**Unilateral Multilateralism versus Reciprocity:
Impacts of East Asian FTAs when
Utilization is Incomplete**

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Unilateral Multilateralism versus Reciprocity: Impacts of East Asian FTAs when Utilization is Incomplete[1]

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Abstract

Previous studies on the impacts of free trade agreements (FTAs) in East Asia have assumed full utilization of preferences. The evidence suggests that this assumption is seriously in error, with the estimated uptake particularly low in East Asia. In this paper, we assume a more realistic utilization rate in estimating impacts. We find that actual utilization rates significantly diminish the benefits from preferential liberalization, but in a non-linear way. Reciprocity is an important motivation for pursuing FTAs over unilateral actions, such as multilateralization of preferences. We isolate the impact of reciprocity, but find that the additional benefits also depend on utilization rates. Furthermore, the potential for trade deflection combined with possible retaliatory actions could negatively affect members and non-members. In the absence of Doha, unilateral multilateralism or non-reciprocal multilateralization of preferences is the practical route that is most likely to deliver the greatest benefits. Global liberalization, while difficult to attain, would maximize world welfare while posing no risk in its realization.

Keywords: unilateralism, multilateralism, regionalism, FTA, reciprocity, utilization rates, CGE models.

JEL Classification: F13, F14, F17

Unilateral Multilateralism versus Reciprocity: Impacts of East Asian FTAs when Utilization is Incomplete

1. Introduction

The Doha Round of the World Trade Organization (WTO) has stalled indefinitely. Partly as a reflection of this, bilateral free trade agreements (FTAs) have proliferated. Every country in the world today, with the exception of Mongolia, is a member of at least one plurilateral FTA and\or bilateral FTA, and most are members of multiple bilateral FTAs.[2] While countries in Asia were relative latecomers to preferential liberalization through participation in FTAs, they have been catching-up rapidly. The outcome of the proliferation of often overlapping FTAs has been described as the spaghetti bowl effect, or in the Asian region, the noodle bowl effect. It refers to the increased cost of doing business, and welfare losses associated with trade diversion, due to inconsistencies between various elements of the myriad agreements.[3]

How do we remedy the situation? Concluding Doha would help, but the single undertaking appears increasingly unlikely, and may not even be enough. Therefore, a number of proposals that have been put forward (Baldwin 2006; 2008; Menon 2007; 2009), but they can be broadly grouped under two headings: consolidation and multilateralization. The consolidation approach proposes the creation of a region-wide FTA, in an apparent attempt to neutralize intra-regional FTAs. The multilateralization approach involves offering preferences to non-members on a unilateral or non-reciprocal basis, thereby eliminating any margin of preference. While these two proposals are aimed at addressing the noddle bowl, the impasse at the multilateral level has led to another development designed to broaden reciprocal access to markets outside the region. Recently, there has been growth in cross-regional tie-ups of FTAs, linking blocs in Asia with other blocs or to countries within them. For instance, proposals to create an ASEAN-EU FTA, ASEAN-US FTA, and other similar linkages, is gathering momentum.

The approaches, however, need not be mutually exclusive. Regional consolidation usually precedes cross-regional tie-ups, although this is not necessary. Even if the consolidation approach is pursued and a region-wide FTA is created, or this then leads to cross-regional tie-ups, this does not preclude implementing the multilateralization approach. The preferences of the consolidated or expanded FTA can still be offered to non-members on a non-discriminatory basis.

In this paper, we seek to assess the relative merits of these two approaches, as well as the recent trend for cross-regional tie-ups, by addressing a number of limitations in previous studies. In particular, we try and take into account more realistic utilization rates of preferences in estimating the impacts on growth, trade, and other macroeconomic variables. Most previous studies, and all previous studies on East Asia, have assumed that utilization is complete, or 100%.[4] This is a serious limitation since the evidence suggests that utilization

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[2] Even Mongolia is considering three different proposals and may not be the outlier for much longer.

[3] These include, for instance, different schedules for phasing-out tariffs, different rules of origin, exclusions, conflicting standards, and differences in rules dealing with anti-dumping and other regulations and policies (Pangestu and Scollay 2001).

[4] See Ando (2009) for a summary of these studies. More recently, Petri et al. (2011) examine the impacts of the Trans-Pacific Partnership (TPP), taking into account incomplete utilization of preferences. The TPP is a highly ambitious program that aims to address a number of the deep integration issues that have remained elusive. A lot of the benefits estimated by Petri et al. (2011) appear to derive from the implementation of these non-tariff reforms, and it is difficult to discern the impact of incomplete utilization of preferences. As argued elsewhere (Menon 2012), it also appears unlikely that FTAs in general, and the TPP in particular, will succeed in addressing these deeper reform issues. The difficulties in concluding the WTO's Doha Round, less ambitious than the TPP in many areas, stands as evidence of this. The preferential approach also does not readily lend itself to addressing these types of reforms, especially since the cost of exclusion can be prohibitively high. In addition,

rates of Asian FTAs are very low, usually ranging between 10% and 20%, and rarely above 25% (see Appendix). Therefore, previous analyses may have over-estimated the impacts of FTAs on members, and erroneously attributed outcomes to non-members.

The analysis is conducted using the MONASH multi-country (MMC) model, which is a MONASH-style dynamic computable general equilibrium (CGE) model of the global economy. Since the most commonly discussed proposals in this region relate to an FTA involving the Association of Southeast Asian Nations (ASEAN)+3 or ASEAN+6, we consider both of these cases. The MMC model that we use has separate treatment for each of the six ASEAN countries (Indonesia, Malaysia, Philippines Singapore, Thailand, and Viet Nam) as well as the "+3" countries (the People's Republic of China [PRC], Japan, and the Republic of Korea) and the additional three countries of the "+6" (Australia, New Zealand, and India).

The core of the analysis examines the impacts on these two groupings of countries of pursuing preferential liberalization, both when utilization is complete and incomplete, versus the multilateralization of preferences. We also consider the role that reciprocity can play, and try and isolate its impacts. Reciprocity is an important motivation for pursuing new FTAs or expanding existing ones, rather than taking unilateral actions such as multilateralizing preferences. Reciprocity is secured either through a regional FTA linking up with other FTAs, or through a series of bilateral or plurilateral tie-ups.[5] Preference utilization remains an issue in this process of expansion, while potential retaliatory actions from non-members increase in importance. To address this, we consider the impact on excluded countries in all of our simulations. To provide a reference point, these scenarios are compared with global, WTO-style liberalization.

Most previous studies have ignored the impact that trade liberalization has on government revenue; that is, most have not tried to neutralize any fiscal stimulus arising from reducing trade taxes. We conduct a sensitivity analysis whereby compensating taxes are levied in order to leave the budget position unchanged, therefore removing any indirect effects that accrue from changes in government revenue.

The paper is in five parts. Section 2 sets the stage by discussing the proliferation of FTAs in Asia and examines the average rate of utilization of preferences in Asian FTAs. Section 3 describes the model and the simulations undertaken. Results are discussed in Section 4. A final section concludes.

2. FTAs in Asia and Preference Utilization

2.1 FTAs in Asia: The State of Play

Over the last decade, the number of FTAs involving Asian countries has more than quadrupled from 56 in 2001 to 250 as of September 2012 **(Table 1)**. Of this number, close to three-fourths (185) were bilateral trade agreements (BTAs), while only 65 were plurilateral trade agreements (PTAs). Categorized by status, more than half (129) of the FTAs have been concluded, 28% (70) are being negotiated, and 20% (51) are at the proposal stage **(Figure 1)**.

(Table 1 about here)

(Figure 1 about here)

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the TPP appears to be motivated by political economy and security issues more so than the urge to reform trade. Its future is, to say the least, uncertain (see Bhagwati 2013).

[5] See The Economist (2012) for a recent discussion of attempts to expand or link-up FTAs.

FTAs involving ASEAN+6 countries have increased at an even faster rate than FTAs in Asia as a whole, growing by nearly tenfold from 19 in 2001 to 175 in September 2012. To date, ASEAN+6 countries account for 70% of all FTAs in Asia **(Table 2 and Figure 2)**.

(Table 2 about here)

(Figure 2 about here)

The vast majority (126) of these FTAs take the form of BTAs, of which a third (41) involve two ASEAN+6 countries. More than half (65) of these BTAs, however, involve an ASEAN+6 country and a trading partner outside Asia (**Table 3)**. The importance of non-Asian trading partners is likewise mirrored in the geographic coverage of plurilateral FTAs **(Tables 4 and 5)**.

(Table 3 about here)

(Table 4 about here)

(Table 5 about here)

The rapid increase in FTAs involving ASEAN+6 countries has been led by Singapore, India, and the large economies of Northeast Asia—the PRC, Japan, and the Republic of Korea **(Table 6)**. As of September 2012, Singapore had the highest number of FTAs with a total of 36, of which 18 are currently in effect. India came in second with a total of 33 FTAs, 13 of which are currently in effect. The PRC had a total of 26 FTAs, while the Republic of Korea and Japan had 31 and 23 FTAs, respectively. Within ASEAN, Malaysia, Thailand, and Indonesia are not far behind with 25, 25, and 20 FTAs, respectively.

(Table 6 about here)

2.2 Utilization of Preferences in Asian FTAs

An important contribution of this paper is to try and account for more realistic rates of utilization of preferences by members of FTAs. There are a number of studies that have examined preference utilization in Asia and elsewhere, and some of these results are summarized in the Appendix. Although there is variation across studies in the utilization rates of FTAs in ASEAN and East Asia, what is clear is that they are generally quite low, ranging from almost negligible levels to around 25%. Why are utilization rates so low in Asia compared with those of other regions? For instance, with the North American Free Trade Agreement (NAFTA), more than 60% of Mexican exports to the US enter at preferential rates, while 55% of Chilean exports to the US take advantage of the relevant bilateral FTA. Utilization rates in Europe are generally even higher. The answer may lie in the nature of intra-regional trade, especially among ASEAN+3 countries.

About two-thirds of intra-regional exports consist of trade in parts and components, or product fragmentation trade. This feature reflects the important role that production networks play in the region. Much, if not all, of this trade travels duty-free already, or at very low rates of duty, for a number of reasons.

First, the vast majority of production fragmentation trade in the region relates to electronics and related products. Under the WTO's Information Technology Agreement (ITA), these products are exempt from duties. All of the key players in production networks in Asia are signatories of the ITA, including the PRC, Japan, and the Republic of Korea; the five original ASEAN members (Indonesia, Malaysia, Philippines, Singapore, Thailand); Hong Kong, China; and Taipei,China. In the decade spanning 1997–2007, more than 80% of ITA trade involved

an Asian country (Menon 2012, Table 2). In 2008, the three largest users of the ITA were the PRC, Japan, and Singapore. When combined with the Republic of Korea, these four countries accounted for half of all ITA exports. As Anderson and Mohs (2010, p. 13) point out, "A prominent feature of expanding ITA trade is the broadening participation of Asian countries, particularly [the PRC], and an increasingly important role for other developing countries." Furthermore, since ITA participants must eliminate their tariffs on a most-favored-nation (MFN) basis, even non-ITA signatories that are members of the WTO will enjoy duty-free access to these products.

Second, various duty-drawback schemes are in operation, whereby trade in parts and components, and other intermediate goods, may have their tariffs waived. Also, many of the multinational corporations that generate this type of trade operate out of export processing zones, where imports are generally duty free. Finally, and this relates to trade in final goods as well, tariffs have been declining in most sectors over the years, previously through various rounds of the General Agreement on Tariffs and Trade (GATT), as well as unilateral liberalization programs initiated voluntarily. This has resulted in relatively low MFN rates and, therefore, low margins of preference when compared to preferential rates afforded by an FTA. Given that time and effort is involved in securing preferential rates, very low margins may deter uptake. All of these reasons come to bear in accounting for the low rates of preference utilization in Asia.

3. Model and Simulations

The analysis is conducted using the MMC model.[6] The version of the MMC model used for this study has 57 commodities and industries (see Appendix for complete list), and 14 economies and regions. These consist of six ASEAN economies (Indonesia, Malaysia, Philippines, Singapore, Thailand, and Viet Nam); the plus 6 economies (PRC, Japan, and Republic of Korea; and Australia, New Zealand, and India); and the US and a residual rest of the world (ROW) economy.

Each of the simulations described below is a comparison with a business-as-usual (but moving background) scenario, the baseline. The baseline shows the growth of economic indicators without any trade liberalization taking place. The deviations of economic indicators from the baseline are used as measures of the effects of the various trade liberalization scenarios **(Figure 3)**.

(Figure 3 about here)

The baseline scenario is developed in the following manner. It starts in 2004 from a global CGE database that contains a portrait of the input–output structure of the world economy as well as trade and investment linkages between the economies in the model. The main data source for the input–output structure, trade linkages, and tariff levels is the Global Trade Analysis Project (GTAP) version 7 database. The data sources for investment linkages are the World Investment Report and various national statistical agencies.

During the historical years (2004–10) for which economic data are available, the baseline is constructed using the historical simulation technique, in which observed economic data such as gross domestic product (GDP), consumption, investment, output, and employment growth are used as exogenous inputs to the model.[7] The model then calculates the various changes

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[6] See Mai (2004) for details of the MMC model, and Dixon and Rimmer (2002) for the structure and theory of MONASH-style models.

[7] The historical simulation technique using a CGE model is described in detail in Dixon and Rimmer (2002). Applications to trade that use this technique to estimate technology and preference changes include Dixon, Menon, and Rimmer (2000); and Mai, Horridge, and Perkins (2003).

in input–output structure and consumer preferences. The main data sources for the historical simulation are the World Development Indicators, BP for energy sector data, the Food and Agriculture Organization (FAO) for agricultural sector data, the United Nations (UN) for population projection data, and various national statistical agencies.

During the forecast years (2011–20) for which economic data are not available, the baseline consists of forecast simulations that incorporate historical trends of changes in input–output structure and consumer preferences, as well as possible differences between the future and the past.

We conduct six basic simulations:

(i)   Simulation 1 (S1): Preferential Liberalization with Full Utilization of Preferences
(ii)   Simulation 2 (S2): Preferential Liberalization with Incomplete (25%) Utilization of Preferences
(iii)   Simulation 3 (S3): Multilateralization of Preferences
(iv)   Simulation 4 (S4): Multilateralization of Preferences with Reciprocity, with Full Utilization of Preferences
(v)   Simulation 5 (S5): Multilateralization of Preferences with Reciprocity, with Incomplete (25%) Utilization of Preferences
(vi)   Simulation 6 (S6): Global Liberalization

For simulations 1 and 2, we consider two country groupings: ASEAN+3 and ASEAN+6. Simulations 3, 4, and 5 deal with how trade between these two groupings is liberalized against the ROW. Finally, Simulation 6 deals with the world as a whole.

The difference between S1 and S2 is straight-forward, and relates purely to different rates of uptake of preferences. With S3, the preferences are offered to non-members on a non-discriminatory basis. Because these preferences are offered voluntarily, we assume that non-members do not reciprocate by reducing their tariffs in return. Reciprocity is introduced in S4 and S5, where non-member countries also reduce their tariffs on exports from member countries. The difference between S4 and S5 is the rate of utilization of preferences. Since reciprocity is secured through the regional FTA linking up with other FTAs, either through a series of bilateral or plurilateral tie-ups, preference utilization is still an issue. However, tariffs on trade between non-members remain unchanged with in both S3 and S4 and S5. This is where the final simulation, S6, comes in. Under S6, tariffs are also removed on trade between non-members and, therefore, we have global liberalization where trade between all countries is tariff free. As with the WTO, where members simultaneously reduce tariffs on trade with each other, reciprocity is secured through the MFN principle, and therefore incomplete utilization is not an issue.

All simulations deal with the removal of tariff barriers on goods trade only. It is also assumed that there is no endogenous productivity improvement caused by trade liberalization. These two features in particular should be borne in mind when it comes to interpreting the results.

4. Results

The results of our simulations are presented in **Tables 7–10**. Most of the results focus on changes in real GDP and real gross national product (GNP). Real GDP provides an indication of the aggregate level of economic activity, while real GNP provides an indication of income available for current and future consumption by members of the economy. As real GNP is deflated by the gross national expenditure (GNE) price index and real GDP by the GDP price

index, deviations in the terms of trade are a major factor in explaining the difference in deviation from the baseline of real GDP and real GNP.[8]

The first feature worth noting for all six simulations is how small the numbers are. Changes in GDP and GNP rarely exceed 1%, and can often be quite small. These magnitudes are not uncommon in CGE analyses of trade liberalization. Furthermore, the size of the numbers reflects the fact that we (i) deal with only goods and not services, (ii) focus on removing tariffs and not on non-tariff barriers or reducing other trade costs, and (iii) do not allow for endogenous productivity improvement caused by the reforms. Therefore, these results should be taken to represent lower-bound estimates of the impact of the various liberalization scenarios.

The formation of an ASEAN+3 FTA can raise the real GNP of the grouping by US$67.1 billion (0.33%) by 2020 if utilization is complete, but only by US$20.2 billion (0.10%) at 25% utilization. Not surprisingly, an ASEAN+6 FTA increases the benefits in both absolute and percentage terms. Real GNP of the expanded grouping rises by US$103 billion (0.42%) with full utilization and US$32.4 billion (0.13%) with incomplete utilization.

(Table 7 about here)

(Table 8 about here)

(Table 9 about here)

(Table 10 about here)

Comparing the results for members under full and incomplete utilization of preferences, we find that the impact under incomplete utilization for both GDP and GNP is slightly more than one-quarter of the full utilization outcome for the positive results, and slightly less than one-quarter for the negative results. This non-linearity could be attributable to the fact that incomplete utilization also reduces the extent of trade diversion, and therefore the reduction in welfare. The welfare of all non-members is reduced under both complete and incomplete utilization of preferences. This is despite global welfare being enhanced in both cases, albeit by very small amounts. This result is consistent with Mundell (1964), who demonstrated how trading partners that do not join a preferential trading arrangement could be made worse off, through terms of trade effects, even when global welfare is enhanced. It occurs in this case because ASEAN+3 and ASEAN+6 FTA can be considered to be large enough to affect world prices, and non-members as a whole are harmed because their terms of trade deteriorate as a result of trade diversion.

Comparing preferential liberalization with multilateralization of preferences, we find that the latter is superior in all cases, and especially when incomplete utilization is taken into account. When preferences are multilateralized, real GNP increases by US$88.3 billion (0.43%) for the ASEAN+3 grouping and by US$130.1 billion (0.54%) for ASEAN+6.

In general, when members extend their preferential reductions to non-members on a non-discriminatory basis, welfare is enhanced because of three primary effects: (i) the extent of the liberalization is greater, (ii) the broader liberalization undoes the welfare-reducing trade

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[8] The GNE price index includes the price of imports but not the price of exports; while the GDP price index includes the price of exports but not the price of imports. An improvement in terms of trade thus lowers the ratio of GNE to GDP price indices.

diversion resulting from the preferential liberalization, and (iii) the productivity of scarce resources within each member country is allocated more efficiently across its industries.

In scenarios S4 and S5, the ROW grouping reciprocates by reducing its tariffs on exports from ASEAN+3 and +6, respectively. The benefits to members when reciprocity is introduced are greater than S3 only when there is full utilization of preferences (S4). If utilization is incomplete (S5), then members benefit more from multilateralization of preferences even without reciprocity (S3). There is also little difference between the increase in GNP for ASEAN+3 (1.30% in S4 and 0.39% in S5) and ASEAN+6 (1.34% in S4 and 0.42% in S5). However, the GNP of ROW falls by 0.13% with ASEAN+3 and 0.15% with ASEAN+6 under S4 (with much smaller declines under S5). These are the largest reductions for non-members under any of the scenarios. The additional gains to members in this scenario, with full utilization of preferences, appear to occur at the expense of non-members. This raises the potential for possible retaliatory actions by non-members, reducing the benefits to the world as a whole. If the maximum gains to members accrue at the expense of potential retaliatory actions, then the possibility of trade deflection raises the likelihood of low utilization rates. Since tariffs between large trading blocs such as NAFTA and the EU, and other significant groupings such as South America and Africa, remain unchanged, there are significant opportunities, and benefits, from trying to deflect trade in order to obtain duty-free access

In sum, while reciprocity has the potential to impart substantial benefits, this again depends on the extent of utilization. At 25% utilization, multilateralization of preferences (without reciprocity) still delivers greater benefits to members. But the potential for trade deflection is high, therefore implying low utilization, because trade between large trading blocs remains outside the tariff reductions. The difficulties associated with linking these large trading blocs are real and have been recently highlighted in an editorial in The Economist (2012). Multilateralization of preferences is not subject to either trade deflection or retaliation. Therefore, in the absence of a legitimate conclusion to the Doha Round, multilateralization of preferences, even without reciprocity, is the practical route that is most likely to deliver the greatest benefits to members.

In the final scenario (S6), we consider global liberalization, which is similar to that of a legitimate conclusion of the Doha Round. If this were possible, the GNP of all member countries would be increased. As far as members are concerned, there appears to be little difference in the welfare effects of global liberalization versus multilateralization of preferences. This finding has important implications for policy. It suggests that it is very much within the control of member countries to initiate actions that will produce almost the best, and often even better, welfare outcomes from trade liberalization. There is really no need to wait for a WTO-based global deal in the form of a successful conclusion of the Doha Round for members to reap the benefits from it. It also appears that there is little to be gained from reciprocity, especially when that negotiating reciprocity can either be difficult and\or time consuming. Certainly the benefits do not justify the costs—in terms of time delay, negotiating costs, and associated uncertainty.

(Table 11 about here)

Global liberalization matters when it comes to non-members and their welfare. Although the negative impacts on non-members from either preferential liberalization or multilateralization of preferences are relatively small, and unlikely to be sufficient to invoke retaliation, the relative benefits to them from global liberalization can be quite significant. Non-members such as India, in particular, report strong positive gains under global liberalization. The reductions in welfare for India when excluded turn into strong positive gains of 4%–5% under global liberalization.

In terms of global welfare, preferential liberalization has a positive but negligible impact of about 0.01%, while multilateralization of preferences increases this sharply to about 0.08%. Global liberalization, on the other hand, raises this further still: about five-fold in relation to ASEAN+3 and about three-fold when it comes to ASEAN+6.

5. Conclusion

FTAs in Asia have been proliferating. Previous studies on the impacts of FTAs in East Asia have assumed full utilization of preferences. The evidence suggests that this assumption is seriously in error, with estimated uptake particularly low in East Asia. It is not uncommon to find utilization rates as low as 10%–20%, and rarely are they above 25%. In this paper, we assume a more realistic utilization rate of 25% in estimating the impacts that they may have on welfare and a host of macroeconomic variables. We find that realistic utilization rates significantly diminish the benefits from preferential liberalization, but in a non-linear way. A utilization rate of 25% reduces benefits by slightly less than 75%, due to reduced trade diversion.

Reciprocity is an important motivation for pursuing new FTAs or expanding existing ones over unilateral actions. Proponents of FTAs argue that unilateral actions reduce the bargaining capacity of countries looking to gain greater access to traditional and new markets. We isolate the impact of reciprocity and consider whether the additional benefits that flow from it are likely to be realized. While reciprocity has the potential to impart substantial benefits, this again depends on the extent of utilization when it is pursued through preferential agreements. At 25% utilization, multilateralization of preferences (without reciprocity) still delivers greater benefits to members. Furthermore, the potential for trade deflection combined with possible retaliatory actions may further reduce benefits to members (not included in the estimates), and to the world as a whole. Multilateralization of preferences is not subject to either trade deflection or retaliation. Therefore, in the absence of a comprehensive conclusion to the Doha Round, multilateralization of preferences, even without reciprocity, is the practical route that is most likely to deliver the greatest benefits to members. Apart from FTAs, reciprocity can be secured through the Doha Round of the WTO. Because of its MFN nature, there is no issue of incomplete utilization, or trade deflection or diversion. Should Doha become possible, then global liberalization would maximize world welfare while posing no risk in its realization. With the likelihood of achieving Doha through the originally envisaged single undertaking approach appearing increasingly unlikely however, the time may have come for unilateral actions through the multilateralization of preferences of the multiple FTAs that Asian countries are currently trying to implement- and poorly it would seem, based on embarassignly low utilization rates.

Appendix: Utilization of FTA Preferences in East and Southeast Asia

Baldwin (2007) cites data from the late 1990s that revealed low utilization of Association of Southeast Asian Nations (ASEAN) Free Trade Area (AFTA) preferences, with less than 3% of intra-ASEAN trade benefiting from these preferences. Baldwin likewise cites 2002 data from the Japan External Trade Organization (JETRO) to show that only 11.2% of Thailand's imports from AFTA took advantage of the common effective preferential tariff scheme (CEPT), while only 4.1% of Malaysia's exports to AFTA enjoyed the CEPT. Utilization rates below 50% are considered low for European FTAs. Using data from Thailand's Department of Foreign Trade and Bureau of Customs, Tangkitvanich and Itaravitak (2010) provide information on Thailand's utilization of privileges under its different FTAs **(Table A1)**.

(Table A1 about here)

Manchin and Pelkmans–Balaoing (2007) cite estimates based on firm interviews conducted for the ASEAN Secretariat that showed an AFTA tariff preference utilization rate of about 5% of total trade. ISEAS (2010) reports AFTA tariff preference utilization rates of around 15%–17% for the Philippines and 20% for Viet Nam. The average utilization rate for ASEAN was 23% in 2008. Kawai and Wignaraja (2011) present the main findings from the surveys of 841 firms in six East Asian countries and explore the extent to which FTA preferences are used. The authors present utilization rates that are higher than conventionally reported, though not substantially higher **(Table A2)**.

(Table A2 about here)

Hayakawa et al. (2009) employ the results of a survey conducted by JETRO to examine the utilization of ASEAN FTAs by Japanese affiliates **(Table A3)**. The authors restrict the sample to Japanese affiliates that are actually exporting to or importing from ASEAN countries. They find that 22% of Japanese affiliates with export operations in ASEAN utilize FTAs. Taking a closer look at FTA usage by location in ASEAN, the highest level of FTA usage is in Singapore (35%), followed by Indonesia (26%), and Malaysia (25%). In contrast, for the Philippines and Viet Nam, the ratio is around 10%. Turning to imports, 18% of Japanese affiliates with import operations in ASEAN utilize FTAs for imports, slightly less than the 22% for exports.

(Table A3)

Table 1: FTAs by Status—Total Asia and ASEAN+6 (cumulative), selected years

Year	Proposed		Under Negotiation				Concluded				Total	
			Framework Agreement Signed or Under Negotiation		Under Negotiation		Signed but not yet In Effect		Signed and In Effect			
	Asia	ASEAN+6	Asia	ASEAN+6	Asia	ASEAN+6	Asia	ASEAN+6	Asia	ASEAN+6	Asia	ASEAN+6
1975	0	0	0	0	0	0	1	1	0	0	1	1
1976	0	0	0	0	0	0	0	0	1	1	1	1
1980	0	0	0	0	0	0	1	1	1	1	2	2
1981	0	0	0	0	0	0	0	0	2	2	2	2
1983	0	0	0	0	0	0	1	0	3	3	4	3
1989	1	1	0	0	0	0	1	0	3	3	5	4
1991	1	1	0	0	0	0	2	1	5	5	8	7
1992	1	1	0	0	0	0	6	2	5	5	12	8
1993	1	1	0	0	0	0	5	1	9	6	15	8
1997	2	2	0	0	0	0	20	1	20	6	42	9
1998	2	2	0	0	0	0	19	2	23	6	44	10
1999	4	3	0	0	1	1	19	2	24	6	48	12
2000	3	3	0	0	6	5	19	3	25	6	53	17
2001	2	2	0	0	8	8	18	1	28	8	56	19
2002	8	6	2	2	8	8	19	1	31	10	68	27
2003	18	14	4	3	9	8	25	4	36	14	92	43
2004	31	26	14	9	15	13	27	7	43	18	130	73
2005	43	35	18	13	28	24	27	7	51	25	167	104
2006	48	41	18	13	37	31	23	6	64	33	190	124
2007	46	39	18	13	42	38	26	7	70	38	202	135
2008	46	39	16	11	42	38	25	9	80	44	209	141
2009	53	43	16	11	45	41	25	9	86	50	225	154
2010	56	46	17	12	48	42	26	10	92	56	239	166
2011	59	48	17	12	48	43	26	8	99	63	249	174
2012	51	41	15	10	55	50	26	8	103	66	250	175

ASEAN = Association of Southeast Asian Nations, FTA = free trade agreement. Source: ARIC FTA database, Asia Regional Integration Center (ARIC).

Table 2: Bilateral FTAs—ASEAN+3 and ASEAN+6, 2012

Grouping	Number of Bilateral FTAs in 2012
Within Subregion	
ASEAN+3	18
ASEAN+6	41
Across Subregion (within Asia)	
ASEAN+3 and Non-ASEAN+3	33
ASEAN+6 and Non-ASEAN+6	20
With Non-Asian Countries	
ASEAN+3 and Non-Asia	49
ASEAN+6 and Non-Asia	65
Total: ASEAN+3	**100**
Total: ASEAN+6	**126**

ASEAN = Association of Southeast Asian Nations, FTA = free trade agreement.

Notes:

1. As of September 2012.
2. Within Subregion refers to when both countries are ASEAN+3 (ASEAN+6) members.
3. Across sub-region refers to when one country is an ASEAN+3 (ASEAN+6) member while its partner is an Asian country but not an ASEAN+3 (ASEAN+6) member.

Source: ARIC FTA database, Asia Regional Integration Center (ARIC).
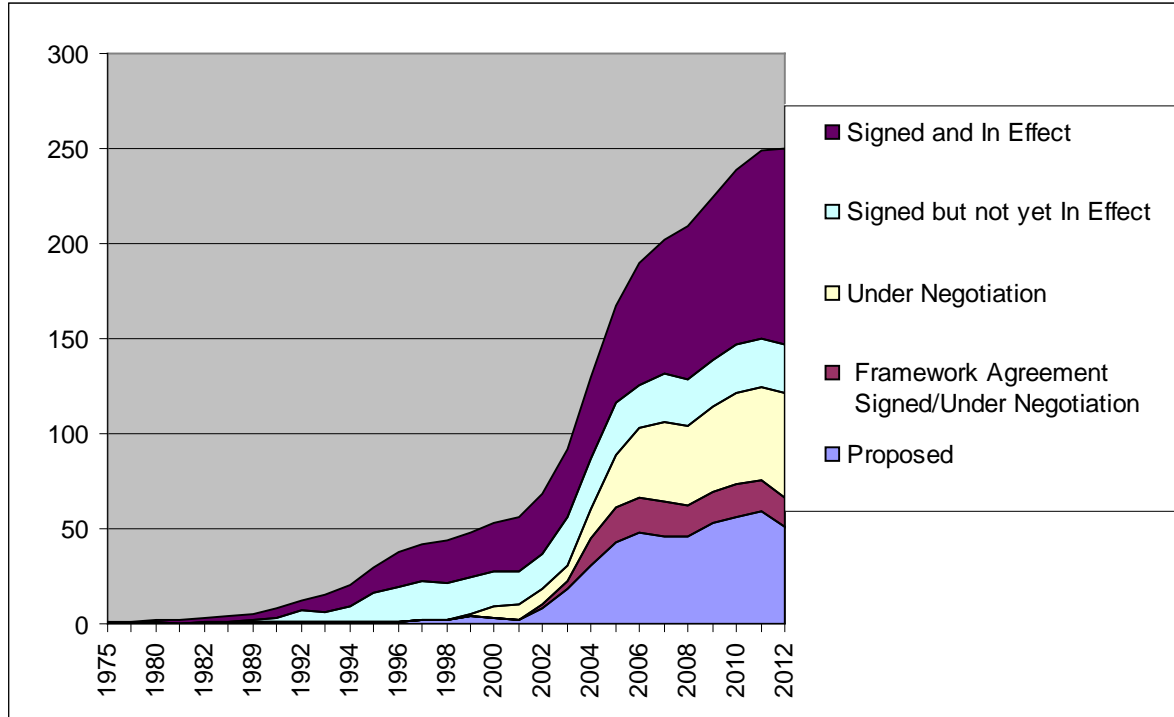
Table 3: Plurilateral FTAs—ASEAN+6, 2012

Composition of Plurilateral FTA	Number of Plurilateral FTAs in 2012
ASEAN+6 Plurilateral	4
ASEAN+6 Plurilateral + ASEAN+6 Country	5
ASEAN+6 Plurilateral + Non-ASEAN+6 Country	1
Non-ASEAN+6 Plurilateral + ASEAN+6 Country	27
Cross-Regional Plurilateral	10
Non-ASEAN+6 Plurilateral + ASEAN+6 Plurilateral	1
Cross-Regional Plurilateral + ASEAN+6 Country	2
TOTAL	**50**

Notes:

1. As of September 2012.
2. ASEAN+6 Plurilateral refers to groupings of more than two countries when all the members are ASEAN+6 countries.
3. Non-ASEAN+6 Plurilateral refers to a plurilateral FTA with no ASEAN+6 member.
4. Cross-Regional refers to groupings of more than two countries when the members are a combination of ASEAN+6 and non-ASEAN+6 countries.

Source: ARIC FTA database, Asia Regional Integration Center (ARIC).

Figure 1: FTAs by Status—Total Asia (cumulative), selected years

FTA = free trade agreement.

Notes:

1. As of September 2012.
2. Proposed refers to when parties are considering an FTA, establishing joint study groups or task forces, and conducting feasibility studies to determine the desirability of entering into an FTA.
3. Framework Agreement Signed or Under Negotiation refers to when parties are initially negotiating the contents of a framework agreement that serves as a guide for future negotiations.
4. Under Negotiation refers to when parties begin negotiations without a framework agreement.
5. Signed but not yet In Effect refers to when parties sign an FTA after negotiations have been completed. Some FTAs require legislative or executive ratification.
6. Signed and In Effect refers to when the provisions of an FTA becomes effective (e.g., when tariff reduction begins).

Source: ARIC FTA database, Asia Regional Integration Center (ARIC).

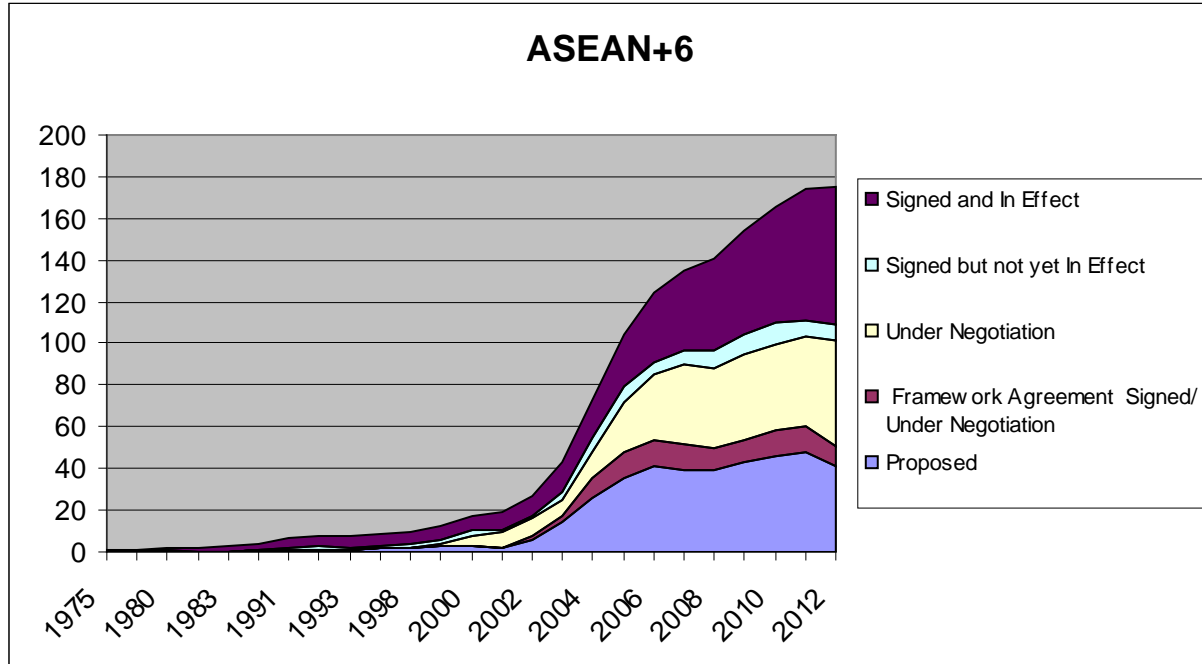**Figure 2: FTAs by Status—ASEAN+6 (cumulative), selected years**

FTA = free trade agreement.

Notes:

1. As of September 2012.
2. Proposed refers to when parties are considering an FTA, establishing joint study groups or task forces, and conducting feasibility studies to determine the desirability of entering into an FTA.
3. Framework Agreement Signed or Under Negotiation refers to when parties are initially negotiating the contents of a framework agreement that serves as a guide for future negotiations.
4. Under Negotiation refers to when parties begin negotiations without a framework agreement.
5. Signed but not yet In Effect refers to when parties sign an FTA after negotiations have been completed. Some FTAs require legislative or executive ratification.
6. Signed and In Effect refers to when the provisions of an FTA becomes effective (e.g., when tariff reduction begins).

Source: ARIC FTA database, Asia Regional Integration Center (ARIC).

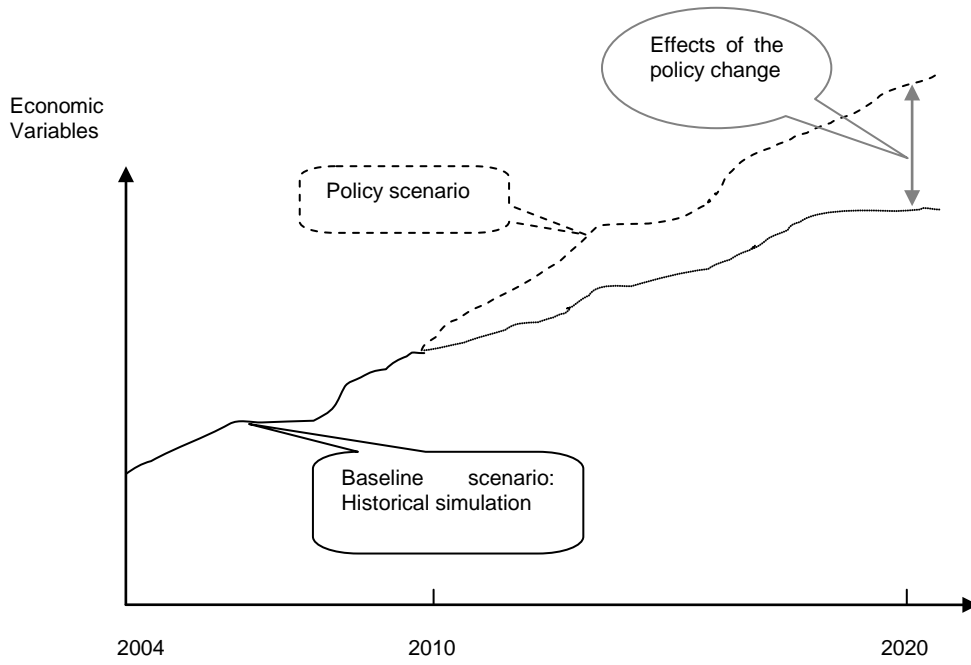**Figure 3: Historical, Forecast, and Policy Simulations**

Table 7: Value of Deviation from Baseline—ASEAN+3, 2020 (US$ million)

	Baseline Value (US$ million)	Preferential Liberal-ization, Complete Utilization	Preferential Liberal-ization, Incomplete Utilization	Multilateral-ization of Preferences	Multilateral-ization of Preferences with Reciprocity, Complete Utilization	Multilateralization of Preferences, with Reciprocity, Incomplete Utilization	Global Liberalization
World Real GDP	91,921,400	19,784	9,233	62,646	209,169	97,614	317,970
ASEAN+3 Real GDP	20,476,632	51,636	15,660	134,687	207,080	62,802	148,820
ROW (-A+3) Real GDP	71,444,768	−31,852	−6,427	−72,041	2,089	421	169,149
World Real GNP	91,921,400	11,183	7,185	70,844	175,323	112,645	287,182
ASEAN+3 Real GNP	20,429,330	67,101	20,216	88,288	264,699	79,748	167,283
ROW (-A+3) Real GNP	71,492,070	−55,918	−13,031	−17,444	−89,376	−20,828	119,899
World Real Exports	26,512,764	209,470	47,132	379,440	702,917	158,161	987,752
ASEAN+3 Real Exports	7,955,908	225,143	51,589	384,010	511,420	117,186	456,542
ROW (-A+3) Real Exports	18,556,857	−15,673	−4,457	−4,570	191,497	54,452	531,210

ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, GNP = gross national product, ROW = rest of the world.

Source: Author's calculations.

Table 8: Percentage Deviation from Baseline—ASEAN+3, 2020 (%)

	Preferential Liberalization, Complete Utilization	Preferential Liberalization, Incomplete Utilization	Multilateral-ization of Preferences	Multilateralization of Preferences, with Reciprocity, Complete Utilization	Multilateralization of Preferences, with Reciprocity, Incomplete Utilization	Global Liberalization
World Real GDP	0.022	0.010	0.068	0.228	0.106	0.346
ASEAN+3 Real GDP	0.252	0.076	0.658	1.011	0.307	0.727
ROW (-A+3) Real GDP	−0.045	−0.009	−0.101	0.003	0.001	0.237
World Real GNP	0.012	0.008	0.077	0.191	0.123	0.312
ASEAN+3 Real GNP	0.328	0.099	0.432	1.296	0.390	0.819
ROW (-A+3) Real GNP	−0.078	−0.018	−0.024	−0.125	−0.029	0.168
World Real Exports	0.790	0.178	1.431	2.651	0.597	3.726
ASEAN+3 Real Exports	2.830	0.648	4.827	6.428	1.473	5.738
ROW (-A+3) Real Exports	−0.084	−0.024	−0.025	1.032	0.293	2.863

ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, GNP = gross national product, ROW = rest of the world.

Source: Author's calculations.

Table 9: Value of Deviation from Baseline—ASEAN+6, 2020 (US$ million)

	Baseline Value (US$ million)	Preferential Liberal-ization, Complete Utilization	Preferential Liberal-ization, Incomplete Utilization	Multilateral-ization of Preferences	Multilateral-ization of Preferences, with Reciprocity, Complete Utilization	Multilateral-ization of Preferences, with Reciprocity, Incomplete Utilization	Global Liberalization
World Real GDP	91,921,400	41,059	17,327	109,468	285,330	120,407	317,970
ASEAN+6 Real GDP	24,341,768	83,651	26,272	208,594	300,502	94,376	249,435
ROW (-A+6) Real GDP	67,579,632	−42,592	−8,945	−99,126	−15,172	−3,186	68,535
World Real GNP	91,921,400	26,943	14,037	100,663	250,956	130,746	287,182
ASEAN+6 Real GNP	24,289,006	103,042	32,444	130,137	326,685	102,859	247,503
ROW (-A+6) Real GNP	67,632,394	−76,098	−18,406	−29,474	−75,729	−18,317	39,679
World Real Exports	26,512,764	285,047	63,849	481,997	779,184	174,532	987,752
ASEAN+6 Real Exports	8,904,317	303,320	69,369	489,248	608,428	139,148	566,489
ROW (-A+6) Real Exports	17,608,447	−18,274	−5,521	−7,251	170,755	51,589	421,262

ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, GNP = gross national product, ROW = rest of the world.

Source: Author's calculations.

Table 10: Percentage Deviation from Baseline—ASEAN+6, 2020 (%)

	Preferential Liberalization, Complete Utilization	Preferential Liberalization, Incomplete Utilization	Multilateral-ization of Preferences	Multilateral-ization of Preferences, with Reciprocity, Complete Utilization	Multilateral-ization of Preferences, with Reciprocity, Incomplete Utilization	Global Liberalization
World Real GDP	0.045	0.019	0.119	0.310	0.131	0.346
ASEAN+6 Real GDP	0.344	0.108	0.857	1.235	0.388	1.025
ROW (-A+6) Real GDP	−0.063	−0.013	−0.147	−0.022	−0.005	0.101
World Real GNP	0.029	0.015	0.110	0.273	0.142	0.312
ASEAN+6 Real GNP	0.424	0.134	0.536	1.345	0.423	1.019
ROW (-A+6) Real GNP	−0.113	−0.027	−0.044	−0.112	−0.027	0.059
World Real Exports	1.075	0.241	1.818	2.939	0.658	3.726
ASEAN+6 Real Exports	3.406	0.779	5.495	6.833	1.563	6.362
ROW (-A+6) Real Exports	−0.104	−0.031	−0.041	0.970	0.293	2.392

ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, GNP = gross national product, ROW = rest of the world.

Source: Author's calculations.

Table A1: Utilization of FTA Privileges—Thailand, 2009

FTA	Exports	Imports
AFTA	43.9%	21.0%
Japan–Thailand EPA	59.4%	30.8%
ASEAN–PRC FTA	50.6%	34.4%
Thailand–Australia FTA	60.9%	52.2%
Thailand–India FTA	52.4%	71.0%

AFTA = Association of Southeast Asian Nations (ASEAN) Free Trade Area, EPA = Economic Partnership Agreement, FTA = free trade agreement, PRC = People's Republic of China.
Source: Tangkitvanich and Itaravitak (2010).

Table A2: Utilization of FTA Preferences in Selected East Asian Countries

Country	Use FTA	Use and Plan to Use FTA
China, People's Rep. of	45.1	77.9
Japan	29.0	47.4
Korea, Republic of	20.8	54.2
Philippines	20.0	40.7
Singapore	17.3	28.0
Thailand	24.9	45.7

FTA = free trade agreement.
Source: Kawai and Wignaraja (2011).

Table A3: Utilization Rates of Japanese Affiliates

	Exporter			Importer		
	Use	**Intend to Use**	**No Intention to Use**	**Use**	**Intend to Use**	**No Intention to Use**
ASEAN	22%	28%	50%	18%	27%	55%
Indonesia	26%	35%	39%	24%	37%	39%
Malaysia	25%	21%	53%	16%	18%	66%
Philippines	15%	23%	61%	10%	20%	70%
Singapore	35%	22%	44%	NA	NA	NA
Thailand	22%	34%	44%	21%	33%	46%
Viet Nam	9%	28%	62%	14%	28%	59%

ASEAN = Association of Southeast Asian Nations, NA= Not available.

Note:

General tariff rates are already zero or quite low in Singapore.

Source: Hayakawa et al. (2009).

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