Industrial Sector, post-Tokyo Round, 1987

Sector	Canada %	U.S. %
Textiles	16.9	7.2
Clothing	23.7	18.4
Leather products	4.0	2.5
Footwear	21.5	9.0
Wood products	2.5	0.2
Furniture & fixtures	14.3	4.6
Paper products	6.6	0.0
Printing & publishing	1.1	0.3
Chemicals	7.9	0.6
Petroleum products	0.4	0.0
Rubber products	7.3	3.2
Non-metal mineral products	4.4	0.3
Glass products	6.9	5.7
Iron & Steel	5.1	2.7
Non-ferrous metals	3.3	0.5
Metal products	8.6	4.0
Non-electrical machinery	4.6	2.2
Electrical machinery	7.5	4.5
Transportation equipment	0.0	0.0
Miscellaneous manufactures	5.0	0.9

Note:
Canadian tariff averages are weighted by imports from the US, and vice versa.

After Wonnacott, 1987, p.4.

times of economic difficulty. Therefore since both countries generally experience periods of economic depression at the same time, they tend to have asymmetric trade policy objectives.

Finally, the importance of the support of Quebec for the NAFTA should not be underestimated. The delicate relationship between Quebec and English-speaking Canada in the Union has an impact on many national and international issues and free trade was no exception. Quebec's pro-free trade stance stemmed largely from the fact that it is a major exporter of energy. The National Energy Program of 1980 had required that Quebec sell hydro-electric power to other areas of Canada at a fixed price. However, the new trade agreement would limit the use, by Canada, of discriminatory energy policies and also would make it difficult for the US to exclude Canadian producers to protect higher-cost US ones (Lipsey and York, 1989). This would leave Quebec free to export more of its natural resources directly to the US consumers, who are willing to pay a rather larger premium for electricity, particularly in the north-east.

Mulroney (himself a Quebecer) took the initiative on free trade in March 1985 by meeting Reagan, appropriately perhaps, in Quebec City. Certain positive signs already existed in the US. For example the US Trade Representative report of 1981 had recommended that, building on the success of the Auto Pact, further chances to rationalise other industries through freer trade should be pursued. However, both sides knew that, if an agreement was to stand a chance of survival, the ever-suspicious Canadian side would have to be seen to propose it (Wonnacott, 1987). The result was the Quebec meeting of March 1985 after which the Mulroney informed the Canadian House of Commons that he had spoken to the US President "to express Canada's interests in pursuing a new trade agreement between our two countries" (Mulroney, 1985b). The trade

negotiations proper started in May 1986 and culminated in the signing of the agreement in January 1988.

Of course, the complexities of trade relations with their partners did not end with the signing of agreements in either Britain or Canada. The agreements are constantly tested by the changing economic, social and political contexts in which they are situated. This has been particularly true in Britain where some time has elapsed since joining the EEC and where, during this time, there has been a considerable change in government style as well as a war with an extra-European country. However even in Canada, with the NAFTA barely established, it can already be seen that changes in other spheres, as in Britain, have important implications for the strength of future trade relations, and ultimately the survival of the trade association itself. This can be illustrated with reference to a few economic, social and political debates which have arisen within the two associations since union.

In the *economic* sphere the world recession of the late 1970s and early 1980s hit several of the EEC members particularly hard. There was insufficient confidence in the EEC to seek a joint solution to the harsh realities of unemployment and inflation. Countries tended to withdraw into themselves to solve problems in their own way. This was particularly true in Britain (Taylor, 1983) where Mrs. Thatcher's Conservative government was elected in 1979 with a mandate to reduce inflation. This inevitably meant tightly controlling the money supply, and had two important implications for the EEC.

First, Britain decided that she could no longer afford the "imbalance" as she saw it in the Community's budget (which results at present in large sums being transferred from Britain and Germany to the other ten members) although some of the recipients are more prosperous than Britain and as prosperous as

Germany. In 1982 the British government therefore sought (and received) a rebate. While this was smaller than the £600 million requested (Taylor, 1983), it made the point that restraints had to be exercised on the Community budget and that Community coffers (and hence those of the governments pouring money into them) could no longer be considered bottomless.

Second the British government became even more determined to remain outside the European Monetary System (EMS) so that control of the money supply could be maintained. Whether or not to join the EMS has been an issue for some time (Statler, 1981) but Mrs. Thatcher's resolve over remaining outside the system does not seem to lessen with time. She stated in June 1988 "I see no possibility of a European Central Bank in my lifetime and possibly never" (Thatcher, 1988). This is in spite of the fact that previously anti-EMS people amongst her closest advisors such as Sir Leon Brittan, have recently joined the fight for EMS membership (Brittan, 1989)[1].

Clearly, Mrs. Thatcher favours the free-market approach to solving the Community's difficulties. Over this and many other issues (such as the main agricultural budget[2]) she is in direct opposition to the French Socialist Premier, President Mitterand, who is leading the campaign for monetary integration and a single currency (Times, 29 June 88). Mrs. Thatcher is very much in favour of the removal in 1992 of the barriers to the free operation of market forces within the European Community; "The Thatcherisation of Europe" as Lord Young (1989) called it. However she, together with most of the rest of the present British Cabinet, intends to resist any further integration. Mrs. Thatcher made her

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[1] A report in the *Times* (18 May 89) suggests that Mrs. Thatcher may now be prepared to set a timetable for British membership of the EMS.

[2] See Brewin and McAlister, 1987.

position very clear when she said in 1988 "I do not share the dream of a United States of Europe with a single currency" (Thatcher, ibid).

Although no formal proposal for monetary integration between the US and Canada has ever been made, the Canadian government really has no equivalent choice to make to as to whether the assimilation of its currency is acceptable. The US and Canadian dollars are linked so closely together that it would be very difficult for Canada to pursue an independent monetary policy anyway. However, while there is relative harmony over currency issues Canada still faces economic disputes with the US in other areas. At present the Canadian government is considering asking GATT for permission to retaliate against the US for failing to eliminate a discriminatory tax on imported oil, which GATT ruled illegal almost two years ago. At the same time the US is planning to retaliate against Canada for its failure to comply with a 1987 GATT ruling on fish exports. Canada has been slow to replace an export ban on unprocessed West Coast salmon and herring which was ruled discriminatory by the GATT in late 1987 because the jobs of up to 5,000 British Columbia workers in the fish processing industry could be threatened if raw fish were shipped directly to the US for processing.

The Globe and Mail (31 March 89), described this exchange as "The most public squabble between the two countries since they implemented their free trade agreement at the first of this year". There are problems therefore, but commendably the two countries seem to be trying to resolve their differences through the correct GATT channels.

Debates concerning *social* integration within the EEC vary very much as a function of the philosophies towards integration that each nation holds. As in economics, the French and British are traditionally at either end of the spectrum

of opinion. It is therefore interesting that it is these two nations who are cooperating, through the Eurotunnel Company, to build a fixed link between Britain and Europe. Overcoming one of the main Western European natural barriers may also help to bring the British philosophically closer to the rest of the Continent.

The French are characteristically enthusiastic about the idea of a Channel Tunnel (or Chunnel). However for the British (who still say they are "going to Europe" when they cross to France), the idea of getting closer to the Continent brings mixed feelings. The Chunnel should be open in 1993 but most British people are as unaware and unconcerned about this as they are about the full economic integration which goes into effect the year before in 1992. Most did not realise what the implications would be when they voted to remain in the EEC in 1975.

At best there is apathy towards Europe shown by the uninspiring turn-out of 32%[1] in the June 1979 elections of Euro-MPs (Kerr, 1983). At worst there is open hostility. The idea of a social community was dying the death of anonymity as far as the British public were concerned, however as 1992 approaches hostility seems to be increasing. There was a recent outburst by Sir John Hoskyns[2] who claimed that present plans for 1992 would result in a "collectivised, protectionist, over-regulated Utopia". (Times, 1 March 89). Deep-seated nationalism is re-emerging and the government is capitalising on this by presenting itself as intending to remain strongly against various "projects" which

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[1] A report in the *Times* (17 June 89) stated that this figure had risen to 35.9% in the recent elections held on 15 June 89 ,so perhaps interest is increasing as EEC issues become more relevant.

[2] Sir John spent three years heading the British Prime Minister's Policy Unit.

the Community threatens to force upon its unsuspecting people. This rhetoric is rather ironic since everyone should have been aware in 1973 that the Community's intention, as expressed in the Treaty of Rome (1957), was to become a full economic union. Such things as synchronising the change to Summer Time and carrying a European passport have not really been sprung upon the British. Rather, they have only just woken up to them, which is why they have suddenly become issues.

The Government hardly seems ahead of the public in this respect. As Hill (1989) so nicely puts it "The Government hardly seems to have read its own glossy leaflets urging businessmen to wake up to what membership of the EEC really means". Hill accuses Britons of having their "Backs to the future" and this is well portrayed in the accompanying cartoon shown in Figure 8. The cartoon shows the hammer of the European Parliament trying to force a square Britain into a round EEC hole. The whole process is being resisted heavily by Mrs. Thatcher.

Although NAFTA, unlike the European community, is purely a free trade area, it is the Canadians who are much more concerned about social integration resulting from their trade agreement. Indeed the free trade debate was often fought in Canada on socio-cultural issues. For example, the printing and publishing industry, although it had a good case against free trade in terms of economic (job-loss) figures, chose to argue instead on the basis of a threatened Canadian cultural identity. It was suggested that art and television programmes would become "Americanized" and that Canadian uniqueness would be lost.

Both the Liberal and the NDP parties also directed their criticisms to issues of sovereignty. This may have reflected the fact that a major study by T. Goldfarb Consultants, reported in the Toronto Star in January 1988, suggested

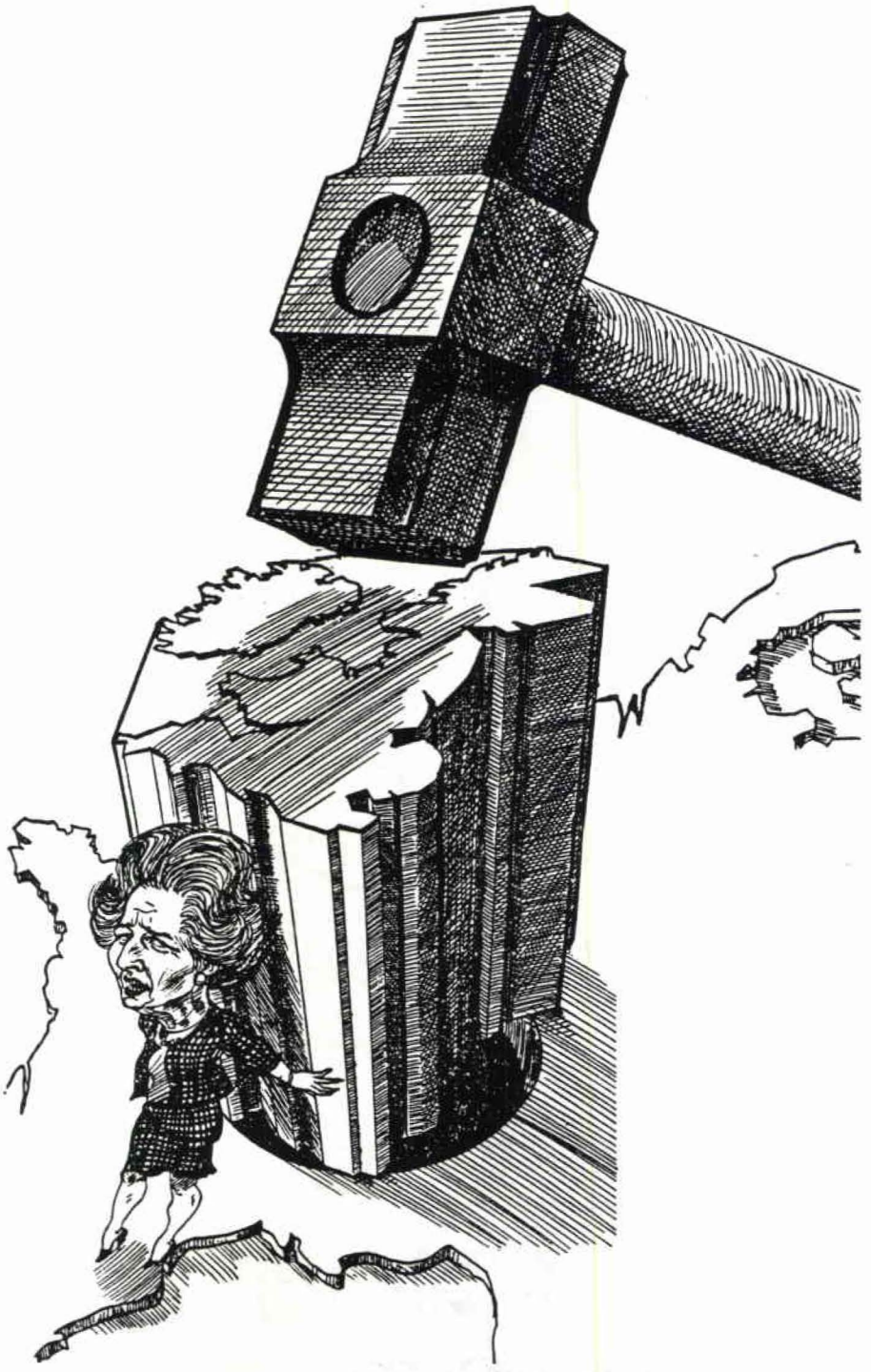

Figure 8: "Backs to the future": a cartoon in the *Times* 20 February 89 (see Hill, 1989).

that the general public were much more likely to be influenced by socio-cultural arguments against free trade than by economic ones (Globe and Mail 1 February 88).

Although the agreement was supposed to be limited to economic matters, it aroused considerable Canadian nationalism. This strong reaction is not particularly new or, perhaps, particularly surprising. Cultural arguments have been used against reciprocity treaties with the US since before the signing of the 1854 Treaty (Masters, 1963). The cartoon shown in Figure 9 and dated around 1878 (Careless and Brown, 1967) indicates how little the arguments have changed. In the print the National Policy, on which the Conservative party of MacDonald won the 1878 election, is represented as a healthy tree. The National Policy was comprised of a series of tariffs to protect the apples of Canadian industry (ships, furniture, musical instruments, paper, boots and shoes, etc.,). The Grit (Liberal) Policy of Mackenzie (and later Laurier) is shown as an unhealthy tree. This policy suggested a restricted reciprocity (free trade in some goods) treaty with the US. Worms from the restricted reciprocity tree are moving over to eat the protected Canadian fruit. They are worms of annexation, indicating that with reciprocity might come Canadian absorbtion (be it political or cultural) into the US.

Since there are considerable cultural similarities between Canada (except Quebec[1]) and the US such cultural differences that do exist have always needed defending more vigorously. British culture is further removed from that of the other nations of Europe so that the British feel less threatened by absorbtion

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[1] Quebec feels less threatened by American culture (which is quite different from its own) and this may be another reason why the Province is pro-free trade.

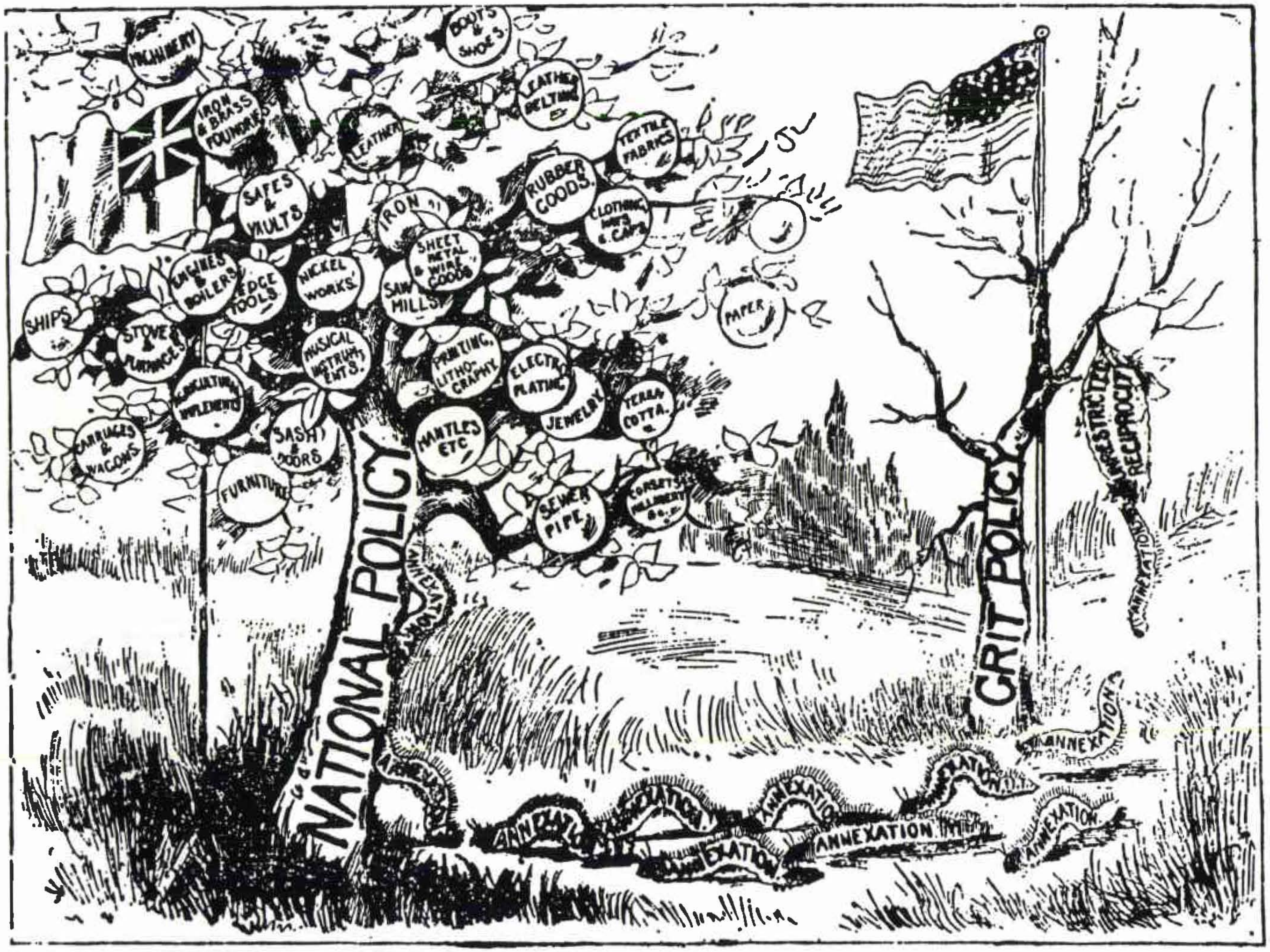

Figure 9: A cartoon dated around 1878 portraying the arguments against Canadian free trade (reciprocity) with the US. From a print in the Public Archives of Canada. After Careless and Brown, 1967, p.76.

into a European "melting pot"[1].

In the *political* arena, Canadians tend to feel rather powerless when facing the US. The latter has persistently refused to recognise Canadian claims to the Northwest Passage and has continued to use Arctic waters for military purposes without Canadian permission. Inability to police these territorial claims has ultimately resulted in a Canadian proposal to buy French or British nuclear submarines in the hope that this would give the political weight necessary to be taken seriously[2].

Britain, on the other hand, seems to have had more luck with political affairs in the EEC. Ironically economic integration has proved much more difficult to achieve than political consensus (which was previously considered impossible). The EEC leaders put out a joint statement for example on the opening day of the party conference in Moscow welcoming a "more outward looking attitude" in the Soviet bloc (Times, 29 June 88).

It could be argued of course that this "political success" was a result of the fact that the leaders did not actually have to agree on any direct action. However, they were required to do so during the Falkland Islands crisis in 1982 when Britain went to war with Argentina over the sovereignty of the Falkland Islands. In this case they reacted with relative speed and decisiveness. EEC members supported Britain by imposing sanctions on Argentina without any undue pressure being required. This suggests that the Falkland Islands crisis was an important marker in the evolution of European political cooperation (Edwards,

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[1] This may be changing however. See for example Owen and Dynes, 1989.

[2] The Canadian government has now decided not to go ahead with this proposal but is still looking at alternative methods of policing Canadian claims as a sign to the US that Canada wishes to be listened to on this matter.

1984). Mr. Pym (1982) certainly described the support as "an important aspect of membership".

5. Summary

This chapter has presented a fairly detailed review of the history of trade in both Britain and Canada in order to explain the form of present relations. The major fluctuations in trade emphasis for both countries are summarised diagrammatically in a series of stylised maps in Figures 10-14. These maps are also reproduced as a collection of transparencies contained in Appendix B. If these sheets are removed and overlaid, the different stages can be compared for the two countries. (Figures 10 to 14 correspond to maps 1 to 5 in Appendix B.)

Figure 10 shows the "natural" or nearest neighbour trading partners of Britain (pre-Elizabethan times) and Canada (pre-New France). Figure 11 then presents the pre-1846 picture where, although still trading with Europe, Britain had developed a world trade network and where, although still trading with the US, early Canada mainly traded with Europe. Between 1846 and 1930 (Figure 12) Britain, under free trade, continued to enjoy largely extra-European trade with the Empire, and also strengthened commercial relations with the US. During this period, Canada fluctuated between having more trade with Europe (particularly Britain) and more with the US. Trade favoured the US during the years of the Reciprocity Treaty (1854-65) and in general the long-term trend also favoured the US.

Figure 13 shows that during the period 1930-72 Britain tried to balance three diverse sets of trade relations: those with the US, those with the Empire and those with Europe. This balance was successfully maintained except during

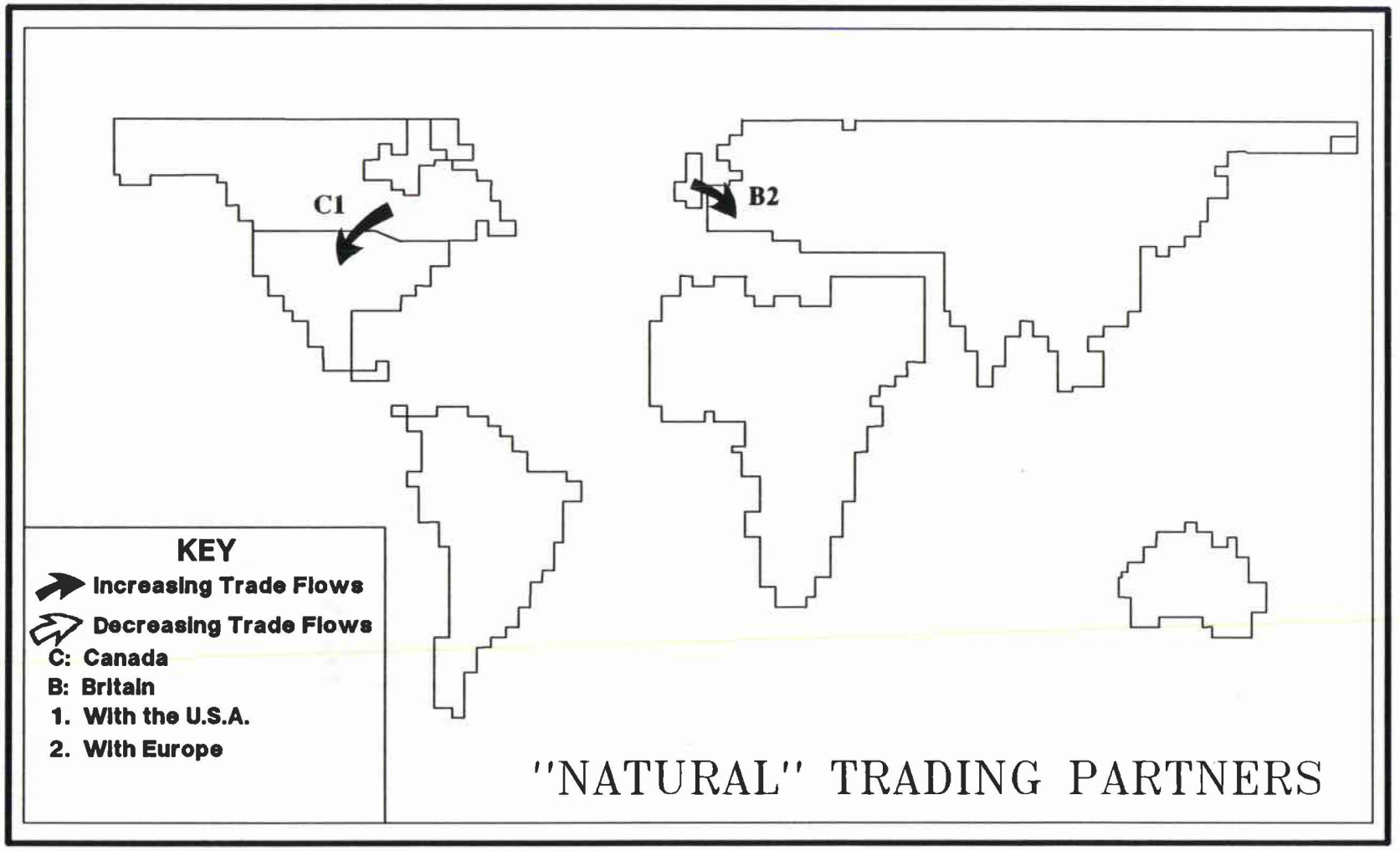

Figure 10: The "natural" (nearest neighbour) trading partners of Britain and Canada.

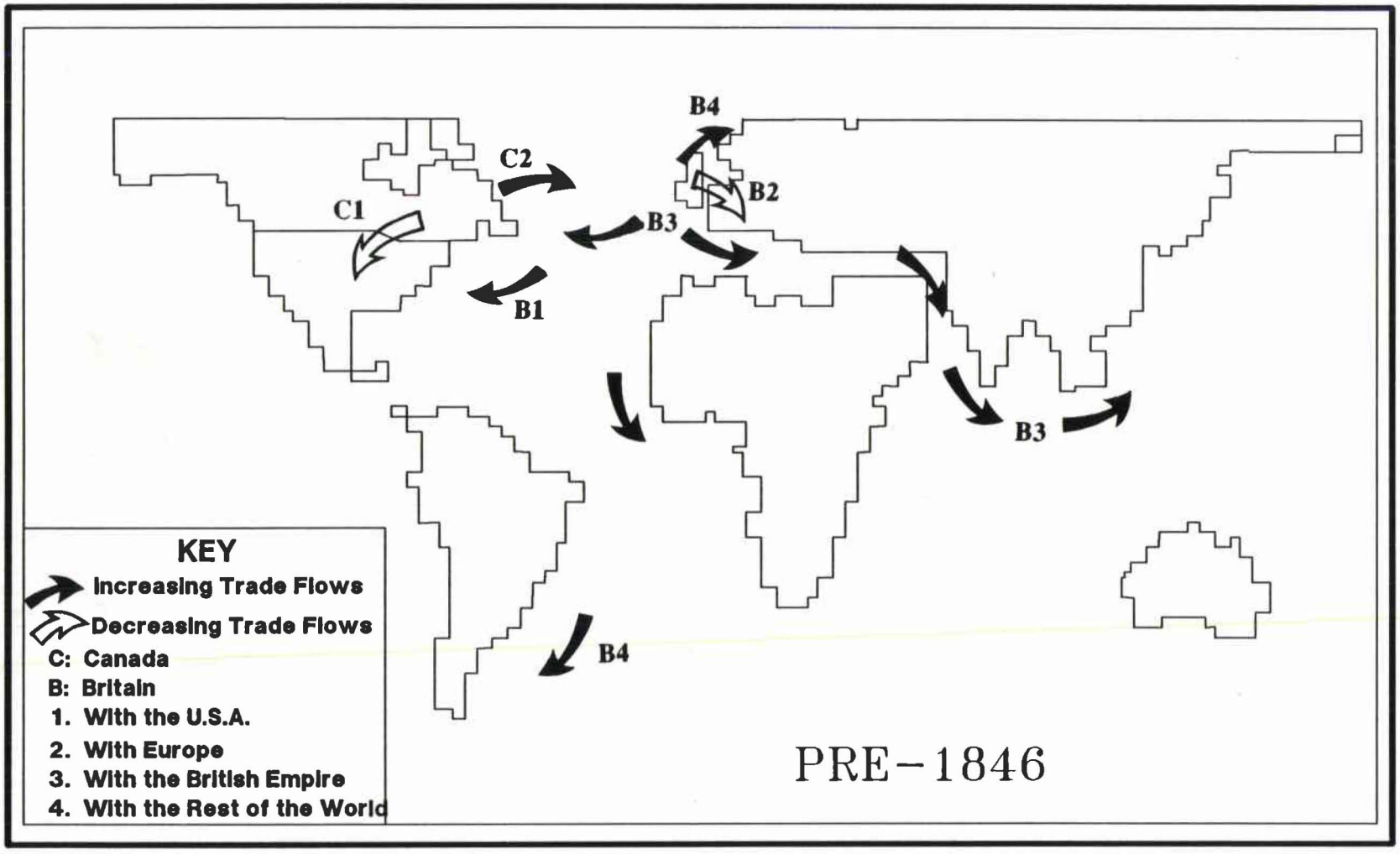

Figure 11: Pre-1846: Britain has a world trade network and early Canada mainly trades with Europe.

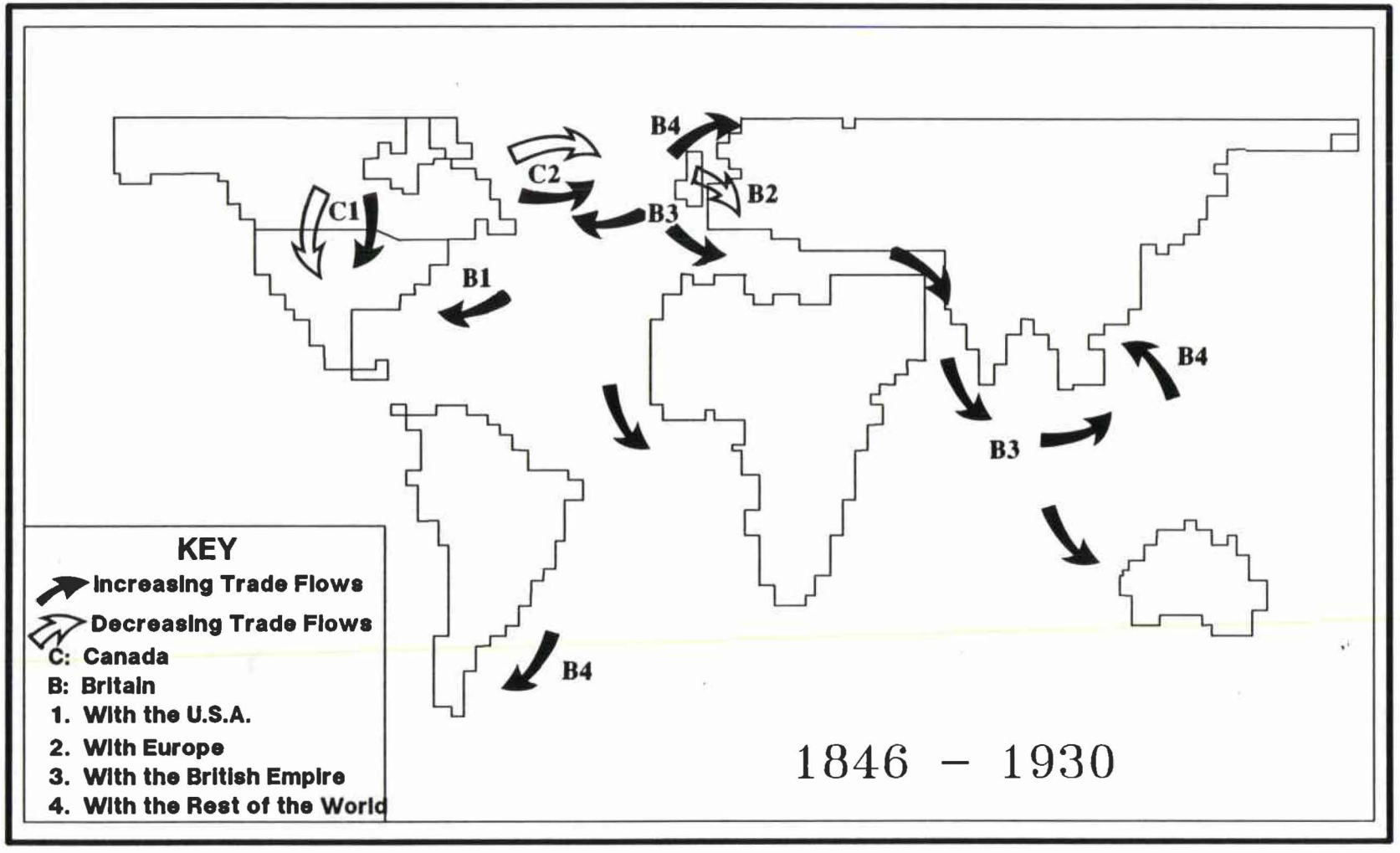

Figure 12: 1846-1930: Britain mainly trades with the Empire but also strengthens ties with the U.S.A., and Canadian trade loyalties oscillate between the U.S.A. and Europe.

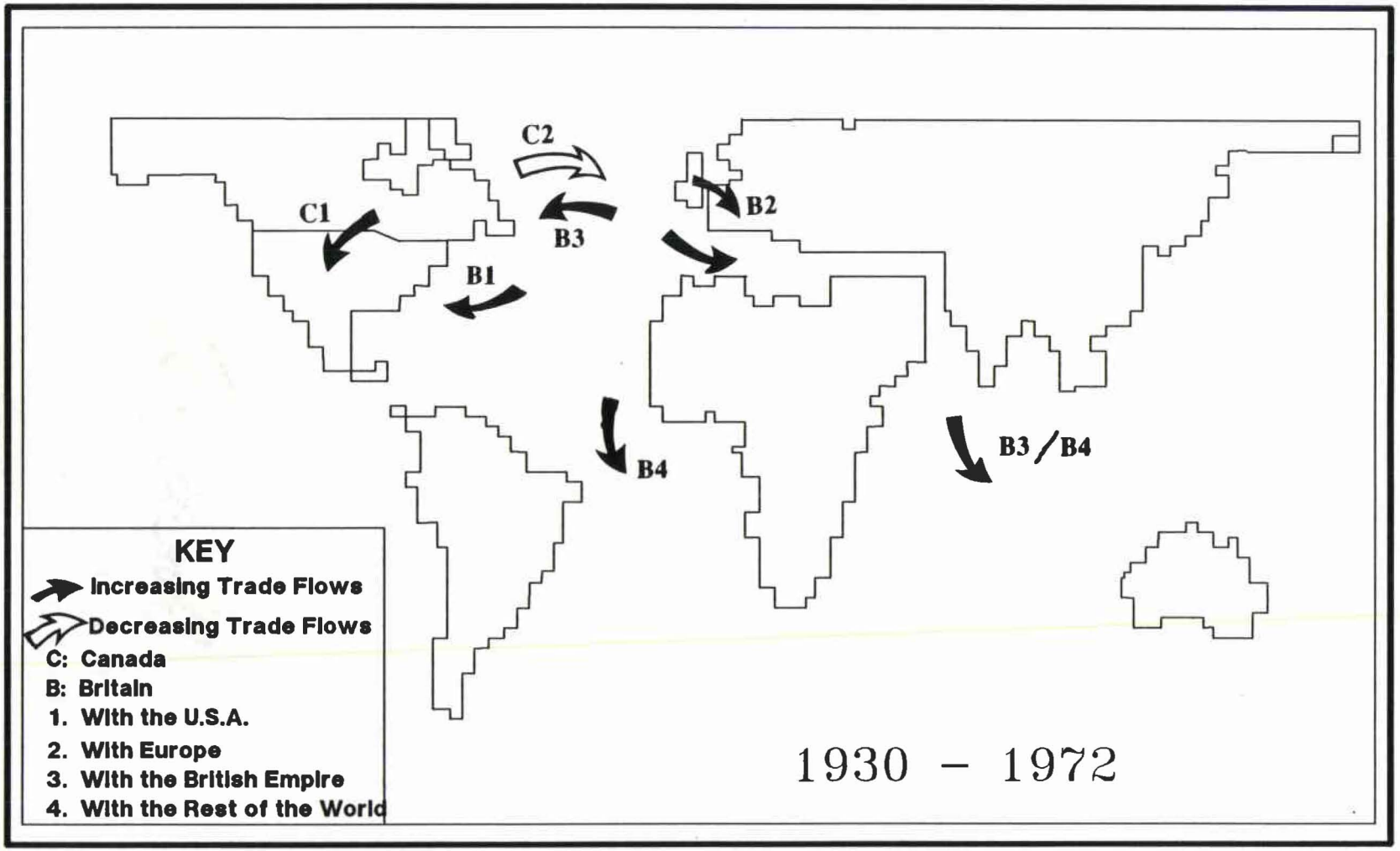

Figure 13: 1930-1972: Britain balances three sets of trade (with the U.S.A., Europe and the Empire), and Canada mainly trades with the U.S.A..

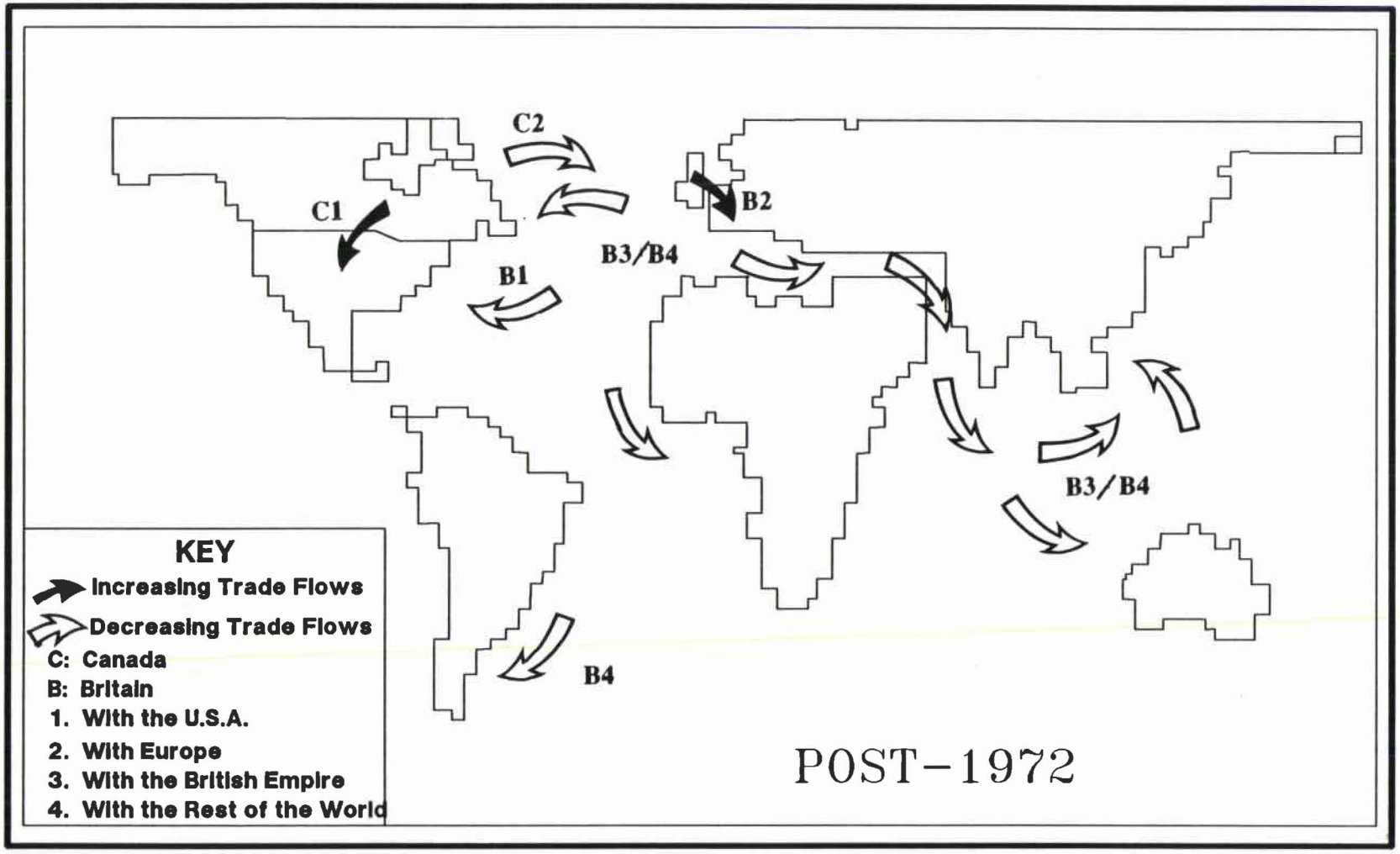

Figure 14: Post-1972 (the signing of agreements): Canadian trade relations with the U.S.A. grow even stronger, and Britain moves towards greater trade with Europe although still maintaining her previous commercial links.

the Second World War. Canada on the other hand settled into a not always comfortable, but generally steady, trade relationship with the US. Post-1972 (Figure 14) this relationship grew stronger, sometimes in spite of the efforts of the government to weaken it, and it will probably be further strengthened now that the NAFTA Agreement is in place. In Britain, the balance between the tripartite system of trade began to break down after entry into the EEC and trade flows began to favour the European partners, although strong resistance to losing traditional trading ties remains. In both countries important economic, social and political issues constantly arise to test the strength of the existing agreements.

CHAPTER 3

THE METHODOLOGICAL EVIDENCE: DIFFERENT APPROACHES TO ECONOMIC ASSESSMENT

Chapter 2 reviewed the environment for trade association construction in both Britain and Canada. This chapter considers the environment in which the two agreements were analysed and judged for relative "success" or "failure". It is interesting that basic trade theory on trade associations (reviewed in Part 1 of this chapter) has evolved rapidly, apparently spurred on by the demands of its practical applications, in the form of increasing numbers of newly-emerging (or expanding) trade blocs in the world economy. The British and Canadian examples provide a succinct and fairly comprehensive continuum illustrating this development of trade theory and are discussed in Part 2.

While Canadian analysts have used the updated versions of the general equilibrium analysis used by the British, they have also made additional use of other approaches which British researchers, in general, have not explored. They have tended to place greater emphasis on these (input-output analysis and econometrics) which are considered in Part 3.

Finally Part 4 summarises the main points of the chapter.

1. The Hecksher-Ohlin Model of International Trade

Most of the British and some of the Canadian analyses of the impacts resulting from joining their respective trade associations give predictions in terms of balance of payments and welfare effects, either for the whole economy

or for a large aggregated part of it (such as manufacturing). These predictions are made using an extension of the Hecksher-Ohlin model of international trade and, since various examples of Canadian and British study results will be discussed later in this chapter, a brief outline of the model's approach will be presented first so that the studies can be put into context.

The Model

The Hecksher-Ohlin model uses a two-commodity (X and Y) general equilibrium framework to analyse international trade. This means that the products of the analysis (production, consumption and trade flows) are free to vary and to settle at values which are in equilibrium with each other. (This contrasts with partial equilibrium analysis which holds one, or more, of these outcomes constant.[1])

If an economically "small" country is being considered then it is assumed that it is unable to influence the world price of the two goods X and Y. The Hecksher-Ohlin approach would then be to combine the production function[2], the production possibilities frontier[3] and the community indifference curve[4] of that country to establish which combination of goods X and Y it would consume and

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[1] In addition, partial equilibrium analysis is usually only used to assess changes in one specific industry, or group of industries, rather than the economy as a whole.

[2] The production function indicates precisely what minimum quantities of the inputs of labour and capital are required to produce different amounts of a given product.

[3] The production possibilities frontier shows the combination of maximum quantities of X and Y attainable by producing efficiently given a fixed stock of labour and capital which can be used in varying proportions.

[4] The community indifference curve shows the combination of goods X and Y which leave the community equally well-off.

produce given a certain world price.

Conversely, if an economically "large" country is being considered then it is assumed that it is able to influence the world price (terms of trade) of X and Y. In this case the three functions above are combined to give the country's "offer curve" (defined as the various discrete quantities of goods X an Y which the countvy is willing to exchange at different relative prices), which is then plotted against the offer curve of the second country under consideration, to establish where the trading equilibrium will lie, and hence what the terms of trade will be.

For the purposes of the subsequent analysis it is therefore important to determine which economic size ("small" or "large") is assumed to apply to Britain and which to Canada. During its history, Britain has arguably changed from the large country case to the small country case when general trade with the rest of the world is considered. In the 19th century Britain could influence the world price of many goods. In the 20th century she cannot (although this may vary at an industry-specific scale depending on that industry's relative size and elasticity of supply). However within the EEC (which she did join partly to gain economic weight) Britain should be considered in terms of the large country case because there she can influence prices. This means that in different contexts and in different time-periods Britain's economic size has varied. Canada on the other hand can generally be treated as the small country case although again, in some specific industries, this may not be so.

In order to establish the impacts of joining a trade association on Canada and on Britain, at a theoretical level the usual approach (for example used by Grubel, 1977) is first to examine a small and a large country in the theoretically purest form of trade arrangement (universal free trade) to act as a

base scenario. Second a tariff is introduced into both countries' base scenarios to establish its impacts. Finally, since universal free trade is an unrealistic assumption, the effects of the removal of a tariff are studied for both scenarios using the theoretically second-best alternative of the customs union[1]. Once overall terms of trade have been established for the country in question, then partial equilibrium analysis can be used to determine the individual welfare effects it is likely to experience.

The 'Universal Free Trade' and 'Effects of a Tariff' Assumptions Applied to the Large and Small Country Scenarios

The first two stages of the approach just described are given in Appendix C which analyses the effects of universal free trade and the imposition of a tariff on a small and a large country and which, although useful because it presents the theoretical concepts on which the following analysis is based, is of less direct relevance to the report. Generally however, it can be concluded that, under conditions of universal free trade, it is in the interests of a small country, with no ability to affect world prices, to remove as many tariffs against the rest of the world as possible, because economic growth will always increase its welfare. Conversely, it is in the interests of a large country to impose unilateral tariffs if it can avoid retaliatory action (Grubel, 1977). In theory this potential for retaliation should eliminate unilateral tariffs. In practice however, several countries have managed to maintain them on a temporary or even a long-term basis. Indeed so many of the "successful" world economies have done so (the US, Germany, Japan and Australia for example) that one might be forgiven

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[1] The term "customs union" should be interpreted fairly loosely in this section to mean "some kind of trade association".

for wondering if the strategy is not worth the risk.

Given that Canada is generally seen as having less influence on prices than Britain, and that Grubel concludes that small countries should remove tariffs whereas large ones should impose them, it is very interesting that Canada is one of those countries which has successfully used unilateral tariffs for some considerable time whereas Britain has favoured free trade for more of her history as was shown in Chapter 2. This discrepancy between theory and practice probably arises from the fact that universal free trade is a rather unrealistic assumption. It is therefore probably more useful to consider the trade theory concerning a customs union.

In contrast to the universal free trade scenario, the advantages and disadvantages of removing barriers to trade for large and small countries in a customs union are far less clear-cut. Even though free trade is the 'ideal' situation to be at, welfare is not necessarily increased if a country tries to move towards this ideal; that is, if one distortion is removed in a world where several distortions were initially present, welfare may actually decline. This theoretical ambiguity is known as the "principle of second-best" (Grubel, 1977). Whether or not welfare is improved as the result of the union's formation is a function of whether it produces trade creation or trade diversion effects. These were first described by Viner (1950) in his original work on customs unions. He defined "trade creation" as resulting when there is both a net benefit inside the union and in the outside world (which loses in the short run but then gains in the long run due to the diffusion of the prosperity from inside the union). Conversely "trade diversion" results when there is a net loss both to the union and to the rest of the world.

General Equilibrium Analysis of a Customs Union for a Small Country
(Generally applicable to Canada in the NAFTA)

Figure 15 illustrates how general equilibrium analysis can be used to establish the net trade diversion and creation effects on a small economy (such as Canada) which would result from joining some kind of customs union. Figure 15 clearly shows that A's (Canada's) welfare can potentially either increase or decrease as the result of joining a union with large country B (US) and the two countries then jointly imposing an external tariff against the rest of the world (C). If pre-union A consumed at W_o, after tariffs with B were removed, production would be at P_1 and trade would be at B_1B_1' prices. Country A therefore would have increased its welfare because it has attained welfare level W_1. Conversely, if pre-union A consumed at W_o' the resultant move to W_1 would represent a loss in welfare.

Figure 15 also illustrates how the magnitude of trade creation and trade diversion effects can be quantified, as is attempted in some of the models cited below. The diversion of trade from C to B leads to a decrease in income of B_2B_3 from good X. However this effect is compensated for by the increased efficiency gained by the change in production from P_o to P_1 (leading to an increase in income of B_3B_1). The net effect of trade diversion and creation is therefore an increase in income equal to B_2B_1. If B_1 lay between B_3 and B_2, the diversion effect would then be greater than the creation effect, and there would be a net loss of income as a result of the customs union.

Partial Equilibrium Analysis of a Customs Union for a Small Country
(Generally applicable to Canada in the NAFTA)

Individual welfare effects on an industry in a small country A can be analysed using partial equilibrium analysis. This is illustrated in Figure 16.

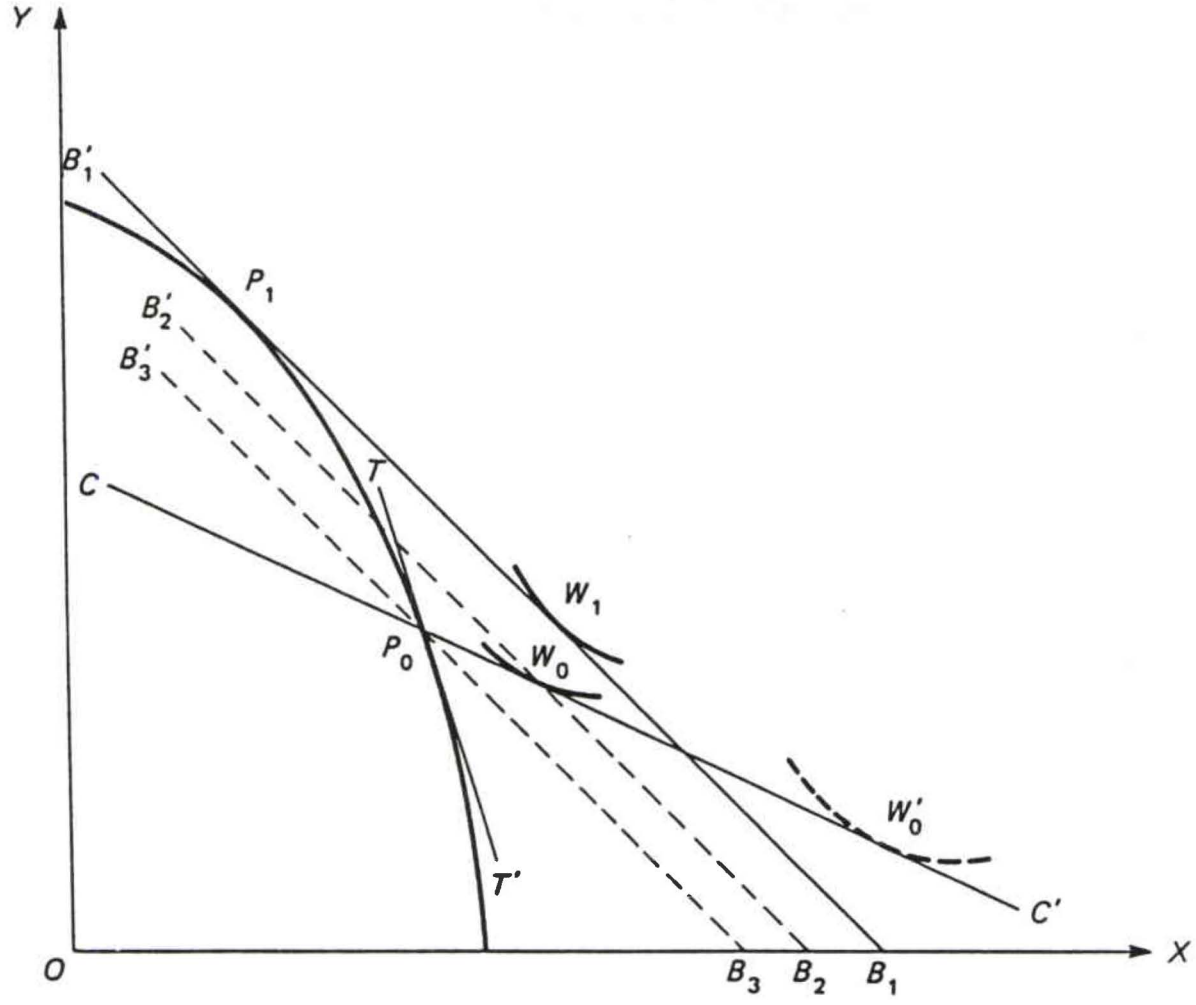

Figure 15: General equilibrium analysis of trade diversion and trade creation effects in a small economy. After Grubel, 1977, p.590.

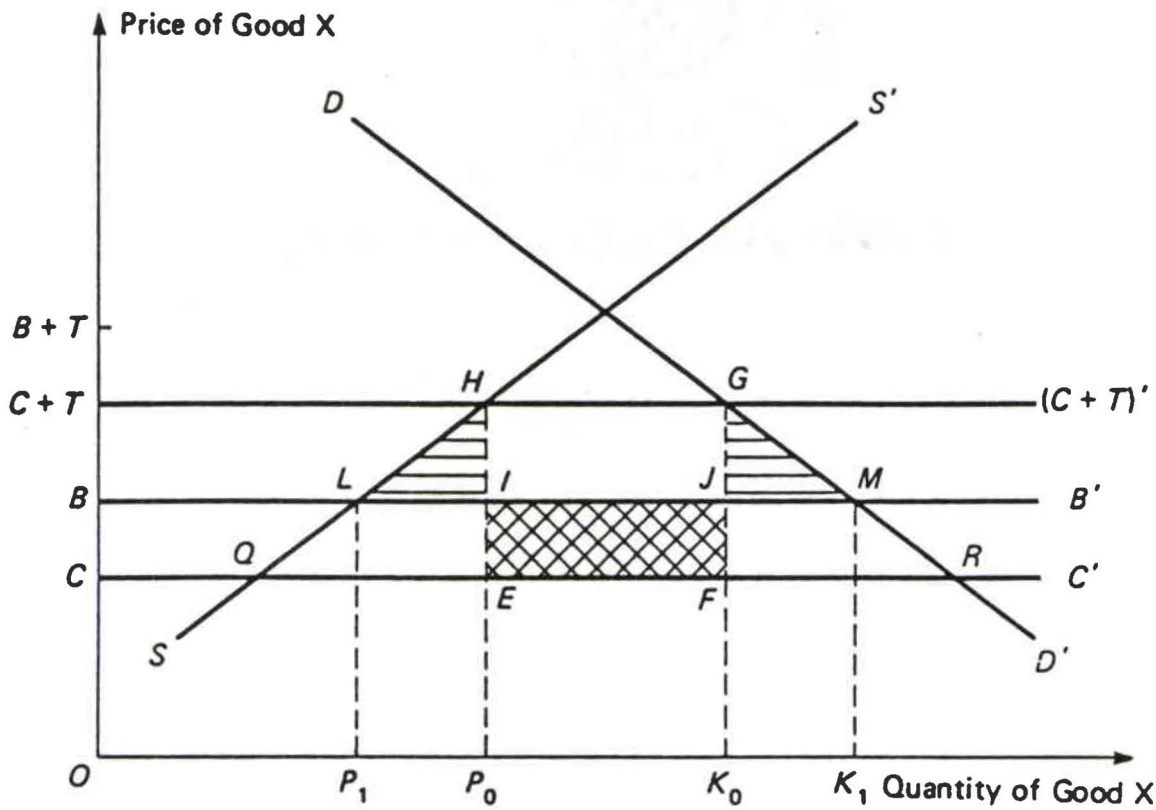

Figure 16: Partial equilibrium analysis of trade diversion and trade creation effects in a small country's industry. After Grubel, 1977, p.587.

where A's industry demand and supply curves for a good X are given as DD' and SS' respectively. Country A (Canada) faces a perfectly elastic supply curve (BB') of good X at price OB, from country B (the US) and a similar supply curve (CC') at price OC, from country C (the rest of the world). In the presence of a uniform tariff on X imposed by A, A would import X only from C. This would produce a combined welfare loss of HQE and GFR, and would allow A to collect EFGH in revenue.

If A and B (Canada and the US) then form a customs union, A now faces the tariff-free supply curve BB'. It therefore lowers its own production of X to OP_1 and supplies its increased demand by increasing its trade and switching its source of supply from C to B. A's welfare is therefore both increased by an amount equal to LIH and JMG (the trade creation effect), and decreased by the amount of tariff revenue collected under the preunion conditions (IEFJ), which now forms part of the payment to B (the trade diversion effect). The latter has to be recouped somehow, possibly by raising taxes.

The net effect therefore of the formation of the union is determined by the relative sizes of the trade creation and trade diversion effects. These in turn are a function of the elasticities of the domestic demand and supply curves, the size of the pre-union tariff, and the difference in the cost of good X bought from countries B and C (Grubel, 1977).

General Equilibrium Analysis of a Customs Union for a Large Country (Generally applicable to Britain in the EEC) and Some Problems Considered

The analyses of the small country scenario just presented, by definition, do not include any terms of trade effects. In fact terms of trade effects of customs union formation may be considerable (Grubel, 1977). It is therefore

important to establish whether formation of the union by two or more large countries is likely to improve or worsen the union's terms of trade. It would be desirable to extend the offer curve method of analysis for this purpose but unfortunately the conventional two-commodity model of offer curves does not lend itself very well to the analysis of customs union formation. Whereas the interaction of the offer curves of two countries can be analysed successfully (as in the free trade scenario where one curve represents the country in question, the other the rest of the world[1]), a customs union requires at least three curves (two large countries and the rest of the world). This means that in a three-country world with two goods (the customs union situation), the terms of trade can only be analysed between two of them at one time.

However some limited use of the technique can be made if it is assumed that there is initially no trade in goods X and Y between the two union member countries A and B as shown in Figure 17. This means that the offer curve of B can be stacked onto that of A and the resulting combined curve can be analysed against that of C in the normal way. This is illustrated in Figure 18 where, at point E, country C, at terms of trade OT, is willing to trade just the amount of X for Y which the other two countries are willing to trade at that price. Of course this does not deal with the terms of trade between A and B but it helps to formalise the important processes involved in analysing a customs union.

The framework could, in theory, be extended in a rough and ready fashion to take in the original six members of the EEC, if some initial assumptions are made as to the relative importance of economic interaction between individual members. Figure 19 gives an example of this where France

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[1] As outlined in Appendix C.

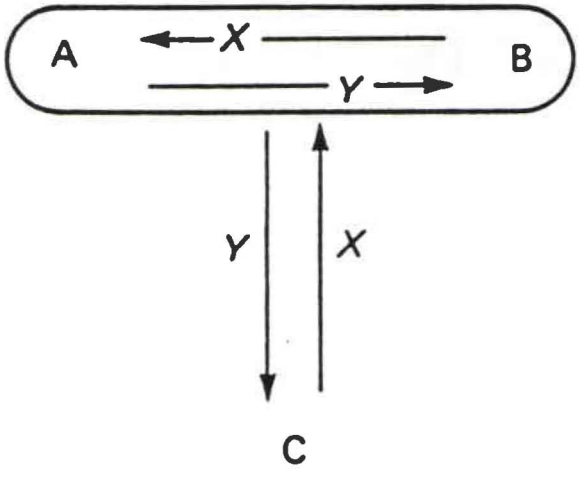

Figure 17: Schematic analysis of a possible trading pattern between three countries where two of them (A and B) have formed a customs union. After Grubel, 1977, p.593.

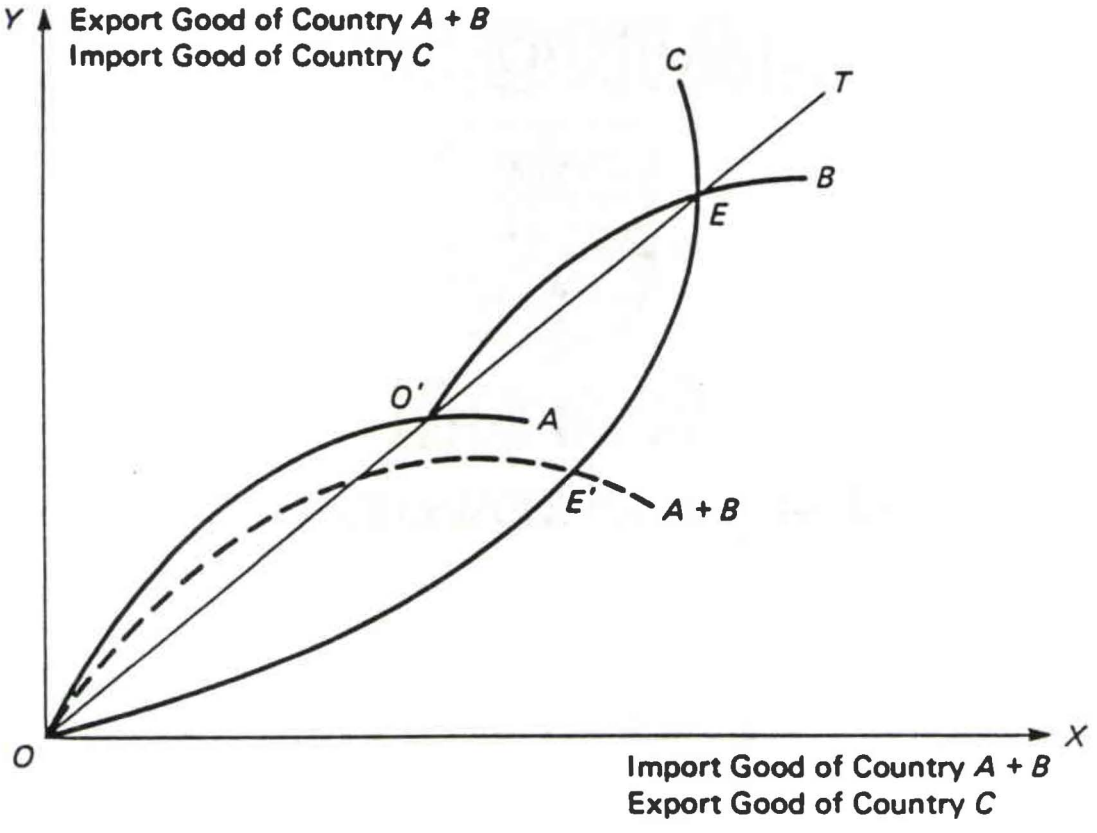

Figure 18: **Analysis of Figure 17 in an offer curve framework showing customs union formation and the terms of trade between two large countries (A and B). After Grubel, 1977, p.594.**

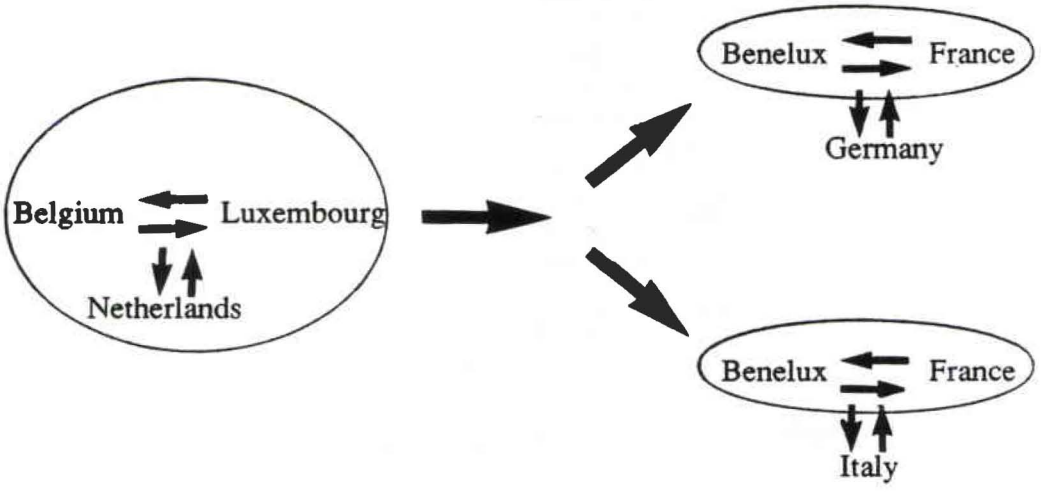

Figure 19: A theoretical diagram of the economic linkages between the original members of the EEC.

and the Benelux countries are shown as being the most closely linked and then this grouping can, in turn, be linked to either Germany or Italy. Part of Figure 19 might then be translated into the offer curve diagram shown in Figure 20. This diagram could be rearranged in different ways depending on the country singled out for special study. Clearly now there are 12 member states in the EEC, description of the whole institution in this way would be very difficult, but it is a beginning.

The Hecksher-Ohlin model suffers from several other limitations which are discussed by Grubel (1977). Like the Neo-classical models before it, the model makes considerable aggregation assumptions. For example, although it is safe to assume that, for an individual, a move to a higher indifference curve always represents a gain in welfare, it is not certain that the same is true for the community because, in the latter case, increased income may be accompanied by a redistribution of that income among consumers.

Perhaps an even more important limitation stems from the types of custom union effects which the model measures. These effects can be classified into two types: static effects, and dynamic and other effects. "Static effects" include the more easily quantifiable balance of payments and welfare effects and therefore can be estimated to some degree using the trade creation and trade diversion concepts of the Hecksher-Ohlin model. By contrast, the "dynamic and other effects" do not fit readily into rigourous analytical models and yet they are often more significant. These effects include certain gains unique to customs unions as well as the additional benefits from economic union. The former result from increased competition, decreased oligopolies and specialisation economies. There should also be economies of scale in research and development, savings in administration, greater incentive for external investment

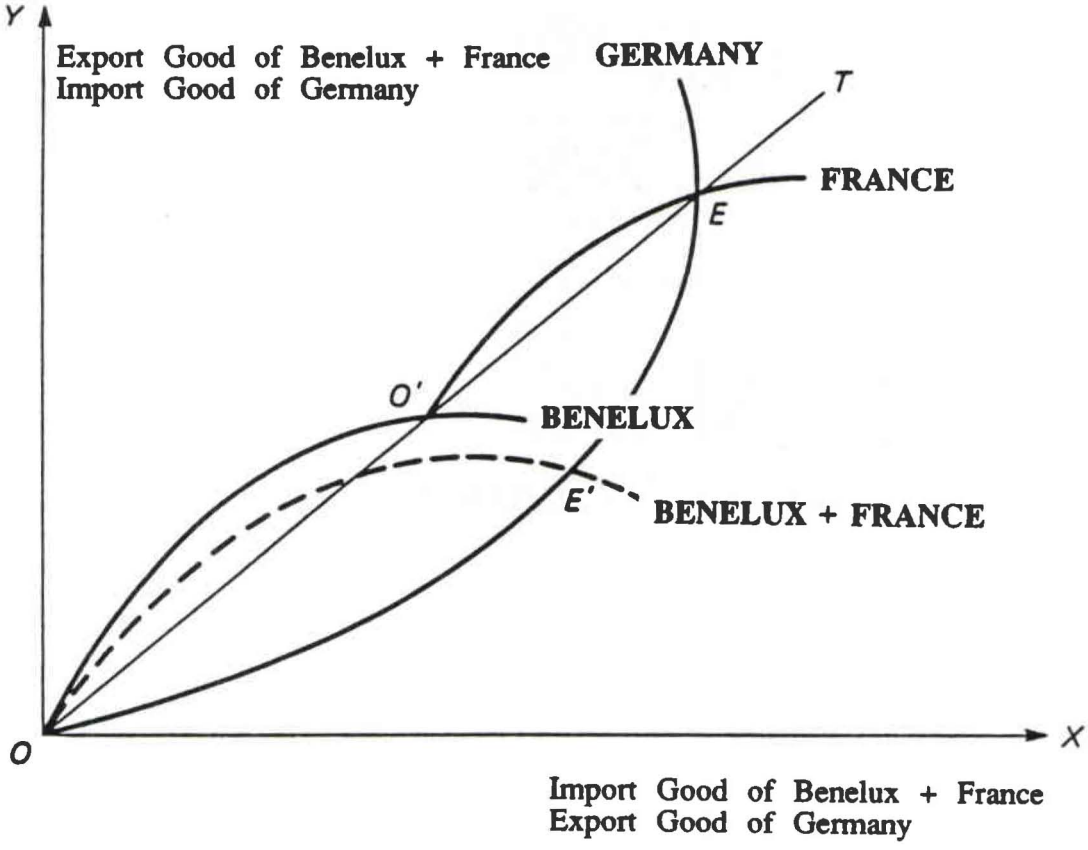

Figure 20: Translation of Figure 19 into an offer curve framework.

in the country, and increased efficiency in the allocation of factors of production (increased factor mobility). The latter result from the creation of an optimum currency area which produces positive welfare effects by establishing and increasing the level of income (Grubel,1977).

Recent Developments

Equilibrium analysis for the EEC has remained largely at the level of estimating trade creation and trade diversion effects in a partial equilibrium fashion for different parts of the economy, and then summing these pluses and minuses in an accounting balance sheet manner to obtain the end result. This is largely because of the theoretical problems discussed in the previous section. However, in addition, even if these problems could be overcome, trying to mathematically define, or geometrically analyse, such a model would be an extremely complex task[1]. Other factors could well have contributed to a lack of attempts at different methods but these will be discussed later.

Canadian analysts however are rather more fortunate in the problem they have to analyse because it involves far fewer players. This means that not only have they been able to mathematically define a general equilibrium model treating Canada as a small country case, they are also developing one which treats Canada as a large country (Watson, 1987) and is therefore more sophisticated because it allows the incorporation of for example, imperfect competition.

It should therefore be possible to investigate how all Canadian prices and quantities change in response to a change in tariff barriers. Figure 21

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[1] This was especially true when most of the EEC studies were carried out. The computational power of computers has grown considerably since then.

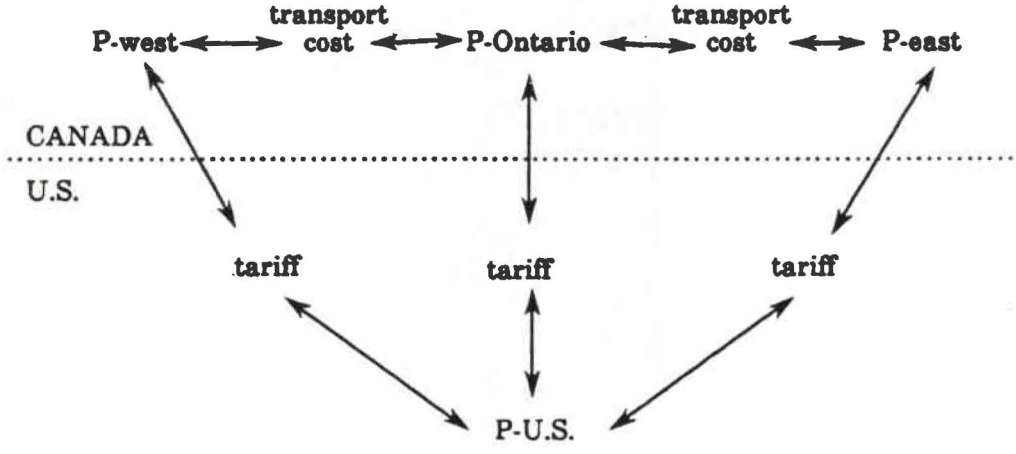

Figure 21: Suggested structure for a regional general equilibrium model. After **Watson, 1987, p.265.**

shows how Watson (1987) envisages such a model could be structured. For the purposes of the figure, Watson assumes that:

i) The US is a fully integrated market and prices are identical everywhere.

ii) Transport costs between Canada and the US are zero.

iii) Transport costs between the east, middle and west of Canada are greater than zero.

iv) There is a tariff between Canada and the US.

In a world with no tariffs, most trade would be north-south, and Canadian regional prices would be a function of US prices. If a tariff is introduced, as the tariff rises there will be a tendency to substitute inter-regional for international trade. (Watson, 1987)

2. Examples of Equilibrium Studies from Britain and Canada

This section discusses specific examples from the British and Canadian cases which relate directly to the theory presented earlier. The examples generally show a chronological progression in their level of sophistication. When the results are considered it should be noted whether they are ex-ante or ex-post studies. Ex-ante studies are predictive being done before the association was established. They first recorded the pre-union situation and then performed some form of extrapolation (of varying complexities) to determine what the situation would have been if association had not taken place. Ex-post studies, on the other hand, by comparing what has happened with the base scenario (of what might otherwise have happened), seek to measure the actual effects of association (Winters, 1987).

UK Ex-ante Studies 1958-71

The techniques used in British ex-ante studies concerned with joining the EEC were developed and honed by those seeking to test the integration effects resulting from the setting up of the initial Community of six in 1957[1]. These EEC studies generally employed some form of equilibrium analysis (e.g. Truman, 1969) with varying degrees of sophistication (for example in allowing price to vary). Earlier authors tended to concentrate on estimating only the static effects. Later writers generally tried to quantify more of the dynamic and other effects. However, in spite of this, they all concluded in a similar vein that the EEC, in its original six-member form, was beneficial to overall world welfare (Sellekaerts, 1973), and continues to be so, subsequent to its enlargement (Mendes, 1986).

Though they used similar techniques, the British studies had rather different results. One of the first ex-ante studies was conducted as early as 1958 (Johnson, 1958) and so draws heavily on Viner's customs union theory (Viner, 1950). Johnson concentrated only on the welfare gains achieved from the specialisation and division of labour. Using a partial equilibrium analysis, he estimated a total gain of £225 million (a 1% increase when compared with what the Economist Intelligence Unit estimated in 1957 the GNP would be in 1970).

As Britain progressed towards joining the EEC, studies became more numerous. In February 1970 three rather varied estimates of the potential balance of payments effects were published (Banker, 1970) as shown in Table 11. There is a considerable degree of agreement between these estimates as to the

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[1] For reference to the European ex-ante studies see Balassa (1967) and for an very useful summary table of the results of ex-post studies see Kreinin (1972).

Table 11: Table Estimating UK Accession Costs From the Banker (1970) Entitled "Balance of Payments Effects: Three Recent Estimates"

	Net Change (£ millions pa)		
	Jay*	Weeks+	CBI^
Current Account			
Visible Trade:			
- manuf. & semi-manuf.	-475	-100	+100
- agriculture	-550	-400	-400
- raw materials	No change	No change	No change
Invisible trade	Some net gain	Some net gain	Some net gain
Capital Account	-100	-100	-100
Total	-1,100	-600	-400

* Mr. Douglas Jay, MP, in an article in the *Guardian*, September 19, 1969.
\+ Sir Hugh Weeks in a paper for Leopold Joseph and Sons, November 1969.
^ The Confederation of British Industry in *Britain in Europe*, January 1970.

Adapted from the *Banker*, 1970, p.149.

balance of payments cost in trade in agricultural goods, raw materials and invisible items. However the results differ widely on the subject of trade in manufactured goods. Three particular features should have been expected as a result of union. First the reduced overall level of protection for UK industry. Second, a further increase in export prices. Third, a favourable effect on UK trade as a result of access to richer and more rapidly growing markets. The estimate of Mr. Jay (Jay, 1969) largely ignored the third feature, while Sir Hugh Weeks stressed only the first and the CBI (CBI, 1970) neglected the second.

A series of ex-ante studies, which probably attempt to present a less biased view than those quoted from the Banker, and which also give the details of the models used so that the techniques can be analysed, are given an excellent review in an article by Miller (1971). Miller compares seven separate estimates of the static balance of payments and welfare costs of entry. One estimate combines the results of Josling's work on food (Josling, 1971) and Williamson's work on trade in manufactures (Williamson, 1971). Another is derived from the figures in the 1971 White Paper (HMSO, 1971). Two others come straight from the 1970 White Paper corresponding to the 'high' and 'low' elasticity calculations given there (HMSO, 1970). An additional two are from Kaldor's (1971) 'high' and 'low' estimates based on balance of payments variants (taken from the 1970 White Paper) for each of which he calculated the resource costs. Finally Miller presents the Miller-Spencer estimate based on a general equilibrium trade model (Miller and Spencer, 1971). His comparison is shown in Table 12.

The great strength of this Table is that Miller has attempted to make the estimates as directly comparable as possible by going back to the original assumptions of each model and performing additional calculations where specific

Table 12: A Comparison of Some UK (Static) Balance of Payments and Welfare Costs of Entry (£m., 1969 prices)

	Josling Wlmson	Miller Spncr	71 White Paper	70 White Paper elastic	70 White Paper inelstc	Kaldor low	Kaldor high
1. Gains from trade creation	-- *-58*	-- *-56*	-- ...	-- ...	-- ...	-- ...	-- ...
2. B/Pt deficit on manuf.s	100 *33*	151 *54*	... ...	35[d] *12*	58[d] *70*	(125) *20*	(275) *50*
3. Import saving on food	-225 *-74*	-480 *-172*	-140 *-47*	-320 *-107*	-200 *-240*	-- --	-- --
4. Grtr. imptd. food cost	70 *87*	167 *206*	190 *238*	235 *294*	255 *485*	200 *267*	200 *267*
5. **Sub-total**: Cost of entry before official trnfrs	-55 *-12*	-162 *32*	50 *191*	-50 *199*	113 *315*	(325) *287*	(475) *317*
Official transfers:							
6. Levies on food	81 *101*	-282 *350*	80 *100*	167 *209*	176 *334*	200 *267*	200 *267*
7. Customs duties	240[c] *300*	222 *275*	240[c] *300*	240 *300*	240 *456*	240[c] *319*	240[c] *320*
8. Value-added tax	--[b] --[b]	--[b] --[b]	75 *94*	--[b] --[b]	--[b] --[b]	-- --	230 *306*
9. Receipts from the Community	--[b] --[b]	--[b] --[b]	-100 *-125*	--[b] --[b]	--[b] --[b]	-100 *-133*	--50 *--66*
10. **Sub-total**: Entry transfer costs	321 *401*	504 *625*	295 *369*	407 *509*	416 *790*	340 *453*	620 *827*
11. **Total cost**	266 *389*	342 *657*	345 *560*	357 *708*	529 *1,105*	(665) *740*	(1,095) *1,144*

[a] Arabic figures are balance of payments costs, italics are welfare costs. Negative signs indicate gains. Estimates refer to the period after transition. Figures in parentheses include the effects of a wage-spiral.

[b] Nil for rows 8 and 9 together. Miller assumes this from the 1970 White Paper.
-- indicates 'nil'; ... indicates 'not available'(taken as nil).

[c] This figure comes from the 1970 White Paper.

[d] Adjusted by Miller to take out the spiral effects.

Adapted from Miller, 1971, p.120-121.

estimates of variables are missing. This is very useful, although care must be taken when reading the chart to appreciate which are original estimates from authors, and which are adapted for comparison (the present author has indicated on the Table where this is the case).

Comparing the figures given for each variable in the Table gives a useful insight into how the models work and how they differ. There are three types of balance of payments effects shown in Table 12: unrequited or transfer payments (rows 6-9), costs associated with paying more for what is imported (row 4), and effects of tariff changes (rows 2 and 3). However, for the purpose of calculating resource costs or welfare effects, only two categories are required; official transfers or items of a transfer-like nature, and effects associated with tariff changes. In addition to the balance of payments effects, it is also important to calculate estimates of the welfare effects from the papers if possible, because static welfare effects may arise even when there are no balance of payments effects (i.e. in situations of balanced trade). These welfare effects, resulting for example from gains in production and consumption efficiency after a tariff is removed, are shown in row 1. In fact only two papers contain original estimates of this trade creation effect and neither is totally satisfactory. Josling-Williamson relates only to manufacturing and Miller-Spencer is a residual estimate (after all other costs are accounted for).

It is difficult to compare the balance of payments deficit figures for all the models because Kaldor's figures allow for a wage-price spiral arising on entry. The others do not. (The 1970 White Paper originally did but Miller adjusted for this). They are also extremely difficult to evaluate (involving the complex calculation of various supply and demand elasticities in the face of different tariff changes). By contrast, the welfare estimates are comparable and

generally appear fairly small. The highest estimate is from the 'inelastic' scenario of the 1970 White Paper because the paper assumes inelastic demand responses so that a large movement in the terms of trade is required to remove a given deficit.

Kaldor does not present an estimate for import saving on food (he just gives a composite figure for rows 3 and 4 represented by a transfer payment to the EEC). By contrast, the balance of payments estimate from the Miller-Spencer Model for this import saving is very high (probably unrealistically so) because of the very high import elasticity they assume for food. Other estimates are somewhere in between.

If rows 4 (cost of the rise in price of imported food) and 6 (levies on food) are taken together, the papers fall into two groups. On the one hand there are the Kaldor, Miller-Spencer and 1970 White Paper estimates, and on the other, the Josling-Williamson and 1971 White Paper figures. In the first group, estimates lie in the range of £400-£450 million whereas in the second they range from £150-£270 million. Perhaps the most significant reason for this difference lies in the smaller price gap assumed by the latter group.

There are a lack of independent estimates of customs duties effects. The Miller-Spencer estimate was the result of applying an average tariff rate of 5% to all non-EEC non-food imports. All other figures stem from the estimate of the 1970 White Paper (either introduced by the authors themselves or substituted by Miller).

Rows 8 (VAT) and 9 (Receipts from the Community) can be considered together since they largely cancel each other out. The maximum VAT liability, corresponding to a rate of 1%, was put at £230 million in the 1970 White Paper (HMSO, 1970) but it was thought to be potentially a lot less (about £100 million).

This, combined with the likely receipts of £100 million from the Community (HMSO, 1970) gives the zero sum figure (slightly modified in the 1971 paper) which Miller quotes almost across the board. Kaldor is really the only exception to this. He took the maximum and minimum VAT contributions and combined them with the 'low' and 'high' receipt figures in the 1970 Paper to arrive at his estimates.

The total estimated costs in both balance of payment and welfare terms for the seven estimates (some incorporating Miller's adjustments) are shown in row 11 and are graphed in Figure 22. There is obviously some considerable variation in these values. The variations in welfare costs (after correcting for the spiral effects and ignoring the range of the VAT/receipts net figure) can be largely explained by the food costs in rows 4 and 6 which are in turn determined by the price gap (between EEC and world food prices), plus a constant figure of around £240 million for customs duties, plus the added burden relevant to such transfer or transfer-like costs.

Kaldor's and the 1970 White Paper's welfare estimates would be brought closer into line with the others by the former taking a less pessimistic view of the estimate of the 'VAT contribution to the budget less receipts' in his 'high' estimate, and the latter taking a less pessimistic view of the 'resource costs of adjustment' in its 'inelastic' estimate. Kaldor ('low') and the 'elastic' version of the 1970 White Paper have the same large price gap, but lower costs of adjustment. The Miller-Spencer study assumes a smaller gap together with similar low adjustment costs. The 1971 White Paper and Josling-Williamson have both a low price gap and low adjustment costs. Finally, Kaldor's balance of payments effects would similarly be more in line with other estimates if he took a less pessimistic view of the balance of payments deficit on manufactures.

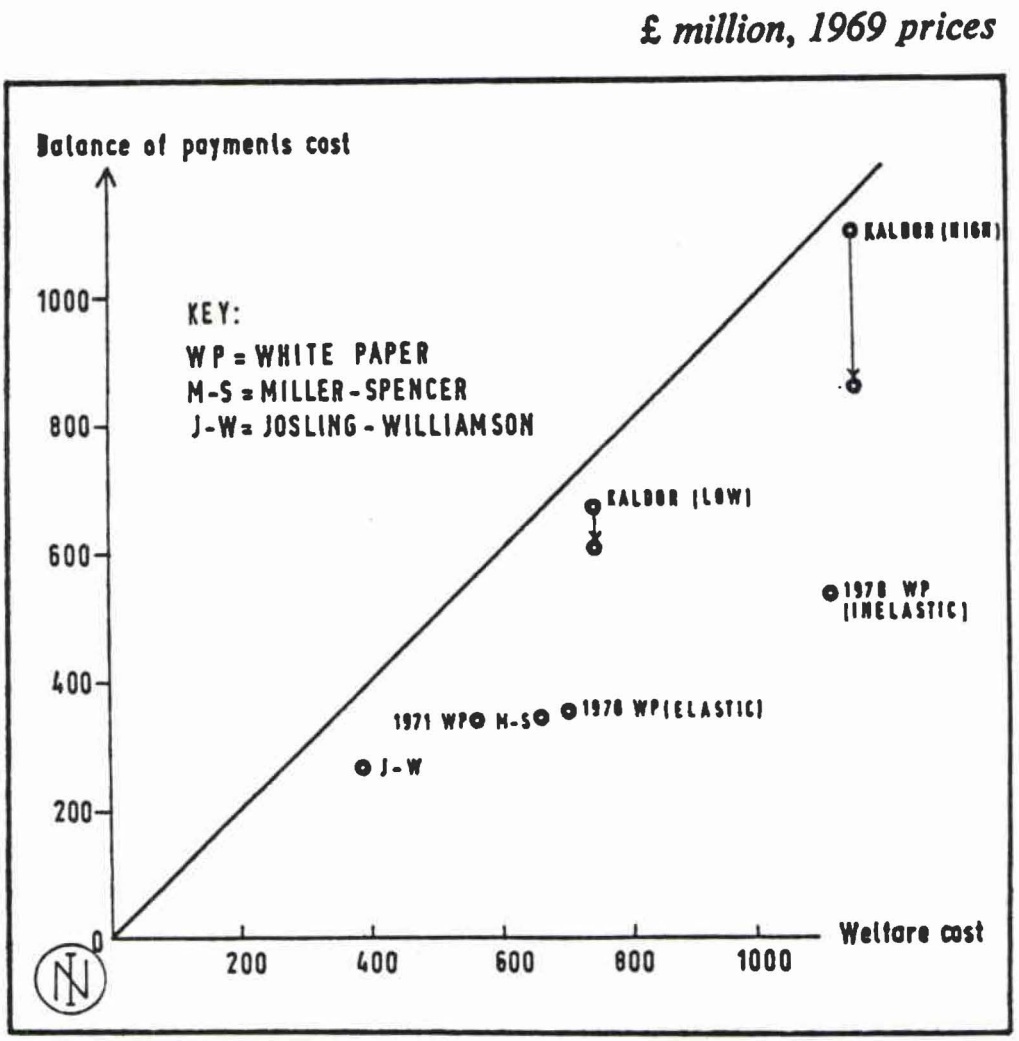

Figure 22: **A summary of various authors' estimates of the (static) balance of payments and welfare costs of Britain's entry into the EEC. After Miller, 1971, p.131.**

UK Ex-post Studies 1978-1985

It is perhaps surprising that the authors who provided the ex-ante study results for Britain generally have not gone on and conducted ex-post studies with which to compare them. In fact there appears to have been a singular lack of quantitative ex-post studies. Winters (1987) provides an extremely useful summary of what he feels are the available good ones. This summary is shown in Table 13. From each author, Winters takes what, in his opinion, is the most representative 'change in trade flows' figure, and places this in the final two columns of his Table. The present author has added another column to indicate the range from which this "best estimate" was taken.

The most striking initial impression is probably that, even though figures for the British imports and exports of manufactures before and after accession were available for the ex-post studies, considerable variation still exists in their estimation of the actual EEC-attributable effects. Each model will be reviewed briefly to show how it fits into the theoretical framework.

Daly's (1978) article was the first ex-post study of trade patterns to be published. She fitted a time trend to the share of UK exports in the imports of the original members of the EEC, in certain product categories, over the period 1963-71. The actual results for the period 1973-76 were then compared with the trend projection for those years. A similar test was applied to the imports figures. Any tendency for shares in post-entry years to exceed their trend levels was seen as an indication that EEC membership had encouraged trade. Thus the base scenario used was a rather simplistic extrapolation.

Daly's results were only qualitative but they were extended by Mayes (1983) using the same extrapolative techniques, to give the figures in Table 13. Mayes estimated that the difference in total visible imports from the EEC was £5

Table 13: Ex Post Studies of UK Accession to the EC: Trade in Manufactures

(£m. except where indicated)

	Variable	Range of original authors' estimates (if available)	
		imports	exports
Fetherston Moore and Rhodes (1979)	M_E, M_R	+1089 to +5546	+35 to +813
	$X_E/(X_E+S^*_{EE})$	+186 to -1059	+182 to -640
Morgan (1980)	M_E+M_R	+750 to +850	
	X_E+X_R		+1075 to +1125
Daly 1978	$\frac{M_E}{M_E+M_R}$		
Mayes (1983)	$\frac{X_E}{X_E+X_R}$		
	$\frac{X_E}{X_E+S_{RE}}$		
Winters (1983)	$\frac{X_E}{(X_E+S_{RE})}$,		
	$\frac{X_R}{(X_R+S_{ER}+S^*_{RR})}$		
(1984)	$H_{/C}, M_{E/C}, M_{R/}$ (	+8 to +12 bil.	
(1985)	$\frac{X_E}{S_{.E}}, \frac{X_R}{S_{.R}}$	+0 to -2 bil.	

[a] EC (8)
[b] Total visible trade

M Imports H Home Sales S_{ij} Sales from i to j
X Exports C Total Consumption (E: Europe, R: Rest of the world)

Adapted from Winters, 1987, p.321.

billion in 1981, of which about £1.5 billion was attributable to non-manufactures. For exports Mayes considered two ratios: the share of the EEC(6) in UK exports, $X_E / (X_E + X_R)$, and the UK share of EEC(6) imports, $X_E / (X_E + S_{RE})$. The former gave an estimate of increased exports to the EEC of £4.75 billion in 1981, and the latter suggested an increase of £7 billion. The Daly-Mayes model cannot, of course, be broken down into trade creation and diversion effects, which restricts its usefulness especially in terms of calculating welfare impacts. In this respect it does not follow on well from the ex-ante predictions, although its commodity disaggregation is an advantage which the other estimates do not have.

The first really quantitative estimate of the effects of accession was presented by Fetherston, Moore and Rhodes (1979). They set out to test the suggestion, put forward by the HMSO White Papers of 1970 and 1971, that there would be substantial benefits arising from, and associated with, the "dynamic effects" of joining the Common Market. They defined EEC trade to include both the original six and the other two 1973 entrants (Denmark and Ireland). Their time-series base-scenario related British imports to total final expenditure, time and relative unit labour costs between the UK, the EEC(8) and the rest of the world (Canada, Japan, Sweden and US). For exports they considered UK exports relative to total EEC exports both to EEC and non-EEC markets, using total EEC exports, time and relative UK/EEC labour costs as explanatory variables.

Fetherston, Moore and Rhodes used a range of elasticity values in their base scenario so there was a large range of possible outcomes, although they did present a most likely table of estimates based on intermediate elasticity assumptions. These are the ones quoted by Winters in the Table. (The ranges have been added at the side.) Winters (1987) sees this wide range as a

disadvantage in the method. However, it is useful because if an informed reader wishes to know the implications of this or that elasticity, he or she can pick the relevant scenario and the analysis has already been worked through. Further the authors did commit themselves to a figure when they estimated in their conclusion that total cost to real national income in 1977/8 could have been as high as 15%.

A more serious criticism of the model is that it clearly omits one source of variation in exports: namely the demand for and supply of non-EEC goods. If the enlargement of the EEC caused both new and original members to concentrate on each other's markets, the model would understate the diversion of exports to third markets as all members would be displaced by the local and non-EEC suppliers of those third markets.

Morgan's paper (Morgan, 1980) also attempts to link in with the ex-ante studies reviewed earlier. She pointed out that since the pre-entry estimates of the effects of membership were largely made in terms of balance of payments "gains" and "losses", it was probably most appropriate to follow a similar approach in looking at the post-accession record. This she proceeded to do using a method for exports which was similar to that employed by Balassa in his 1974 use of ex-post income elasticities in his study of European integration (Balassa, 1975).

For a series of periods Morgan analysed UK exports to various markets; calculating an ex-post elasticity of demand for exports with respect to market demand rather than income. She established her base scenario by applying the 1968-72 elasticities to the period 1972-76 for exports to the EEC(6), EFTA, Ireland, Canada, New Zealand and Australia. This was then updated to 1977, taking account of a generally stronger UK export performance in that year. The

result was an estimated increase in total manufactured exports of £1075-£1125 million.

For imports Morgan related British imports to demand, relative prices, and a variable representing average tariff levels. Applying the estimated price and tariff elasticities to the known tariff reductions resulting from accession enabled her to estimate increases in imports of £500 million for finished manufactures and of £250-£350 million for semi-manufactures. Since these estimates are based explicitly on tariff changes, they almost certainly understate the extent of trade creation by missing the non-price components of integration. In addition, by only considering the total imports of manufactures, the Morgan model cannot reflect trade diversion.

The final set of results presented in the Table are those of Winters himself (Winters, 1984 and 1985). Winters' model has a similar basis to that of Fetherston, Moore and Rhodes (1979), and Morgan (1980), but from this he attempts to develop a rather more sophisticated model which he applies to both exports and imports of manufactures. This was really the first attempt to move towards a general equilibrium model for the UK. The model incorporates two important factors. First, the allocation of a given level of imports over suppliers is not independent of the price of, and the demand for, home goods. Second, the allocation of expenditure on manufactures over sources should be treated in a consistent manner.

Winters developed a very general model of import allocation explaining import shares only in terms of the total demand for manufactured imports and the prices of manufactures from each of ten suppliers (five EEC partners and five other major industrial countries). The accuracy of the model was then improved by using the prices of, and demand for, indigenous manufactures to

firstly, help explain the division of imports between partner and non-partner sources and secondly, to separate trade diversion and creation effects. Winters finally refined the model further by imposing certain constraints on it derived from consumer demand theory[1] and, in order to operate it, assumed that trade patterns were consistent with the "Almost Ideal Demand System"[2], as developed by Deaton and Muellbauer, 1980.

The effects of accession on manufactured exports were then calculated by applying the import model to each of five major markets for UK manufactures (France, Italy, Germany, Japan and US). In each case there were seven sources of supply: the five countries plus the UK and the rest of the world. As in the case of imports, home sales were allowed for, systematic theoretical constraints were imposed, and dummy variables were used to represent economic integration.

In terms of imports, Winters suggested that there might be a large decline in UK domestic sales, amounting to £12 billion of trade creation. He modified this estimate, by taking out any possible secular trends, to give a more realistic estimate of £8 billion of internal trade creation and no net external trade creation (as shown in the Table). Winters' estimates for exports were rather optimistic; suggesting increases to the EEC of £4.5 billion and decreases to the rest of the world of £1.7 billion. He did not give a directly comparable less optimistic scenario but in his 1984 paper (Winters, 1984) he estimated increases to the EEC of only £2.3 billion and to the rest of the world of £0.6

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[1] For example, shares in total expenditure should amount to 100 percent.

[2] The "Almost Ideal Demand System" explains the suppliers' share of total expenditure on manufactures as a particular function of real expenditure and the prices of all suppliers of manufactures. The various theoretical requirements are imposed by means of linear constraints on the parameters. The addition of certain coefficients attempts to broadly capture the gradual process of integration (Winters, 1987).

billion. This suggests a worsening net trade balance of at least £5 billion.

The above discussions of UK ex-post studies show that they have been concerned largely with measuring balance of payments effects rather than welfare effects. Miller (1971) commented on this lack of welfare estimates in his review of the ex-ante studies and often had to fill in the blanks with his own calculations and Winters (1987) feels that there is still no convincing or comprehensive ex-post estimate of the welfare effects of Britain's accession to the EEC.

The most common approach to measuring these welfare effects is still to use partial equilibrium analysis and the concepts of consumer and producer surplus. Interestingly, the diagram that Winters used in his conclusion (Figure 23) bears close resemblance to that of Viner (1950). Using a similar argument, Winters represented the welfare change in the diagram by the area (A + B) - C_2. The practical application of this long-standing theory is hampered in this case by the fact that there are no existing estimates of the extent to which European prices exceed world prices, especially for aggregates such as manufactures. However, Winters did attempt a rough estimate using this method. He assumed a price elasticity of demand for manufactured imports of -1, little trade diversion, and a £4.0 billion increase in imports of manufactures for 1981 (taken from Mayes, 1983). The resulting estimate was an annual change in welfare of about £275 million (£5 per capita) which suggests that the static welfare effects were probably very small.

Of course partial equilibrium analysis is not really satisfactory for calculating welfare effects since it assumes a single homogeneous good with a single market price. In reality there are several markets, and a change in one supplier's post-tariff price will shift the demand curves facing the others. The

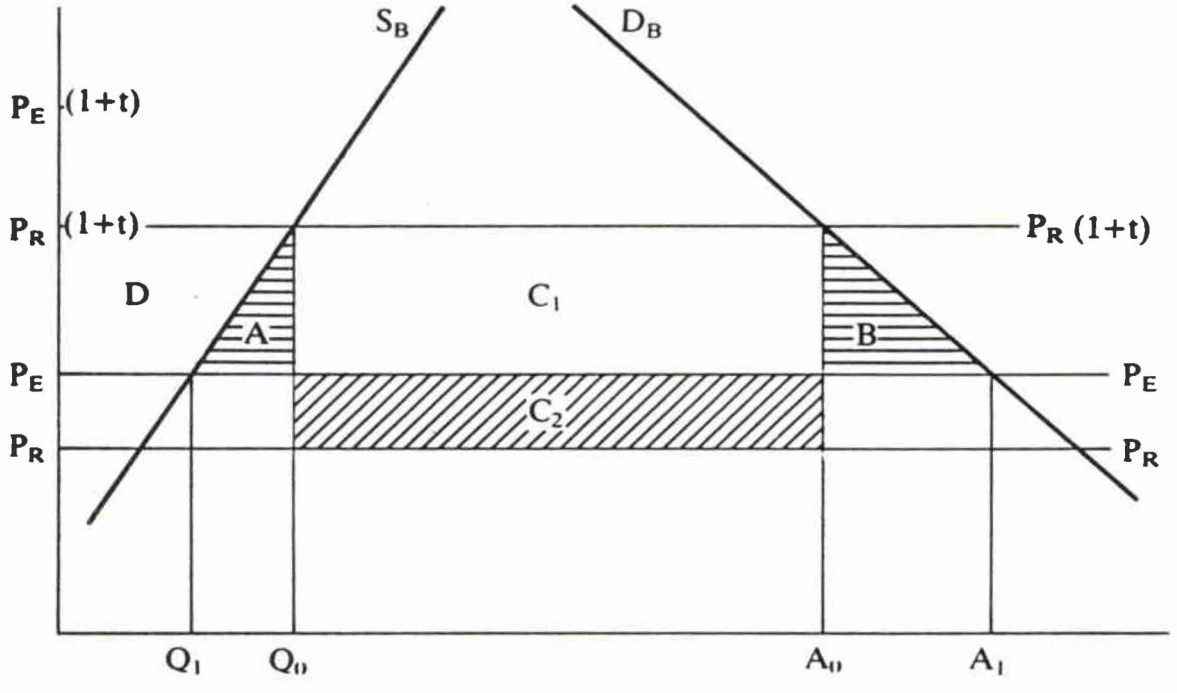

Figure 23: A partial equilibrium analysis of Britain's entry into the EEC. After Winters, 1987, p.330.

way forward probably lies in terms of general equilibrium analysis although, as already discussed, this will involve very complex calculations in order to incorporate all the nations of the EEC. Yet it has already been shown that it is feasible to use general equilibrium analysis to measure welfare (Hamilton and Whalley[1], 1985).

Canadian Ex-ante Studies 1978 - Present

Authors have been able to develop general equilibrium models for the NAFTA more readily than for the EEC because of the smaller number of countries involved. General equilibrium modelling has developed very quickly and an historical progression can be seen from Williams' (1978) to Harris and Cox's (1984) model. The latter, although very innovative at the time, is already becoming dated by for example the work of Muller and Williams (1988).

All three models specifically look at the idea of Canadian-US tariff removal by establishing what the balance of supply and demand would be given a certain level of Canadian and American demand. They do this both with and without the tariff constraints and then compare the two scenarios.

One of the first attempts to use a general equilibrium model for NAFTA analysis was that of Williams (1978). He used a linear programming format to establish the levels of output, exports and imports needed to maximise consumption under free trade. The model contained two important assumptions. First, it assumed constant returns to scale so that if output in an industry doubled, all factor inputs doubled. Second, it assumed that substitutions in

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[1] Interestingly, having begun in Europe, Whalley now works for the Canadian government on the US-Canada Free Trade Agreement as the coordinator for finance within the Macdonald Commission on Free Trade.

production did not occur when factor prices changed so that a single process was used to produce each commodity (incorporating intermediate products). Labour and capital were therefore assumed to be employed in fixed proportion to output, and resource utilisation rates were fixed. Williams also assumed that Canada was an economically small country; no Canadian producer being large enough to set a world price (represented by the American price). In addition transportation rates were considered uniform throughout.

Williams ran three scenarios to operate his model. First was the actual 1961 situation which the model sought to replicate. Second was the free trade situation in which all tariffs and taxes were set at zero. Third was the free trade short-run scenario where industrial output levels were constrained to stay within a 10% variation, and no shift was allowed in the direction of trade in any commodity.

Williams' results suggest that output would increase by 1.4% if the Canadian tariff were unilaterally eliminated, by 2% if the US tariff were universally eliminated, and consumption would increase by better than 4% if both were removed. This is perhaps surprising given the limitations of the model which does not allow for alternative production processes, economies of scale, or changes in resource commodity supply. However, it has been suggested (Watson, 1987) that since Williams' study used 1961 data, at that time (i.e. before the Kennedy Round and the Auto Pact) tariff distortions could have been so large that, even assuming constant returns to scale, large gains could still have resulted from trade liberalisation.

In contrast to Williams, Harris and Cox (1984) were able to construct a general equilibrium model that embodied the twin assumptions of increasing returns and imperfect competition. Increasing returns were incorporated by

assuming that all firms in an industry are identical so that, with a fixed number of firms, industry fixed costs are constant while total costs per unit decline as output increases. Imperfect competition was introduced into the model through assumptions about pricing. Industry prices under imperfect competition were assumed to be higher than they would be under free competition. This would encourage entry and raise fixed costs to higher than competitive levels. Harris and Cox used a combination of Eastman-Stykolt pricing[1] and oligopoly pricing[2] to incorporate these assumptions. Their model distinguished 29 industries and indicated a proportional change in sectoral GDP resulting from multilateral free trade ranging from .04 in construction to .60 in agriculture.

One of the major problems with the Harris and Cox model is that it deals with multilateral rather than bilateral free trade with the US. In other words it assumes the more simplified 'universal free trade for a small country' scenario rather than using the more complex 'customs union' one. This means that the trade diversion effects may well not be accurately predicted because in the 'universal free trade' case losses (caused by diversion) will only be recorded in the rest of the world (which includes the US), whereas in the 'customs union' case diversion could occur outside the NAFTA area (i.e. the rest of the world excluding the US). However, since over 75% of total Canadian trade was with the US in 1987 (as shown in Table 14) this may not be too serious a criticism.

In general, the Harris and Cox (1984) model indicated that, contrary to common belief, the tariff actually discouraged manufacturing, an area in which Canada has a comparative advantage and therefore its removal would be

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[1] Under Eastman-Stykolt pricing prices fall by the extent of the tariff reduction.

[2] Under oligopoly pricing the change in domestic price depends on what happens to the overall elasticity of demand as a result of a tariff change.

Table 14: Structure of Canadian Trade with the United States, 1985

Commodity	Imports		Exports	
	Percent of total imports	Percent from U.S.	Percent of total exports	Percent to U.S.
Live animals	.1	97.3	.5	92.4
Food, feed, beverages & tobacco	5.5	52.6	6.9	38.5
Meat & fish	.8	51.0	2.0	73.2
Fruits & vegetables	2.2	60.4	--	--
Cereals & preparations	--	--	3.3	6.8
Crude materials	6.3	45.8	17.2	61.8
Metal ores, concentrates & scrap	1.3	58.4	3.0	27.0
Fabricated materials	18.0	68.2	32.4	77.6
Wood & paper	1.4	82.2	13.4	77.5
Textiles	1.8	49.0	.2	57.9
Chemicals	5.5	75.6	5.1	66.7
Iron & steel	1.7	50.1	2.2	89.1
Non-ferrous metals	2.4	82.1	5.4	72.9
End products	68.4	78.0	42.7	92.1
General purpose machinery	2.9	75.5	--	--
Industrial machinery	--	--	2.6	77.4
Special industry machinery	4.6	72.7	--	--
Agricultural machinery & tractors	1.7	83.2	.5	87.8
Transportation equipment	35.6	86.8	31.4	96.9
Other equipment & tools	14.8	75.8	3.1	77.9
Clothing	1.6	7.1	.2	81.9
Footwear	.5	7.0	.04	93.0
Special transactions	1.6		.3	
Total imports	100.0	72.8	100.0	78.5

Note:
Data are for January-June 1985.

After Watson, 1987, p.264.

beneficial. Although this result was probably a function of the elasticities of demand and supply for imported and domestic goods assumed in the model, it is interesting because it was directly at odds with the opinion of the manufacturing provinces, who felt they would lose most badly as a result of the removal of tariffs under the agreement.

Before some of the more simplistic assumptions of the Harris and Cox model can be replaced, certain computational problems have to be overcome. Muller and Williams' (1988) paper is the latest attempt to achieve this. They suggest using concave programming to solve general equilibrium trade models, rather than a series of simultaneous demand equations (as was done previously). Muller and Williams present an activity analysis approach to general equilibrium modelling (AGE) instead of the more commonly used computational general equilibrium (CGE) method. AGE models offer a new way of dealing with the problems of assuming a closed production function and trying to incorporate non-tariff barriers. They can be specified so as not to depart from observed production technology and can also accept externally generated information concerning changes in technology and quantitative constraints on production. Trade substitution between labour and capital among products can also be introduced.

The AGE model is formulated in three major stages. First, production is represented by a convex production set defined by a number of production activity factors. (The data for these can be taken from input-output accounts or engineering information). Second, consumption opportunities for the economy are described by a convex consumption possibilities set, determined both by the production set and by opportunities for trade in intermediate and final products. Third, the economy is presumed to operate so as to maximise a certain concave

objective function defined over the consumption set so that the solution is to a mathematical optimisation problem rather than to a set of simultaneous excess demand equations.

The Muller and Williams paper forms an outline of the preliminary results from the study which they are preparing for the Economic Council of Canada (ECC) which will form the third part of the Council's combined argument for free trade. Now that many of the preliminary problems of AGE models seem to have been overcome, it is likely that they could be used to build a successful regional general equilibrium model (as suggested by Watson, 1987). This is important because Canadian authors appear to be required to give their results in particularly regional terms.

The Harris and Cox (1984) model was not specifically regional but it was regionalised by Watson (1987) as outlined in Appendix D to give results in terms of sectoral employment by region. These results are shown in Table 15 in order to indicate the quite different nature of the Canadian data (when compared with that of the British data) resulting from initially similar general equilibrium analyses.

3. Alternative Canadian Approaches

It is no coincidence that the review in Part 2 indicates an apparent lack of Canadian ex-ante general equilibrium (GE) studies when compared with the larger number of British ones. Canadian authors have concentrated their research not in one but in three main areas of modelling. GE analysis is one approach but this has tended to be de-emphasised in favour of the other two methods: input-output analysis and econometric modelling. The reasons for this will be discussed in Chapter 4. However, in general it probably has much to do

Table 15: Free Trade's Effects on Sectoral Employment, by Canadian Region

Sector	Proportional change in sectoral employment resulting from multi-lateral free trade	Sector's share in regional employment * in 1978 * after multilateral free trade				
		Atlantic	Quebec	Ontario	Prairies	B.C.
Agriculture	.33	2.1 2.0	2.9 2.8	3.4 4.3	13.0 16.3	2.3 3.0
Other primary	.13	5.0 5.5	2.1 2.3	1.4 1.5	3.9 4.1	4.1 4.9
Manufacturing	.12	14.4 15.6	22.5 24.1	24.5 26.2	9.1 9.6	15.9 17.2
Construction	.04	7.2 7.3	5.4 5.4	5.9 5.8	8.1 7.9	6.9 6.9
Transportation, communication & utilities	.02	10.4 10.3	8.8 8.6	7.4 7.2	9.3 8.9	5.7 5.6
Other	-.05	60.9 56.2	58.3 53.1	57.4 52.4	56.6 50.1	65.1 59.7
Total		100.0 103.0	100.0 104.4	100.0 104.5	100.0 106.4	100.0 103.6

Notes:
"Other primary" includes forestry, fishing, and mining; the growth rate used is a weighted average of Harris and Cox's growth rates for these three industries. "Other" includes trade & commerce, finance, insurance, & real estate, services, and public administration; the growth rate used for this sector is a weighted average of Harris and Cox's growth rates for communications, electricity & gas, and "others".

After Watson, 1987, p.258.

with the fact that these two types of models can give the data in the form which seems to be required in Canada; namely data on employment and output at the *regional* scale. This section will briefly review these two additional types of models and discuss the major example of their use; the Economic Council of Canada (ECC) paper on the Impact of Canada-US Free Trade on the Canadian Economy (see Magun *et al*, 1987)[1].

Input-Output Analysis

Input-output models estimate the changes in output and employment by industry that should result from an exogenously determined change in final demand. They have three main assumptions (Glickman, 1977). First, each commodity group is produced by a unique producing industry. Second, there are no external economies or diseconomies possible. Third, there is a unique observable production process which does not allow for the substitution of inputs. Each producing sector is dependent on every other sector so that the multiplier effects resulting from changes exogenous to the economy can be traced as they disseminate through the system.

An input-output model usually takes the general form:

$$X_i = \sum_{k=1}^{m} a_{ik} X_k + Y_i \qquad (1)$$

where: X_i is the total output in industry i.

a_{ik} is the production coefficient specifying the amount of i needed

[1] This work forms two parts (rather more major ones) of the ECC's case for Free Trade, the third part of which will be formed by Muller and Williams' work mentioned in Part 2.

to produce one unit of k.

X_k is the output in industry k.

Y_i is the amount of industry i's output absorbed by final demand.

(Glickman,1977)

This is a system of all linear equations which is solved in matrix form. The input-output model for a single region is an adaption of (1):

$$ {}_rX_i = \sum_{k=1}^{m} {}_r a_{ik}\, {}_rX_k + {}_rY_i \qquad (2) $$

where: r is region r and all other variables are as in (1).

There are two forms of regional input-output models: 'square' models and 'dog leg' models (Glickman, 1977). The latter are particularly useful for the structural analysis of a local economy because they have a more disaggregated final demand sector so that foreign trade can be broken down by industry.

However, several limitations arise from the assumptions of input-output models when they are used to analyse such a case as Canada joining the NAFTA. For example they do not capture the important dynamic effects of bilateral free trade in the country concerned. These effects can result from increased specialisation, scale economies, rationalisation, terms of trade changes or trade diversion. In addition input-output models can neither incorporate changes in wages, prices, exchange rates or final demand, nor the associated feedback effects (i.e. the indirect effects) on output and employment (Magun *et al*, 1987).

In spite of these limitations regional input-output models have a fairly lengthy history of successful use in their own right and have even more

potential when linked with other methods. They do have the advantage of being specifically designed for the region concerned, unlike some other models which have to be adapted from the national level.

Econometrics

Econometric models use descriptions of the national economy to estimate changes in output, employment, prices, and interest rates in the short to medium term. They employ time-series data in their construction and use regression analysis to estimate the relationship between two or more economic variables.

Large scale disaggregated macro-econometric models consist of large numbers of interdependent behavioural equations which are determined simultaneously. Each equation takes the general form:

$$Y_{it} = f(Y_{jt}, Z_{kt}, U_t) \qquad (3)$$

where: Y_{it} is the ith endogenous variable in period t.

Y_{jt} is the jth endogenous variable in period t.

Z_{kt} is the kth endogenous variable in period t.

U_t is error in period t.

(Glickman,1977)

These G equations are then combined to give:

$$B\,Y_t + C\,Z_t = U_t \qquad (4)$$

where: B is a G X G Matrix of the coefficients of the exogenous variables.

C is a G X K Matrix of coefficients of the exogenous variables.

Z_t is a vector of K exogenous variables in period t.

U_t is a vector of G random error terms in period t.

At the national level for example:

$$GP = C + I + G + X - M \qquad (5)$$

where: GP is gross product

Regional models are usually top-down models (they use results from the national models as their starting point). In the equation above gross regional product (GRP) would therefore be the sum of its regional components: consumption, investment, government spending and net exports. Some of these would be determined from a national forecast and some would be endogenous (for example see Klein and Glickman, 1977).

Econometric models give less detail than input-output models, but they require less data and are cheaper to run. They can capture the short-to-medium term (as well as the longer range) consequences of a free trade agreement for an economy and large-scale versions can also fairly accurately simulate the allocation and terms of trade effects of bilateral free trade. In addition, while such models are not well-equipped to identify the effects of scale economies and rationalisation, these effects can be exogenously introduced into the models if required (Magun *et al*, 1987). Overall therefore macro-econometric models can be useful for analysing the impacts on an economy of agreements such as that between Canada and the US. Certainly when used in conjunction with input-output models, as in the example discussed in the following section, their scope can be very broad indeed.

An Example of a Combined Input-Output and Econometric Model used in Canada

The input-output (Statistics Canada) and the macro-econometric (CANDIDE 3.0) models have been used to complement one another by the Economic Council of Canada (ECC) in its report: " The Impact of Canada-US Free Trade on the Canadian Economy" (Magun *et al*, 1987). The Statistics Canada model can be specifically formulated at a regional scale, and has a particularly high level of disaggregation by industry and commodity, but it requires many exogenous variables and produces a huge data set so that it can hardly be operated as a coherent unit. The CANDIDE 3.0 model, on the other hand, is endogenous in nature and can be run more easily. The ECC therefore linked the two models to obtain the benefits of both; running the CANDIDE model and then regionalising the results using the Statistics Canada model.

CANDIDE 3.0 is a large disaggregated annual macro-econometric model of the Canadian economy. It is estimated using time-series data from 1954-81 and contains nearly 2,400 endogenous variables and over 1,000 exogenous inputs (fiscal and monetary policy variables, demographic variables, energy prices, trade prices etc.). It is really comprised of 44 industry models which have been interfaced with a neo-keynesian macro-econometric model using as many of the recent developments in macro-economics as possible.

The model is operated in a way consistent with that described in the theoretical econometric section above. First, certain qualitative assumptions are made. These suggest that under free trade conditions there will be increased two-way trade, lower inflation, and an increased value of the Canadian dollar relative to the American dollar. This should be coupled with improved real incomes, stimulated consumer expenditure and business investment, and increased

output and employment. These qualitative assumptions (shown in Figure 24) determine the major assumptions used for the quantitative estimates. These are in turn used to establish the series of "G" equations which go to make up the model.

Magun *et al* (1987) began to trace the effects of free trade on the Canadian economy by first simulating the aggregate national effects of bilateral free trade on output, employment, prices and exchange rates using the CANDIDE model. These effects incorporated the long term changes in final demand. The model was run for the base case projection and for two bilateral free trade scenarios. In the first scenario the impact on the Canadian economy of removing trade barriers to trade in goods between Canada and the US was established. In the second, the removal of trade barriers was supplemented by industry-specific productivity increases in Canadian manufacturing industries. The national results suggest that in the first case the net overall addition to employment in Canada by 1995 would be 189,000 jobs. In the second, with productivity improvements in manufacturing, this could rise to 350,000 jobs (Table 16) and should be accompanied by an increase in overall output (GDP) of 3.3% (Magun *et al*, 1987).

Changes in exports and imports by commodity were next computed using the newly available[1] disaggregated data on trade elasticities and commodity-specific trade barriers in the US and Canada. These *direct* effects of free trade on net exports were then translated into changes in output and employment by industry using the Statistics Canada Input-Output model of the Canadian economy. In addition the long term changes in final demand from the CANDIDE

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[1] From the University of Maryland Model.

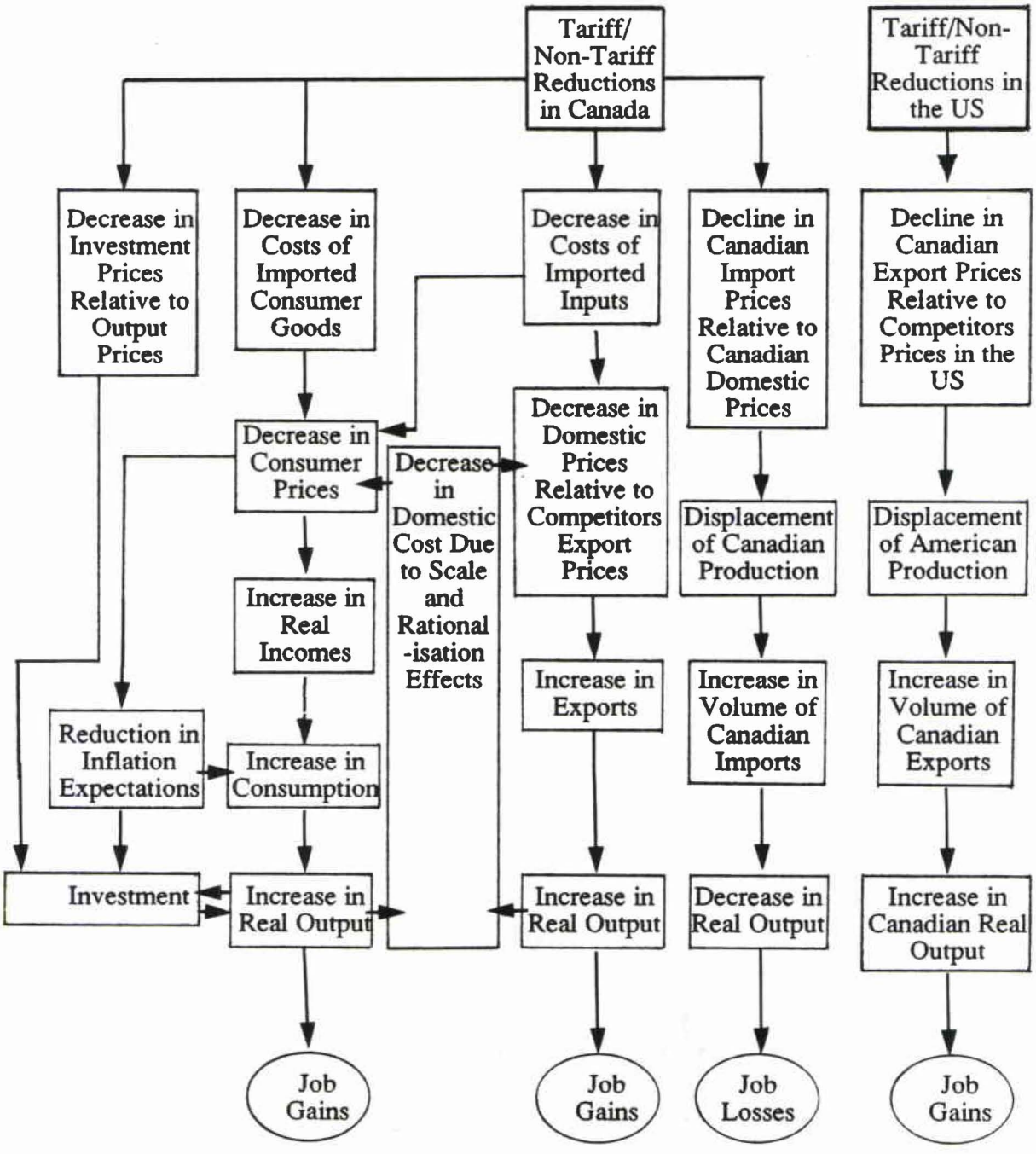

Figure 24: Effects of Canada-U.S. free trade on output and employment in Canada. After Magun *et al*, 1987, p.19.

Table 16: Impact of Canada/U.S. Free Trade on Employment (Absolute Change in the Number of People Employed)

	Simulation 1	Simulation 2
1 Agriculture	2,385	7,511
2 Forestry	2,555	2,797
3 Fishing, hunting, and trapping	414	539
4 Mining	3,599	6,708
5 Food and beverage	5,214	8,969
6 Tobacco products	6	23
7 Rubber and plastic products	-2,124	-629
8 Leather products	-1,637	-1,359
9 Textile	-1,537	-429
10 Knitting mills	-703	-258
11 Clothing	986	2,300
12 Wood	5,346	5,941
13 Furniture and fixtures	219	1,177
14 Paper and allied	353	1,746
15 Printing and publishing	4,405	9,642
16 Primary metal	5,361	6,542
17 Metal fabricating	769	3,850
18 Machinery	1,245	3,453
19 Transportation equipment	1,704	3,019
20 Electrical products	-6,672	-3,280
21 Nonmetallic mineral	603	1,850
22 Petroleum and coal	69	180
23 Chemical and chemical products	-876	625
24 Miscellaneous manufacturing	-2,471	-731
25 Construction	26,416	48,742
26 Transportation and storage	7,399	12,686
27 Communication	840	2,045
28 Electrical power, gas, other	1,552	2,774
29 Wholesale trade	13,836	22,744
30 Retail trade	49,161	77,111
31 Other finance and real estate	21,707	38,697
32 Education and health services	5,109	8,256
33 Amusement and recreation	3,735	5,947
34 Services to business and management	14,845	27,304
35 Accommodation and food	18,077	30,169
36 Other personal and miscellaneous	8,110	13,339
Total	189,000	350,000

Source: Economic Council of Canada estimates (Magun *et al*, 1987, p.76).

simulations were converted into *indirect* effects on output and employment by industry, using the Statistics Canada National Input-Output model[1].

The direct and indirect effects were summed to give the total effects by industry. Finally effects on industry were translated into provincial impacts by industry using the 1979 market shares implicit in the Statistics Canada Regional Input-Output model of the Canadian economy. For example the provincial impact on employment was determined by using the provincial share matrix of national employment which had been created for the year 1981 (based on the Inter-provincial Input-Output Table of 1979). This share matrix for employment by province comprised five sectors (primary, manufacturing durables, manufacturing non-durables, construction, and services). The provincial share of a sector multiplied by the national growth rate in the sector generated the contribution of that sector to the provincial growth in trade. This figure was then used to calculate overall changes in employment by province. The results are shown in Tables 17 and 18. Table 17 gives the results for the first (less optimistic) simulation and Table 18 shows scenario 2 which allows for the increased manufacturing productivity.

As a function of the models used, employment impacts reflect the effects on output. The study suggests that variations in employment changes across provinces will be very small (2.5-2.9% in Scenario 2). Newfoundland (2.8%), P.E.I., Nova Scotia, New Brunswick, Manitoba, B.C. (all with 2.7%), and Alberta (2.9%) are predicted as experiencing above-average gains in employment; reflecting the relative importance of their primary industries, and hence the

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[1] *Direct effects* are the immediate effects on output and employment. *Indirect effects* also include the multiplier effects which the direct effects induce in other areas of the economy.

Table 17: Decomposition of Canadian Provincial Changes by Employment Sector, Simulation 1

	Sectors					
%	Primary industry	Manufacturing (durables)	Manufacturing (nondurables)	Construction	Services	Total
Nfld.	0.1	0.0	0.2	0.4	0.9	1.6
P.E.I.	0.1	0.0	0.2	0.4	0.8	1.5
N.S.	0.2	0.1	0.0	0.3	1.0	1.5
N.B.	0.1	0.1	0.1	0.3	1.1	1.7
Que.	0.0	0.1	-0.0	0.2	1.0	1.3
Ont.	0.0	0.1	-0.0	0.2	1.0	1.3
Man.	0.1	0.1	0.1	0.2	1.1	1.6
Sask.	0.1	0.0	0.1	0.3	1.0	1.5
Alta.	0.2	0.1	0.0	0.5	1.0	1.7
B.C.	0.1	0.3	0.1	0.2	1.0	1.7
Canada	0.1	0.1	0.0	0.2	1.0	1.4

Table 18: Decomposition of Canadian Provincial Changes by Employment Sector, Simulation 2

	Sectors					
%	Primary industry	Manufacturing (durables)	Manufacturing (nondurables)	Construction	Services	Total
Nfld.	0.2	0.0	0.4	0.7	1.5	2.8
P.E.I.	0.4	0.0	0.3	0.8	1.3	2.7
N.S.	0.3	0.1	0.2	0.5	1.6	2.7
N.B.	0.2	0.2	0.2	0.5	1.7	2.7
Que.	0.1	0.2	0.2	0.4	1.6	2.5
Ont.	0.1	0.3	0.2	0.3	1.6	2.5
Man.	0.2	0.2	0.2	0.4	1.8	2.7
Sask.	0.3	0.1	0.1	0.5	1.6	2.6
Alta.	0.4	0.1	0.1	0.8	1.6	2.9
B.C.	0.2	0.4	0.1	0.4	1.6	2.7
Canada	0.2	0.2	0.2	0.4	1.6	2.6

Note:
Figures may not add due to rounding.

Source: Economic Council of Canada estimates (Magun *et al*, 1987, p. 81 and 85).

relatively larger gains in employment to be achieved from the removal of US trade barriers. Other industries such as construction and food and beverages would also gain from the increased economic activity. Average gains (2.6%) are predicted in Saskatchewan whereas Quebec and Ontario are expected to gain slightly less (2.5% each).

Provincial impacts are therefore largely determined in the model by the changes in industries that are located in each province[1]. Since 29 out of 36 industries would gain from free trade under the ECC model, Magun *et al* (1987) then feel that all provinces would also experience increases in employment. Further, the authors maintain that, since most of the gains would occur in service sector employment, and since the provincial distribution of service sector employment is similar to the distribution of overall employment by province, the employment gains from free trade would be relatively evenly distributed spatially.

Of course such a large linked model put out by a government-backed agency is likely to receive some criticism and various critiques of the ECC report have been put forward. Perhaps one of the most important limitations arises from the general nature of econometric models. Since they take a top-down approach (unlike the general equilibrium models reviewed earlier), they rely very heavily on exogenously determined values. For example they take as given such variables as changes in output or the terms of trade. Some might argue that in fact it is these very variables which need to be predicted.

Apart from this general criticism, the ECC concedes that its model may be too optimistic for three specific reasons. First, the authors assumed that

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[1] This does not allow for the fact that there is considerable variation in regional productivities which means that some regions (such as Ontario) will be better able to compete than others in the expanded market.

Canada's terms of trade will remain more or less constant post-accession. However the general equilibrium models suggest that Canada might suffer some loss in terms of trade under bilateral free trade. This would reduce the stimuli to output and employment. Second, the negative trade diversion effects are not captured by the simulations. Finally, long term supply constraints on the Canadian economy are not incorporated. This would also tend to make the ECC's forecasts rather optimistic, particularly those for employment.

To its credit, the ECC paper falls within the broad spectrum of most other predictive models (which suggest a 1.3-7.8% increase in real incomes), in the estimates it produces. The WGFA group[1] expects 190,000 new jobs and a 2.2% expansion of the economy by the end of the century. These predictions are smaller than earlier ones produced by the group, but in the same order of magnitude (Globe and Mail, 11 February 88). In addition, it is rumoured that the ECC has redone its calculations on the basis of the negotiations completed on 3rd October 1987 (Globe and Mail, 5 January 88). If this new report is published it may be more in line with the WGFA estimates, and with similar estimates from the Conference Board of Canada (Globe and Mail, 11 March 88).

However, some studies which have been commissioned disagree quite markedly with the ECC results. Far from predicting above-average employment gains, a study done for the B.C. Federation of Labour suggests that 60,000 workers in B.C. will lose their jobs as a result of free trade with the US (Globe and Mail, 5 February 88).

In a more detailed review in the Toronto Star (13 October 87), Bakvis, an economist at the Confederation of National Trade Unions, took a detailed

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[1] The WGFA group was formed from the merger of Wharton Econometric Associates and Chase Econometrics in 1987.

look at the crucial assumptions underlying the ECC study. He had several important criticisms of the report. First, it assumes that services are completely excluded from the free trade agreement and so does not use data for service industries. Yet 83-90% of the jobs it forecasts would be created in services. Bakvis feels that if services were included then predictions might even have been negative since he quotes the Macdonald Commission (Macdonald Report, 1985) as saying that the US has more to gain than Canada from the reciprocal reduction of barriers to trade in services.

Second, Bakvis pointed out that the study makes the unlikely assumption that all US countervailing tariffs will disappear while Canadian subsidy programmes remain unaltered. Third, the combined model does not take into account any adjustment costs, nor the possibility that some US companies will close their Canadian branch plants.

Finally, and perhaps most importantly, the ECC model assumes that manufacturing productivity will increase by 6.1%[1] as a result of free trade, and that 100% of this productivity gain will be passed on to the consumer in the form of lower prices. It is this assumption which, by causing a 3% increase in purchasing power, when plugged into the input-output model, produced the prediction of 350,000 new jobs. Bakvis (1987) argued that, if the productivity figure had been reduced by a third and that prices had been suitably adjusted downward as a result, then free trade would have been predicted as having virtually no effect on economic growth and jobs.

In Canada there has been much discussion in the press and elsewhere of the ECC model which makes use of econometric and input-output techniques.

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[1] This figure is neatly tucked into an unobtrusive place (p.56) in Magun *et al*, 1987.

Unlike in Britain, those few general equilibrium analyses which have been partly or wholly completed in Canada have received much less comment. There may be some important reasons for this difference between Canadian and British reports as will be discussed in the next Chapter.

4. Summary

British ex-ante studies of the economic impacts on Britain resulting from joining the EEC mainly utilised partial and general equilibrium models. The earliest ones stemmed directly from Viner's (1950) theory of customs unions. Generally the models increased in sophistication through time, so that when Canadian researchers were ready to start assessing the potential impact on Canada of joining the NAFTA, a considerable body of theory had already been established which they could then draw on. In a sense Canadian workers were fortunate that their modelling problem was less complex (involving fewer countries), so that Canadian ex-ante studies have been able to take the theory considerably further. The most recent work, for example using concave programming techniques to solve computational problems, suggests that a fully integrated regional general equilibrium model may not be too far away.

The current economic and political atmosphere which has fostered an environment for creating new, and strengthening existing, trade blocs has certainly fuelled the research effort. Government interests have largely provided the funding necessary for such rapid strides in learning and countries have been able to benefit from each other's experiences. Methods developed in Europe were utilised in Canada (often with the same people involved) and early Canadian efforts were then able to aid in Britain's second round of (ex-post) studies.

Canadian researchers have also made considerable use of input-output

and econometric analyses in their assessments and these have actually come to dominate the Canadian general equilibrium models. It is possible that these additional techniques could be used, if not by Britain, by the more recent entrants to the EEC such as Spain and Portugal. Trade theory develops relatively quickly and an interesting international cross-fertilisation of its ideas seems to take place although of course each country personalises the idea according to its own needs.

Determining the accuracy of the predictions of any one model is very difficult. Each must be considered in the light of the assumptions built into it. The most useful approach is probably to compare several predictions that have assumptions which seem valid and see whether there is some grouping around a particular figure. This figure might then be taken as an approximation. What is encouraging for the Canadians involved in grappling with their particular modelling problem, is that comparison of the British ex-ante and ex-post studies suggests that, in spite of all their limitations, they are probably fairly accurate in terms of magnitude and direction.

CHAPTER 4

ANALYSIS OF THE HISTORICAL AND METHODOLOGICAL EVIDENCE: COMPARISON OF THE CANADIAN AND THE BRITISH EXPERIENCES

In order to establish whether the time-space hypothesis is a suitable framework for explaining the different experiences of Britain and Canada in forming and analysing trade relations, it is first important to compare and contrast the historical and methodological evidence of both countries to establish some general explanations which might help to support or refute the hypothesis. This chapter draws on both sets of evidence in turn; using two comparative tables to highlight the similarities and differences between the two. In the course of this analysis, it becomes apparent that a country may join a trade association without the action necessarily being justifiable in economic terms. The final section of this chapter therefore discusses other motives that could have contributed to the signing of the two agreements.

1. Comparison of the Historical Evidence

In a very general sense Britain and Canada have both experienced three main stages in their development of historical trade relations, although these stages were not altogether synchronous. In the first stage, they both traded with their "natural" or nearest neighbour trading partners. The Native peoples traded north-south on the North American continent, following the natural physical regions. In early times the British traded with Europe because there was neither suitable transport readily available, nor was there any great

incentive to travel further afield.

In the second stage, both countries broke away from these "natural" trading patterns. Canada because of its domination by Britain and France, traded mostly with Europe, and Britain traded mainly with the Empire of which Canada was an important part. A little later Britain expanded her extra-European pattern to one of a tripartite system of partners including the US, the Commonwealth and Europe. Canada also began to "hedge her bets" by fluctuating between having more trade with Europe and more with the US, depending on which was expedient at the time.

In the third phase both Britain and Canada gradually returned to trading with their nearest neighbours. In Britain's case this was after a period of almost four centuries of extra-European trade; in Canada's case she had never really been away for very long.

In spite of this interesting general comparison, in many cases the experiences of Britain and Canada have been quite different as is shown in Table 19. Certainly the complexities of their trade histories have varied considerably. In the Canadian case the trade history is relatively straightforward with Canada having one foot in Europe (more specifically Britain and France) and one in the US. The focus of trade has shifted from one foot to the other through time and has eventually come to rest on the American one. There has therefore been little resistance, on the part of traders, to the encouragement to do business with the nearest "natural" trade partner in the sense that the agreement largely reinforced a pattern which was already in existence.

By contrast, British trade has traditionally been with three main groups of countries; the Commonwealth, the US and Europe. In spite of the persuasion of joining the EEC, many traders appear to wish to continue their historical

Table 19: A Comparison of the British and the Canadian Historical Evidence

Variable	Britain	Canada
Historical trade links	4 centuries of mainly extra-European trade within the Empire. Tripartite trade with US, Commonwealth and Europe. Only recent increase in trade with Europe though this is still not > 50%.	Triangular trade. Switch of major trade allegiance backwards and forwards between UK and US. Since 1921 US has been largest trading partner: now > 70% of both imports and exports.
Degree of Resistance to agreement as reinforcer of 'natural'(nearest neighbour) trade links	Higher	Lower
Traditional feeling re trade	Pro-free trade	Protectionist
Traditional exports	Textiles (earlier) and other manufactures (later). High value-added goods.	Raw materials. Low value-added goods.
More recent reaction to economic problems	Protection	Trade Agreements
Political Parties Traditionally supporting	19th C: Conservatives for it. Post-war: all parties for EC. 1979 +: Conservatives less	Liberals for it. Few supporters. 1982 +: Conservatives
Main arguments used by opposition	Economic	Social/Cultural
Recent relations:		
- monetary union	An important issue. Strongly resisted	Non issue
- social integration	Non issue	An important issue. Strongly resisted
- political cooperation	Quite successful e.g. Falklands War	Problems with strength of US. e.g. Conflict over use of Arctic waters

links and have to have resisted change since trade with the EEC still does not represent as much as 50% of total British trade.

This difference in the size of the trading network partly explains why Britain has traditionally been pro-free trade (it was affordable) while Canada has had to resort to protection. Another important reason is that Britain tended to export higher value-added goods (textiles and other manufactures), which would benefit from a free trade policy, whereas Canada tended to export raw materials with a lower added-value which would benefit less from a free trade situation. The British usually also had the advantage of low competition conditions under which to operate. Recently, as British goods have suffered more from increased competition, British trade policy has become more protectionist whereas Canadian governments have increasingly sought trade agreements in times of economic stress.

Although generalisations can be made as to the British and the Canadian national policy on trade liberalisation, within the two countries some political parties have tended to favour trade agreements more than others. In Britain it was Peel who had the courage to set Britain on the path of almost a century of free trade although the action split his Conservative party and it was left to the Liberals to carry much of the plan through. There was a general post-war consensus that Britain should join the EEC, although again it was the Conservatives that initiated the move in 1961 and made the entry in 1972. This latter action was arguably more the result of luck than any greater determination on the part of Heath (the Conservative leader), than of Wilson (the Labour leader) since the fortune of British membership rested largely on the event of de Gaulle's retirement in France.

In Canada a long series of Liberal governments pursued protectionist

policies until the election of the Conservative government of Mr. Mulroney which reversed this trend. Of course it is difficult to say what impact the fact that governments were largely Liberal had on the situation, since what parties say they will do before they achieve power and what they actually do are usually rather different. It is unlikely that Conservative governments would have acted differently. In fact judging from Borden's brief Conservative interlude they would have been even more protectionist.

It is clear that the rise of the more right-wing monetarist parties has played an important part in both countries. Interestingly, in Canada Mr. Mulroney has initiated the NAFTA agreement whereas in Britain Mrs. Thatcher has attempted to considerably slow the pace of integration into the EEC. This is probably because of the rather different nature of the two agreements. Monetarist ideas favour a free trade area far more than a fully-integrated economic union. The present Conservative government in Britain would probably have felt much more comfortable, ideologically-speaking, in EFTA. In addition, Mr. Mulroney and the US President of the time philosophically "understood" each other. Mrs. Thatcher constantly faces a much more mixed bag of philosophies in Europe with some of which (particularly the French one) she is quite at odds.

These differences in understanding were also partly reflected in the time it took to reach agreement once the first move had been made (eleven years in the British case, under three in the Canadian one). Interestingly in both cases the countries rather than their partners were the initiators, otherwise the arrangement would have been impossible to "sell" at home. The British agreement also took a long time to come to fruition because of the number of countries involved and the scope of British concern about entering into such an agreement. Britain saw the implications of such an action as being world-wide

and was concerned with her responsibilities to existing extra-European trade partners, particularly the Commonwealth, for whom special considerations had to be negotiated.

Canada assessed the implications of the NAFTA in largely domestic terms, feeling rather dominated by her large US neighbour. She was particularly concerned with the differential regional impacts that would result. These impacts were unlikely to be aspatial for two main reasons. First, not all factors of production are mobile. This is particularly true of labour, especially labour in Quebec (because of cultural and linguistic ties). Second, although capital is increasingly extra-regionally owned, much is still internally owned by provincial crown!corporations and in addition, most provincial governments have taken sizeable debt positions in a significant portion of local investment. This means that when the value of regional capital falls, the brunt is borne by provincial taxpayers. The burdens in the regions therefore vary in proportion to the regional ownership of the different factors. This factor was particularly pertinent in the case of Quebec whose support was vital for an agreement. Regional impacts were therefore of central importance to the Canadian agreement because they have a bearing on the ever-sensitive question of national unity.

Impacts were also unlikely to be aspatial in the British context. Britain has a similar extreme misallocation of labour resources yet, even when there is a willingness to move south to find jobs, the enormous disparity in house prices makes this difficult. In addition, even if people are geographically mobile, they may not be "skills mobile". Redundancy in a Welsh mining community leaves a worker unprepared to join the computer revolution in the "high tech" corridor. Further, it has been suggested (as in Canada) that freer trade, by increasing overall incomes and employment, would strengthen the government's fiscal ability

to provide adjustment assistance. However the evidence suggests that the freeing of the market in Britain has not resulted in greater equity from transfer payments, but rather increasing disparity (Fothergill and Vincent, 1985).

Given these differential impacts it is perhaps surprising that little attention was paid to regional issues when Britain joined the EEC. True the British regions are smaller than the Canadian ones, but they contain more people. What was more important than their physical size was that the regions of Britain have less political power than the Canadian provinces and were therefore unable to bring their problems to the central stage. For example, Scotland voted against devolution from the United Kingdom in a 1979 referendum and thereby implied a degree of acquiescence to the policies directed towards her by central government. Scotland may in fact have benefited from entering into the EEC because the country qualifies for grants as a depressed region within the international EEC context whereas most of Scotland does not qualify for a "special" (depressed) region grant within the national UK context. However, the outcome for Scotland (fortuitous or otherwise) was not considered a central issue, nor were the likely effects on the region (or indeed any other region) modelled.

Similarly the general public's awareness of the implications of the Treaty of Rome (the EEC agreement) is very low in Britain (although the fully-integrated market is due to come into existence in 1992) whereas in Canada awareness is much higher. This may be partly because the argument over whether to join a trade area was fought on economic issues in Britain but on socio-cultural ones in Canada; the latter being less tangible but more emotive. Certainly the threat of social integration has aroused strong feelings in many Canadian circles and yet is a relative non-issue in Britain, although arguably the

cultural gaps between many countries in the EEC are so wide that social integration seems so far removed from reality as to be non-threatening. In the Canadian case this may not be so true.

The same reasoning may apply to the question of monetary union. Britain is fighting hard to maintain an independent currency when the pound is under very real pressure to join the EMS. In the Canadian case not only is there no formal proposal for monetary union but the Canadian dollar is so closely tied to the American one that it is pointless to make an issue out of it. On the other hand in the political arena Canada does feel it is worthwhile to resist US domination, as in the conflict over the use of her Arctic waters. Britain feels less threatened in the European political arena and has arguably benefited, as in the case of the Falkland Islands crisis, from being able to operate at the greater political (European rather than national) scale.

2. Comparison of the Methodological Evidence

In the sense that the British and Canadian studies presented by the respective governments employ economic models to produce their results, they are similar. (Other more qualitative methods in the humanistic vein could be employed but quantitative ones seem to be preferred.) However beyond this there are distinct differences between the two approaches as summarised in Table 20.

Canadian models were generally developed a little later than the British ones. In addition Canadian workers had a relatively simpler modelling problem to tackle (involving Canada, the US and the rest of the world) whereas the British researchers had a more complex situation (involving Britain, 11 other EEC countries, and the rest of the world) as well as lower funds available for their

Table 20: A Comparison of the British and the Canadian Methodological Evidence

Variable	Britain	Canada
Time developed	1958-87	1978 onwards
Ex-ante studies available?	Yes	Yes
Ex-post studies available?	Yes	No
Complexity of modelling problem	More detailed (UK, 11 other members, ROW)	Simpler (US, Canada, ROW)
Cost	Low budget	Large budget
Type of model used	Partial and General Equilibrium	Input-Output, Econometrics, General Equilibrium
Emphasis of research	General Equilibrium	Input-Output & Econometrics
Scope of results	Implications for world trade patterns	Implications for Canada's different regions
Type of Predictions	Terms of trade, Balance of Payments and Welfare effects	Employment and output changes (regional and sectoral)
Government ex-ante estimates of national effects.	**Bal. of Payments Costs:** £345m.-£529m. (1969 prices) **Welfare Costs:** £560m.-£1,105m. (1969 prices) Source: HMSO, 1971	**Employment Benefit:** Gain 189,000 jobs by 1995 (350,000 if a 6.1% increase in productivity is assumed) **GDP Benefit:** 3.3% increase in GDP Source: Magun *et al*, 1987
Up-front "club" fee	Contribution to the Community budget of about £400 m. (levies on food and customs duties)	Nil
Importance of models' ability to regionally disaggregate	No regional component needed	Very important
Estimates of regional effects	None available	Employment gains (%): Alta 2.9, Nfld 2.8, PEI, NS, NB, Man & BC 2.7, Sask 2.6, Que & Ont 2.5

research. For these reasons Canadians were able to supplement the partial and general equilibrium models used by the British with the additional tools of input-output and econometric analyses. However this does not explain why Canadians chose to use these latter techniques almost exclusively in their ex-ante studies (ex-post studies are obviously not yet available in the Canadian case) whereas the British tended to use the general equilibrium approach for both ex-ante and ex-post studies.

This difference in emphasis is probably better explained in terms of the type and scope of the results required in each country, which are in turn largely determined by the country's historical trade relations discussed previously. Britain, because of traditionally wide-ranging commercial links, is concerned mainly with the implications of accession for world trade patterns. General equilibrium models predict balance of payments changes and large-scale welfare effects and are therefore most applicable to this situation. By contrast, Canada's trade history has been dominated by its large US neighbour and so it is concerned with more introverted implications of accession such as the effect on different Canadian regions. Canadians therefore tend to use a combination of input-output and econometric models which take as given external changes in the terms of trade and use those to calculate the more detailed employment and output changes (by region and by sector) that they require. In addition as Morgan (1980) comments, even if more sophisticated methods were available after 1973, it was not always advisable to employ them in the British ex-post studies since this meant that the results were then not directly comparable with those of the ex-ante studies.

It is also interesting to note that if the Canadian agreement had been assessed using a general equilibrium approach the results might well have been

more pessimistic because they would have highlighted negative trade diversion effects. On the other hand input-output and econometric models show the positive effects of job creation. Conversely in the British case, using general equilibrium models shows positive overall trade creation effects whereas input-output and econometric models would probably show negative employment and output details. Whether intentionally or not, the researchers of Britain and Canada certainly chose the method which presented their government's (who usually funded their research) case in the best light.

Yet even allowing for a favourable presentation of figures in both cases the immediate (and more easily predictable) static effects of Britain's entry to the EEC were still seen as negative by the Government (HMSO, 1970 and 1971) whereas the Canadian figures were at least positive. The HMSO White Paper of 1970 predicted a balance of payments cost to Britain of £345 million at 1969 prices and a corresponding welfare cost of £560 million. An up-front "joining fee", in the form of a contribution to the Community budget, of about £400 million was also envisaged. It should be emphasised that no study (government-backed or otherwise) suggested that the static effects would be positive and only some proposed that there would be substantial ("unquantifiable") dynamic benefits. In contrast the ECC document (Magun *et al*, 1987) predicts an increase in jobs in Canada of 189,000 by 1995 (350,000 if a 6.1% increase in manufacturing productivity is achieved). This should be accompanied by a 3.3% increase in GDP. Canada of course paid no "club membership" to join the NAFTA.

As a result of the centrality of the regional issue to national unity in Canada, a high priority is given to the ability to disaggregate a model into its regional components. Even when Canadian studies use general equilibrium analysis they still regionalise the results so that they will be similar in form to

those emanating from input-output and econometric studies. The ECC study in its optimistic scenario predicts increases in employment ranging from 2.9% in Alberta to 2.5% in Quebec and Ontario. The British studies have no corresponding regional breakdown because of the relative historical unimportance (to the government) of the regional issue.

3. British and Canadian Motives for Joining a Trade Association

Given that Britain's entry to the EEC cannot necessarily be justified on economic grounds it is interesting to speculate on the other motives which led her to sign the agreement. Grubel (1977) commented that "even if on balance economic union leads to economic welfare losses, the countries of the EEC may decide to proceed with it on the grounds that there are political power gains offsetting the economic costs." It is this very "political power gain" which seems to have motivated Britain. She faced a situation where she had lost her place as a world power and where that political power now resided at the continental rather than the national scale. A British voice alone had no weight against the US or the USSR but a British voice (which was relatively loud) in Europe could be heard much better.

Canada on the other hand was motivated largely by economic reasoning (stressing the advantages of competition, economies of scale, access to a large market and specialisation). She would have considered it ridiculous to pay a fee for entry into NAFTA. The distinction between the two sets of motives is made clear by the following quotations, one from the British and one from the Canadian government, stating in their terms why entry into a trade association was considered so important.

British Statement

> ..... our application was made in the belief that in a *world* where *political* and economic *power* is being increasingly *concentrated*, European unity is essential. Britain and the other members of an enlarged Community might hope to discover a fresh inspiration and stimulus from working together in building a new Europe[1].
>
> HMSO, 1962.

Canadian Statement

> *Economics*, geography, common sense and the national interest dictate that we try to secure and expand our trade with our *closest and largest trading partner*[1].
>
> Brian Mulroney, 1985a.

The HMSO quote characteristically talks about the concentration of political power in the world sphere (political being emphasised before economic) whereas the Canadian Prime Minister's quote refers to the economic importance of an agreement, and the traditional Canadian concern with the dominance of the large US neighbour.

4. Summary

This chapter has developed a series of explanations for the present trade relations of Britain and of Canada and the subsequent analyses of the trade associations with which they are involved. The essence of these explanations is perhaps best captured by the two quotations above. Now that the detailed analysis has been done, it can be seen how the threads of the themes of time and space run through these quotations. The following chapter can now therefore link the explanations of what has happened in Britain and in Canada to the general time-space hypothesis being tested.

---

[1] Present author's italics.

CHAPTER 5

CONCLUSION: THE USEFULNESS OF THE TIME-SPACE FRAMEWORK

Chapter 4 attempted to explain the *raison d'être* of the trade agreements between Canada and the US and between Britain and the EEC. The idea was to develop a unifying theory from these examples that can be used to explain different present trade contexts. If a theory that explains the differences between the two examples can be found, then the ideas contained within it will have been more rigorously tested than if a theory which merely explained the similarities were proposed, because it is harder to accommodate contrasting situations into a coherent argument than to fit analogous ones. This Chapter therefore seeks to establish a relationship between the analyses of the contrasting British and Canadian cases (dealt with in Chapter 4) and a suitably unifying theory. The time-space framework for studying phenomena which was proposed at the beginning now re-emerges. It must be determined whether the framework could form the basis for such a theory by establishing whether it is sufficient to generate the explanations arrived at in Chapter 4. If this is the case, it is also important to consider whether both time and space are equally important elements of the theory; one might need to be given more weight than the other when considering different types of evidence.

From the historical discussions emerge two very different pictures of how Britain and Canada see themselves in the world context. Canada sees herself as a small country dominated by a large and powerful neighbour. She wants to somehow control relations between herself and the US in economic

terms, but also wants to continue developing a unique cultural and political identity (while jealously guarding that which already exists) since she is a relatively young country still finding her feet. Britain is less concerned with threats to the British identity, and more concerned with wider issues such as international power and the Empire. Much of her pre-accession discussion focused on guaranteeing a market for the products of dependent nations such as those in the Caribbean.

These two different views of "self" which arose from temporal and spatial contexts unique to the two countries produced two quite different agreements (as shown in Chapter 4). Yet both have been and still are also influenced by concurrent global trends. For example in the 1980s there has been an increasing tendency towards strengthening trade blocs in the world economy and so the agreements had similar timing. This decade has also seen the rise of the "New Right" to power in many western nations; an event which has similarly influenced both countries. Thus time is a very influential variable both in its contribution to historical development in each country and in the production of synchronous trends. However space (especially its manifestation in terms of a specific place or location) is also vital to the historical development of trade relations. For example it is vital in explaining the different national identities expressed and hence the different agreements made. Both aspects of the framework are therefore required to explain the historical observations.

The historical context in turn affects what has taken place in the economic modelling sphere. In Canada the agreement was assessed in terms of specific economic variables; how many jobs would be created where. In Britain assessments were more globally based and were also much more theoretical in that they referred to less tangible things such as social welfare.

These different outlooks were reflected in the models used in each country to determine the likely impacts resulting from joining the trade association in question. The Canadian models involve detailed mathematical calculations with exact numbers of, for example, increased or decreased jobs as the end products. They are very detailed, very expensive to run and yet involve varying degrees of accuracy; being content for example to take final demand as given (an exogenous variable).

British researchers on the other hand have concerned themselves much more with the macroeconomic theory of customs unions. Their models produce estimates of trade creation and trade diversion effects, and overall welfare changes as their end products. These results are generally divided into direct effects, which are measurable (usually negative), and indirect effects, which are very difficult to model and have ranged from largely positive to largely negative estimates. As a result of their more nebulous techniques, few concrete figures were given in the British case, and no detailed breakdown of, for example, employment figures seems to have been contemplated.

Since time and space have directly influenced the historical sphere, and since the historical context largely controls the modelling one, then time and space both certainly have had an indirect impact on the types of assessments used. However in addition, the modelling and assessment of the agreements is directly constrained by the time and space framework in the form of what might be called a "paradigm trap". If the Kuhnian view of science (Kuhn, 1962) is considered, all researchers can be "trapped" by the philosophical paradigm in which they are situated. This trap consists of two components; time (what techniques are available) and space (in terms of the where researchers are located). The two are inextricably linked and exploring this link helps to reveal

the intricacies of the situation and hence to produce the required explanations.

For example, British modellers were constrained in their methods because of the complexity of the modelling situation facing them (more countries to model), so that time was a major factor because sufficiently powerful mathematics might not have been available to solve the problem in other ways. Canadian researchers, working several years later, were able to use macro-econometric models such as the CANDIDE model combined with input-output analysis to give a much more detailed appraisal. The technology was available (and of course they were lucky to have a simpler mathematical problem to solve).

It might therefore be argued that time alone (without space) is the factor which determines how researchers approach modelling. However a closer inspection reveals that this is not so for two main reasons. First, econometrics and input-output techniques were available in the 1970s and could have been used by the British. Second, if the decision concerning which method to use was merely a function of time-determined technological changes, then one would expect at least the ex-post British studies to begin using the new methods. However, this has not occurred to any great extent.

Of course it can be argued that the complex British case requires even more technological time to pass before effects can be modelled in the new way but this is not a sufficient explanation. There is also undoubtedly something of the uniqueness of place (the history of British thought in relation to British history) which contributes to the different outcome. The place in space (both country and institutions) where the researchers were working had a different traditional concern and it must therefore be concluded that this contributed to a deliberate decision to emphasise one set of methods rather than another.

This report began with the hypothesis that time and space were the

determining factors influencing the nature and form of present day trade relations. First, a detailed description of both the historical (Chapter 2) and methodological (Chapter 3) evidence from Britain and from Canada was presented. This then enabled an analytical comparison of the two countries to be made. From the contrasts between them a set of explanations emerged as to why the two countries behave as they do on the world stage, why they have signed the agreements they have, how their present relations have developed, and why they assess the results of joining their respective trade areas in the way they do.

These explanations are fairly detailed and wide-ranging, so it must be considered whether the time-space framework is both a necessary and a sufficient condition for a coherent theme which unifies them. By indicating how time and space relate to each of the explanations given, it has been shown that they are certainly necessary variables. The author feels that they are also probably sufficient, if a broad view of "space" is taken; allowing for example that a certain kind of people live in a certain kind of place and speak a certain kind of language, with all that this implies.

To more vigorously test this theory, and the other ideas expressed earlier, it would be useful, in future work, to look closely at other trade bloc relations. This could be done either from the perspective of another country within the trade blocs already considered (the US in NAFTA or France in the EEC for example), or by looking at other trade blocs in different areas (Australasia, the Pacific or the Eastern bloc for example).

For now, it is hoped that, though limited, the examples of Britain and Canada presented here have shown the potential of the time-space framework for helping to explain, in a geographical way, such a complex phenomenon as international trade agreements.

APPENDICES

APPENDIX A

Chronology of the EEC 1929 - 86

1929	Term "Common Market" coined by Aristotle Briand.
19 September 1946	Mr. Winston Churchill, speaking in Zurich, calls for a "kind of United States of Europe".
5 June 1947	General George Marshall, United States Secretary of State, offers American aid to further the economic recovery of Europe.
29 October 1947	Economic union of Belgium, the Netherlands and Luxembourg (Benelux) set up. Common customs tariff introduced on 1 January 1948.
17 March 1948	Brussels Treaty concluded between Benelux countries, Britain and France to promote collective defence and cooperation concerning economic, social and cultural matters.
16 April 1948	Founding of the Organisation for European Economic Cooperation (OEEC).
28 January 1949	Belgium, Britain, France, Luxembourg and the Netherlands decide to set up a Council of Europe and invite other nations to join.
26 March 1949	France and Italy sign a treaty making provision for a customs union.
4 April 1949	North Atlantic Treaty signed in Washington.
9 May 1950	M. Robert Schuman, French Foreign Minister, puts forward proposals for a European Coal and Steel Community with supranational powers.
2 June 1950	Britain rejects the idea of a supranational European authority.
20 June 1950	Negotiations open in Paris under the Presidency of M. Jean Monnet between Belgium, France, the Federal Republic of Germany, Italy, Luxembourg and the Netherlands (the Six).
24 October 1950	M. Rene Pleven, French Prime Minister, proposes a European Defence Community (EDC).

18 April 1951	The Six sign the Paris Treaty setting up the European Coal and Steel Community (ECSC).
27 July 1952	The ECSC Treaty enters into force.
10 February 1953	Common market established for coal, iron ore and scrap.
1 May 1953	Common market for steel comes into existence.
30 August 1954	EDC Treaty rejected by French National Assembly.
21 December 1954	Britain signs treaty of association with the European Coal and Steel Community.
1-2 June 1955	Foreign ministers of the Six meet at Messina and propose further steps towards European integration. The Speak Committee set up to prepare a report.
26 June 1956	Negotiations open in Brussels among the Six.
25 March 1957	Rome Treaties signed by the Six setting up the European Economic Community (EEC) and the European Atomic Energy Community (Euratom).
1 January 1958	Rome Treaties come into effect following ratification by the parliaments of the Six.
1 January 1959	First EEC tariff cuts and quota enlargements.
4 February 1959	Britain and Euratom sign a cooperation agreement.
20-21 July 1959	Austria, Britain, Denmark, Norway, Portugal, Sweden and Switzerland meet at Stockholm and decide to form a free trade area.
4 January 1960	European Free Trade Association (EFTA) convention signed in Stockholm.
14 December 1960	Organisation for Economic Cooperation and Development Treaty signed in Paris. Replaces the OEEC and includes Canada and the United States.
20 December 1960	The EEC Council of Ministers approves the basic principles of the Common Agricultural Policy.
31 July 1961	The British Prime Minister, Mr. Harold Macmillan, tells the House of Commons that the Government intends to open negotiations with the Six.
8-9 November 1961	Opening of the negotiations in Brussels between Britain and

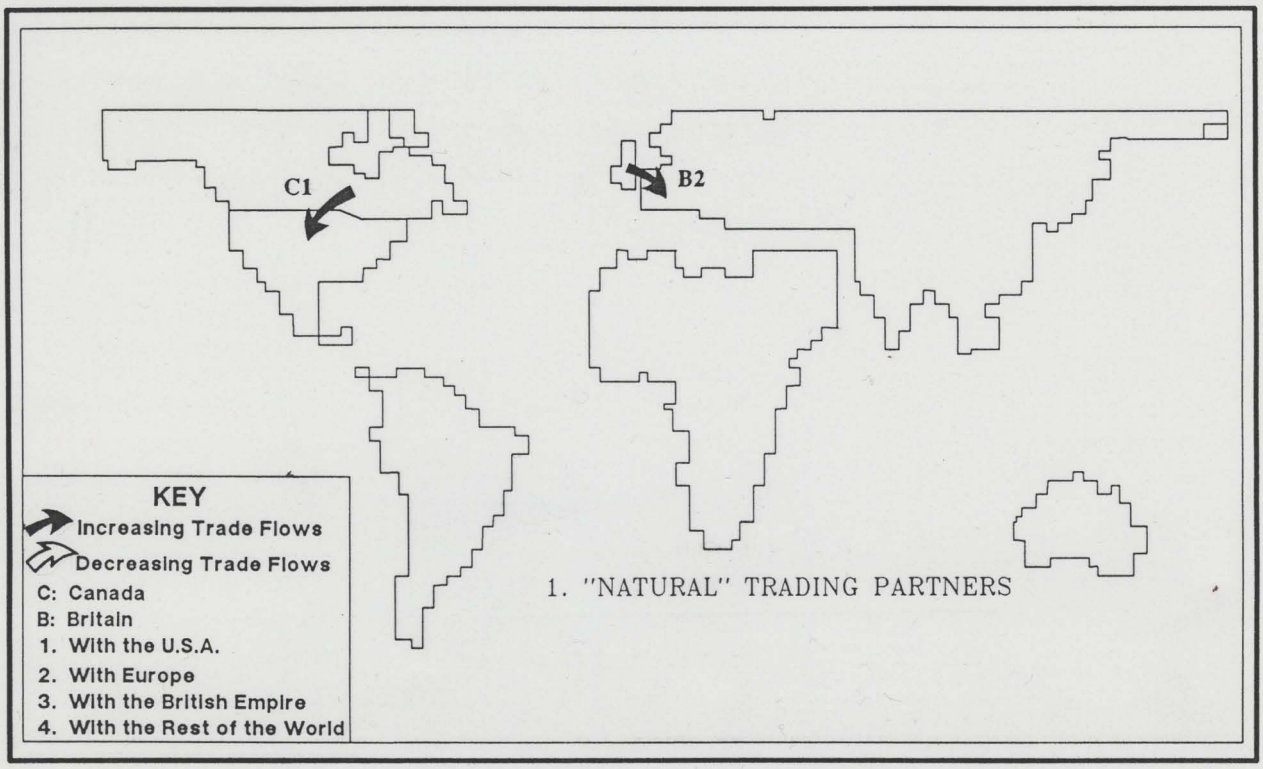
	the EEC.
29 January 1963	British negotiations with the Community broken off because of General de Gaulle's opposition to British entry. Negotiations with other countries also suspended.
4 May 1964	Kennedy Round of world-wide tariff negotiations opens in Geneva, the EEC taking part as a single delegation.
8 April 1965	The Six sign a treaty merging the institutions of the three Communities.
11 May 1966	The EEC Council of Ministers sets a date (1 July 1968) for the Completion of customs union and for the free movement of agricultural products.
10 November 1966	The British Prime Minister, Mr. Harold Wilson, announces Britain's intention to make a new approach with a view to starting negotiations concerning entry to the Community.
10-11 May 1967	Britain, Denmark and the Irish Republic submit formal applications to join the Community. Norway applies in July.
1 July 1968	Customs duties between the Six removed and replaced by common customs tariff in trade with the rest of the world.
29 July 1968	Regulation adopted providing for complete freedom of movement of workers within the Community.
23 July 1969	Council of Ministers resumes examination of British and other applications.
31 December 1969	End of 12-year transition period for the establishment of the Common Market.
21-22 April 1970	Council of Ministers adopts definitive arrangements for financing the Common Agricultural Policy.
30 June 1970	Talks begin in Luxembourg between the Six and Britain, Denmark, Norway and the Irish Republic.
1 February 1971	Introduction of the common fisheries policy.
20-21 May 1971	Meeting in Paris between the British Prime Minister, Mr. Edward Heath, and the French President, M. Georges Pompidou.
21-22 June 1971	Agreement reached on the major outstanding issues in the negotiations.
7 July 1971	The British Government publishes a White Paper supporting

	entry into the Community.
28 October 1971	The British Parliament votes in favour of entry.
22 January 1972	Treaties of Accession signed between the Six and Britain, Denmark, Norway and the Irish Republic.
22 July 1972	Signature of the free trade agreements covering industrial products with Austria, Iceland, Portugal, Sweden and Switzerland.
19-20 October 1972	Summit conference of the Nine in Paris sets out guidelines for the future development of the Community including the achievement of economic monetary union.
1 January 1973	The Community of Nine comes into being with enlarged institutions. Free trade agreements with Austria, Portugal, Sweden and Switzerland come into force; those with the three other non-applicant EFTA countries take effect later.
12 September 1973	The Community participates in the opening of GATT multilateral trade negotiations (the Tokyo Round).
14-15 December 1973	The Copenhagen heads of Government meeting adopts a declaration on energy policy and agrees to the creation of a European regional development fund.
1 March 1974	Labour Government takes office pledged to renegotiate the terms of British membership and to consult the British people on the desirability of remaining a member.
1 April 1974	Britain asks for renegotiation of British membership.
10-11 December 1974	Paris meeting of the heads of Government makes progress on Britain's renegotiation. Agrees to the details of a Community regional development fund and to the principle of direct elections to the European Parliament.
28 February 1975	Signature of the Lomé Convention between the Community and 46 states in Africa, the Caribbean and the Pacific. Enters into force on 1 April 1975.
10-11 March 1975	Final renegotiation issues settled by the Dublin meeting of the European Council.
18 March 1975	The Government recommends that the British people vote to remain in the Community.
5 June 1975	The British people vote in a referendum to stay in the Community; over 67 percent of voters support membership.

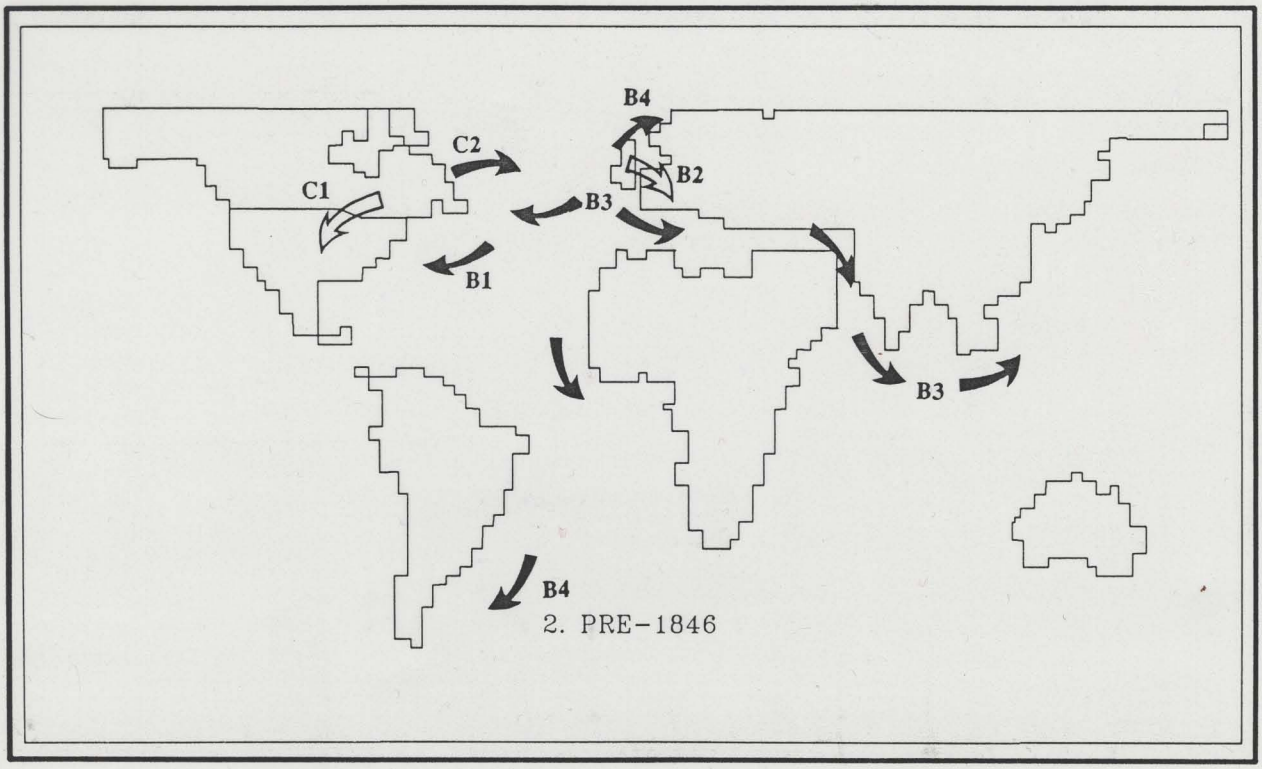
18 December 1975	The Council of Ministers adopts a directive concerning equality of treatment for men and women in relation to conditions of work, access to jobs and professional training.
1 July 1977	Completion of customs union in the enlarged Community.
31 December 1977	Transitional period ends for Britain, Denmark and the Irish Republic.
6-7 July 1978	The Bremen European Council accepts the principle of a European Monetary System.
17 October 1978	Opening of negotiations between Portugal and the Community on Portuguese entry.
4-5 December 1978	Details of European Monetary System settled by the Brussels meeting of the European Council.
5 February 1979	Negotiations open with Spain on Spanish entry.
13 March 1979	European Monetary System comes into operation.
28 May 1979	Greece signs Treaty of Accession in Athens.
7-10 June 1979	First universal suffrage elections to European Parliament.
17 July 1979	First meeting of the directly elected European Parliament.
30 May 1980	Agreement reached on measures to reduce Britain's net contribution to the Community Budget and on the thorough review of Community financial policies.
1 January 1981	Greece becomes the tenth member state. Second Lomé Convention enters into force.
13 October 1981	Community foreign ministers reach agreement on the "London Report" which strengthens and improves European political cooperation.
25 January 1983	Member states agree a common fisheries policy covering access to coastal waters, conservation regulations, allocation of catch quotas, and enforcement of Community fishing rules.
1 January 1986	Spain and Portugal become 11th and 12th member states.

Source: Adapted from HMSO, 1983.

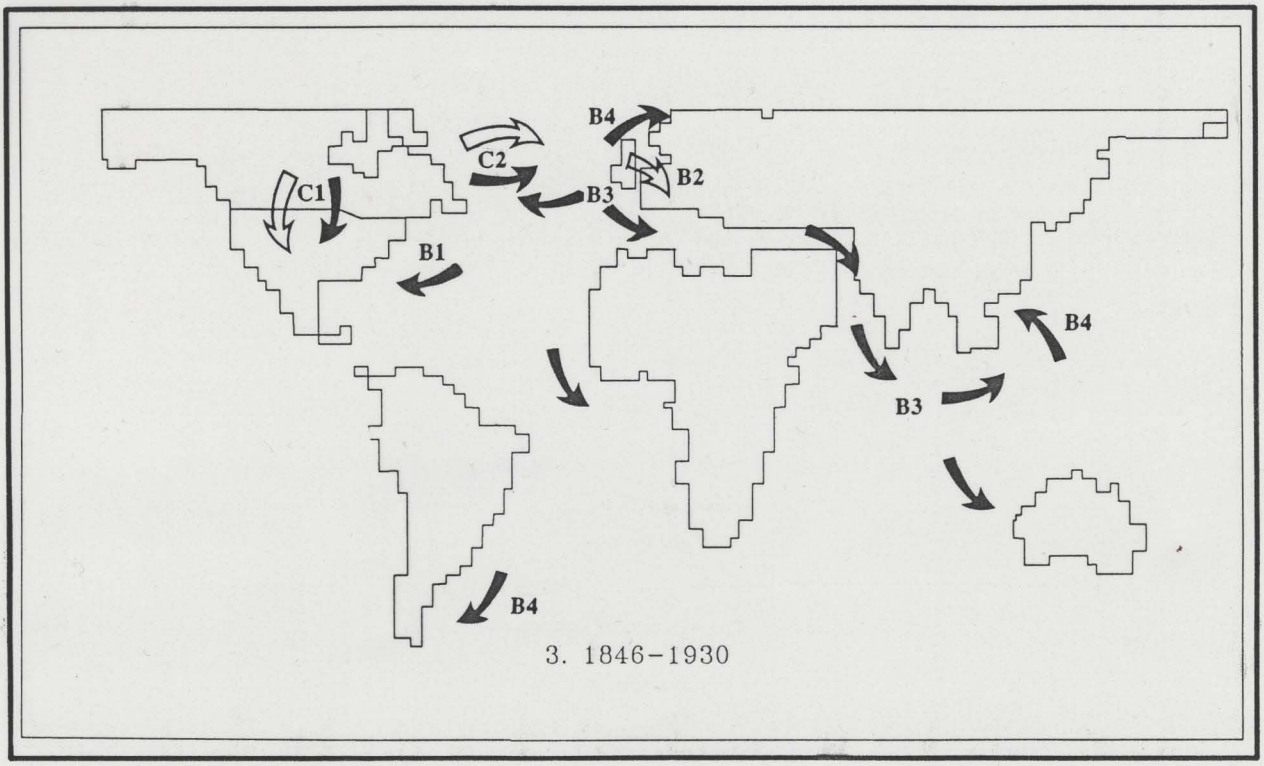
APPENDIX B



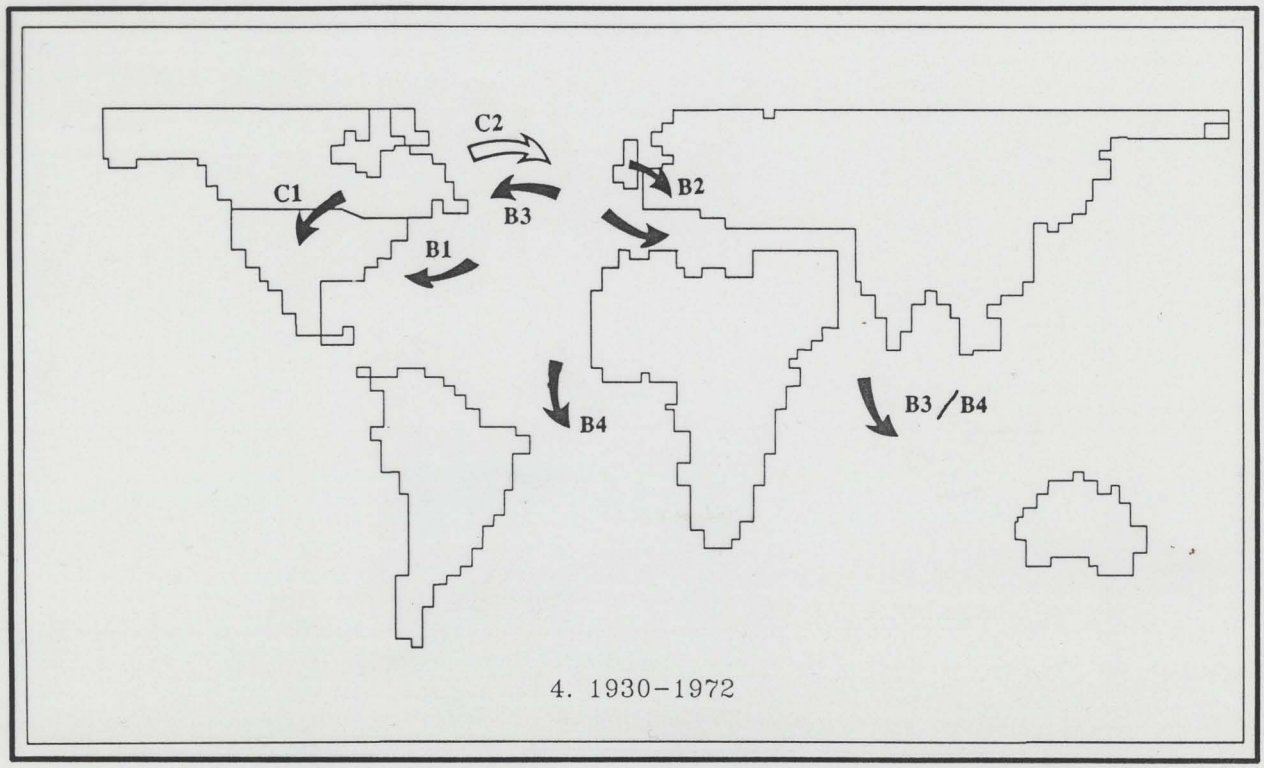
1. "NATURAL" TRADING PARTNERS



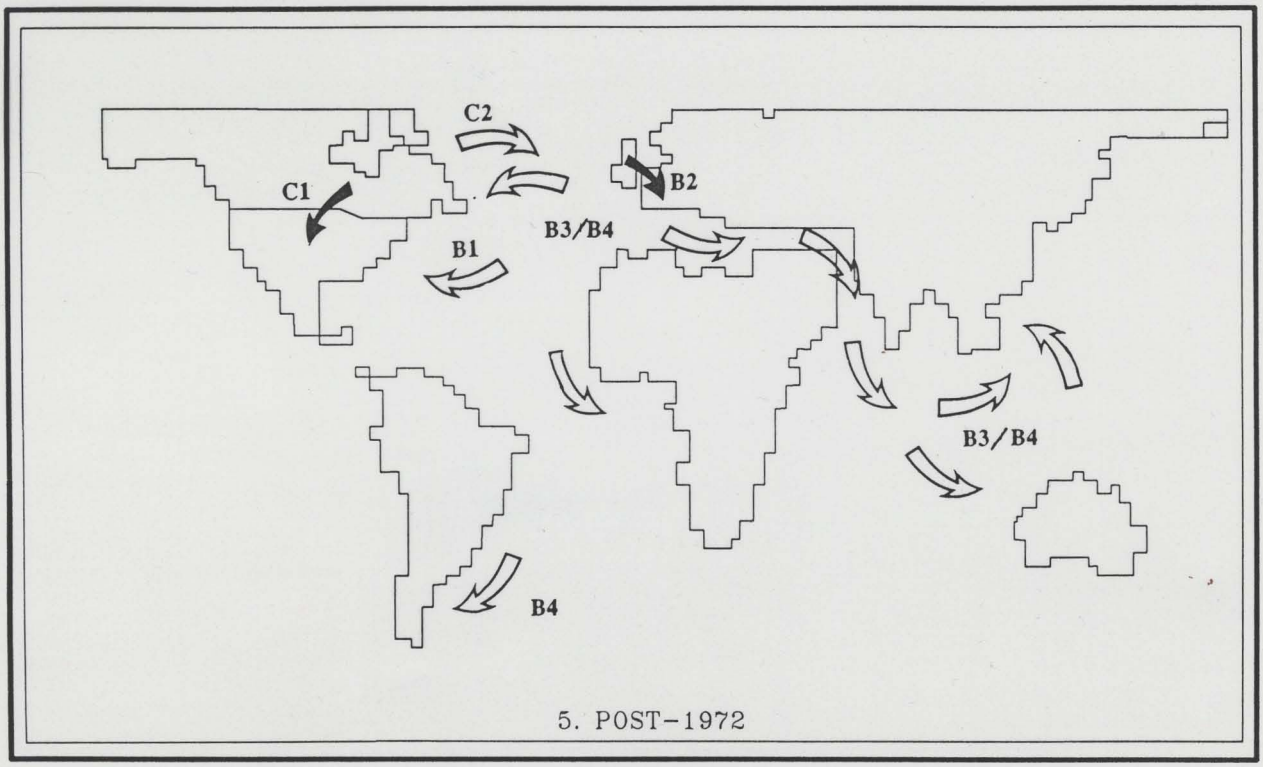
2. PRE-1846



3. 1846-1930



4. 1930-1972



5. POST-1972

APPENDIX C

General Equilibrium Analysis of the Universal Free Trade Scenario and the Results of the Imposition of a Tariff

i) The Small Country Case

Grubel (1977) shows that, theoretically at least, a small country (that is one which cannot influence the world price of a good) always gains in welfare from growth and trade. He states:

> .....economic growth must always raise the welfare of a small trading nation.
>
> Grubel, 1977, p.91

This can be demonstrated using Figure C1 which shows the convex production possibility frontier[1] for country A producing goods X and Y pre-trade. Country A is in equilibrium where it consumes and produces at C,P and the relative price for X and Y is shown by the line RR'. The maximum level of welfare possible in this pre-trade situation is therefore at C where the indifference curve[2] I_oI_o' is tangent to the production frontier. However, under international trade the relative price of goods X and Y becomes equal to the world price WW'. Producers in A therefore increase the production of Y (which is relatively more expensive) and have to decrease their output of X as a result, so that they now produce at P'.

At this new price, the community indifference curve shifts to I_1I_1' and

---

[1] The production possibilities frontier shows the combination of maximum quantities of X and Y attainable by producing efficiently given a fixed stock of labour and capital which can be used in varying proportions.

[2] The community indifference curve shows the combination of goods X and Y which leave the community equally well off.

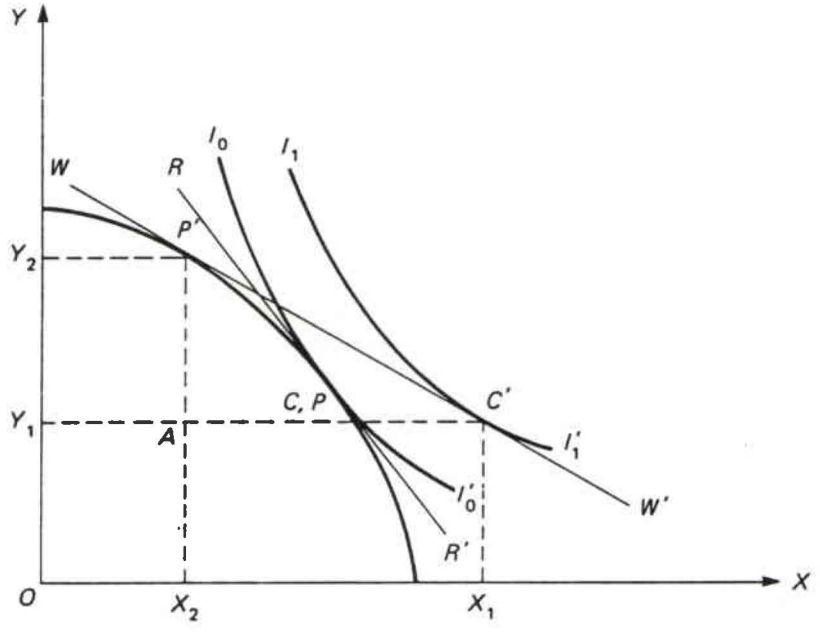


Figure C1: Gains from trade for a small country using a Hecksher-Ohlin analysis. After Grubel, 1977, p.38.

consumers consume at C' thus increasing their welfare. This diagram therefore shows that whenever there is trade (unless WW' = RR') the community indifference curve will always lie to the right of the indifference curve under no-trade conditions, so that welfare must always increase.

The gains from trade are actually two-fold as illustrated in Figure C2. First there is the gain from trading at the world price (gains from trade) which shifts welfare to I_1I_1'. Second there are gains from specialisation in production (which moves to P'), further increasing welfare to I_2I_2'. Thus, even when government-imposed tariffs make producers and consumers face different price ratios, trade can increase welfare.

It should be noted however that growth in production resulting from trade can, in turn, have anti-trade biased effects so that trade, production and welfare do not all necessarily increase proportionally and unidirectionally. The actual outcome is a result of the interplay of complicating effects acting on the consumption and production of X and Y. For example, if Country A has a strong preference to consume its own export good and a strong preference against consuming its import good, then an increase in welfare may be ultra anti-trade biased resulting in an absolute decrease in the consumption of imports.

Generally however, the preceding analysis would suggest that trade increases welfare and therefore a tariff, which decreases trade, lowers welfare. This can be shown using Figure C3 which builds on Figure C1 and shows free trade equilibrium at a welfare level I_oI_o' and consumption at C_o. The imposition of a tariff raises the relative price of good X steepening the price line to D_oD_o' (D_1D_1'). Given a new effective world price (of W_1W_1') facing producers, they then shift production to P_1 and consumers, faced with D_1D_1', consume at C_1 on the new indifference curve I_1I_1'. This curve has shifted to the left and welfare

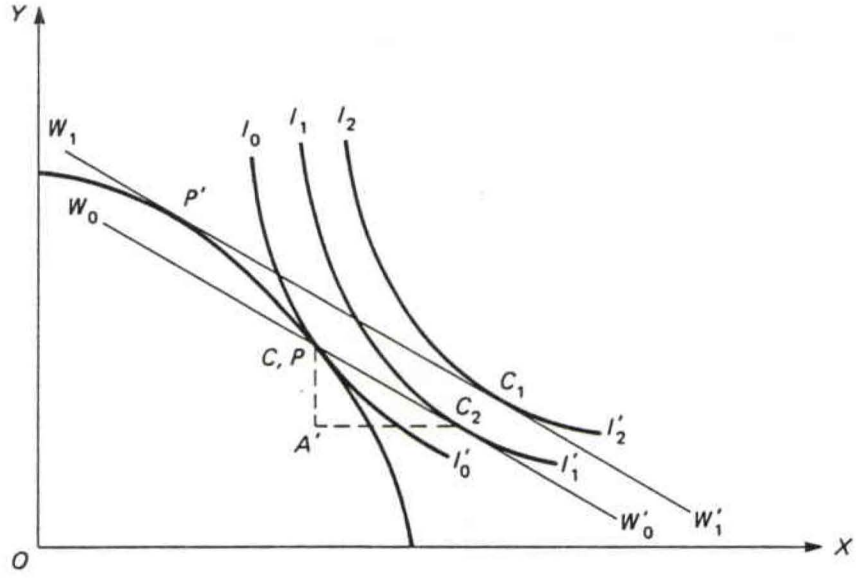


Figure C2: Gains from specialisation and trade for a small country. After Grubel, 1977, p.40.

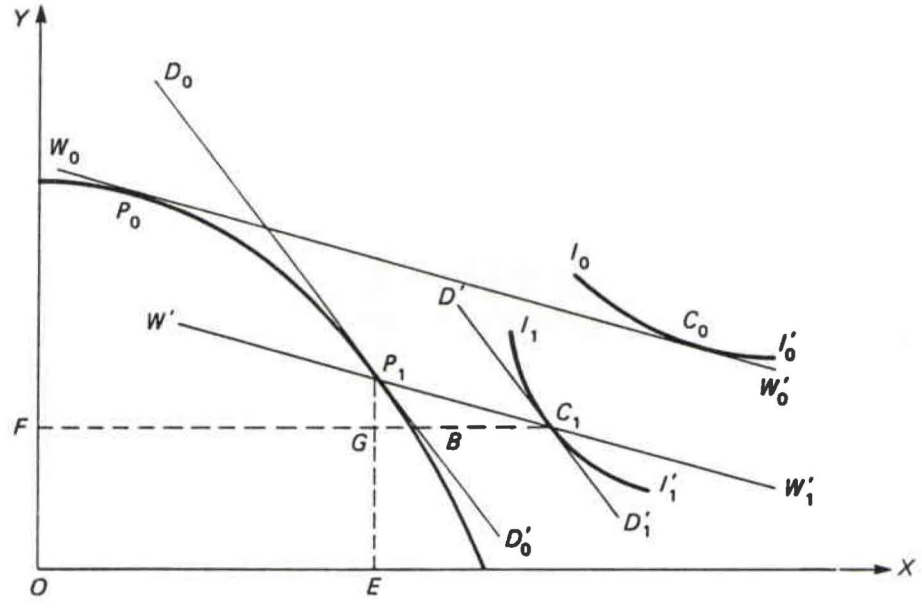


Figure C3: The general equilibrium effects of a tariff in a small country. After Grubel, 1977, p.136.

has therefore decreased. As Grubel says:

> The most important conclusion following from the preceding analysis is that the level of welfare of country A with the tariff must always be below the level under free trade. This must be so.....because the tariff always shifts the point of production towards the tariff-protected import good. Since the world price is assumed to be unchanged by this policy, the world price line going through the new production point is necessarily below its free trade position. Consequently only an indifference curve lower than I_oI_o' can intersect this new line.
>
> Grubel, 1977, p.137

The lowering of welfare for a particular industry (which is unable to influence the terms of trade) can also be shown as in Figure C4 using partial equilibrium analysis. Under a no-trade situation production would be at the intersection of the sloping demand and supply curves.

Under a free trade situation country A can import an unlimited supply of good X at the world price which also equals the world supply curve WW'. In this situation domestic output is equal to OA and AB is imported. If a tariff is imposed this increases the domestic price to OZ. OA' will then be produced at home and A'B' will be imported.

Many effects result from this but the primary concern, in this context, is with the welfare effects represented by the losses of consumer surplus (NLU) and producer surplus (KMC). To consider consumer surplus first, original consumer welfare was represented by ODLB. New consumer surplus is represented by DUB'O, and NLBB' can be used to purchase goods of equal utility to X, so the net loss is therefore only NUL.

In terms of producer surplus, WZUN was consumer surplus for which payment has to be made under tariff conditions. MCUN and WKCZ redistribute income but do not represent a loss. KMC by contrast represents the inefficiency

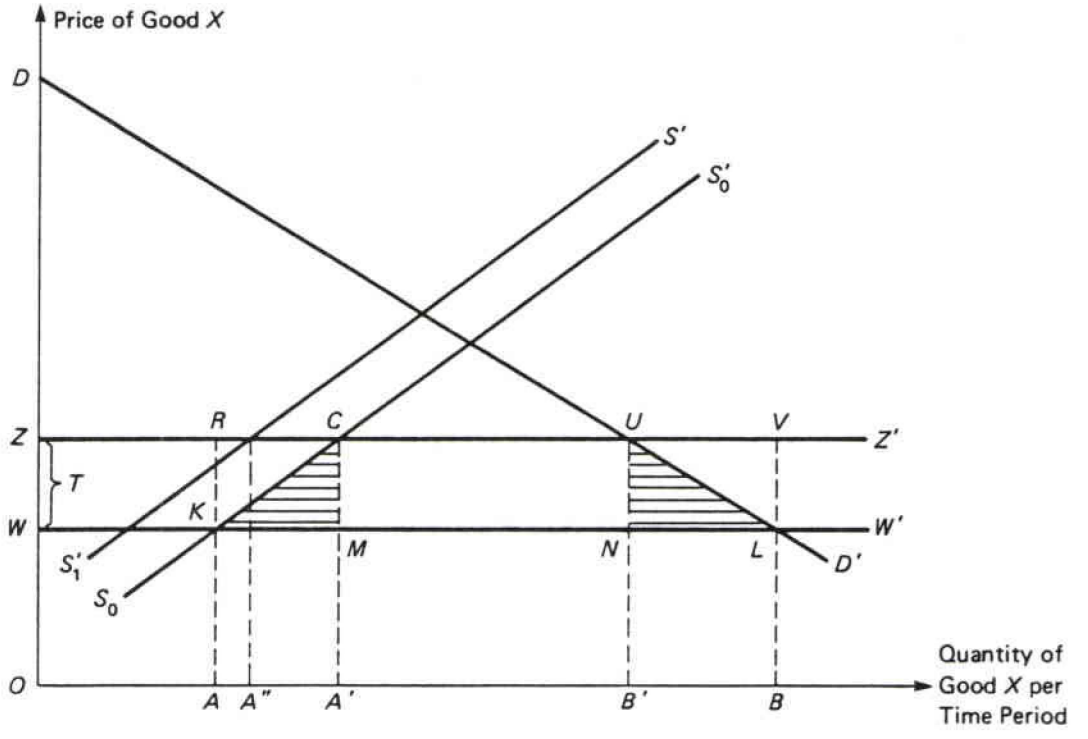


Figure C4: The partial equilibrium effects of a tariff on an industry. After Grubel, 1977, p.140.

in production brought about by the tariff-induced use of resources in an industry in which their marginal productivity is less than their previous use. A tariff therefore tends to decrease trade and welfare although this may not be true where, when calculating effective protection, the supply curve may shift so much to the left (S_1S_1') that there is negative effective protection, and welfare effects are much smaller.

ii) The Large Country Case

In contrast to the small country case, large countries that can alter world prices may not increase their welfare by growth and increased trade in a free trade situation. This phenomenon is known as 'immiserising growth' and it can be demonstrated with reference to Figure C5. Again drawing on Figure C1, country A is shown in initial free trade equilibrium with consumption of C_1. If growth expands the production frontier to X_2Y_2, at a world price of W_2W_2' growth has increased welfare and consumption is at C_2. However if, as a result of this, the relative price of A's export good Y lowers so much as to steepen the world price line to W_3W_3', then consumption is lowered to C_3 which is below the original welfare level.

Also in contrast to the small country case, (and more generally because immiserising growth is unusual) is the fact that the large country would benefit from the imposition of a tariff as long as it could be sure that the tariff would remain unilateral. Figure C6 indicates this using the concept of the Offer Curve. (The Offer Curve of country A can be defined as the various discrete quantities of goods X and Y which A is willing to exchange at different relative prices.) Figure C6 shows the Offer Curves OA and OB of the two countries A and B which result in a free trade equilibrium of E_o. The imposition of a tariff

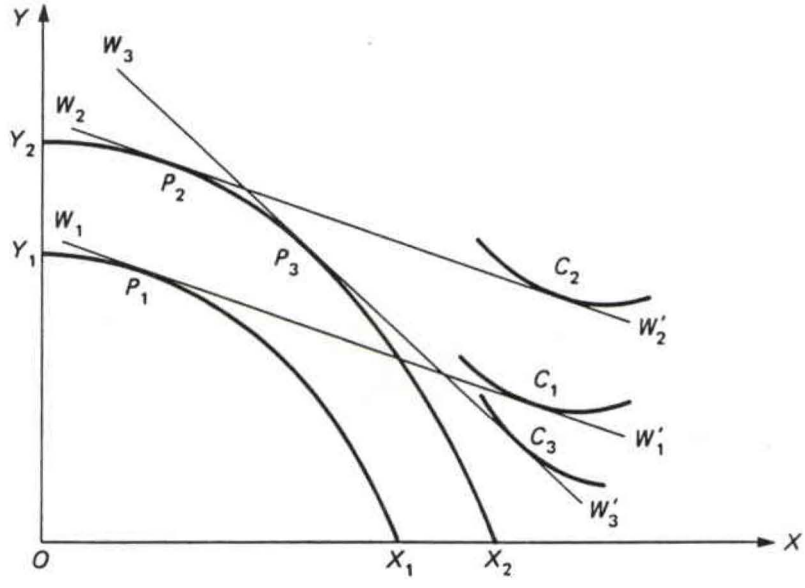


Figure C5: Immiserising growth in a large country. After Grubel, 1977, p.103.

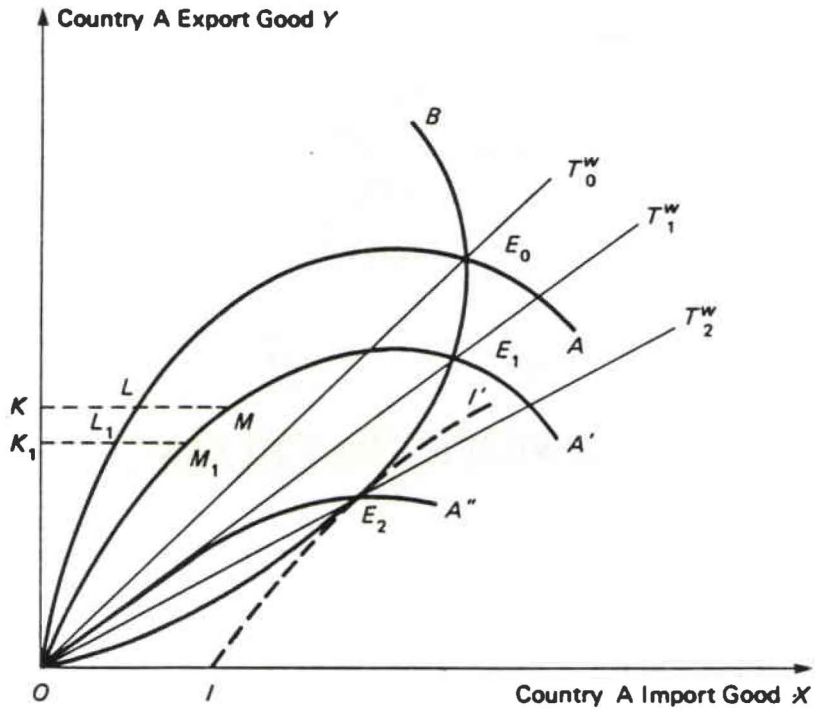


Figure C6: The effects of a tariff on a large country using the Hecksher-Ohlin method of analysis. After Grubel, 1977, p.139.

by A produces a shrinkage of OA to OA' (the tariff distorted Offer Curve), and a new equilibrium at E_1. At this point the world price has moved in favour of A so that it receives more of the import good for a given amount of export than it did before the tariff. This means that A increases its level of welfare whereas, conversely, that of B deteriorates.

Various arguments have been espoused by countries, either on a temporary or long term basis, as to why they should be allowed to maintain a unilateral tariff (Grubel, 1977). The most effective of these is perhaps the "infant industry in need of protection just while it gets going" argument which was used successfully by Germany after the War. Of course in theory once a tariff was imposed, retaliation would take place in successive rounds until ultimately world trade would cease, as Offer Curves would tend increasingly towards the origin as shown in Figure C7.

In reality knowledge of the threat of retaliation should prevent the imposition of the first tariff, and hence the retaliatory rounds. However it is possible that A and B can find stable equilibria, other than the origin, where the indifference curves, corresponding to their respective offer curves, intersect. This is shown in Figure C7 at point E_3. In this special case B has no incentive to distort its Offer Curve by imposing a further tariff on A. The combination of special cases and countries searching for special equilibria means that tariffs tend to remain in the world, even though, theoretically, they should be few and far between[1].

Britain's and Canada's position on tariffs vis-a-vis the rest of the world should therefore be a function of their economic size and hence ability to affect

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[1] In addition there are adjustment costs associated with the removal of a tariff.

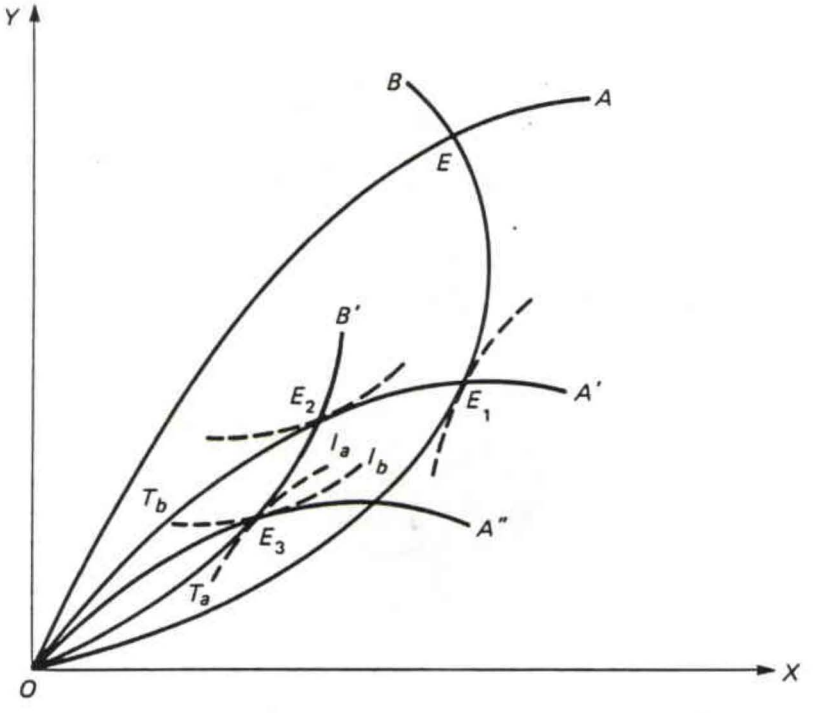

Figure C7: Tariffs and retaliation. After Grubel, 1977, p.158.

world prices, the relative size of the industry they want to protect and the elasticity of supply of that industry.

APPENDIX D

Method Used by Watson (1987) to Regionalise Equilibrium Models With Particular Respect to Employment

The nature of the Canadian economic modelling tradition means that it is important for authors to be able to estimate the effects on Canadian employment, by region, of a switch to free trade with the U.S. Neither the Williams (1978) nor the Harris and Cox (1984) model is specifically regional. However both can be 'regionalised' as will be shown using the Harris and Cox example (Watson,1987).

By assuming that the impact of trade liberalisation on a given industry is the same wherever it is located, the model can be used to indicate how the different regions might be affected by tariff reduction. Of course, this is a large assumption, but since some sectors operate almost exclusively in one or two regions of the country, the results may not be too inaccurate.

i) Calculation of free trade's effects on regional value-added in manufacturing

As is shown in Table D1, first the current share of regional value-added is calculated for each of the 20 manufacturing industry's Harris and Cox consider. Second, the change in industry value-added that would take place under a regime of multilateral free trade is established using the model. This enables the various industries' shares in total manufacturing employment to be calculated after the change to free trade.

ii) Calculation of free trade's effects on employment share in manufacturing

As is shown in Table D2, this process is repeated for regional

employment. That is, the current share of provincial employment is established, followed by the proportional change in employment resulting from multilateral free trade, and then new share of provincial employment which results from this.

iii) Calculation of free trade's effects on sectoral employment by region

Since the level of disaggregation used in Tables D1 and D2 means that data is only available for 3 provinces, by using a greater level of aggregation, and combining the results of Tables D1 and D2, employment data can be established for all regions at least at the sectoral level (as shown in Table D3)[1].

In each of the three provinces where disaggregated data is available, the provinces concerned are predicted as experiencing a roughly 10% increase in manufacturing employment; an increase which would be large enough to raise wages in the economy as a whole. The model also suggests that the move to freer trade might actually produce net gains in all regions.

This rather overly-optimistic prediction, considering the importance of being able to accurately regionally differentiate impacts in Canadian modelling, suggests that, although these earlier macro-econometric models can be regionalised, the results may be problematic. The impact of trade liberalisation within industries might well vary across regions for example. This is why Watson (1987) strongly advocates the specific development of a regional general equilibrium model as discussed in the main text.

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[1] This also corresponds to Table 15 in the main text.

Table D1: Free Trade's Effects on Regional Value-added in Manufacturing

Industry	Current (1982) share of regional value-added			Proportional change in value-added resulting from multilateral free trade	New share of regional value-added		
	Quebec	Ontario	B.C.		Quebec	Ontario	B.C.
Food & beverages	14.1	12.7	16.1	-.05	11.1	9.9	12.6
Tobacco products	2.1	.8	--	-.18	1.4	.6	--
Rubber & plastics	2.4	3.4	1.0	.24	2.4	3.4	1.0
Leather products	1.2	.7	--	-.27	.7	.4	--
Textiles	4.1	2.5	.5	.63	5.5	3.3	.7
Knitting mills	1.2	.4	--	-.21	.7	.2	--
Clothing	6.3	1.5	1.0	.22	6.4	1.5	1.0
Wood products	3.3	1.4	19.9	-.03	2.6	1.1	15.8
Furniture & fixtures	1.9	1.9	1.0	-.30	1.1	1.1	.6
Paper & allied products	11.1	5.1	17.3	.78	16.4	7.4	25.3
Printing & publishing	5.6	5.7	5.4	.28	6.0	6.0	5.7
Primary metals	6.4	7.2	6.4	.21	6.4	7.1	6.3
Metal fabricating	7.2	8.2	6.6	.10	6.5	7.4	6.0
Machinery	4.1	6.6	3.5	-.13	3.0	4.7	2.5
Transportation equipment	6.8	14.4	4.9	.98	11.2	23.3	8.0
Electrical products	6.6	9.1	1.8	-.08	4.5	6.9	1.4
Non-metallic mineral products	2.5	2.6	4.2	.11	2.3	2.4	3.9
Petroleum & coal	2.8	2.2	5.7	.16	2.7	2.1	5.4
Chemicals & chemical products	7.7	9.0	3.3	.16	7.4	8.5	3.1
Miscellaneous manufacturing	2.4	4.2	1.5	-.20	1.3	2.8	1.0
Total	100.0	100.0	100.0		120.8	122.4	121.9

Note: New shares actually total 100 per cent. Entry under "Total" is an index of value-added for the manufacturing sector.

After Watson, 1987, p.252-53.

Table D2: Free Trade's Effects on Employment Shares in Manufacturing

Industry	Current (1982) share of provincial employment			Proportional change in employment resulting from multilateral free trade	New share of provincial employment		
	Quebec	Ontario	B.C.		Quebec	Ontario	B.C.
Food & beverages	11.6	10.2	13.0	-.05	9.8	8.7	11.3
Tobacco products	.9	.4	.1	-.14	.7	.3	.1
Rubber & plastics	2.7	4.2	1.2	.13	2.8	4.2	1.3
Leather products	2.0	1.4	--	-.36	1.2	.8	--
Textiles	5.7	3.2	.8	.49	7.6	4.3	1.1
Knitting	2.1	.8	--	-.25	1.4	.5	.5
Clothing	11.3	2.9	2.0	.03	10.4	2.7	1.9
Wood products	4.9	2.2	28.6	-.09	4.0	1.8	23.7
Furniture & fixtures	3.2	3.0	1.6	.39	3.9	3.8	2.0
Paper & allied products	8.9	5.2	13.4	.63	13.0	7.6	19.9
Printing & publishing	5.3	6.4	6.3	.11	5.2	6.4	6.4
Primary metals	5.7	7.9	6.0	.13	5.7	8.0	6.2
Metal fabricating	6.9	9.3	6.8	-.03	6.0	8.1	6.0
Machinery	3.9	6.6	4.1	-.25	2.6	4.5	2.8
Transportation equipment	7.3	12.2	5.5	.76	11.5	19.3	8.8
Electrical products	6.0	9.1	2.4	-.20	4.3	6.5	1.7
Non-metallic mineral products	2.4	2.7	3.1	.04	2.2	2.5	2.9
Petroleum & coal	.8	1.4	.9	-.01	.7	1.3	.9
Chemicals & chemical products	5.1	6.1	2.1	.06	4.8	5.8	2.0
Miscellaneous manufacturing	3.1	4.7	2.1	-.30	2.0	3.0	1.4
Total	100.0	100.0	100.0		111.7	111.5	109.7

Note: New shares actually total 100 per cent. Entry under "Total" is an index of total manufacturing output after the change.

After Watson, 1987, p.254-55.

Table D3: Free Trade's Effects on Sectoral Employment, by Region

Sector	Proportional change in sectoral employment resulting from multi-lateral free trade	Sector's share in regional employment • in 1978 • after multilateral free trade				
		Atlantic	Quebec	Ontario	Prairies	B.C.
Agriculture	.33	2.1 2.0	2.9 2.8	3.4 4.3	13.0 16.3	2.3 3.0
Other primary	.13	5.0 5.5	2.1 2.3	1.4 1.5	3.9 4.1	4.1 4.9
Manufacturing	.12	14.4 15.6	22.5 24.1	24.5 26.2	9.1 9.6	15.9 17.2
Construction	.04	7.2 7.3	5.4 5.4	5.9 5.8	8.1 7.9	6.9 6.9
Transportation, communication & utilities	.02	10.4 10.3	8.8 8.6	7.4 7.2	9.3 8.9	5.7 5.6
Other	-.05	60.9 56.2	58.3 53.1	57.4 52.4	56.6 50.1	65.1 59.7
Total		100.0 103.0	100.0 104.4	100.0 104.5	100.0 106.4	100.0 103.6

Notes: "Other primary" includes forestry, fishing, and mining; the growth rate used is a weighted average of Harris and Cox's growth rates for these three industries. "Other" includes trade & commerce, finance, insurance, & real estate, services, and public administration; the growth rate used for this sector is a weighted average of Harris and Cox's growth rates for communications, electricity & gas, and "others".

After Watson, 1987, p.258.

APPENDIX E

Definition of the Various European Economic Blocs

ECONOMIC BLOCS, WITH DATES OF MEMBERSHIP
- ★ European Community (EC)
- ▲ Benelux Customs Union, 1947
- ▼ Council for Mutual Economic Assistance (CMEA/COMECON)
- ● European Free Trade Association (EFTA)

MILITARY PARTITION, WITH DATES OF MEMBERSHIP
- ■ North Atlantic Treaty Organization (NATO)
- ○ Brussels Pact, 1948
- □ Warsaw Pact Organization

The Twelve		FDR (W. GERMANY)	★ 1957 ■ 1955	ITALY	★ 1957 ■ 1949	PORTUGAL	★ 1986 ■ 1949
BELGIUM	★ 1957 ▲ ■ 1949 ○	FRANCE	★ 1957 ■ 1949 ○	LUXEMBOURG	★ 1957 ▲ ■ 1949 ○	SPAIN	★ 1986 ■ 1982
DENMARK	★ 1973 ● 1960–72 ■ 1949	GREECE	★ 1981 ■ 1952	THE NETHERLANDS	★ 1957 ▲ ■ 1949 ○	UNITED KINGDOM	★ 1973 ● 1960–72 ■ 1949 ○
		IRISH REPUBLIC	★ 1973 ● 1970–72				

AUSTRIA	● 1961	TURKEY	★ *applied for EC membership 1987* ■ 1952	ALBANIA	▼ 1949–61 □ 1955–68	ROMANIA	▼ 1949 □ 1955
FINLAND	● *(ass. member 1961–85)*			BULGARIA	▼ 1949 □ 1955	USSR	▼ 1949 □ 1955
ICELAND	● 1970 ■ 1949			CZECHOSLOVAKIA	▼ 1949 □ 1955	YUGOSLAVIA	▼ *limited involvement from 1964*
NORWAY	● 1960 ■ 1949			GDR (E. GERMANY)	▼ 1950 □ 1955		
SWEDEN	● 1960			HUNGARY	▼ 1949 □ 1955		
SWITZERLAND	● 1960			POLAND	▼ 1949 □ 1955		

After Owen and Dynes, 1989, p. 229.

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