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Introduction

Jeffrey A. Frankel

One has a choice of events with which to date the beginning of the current surge in regional economic arrangements. Europe has been in the forefront of this movement, so one could choose as the starting point the decision of the European Community around 1986–87 to adopt the Single Market Initiative. Alternatively, one could argue that the key event was the decision by the United States, which became manifest in the negotiation and adoption of a free trade area (FTA) with Canada in 1988–89, to abandon its long-standing opposition to regionalism. Or, thirdly, one could emphasize the spread of FTAs to the developing countries, the years 1990–91 seeing important regional initiatives in the Andean Pact, Mercosur, and the Association of Southeast Asian Nations.

In any case, regionalism is with us. The subject offers ample new territory for research, empirical as well as theoretical. We want to study a country's raising or lowering of trade barriers, not *vis-à-vis* the world at large, but rather *vis-à-vis* particular neighbors.

Most international trade research in the past has ignored the geographic dimension. International trade models, whether empirical or theoretical, whether based on small-country or large-country assumptions, and whatever else their attributes, tended until recently to have one curious thing in common: they treated countries as disembodied entities that lacked a physical location in geographical space. There are, to be sure, some things one can say about FTAs even without the geographic dimension, provided one is at least willing to include three countries in the model. But many of the most interesting aspects of regional trading arrangements require the introduction of a geographic dimension. Without it, one can hardly claim to be studying regionalism.

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This volume addresses several large questions. Why do countries adopt FTAs and other regional trading arrangements? To what extent have existing regional arrangements actually affected patterns of trade? What are the welfare effects of such arrangements? It is worth spelling out this third question more fully from the outset. In most economic models, whether classical or new-fangled, economic welfare is maximized by worldwide free trade. The difficult questions arise when one assumes that this first-best solution is not attainable politically. Which is second-best: a system of most-favored nation (MFN), that is, nondiscriminatory tariffs? or a system where groups of countries deviate from the MFN principle in order to form FTAs, which eliminate trade barriers internally while keeping them externally? Both systems contain distortions. Choosing between them is an exercise in the theory of the second-best.

This volume focuses on trade. The issue of regional currency arrangements enters tangentially into two of the chapters, by way of their effects on trade. Other aspects of regional integration, however, such as optimum currency areas, financial issues, foreign direct investment, and fiscal federalism, have been excluded from the volume, in order to keep it focused.

Several of the chapters, particularly where the effects of regional arrangements are explored econometrically, make extensive use of the gravity model of bilateral trade. This model is a standard by which to judge what is the normal pattern of trade between pairs of countries, and thereby to judge when regional arrangements are having an extra effect on trade. The book thus begins with a chapter by Alan Deardorff, exploring the theoretical foundation for the gravity model.

Until recently, it was said of the model that, although it fit the data well, it was sorely lacking in theoretical foundations. During the past fifteen years, the theory of trade in imperfect substitutes and increasing returns to scale has been developed, to the point where it is accepted as a theoretical foundation for the gravity equation. The empirical success of the equation has been adduced as evidence in favor of the imperfect-substitutes theory, in comparison, for example, with the Heckscher-Ohlin theory of trade based on international differences in factor endowments. Now Deardorff shows in chapter 1 that the gravity equation can be derived from the Heckscher-Ohlin theory, almost as easily as from the imperfect-substitutes theory. The equation has thus apparently gone from an embarrassing poverty of theoretical foundations to an embarrassment of riches! Those who debate the proper theory of trade will now have to reckon with the Deardorff paper. Those of us who wish to use the gravity equation as a tool for considering other questions can in any case proceed, with our heads held high.

The first of three chapters that use the gravity equation to study the effects of regional trading arrangements is by Barry Eichengreen and Douglas Irwin, who take a historical perspective in chapter 2. The idea is that the effects of regional arrangements can be imputed only to intraregional concentrations of

trade that exceed what can be explained by the economic fundamentals: country size, income per capita, and distance between the pair of countries in question. In many such studies, a tendency for trading patterns to change relatively slowly over time has been observed, even when the change in regional trading arrangements or political links is sudden. Eichengreen and Irwin take the bull by the horns and include lagged values of bilateral trade in their gravity estimates for the period from 1928 to 1965. They find, for example, that trade links among British colonies in 1954 and 1964, which might otherwise be attributed to Commonwealth preferences, are in fact simply the lagged effects of trade flows of 1949, when the countries belonged to the British Empire. Evidently, effects such as established marketing channels and brand-name loyalty last long after the original reasons for initiating them may have vanished. The authors conclude that one should always include lagged variables in the gravity equation.

In chapter 3, John Whalley provides the book's review of recent regional initiatives, summarized in table 3.1. He then considers the motives behind countries' decisions to participate. The motives include the use of regional agreements to underpin domestic policy reforms, the desire to achieve more assured market access with large trading partners, a link between trade agreements and security arrangements, the use of agreements to strengthen collective bargaining power in multilateral trade negotiations, and the use of regional negotiations as a threat to driving multilateral negotiations forward.

Chapter 4, by Jeffrey Frankel, Ernesto Stein, and Shang-Jin Wei, serves two purposes. First it uses the gravity model to examine the effect that explicit and implicit regional trading arrangements have had on trade. It takes up where chapter 2 leaves off, in the sense that the period covered is 1970–90. It finds an intraregional bias to trade in each of three continental blocs: the European Community, the Western Hemisphere, and East Asia.

The chapter then develops a theoretical framework for considering the welfare implications of this regionalization of trade. It builds on Paul Krugman's idea (1991b) that, in the presence of intercontinental transport costs, a world of three FTAs can be an improvement over the status quo of MFN, provided the FTAs are drawn along the *natural* geographic lines of the three continents. The chapter develops the idea that there is an *optimal degree of regionalization*, which is determined by the magnitude of transportation costs. If the margin of intrabloc preferences exceeds this optimal level, then it enters what we call the *supernatural* zone. We find that existing regional initiatives, such as the European Union, are indeed in danger of entering the supernatural zone, that is, of exceeding the extent of regional preferences that can be justified on natural geographic grounds. This judgment leaves many factors out. Perhaps most importantly, it takes the worldwide level of tariffs as fixed exogenously.

Chapter 5, by Antonio Spilimbergo and Ernesto Stein, addresses a critique that has been made against the results of Krugman (1991a, 1991b) and of chapter 4, namely that they depend on the assumption that trade is based on imper-

fect substitutes rather than on differences in factor endowments. At stake is whether a move from many small blocs to a few large blocs raises or lowers welfare. In the Spilimbergo-Stein model, trade is based on both imperfect substitution and factor endowments. They first look at the case where transportation costs are zero, which is the traditional assumption. The Krugman (1991a) result once again emerges, provided the elasticity of substitution parameter is not too high, that is, consumers' love for variety is not too low: welfare reaches a minimum at three large blocs. The world would be better off with larger numbers of smaller blocs. If the love for variety is very low, however, then welfare is monotonically decreasing in the number of blocs, justifying the skeptics. In this case, the model behaves like the factor-endowments model. The conclusion, which is that economic welfare is monotonically increasing in the size of the blocs, would then offer a more optimistic outlook for regionalism. If 60 countries combine into 12 blocs of 5 countries each, and then combine into 6 blocs of 10 each, followed by 3 blocs of 20 each, economic welfare is improved at every step of the way. This suggests that FTAs can be stepping stones toward the ultimate goal of one bloc of 60 countries, also known as worldwide free trade. The authors go on to consider the effects of blocs formed between rich and poor countries, as compared to blocs among the rich and among the poor.

Particularly interesting is what Spilimbergo and Stein find when they allow for intercontinental transport costs. Notwithstanding the introduction of differences in factor endowments as a determinant of trade, the results are qualitatively the same as in the model laid out in chapter 4 of this volume. Specifically, the three most important results continue to hold. (1) FTAs put the world into the supernatural zone (for a wide range of intercontinental costs). We are now able to see, however, that the effect is quite different in rich countries than in poor countries. The latter are likely to be better off from a move to four continental blocs, even though the rich are worse off. (2) Preferential trading arrangements can raise welfare, even for rich countries, provided the margin of preferences is not set too high. (3) The optimal margin of preferences rises with the level of intercontinental costs. Unless intercontinental costs exceed 0.25 of trade value, however, the optimal margin of preferences is in the range of 20 to 30 percent. Anything above that level enters the zone of negative returns to regionalization, and anything over 60 percent enters the supernatural zone.

It would probably be unwise, not to say monotonous, to rely exclusively on the gravity model's analysis of trade quantities, for our information on the extent to which the influences of geography versus regional economic policy arrangements determine trading patterns. Charles Engel and John Rogers in chapter 6 offer an alternative approach: they examine prices rather than quantities. There are excellent reasons to gauge international integration by the ability of arbitrage to eliminate price differentials for similar goods, particularly where the null hypothesis is perfect integration between two markets.

They examine the behavior of final goods prices for eight goods (plus aggregate consumer price indexes) measured in twenty-three countries and eight North American cities. Deviations from the law of one price are large; the question is what they have to tell us about regional influences. The authors find that the log of distance has a statistically significant effect on relative price variability for seven out of nine sectors tested. For all goods combined, the estimate implies that a 1 percent increase in distance raises the monthly standard deviation of relative prices by .00000789. The annualized impact of a 1 percent increase in distance is an increase in the standard deviation of .0000273, nearly identical to the effect that Engel and Rogers (1995) found in an earlier study using U.S. and Canadian city data. Even after allowing for the effect of distance, however, there is a tendency for arbitrage to work better within regions than across regions. (Sharing a common border reduces relative price variability across countries as well.)

This residual regionalization could be due either to currency factors, regional trading arrangements, or other influences. Other influences include linguistic and political links. The authors introduce a theoretical model, in order to highlight the importance of an integrated network of distribution and marketing within nations and within regions. Currency links are tested by including bilateral exchange rate variability in the regression equation. Exchange rate variability has a statistically significant positive effect on relative price variability in all regressions, with the relationship close to one to one. Even after holding constant for proximity and currency links, regional effects remain for North America and Europe (less so for Asia). It appears that all four elements matter—distance, currency links, regional groupings, and an unidentified residual that could be due to integrated distribution networks.

Chapter 7, by Frankel and Wei, picks up a number of threads. Again, we lead with the gravity model. Extensions relative to earlier work include updating the results to 1992, estimating imports and exports separately, and including an effect for remoteness. (This last twist was inspired by the specification derived by Deardorff in chapter 1.) We also present some estimates of the role that currency links may have played in promoting intragroup trade, as in chapter 6.

The welfare analysis in chapters 4 and 5 took the level of tariffs against nonmembers as exogenously fixed. The bulk of chapter 7 relaxes that assumption. Others have made various political-economy arguments regarding regionalism, either to the effect that it can undermine more general liberalization or to the effect that it can help build political momentum for multilateral liberalization. We present a simple model of our own that is in the latter category: it illustrates one possible beneficial effect of trade blocs as a political building block to further trade liberalization. The result could as easily go the other way, however. Is regionalism a building block to global free trade or not? The trade-diversion estimates of the gravity model provide a tentative assessment.

One of the ways that the political economy of FTAs can set back trade liber-

alization is when special interests are able to influence the terms of an agreement in their favor (as Bhagwati 1993 has emphasized). An example is when a politically powerful industry manages to get itself exempted from the elimination of protective tariff barriers. Article XXIV of the General Agreement on Tariffs and Trade (GATT) requires that liberalization within an FTA apply to all sectors. Even when this rule is obeyed, however, favored industries can win the establishment of long, drawn-out periods during which protection against the partner is phased out. This was the case with the North American Free Trade Agreement (NAFTA) and is the subject of chapter 8, by Carsten Kowalczyk and Donald Davis. They find that American industries that have been able to win higher duties in the past tend to get longer periods of adjustment in NAFTA. The same pattern does not seem to hold for Mexican industries, however. The speed of U.S. phase-out for a sector seems to affect the speed of Mexican phase-out, suggesting reciprocity in the negotiations within narrow categories. The authors conclude that slow phase-outs were a concession that Mexico granted the United States, because it wanted the agreement more badly (as suggested in chapter 3 and in Grossman and Helpman 1995).

The book concludes with an overview of the papers by Anne Krueger. This overview, like the comments on each of the papers, places the chapters in perspective and helps to round out the discussion.

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