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Comparing Bilateral and Multilateral ASEAN+4 Free Trade Agreements Possible Impacts on Member and Non-member countries.

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CONTENT

Comparing Bilateral and Multilateral ASEAN-10 +4 Free Trade Agreements Possible Impacts on Member and Non-member countries.

Introduction

Preferential Trade Agreements of all kinds (from Free Trade to Custom's Union, and Regional Community, from bilateral to regional) are since the nineties spreading all over the world. Almost every country is member of at least one agreement. Many agreements -at least the most important ones- are organised on a continental basis such as Europe, America, Africa or more recently Asia. These regionalisation trends have revived the research on their economic rationale and on their compatibility with multilateral agreements.

Asia movement toward regionalisation –known as ASEAN-10+3, +4 or +6[1]- is relatively new[2] and may become of major importance as it concerns notably Japan -one of the most advanced economy in the world- and the two biggest emerging countries in the world China and India. These countries have contributed (Japan) or will contribute (China and India) to shape a completely new world. Their economic integration with ASEAN and their possible impact on the world economy using a CGE model are the subject of this article[3].

In a first section we will give a rapid overview of the literature on regional agreements and analyse the making of ASEAN; in a second section we will define our baseline and scenarios; in a third part will be dedicated to the analysis of the main results for scenario 1; in the fourth part we will give scenario 2 results, then we conclude.

The Open Regionalism Concept and AFTA

Open Regionalism Concept

The traditional distinction introduced by Jacob Viner (1950) about the trade creation/trade diversion effect of preferential agreements is still valid. By definition preferential trade agreements are discriminatory and therefore they may tend to reduce welfare. If a firm located within a PTA zone produces and exports a liberalised item then it will benefit from the elimination (or reduction) of tariffs within the PTA and the local consumer will benefit from reduced prices this will improve the producer's welfare as well as the consumer's welfare. On the contrary if that producer is less efficient

[1] The +3 are Japan, South Korea and China, the +6 are India Australia and New Zealand invited to the Kuala Lumpur Summit in December 2005

[2] R. Baldwin wrote in 1997 "Regionalism in Asia [..]would certainly be an important event, but has yet to happen".

than outside producers and survives because of initial high tariffs it may nevertheless benefit from tariff elimination by the other PTA members if the difference in efficiency with external producers is lower than the remaining external tariff and/or if the resulting external tariff is higher than some of the previous ones. This will cause trade diversion and welfare losses for the consumer and global losses for producers.

With the new international trade theory several developments have questioned the issue. P.Krugman (1991) showed that, using a model of imperfect competition, in a world with high trade costs, continental blocks formation can be welfare improving. Frankel and Wei (1993) estimated that 18% was the threshold value for transportation costs to allow for positive welfare gains in continental block formation. They found that the observed value for intercontinental transportation was around 15%, then they conclude that regional discrimination was probably welfare reducing. But research made on specialisation show that in case of complementarity between the continental block members this should be welfare improving.

In order to reduce the discriminatory nature of preferential agreements, and also probably to differentiate it clearly from the European experience, the concept of Open regionalism was developed and supported by US and Australian (and the Eminent Persons Group Report to the 5th APEC Ministerial Meeting in 1993) economists in the APEC project to create an Asia Pacific Free trade Area by 2020. But no clear definition of Open regionalism was available at that time.

After the financial crisis of 1997-1998 there was renewed interest for regional build up. Wei and Frankel (1998) proposed a clear definition of open regionalism: it's a regional scheme which did not reduce global welfare. The argument goes that regionalisation should not be regarded as an isolated regional affair but as a global trend on the three continental regions.

Two proposals have been made to neutralised the negative impact of trade diversion :

First is the Macmillan proposal, it requires that there is no volume changes in trade between the member and non member countries after the formation of a block. This is achieved through a degree of external liberalisation by the members vis-à-vis the non members. Given average parameters it supposed a reduction by 40% of former external tariffs which might be politically unacceptable.

Wei and Frankel argue that this line of reasoning does not take into account the fact that the non members countries are also engaged in other continental trade agreements so the authors propose to take into account the relative element of liberalisation rather than the absolute value and then they estimate that under rather realistic hypothesis only 4% further liberalisation between member and non

[3] Most CGE studies on Asia Integration are centred almost exclusively on its impact on the participants: see Kawasaki (2003), Gilbert (2001), Fukase (2001), Otsubo (2005).

member might be needed to produce Pareto improvement. According to its promoters AFTA remain inspired by the idea of open regionalism. To what extent do Asia regional projects really fit into that is part of the questions addressed here.

The ASEAN Free Trade Area

Institutional integration in East Asia originated with the creation of the Association of South East Asian Nations (ASEAN[4]) in 1967. In 1992, ASEAN agreed to establish the ASEAN Free Trade Area (AFTA) through a Common Effective Preferential Tariff (CEPT) scheme, in order to attract foreign direct investment (FDI) from abroad. AFTA required that tariffs levied on a limited range of products (that is to say it excluded a wide range of sensitive products) traded within the region be reduced to no more than 5 percent. Quantitative restrictions and other non-tariff barriers were also to be eliminated. Although originally scheduled to be achieved by 2008, the targets of AFTA were continuously brought forward. In fact ASEAN suffers from two major problems: first there is a lack of political will comparable to the Franco German engagement in Europe, second trade and investment within ASEAN-10 are second to their relations with the US, Japan or even EU-25.

In 1998, after the financial crisis, ASEAN leaders decided to accelerate the processes involving that all tariffs on products in the inclusion list be reduced to a 0-5% range, and further to zero, they also decided to enlarge the inclusion list. New members agreed to the same objective with a delay. By the beginning of 2002, the ASEAN-6 had met AFTA's targets, and only 3.8 percent of products in the CEPT inclusion list (see below), or 1,683 items out of 44,060, had tariff rates above five percent. The simple average tariff on goods traded under the AFTA scheme was about 2.7% percent in 2003, and 1,7% in 2004. Vietnam is expected to achieve AFTA compliance in 2006, Laos and Myanmar in 2008, and Cambodia in 2010. ASEAN will eliminate all import duties by 2010 for the six original members and by 2015 for the new members.

[4] Established in 1967 by five founding members: Indonesia, Malaysia, the Philippines, Singapore, and Thailand were later joined by Brunei when it becomes independent from Great Britain. The initial objective at the time of the Vietnamese war was to foster regional stability and to promote political and economic co-operation.

The Common Effective Preferential Tariff (CEPT)

The CEPT is the mechanism by which tariffs on goods traded within the ASEAN region, which meet a 40% ASEAN content requirement, were to be reduced to 0-5% by the year 2002/2003 (2006 for Vietnam, 2008 for Laos and Myanmar, and 2010 for Cambodia). ASEAN members have the option of excluding products from the CEPT in three cases: 1.) Temporary exclusions; 2.) Sensitive agricultural products; 3.) General exceptions.

Temporary exclusions refer to products for which tariffs will ultimately be lowered to 0-5%, but which are being protected temporarily by a delay in tariff reductions.

For a limited number of sensitive agricultural products, the deadline will be extended to 2010. In an agreement that has yet to be fully spelled out, the process of tariff reduction on these products has begun between 2000-2005, depending on the country and the product.

General Exceptions refer to products which a country deems necessary for the protection of national security, public morals, the protection of human, animal or plant life and health, and the protection of articles of artistic, historic, or archaeological value. Approximately one percent of ASEAN tariff lines fall into this category.

The CEPT scheme was to cover nearly 98 percent of all tariff lines in ASEAN by the year 2003; by then, the only products not included in the CEPT Scheme were to be those in the General Exceptions category and sensitive agricultural products.

In the longer term, the ASEAN countries have agreed to enact zero tariff rates on virtually all imports by 2010 for the original signatories and 2015 for the four newer ASEAN members.

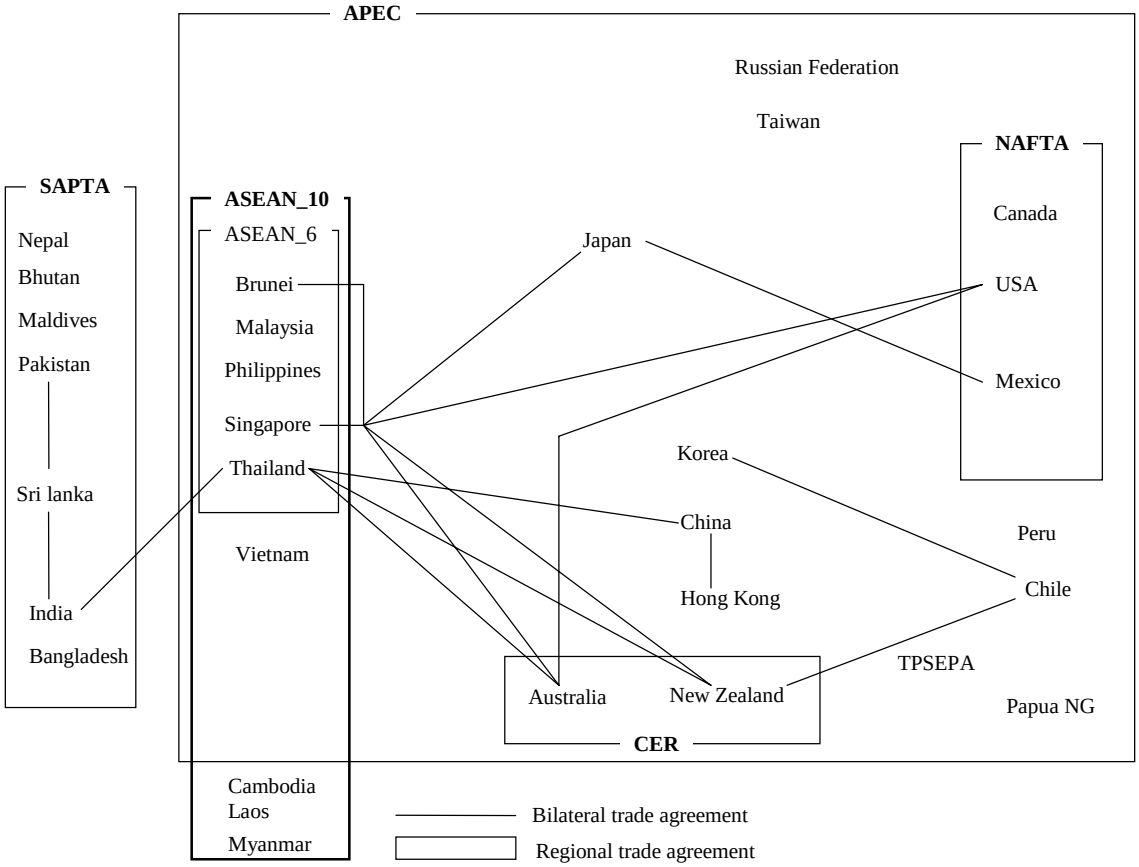
Long Term Perspectives: From an ASEAN FTA to an ASEAN Community

Besides the liberalisation of trade in goods, ASEAN has endeavoured to take the next steps to create a Community. In October 2003, the ASEAN leaders agreed to achieve a dynamic, cohesive, resilient and integrated ASEAN Community by 2020, by creating the ASEAN Security Community, the ASEAN Economic Community, and the ASEAN Socio-cultural Community. The ASEAN Economic Community is to be a single market and production base. It aims to create a stable, prosperous and highly competitive ASEAN economic region by the year 2020, in which there is a free movement of goods and services, freer movements of capital, equitable economic development, and reduced poverty and socio-economic disparities. This ASEAN initiative was followed by projects concerning ASEAN-10 + 3, then +4 and lately +6 . The additional four countries were Japan, Korea, China, and India, Australia and New-Zealand . But the Kuala Lumpur summit in December 2005, due to strong political frictions within its participants, was not able to establish concrete steps in the direction of the creation of an Asian Community. Nevertheless the FTA fever continue to advance.

The “Enlargement” of the ASEAN FTA

ASEAN has extended its institutional integration instruments to other countries (see Figure 1 for a summary of relationships).

Figure 1: Asia-Pacific Regional and Bilateral Trade Agreements (June 2005)[5]



Source : Feridhanusetyawan (2005)

First, in November 2002, ASEAN and China signed the framework agreement on Comprehensive Economic Co-operation that will establish the ASEAN-China Free Trade Area (ACFTA) within ten years. In November 2004, ASEAN and China agreed to establish ACFTA by 2010 for the original six ASEAN member states and China, and by 2015 for the newer ASEAN member states.

Second, in October 2003, ASEAN and Japan signed the framework for Comprehensive Economic Partnership (CEP), and in November 2004, they agreed to start negotiations for an ASEAN-Japan CEP Agreement by April 2005.

Third, in November 2004, ASEAN and the Republic of Korea, as well as ASEAN and CER (Australia and New Zealand) agreed the overall framework to establish free trade areas. Both negotiations started in early 2005 and are to be completed within two years. The ASEAN-Korea FTA will liberalise 80% of trade in products between the ASEAN-6 and the Republic of Korea, by 2009.

With India, the framework agreement was signed in October 2003, and negotiations started in January 2004.

[5] Since June two agreements with South Korea have been signed one with Singapore in August and one with EFTA in September.

These different projects vary greatly depending on the partners' development level. A South-South agreement, such as ASEAN-China, can be negotiated within the 1979 GATT "enabling clause", which provides greater latitude to exclude products from the liberalisation scheme between developing countries forming FTAs. For example ACFTA allows exemption of tariff reductions for a sensitive list of products, up to a ceiling of 400 tariff lines at the HS 6-digit level and 10% of the total import value, based on 2001 trade statistics for the ASEAN 6 and China; and 500 tariff lines at the HS 6-digit level for Cambodia, Laos, Myanmar and Vietnam.

In contrast, when one of the partners is a developed country, as in the case of a Japan-ASEAN FTA, the agreement must be notified under the GATT/WTO Article XXIV and must comply with the requirement of sectoral comprehensiveness (the agreement should cover substantially all bilateral trade). Therefore there are more obstacles to this second kind of arrangement and China may have advanced quicker than Japan in its negotiations with ASEAN.

The FTAs centred on ASEAN have different modalities and timeframes and will lead to free trade areas covering a large part of East Asia. (There are also arrangements between countries in Northeast Asia, such as between China and Japan, between China, Japan and the Republic of Korea, and so on.) These efforts by ASEAN members are expected at some point to establish a base for East Asian FTAs as well as economic and political communities, due to the political nature of these agreements. The leaders of ASEAN plus 3 are open to an eventual enlargement of the East Asia trade region in which India, Australia and New Zealand could participate. This is probably an example of the "domino effect" (Baldwin 1993): exporters to regional blocks are strong pro membership forces leading to enlargement of blocks which in turn intensifies pro-membership lobbying. A good example of that tendency is given by Australia which used to be rather opposed to Asian regionalisation (see Garnaut 2005).

Table 1 Applied Tariff in East Asia, the EU and NAFTA, by Sector, 2002

Ad valorem tariff equivalents (%)

Importer	East Asia			NAFTA			EU-25		
Exporter	East Asia	NAFTA	EU-25	East Asia	NAFTA	EU-25	East Asia	NAFTA	EU-25
Agriculture	41.0	29.7	30.9	25.2	6.8	21.4	20.2	15.6	3.9
Light industry	26.8	8.3	12.8	4.9	0.0	2.2	8.7	9.6	0.1
Food and beverages	21.8	26.4	25.8	10.1	5.3	18.1	16.0	15.7	9.4
Textiles and clothing	7.3	7.6	7.8	6.2	0.0	4.9	10.9	9.7	0.1
Transportation machinery	4.6	2.8	8.6	3.4	0.0	6.8	3.3	2.9	0.0
Pottery products	2.9	3.6	4.4	1.4	0.1	2.9	5.7	5.6	0.5
Chemicals	2.4	3.0	2.7	0.8	0.0	4.9	4.1	4.2	0.2
Basic metals	1.8	2.6	2.3	1.5	0.5	4.0	3.0	2.7	0.3
Mining products	1.7	2.6	1.7	0.4	0.0	0.3	1.4	1.8	0.1
General machinery	1.5	1.9	2.5	0.3	0.0	1.3	1.1	1.7	0.0
Electrical machinery	1.4	1.5	2.2	1.0	0.0	1.3	2.5	3.2	0.1
Others	1.4	1.7	2.6	0.6	0.1	0.8	3.2	1.3	0.0
Wood and paper	1.4	1.3	1.5	0.4	0.0	1.0	1.0	1.0	0.0
Precision apparatus	1.2	1.3	2.0	0.3	0.0	1.1	1.3	2.1	0.1
All products	7.4	5.5	7.2	7.6	1.9	7.7	5.7	5.3	0.7

Source: Market Access Map, calculations by ITC (2003).

To conclude, it may be recalled that East Asia has durably maintained higher barriers to trade within Asia than vis-à-vis other partners as can be seen from the estimates made by ITC for the year 2002 (Table 1). In other words, East Asia, contrary to other regions like the EU or NAFTA, tends to discriminate against its members. This is well illustrated for the most sensitive sectors: agriculture, textile clothing and food-beverage industries; on the contrary, for industrial products there is no discrimination within East Asia and no preferential treatment.

A second conclusion might be that the APEC failure to bring significant results may first due to its non continental content and second because of very divergent views of the real content of what was an open regional scheme: the US wanted clear and substantial engagements ("legal bindings") by country members while ASEAN countries prefer to engage in limited and informal agenda corresponding to what is called the *Musyawarch* practice or "ASEAN way", based on consensus building. It turns out that these two views remained incompatible and the APEC project did not take off.

A third conclusion could be that East Asia needs strong partnership with the rest of the world but there is also a need for an Asian identity, the financial crisis, the natural disasters the sanitary issues and even the rise of China show how necessary is increased co-operation within Asian countries

Four Scenarios for East Asia Integration

There two main types of regionalisation in East Asia: the fragmented one based on bilateral agreements, the unified one based on a multilateral agreement for east Asia. For both Types they may included all products or excluded "sensitive " products. Therefore we have four possible scenarios:

In Scenario 1, we envisage a Hub and spoke scheme: ASEAN-10 removes its tariffs vis-à-vis China, India, Japan and Korea. There are no sensitive products and hence no exclusion. Tariffs against third countries remain unchanged. Scenario 3 differs from Scenario 1 only by the exclusion of extra-ASEAN sensitive products from the liberalisation.

In Scenario 2, we envisage a full FTA in which China, India, Japan and Korea not only remove their tariffs on imports from ASEAN-10 members, but also remove their bilateral tariffs (e.g. China-Japan). Scenario 4 differs from Scenario 2 only by the exclusion of extra-ASEAN sensitive products from the liberalisation.

As regards the list of exclusions (the extra-ASEAN sensitive products), we lack information, with the exception of China having already notified its lists of exclusions vis-à-vis the ASEAN-10, as well as Malaysia having notified its exclusions vis-à-vis China.6

The general principle adopted is to identify 10% of the tariff lines to be defined as sensitive products, working as follows:

We first replicate the eventual list of sensitive products within ASEAN before 2010, assuming that for each member, sensitive products within ASEAN should be sensitive vis-à-vis the four new partners.7

We add to the former list the tariff lines that will not be bound by 2010, on the basis of the information available in 2005.

If necessary we add the highest bound tariff lines.

It should be noticed that this methodology does not lead to artificially created protection for a country such as Singapore. We do not define the exclusion list by merging the different individual countries' lists, but instead keep individual lists at the country level. The averaging of the protection opposed by ASEAN-10 to a given partner (e.g. China) among the 10 members is only a second step in our calculation.

[6] Lists of sensitive products of each one of ASEAN members have been taken from countries' declarations posted on the ASEAN web site. They are given in Appendix 4 to 11

[7] The exception here is Malaysia, for which the sensitive products vis-à-vis China are replicated vis-à-vis India, Japan and Korea.

Reciprocally, India, Japan and Korea declare the same percentage of sensitive tariff lines: for these countries exclusions are defined by considering unbounded lines and the highest bound tariffs. As regards China, we extend the notified list to 10% of its tariff lines, according to the previous principles, to adopt a unified treatment of tariff structures.

The mechanics of MIRAGE

Before presenting our results we first give a very short overview of the way MIRAGE and most CGE models work.

CGE (computational General Equilibrium) models refer to economic model based on the theory of general equilibrium that suppose that if there is no distortion all demand find its supply at an equilibrium price and this is true on all markets for all goods and services simultaneously. Every Agent adapt its behaviour in consequence. A CGE model show how the adjustment work in taking into account all the interaction between the different markets. These models are now commonly used for simulation purpose on international trade issues. We use an international database which rely every national market to international trade through every bilateral flows. CEPII has decided to build a multi-sector, multi-region computable general equilibrium (CGE) model, nicknamed MIRAGE (for *Modelling International Relationships in Applied General Equilibrium*), devoted to trade policy analysis.

MIRAGE describes imperfect competition in an oligopolistic framework *à la Cournot*. It accounts for horizontal product differentiation linked to varieties, but also to geographical origin (nested Armington – Dixit-Stiglitz utility function). A new calibration procedure allows the available information on these aspects to be used efficiently. The modelling is done in a sequential dynamic set-up, where the number of firms by sector adjusts progressively, and where installed capital is assumed to be immobile, even across sectors. Capital reallocation therefore only results from the combined effect of depreciation and investment. It makes it possible to describe the adjustment lags of capital stock, and the associated costs.

Compared to previous applied CGE trade models, MIRAGE has in addition three main distinctive features, aimed at improving the description of trade policies' main transmission channels:

- FDIs are explicitly described, with a modelling both theoretically consistent (with agents' behaviour, and with domestic investment setting), and consistent with the empirical results about FDIs' determinants and their order of magnitude;

- a notion of vertical product differentiation is introduced, by distinguishing two quality ranges, according to the country of origin of the product;

- trade barriers are estimated by the *MacMaps describe above*. As a result, MIRAGE is based on a description of trade barriers that, besides its precision, preserves the bilateral dimension of the information, contrarily to what is commonly done in applied modelling.

Except for data on trade barriers, the model uses the GTAP (Global Trade Analysis Project) 6 database (see Dimaranan 2002). This allows a wide flexibility in choosing the sectoral and geographical aggregations of MIRAGE, that may be changed for each application.

The Use of MIRAGE on Asia integration

Phasing out of tariffs both on industrial products and above all on agricultural goods brings a large decline in consumer prices and so fosters an increase in demand for these products and consequently a rise in production prices and in export prices. Net exporters (resp. net importers) of agro-food products therefore benefit (resp. lose) from these increases in prices and register a gain (a loss) in their terms of trade as well as an activity increase (decrease). Their balance of trade tends to become positive (negative) and induce a currency appreciation (depreciation). Large exporters of industrial products can balance their deteriorating trade in agricultural goods by their gains in industrial goods.

Comments on each scenario: Section 1 starts with a summary of the main results based on three variables which give an impact's synthesis of each assumption: changes in the Gross Domestic Product (GDP) volume for the real impact, the Real Effective Exchange Rate (RER) changes which concentrate the value impact[8] of these scenarios and the welfare impact which shows the balance between consumer gains (or losses) and producers gains (or losses)[9].

Detailed analysis is organised as follows: in section 2 the impact on trade in agricultural goods is analysed; then in section 3 the impact on production volume and prices for these goods is presented. Section 4 considers the impact on trade in industrial goods; then the fifth section analyses the impact

[8] There are several value changes in the simulations: relative domestic prices which should in general be rather balanced and International prices of which exchange rates are the most important and are not balanced.

[9] Welfare measure the change in utility for a particular household is expressed as the difference between nominal household income (which is some share of nominal NNP that accrues to the household) and an expenditure price index (ranging over the prices of private and government consumption goods and saving) for the household. The nominal household income is expressed in terms of the change in the share (of the household in NNP) and the change in nominal NNP, the latter being equal to changes in nominal GDP minus depreciation plus foreign income. The endowment and rate of return contributions to welfare from the latter two items are identified. The price index of GDP, the expenditure price index for the household, and any asset price parts of depreciation and foreign income are manipulated to define a relative price contribution to welfare for the household. For an economy consisting of identical households, this collapses to two welfare contribution terms - terms of trade and asset price contributions to welfare. Then it only remains to decompose the percentage change in real GDP. Real GDP is expressed from the expenditure side as a share-weighted sum across commodity inputs into all final demand activities. Allocative efficiency contributions are derived by splitting off indirect tax revenues from the values of inputs and outputs multiplied by percentage changes in quantities. Market clearing conditions are used to eventually yield an expression that is a linear function of share-weighted indices of industries' outputs and inputs. These can be written as a weighted sum of technical efficiency terms - the technical efficiency

on world prices for all goods, followed by a term of trade analysis. Section 7 covers the distributive impacts on the evolution of remuneration of production factors (capital, land, natural resources) and wages for skilled and unskilled labour. In the last two sections we give a detailed analysis of the major changes in bilateral trade firstly within East Asian countries and secondly between the EU-25 and these countries.

Scenario 1: ASEAN-10 establishes full bilateral FTAs with Japan, China, Korea and India

1.Main Results

The macro-economic results differ depending on whether we consider the volume impact of trade liberalisation or the value impact. ASEAN-10, the biggest winner on all accounts, cumulates gains in volume (+ 4.43% of GDP) with gains in the Real Exchange Rate (+ 2.18%), the total gain being 6.61%. The gains in ASEAN exports are higher than those in imports and therefore are compensated by a Real Exchange Rate appreciation.

Japanese gains come next with +0.75% for GDP and 0.27% RER appreciation. Korea shows a similar picture. For China there are only gains in volume (+ 0.84%) while gains in value are nil. The Indian case offers the most contrasted results: gains in volume (+ 2.19%) are over-shadowed by losses in value (-2.37%), making India the sole country to lose among the partners of ASEAN-10. How can we explain that the most protected economy loses from the liberalisation process? India's real GDP increase is the second largest after ASEAN-10. The first impact of liberalisation is to stimulate a large rise in imports, while there are only small gains in exports. The small export gains are due to the relatively low initial tariffs of India's partners. Therefore the balance of Indian Trade tends to deteriorate and as a consequence its currency depreciates in order to re-balance its external trade. The depreciation is larger than the gains in volume.

contribution to welfare - and a difference of weighted sums of effective outputs and effective inputs - the contribution from non-optimising and/or non-price taking behaviour, or from deviations from zero pure profits.

Table 2 Macro-economic Impacts (in %, SC1)

	GDP (volume)				Real effective exchange rate				Welfare			
	2010	2015	2020	2025	2010	2015	2020	2025	2010	2015	2020	2025
ASEAN-10	3.27	3.80	4.20	4.43	2.39	2.04	2.06	2.18	1.52	2.18	2.61	2.88
Japan	0.52	0.65	0.72	0.75	0.12	0.19	0.24	0.27	0.15	0.18	0.19	0.19
Korea	0.47	0.57	0.52	0.48	0.04	0.19	0.17	0.13	-0.27	-0.40	-0.48	-0.53
China	0.70	0.84	0.86	0.84	-0.05	0.01	0.01	-0.01	-0.13	-0.12	-0.12	-0.11
India	2.25	2.37	2.25	2.19	-2.33	-2.27	-2.34	-2.37	-0.24	-0.32	-0.36	-0.35
Hong Kong, Taiwan, Rest of East Asia	-0.26	-0.38	-0.42	-0.41	-0.13	-0.12	-0.12	-0.13	-0.14	-0.19	-0.22	-0.23
South Asia	-0.25	-0.20	-0.23	-0.27	-0.11	-0.12	-0.16	-0.20	-0.08	-0.05	-0.06	-0.07
EU - 25	-0.08	-0.08	-0.08	-0.08	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
EFTA	-0.03	-0.06	-0.08	-0.10	0.01	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.02
Russian Fed	-0.12	-0.15	-0.17	-0.19	-0.09	-0.12	-0.14	-0.17	-0.05	-0.08	-0.10	-0.11
North Africa	-0.12	-0.16	-0.20	-0.24	-0.10	-0.15	-0.19	-0.22	-0.07	-0.08	-0.09	-0.10
Rest of Europe	-0.04	-0.04	-0.05	-0.05	0.01	0.01	0.00	0.00	-0.01	-0.01	-0.01	-0.02
USA	-0.10	-0.08	-0.07	-0.07	-0.04	-0.02	-0.02	-0.03	0.00	0.00	0.00	0.01
Canada	-0.07	-0.09	-0.11	-0.13	-0.03	-0.03	-0.05	-0.07	-0.01	-0.01	-0.01	-0.02
Mexico and Central America	-0.08	-0.09	-0.11	-0.14	-0.05	-0.05	-0.05	-0.06	-0.02	-0.02	-0.03	-0.05
South America	-0.19	-0.23	-0.27	-0.31	-0.19	-0.23	-0.27	-0.31	-0.04	-0.05	-0.06	-0.07
Australia and New Zealand	-0.10	-0.17	-0.21	-0.23	0.00	-0.08	-0.10	-0.13	-0.04	-0.07	-0.08	-0.09
Rest of the World	-0.08	-0.11	-0.13	-0.14	-0.01	-0.05	-0.07	-0.09	-0.02	-0.03	-0.03	-0.04

Source: MIRAGE

Are the value losses real? We can interpret these results as a consequence of being formely closed: closeness encourages over-valuation of the currency. To some extent that over-valuation does not reflect the real competitiveness of India (which was clearly the cause of the financial crisis of 1991 and the reason for supporting economic reforms). So the loss on values should not be considered too negative for India. Maximising volume growth is probably the first priority for a developing country rather than value maximisation.

The rest of the world loses in both volume and value. As access to Asian countries is reduced, these countries register a decline in their exports; due to the diversion effect, that decline induces a decline in output (between 0.41% and 0.07%) as well as a currency depreciation (between 0.31% and 0%).

Among the losers we find South America, South Asia, North of Africa, the Russian federation and Australia, New Zealand all lose to the ASEAN Hub. These zones are specialised in primary and agro-food products and suffer from the diversion effect more than industrialized countries. Other zones like Hong Kong and Taiwan are among the main losers due to their strong links to ASEAN +4 countries. Being excluded form the Asian hub represent a high price. One may dispute that result and conclude that these countries should be included in the hub. It is clearly the case of Hong Kong while for Taiwan there are political issues that may delay it's regional integration.

The impact on **the EU–25 and for the rest of Europe** is the lowest; this is in part the result of a weak link between East Asia and Europe, this link being particularly weak for agro-food products in Asia. Similarly the US GDP is marginally affected (-0.07%), but contrary to the EU it also suffers currency

depreciation (-0.03%) due to the impact on US agro-food exports. In general it seems that developed countries are less sensitive to Asian regionalisation than developing countries.

Our analysis up to now have been focused on the final year results (2025); we now look at the dynamic adjustment between 2010 and 2025. For most countries the impact on volume grows overtime. For ASEAN-10 GDP it goes from 3.27% the first year to 4.43% in 2025, an increase of one third. For the Real Exchange Rates, adjustment to the shocks appears to be immediate and often stays stable over time. These diverging evolutions show that real adjustment takes time while price changes are almost instantaneous; this seems to be a reasonable approximation of reality.

This indicator of welfare summarises the different impacts of the shocks on the supply side as well as on the demand side. ASEAN and Japan are the only two Asian zones to benefit in terms of welfare. ASEAN gains are valued at $36 billion[10] while those of Japan are valued at $8.6 billion and those of the US at $1.3 billion. The rest of the world loses -- Korea around $4.7 billion and India $4.6 billion.

2.Impacts on Trade in Agricultural Goods

Impact on Exports

As expected, **ASEAN-10** is among the biggest winners on the export side. Their agricultural export volumes increase by 35% in 2010 and 30% by 2015 compare to the baseline projection.

10 Table : Welfare (US$ Millions, SC1)

Region	2010	2015	2020	2025
ASEAN-10	9 473,61	17 169,43	25 839,45	36 001,17
Japan	5 450,52	6 877,31	7 785,35	8 574,74
Korea	-1 166,28	-2 222,42	-3 385,65	-4 695,44
China	-1 711,58	-2 216,69	-2 946,97	-3 930,91
India	-1 468,28	-2 539,19	-3 668,09	-4 582,17
Hong Kong Taiwan Rest of Asia	-702,30	-1 273,00	-1 780,13	-2 291,52
South Asia	-149,77	-134,19	-181,08	-261,54
EU-25	-829,32	-779,35	-878,91	-948,14
EFTA	-22,09	-42,58	-69,50	-110,92
Russian Federation	-179,90	-303,36	-418,96	-549,49
North Africa	-184,15	-252,15	-350,03	-476,53
Rest of Europe	-31,85	-47,96	-69,39	-90,94
USA	-263,78	107,87	663,67	1 287,12
Canada	-64,24	-78,84	-126,17	-192,69
Mexico and Central America	-126,44	-195,44	-353,73	-582,39
South America	-494,51	-739,20	-1 005,68	-1 325,59
Australia New-Zealand	-187,64	-329,96	-468,93	-634,73
Rest of the world	-214,40	-490,83	-678,18	-853,33

India comes first in % but second in absolute value. As India was one of the most protected economies (50% tariffs), it also faces high tariffs for its exports (24% on average). Its world exports increase from 43% in 2010 to 50% in 2025. Most of that increase was made on ASEAN-10 markets. The bilateral flow more than doubled.

China comes in third place with a 15% increase. Japan and Korea's low levels of exports increase only marginally.

Among other zones with very small gains (less than 1%) are **Australia** and **New Zealand**, **Hong Kong Taiwan**, **South America**. They benefit from the real exchange appreciation of ASEAN (see below).

Other zones lose market share because of a diversion effect.

First, **South Asian** countries lose 10% in favour of ASEAN-10 and India[11] but not to China with which it has very limited trade relations. This is probably the most critical issue since South Asia covers one of the poorest regions of the world, highly dependent on agriculture.

The EU-25 loses 0.24% and the US 0.67%. These losses are not big, but we should realise that it comes for EU on top of an already relatively low share of the fast growing ASEAN markets. Therefore it is a lost opportunity that is much more important than these direct losses. The EU and the US may want to get a slice of the market, but the EU-25's high level of discrimination against ASEAN will have to be alleviated to do so.

The Import Side

Except for China, whose late WTO adhesion in 2003 forces its tariffs down before our shock simulations, **Asian** imports increase very fast. The 24% increase in ASEAN-10 imports is large but less than its export gains. This reflects the rather low initial protection of that zone (inclusion of Singapore in ASEAN-10 tends to lower the average tariff rate) compared to the protection it is facing.

India registers a record 50% variation in its imports corresponding to a reduction to zero of its more than 50% tariff rate vis-à-vis its Asian partners, and 57% for ASEAN. ASEAN is the main benefactor: For example, Indian imports of fats from ASEAN grow more than four-fold which corresponds to a nearly $9 billion increase. Other Asian countries are being ousted.

Japan and Korea register similar import increases of around 20%. In three cases out of four it means that their balance of trade is deteriorating.

[11] In the geographical breakdown used here India is separated from South Asia which should be named as Rest of South Asia

For **South Asia** the decline in imports (-1.03%) is very far to balance its export decline (-10.3%).

The **rest of the world** — European countries excepted — generally reduces its imports more than it reduces its exports. In the US case (a 0.67% decline in imports compared to a 0.47% export decline) this was a consequence of a relative increase in Asian producer prices. Indeed, the decline in Asian consumer prices, due to the decline in tariffs, produces an increase in production volumes, and therefore an increase in producer prices, and, in the case of ASEAN, an exchange rate appreciation (see below).

In general all **European** countries reduce their exports and their imports as well by small margins. Their losses in export are the result of the diversion effect while their import decline is more a consequence of Higher Asian prices. **EU-25** countries reduce their imports less than their exports (-0.21% compared to –0.24%) therefore deteriorating their trade balance.

Table 3 Impact on Agricultural Trade (in %, SC1)

	Agricultural exports (volume)				Agricultural imports (volume)			
	2010	2015	2020	2025	2010	2015	2020	2025
ASEAN-10	34.73	35.12	33.12	30.34	23.13	23.61	23.98	24.16
Japan	8.93	7.04	5.35	4.07	17.56	19.64	20.45	20.66
Korea	5.56	4.57	3.75	2.97	24.51	24.85	24.35	23.65
China	9.54	11.06	13.00	15.31	3.31	3.43	3.44	3.40
India	43.25	43.66	46.45	49.11	47.84	50.43	50.45	50.06
Hong Kong, Taiwan, Rest of East Asia	0.32	0.76	0.49	0.05	-0.80	-1.25	-1.37	-1.40
South Asia	-5.50	-6.96	-8.48	-10.25	-0.99	-0.85	-0.91	-1.03
EU - 25	-0.01	-0.10	-0.16	-0.24	-0.10	-0.18	-0.20	-0.21
EFTA	-0.05	-0.11	-0.15	-0.19	-0.07	-0.15	-0.18	-0.21
Russian Fed	-0.28	-0.16	-0.36	-0.68	-0.31	-0.42	-0.48	-0.52
North Africa	-0.25	-0.24	-0.20	-0.16	-0.43	-0.62	-0.72	-0.83
Rest of Europe	-0.27	-0.40	-0.50	-0.62	-0.06	-0.08	-0.08	-0.08
USA	-0.59	-0.63	-0.64	-0.67	-0.47	-0.48	-0.46	-0.47
Canada	-0.07	-0.01	0.00	-0.03	-0.17	-0.26	-0.35	-0.43
Mexico and Central America	-0.19	-0.19	-0.16	-0.11	-0.12	-0.17	-0.21	-0.23
South America	0.27	0.27	0.24	0.17	-0.61	-0.83	-0.94	-1.04
Australia and New Zealand	0.39	0.40	0.51	0.54	-0.85	-1.37	-1.51	-1.63
Rest of the World	-0.99	-0.99	-1.03	-1.11	-0.54	-0.65	-0.68	-0.70

Source: MIRAGE

3.Impact on Production and Prices

Overall, agro-food production increases for ASEAN-10, while it decreases by 4.4% for India, reflecting initial differences in protection and competitiveness. For the rest of the world, production decreases generally by less than 0.3%, except in China and Korea where it decreases by 0.6%, i.e. twice the decrease for Japan (-0.27%).

Price and production changes generally move in the same direction: where production increases, prices tend to increase. ASEAN production grows between 3.8% in 2010 to 8.3% in 2015; ASEAN prices grow by 2.8%. Indian prices decline by 2.6% and its production by 4.4%.

Some differences appear between Japanese and Korean trends: the decline in Korean production is twice as large as Japan's. So is the Korean price decline. This is a consequence of structural differences between the two countries. Although both maintain high protection in the agricultural sector, they are in different positions. The share of agricultural output in the economy is larger in Korea than in Japan, and since Korea is a small economy compared to Japan, it is much more open. The combination of the two factors makes Korea much more sensitive to an agricultural shock than Japan.

South Asia combines a 0.24% decline in production with a 0.22% decline in prices.

The impact on the **EU-25** is limited, being nil on prices, and weak on production (–0.05%). The USA is a little more affected with respectively –0.06% and 0.01%.

Table 4 Impact on Production and Prices (in %, SC1)

	Agro-food production (vol)				Agro-food production price			
	2010	2015	2020	2025	2010	2015	2020	2025
ASEAN-10	3.79	7.00	7.93	8.34	4.13	2.99	2.82	2.81
Japan	0.00	-0.12	-0.20	-0.27	-0.62	-0.60	-0.55	-0.52
Korea	0.30	-0.04	-0.35	-0.61	-1.30	-1.25	-1.24	-1.25
China	-0.32	-0.46	-0.52	-0.56	-0.08	-0.02	-0.04	-0.08
India	-2.91	-4.08	-4.31	-4.42	-2.81	-2.48	-2.55	-2.60
Hong Kong, Taiwan, Rest of East Asia	0.07	-0.10	-0.18	-0.22	-0.07	-0.04	-0.03	-0.03
South Asia	-0.05	-0.15	-0.20	-0.24	-0.13	-0.14	-0.17	-0.22
EU - 25	0.03	-0.01	-0.03	-0.05	0.00	0.00	0.00	0.00
EFTA	-0.02	-0.07	-0.10	-0.12	0.01	0.00	0.00	0.00
Russian Fed	-0.09	-0.18	-0.24	-0.28	-0.10	-0.12	-0.13	-0.15
North Africa	0.01	0.01	0.01	0.01	-0.07	-0.12	-0.16	-0.19
Rest of Europe	0.00	-0.04	-0.06	-0.07	0.00	0.00	0.00	0.00
USA	0.00	-0.04	-0.05	-0.06	-0.04	-0.02	-0.01	-0.01
Canada	-0.01	-0.06	-0.09	-0.12	-0.02	-0.02	-0.03	-0.05
Mexico and Central America	-0.01	-0.02	-0.04	-0.05	-0.04	-0.04	-0.04	-0.05
South America	-0.08	-0.16	-0.19	-0.22	-0.17	-0.20	-0.22	-0.26
Australia and New Zealand	0.18	0.13	0.11	0.11	0.06	-0.03	-0.05	-0.06
Rest of the World	0.01	-0.04	-0.07	-0.09	-0.02	-0.06	-0.08	-0.10

Source: MIRAGE

4.Trade in Industrial Goods

Two factors influence industrial trade: the elimination of tariffs between ASEAN-10 and its four partners and the changes in agricultural goods trade, which have to be compensated to assure equilibrium. Movements in the industrial goods trade balance generally compensate the movements on

agricultural goods. ASEAN-10 increases in imports are higher (+6.6%) than export increases (+5%). The same is true for China with 6.2% and 3.4% respectively.

For the same reason, Japan and Korea improve their position on industrial goods compensating for their losses on agricultural goods with an increase of 3.5% and 3.4% respectively on the export side and 1.9% and 2.2% for their industrial imports.

India is the exception, seeing its industrial imports increasing (28%) more than its exports (20%). In the case of India increase in other products primary products exports compensate for this.

Table 5 Trade in Industrial Goods (in %, SC1)

	Industrial exports (volume)				Industrial imports (volume)			
	2010	2015	2020	2025	2010	2015	2020	2025
ASEAN-10	4.34	4.91	5.06	5.07	7.00	6.60	6.53	6.58
Japan	2.39	2.94	3.25	3.47	1.01	1.35	1.66	1.94
Korea	2.82	3.20	3.31	3.38	1.49	1.79	2.00	2.21
China	2.18	2.88	3.22	3.41	4.09	5.06	5.71	6.22
India	17.34	19.04	19.62	20.25	20.60	23.80	26.01	28.10
Hong Kong, Taiwan, Rest of East Asia	-0.94	-1.74	-2.05	-2.21	-0.55	-0.55	-0.54	-0.54
South Asia	-0.17	0.08	0.15	0.17	-0.29	-0.13	-0.07	-0.06
EU - 25	-0.28	-0.48	-0.59	-0.69	-0.09	-0.11	-0.10	-0.09
EFTA	-0.23	-0.49	-0.66	-0.81	-0.08	-0.13	-0.15	-0.15
Russian Fed	-0.25	-0.35	-0.39	-0.42	-0.20	-0.25	-0.27	-0.29
North Africa	-0.69	-0.97	-1.17	-1.37	-0.33	-0.42	-0.51	-0.59
Rest of Europe	-0.27	-0.34	-0.38	-0.42	-0.04	-0.02	-0.01	0.00
USA	-0.29	-0.63	-0.79	-0.91	-0.22	-0.11	-0.05	-0.01
Canada	-0.04	-0.34	-0.49	-0.57	-0.08	-0.17	-0.23	-0.26
Mexico and Central America	-0.17	-0.25	-0.32	-0.38	-0.15	-0.20	-0.24	-0.26
South America	-0.95	-1.35	-1.57	-1.76	-0.49	-0.68	-0.79	-0.87
Australia and New Zealand	-0.88	-1.22	-1.42	-1.58	-0.44	-0.48	-0.48	-0.49
Rest of the World	-0.09	-0.20	-0.23	-0.24	0.03	0.03	0.05	0.08

Source: MIRAGE

Generally speaking, industrial exports for the rest of the world decrease more than their imports; this is due for the most part, to a diversion effect, Japan and Korea benefiting from a better access to the ASEAN markets.

In the **EU-25** case the reduction in exports is significant (-0.69%) while reduction in imports is low (-0.09%). Consequently equilibrium will be achieved through service exports (see section 9).

5.Terms of Trade Changes

As previously stated, movements in real exchange rate are used in the MIRAGE model as a tool to balance current accounts. ASEAN-10, Japan and Korea showed RER appreciation of 2.2%, 0.3% and

0.1%. These movements explain a relative decline in export competitiveness vis-à-vis the rest of the world, in order to compensate for their gains within the region. But terms of trade changes are also the result of many price changes such as those affecting product prices. Table 7 shows that the most protected products such as rice or sugar get higher price rises.

Table 6 Terms of Trade (in %, SC1)

	Terms of Trade			
	2010	2015	2020	2025
ASEAN-10	1,40	1,29	1,28	1,35
Japan	0,00	0,04	0,03	0,02
Korea	-0,13	-0,12	-0,15	-0,20
China	-0,44	-0,49	-0,51	-0,53
India	-3,24	-3,28	-3,33	-3,37
Hong Kong, Taiwan, Rest of Asia	-0,25	-0,19	-0,19	-0,20
South Asia	-0,16	-0,09	-0,10	-0,13
EU-25	-0,03	-0,02	-0,02	-0,02
EFTA	-0,03	-0,04	-0,04	-0,03
Russian Fed	-0,08	-0,10	-0,11	-0,12
North Africa	-0,21	-0,25	-0,28	-0,33
Rest of Europe	0,00	0,02	0,02	0,03
USA	-0,09	-0,05	-0,03	-0,03
Canada	-0,03	-0,04	-0,04	-0,05
Mexico, Central America	-0,06	-0,07	-0,07	-0,08
South America	-0,23	-0,25	-0,27	-0,29
Australia, New Zealand	-0,14	-0,19	-0,21	-0,23
Rest of the World	0,01	0,00	0,00	0,00

Source: MIRAGE

On the other side of the spectrum industrial goods register a decline in prices, notably all the mechanical sector, from the steel industry to the automotive industry, reflecting the effect of scale economies.

Indian RER depreciates by 2.4% and China's by a minor 0.1%.

As a consequence, terms of trade tend to deteriorate when RER depreciates. This is true in all cases except for Korea where RER appreciation coincides with a deterioration of its terms of trade to be explained later.

Table 7 Impact on World Prices (in %, SC1)

	World Prices for Developing countries			
	2010	2015	2020	2025
Rice	2,74	2,55	2,67	2,83
Sugar	3,41	1,82	1,58	1,45
Fishing	1,67	1,38	1,35	1,41
ForWoodPap	0,76	0,96	1,04	1,15
Dairy	2,89	1,42	1,15	1,02
LiveAnMeat	1,10	0,77	0,78	0,82
VegFruits	0,43	0,52	0,61	0,71
CerealsOil	1,05	0,95	0,83	0,70
FoodFats	1,38	0,78	0,68	0,69
BevTabacco	0,88	0,59	0,56	0,58
BusinSer	0,41	0,56	0,56	0,57
FinanceIns	0,42	0,42	0,44	0,47
AnProdWool	0,46	0,44	0,46	0,47
OthSer	0,49	0,39	0,40	0,43
FibersCrop	0,27	0,31	0,34	0,35
TexClothLe	0,03	0,13	0,18	0,25
TrT	0,23	0,21	0,20	0,20
Com	0,18	0,17	0,18	0,19
Primary	0,23	0,17	0,16	0,16
Electronic	0,27	0,18	0,16	0,15
Machinery	0,18	0,08	0,05	0,05
Chemicals	0,41	0,12	0,04	0,02
TrspEqNec	0,08	0,00	-0,01	-0,02
MotorVeh	-0,39	-0,12	-0,08	-0,06
OthMetal	0,05	-0,01	-0,04	-0,08
OthManuf	-0,01	-0,08	-0,13	-0,17
MetalProd	-0,13	-0,15	-0,21	-0,27
FerMetal	-0,19	-0,19	-0,24	-0,30

Source: MIRAGE

Note: developing countries have a different basket of imported goods and export prices are different.

6.Major Changes in Bilateral Trade

As expected, the most important changes are registered in the trade within East Asia, and more precisely for ASEAN countries that are at the centre of the scenario. On the ASEAN export side India appears to be the major market for ASEAN for primary products (natural gas in the case of ASEAN) and food fats which are also among the main comparative advantage of ASEAN. In 2003 India remained with South Asia a closed market for primary goods (with a MFN tariff of 44%) contrary to most other zones which have reduced their external tariffs on their imported inputs (but which may have imposed large domestic taxes).

The second market for ASEAN is China for chemicals, machinery, and electronic goods. The third market is Japan for sugar, textile-clothing, and dairy products. These results show a consolidation of the different comparative advantages of each partner.

For Japan that is the second winner of the scenario its export gains towards ASEAN are concentrated in the motor vehicle industry and in the machinery

For China the products benefiting most from regionalisation are first the electronic industry vis-à-vis ASEAN, Japan and Korea and then transport equipment other than cars.

Table 8: Major Changes in Bilateral Trade ($Million, SC1)

Fivteen Major variations in millions dollars

Increases				decreases			
Products	exporter	import country	Variation	Products	export country	import country	Variation
Primary	ASEAN	India	22247.24	Electronic	ASEAN	ASEAN	-8806.29
Chemicals	ASEAN	China	14139.07	Machinery	ASEAN	ASEAN	-6564.74
MotorVeh	Japan	ASEAN	12310.15	MotorVeh	ASEAN	ASEAN	-3600.79
FoodFats	ASEAN	India	11374.44	Electronic	ASEAN	Japan	-2266.75
Machinery	ASEAN	China	9520.15	TexClothLe	ASEAN	ASEAN	-1752.5
TexClothLe	ASEAN	China	7915.07	Primary	ASEAN	Japan	-1729.32
Electronic	China	ASEAN	7003.43	Chemicals	Korea	China	-1642.74
Sugar	ASEAN	Japan	6387.81	Primary	ASEAN	ASEAN	-1513.47
TexClothLe	ASEAN	Japan	5830.71	TexClothLe	Japan	China	-1509.65
Electronic	ASEAN	China	5745	Machinery	Japan	China	-1475.58
CerealsOil	ASEAN	Korea	5293.68	TexClothLe	China	Japan	-1400.3
TrspEqNec	China	ASEAN	5278.85	TrspEqNec	ASEAN	ASEAN	-1055.03
Machinery	Japan	ASEAN	5220.82	Chemicals	ASEAN	ASEAN	-1047.44
Dairy	ASEAN	Japan	5136.95	Chemicals	Japan	China	-1000.34
TexClothLe	ASEAN	India	4520.61	FerMetal	ASEAN	ASEAN	-951.3

Source: MIRAGE

7.Impact on EU-25 Bilateral Trade

When comparing export and import impacts, the first remark to be made is that East Asia export gains and losses with the EU-25 are much more important than the EU-25 gains and losses vis-à-vis ASEAN. Taking the most important changes in bilateral trade in both directions we see that China's export increase to the EU-25 is $7.5 billion of electronic goods, while the largest EU increase vis-à-vis ASEAN is only 1.4 billion of business services. The same remark is valid on the negative side: the largest decrease in exports is for ASEAN vis-à-vis the EU with a decrease of $5.2 billion in its electronic exports while the largest decrease in EU exports is vis-à-vis India for less than $1 billion of primary products.

This means that there an intense substitution movement within East Asian countries in their access to the EU market. To illustrate that trend, take the electronic sector:

This is the main gain for China (+$7.6 billion) it is also the largest loss for ASEAN (-$5.2 billion). India's major gains are made on machinery (+$3.3 billion) while they represent a major loss for ASEAN (-$2.5 billion).

In general ASEAN loses market share in the EU, while it is makes major inroads in the East Asian markets. For one part this is due to the massive increase of ASEAN exports in all Asian markets. This increase is the direct result of tariff reduction and elimination within East Asia and it is compensated by a decline vis-à-vis the EU and a currency appreciation, which reduce ASEAN competitiveness.

Another remarkable evolution is the gains in EU exports to ASEAN and Japan in the service sector, first in business services, second in other services (electricity, gas, and water distribution), and third in international transport services. EU export losses are more diluted and concern first India then China and then ASEAN. These losses are due to the diversion effect and are made at the expenses of competitive European industries such as motor vehicles, machinery, and the chemical industry.

Table 9 Major Changes in EU-25 Bilateral Trade ($millions, SC1)

Main export changes				Main import changes			
BusinSer	EU25	ASEAN	1374,18	Electronic	China	EU25	7554,12
OthSer	EU25	ASEAN	1113,96	Machinery	India	EU25	3344,74
TrT	EU25	ASEAN	983,85	Chemicals	India	EU25	1502,12
Primary	EU25	ASEAN	530,91	OthManuf	India	EU25	894,59
Dairy	EU25	ASEAN	515,23	MotorVeh	Japan	EU25	776,79
FinanceIns	EU25	ASEAN	207,14	TexClothLe	India	EU25	555,13
TrT	EU25	Japan	164,05	MetalProd	India	EU25	495,86
OthSer	EU25	Japan	148,47	TexClothLe	Korea	EU25	335,44
LiveAnMeat	EU25	ASEAN	141,07	MotorVeh	Korea	EU25	259,97
BusinSer	EU25	Japan	117,27	FerMetal	India	EU25	201,86
ForWoodPap	EU25	ASEAN	109,71	TrspEqNec	China	EU25	179,38
Machinery	EU25	Japan	103,74	FoodFats	ASEAN	EU25	165,7
Chemicals	EU25	Japan	98,32	MotorVeh	India	EU25	148,25
BusinSer	EU25	Korea	72,16	Primary	India	EU25	145,03
AnProdWool	EU25	ASEAN	69,94	OthSer	India	EU25	92,2
Primary	EU25	India	-967,02	Electronic	ASEAN	EU25	-5189,71
OthManuf	EU25	India	-807,47	Machinery	ASEAN	EU25	-2461,8
MotorVeh	EU25	ASEAN	-707,09	TexClothLe	ASEAN	EU25	-2317,1
Machinery	EU25	China	-705,1	ForWoodPap	ASEAN	EU25	-1154,64
Chemicals	EU25	China	-566,58	Machinery	Japan	EU25	-686,81
TexClothLe	EU25	Japan	-462,59	MotorVeh	ASEAN	EU25	-646,45
Machinery	EU25	India	-425,26	Chemicals	ASEAN	EU25	-575,28
LiveAnMeat	EU25	China	-414,17	OthSer	ASEAN	EU25	-564,18
TrspEqNec	EU25	ASEAN	-412,97	BusinSer	ASEAN	EU25	-544,94
Dairy	EU25	Japan	-410,85	Electronic	Korea	EU25	-501,33
TrT	EU25	India	-349,35	OthManuf	ASEAN	EU25	-480,01
TexClothLe	EU25	China	-326,9	TrT	ASEAN	EU25	-457,73
TexClothLe	EU25	India	-316,36	Primary	ASEAN	EU25	-301,25
BusinSer	EU25	India	-299,68	Machinery	Korea	EU25	-295,23
TexClothLe	EU25	Korea	-260,23	Electronic	Japan	EU25	-231,15

Source: MIRAGE

Scenario 2: An Asian Single Market?

1.Main Results

The primary difference from Scenario 1 lies in the liberalisation of trade within ASEAN-10's four partners. Roughly speaking that assumption increases the effects of the regionalisation process by 50% on average compare to scenario 1 but with very large differences depending on the country or sector concerned. For example, the gains of ASEAN-10 are reduced by around 40% compared to those of Scenario 1 and those of its four partners are twice as high. The main factor behind ASEAN-10

weakening is that ASEAN has to face its partner's competition in third markets: Chinese competition in the Japanese market or Korean competition in the Chinese market etc. Therefore ASEAN-10 loses some market share.

Table 10 Macro-economic Results (% change, SC2)

	GDP (volume)				Real effective exchange rate				Welfare			
	2010	2015	2020	2025	2010	2015	2020	2025	2010	2015	2020	2025
ASEAN-10	2.62	3.03	3.33	3.50	1.80	1.54	1.53	1.60	0.99	1.43	1.75	1.98
Japan	1.99	2.28	2.40	2.46	1.20	1.41	1.53	1.61	0.37	0.41	0.43	0.45
Korea	4.22	3.92	3.65	3.47	1.82	1.65	1.68	1.73	1.91	1.64	1.31	1.04
China	2.13	2.18	2.07	1.94	0.16	0.15	0.06	-0.03	-0.35	-0.27	-0.23	-0.21
India	3.87	4.12	4.07	4.04	-3.16	-2.88	-2.80	-2.73	-0.44	-0.37	-0.31	-0.23
Hong Kong, Taiwan, Rest of East Asia	-0.58	-0.79	-0.84	-0.83	-0.37	-0.38	-0.40	-0.43	-0.28	-0.42	-0.47	-0.49
South Asia	-0.40	-0.42	-0.45	-0.48	-0.34	-0.39	-0.42	-0.45	-0.12	-0.12	-0.12	-0.13
EU - 25	-0.10	-0.11	-0.11	-0.11	0.00	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02
EFTA	-0.03	-0.06	-0.09	-0.12	0.02	0.02	0.01	0.00	-0.04	-0.06	-0.08	-0.09
Russian Fed	-0.23	-0.24	-0.27	-0.32	-0.24	-0.25	-0.28	-0.32	-0.12	-0.16	-0.19	-0.22
North Africa	-0.20	-0.25	-0.29	-0.33	-0.17	-0.21	-0.24	-0.27	-0.09	-0.11	-0.13	-0.14
Rest of Europe	-0.08	-0.10	-0.11	-0.11	0.00	-0.01	-0.02	-0.02	-0.02	-0.03	-0.04	-0.04
USA	-0.08	-0.06	-0.06	-0.06	-0.03	-0.01	-0.02	-0.03	0.00	0.00	0.00	0.01
Canada	-0.03	-0.03	-0.05	-0.07	0.01	0.03	0.02	0.00	-0.03	-0.03	-0.04	-0.04
Mexico and Central America	-0.07	-0.06	-0.08	-0.10	-0.03	0.00	0.00	0.00	-0.02	-0.04	-0.06	-0.08
South America	-0.29	-0.33	-0.37	-0.41	-0.29	-0.32	-0.36	-0.40	-0.07	-0.09	-0.10	-0.11
Australia and New Zealand	-0.26	-0.30	-0.33	-0.37	-0.19	-0.22	-0.25	-0.28	-0.10	-0.13	-0.15	-0.16
Rest of the World	-0.16	-0.21	-0.24	-0.28	-0.08	-0.10	-0.12	-0.15	-0.05	-0.09	-0.10	-0.12

Source: MIRAGE

All Asian FTA members are winners, but the gains are more equally shared than in Scenario 1. India with a 4% increase (2.2% in Scenario 1), ASEAN and Korea both with 3.5% (4.4% and 0.5% respectively in Scenario 1), Japan with 2.46% (instead of 0.75%), and China with 1.9% (instead of 0.8% in Scenario 1).

The rest of the world loses, with Hong Kong Taiwan as the main losing zone with –0.83% in GDP instead of –0.41%, South Asia followed with 0.48% instead of 0.27%, South America with 0.41% compare to 0.31%, Australia New Zealand with 0.37% compare to 0.23%. EU-25 loses only 0.11% instead of 0.08%.

As mentioned earlier, real exchange rates tend to appreciate in these kinds of scenario when GDP increases. In general a GDP increase results partly because export increases are stronger than import increases and so the balance of trade needs to be re-established through RER appreciation. India is the sole exception to that rule here with an RER depreciation of 2.73% against 2.4% depreciation in Scenario 1. The same basic explanation as for Scenario 1 results remains valid here.

RER major changes concern Japan and Korea. Their currency appreciates by 1.61% and 1.73% instead of 0.27% and 0.13% in Scenario 1. If we add volume and value change we find an increase of 4.07% for Japan and 5.20% for Korea.

The Chinese currency remains almost stable.

For the rest of the world the decline in real gross product is compounded by their currency depreciation. As matter of fact South Asia, Hong Kong Taiwan, South America and Australia New Zealand are the main losers in this scenario. Canada and the US countries minimise their losses while Europe EU-25, EFTA and RUSSIA remain a little ahead of America.

As for welfare gains ASEAN continues to improve its welfare more than Japan. It appears that ASEAN is able to improve its position on agricultural goods over time.

China and India do worse in this scenario, probably because Japan and Korea benefit more from the reduction of industrial tariffs.

2.Impacts on Trade in Agricultural Goods

Chinese agricultural exports are nearly tripled! Korea's exports increase by more than half and even Japanese exports grow by almost 20%, but needless to say that these increments in % does not mean much as their initial level was very low. Losses for the rest of the world are also twice as high, except for South Asia. Losses for the EU-25 go from –0.24% in Scenario 1 to –0.99% in Scenario 3, mostly the result of the diversion effect.

On the import side, the impacts are much less impressive compared to Scenario 1 as the only change is that there are more possible partners than in Scenario 1. But, in that scenario ASEAN-10 was in a position to take full advantage of the liberalisation process. The major difference is for Korean imports, which jump from a 23.7% increase in Scenario 1 to a 72.8% increase in Scenario 2. China becomes the main winner with a "cereals oil" gain of $13 billion and a $2 billion gain for rice. These results more detailed are not shown here as we choose to limit the number of Tables in this report).

Table 11 Trade Impacts on Agricultural Goods (%, SC2)

	Agricultural exports (volume)				Agricultural imports (volume)			
	2010	2015	2020	2025	2010	2015	2020	2025
ASEAN-10	26.91	29.30	29.01	27.69	16.91	16.92	17.21	17.50
Japan	21.55	19.25	18.24	18.41	26.36	28.58	29.09	28.93
Korea	49.09	53.35	55.23	57.03	72.18	77.01	75.22	72.81
China	96.16	124.92	156.66	198.20	10.75	9.36	8.08	7.03
India	65.25	70.69	78.77	88.09	52.53	55.25	55.11	54.53
Hong Kong, Taiwan, Rest of East Asia	0.91	1.37	0.85	0.11	-2.25	-2.99	-3.06	-2.94
South Asia	-6.55	-7.78	-9.30	-11.12	-1.70	-1.82	-1.87	-1.90
EU - 25	-0.64	-0.78	-0.87	-0.99	-0.54	-0.61	-0.60	-0.57
EFTA	-0.71	-0.86	-0.95	-1.03	-0.53	-0.60	-0.62	-0.62
Russian Fed	-0.11	-0.06	-0.44	-0.98	-1.20	-1.34	-1.38	-1.40
North Africa	-1.09	-1.10	-1.08	-1.09	-0.81	-1.02	-1.11	-1.17
Rest of Europe	-1.08	-1.17	-1.29	-1.48	-0.41	-0.51	-0.51	-0.47
USA	-2.83	-2.96	-2.87	-2.82	-0.99	-0.93	-0.85	-0.80
Canada	-0.79	-0.93	-1.03	-1.16	-0.66	-0.72	-0.75	-0.79
Mexico and Central America	-1.07	-1.08	-1.03	-1.01	-0.42	-0.40	-0.40	-0.38
South America	-0.23	-0.34	-0.42	-0.56	-1.32	-1.59	-1.69	-1.77
Australia and New Zealand	-0.96	-1.16	-1.10	-1.06	-1.90	-2.28	-2.24	-2.21
Rest of the World	-1.87	-1.94	-2.05	-2.21	-0.94	-1.07	-1.10	-1.13

Source: MIRAGE

3.Impact on Production and Prices

Apart from ASEAN-10, the Scenario 2 impacts on production and prices are more important than in Scenario 1, being two to three times higher although the comparison between the two scenarios is based on small numbers in scenario 1.

In Korea's case, production increases by 12% while there was a decline in Scenario 1 and prices decrease by 8%. In terms of prices it seems that the decline in agricultural imported inputs prices translates into a decline in production prices for the food industry. These evolutions are impressive and result from the initial closed nature of the Korean market (as well as the Japanese market). A total removal of tariffs implies a very big shock where Korea switches to a net surplus in its bilateral trade with Japan.

For ASEAN-10 production still increases by 7.58% against 8.34%, when prices increases by 2.01% against 2.81% in Scenario 1.

For EU-25 the decline is four times the decline registered in scenario 1 (–0.20% compare to -0.05%) with almost no impact on Prices. It's one of the weakest declines in the world with the US at –0.15.

Table 12 Impact on Production and Prices (in %, SC2)

	Agro-food Production (vol)				Agro-food Production Prices			
	2010	2015	2020	2025	2010	2015	2020	2025
ASEAN	3,02	5,92	6,98	7,58	3,08	2,15	2,01	2,01
Japan	-0,62	-0,92	-0,99	-0,99	0,06	0,31	0,49	0,58
Korea	12,94	14,59	13,19	11,64	-7,68	-8,79	-8,41	-7,92
China	-0,28	-0,45	-0,59	-0,69	0,71	0,52	0,32	0,13
India	-2,96	-3,92	-4,05	-4,10	-3,41	-2,92	-2,85	-2,79
Hong Kong Taiwan Rest of Asia	-0,11	-0,50	-0,62	-0,67	-0,34	-0,28	-0,26	-0,26
South Asia	-0,15	-0,28	-0,33	-0,36	-0,39	-0,41	-0,43	-0,46
EU-25	-0,06	-0,13	-0,17	-0,20	-0,03	-0,02	-0,01	-0,01
EFTA	-0,21	-0,31	-0,35	-0,37	-0,02	0,00	0,01	0,01
Russian Federation	-0,58	-0,85	-0,89	-0,90	-0,33	-0,26	-0,25	-0,28
North Africa	-0,06	-0,08	-0,08	-0,08	-0,17	-0,19	-0,22	-0,25
Rest of Europe	-0,05	-0,10	-0,12	-0,13	-0,02	-0,02	-0,02	-0,02
USA	-0,08	-0,14	-0,15	-0,15	-0,07	-0,02	-0,01	-0,02
Canada	-0,22	-0,43	-0,51	-0,57	-0,08	-0,01	0,00	-0,01
Mexico Central America	-0,08	-0,15	-0,17	-0,19	-0,09	-0,01	0,00	0,00
South America	-0,25	-0,38	-0,41	-0,44	-0,31	-0,28	-0,30	-0,34
Australia New-Zealand	-0,16	-0,37	-0,39	-0,38	-0,24	-0,25	-0,24	-0,26
Rest of the World	-0,09	-0,19	-0,23	-0,27	-0,12	-0,12	-0,13	-0,16

Source: MIRAGE

4.Trade in Industrial Goods

Percentage changes in the trade in industrial goods may seem modest compared to those seen for agriculture but they are significant nevertheless, notably because the volume of trade is much more important. This is the case in particular for developed countries such as Japan or Korea where industrial products cover more than 95% of their trade. In relative terms Korea, Japan, and China multiply their gains respectively by less than five (from 3.4% to 15.1%), a little less than 3 and more than 2. India goes from a 20% increase in Scenario 1 to a 29% increase in Scenario 2.

ASEAN-10 sees its former gains reduced from 5.07% to 3.49%; these changes clearly reflect intense competition from the other four partners in the regional agreement.

Other countries tend to lose by 1 or 2 %, except for Hong Kong & Taiwan who are the main loser with a total loss of 4.8%. The impact on EU-25 exports is much more important than in scenario 1 with a decline of –1.32% compare to –0.69% and it is also higher than in the case of agriculture.

On the import side, changes are larger: Indian import changes are greatest with an increase of 43% instead of 28.10% in Scenario 1, followed by China with almost 20% against 6.22%, and next is Korea with an 11.92% increase against 2.21% for Scenario 1. Opening the markets of Asian countries for industrial products appears to be more fruitful even than the opening of the market for agricultural

goods (except naturally for ASEAN). All the non ASEAN+4 countries reduce their imports EU-25 included due to a slower growth but less than their exports.

Table 13 Impact on Industrial Trade (in %, SC2)

	Industrial exports (volume)				Industrial imports (volume)			
	2010	2015	2020	2025	2010	2015	2020	2025
ASEAN-10	3.48	3.67	3.65	3.49	5.79	5.59	5.59	5.64
Japan	8.41	9.33	9.67	9.78	7.30	7.89	8.15	8.31
Korea	12.40	14.56	14.96	15.14	10.17	10.66	11.28	11.92
China	7.08	8.02	8.28	8.24	16.64	18.28	19.12	19.71
India	27.33	28.37	28.49	28.96	34.36	37.73	40.17	42.83
Hong Kong, Taiwan, Rest of East Asia	-2.82	-4.21	-4.61	-4.82	-1.65	-1.54	-1.49	-1.46
South Asia	-1.29	-1.25	-1.12	-0.98	-1.09	-1.04	-0.96	-0.89
EU - 25	-0.84	-1.11	-1.23	-1.32	-0.49	-0.51	-0.48	-0.44
EFTA	-0.77	-1.08	-1.27	-1.43	-0.45	-0.51	-0.52	-0.52
Russian Fed	-0.92	-0.99	-1.02	-1.05	-0.79	-0.75	-0.77	-0.81
North Africa	-1.47	-1.83	-2.00	-2.16	-0.86	-0.98	-1.05	-1.11
Rest of Europe	-0.95	-1.22	-1.28	-1.29	-0.47	-0.49	-0.48	-0.44
USA	-0.88	-1.26	-1.44	-1.58	-0.75	-0.60	-0.53	-0.48
Canada	-0.15	-0.25	-0.32	-0.35	-0.23	-0.22	-0.23	-0.22
Mexico and Central America	-0.45	-0.50	-0.55	-0.57	-0.48	-0.52	-0.53	-0.53
South America	-1.84	-2.24	-2.44	-2.59	-1.15	-1.39	-1.49	-1.57
Australia and New Zealand	-1.61	-1.86	-2.00	-2.12	-1.13	-1.16	-1.16	-1.17
Rest of the World	-0.76	-0.90	-0.93	-0.94	-0.49	-0.50	-0.48	-0.45

Source: MIRAGE

5.Terms of Trade Changes

ASEAN-10, Japan, and Korea improve their terms of trade while China and India's terms deteriorate. ASEAN does worse than in Scenario 1, while Japan and Korea do much better, in spite of a decrease in international industrial prices. With better access to new markets Japan and Korea see their export prices increase relatively while they benefit from the decreases in international prices.

ASEAN loses ground to its partners. On agricultural goods this is for two reasons: first, it appears that international prices are lower than in Scenario 1; second, new competition reduces its capacity to increase its export prices.

India and China lose more with respect to their terms of trade than in Scenario 1 due to intensification of competition.

Table 14: Terms of Trade (% change, SC2)

	Terms of Trade			
	2010	2015	2020	2025
ASEAN	0,90	0,82	0,82	0,87
Japan	1,39	1,51	1,50	1,48
Korea	0,67	0,61	0,81	0,97
China	-0,71	-0,84	-0,91	-0,94
India	-3,99	-3,92	-3,85	-3,82
Hong Kong Taiwan Rest of Asia	-0,55	-0,46	-0,45	-0,46
South Asia	-0,32	-0,28	-0,28	-0,29
EU-25	-0,05	-0,04	-0,03	-0,02
EFTA	-0,05	-0,05	-0,05	-0,05
Russian Federation	-0,16	-0,15	-0,17	-0,20
North Africa	-0,29	-0,31	-0,35	-0,39
Rest of Europe	-0,02	-0,01	0,00	0,01
USA	-0,17	-0,11	-0,09	-0,08
Canada	-0,05	-0,04	-0,04	-0,04
Mexico Central America	-0,10	-0,10	-0,11	-0,10
South America	-0,40	-0,39	-0,40	-0,42
Australia New-Zealand	-0,41	-0,39	-0,39	-0,41
Rest of the World	-0,10	-0,09	-0,09	-0,09

Source: MIRAGE

More generally it appears that for international prices (Table 15) there is a tendency to get lower prices than in Scenario 1. Manufacturing prices in particular are declining which tend to introduce a deflating trend in the world economy. These are the results of two main evolutions: reduced tariff bring mechanically lower prices for the consumer, increase production and trade tend to allow for more scale economies and therefore reduced prices.

Table 15: World Prices for Developing Countries (% change, SC2)

	Impact on World Prices for Developing countries			
	2010	2015	2020	2025
MetalProd	- 0,29	- 0,30	- 0,40	- 0,51
FerMetal	- 0,33	- 0,32	- 0,38	- 0,45
OthManuf	- 0,13	- 0,23	- 0,32	- 0,38
Electronic	0,05	- 0,19	- 0,25	- 0,31
Chemicals	0,13	- 0,15	- 0,25	- 0,28
OthMetal	- 0,06	- 0,13	- 0,18	- 0,24
Machinery	0,05	- 0,04	- 0,11	- 0,17
MotorVeh	- 0,48	- 0,18	- 0,15	- 0,14
TrspEqNec	0,00	- 0,08	- 0,10	- 0,14
TexClothLe	- 0,15	- 0,18	- 0,13	- 0,04
Primary	0,10	0,07	0,06	0,05
Com	0,09	0,08	0,08	0,07
TrT	0,15	0,10	0,08	0,08
CerealsOil	0,47	0,31	0,20	0,11
FibersCrop	0,13	0,17	0,18	0,17
OthSer	0,30	0,23	0,22	0,22
FinanceIns	0,25	0,25	0,26	0,26
FoodFats	0,76	0,40	0,31	0,30
BusinSer	0,21	0,31	0,32	0,32
AnProdWool	0,52	0,41	0,36	0,32
BevTabacco	0,67	0,45	0,40	0,39
VegFruits	0,28	0,35	0,42	0,49
LiveAnMeat	0,81	0,50	0,51	0,54
ForWoodPap	0,68	0,74	0,74	0,79
Dairy	2,54	1,17	0,92	0,80
Fishing	1,29	1,08	1,04	1,06
Sugar	2,96	1,51	1,32	1,20
Rice	1,83	1,61	1,69	1,81

Source: MIRAGE

6.Major Changes in Bilateral Trade

One major interest of a multilateral (multilateral is used here as opposed to bilateral as in SC1 which relates to a sum of 4 bilateral agreements centred on ASEAN, while here we talk of 24 bilateral agreements) liberalisation is that every possible bilateral link benefits from accrued trade flows. This can be seen in Table 16, in other words the simulation give results that benefit all Asian partners. China Korea relations are noticeable as Korea increases by 19 $billions its textile exports to China while China increases its cereal oils exports by 14 $billions.

Among the declining flows, the story is even more clear cut as the EU-25 loses on both directions: as an exporter it loses to China in Machinery, Motor vehicles and textile clothing; as an importer EU-25 imports less from ASEAN in electronics and textiles.

There are only three intra Asia cases where ASEAN loses; two cases are on the export side and are connected with Japan in Primary goods and in electronics (in that case it is to the profit of China +7.5 $Billions). One case is on the import side again in electronic to the detriment of Korea.

Table 16: Major Changes in Trade ($million, SC2)

Bilateral Major Variations (scenario 2)

Major Increases				Major Decreases			
Primary	ASEAN	India	21 074,4	Electronic	ASEAN	EU25	- 3 979,7
TexClothLe	Korea	China	18 913,3	TexClothLe	ASEAN	EU25	- 3 529,8
CerealsOil	China	Korea	13 555,6	Machinery	Japan	EU25	- 2 994,0
Chemicals	ASEAN	China	12 665,4	Electronic	Korea	EU25	- 2 505,0
Machinery	Japan	China	12 085,7	Machinery	EU25	China	- 2 421,6
Electronic	China	EU25	11 699,1	Machinery	Korea	EU25	- 2 311,3
MotorVeh	Japan	ASEAN	11 474,2	MotorVeh	EU25	China	- 2 007,7
FoodFats	ASEAN	India	11 362,3	TexClothLe	EU25	China	- 1 465,7
TexClothLe	China	Japan	9 283,1	TexClothLe	EU25	Japan	- 1 449,2
Electronic	China	ASEAN	8 765,1	Primary	ASEAN	Japan	- 1 431,7
FoodFats	Korea	Japan	7 773,3	Machinery	ASEAN	EU25	- 1 402,7
Machinery	ASEAN	China	7 511,1	TrspEqNec	Korea	EU25	- 1 391,6
Electronic	China	Japan	7 421,5	Electronic	Korea	ASEAN	- 1 228,2
TexClothLe	Japan	China	7 292,8	MotorVeh	Korea	EU25	- 1 216,1
MotorVeh	Japan	China	7 257,1	OthManuf	EU25	India	- 1 204,0
Sugar	ASEAN	Japan	6 296,2	Electronic	ASEAN	Japan	- 1 157,9

Source: MIRAGE

Note: the Table shall be read as follow: ASEAN export to India 21 $billions more in primary products.

7.Major Changes in EU-25 Bilateral Trade ($million, SC2)

The EU-25 still improves its position on services exports on the whole by 6 billions (partid sum of the gains shown in Table 17) while it loses on industrial products. The biggest losses are with China on machinery, motor vehicle, textile clothing, chemicals and live animals which represent a 7 $billion loss.

On the import side the situation is less negative; it is much more a question of substitution between exporters than a real decline. An increase of $11.7 billion made by Chinese exports electronic goods is balanced by a decline for ASEAN of $4.0 billion, for Korea of $2.5 billion, and for Japan of $1 billion.

It is the same for India: its gains of $4.4 billion in machinery are coupled with a decline of Japan for $3.0 billion and Korea for $2.3 billion.

What is clear for the EU-25 is that it appears more marginal than ever in Asia. What is also clear is that China and India are making significant progress vis-à-vis EU-25.

Table 17 : Major Changes in EU-25 Bilateral Trade ($million)

EU-25 Major Variations in Exports

Increases				Decreases			
BusinSer	EU25	ASEAN	1 053,4	Machinery	EU25	China	- 2 421,6
OthSer	EU25	ASEAN	825,9	MotorVeh	EU25	China	- 2 007,7
TrT	EU25	Japan	769,5	TexClothLe	EU25	China	- 1 465,7
TrT	EU25	ASEAN	765,1	TexClothLe	EU25	Japan	- 1 449,2
TrT	EU25	Korea	693,8	OthManuf	EU25	India	- 1 204,0
BusinSer	EU25	Korea	693,2	Primary	EU25	India	- 1 025,8
OthSer	EU25	Japan	627,5	Chemicals	EU25	China	- 967,7
BusinSer	EU25	Japan	517,5	MotorVeh	EU25	ASEAN	- 674,8
Primary	EU25	ASEAN	483,7	Machinery	EU25	India	- 669,3
Dairy	EU25	ASEAN	460,2	LiveAnMeat	EU25	China	- 579,7
Chemicals	EU25	Japan	395,1	TexClothLe	EU25	Korea	- 485,8
MotorVeh	EU25	Japan	315,6	OthManuf	EU25	China	- 450,9
Machinery	EU25	Japan	302,4	TrspEqNec	EU25	ASEAN	- 414,3
OthSer	EU25	Korea	279,4	Dairy	EU25	Japan	- 407,2
FinanceIns	EU25	ASEAN	149,4	TexClothLe	EU25	India	- 382,2
OthManuf	EU25	Japan	114,5	TrT	EU25	India	- 380,3

Source: MIRAGE

EU-25 Major Variations in Imports

Increases				Decreases			
Electronic	China	EU25	11 699,1	Electronic	ASEAN	EU25	- 3 979,7
Machinery	India	EU25	4 442,2	TexClothLe	ASEAN	EU25	- 3 529,8
Chemicals	India	EU25	1 833,9	Machinery	Japan	EU25	- 2 994,0
TexClothLe	China	EU25	1 262,6	Electronic	Korea	EU25	- 2 505,0
TexClothLe	Korea	EU25	1 251,6	Machinery	Korea	EU25	- 2 311,3
OthManuf	India	EU25	1 102,0	Machinery	ASEAN	EU25	- 1 402,7
TexClothLe	India	EU25	635,2	TrspEqNec	Korea	EU25	- 1 391,6
MetalProd	India	EU25	629,7	MotorVeh	Korea	EU25	- 1 216,1
FoodFats	Korea	EU25	616,6	Electronic	Japan	EU25	- 1 020,9
TrspEqNec	China	EU25	304,9	MotorVeh	Japan	EU25	- 675,3
FerMetal	India	EU25	234,2	ForWoodPa	ASEAN	EU25	- 637,6
FoodFats	ASEAN	EU25	206,4	Chemicals	Japan	EU25	- 561,2
Machinery	China	EU25	182,2	MotorVeh	ASEAN	EU25	- 548,2
Primary	India	EU25	159,2	FerMetal	Korea	EU25	- 488,2
MotorVeh	India	EU25	141,9	OthSer	Japan	EU25	- 441,1

Source: MIRAGE

General Conclusions

Up to 2001, date of China entering the WTO, there has been many words and discussion about regional integration within the Asia Pacific region, but up to that event very few real progress have been made: on one hand the USA promoted a large “open regionalism” such as the APEC forum including the notion of Pacific Basin Community. This project failed to make progress five years ago when discussion entered sensitive issues such as the will of the USA to include agricultural goods liberalisation in the project and get firm commitments. On the other end Asian countries failed to create was Malaysia called an Asian caucus limited to Asian countries, because the US and its allies

Korea and Japan refused to support such initiative. ASEAN as a kind of compensation was enlarged to the four countries of Indochina and started to implement a limited but effective FTA between its members. Then came the financial crisis in 97-98, the SARS issue as well as the tsunami or now the flu crisis. All these events show the weakness of regional co-operation. China as an emerging trading power will in the long term challenge the US in Asia and therefore is looking for more regional integration. On the trade issue its arguments are clear: it is one of the less protected economy of Asia even more open than Japan on agriculture, it trade balance is negative with almost all its regional partner, access to china is vital for them, and China brings monetary stability and dynamism to that zone.

There are naturally a lot of problems to be resolve before we can talk of a regional FTA in the region, and there are several road maps to achieve that. We have explored different possible issues: creation of a fully multilateral and global (including Agriculture) East Asian FTA, or creation of an ASEAN hub with a number of bilateral agreement with every members of the region; also a weak version of these two project with limitation for so called “highly sensitive “ products.

Agriculture is a central problem, but there is an almost general consensus within the region that agriculture should be treated apart. For many ASEAN countries, notably for the new members, agriculture still represent a major source of employment for many poor people. It is also true for China and more so for India. Even in Japan and Korea the rice question has become a kind of cultural and social identity matter more than an economic problem. Singapore and Hong Kong are the exceptions.

But we show that it would be in the clear interest of ASEAN-10 to include agriculture, so we cannot exclude that there would be strong pressure within East Asian countries to include part of agriculture in any FTA agreement.

The main results of each scenario can be synthesise according to two macroeconomic measures which indicate what are the benefits for each country or zone in terms of its GDP value (summing GDP growth in volume with RER changes) see Table 17.

It is clearly in **ASEAN-10** interest to have separate bilateral negotiations within the region and to include agricultural products (SC1): it will give ASEAN easier access to its main natural partners and - as it is not directly in competition with them- this will bring the largest benefits to ASEAN. South East Asia is specialised in agricultural and food production, which are in short supply elsewhere, and ASEAN is potentially very competitive. The main problem would be the lagging countries such as Vietnam or even worse Myanmar.

Korea has in contrast the largest interest to negotiate a global agreement (this is also the Korean President's position), but excluding sensitive products (SC4). This will give Korea a larger access to the Chinese and Japanese markets for its industrial products and also to the rest of Asia. A bilateral agreement with ASEAN including sensitive products would have hard consequences on agriculture surpassing the gains on industrial products and would therefore be unacceptable; the worst scenario for Korea is scenario 2.

Japan in any case is a winner even and especially if the FTA includes a liberalisation of agriculture, in that case its benefits are much larger than its losses. The most advantageous scenario by far is the scenario 2. Japan which used -up to the late nineties- to be a strong advocate of multilateral agreement negotiated under the auspices of the GATT has changed its policy towards regionalisation for two reasons: First the world trend towards regionalisation as exemplified by NAFTA and EU-25, second China extremely active economic diplomacy within Asia raise the risk for Japan to be isolated. But Japan still has a serious handicap with its inability to come to terms to its Second World War legacies. Therefore it cannot promote a multilateral agreement within the region. Its farmers seem able to resist any change in its agriculture policy. So it is more likely that Japan will continue its strategy to negotiate bilateral agreements within the region which, in the end, is the worst scenario for Japan from a strictly economic point of view.

China is leading the regionalisation process for political reasons as well as for economical reasons. For political reasons: it wants to become a leader of Emerging Asia. For economic and strategic reasons China needs to secure its vital supplies of raw materials. Japanese security is assumed by the USA, China has to do it by itself. Being a late comer in WTO it has had to engage in a radical reshuffling of its customs as well as of its tariffs which are the lowest among Asian developing countries, so it gives for China large room for manoeuvre. The best scenario for China is scenario 1.

But in that case it appears that China would become the focal point of the zone as its weight makes it the first partner to be dealt with. This may be diplomatically difficult to accept for the other partners.

For **India**, the major problem is to leave its traditional protectionist policy, which is one of the most restrictive in the world. So the shock could be devastating in social terms. Therefore it is probably reasonable to think of a much more gradual involvement of India in a process of liberalisation. And probably to define a more restrictive list of products to be more or less excluded from the liberalisation process. A global agreement with limitations for sensitive products (SC4) would be the best from an economic and social point of view but from a purely economical point of view scenario 2 is better.

In the end we see that **ASEAN-10+4** countries have diverging interests. If only economic factors were taken into account, a simple average of their preferred scenario gives SC2 as number one scenario for that region, and SC4 as number two, that is to say that a multilateral agreement excluding sensitive

products would be the second preferred scenario. But this result does not mean that these are the more plausible scenario as political factors are not taken into account.

For the **EU-25** the consequences are limited: almost nil in terms of welfare. But considering the EU-25 position as already very weak in terms of market shares, it will even become weaker in Asia. Needless to say, Asia is the largest economic zone of the world and the most dynamic zone; it makes it more worrisome for the EU and calls for a strong reaction, that is to say to engage negotiation with ASEAN 10. The most difficult part of a deal for the EU-25 would be the agricultural issue with ASEAN. Progress made at the multilateral level would greatly improve the EU's position. The preferred scenario for EU-25 would be the SC3 a bilateral agreement within Asia excluding sensitive products. The worst being SC2.

For **Europe** as a whole the worst scenario is very clearly the scenario 2 and the best SC3 there is a relative homogeneity of interest in the region. If bilateral agreement is possible within ASEAN+4 then it may also be easier for EU-25 to try to negotiate bilateral agreements with these countries or zones.

America has different interests: their favourite scenario should be the scenario 4 a multilateral East Asian scenario but excluding sensitive products. As the US are producer of primary products it is better for them to keep their market access on equal footing with Asian producers.

The rest of the world is rather close to European positions on SC3.

Table 17 Preferred scenarios

	Preferred scenari			
	SC1	**SC2**	**SC3**	**SC4**
ASEAN-10	1	2	3	4
Japan	3	1	4	2
Korea	4	2	3	1
China	2	1	4	3
India	4	1	3	2
ASEAN-10 +4	**14**	**7**	**17**	**12**
Hong Kong, Taiwan, Rest of East Asia	2	4	1	3
South Asia	2	4	1	3
Rest of Asia	4	8	2	6
EU - 25	3	4	1	2
EFTA	3	4	1	2
Russian Fed	2	4	1	3
North Africa	3	4	1	2
Rest of Europe	2	4	1	3
Europe	**13**	**20**	**5**	**12**
USA	4	3	2	1
Canada	4	3	2	1
Mexico and Central America	4	3	2	1
South America	3	4	2	2
America	**15**	**13**	**8**	**5**
Australia and New Zeland	2	4	1	3
Rest of the World	2	4	1	3
ROW	**4**	**8**	**2**	**6**
Total (average)	2.78	3.11	1.89	2.28

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