Inclusion and Exclusion with Economic Integration: The Case of EU, NAFTA and ASEAN

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Abstract. Studies on the effects of regional economic integration on trade volumes have come out with consistent - and positive - results only in the case of the European Union and the EMU. In this study, an augmented Gravity Model approach is used to study the effects of the formation of EU, NAFTA and ASEAN on bilateral trade volumes with nations both inside and outside the ambit of regional blocs. Further, on the premise that such an aggregate approach can hide considerable variations between individual country impacts, country-specific time series analyses are conducted to track the effects of regional trading agreements on imports from outsider and insider countries. One result is that dynamic emerging market countries such as Korea, India, and Malaysia seem to fare well in European and North American markets despite bloc formation.

1. Introduction

The positive effects on trade volumes of the economic integration process have been most forcefully derived for the case of monetary unions, more specifically for the case of the European Monetary Union (EMU). This vein of work is available, naturally, only from the beginning of the current decade. Literature from earlier periods, dealing with the impact on trade volumes of regional trade blocs, has come up with significant effects only in the case of the European Union (EU), when factors other than bloc formation were included in the analysis. The effect on trade volumes of countries outside the trade blocs have not also been subjected to any intensive scrutiny, except for isolated attempts to look into the matter in the case of certain countries like Mexico and India.

In the present study, we cast a wider net. We include NAFTA, EU as well as ASEAN, in an analysis of the impact of regional bloc formation on members as well

as on non-member countries. A well-known model, the Gravity model, which has been the workhorse to derive bilateral trade effects of EMU membership, is used for the purpose. Unlike the case of the studies dealing with the impact of EMU on trade volumes, the import-creating and the export diversion effects of the union are specifically derived and discussed using a sample that includes non-members (outsiders) from across the globe. A similar exercise is conducted for NAFTA, and the bilateral trade effect of block membership – or lack of it – is also analyzed for the case of ASEAN.

Since cross-section studies can 'hide' widely diverging individual country effects, these large sample studies are complemented by individual time series studies to capture the 'insider' and 'outsider' effects of economic integration.

2. Related Earlier Work

Earlier work on the trade effects of regional bloc formation, including monetary unions, have typically used the Gravity model. The core Gravity model relates bilateral trade to the product of the GDPs of trading partners, and to the distance between them, and predicts that trade should increase with country GDPs and decrease with increasing distance between the trading nations. Criticism about the theoretical moorings of the model were met comprehensively by Leamer and Stern (1970), Anderson (1979), Helpman and Krugman (1985), Bergstrand (1985), Deardorff (1998) and Anderson and van Wincoop (2001). However, most authors have used additional variables to capture bilateral trade effects more fully, and this practice is also followed in the current study – which also uses the Gravity model as a launching pad.

The core Gravity model is usually extended by a set of dummy variables. A joint bloc membership dummy indicates trade creation within the bloc, that is, the extent to which membership has increased bilateral trade above the amount predicted by country GDPs and distance between trading partners. A trade diversion dummy stands for membership of either of the trading partners in a bloc, and a negative coefficient for this dummy indicates that trade form within the bloc to a non-member would be less than for a random pair of countries, establishing trade diversion. Other dummies are used to capture the effects on trade of common language or cultural ties, of a common land border and the like. Thus, Rose (2000) and Frankel and Rose (2002) have found evidence of trade creation by monetary union in Europe. And while Montenegro and Soloaga (2004) do not find any significant effects of NAFTA on bilateral trade, earlier studies (Frankel and Wei, 1995, 1996) find trade creation within EU, EFTA and NAFTA.

However, as hinted at already, the high level of aggregation implicit in the specification of the Gravity model does pose a problem. General results about trade creation and trade diversion may not carry over to individual sectors or individual countries. For instance, Montenegro and Soloaga (2004) find no evidence of trade diversion from third countries by the formation of NAFTA using a Gravity model approach, but find evidence to the contrary in individual country studies.