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The Estey Centre Journal of **International Law and Trade Policy**

Multilateral Trade Liberalisation and FDI: An Analytical Framework for the Implications for Trading Blocs*

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The proliferation of regional integration agreements (RIAs) over the past several years has led to significant changes in the global configuration of trade and investment activity. Multinational enterprises now face the prospect of multilateral trade liberalisation that could significantly affect the foreign direct investment (FDI) incentive structures that were established within the range of current RIAs. RIAs that provide preferential market access to member countries modify firms' incentives to undertake FDI activities and can lead to various permutations of trade and investment creation and diversion. This article provides an analytical framework for understanding the implications of multilateral trade liberalisation for the incentive structures of firms to conduct FDI and discusses how multilateral liberalisation could undo many of the FDI activities that were initiated in response to previous RIAs.

Keywords: foreign direct investment, incentives, multilateral trade liberalisation, regional integration agreements.

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Introduction

Regional integration agreements (RIAs) are prominent aspects of the international economic landscape.¹ The World Trade Organisation (WTO, undated) reports that almost 400 RIAs were scheduled to be in force by 2010, with more than 100 new RIAs and bilateral agreements since the initiation of Doha Development Agreement (DDA) negotiations (*The Economist*, 2009). Close to 200 of these agreements remain in force (see figure 1). There are competing theories that propose explanations for the proliferation of RIAs. Krugman (1993) argues that countries turn to RIAs because they are more tractable than multilateral agreements, while Baldwin (1997) argues that regionalisation is the result of a “domino effect” in which new or expanding RIAs generate pressure for non-member countries to join in efforts to avoid the potential negative effects of trade diversion. This debate notwithstanding, the proliferation of RIAs, especially since the mid 1990s, has had important effects on the global configuration of trade flows and foreign direct investment (FDI).

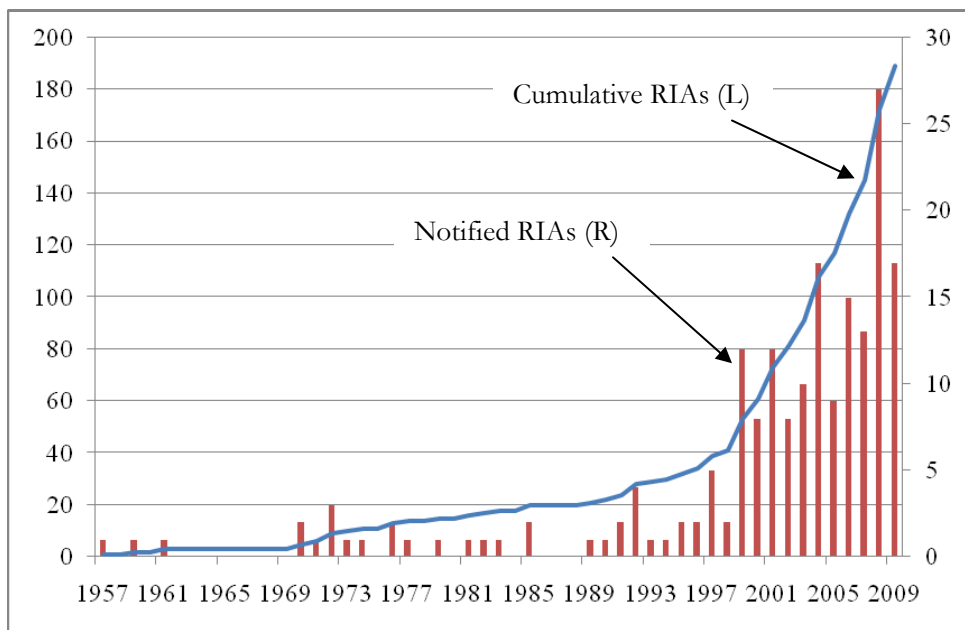


Figure 1 Prevalence of regional integration agreements (RIAs).

Source: WTO

The economic effects of RIAs are commonly analysed through their implications for international trade between member countries and non-member countries. Viner (1950) showed that a customs union that maintains a common tariff rate on imports from non-member countries induces trade creation between member countries as trade between member countries with lower production costs replaces less efficient domestic suppliers. Meanwhile, RIAs can also divert trade from low-cost non-member countries to RIA (potentially high-cost) member countries. These effects may partially offset each other, and the formation of an RIA may not increase welfare in member countries because welfare-improving trade creation is countered by welfare-reducing trade diversion.² The seminal work of Viner (1950) is followed by a large strand of literature that studied the implications of RIAs for welfare.^{3,4}

Viner's (1950) analysis of RIAs is more consistent with the early wave of RIAs that occurred in the 1950s and 1960s when FDI that was undertaken by multinational enterprises (MNEs) was not a significant factor in international economics.⁵ This early wave of RIAs differs from the new wave of RIAs that occurred from the 1980s onward in two respects. First, the new wave of RIAs takes place in a different milieu that is characterized by high levels of FDI and a less fortified world, mainly resulting from lower information and communication barriers and from multilateral and bilateral agreements. Second, the content of new RIAs steps beyond the conventional lessening of cross-border trade barriers to encompass agreements on foreign investment and on institutions (e.g., intellectual property rights, right of establishment and national treatment of foreign investment). Ethier (2001, 159) highlights the importance of FDI in analysing the consequences of regional integration by stating, "The new regionalism is taking place in a world fundamentally different from that of the old regionalism, so that old-regionalism-theory is not necessarily relevant."

FDI activity has been growing rapidly over the past 30 years. Figures from the United Nations Conference on Trade and Development's (UNCTAD's) FDI statistics indicate that the global stock and flow of FDI reached USD 15,210.6 billion and USD 1,833.3 billion, respectively, in 2006, compared to FDI stock and flow of USD 754.5 billion and USD 69.6 billion, respectively, in 1980 (figure 2). The U.S. Bureau of Economic Analysis reports that sales of foreign affiliates of MNEs in the United States and sales of U.S. affiliates in foreign countries reached USD 2,795.1 billion and USD 4,793.3 billion, respectively. The level of FDI activity now eclipses the value of U.S. merchandise imports and exports, which are valued at USD 1,863.1 billion and USD 1,015.8 billion, respectively. Careful analysis of the effects of RIAs and of multilateral liberalisation requires consideration of the implications for both cross-border trade and FDI.

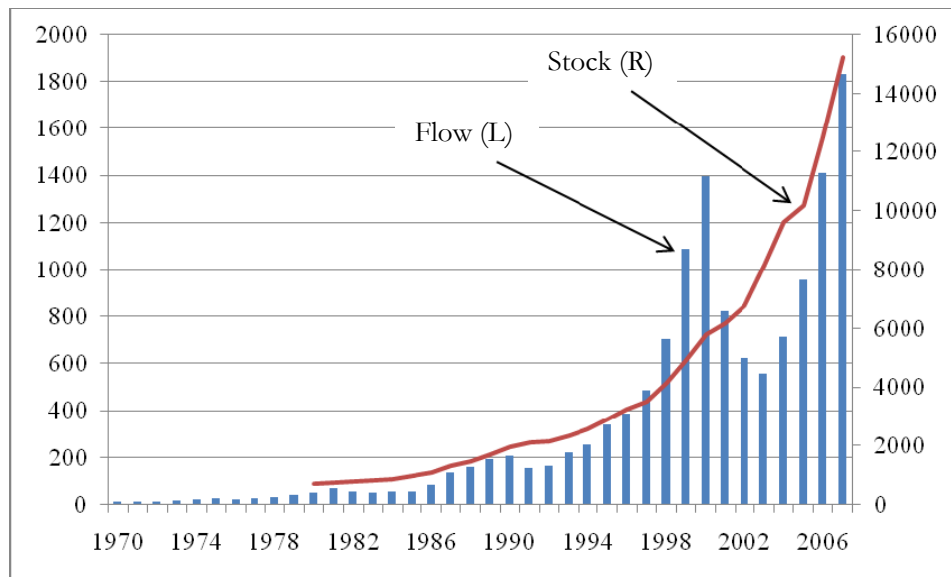


Figure 2 Rapid growth of FDI (billions of USD).

Source: UNCTAD

The objectives of this research are twofold. The first is to present the theoretical incentives for firms to undertake FDI and to provide an analytical framework in which to evaluate how these incentives are affected by accession into RIAs. The second objective is to analyse how firms' incentives to conduct FDI are affected by multilateral trade liberalisation. We investigate the implications of multilateral liberalisation for the configuration of international trade and investment activities for trading blocs. More specifically, this article investigates when multilateral liberalisation could accentuate the original incentive effects of RIAs on cross-border trade and FDI, and when these effects could be reversed. The implications of multilateral liberalisation for FDI flows for trading blocs have not been analysed in international economics literature, and they are particularly relevant in light of movements towards a more liberalised multilateral trading system.

Section two presents the motives for firms to undertake FDI and discusses the effects of RIAs on trade and FDI. Section two also presents an overview of the literature on RIAs and summarises empirical estimates of the effects of RIAs on trade and FDI flows. Section three discusses the implications of multilateral trade liberalisation for the configuration of international commerce for firms that have made prior FDI decisions in response to existing RIAs. This section includes a discussion of liberalisation in primary agricultural commodities and the potential impacts on food-processing industries. The final section concludes.

Foreign Direct Investment and Regional Integration Agreements

Incentives to Conduct Foreign Direct Investment

Foreign direct investment is an alternative method (to exporting) for firms to access consumers in a foreign country, and firms will choose FDI instead of exporting if it is a more cost-effective strategy for entering a foreign market. The incentives for conducting FDI can be analysed in the context of the ownership-location-internalisation (OLI) paradigm (Dunning, 1977, 1981). **Ownership** embodies a firm's advantages in the organisational and technological aspects of production and distribution, as well as advantages conferred on a firm by the differentiation of its product from rival firms' products. These advantages amount to a proprietary asset that a firm can convey to foreign markets at zero, or negligible, cost and can provide a firm with competitive advantages. Firms opt for FDI instead of exporting based on attributes of a market's **location**. Relatively low labour, resource and other input costs, as well as low barriers to FDI, generate incentives for firms to access foreign markets via FDI instead of exporting. Two important factors determine a firm's decision to **internalise** various stages of their supply chains across international borders instead of relying on arm's-length suppliers. First, the higher are the transaction costs of securing inputs through the market from external firms, the larger are the incentives to internalise production stages through FDI (Coase, 1937). Second, market transactions with arm's-length firms carry a risk of proprietary-asset dissipation as firms imitate proprietary production and organisational methods; this can generate competition for the original firm. As the risks of dissipation increase, so too do the incentives for conducting FDI.⁶

FDI can be conducted vertically along a supply chain, or horizontally across markets (Caves, 1971). Horizontal FDI occurs when firms replicate production stages across countries; this strategy can act as an alternative to exporting to foreign markets (Krugman, 1983; Brainard, 1993; Markusen, 2002; Barba-Navaretti and Venables, 2004). Incentives to conduct horizontal FDI increase with trade barriers, transportation costs and fixed costs at the corporate level. Incentives to conduct horizontal FDI decrease with barriers to FDI (e.g., limitations on foreign ownership, management and operational restrictions), and scale at the plant level (i.e., the higher are the fixed costs of establishing a production facility abroad). Vertical FDI occurs when firms separate stages of their supply chains across a range of countries to take advantage of different relative factor prices. Labour-intensive manufacturing industries may be characterised by vertical FDI into countries where labour costs are relatively low. Capital-intensive production stages may then occur in capital-abundant

countries, which are often the firms' respective home (developed) countries. FDI can also occur when a firm undertakes downstream wholesaling or retailing operations in consumer markets outside its home country.⁷

Effects of Regional Integration Agreements on Foreign Direct Investment

The accession of a country into an RIA can have significant effects on firms' incentives to conduct FDI. Viner's (1950) inferences on the trade effects of RIAs can be extended to investment activities to describe investment diversion and creation that can occur as a result of economic integration (Kindleberger, 1966). We summarise below the creation/diversion permutations that could arise after the implementation of an RIA.

We first consider a situation that could induce trade creation and investment diversion between RIA member countries. Consider an RIA where the relative magnitude of reduction in trade barriers (i.e., tariff and non-tariff barriers) outweighs the magnitude of reduction in FDI barriers (i.e., taxation on foreign earnings, barriers to foreign ownership of capital). In this case, the incentives for a firm headquartered in one of the RIA member countries to conduct FDI are reduced because accessing the foreign market by cross-border trade has become relatively less costly. Such a firm may opt to depend more heavily on cross-border trade rather than on FDI for reaching foreign consumers. In this case, the formation of an RIA would induce trade creation from an RIA member country directly through the reduction of the cross-border trade barriers, and also indirectly by replacing FDI with trade in reaching the consumers of the RIA partner country. Investment diversion occurs as production in the trading partner is replaced by exports from the firm's home country.

A firm's transition from serving the foreign market by FDI to serving by exporting will not necessarily occur immediately because of the firm's financial commitments to fixed assets in the foreign market. Significant sunk costs are likely to be associated with a firm's production facilities in the foreign market, and this commitment increases with the degree of asset specificity. A higher degree of asset specificity portends more difficulty/higher costs in selling productive assets (e.g., manufacturing facilities and equipment) in the foreign market and a resultantly slower transition to production in the firm's home country. However, the primary point remains: accession into an RIA changes firms' incentive structures to conduct FDI as a means of accessing foreign markets. The structural shift from production in the foreign country to the home country may not occur until current production facilities in the RIA partner country are obsolete, in which case replacement facilities would be

constructed in the home country instead of replacing obsolete equipment in the foreign country.

A firm's decision to uproot FDI assets in a foreign country can also be affected by several other "noise" factors in the short term. For example, the appreciation of the firm's home-country currency relative to the FDI target market's currency may delay the relocation of production because the sale of assets in the target market and purchase of new assets in the home country will be more costly. A temporary spike in input costs in the home country relative to the target market can have a similar effect. The core incentives for conducting FDI, as described in the OLI paradigm, are fundamentally set by the nature of integration between countries, however. These "noise" factors, while significant, should not alter the long-run incentives for firms to conduct FDI activities.

RIAs can also generate simultaneous trade creation and investment creation between RIA member countries. Consider the case of a firm that has undertaken vertical FDI with two production stages split across two countries. An RIA that lowers trade and FDI barriers between these two countries will have two effects. First, lower trade barriers will induce trade creation as the firm increases intra-firm exports of inputs to the downstream production facility. Second, the more liberal FDI environment will provide the firm with stronger incentives to expand its FDI in the RIA partner country.

A third possibility is for an RIA to generate incentives that will lead to trade diversion and investment creation between RIA member countries. Consider a firm that is headquartered in one of the RIA member countries that has undertaken FDI expansions into another RIA member country to internalise its proprietary asset. Consider now the post-implementation period of an RIA where the transaction costs that motivated the firm to internalise its proprietary asset persist. Foreign direct investment provisions brought about by the RIA would generate increased incentives for more firms to undertake FDI to internalise their proprietary assets in RIA partner countries, thereby generating investment creation. Such a situation could lead to trade diversion between RIA member countries if the increased incentives to conduct FDI to access the foreign market and internalise proprietary assets exceed increased incentives to service the foreign market by exporting.

The formation of an RIA can also generate trade diversion and investment creation from RIA non-member countries to RIA member countries. Consider a pre-RIA setting in which a firm headquartered in an RIA non-member country exports to an RIA member country. The implementation of an RIA that excludes the exporting country provides preferential market access to RIA member countries, thereby putting

the original exporting firm at a competitive disadvantage. This firm could be out-competed in the RIA member countries by firms headquartered in other RIA member countries following the implementation of the agreement. Such a firm may also anticipate protectionist practices by RIA member countries against non-member countries (e.g., through antidumping policies). In order to overcome the threat of trade diversion and maintain the market share, firms of non-member countries will opt for FDI. This type of FDI, driven by the incentive to maintain the market share and to overcome the implications of trade diversion, is commonly termed defensive trade-substituting investment (Buckley, 2004). Another essential implication is that the formation of the RIA coalesces segmented markets into a single, larger market. This will increase the incentives for firms of non-member countries to undertake FDI in this larger, integrated market. This type of FDI, driven by larger markets and growing demand, is commonly termed offensive trade-substituting investment (Buckley, 2004). The original exporting firm in the RIA non-member country will have increased incentives to reach consumers by means of FDI in the RIA member country. Trade is diverted from the RIA non-member country, and investment is created in the RIA member.⁸

Many factors determine the magnitude of the effects of RIAs on the configuration of international commerce. Higher barriers to trade such as costs associated with international distance (transportation costs, information costs) will lessen the implications of trade creation and investment diversion between member countries. For example, if source and destination markets are far enough apart, then transportation costs could be the constraining factor in the exporting/FDI decision. This could render FDI the preferred strategy for accessing the markets of other member countries. The implementation of RIAs in terms of preferential market access may not be sufficient to overcome the international distance considerations that render FDI the preferred mode of international commerce. Therefore, the investment diversion effect would be limited. Similarly, investment creation from RIA non-member countries to RIA member countries could also be limited because the majority of FDI opportunities would be already taken to overcome high transportation costs.

A firm's decision to serve a foreign market by exports or by FDI is ultimately dependent on the incentives that it faces under different trade conditions and regimes. In the case of new RIAs, these incentives depend on the type of FDI being conducted and on the degree of trade and investment liberalisation embodied in the new RIA. RIAs can stretch beyond the conventional reduction in trade barriers (e.g., tariffs) to cover policies that facilitate FDI by other member countries (e.g., national treatment

provisions where investors from an RIA member country are treated as national investors, rights of establishment, elimination of trade-related investment measures or TRIMS). The next section presents a review of empirical evaluations of the effects of RIAs on trade and FDI.

The Effects of RIAs on Trade and FDI: An Overview of the Empirical Literature

There is a significant literature that investigates the effects of RIAs on cross-border trade. Two different approaches are commonly pursued. The first is an *ex ante* approach that uses computable general equilibrium models to simulate the effects of RIAs on trade flows (e.g., Brown, Deardorff and Stern, 1992; Brown and Stern, 1989; Cox and Harris, 1985). The second approach is an *ex post* positive one, sometimes using the conventional gravity model for aggregate industrial levels (e.g., Frankel and Wei, 1996; Frankel, 1997; Bayoumi and Eichengreen, 1997) and for agricultural industries (e.g., Koo, Kennedy and Skripnitchenko, 2006; Susanto, Rosson and Adcock, 2007; Jayasinghe and Sarker, 2008). Trade creation and trade diversion effects of RIAs are captured through two binary variables in these models: one binary variable takes the value of one for trade between two RIA member countries and zero otherwise, and the other binary variable takes a value of one for trade from an RIA non-member country to an RIA member country and zero otherwise. These empirical studies generally find evidence of trade creation and trade diversion effects that are consistent with theoretical expectations.

Clausing (2001) studies the welfare implications of the Canada–U.S. Free Trade Agreement (CUSFTA) for the United States by examining the effects of changes in tariffs on changes in import levels. Clausing relies on a parsimonious demand-supply system and detects significant evidence of trade creation and no evidence of trade diversion as a result of the CUSFTA. These results are interpreted as a welfare-improving effect of the CUSFTA for the United States. In an alternative approach, Romalis (2005) detects significant positive effects of CUSFTA/NAFTA on output and small effects on prices. He also finds a smaller-than-anticipated positive effect of CUSFTA/NAFTA on welfare, which suggests that positive output effects of trade creation are being partially offset by trade diversion.

Another line of empirical analyses studies the effects of RIAs on the flow and stock of FDI. Baldwin, Forslid and Haaland (1996) examine the impact of the 1992 European Single Market Programme (ESMP) on FDI in member countries of the European Union and on FDI in non-member (European Free Trade Association or EFTA) countries. Baldwin, Forslid and Haaland find some empirical evidence that the ESMP induced an increase in FDI in EU member countries (investment creation) but

led to a decrease in FDI in EFTA countries (investment diversion). Baldwin, Forslid and Haaland demonstrate, in a simulation model, that the non-participation of EFTA countries in the ESMP causes a slight drop in capital stock and that their participation would have induced a significant surge in capital stock.

Blomström and Kokko (1997) argue through descriptive analysis that annual bilateral flows of FDI between the United States and Canada do not exhibit clear CUSFTA-related patterns. Firms that conducted FDI to overcome cross-border trade barriers did not necessarily reduce their reliance on FDI, and firms that conducted FDI to internalise their proprietary assets did not necessarily increase their FDI activities. Blomström and Kokko also find that the ratio of production of foreign affiliates of U.S. MNEs in Canada to Canada's GDP trended downward after CUSFTA but the ratio of production of foreign affiliates of Canadian MNEs in the United States to U.S. GDP did not exhibit any clear CUSFTA-related pattern.

Buckley et al. (2007) employ a dynamic empirical model to determine the effects of CUSFTA on the flows of U.S. FDI into Canada. Rather than modelling CUSFTA effects as a structural intercept shift, Buckley et al. assess the impact of CUSFTA by analysing the coefficients on the theoretical determinants of FDI flows in a regression model. Their main finding is that CUSFTA has led to an increase in the responsiveness of U.S. FDI flows into Canada by a factor of two. They also find positive effects on FDI flows of the real exchange rate of the Canadian dollar relative to the U.S. dollar, in line with the expectation that depreciation of the host-country currency will render its assets less expensive and make FDI more attractive relative to exporting. Finally, Buckley et al. find that an increase in the opportunity costs of conducting FDI induces a retraction in FDI flows.

Regional integration agreements can also have effects on production structure and efficiency. Head and Ries (1999) examine whether CUSFTA prompts efficiency through rationalization of the production structure (i.e., reduction in the number of plants associated with an increase in production per plant). Head and Ries find that CUSFTA did not induce a significant increase in the scale of production. They attribute this result to currency depreciation, undercounting of small firms and a structural shift towards industries that are characterized by large scale.

Implications of Multilateral Trade Liberalisation for Trade and FDI for Trading Blocs

The implementation of multilateral trade liberalisation will have important effects on the incentives for firms to access foreign markets by exporting or by undertaking FDI. The significance of preferential market access to RIA member countries will be devalued, and perhaps eliminated entirely, with the transition towards a more liberalised global market. We now turn to an analysis of the potential implications of multilateral liberalisation for trade and FDI flows for trading blocs. Analysing the effects of multilateral integration agreements on the incentives for firms to conduct FDI requires the consideration of many aspects. First, we must consider how the incentive structures of firms are affected by multilateral integration agreements. Second, the incentives for conducting FDI may be different for firms in countries that are members of an RIA than for firms from non-member countries. Third, multilateral trade liberalisation schemes for final products and for primary inputs need to be distinguished from each other and analysed. It may be the case that multilateral liberalisation will modify firms' FDI incentives in a manner that will undo FDI decisions that were taken in response to the many RIAs that have emerged since the formation of the WTO in 1995. We provide a framework in which to analyse firms' FDI incentives after multilateral liberalisation across firms of members and non-members of RIAs.

Effects on Firms from RIA Member and Non-member Countries

We consider first the implications of multilateral trade liberalisation for firms of RIA member countries. Multilateral liberalisation is not expected to have significant direct impacts in the case of an existing RIA that initially induced trade creation and investment diversion between member countries to gain market access. This is because the removal of tariffs between member countries following the RIA formation would have already induced rearrangements in the configuration of international commerce (i.e., trade and FDI). Multilateral trade liberalisation will therefore not have a significant direct impact on firms' strategies for accessing the markets of other member countries. The exception is when RIAs result in only a partial reduction in trade barriers between member countries. In such a case, multilateral trade liberalisation that removes the remaining trade barriers is expected to mimic the effects of the formation of RIAs for member countries in terms of trade creation and investment diversion.

There are, however, potential indirect effects that could induce firms of an RIA member country to rely more on FDI in accessing the market of another RIA member country following the implementation of multilateral trade liberalisation. This is because the implementation of multilateral trade liberalisation partially or completely erodes the value of preferences given to member countries vis-à-vis non-member countries. Consequently, firms of an RIA member country may adopt defensive trade-substituting investment strategies in order to secure their initial market shares by directly engaging in FDI in the other member country. Therefore, there could be a tendency to reverse the initial investment-diversion effects.

The implications of multilateral trade liberalisation for firms of RIA non-member countries are expected to be more significant than for member countries. As discussed in the previous section, the formation of RIAs would induce trade diversion and investment creation from RIA non-member countries to member countries. The incentives for firms to conduct FDI in countries that are party to RIAs could be reduced after multilateral liberalisation. One of the primary incentives for engaging in FDI in an RIA member country is to ensure access to consumer markets without having to hurdle border measures. As these border measures fall among new trading partners under the disciplines of multilateral agreements, so too will the incentives for FDI in RIA member countries, because the advantages of producing in RIA member countries will have dissipated. In this case, there may no longer be sufficient incentives to produce in RIA member countries just to gain market access. Production may be moved to the home country or to locations with other strategic advantages, and the trade diversion and investment creation that grew out of the original RIA may be undone.

The pace of trade and FDI realignment depends on production facilities' degree of asset specificity and the rates of capital depreciation and obsolescence. More specific assets will slow the pace of readjustment as firms struggle to unload productive assets in foreign markets. The pace of realignment will increase with the rates of capital depreciation and obsolescence; the sooner productive capital loses its usefulness, the sooner firms will relocate production to preferred locations.

Foreign direct investment that was undertaken by firms from an RIA non-member country in response to a larger market size created by an RIA (i.e., offensive trade-substituting investment) may not be significantly affected by multilateral liberalisation. The large market size remains after multilateral liberalisation, so improved market access that is derived from a new agreement may not be sufficient to undo original FDI activities.

One of the primary strategic advantages of conducting FDI is production location relative to the destination market. A new multilateral integration agreement may provide incentives for firms to move production out of RIA member countries to locations that are in geographical proximity to target markets and have lower production costs than the original RIA member countries. The relative importance of these production costs is magnified in locational decisions after multilateral agreements reduce the trade barriers that motivated FDI. Multilateral liberalisation will not have significant effects on FDI decisions if the original FDI decision was constrained by high transportation costs instead of trade barriers, however. Improved access to destination markets as the result of multilateral trade agreements may not sufficiently alter firms' incentives to move production locations out of destination markets after liberalisation if transportation costs are very high.

Multilateral liberalisation could induce an increase in efficiency of firms of RIA non-member countries. Firms that become more efficient increase the value of their proprietary assets, and they may opt to internalize these assets by undertaking FDI within the RIA region or in a third, non-member country that offers locational advantages such as proximity to destination markets and cheap inputs.

Finally, as discussed in the previous section, RIAs that lower international investment barriers are expected to encourage FDI between member countries as firms internalise their proprietary assets and overcome high transportation costs. This effect would lead to trade diversion and investment creation between RIA member countries. New FDI provisions that are associated with multilateral liberalisation schemes are expected to have limited direct effects because firms of RIA member countries have already benefited from the FDI provisions brought about by the RIA. However, multilateral FDI provisions would encourage firms of non-member countries to undertake FDI in RIA member countries to internalise their proprietary assets and prevent potential asset dissipation in destination markets and to overcome large transportation costs.

Multilateral Trade Liberalisation in Primary Commodities: Effects on the Food-Processing Industry

Trade in primary agricultural commodities will be liberalised if a multilateral DDA deal is reached. This liberalisation will change relative commodity prices and is expected to have significant effects on the food-processing industry, which uses primary agricultural commodities as inputs. Firms spread production processes across countries to take advantage of cross-country input and production-cost differences, and these incentives are distorted on a global scale by RIAs that grant preferential market access to member countries to the exclusion of other countries. RIAs that

granted member countries preferential market access may have induced firms from outside the RIA to establish processing facilities in RIA member countries with relatively high input and production costs, as long as the benefits of market access exceeded the higher production costs. This would have resulted in trade diversion and investment creation between RIA member and non-member countries. Multilateral liberalisation agreements that negate, or at least reduce, preferential market access will remove these distortions, and input/production cost factors will become the primary considerations in firms' FDI decisions.

Firms that are headquartered in countries that were not party to the RIA will have lower incentives for FDI in RIA member countries after multilateral liberalisation, and will seek out processing locations with relatively cheap input and production costs. The original trade diversion and investment creation effects from the RIA could be undone, and a new wave of trade creation (from the new production location) and investment diversion (as production facilities are relocated out of the RIA member country) will occur.

It is widely expected that liberalisation of global agricultural trade will increase the traded prices of many agricultural commodities (see for example, Diao, Somwaru and Roe, 2001; Anderson and Martin, 2005). Lower production subsidies will reduce production in developed countries, and tighter constraints on export subsidies and export credits will reduce exports from developed countries. A uniform increase in prices across all countries would not affect FDI incentives; however, the effect on prices will not be uniform across countries and will depend on each country's degree of global market integration before and after multilateral liberalisation. For countries that are characterised by large import barriers and high domestic prices before multilateral liberalisation, the increase in commodity prices may be less dramatic than for countries where import barriers were small and domestic prices relatively low. This shift in relative commodity prices could have significant effects on food-processing firms that conduct FDI using agricultural commodities as primary inputs. Production facilities may be relocated to, or expanded in, countries where commodity inputs are relatively cheap. This process could build on the investment creation that occurred as firms of RIA non-member countries located production facilities in RIA member countries prior to multilateral liberalisation. For example, RIAs that maintained high common import barriers among member countries may experience increased inward FDI activity after multilateral liberalisation if domestic commodity price increases are smaller than price increases in non-member countries.

Rules of Origin

Another important consideration in analysing the effects of multilateral liberalisation on FDI activities is the complicated web of rules of origin (ROOs) that have grown out of RIAs. ROOs are the results of efforts by RIA member countries to prevent transshipment of products from outside the RIA territory into a member country via another member country. For example, if one member country of a customs union (country A) has a preferential trade agreement with a country outside the customs union (country D), then products could enter other countries (countries B and C) in the customs union through country A without being subject to the tariffs that countries B and C would normally apply to imports from country D. Most RIAs therefore include ROOs that specify the original source of products entering an RIA. Products can only be designated as being “made in country A” if certain criteria (e.g., percentage of value added to the final product) are satisfied.

The configuration of international commerce has been significantly affected by ROOs, particularly in the case of fragmented vertical supply chains (Augier, Gasiorek and Tong, 2005). Firms have adjusted FDI activities to correspond to the incentive structures that are established by their trading partners’ ROOs. Using the above example, downstream manufacturing firms in country A may have reduced incentives to purchase inputs from country D if ROOs would categorise output as originating outside the customs union. Multilateral liberalisation will diminish the effect of ROOs on firms’ FDI decisions. As the significance of preferential trade barriers is reduced through multilateral agreements, the distortionary incentives that were created by ROOs will be undone, or at least lessened. The importance of country of origin will decline relative to the costs of inputs in firms’ upstream investment decisions.

Concluding Remarks

The proliferation of RIAs over the past several years has led to significant changes in the global configuration of trade and investment activity. Firms’ incentives to access consumer markets by exporting or by FDI have been markedly altered by the “spaghetti bowl” (Bhagwati, 1995) of RIAs, and we now face the prospect of multilateral trade liberalisation that would significantly affect the FDI incentive structures that were established within the range of current RIAs.

RIAs that provide preferential market access to member countries modify firms’ incentives to undertake FDI activities and can lead to various permutations of trade and investment creation and diversion. The net effects of the changes to incentives depend on the relative degree of liberalisation between trade and investment, and on the various factors that induce investment.

The prospect of a DDA agreement highlights the importance of analysing how multilateral liberalisation could affect the incentives for FDI by firms that are headquartered in and out of existing RIAs. Multilateral liberalisation has the potential to change incentive structures in a manner that would undo many of the FDI activities undertaken in response to previous RIAs. These effects could be significant and must be considered in an *ex ante* evaluation of multilateral trade liberalisation.

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Endnotes

- * We are grateful to Ian Sheldon and participants at the Canadian Agricultural Economics Society Annual Workshop in Quebec City on October 23, 2009 for helpful comments.
- 1. The terms *regional integration agreement (RIA)* and *regional trade agreement (RTA)* represent interchangeable notions. However, the former is commonly used in the literature when the analyses encompass foreign direct investment (FDI).
- 2. Pomfret (1997) considers the case of a free trade area (FTA) where member countries retain independent external trade barriers vis-à-vis non-member countries. He shows that member countries with relatively lower trade barriers against non-member countries might in fact experience welfare improvements, while other member countries with relatively higher trade barriers against non-member countries might experience welfare reductions. Welfare improvements of member countries with relatively lower trade barriers are the result of trade creation with both member and non-member countries.
- 3. The seminal work of Viner initiated a strand of literature that focused on global welfare implications of RIAs (e.g., Krugman, 1991a, 1991b; Deardorff and Stern, 1992; Haveman, 1992; Frankel, 1997; and Frankel, Stein and Wei, 1998). This literature focused on whether the enlargement of RIAs, in the sense of more members in each bloc and fewer blocs, induces a monotonic improvement in global welfare. Another strand of theoretical literature studies the welfare implications of RIAs for the member countries (e.g., Krugman, 1991b, 1994; Kennan and Riezman, 1990; Michaely, 1998).
- 4. Viner's (1950) theory is not immune to critiques. For example, Meade (1955) questions the validity of Viner's infinite supply elasticity assumption.
- 5. Investment is considered to be FDI when the parent enterprise has some control over the foreign affiliate, commonly specified at 10 percent or more of shares or voting power of an incorporated firm or its equivalent for an unincorporated firm (OECD, 1996).
- 6. The literature also suggests additional incentives to undertake FDI, such as risk diversification where multinational enterprises (MNEs) can diversify risk across geographic dimensions and/or product dimensions (Rugman, 1975) and rivalry between oligopolistic firms (Knickerbocker, 1973).
- 7. Many MNEs pursue mixed strategies through both vertical and horizontal FDI expansions. For example, a meat-processing firm can horizontally expand into foreign countries while also engaging in backward FDI to acquire livestock inputs in the foreign market.
- 8. Analyses of RIAs that measure welfare through the magnitude of trade and operational aspects of FDI (i.e., transactions of foreign affiliates of MNEs) overlook other potential sources of welfare gain. For example, RIAs are considered to be catalysts to reap economies of scale and to spur competitiveness and efficiency.

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