

# AEC Vision Post-2015: Is an ASEAN Customs Union Feasible?

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## Abstract

This paper explores the feasibility of the ASEAN Economic Community (AEC) moving forward to the next step of economic integration, i.e. towards an ASEAN Customs Union (ACU) post-2015. Effectively, the way to progress towards an ASEAN custom Union is by forming it among ASEAN-9 members with Singapore maintaining its existing zero tariff against non-members, thereby creating a Partial ACU. Using applied general equilibrium modelling exercise based on GTAP, the findings suggest that there are potential net positive welfare gains to be collectively reaped by ASEAN if it moves from an AFTA to a partial ACU post-2015. However, not all ASEAN members will individually gain from such an ACU and members may need to potentially devise a mechanism wherein some member country welfare losses in an ACU can be compensated by the members who gain. The paper argues that in spite of political economy challenges due to ASEAN's unique characteristics and diversity in the levels of economic development among members, such a Partial ACU could be considered by ASEAN leaders due to its strategic imperatives.

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# **AEC Vision Post-2015: Is an ASEAN Customs Union Feasible?**

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## **1. Introduction**

The month of December 2015 is going to be a milestone in the history of ASEAN economic cooperation as the leaders of the ten Southeast Asian economies are going to announce the formation of an ASEAN Community. The idea of an ASEAN Community was first conceptualised in 1997 as a part of ASEAN Vision 2020, which comprised of the three pillars of the ASEAN Security Community (ASC)<sup>2</sup>, the ASEAN Economic Community (AEC) and the ASEAN Socio-cultural Community (ASCC). Subsequently, at the 2003 ASEAN Summit in Bali, ASEAN leaders declared the establishment of an AEC by 2020<sup>3</sup>. The objective of the AEC is “to create a stable, prosperous and highly competitive ASEAN economic region in which there is a free flow of goods, services, investment and a freer flow of capital, equitable economic development and reduced poverty and socio-economic disparities in year 2020”. In January 2007, during the ASEAN Summit in Cebu, Philippines, the deadline to realise the AEC was brought forward by five years to 2015 (ASEAN Secretariat, 1997; 2003a; 2007a).

Now as ASEAN is nearing its deadline, the discourse is once again on the post-2015 vision and direction for the region as a whole, including the AEC. That said, this paper intends to undertake an analysis of feasibility of AEC moving forward to the next step of economic integration, i.e. towards an ASEAN Customs Union (ACU) post-2015. By definition, a customs union is the second step of economic integration wherein member countries eliminates trade

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<sup>2</sup> This pillar is later known as ASEAN Political and Security Community (APSC).

<sup>3</sup> This is known as Declaration of ASEAN Concord II or Bali Concord II

barriers on their imports of goods & services, and charge a Common External Tariff (CET) towards non-members.

Interestingly, if ASEAN pursues its interest in moving forward from an ASEAN Free Trade Area (AFTA) towards a Customs Union (CU) including Singapore, a CET of non-zero seems impossible to achieve across all ten ASEAN members as that would require Singapore to raise its tariffs to an agreed non-zero CET tariff rate. This is unlikely to happen with associated negative welfare consequences involved for Singapore as raising tariffs will induce production and consumption distortions creating deadweight losses (Chia, 1992).

Effectively, the way to progress towards an ACU will be by forming a CU among ASEAN-9 members with Singapore maintaining its existing zero tariff against non-members. In this sense, one could term this as a partial ACU where members conform to an agreed positive CET levels against non-members (excluding Singapore).

The remainder of the paper is organized as follows: Section 2 undertakes a brief literature review on theory of economic integration, and how ASEAN's economic and political motives aligned with it. Section 3 gives an overview of trade and investment linkages in ASEAN. Thereafter, section 4 analyses the protection trends in the top ten traded goods within the ASEAN region whereas section 5 analyses the divergence in non-tariff measures applied beyond-the-border across ASEAN members. Section 6 undertakes an applied general equilibrium analysis of an ACU starting from the base scenario of a zero-tariff on intra-ASEAN trade or implementation of the ASEAN trade in Goods Agreement (ATIGA). Two scenarios are compared from this base scenario: a) A positive CET of 2 per cent, 3 per cent 4 per cent and 5 per cent involving an ACU on all goods (excluding Singapore) and b) a more futuristic and extreme scenario of an ACU involving zero CET among all ASEAN members (thus avoiding the ASEAN-X strategy of integration). Both scenarios assume that all non-ASEAN

members do not undertake any tariff changes. In order to understand the issues involved in devising and implementing an ACU more holistically, Section 7 analyses the political economy challenges in taking the AEC forward towards an ACU. Section 8 concludes the paper.

## **2. Literature Review**

Balassa (1961) regards economic integration as a process encompassing measures designed to abolition discrimination between economic units belonging to different national states'. There are five forms of economic integration that varies in terms of their degrees. These are: a FTA, where tariffs are removed between participating countries; a customs union (CU), where, in addition, member countries establish a common external tariff; a common market, where both restrictions on trade and on factor movements are eliminated; an economic union, where, in addition to free movement of products and factors of production, member states undertake 'some degree of harmonisation of national economic policies'; and complete economic integration, which entails 'unification of monetary, fiscal, social and countercyclical policies' and 'the setting up of a supra-national authority whose decisions are binding for the member states'.

Balassa's sequencing of integration seems to be somewhat rigid as it mentions that the process must start with FTA and there must be complete elimination of discriminatory measures as we pursue deeper form of integration. Alternatively, movement from FTAs to CUs could be a very gradual process or many times member countries can leave its economic integration as a FTA. This is especially because the shift from FTA to CU is not just an economic but also a political step. It requires participating countries to agree on a positive CET for all non-members (Krueger 1997). A fundamental difference between a FTA and CU is in terms of pooling or loss of sovereignty on certain commercial policies. It is this difficulty that explains only around six percent of preferential trade agreements (PTAs) that have been

notified to the GATT/ WTO are CUs, progressing from FTAs<sup>4</sup>. This implies that although many sign up for an FTA, very few are prepared to pool their sovereignty.

This implies that economic integration includes two situations; one is completely driven by commercial motives (or economic welfare effect) and the other is driven by both commercial and political motives. While FTAs, to a large extent, falls in the former category, CU falls into the latter.

As for the political motives, economic integration helps member countries to get better bargains, if they get together for international negotiations. In addition, countries may enter trade negotiations to gain support of certain interest groups. These could be export-oriented or import competing sectors or others like labour unions or those responsible for fiscal sustainability and fear import duty losses. Other than these rationales, many times countries enter economic integration as a response of other countries forming FTAs, limit illegal border migration issues and to encourage intra-regional security (Heimenz and Langhammer 1990, De Melo, Panagariya and Rodrik 1993, Grossman and Helpman 1994, Schiff and Winters 1998, Mansfield and Milner 1999).

Analyzing the static welfare effects of economic integration, Viner (1950) identified the possible advantages and disadvantages of economic integration. His study divided the possible implications in terms of trade creation and trade diversion effects. Trade creation happens when two or more countries enter into a trade agreement, and trade shifts from a high-cost supplier member country to a low-cost supplier, whereas trade diversion occurs when imports are shifted from a low-cost supplier of a non-member country to a high-cost supplier member countries. According to Viner, who treated FTAs and CUs as almost synonymous, 'customs union are not important, and are unlikely to yield more benefits than harm, unless

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<sup>4</sup> According to the WTO, as of 15 June 2014, some 585 notifications of RTAs has been received by the GATT/ WTO. Of these, 379 were in force and 25 have progressed to CU.

they are between sizable countries which practice substantial protection of substantially similar industries'. However, Lipsey (1957), criticising Viner for focusing on the production side only, argued that as relative prices in the domestic markets of member countries change as a result of reduction of tariff barriers between them, economic welfare of a CU must include both production and consumption effects. Therefore, in addition to production effect, there is bound to be some consumption changes due to the relative change in process and this must be considered with regard to economic welfare of CUs.

The welfare implications changes further as one distinguishes between 'old' and 'new' regionalism. While Viner's description of economic integration relates to static effect of old form of regionalism, new regionalism represents dynamic effects through increased competition, investment flows, economies of scale, technology transfer and improved productivity (De Melo and Panagariya 1993). Lawrence (1997) made a simple comparison between old and new regionalism and noted that the latter has emerged with the changing economic environments of increased private sector participation, competition, FDI, and the increased importance of services sector (Table 1).

For developing countries, other than Lipsey's production and consumption effects, welfare impacts of economic integration changes further as one includes employment, productivity and income effects, as these countries suffer from low productivity and unemployment. It should be treated an approach to economic development, rather than only a tariff issue (Jaber 1971). Other factors increasing the desirability of an economic integration are – economies of scale, initial tariff level, degrees of complementarity, proportion of trade with member countries, transport costs, coordination of macroeconomic policies (Meade 1955, Lipsey 1960, Demas 1965, Jaber 1971, Heimenz and Langhammer 1990, De Melo, Panagariya, Rodrik 1993). Empirically, these can be best captured through an applied general equilibrium

model using global macroeconomic, production and trade data such as the Global Trade Analysis Project (GTAP) as described in Hertel (1997).

Observing ASEAN, as it has successfully achieved the first stage of economic integration – by establishing a Free Trade Area (FTA) through AFTA – studies such as Plummer (2006) have suggested that the future of the AFTA and its broader economic cooperation measures under AEC should evolve to the next stage of economic integration i.e. to creation of an ASEAN Customs Union (ACU). Thus, although under AFTA, member countries' tariff rates are either zero or close to it, each members are still pursuing their own trade policy with external partners. In contrast, for an ACU, in addition to zero duties between members, there has to be a CET on movement of goods with non-members. While there is currently no general agreement on what should be the CET for a proposed ACU, Plummer (2006) argued that ASEAN should adopt a liberal CET, as close to zero, so that the ACU can generate trade creation and achieve closer integration with the rest of the world in the post-customs union period. Given that Singapore already operates a zero tariff regime on trade in goods, it remains to be seen whether other ASEAN members can move towards this goal and inch closer to a zero CET in the near future. However, post-2015, a possible ACU with a positive CET will have to exclude Singapore, thereby creating a partial ACU to begin with.

### **3. Trade and Investment Linkages in ASEAN**

#### *3.1 Economic diversity and intra-regional linkages*

At the outset, it is notable, that even after two decades of economic integration beginning with AFTA, ASEAN members continue to vary significantly in terms of income levels with Singapore at the higher end of the spectrum, having GDP per capita at PPP of US\$ 75,913 as of 2012 and lower bounded by Cambodia among the CLMV members<sup>5</sup> with GDP

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<sup>5</sup> CLMV members are Cambodia, Laos, Myanmar and Vietnam

per capita at PPP of US\$ 2839. With an exception of Brunei, all the other ASEAN members have been growing at annual growth rate of 5 per cent or above in 2012 (Table 2). Over the years, ASEAN economies have been increasingly transforming into a service-oriented economy, with larger fraction of GDP attributed to services sector. Yet, agricultural sector predominates in CLMV countries with share of agriculture in GDP in Cambodia and Laos accounting for about 35 per cent and 28 per cent respectively. The diversity of this region is therefore best reflected in its unique economic, geographic and cultural characteristics that provides significant complementarities in terms of its remarkable growth potential demographic mix, and the ever growing manufacturing and assembly base that connects the rest of the world through the global supply chain. The region's strong dependence on trade and investment flows has been a part of its export-oriented growth strategy since 1980s with its adoption of unilateral liberalization policies, that has led large spin-offs from trade (share of trade to GDP is highest for Singapore (367 per cent), followed by Malaysia and Vietnam) (Table 2). This diversity however also creates significant economic and political challenges in realising the future AEC goals towards an ACU.

Unlike the EU or NAFTA, the main trading partners of ASEAN members continue to be extra-regional. As of 2004, intra-regional trade in ASEAN came to somewhat less than one-fourth of total trade. It is observed that over 2005-2013, this trend has not changed very significantly. It is observed from Chart 1 that at the individual country level, intra-regional trade as a percentage of total trade was highest for Singapore (34 per cent) followed by Malaysia (19.6 per cent), Thailand (17 per cent) and Indonesia (15.5 per cent). It should be however noted that Singapore's share is particularly high due to the fact that it engages considerably in entrepot trade both within and outside the region.



Tables 3a and 3b provide the breakdown of export and import shares respectively of ASEAN members total exports and imports by region as of 2012. It is observed that outside the region, the CJK countries of the ASEAN plus 3 (China, Japan and Korea) were the most important single export market for all ASEAN countries except Cambodia and the largest import source as well. This reflects the strong extra-regional linkages of ASEAN with East Asian countries that have strengthened over the period with the creation of international production networks in the region through foreign direct investment (FDI). Table 4 presents the intra and extra-ASEAN share of FDI flows from ASEAN member countries, and confirms that FDI inflows into ASEAN are strongly extra-regional in terms of their source, with Thailand, Brunei and Philippines attracting more than 90 per cent of their FDI outside ASEAN members as of 2012.

Thus, regional economic integration initiatives in ASEAN such as AEC or a potential ACU has to be considered in the context of a global economy. As Plummer (2006) warned, “the cost of an inward-looking approach to regionalism, or “Fortress ASEAN,” would be far too high”, which is a possibility if ASEAN countries were to adopt a CET that is not very low (i.e. above 5 per cent) and creates a potential trade diversion.

### *3.2 Product composition of Intra-ASEAN Trade*

It is observed from Table 5 that two HS 2 digit industries HS-27 (consisting of Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes) and HS-85 (consisting of Parts and accessories of Electrical machinery and equipment as well as electronic goods, audio and video recorders) constituted nearly half of intra-ASEAN trade in goods in 2011-12. Eight out of the ten industries involve exports and imports among them, reflecting the high degree of intra-industry trade in the ASEAN region.

The top ten commodities constituted about three fourths of intra-ASEAN trade, reflecting that a possible tariff elimination involving trade in these industries through ATIGA and in the near future, through a possible ACU should have a significant impact on their economic growth, enhancing economy wide welfare.

#### **4. Protection Trends in Trade in Goods Across ASEAN members**

In order to analyse the divergence in tariff structure of ASEAN-6<sup>6</sup> and ASEAN-10<sup>7</sup> in terms of moving towards a CET in a possible ACU, it is important to make a comparison of MFN and ATIGA tariffs. The analysis here is restricted to top ten goods imports only, covering about three fourths of intra-ASEAN imports as of 2012.

##### *4.1 MFN Applied Tariffs on imports*

Table 6a and b presents the latest protection trends in terms of MFN Applied Tariffs across these top ten imported goods industries intra-ASEAN. From Table 6a, it is observed that except for Singapore, every ASEAN-6 country is charging a positive applied MFN tariff across most of these industries, ranging from a simple average of 3.3 per cent across these industries (for Brunei) to 13.2 per cent for Thailand. It is notable that Brunei, Indonesia, Thailand and Malaysia are charging a maximum applied MFN Tariff rate across ASEAN-6 for at least two of these top ten industries. Thailand applies the highest average MFN tariff of 60.4 per cent on HS 15, followed by 32.2 per cent for HS 87.

Table 6b presents the average, peaks and dispersion measures of these tariff rates, which suggests a highly divergent tariff structure across ASEAN-6 as well as ASEAN-10. It follows that the simple average MFN applied tariffs across ASEAN-10 is still about 6.3 per cent, with the peaks averaging about 13.2 per cent. HS 27, the top most imported good traded intra-

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<sup>6</sup> ASEAN-6 members are Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand

<sup>7</sup> ASEAN-10 members include ASEAN-6 and Cambodia, Laos, Myanmar and Vietnam (CLMV countries).

ASEAN attracted the second lowest average MFN tariff rate of 1.4 per cent across ASEAN-6 and 2.5 per cent across ASEAN-10, involving the lowest tariff variability across ASEAN-6. In contrast, the average, peak and dispersion across HS 85, the second highest traded good intra-ASEAN was on a much higher side. HS 15 and HS 87 industries attracted one of the highest average MFN tariffs across ASEAN-6 (23.7 per cent and 11.0 per cent) and ASEAN-10 (18.0 per cent and 9.9 per cent) respectively. Similar trends in tariff peaks are observed also for CLMV countries. This of course implies that it is highly improbable to consider a low CET that can be uniformly applied across these goods for achieving a possible ACU.

It is important to further note that the above peaks and dispersion trends are for nominal tariff rates, and do not represent the effective rate of protection or presence of cascading tariff structure across some of these industries in ASEAN member countries. While latest data on Effective Rate of Protection (ERP) measures across these HS 2 digit industries are unavailable across all ASEAN members, studies such as Urata and Kiyota (2005) and Plummer (2006) indicated that ERPs remain virtually high across some of these sectors creating economic distortions. Therefore an ACU involving even these ten HS 2 digit industries will require tariff harmonization at both the country level across products as well as at the product level across industries so that an appropriate CET can be reached.

#### *4.2 ATIGA Preferential Tariffs on imports*

Analyzing the preferential 2012 Applied tariffs applicable to intra-ASEAN imports under the ASEAN Trade in Goods Agreement (ATIGA) (Table 7), especially for the top ten intra-ASEAN imports, it is noted that the preferential tariffs have been eliminated to zero for ASEAN-6 members except for a few goods in HS 29 and 87 sectors for Indonesia wherein MFN rates continue to be applied. This provides important evidence to the fact that ASEAN-6 is very close to achieving a zero tariff FTA in the top ten imported goods sectors. The CLMV

countries, on the other hand have been largely successful at reducing their ATIGA tariffs compared their MFN counterparts, although in a few of these sectors, the average ATIGA tariffs are surprisingly found to be higher than their applied MFN rates (Table 6a and 7).

The above trends in tariff protection suggests that while ASEAN-6 has partially achieved the AEC goal of a free trade area by implementing a zero tariff regime across nearly three-fourths of intra-ASEAN trade, its move towards a customs union would require them to eventually implement a low positive CET for non-ASEAN members. This, as observed from the analysis of Table 6b, would require significant harmonization efforts across sectors and across countries.

## **5. Non-Tariff Barriers to Trade for a Possible ACU**

Literature on the role of institutions on trade and development has well demonstrated that highly developed and strong institutions significantly reduces trade costs, achieved through increase in the transparency of the trading environment owing to greater predictability and simplification. (Helble Shepherd, and Wilson, 2009). Therefore, in addition to harmonisation efforts in border tariffs, a possible ACU will also need elimination or alignment of non-tariff barriers (NTBs) that continues to prevail both at the border and beyond the border. These NTBs are discriminatory in nature and include issues like diverse product standards, weak enforcement of government regulations and the logistics gaps among the economies. While removal of NTBs is an action plan mentioned in the AEC Blueprint, there is apparent lack of political will to implement the commitments. Hence, NTBs are mentioned as the most formidable impediments to the achievement of a 'single market' in several studies (ERIA 2012, Austria 2013, World Bank and ASEAN Secretariat 2013, Chia 2013).

The latest data provided by World Economic Forum (2014) *Enabling Trade Report* compares the quality of institutions, policies and services that facilitate the cross-border flow

across 138 countries. It can be observed that Singapore represents the most liberalized trading environment, keeping transparency in border-crossing procedures and is well supported by strong infrastructure and business operating environment. Among other ASEAN members, Malaysia is also fairly perceived in terms of its institutional quality for facilitating trade with an overall ranking of 25. Among the four sub-indices, it is found that Cambodia, Lao PDR and Thailand perform poorly with respect to allowing domestic market access. In terms of efficiency and transparency of border administration that represents the non- tariff barriers, most of the ASEAN members, with an exception of Singapore, perform poorly. The same could be said for infrastructure and business operating environment in the region (Table 8).

The above indicates that elimination or harmonization of NTBs remain central for a possible ACU than tariff reduction. This can be further illustrated in Charts 2 and 3 that present the most problematic factors for importing and exporting respectively in 2013 across ASEAN members. A lower score represents a less problematic factor as identified by businesses. While Chart 2 demonstrates that corruption at the border, burdensome import procedures as well as regulatory requirements such as product standards testing etc. continue to be perceived as major problematic areas for importing into most ASEAN countries, , similar problems are faced while exporting the good to ASEAN members, with rules of origin requirement emerging as another barrier for exporting, in the wake of the multiple bilateral and regional FTAs that ASEAN members have been involved in (Chart 3).

The above data from the business perspective confirms that even ASEAN-6 has a long way to go in harmonizing and reducing these institutional barriers or NTBs, which can impede intra-regional and extra-regional trade even with complete tariff liberalization. Of course, this is of concern in the context of its move towards an ACU as a potential ACU should also aim to achieve common NTBs against the rest of the world. However, setting positive CETs and maintaining some NTBs in an ACU involving Singapore is likely to be politically difficult to

achieve, but joint negotiations on trading rules with the rest of the world can be discussed at an intra-ASEAN level.

## **6. Welfare Analysis of ACU**

### *6.1 The GTAP model*

In order to analyze the impacts on welfare and real GDP changes due to AFTA implementation and a possible move towards an ACU, an applied general equilibrium (AGE) analysis is more appropriate. The standard GTAP model, which is a multi-sectoral multi-regional Computable General Equilibrium (CGE) model framework, described in Hertel (1997) with the recently updated GTAP 8.1 database for 2007 (documented in Narayanan et. al., 2012) is utilized for this purpose.

The standard GTAP model is based on the assumption of perfect competition and constant returns to scale. The trade data in the GTAP database distinguishes between commodities on the basis of their countries of origin and destination, and also on the basis of the agents (intermediate demand, and final demand by household, government and investment) that absorb the commodities in the importing economy, thus allowing for the varying import intensities by different agents within regions and across countries disaggregated in the model. This is the Armington assumption (Armington, 1969) that is incorporated across all variety of CGE models and results of policy experiments are sensitive to both substitution elasticities and trade shares (de Melo and Robinson, 1989). Region-specific trade tax data, import duties export taxes, and transport costs are recorded for each and every trade transaction in this database and the model. The remaining data in the GTAP database come from input-output tables of each country/region modelled in the database. The ‘regional’ household in this model receives all

income from factor sales, and from five different tax instruments<sup>8</sup>. This income is then distributed to the private household, savings and government<sup>9</sup>.

The policy simulations involve a 11x12 regional and sectoral aggregation from the original GTAP 8.1 database based on 57 sectors and 129 regions<sup>10</sup>. The regional aggregation consists of 7 individual ASEAN countries (Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Thailand and Vietnam, as well as Rest of Southeast Asia (that includes both Brunei and Myanmar<sup>11</sup>) as one region in the GTAP database. The three other regions are Singapore, OECD members and the Rest of the World (ROW). Singapore is modelled separately from rest of ASEAN to analyse the impact of a Partial ACU that will exclude Singapore.

The sectoral aggregation separates the top-ten import sectors of intra-ASEAN trade , (consisting of ten HS-2 digit sectors mapped onto their corresponding sectors in GTAP)<sup>12</sup>, and aggregates the others into Services, Other Manufacturing, Transport Communications and Agri-Forestry and fishing. The standard GTAP closure is altered to reflect the assumptions of unemployment for skilled and unskilled labour in all countries and fixing trade balances for all regions except the OECD<sup>13</sup>.

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<sup>8</sup> These are import and export duties, sales/commodity taxes, production taxes and factor taxes.

<sup>9</sup> For details on the structure of GTAP and a full graphical exposition of the multi-region GTAP model, see Hertel (1997) and Brockmeier (2001)

<sup>10</sup> For a list of original sectors and regions documented in the GTAP Database, see <https://www.gtap.agecon.purdue.edu/databases/regions.asp?Version=8.211> and [https://www.gtap.agecon.purdue.edu/databases/v8/v8\\_sectors.asp](https://www.gtap.agecon.purdue.edu/databases/v8/v8_sectors.asp)

<sup>11</sup> Note that in this model, Rest of Southeast Asia is aggregated as a region as GTAP 8.1 database does not have disaggregated data for Brunei and Myanmar.

<sup>12</sup> See Appendix 1 for further details on the database aggregation.

<sup>13</sup> This has been undertaken by earlier studies involving standard GTAP model simulations such as MacDonald and Walmsley (2008).

## 6.2 *Policy scenarios*

### 6.2.1 AFTA implementation with zero tariffs (Scenario 1 or base scenario)

An ACU is likely to be the next step of economic integration post AFTA, and is expected to be implemented across all goods. The baseline scenario or Scenario 1 therefore simulates the implementation of a zero tariff ASEAN Trade in Goods Agreement (ATIGA) so that the ATIGA tariffs have been eliminated within ASEAN-10 imports. This scenario assumes that non-ASEAN members are still charged the MFN tariffs while exporting to ASEAN members.

### 6.2.2 ASEAN Customs Union minus Singapore with a positive CET of 2-5 per cent on all goods (Scenario 2)

This scenario analyzes the potential economy wide impacts of ASEAN members as a result of formation of a possible ACU on all goods, starting from the creation of AFTA. Following Plummer (2006), who suggests that the proposed CET in an ACU should be as low as possible, it is assumed in this scenario that a customs union is formed by ASEAN-9 with a positive CET that ranges from a high of 5 per cent to a low of 2 per cent, which will be applicable for imports of all goods of ASEAN-9 from the two non-member regions modelled in this study viz. *OECD, and RestofWorld*.

Starting from 5 per cent, each sub-scenario of a progressive reduction of CET to 4 per cent, 3 per cent and 2 per cent is modelled. The scenarios assume that this positive CET is not applicable for imports from Singapore into ASEAN-9 (i.e. Singapore exports to ASEAN-9 are charged ATIGA rates), and non-ASEAN members still charge the MFN tariffs while importing from ASEAN members.



### 6.2.3 ASEAN Customs Union with a zero tariff on all goods (Scenario 3)

What would happen if ASEAN-9 were to eventually eliminate tariffs for imports from non-members, starting from AFTA? Though not realistic, at this stage, this scenario is more futuristic and analyses the possibility that ASEAN-9 eventually eliminates all tariffs so that an ACU (possibly including Singapore as the CET is zero) is now a de-facto free trade zone vis-à-vis non-members. This scenario continues to assume that non-ASEAN members still charge MFN tariffs while importing from ASEAN members.

For each of the above scenarios, impacts on overall welfare (in Equivalent Variation (EV) terms as measured by GTAP) and changes in real GDP (measured by the GTAP *qgdp* variable) are analyzed. The results reported below are comparative static in nature given the structure of the GTAP model and hence does not capture any potential dynamic effects of these policy shocks. Further, the results are aggregative in nature and do not provide any insights into industry-specific impacts as a result of these tariff shocks.

### *6.3 Impact on overall welfare and real GDP*

Tables 9 and 10 report policy simulation results. Table 9 presents the changes in overall welfare (in level terms) while Table 10 shows the aggregate changes in real GDP (in percentage terms) in ASEAN members across all three scenarios. Table 11 estimates the aggregate changes in real GDP aggregating ASEAN-9 as one single region, separating Singapore, to analyse the impact on the region as a whole if it were to form a partial ACU.

It is observed that an AFTA with zero tariffs intra-ASEAN would unambiguously improve the welfare of all ASEAN members and increase their real GDP growth (Tables 9 and 10). In terms of real GDP, larger gains are observed for newer ASEAN members (Cambodia, Vietnam and Lao PDR) compared to others, given that these countries end up undertaking a

larger tariff reduction, particularly in the Agricultural goods sector as they progress towards the implementation of AFTA.

Post-AFTA, creation of a partial ACU with a positive CET of between 2-5 per cent demonstrates that all ASEAN members may not benefit individually, although there may be net benefits for ASEAN-9 as a whole. Notably, Singapore is estimated to be experiencing positive welfare gains in a partial ACU at a CET of 5 per cent, the magnitude of which reduces considerably as the CET is to be chosen to be 4 per cent. In contrast, the remaining ASEAN members experience greater positive welfare gains if a lower positive CET of 4 per cent is chosen instead of 5 per cent. Specifically, as observed in Tables 9 and 10, Indonesia, the largest member economy in the ACU experiences welfare losses of US\$ 735.3 million if it applies a CET of 5 per cent in an ACU (equivalent to a loss of about 0.18 per cent in terms of real GDP). These losses are far lesser (equivalent to a loss of about 0.07 per cent of real GDP) if the CET were to be 4 per cent instead. Similar results are observed for the Philippines. Except for these two ASEAN members, all others experience a positive welfare gain at a CET of 4 per cent.

As the margin of tariff preferences is further reduced between Singapore and other ASEAN members with the positive CET chosen being 3 per cent and 2 per cent respectively, it is observed that the magnitude of positive welfare gains for ACU members increases, reflecting increasing extra-regional trade of ACU members with non-members (OECD, Rest of the World) who are now able to expand their exports to ACU members with a lower positive CET. This erosion of tariff preferences between Singapore and rest of ASEAN vis-à-vis non-members increasingly generates negative terms of trade effects for the former, resulting in trade diversion from OECD towards ACU members. This is reflected in Singapore experiencing a welfare loss of US \$ 218.97 million (equivalent to a loss of 0.03 per cent in terms of real GDP) at a CET of 3 per cent, which further accentuates to US \$ 482.1 million if the CET is 2 per cent. Indonesia is the only ACU member that continues to experience a welfare loss (equivalent

to a loss of 0.03 per cent in terms of real GDP) at a CET of 3 per cent. The combined welfare gains for ACU members is nearly US\$ 3.8 billion in moving from AFTA to this scenario of a Partial ACU with a CET of 3 per cent, far offsetting the individual negative welfare losses for Indonesia and Singapore. If the CET is chosen to be even lower than this at 2 per cent, the gains for ACU members are almost US\$ 5.0 billion, but at the cost of greater welfare losses for Singapore (Tables 9 and 10).

If ACU were to include Singapore, only a futuristic scenario of a zero tariff towards non-members is possible. Scenario 3 results in Tables 9 and 10 demonstrate that this would completely erode any margin of tariff preference between Singapore and other ASEAN members, and thus benefit all non-ASEAN members and ASEAN members except for Singapore, which will suffer a potential welfare loss of about US\$ 981.53 million (equivalent to 0.21 per cent of its real GDP). In this unlikely scenario, ASEAN-9 as a whole would still experience a net gain of about US\$ 7.0 billion, and ASEAN-10's net gains (after accounting for Singapore's welfare losses) would be worth US\$ 6.0 billion. Table 11 presents these results in terms of changes in real GDP at the aggregate level, and confirms that at a positive CET of 3 per cent, the aggregate gain to ASEAN-9 in creating a partial ACU would be equivalent to 0.61 per cent of ASEAN-9's real GDP, that would far offset the 0.03 per cent welfare loss for Singapore if it were to be excluded from the ACU.

The above policy modelling exercises, though aggregative and static in nature, suggests that even if ASEAN's extra-regional members were to keep their tariff structures unchanged, there are potential net positive welfare gains to be reaped by ASEAN if it moves from an AFTA to a partial ACU (excluding Singapore) post-2015. However, not all ASEAN members will individually gain from such an ACU. Notably, members may need to potentially devise a mechanism wherein some member country's welfare losses in an ACU can be compensated by the gaining members.

However, the above results need to be qualified with several important caveats: First, while isolating the welfare impact on Singapore, it should be noted that a significant proportion of Singapore's imports are re-exported and do not enter the domestic economy, which cannot be analyzed in the GTAP trade database on which the simulation exercise have been conducted. This is particularly significant for the case of the Petro sector wherein Singapore is heavily involved in re-exports of refined petroleum to other ASEAN members as well as non-member countries. The observed welfare impact and real GDP changes for Singapore may not accurately capture the entrepot and manufacturing hub role that it would play in a potential future partial ACU. Second, there are likely to be much larger gains for Singapore as well as other ASEAN members and extra-regional members, if the ACU were to also harmonize regulatory and institutional barriers towards trade in services as well as foreign investment flows, and create a common NTB towards non-members. This scenario is not modelled in this study as it requires extensions of a standard GTAP model.

Third, extra-regional trade of ASEAN has been expanding over the years, and ASEAN (both as a region as well as individual members) is getting integrated with its major trading partners through several bilateral and regional trading agreements (RTAs) over the past decade. Singapore, in particular has been highly forthcoming in implementing a number of bilateral RTAs with its extra-regional trading members, which has not been separately modelled in these scenarios. It is highly likely that these extra-regional trading partners will also lower their tariffs closer to these chosen CET levels. If that were to happen, opportunities for ASEAN's extra-regional export expansion should increase further, converting Singapore's welfare losses into welfare gains, as well as enhancing the welfare of other ASEAN members in presence of a Partial ACU.

Fourth, as mentioned earlier, the simulations projects a scenario of a uniform CET applied across all industries in ASEAN-9, but it would be worthwhile to analyse those

industries wherein the average MFN tariffs are already lower than the CET levels. In reality, a potential partial ACU is more likely to operate with industry or goods specific CETs, at a disaggregated level of tariff classification, similar to RTAs.

Finally, the GTAP modelling results analysed above are based on a static perfectly competitive model, and it would be useful to extend it in a dynamic & imperfectly competitive setting at a sectoral level. It is also important to note that there will be significant political economy challenges in realizing and implementing such a partial ACU (minus Singapore), which needs to be analysed in detail.

## **7. Political Economy Factors in Achieving the ACU**

Although ACU may allow for greater gains from trade and FDI, the diversity of ASEAN members and their varied interests can thwart any such intentions. The challenges for ASEAN to develop an ACU from a political economy perspective are manifold, even though there could be strategic imperatives that could provide ASEAN with an incentive to overcome socio-economic division that currently characterise the region.

### *7.1 Challenges in achieving an ACU*

For ACU to happen, can ASEAN continue to work with its three unique characteristics that it had followed since its inception? These are: first, the ‘ASEAN Way’ in dealing with the regional matters. This relates to ASEAN’s preference for loose arrangements rather than formal agreements, its dependence on personal relations among ministers and leaders rather than strong institutions and its reliance on consensus and common interests rather on high-level binding commitments (Severino 2006). This can be observed in several ASEAN documents, including AEC, as it discuss the vision and the required broad actions rather than mention the mechanisms through which member economies can develop the capacity to implement the

regional measures. The documents are not couched in legal terms and allows for flexibility in complying with regional commitments.

The second characteristics is ASEAN states preference for sovereignty, as they uniformly reject the idea of ‘pooled’ sovereignty under any regional initiative. Instead, they believe that regional institutions should enhance the sovereignty of their member states (Higgot 1997). This also holds true for its economic integration measures. Although initiatives like AEC is regional in nature, compliance with and implementation of AEC commitments depends on voluntary national action. While peer pressure is applied among the friendly ASEAN members or mutual assistance and capacity-building exercises are used to help in implementation efforts, the region does not have an European Commission (EC)<sup>14</sup> alike institution that can insist member countries to comply with ASEAN commitments. This is a reason that despite committing to AEC actions in 2007, a proportion of its targets are not met and even those that are met have uneven rate of implementation across member states.

Finally, this connects to ASEAN’s third characteristic i.e. principle of ‘non-interference’ that is mentioned in several of ASEAN documents<sup>15</sup>. The 2007 ASEAN Charter reaffirmed the adherence to fundamental principles, including ‘non-interference in the internal affairs of ASEAN Member States’ (ASEAN Secretariat 2007b). Hence, while ASEAN cannot

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<sup>14</sup> The European Commission represents and upholds the interests of the EU as a whole. It drafts proposals for new European laws. It manages the day-to-day business of implementing EU policies and spending EU funds (EU Institutions and Other Bodies, Europa.Eu)

<sup>15</sup> In 1967 Bangkok Declaration, ASEAN proclaimed its determination “to ensure their stability and security from external interference in any form or manifestation”. In the 1971 “Zone of Peace, Freedom and Neutrality Declaration”, ASEAN reiterated that every state, regardless of its size, has the right “to lead its national existence free from outside interference in its internal affairs”. In the “Treaty of Amity and Cooperation in Southeast Asia”, ASEAN committed itself to principles, including “mutual respect for the independence, sovereignty, equality, territorial integrity and national identity of all nations; the right of every State to lead its national existence free from external interference, subversion or coercion and; non-interference in the internal affairs of one another.” (ASEAN Secretariat 1967, 1971, 1976b)

be made responsible for regional commitments, much will depend on its members' interests and their domestic dynamics.

Indeed, ACU takes ASEAN to next step of integration by 'deepening' the initiative through adoption of CET, but it also entails many other related matters that may not go well with ASEAN's characteristics. First, countries have to pool sovereignty over some of their commercial policy, which ASEAN states may not agree with. This is also reiterated by Akrasanee and Stifel (1992) as they say that 'the goal of ASEAN co-operation has never been a form of integration in which supranational characteristic progressively transcend national sovereignty. Cooperation in the region was pursued as a means of assuring national independence and mutual benefits for all participants..... a customs union .....has supranational characteristics which are unacceptable'. For most of the ASEAN economies, this belief reflects their own institutional weaknesses, as discussed in section 4 of this paper. Economically also, the ties between the member countries are relatively weak; as intra-ASEAN trade remained a quarter of total trade in the region, despite the initiative of AFTA since 1992. Moreover, ASEAN's economic interaction with the North-eastern states of China, Japan and Korea and the United States remained critical, reinforcing external linkages that have undermined regional institutional development.

Apart from the question on the above mentioned three characteristics of ASEAN, it is going to be difficult to agree on a CET, especially when ASEAN countries have divergent tariff structures (as observed in section 4). Creating an ACU among ASEAN-10 would either require Singapore and Brunei to abandon a tariff regime on which their entire economies have been based or require other members to completely eliminate their tariffs. Either of these scenarios are highly improbable at this juncture. This is so as at least one of the ASEAN members is likely to experience a welfare loss as evinced from the simple modelling exercise in Section 6. Further, there is no current mechanism in place in ASEAN wherein gainers in deeper economic

integration are prepared to compensate potential losers in the event of an ASEAN-wide net welfare gain. Issues such as the distribution of tariff revenue in a partial ACU from a CET remains unresolved as well. These factors considered together may make the implementation possibility of an ACU much weaker, at least in the short-run. Earlier studies like Chia (1992), Cuyvers and Puppavesa (1996), Chirathivat and Srisangnam (2013) have all put the possibility of ASEAN of moving towards an ACU as very low, mainly citing the negative consequences of member countries as a key reason.

Furthermore, the domestic political economy support to create an ACU can be complicated as in ASEAN, interest groups at domestic level play an important role in regional economic cooperation matters. It has been repeatedly mentioned in literature that protection persists despite free trade being an optimal policy choice. Domestic politics and domestic interest groups seek to maintain trade barriers and economic restrictions, under the guise of 'national interest'. This is often a result of organised rent-seeking interaction between interest groups and politicians (Sally 2008, Nair 2011, Balboa et al 2012). According to Nesadurai (2012), a crucial feature of the Southeast Asian political economy is a close relationship between the ruling elites and the business sector, whether state-owned enterprises, government-linked corporations (GLCs) or private businesses.

## *7.2 ACU – A Strategic Project*

Despite these negative connotations from an ACU, pressing strategic imperatives could provide incentives to ASEAN states to overcome its historical ways of doing things and to manage its socio-economic and institutional diversity that presently characterise the region. This has happened in the past and ASEAN, as an organisation, has evolved overtime.

Going back to ASEAN's past, it is important to note the strategic imperatives that pushed the ASEAN leaders to decide on an AEC. These were the financial crisis of 1997-98,



proliferation of FTAs elsewhere in the world; China's membership in WTO; fear of investment diversion to bigger and emerging markets of China and India; importance with linkages with East Asian countries and the desire to play the role of a 'hub' in the broader Asian region (ASEAN Secretariat 2003b, Kawai 2005, Sally and Sen 2005, Hew et al 2005, Soesastro 2005, Kawai and Wignaraja 2008).

Other than these, while ASEAN is a regional organisation to avoid conflict, economic cooperation is viewed as a means to achieve this objective. Moreover, the ASEAN governments view the economic cooperation as beneficial for individual member states with no extra costs, especially in delegating sovereignty to supranational institution and the risk of interference in domestic affairs. Alternatively, being a part of ASEAN help the member states to pursue their national interests<sup>16</sup>.

ASEAN finds itself standing on the cross-roads in 2015. All attention is on ASEAN on how it can deliver on an economic cooperation arrangement that have profound implications in both economic and non-economic realms. There are still many destabilising factors present in and around ASEAN economies. Firstly, since the 2008 global crisis, the world has become economically more vulnerable. Any economic or financial meltdown in the West can be felt among the Asian economies, hampering its growth story. Secondly, Asia, in this twenty-first century contain group of big powers, including China, India, Russia and Japan (with the US playing role from across the Pacific) and several smaller ones, all capable of bringing in instability. Lately, the region has seen competition of mega-regionals like the China-led East Asia FTA, Japan-led Comprehensive Economic Partnership for East Asia and the US-led Trans-Pacific Partnership, each of them trying to economically influence the Asia-Pacific region. This was felt to be threatening the ASEAN 'centrality', which assumed that ASEAN,

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<sup>16</sup> See Hew, et.al (2005) and Kawai (2005).

instead of the bigger economies like those of China, Japan, the U.S. or India, should be the hub of developing a wider Asia-Pacific regional architecture (Basu Das 2014). Thirdly, despite the end of the Cold War, issues of non-traditional security remained pertinent and became a new security agenda for ASEAN countries. Finally, the issue of China in the South China Sea was left dormant without institutional arrangement for resolution.

In this light, a partial ACU among ASEAN-9 could be a possibly pathway to deepen economic integration beyond AFTA and generate greater economic benefits for ASEAN as a regional community. A rules-based framework for economic cooperation among the member states of ASEAN seems to be already developing, which has further culminated in the ASEAN Charter in 2007 (Davidson 2010). In addition, since the post-Cold war era, ASEAN has always viewed its economic cooperation as a mode to give it a sense of regional identity (Ravenhill 1995). Moreover, post-2015, ACU could be an agenda that can help ASEAN to strengthen its 'single market' objective. With harmonization of commercial policies, this will make the region attractive to MNCs, who may enjoy lower transaction costs in doing business in an economically integrated market than they have in the current form of AEC.

## **8. Conclusion**

With the 2015 deadline for an AEC, ASEAN is on discourse again to work on a vision to foster deeper integration in the future. Taking the cue of a deeper integration, an ASEAN Customs Union (ACU) could be considered as a possibility. For ASEAN to move to a CU, it requires either all its members to inch closer to a zero Common External Tariff (CET), given that Singapore already operates a zero tariff regime on trade in goods, or is to form an ACU minus Singapore involving a positive CET. However, the latter would imply that such an ACU would be a Partial CU as ATIGA would continue to be applicable for ASEAN-9's imports from Singapore.

The results from an applied general equilibrium policy modelling exercise, though static in nature, suggests there are potential net positive welfare gains to be collectively reaped by ASEAN if it moves from an AFTA to a partial ACU (excluding Singapore) post-2015, which involves a positive CET of about 3 per cent. This is assuming that ASEAN's extra-regional members keep their tariff structures unchanged. However, not all ASEAN members will individually gain from such an ACU. In a more extreme scenario, if ASEAN-9 were to move towards a zero tariff regime similar to that of Singapore, it will continue to achieve higher welfare gains, but at the cost of welfare losses for Singapore due to a potential intra-regional trade diversion. Notably, members may need to potentially devise a mechanism wherein some member country's welfare losses in an ACU can be compensated by the members who gain.

There are important caveats to these results that are detailed in Section 5, and this modelling exercise could be further extended in future studies by analysing i) sector-specific CETs ii) harmonization of services and investment regulations ASEAN-wide and iii) impact on Singapore's regional entrepot role if a Partial ACU excluding it were to involve very low positive CETs, ultimately eliminating all tariffs and thereby eroding current margin of tariff preferences between the city-state and ASEAN-9.

Despite the challenges, there could be pressing strategic imperatives like the economic vulnerability of the West, big power rivalry, issue of South China Sea and desire to entrench ASEAN Centrality, and these could provide incentives to ASEAN states to overcome challenges and its historical ways of doing things. This has happened in the past as ASEAN moved from AFTA in the 1990s to a more rules-based approach of AEC recently. ASEAN, as an organisation, has definitely evolved over the last four decades. Hence, post-2015, political leaders in ASEAN may disregard the ACU as an impossible initiative, and may visualise the deeper integration as a way to further ASEAN's strategic agenda in the international community.

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**Table 1: Regionalism- The Old and The New**

The Old Regionalism	The New Regionalism
Import Substitution	Export orientation
Planned allocation of resources	Market allocation of resources
Led by governments	Led by private firms
Mainly industrial products	All goods, services and investments

Source: Lawrence (1997)



**Table 2: Selected Macroeconomic Indicators of ASEAN, 2012**

	<b>GDP per capita, PPP (current international \$)</b>	<b>GDP growth (annual %)</b>	<b>Gross capital formation (% of GDP)</b>	<b>Gross domestic savings (% of GDP)</b>	<b>Agriculture, value added (% of GDP)</b>	<b>Manufacturing, value added (% of GDP)</b>	<b>Services, etc., value added (% of GDP)</b>	<b>Trade (% of GDP)</b>	<b>Trade in services (% of GDP)</b>	<b>Foreign direct investment, net inflows (% of GDP)</b>
<b>Singapore</b>	75913.57	2.50	30.37	52.80	0.04	20.38	73.29	367.72	82.87	21.32
<b>Malaysia</b>	22280.15	5.64	25.77	37.63	10.05	24.24	49.10	162.41	26.33	3.19
<b>Thailand</b>	13976.37	7.67	29.74	30.87	12.27	33.98	44.17	148.83	28.07	2.92
<b>Indonesia</b>	9009.82	6.26	34.74	33.18	14.50	23.97	38.72	50.15	6.63	2.24
<b>Philippines</b>	6109.76	6.81	18.46	15.28	11.84	20.55	57.07	64.79	13.31	1.29
<b>Vietnam</b>	4998.20	5.25	27.24	30.75	19.67	17.39	41.70	156.55	14.20	5.37
<b>Cambodia</b>	2839.22	7.31	..	..	35.56	16.03	40.19	..	29.11	10.25
<b>Lao PDR</b>	4464.89	8.20	31.86	19.66	27.98	8.40	35.81	84.68	..	3.14
<b>Brunei</b>	72917.27	0.95	13.60	63.78	0.72	11.79	28.21	112.54	..	5.07

Source: World Bank (2014)

**Table 3a: Trends in export shares of ASEAN members in total world exports, 2012**

	World	ASEAN-10	ASEAN-6	EU	US	CJK	CIJK+CER	Others
Brunei	11,917	13.1	8.5	0.1	0.7	63.6	85.0	1.1
Indonesia	190,031	22.0	20.4	9.5	7.8	35.2	44.6	16.1
Malaysia	227,766	26.8	24.7	8.9	8.7	28.1	36.9	18.7
Philippines	51,992	18.9	17.6	11.4	14.2	36.4	37.8	17.7
Singapore	409,709	31.7	28.6	9.2	5.5	19.4	26.8	26.8
Thailand	227,883	24.6	17.2	9.4	10.0	24.0	31.1	24.8
Cambodia	7,837	12.8	11.3	24.1	13.4	5.9	6.5	43.1
Laos	3,326	46.5	34.3	8.6	0.7	25.1	30.4	13.8
Myanmar	8,267	45.8	44.6	2.3	0.0	25.6	40.6	11.3
Vietnam	110,795	15.6	12.6	18.3	17.8	28.0	32.7	15.6

Source: Calculated from the CEIC database, 2013.

Note: CJK refers to China, Japan and Korea among ASEAN+3 members, while CIJK+CER represents the CJK, India and CER members (Australia and New Zealand).

**Table 3b: Trends in import shares of ASEAN members in total world imports, 2012**

	World	ASEAN-10	ASEAN-6	EU	US	CJK	CIJK+CER	Others
Brunei	6,456	43.2	42.9	24.0	2.7	26.4	27.7	2.4
Indonesia	191,691	28.0	26.6	7.4	6.1	33.5	38.8	19.7
Malaysia	196,592	27.9	25.1	10.8	8.1	29.5	34.2	19.0
Philippines	67,886	22.9	21.3	7.5	11.5	28.5	32.6	25.6
Singapore	379,960	21.0	20.2	12.6	10.2	23.3	28.2	28.0
Thailand	251,464	16.1	12.9	8.1	5.1	38.3	42.1	28.7
Cambodia	7,062	35.5	22.2	3.2	1.7	39.5	41.3	18.3
Laos	6,340	70.4	63.1	4.6	0.6	21.5	22.6	1.8
Myanmar	17,035	36.8	36.0	1.8	0.4	53.4	57.5	3.6
Vietnam	111,640	18.6	17.7	7.9	4.3	50.1	54.0	15.2

Source: Calculated from the CEIC database, 2013.

Note: CJK refers to China, Japan and Korea among ASEAN+3 members, while CIJK+CER represents the CJK, India and CER members (Australia and New Zealand).

**Table 4: Trends in Intra and Extra-ASEAN FDI flows (US \$ million)**

<b>Country</b>	<b>Intra-ASEAN</b>	<b>Extra-ASEAN</b>	<b>Total FDI net inflows</b>	<b>Share of Intra-ASEAN FDI in Total FDI inflows (%)</b>	<b>Share of Extra-ASEAN FDI in Total FDI inflows (%)</b>
Brunei	31.50	833.30	864.80	<b>3.6</b>	<b>96.4</b>
Cambodia	523.00	1,034.10	1,557.10	<b>33.6</b>	<b>66.4</b>
Indonesia	7,587.90	11,550.00	19,137.90	<b>39.6</b>	<b>60.4</b>
Lao PDR	73.60	220.70	294.30	<b>25.0</b>	<b>75.0</b>
Malaysia	2,813.90	6,586.10	9,400.00	<b>29.9</b>	<b>70.1</b>
Myanmar	151.20	1,203.00	1,354.20	<b>11.2</b>	<b>88.8</b>
Philippines	145.20	2,651.80	2,797.00	<b>5.2</b>	<b>94.8</b>
Singapore	8,410.80	51,400.70	59,811.50	<b>14.1</b>	<b>85.9</b>
Thailand	(342.00)	11,041.20	10,699.20	<b>3.2</b>	<b>103.2</b>
Viet Nam	1,262.50	7,105.50	8,368.00	<b>15.1</b>	<b>84.9</b>
<b>ASEAN</b>	<b>20,657.60</b>	<b>93,626.40</b>	<b>114,284.00</b>	<b>18.1</b>	<b>81.9</b>

Source: ASEAN FDI Statistics Database, ASEAN Secretariat

**Table 5: Top-Ten Commodities traded among ASEAN Member States, 2012**

<b>HS-Code</b>	<b>Export Commodities</b>	<b>Value (in US\$ Million)</b>	<b>Share (% in total trade)</b>
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	84291.9	26.03
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of	58959.2	18.21
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	40571.2	12.53
87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	14465.5	4.47
39	Plastics and articles thereof	12515.9	3.86
29	Organic chemicals	7175.9	2.22
90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	6619	2.04
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	6093.3	1.88
73	Articles of iron or steel	5666	1.75
40	Rubber and articles thereof	5600	1.73
	Ten major export commodities	241957.9	74.7
	Others	81897.1	25.3
	Total	323855	100
<b>HS-Code</b>	<b>Import Commodities</b>	<b>Value (in US\$ Million)</b>	<b>Share (% in total trade)</b>
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	84881.7	30.51
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of	52348.5	18.82
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	28074.3	10.09
87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	11860.6	4.26

39	Plastics and articles thereof	10084.4	3.62
29	Organic chemicals	5835.7	2.10
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	5719.2	2.06
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	5433.6	1.95
40	Rubber and articles thereof	5085.6	1.83
90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	4459.1	1.60
	Ten major import commodities	213782.7	76.8
	Others	64410.4	23.2
	Total	278193.1	100

Source: ASEAN Statistical Yearbook 2013, The ASEAN Secretariat

**Table 6a: Trends in Average Ad-Valorem MFN Applied tariffs across top ten industries in intra-ASEAN imports by member country**

HS code	Brunei	Indonesia	Malaysia	Philippines	Singapore	Thailand	Cambodia	Laos	Myanmar	Vietnam
15	0.0	4.3	2.9	5.8	0.0	60.4	7.0	10.9	1.9	9.6
27	0.0	3.9	0.4	1.7	0.0	2.2	7.2	6.2	0.9	2.3
29	0.0	3.8	0.1	2.0	0.0	0.5	6.3	5.0	1.0	0.8
39	0.0	8.6	10.7	8.4	0.0	7.7	5.4	8.9	2.4	7.4
40	3.6	7.5	19.2	5.0	0.0	8.3	11.8	7.9	3.3	9.0
71	2.3	6.1	0.4	4.9	0.0	4.9	1.7	5.0	14.5	8.7
72	0.0	5.2	7.0	2.8	0.0	3.3	3.5	5.0	1.1	2.9
84	7.5	4.8	3.3	2.1	0.0	3.9	13.3	6.0	1.6	3.0
85	13.3	5.6	4.1	3.9	0.0	8.3	16.9	8.1	4.7	8.0
87	6.0	15.3	16.7	12.4	0.0	32.2	15.3	17.2	5.4	28.1
Simple average MFN for top 10	3.3	6.5	6.5	4.9	0.0	13.2	8.8	8.0	3.7	8.0
Minimum across sectors	0.0	3.8	0.1	1.7	0.0	0.5	1.7	5.0	0.9	0.8

Source: WTO Tariff Analysis Online database, 2014. Tariff data corresponds to 2008 for Lao, 2011 for Brunei, 2012 for Cambodia and 2013 for all the other ASEAN members. HS Codes are explained in Table 3

**Table 6b: Trends in Average, Peaks and Dispersions in Ad-Valorem MFN Applied tariffs across ASEAN-6 and ASEAN-10 in intra-ASEAN imports**

<b>HS code</b>	<b>Average (ASEAN-10)</b>	<b>Average (ASEAN-6)</b>	<b>Max across ASEAN-6</b>	<b>Max across ASEAN-10</b>	<b>STDEV (ASEAN-10)</b>	<b>STDEV (ASEAN-6)</b>
15	10.3	12.2	60.4	60.4	18.0	23.7
27	2.5	1.4	3.9	7.2	2.5	1.5
29	2.0	1.1	3.8	6.3	2.3	1.5
39	5.9	5.9	10.7	10.7	3.8	4.7
40	7.6	7.3	19.2	19.2	5.3	6.6
71	4.9	3.1	6.1	14.5	4.3	2.6
72	3.1	3.1	7.0	7.0	2.3	2.8
84	4.5	3.6	7.5	13.3	3.8	2.5
85	7.3	5.9	13.3	16.9	4.9	4.5
87	14.9	13.8	32.2	32.2	9.9	11.0
Simple average MFN for top 10 goods	6.3	6.6	13.2	13.2	3.6	4.4
Minimum across goods	1.5	1.6	3.8	5.0	1.7	1.5

Source: Authors' calculations using WTO (2014); STDEV refers to Standard Deviation measure. Tariff data corresponds to 2008 for Lao, 2011 for Brunei, 2012 for Cambodia and 2013 for all the other ASEAN members. HS Codes are explained in Table 3

**Table 7: Trends in ATIGA Applied preferential tariffs across top ten industries in intra-ASEAN imports, as of 2012**

HS code	ASEAN-6*	Cambodia**	Lao PDR**	Myanmar**	Vietnam**
15- Animal or vegetable fats and oils	0.0	5.0	10.0	0.0	5.0
27 - Mineral fuels, mineral oils and their products	0.0	5.0	5.0	0.0	20.0
29 - Organic chemicals	0.0	5.0	5.0	0.0	0.0
39 - Plastics and articles thereof	0.0	5.0	20.0	3.0	5.0
40 - Rubber and articles thereof	0.0	5.0	10.0	5.0	3.0
71 -Natural or cultured pearls, precious or semi-precious stones	0.0	5.0	5.0	0.0	5.0
72-Iron and Steel	0.0	5.0	5.0	1.0	5.0
84 - Nuclear reactors, boilers, machinery	0.0	5.0	10.0	1.5	5.0
85 - Electrical machinery and equipment	0.0	5.0	10.0	1.0	5.0
87 - Vehicles other than railway	0.0	5.0	40.0	5.0	5.0

Source : Authors' calculations based on ASEAN Secretariat website (<http://www.asean.org/news/item/annex-2-tariff-schedules>).

Note: \* For Indonesia, some products under HS 29 and 87 continue to apply MFN rates.

\*\* The ATIGA tariffs for CLMV countries show peak tariffs of between 5-10% and higher than that for specific products within the above HS 2 digit sectors. Myanmar ATIGA tariffs are based on 2013 data.



**Table 8: Enabling Trade Index Rankings for ASEAN members, 2014**

	Enabling Trade Index 2014 Rankings	Market Access Sub-index		Border Administration Sub-index	Infrastructure Sub-index	Operating Environment Sub-index
		Domestic Market Access	Foreign Market Access	Efficiency and Transparency of Border Administration		
Singapore	1	3	13	1	1	2
Malaysia	25	75	42	33	23	27
Thailand	57	113	12	56	46	75
Indonesia	58	26	37	69	64	61
Philippines	64	19	26	71	89	82
Vietnam	72	76	28	86	60	81
Cambodia	93	133	1	108	101	74
Lao PDR	98	121	4	114	115	68
Myanmar	121	97	6	117	136	134

Source: World Economic Forum (2014)

**Table 9: Changes in Aggregate Welfare due to AFTA and ACU****(Million US \$)**

	<b>Scenario 1</b>	<b>Scenario 2</b>				<b>Scenario 3</b>
	<b>AFTA<sup>1</sup></b>	<b>ACU with CET 5% only<sup>6</sup></b>	<b>ACU with CET 4% only<sup>5</sup></b>	<b>ACU with CET 3% only<sup>4</sup></b>	<b>ACU with CET 2% only<sup>3</sup></b>	<b>ACU with CET 0% only<sup>2</sup></b>
Cambodia	122.36	55.15	79.98	104.46	128.56	175.39
Lao	36.16	15.26	14.32	13.27	12.1	9.34
Vietnam	1270.73	2072.63	2192.47	2299.62	2393.47	2538.53
Indonesia	1064.99	-735.3	-447.97	-172.18	91.13	576.38
Malaysia	1023.62	129.3	584.65	1024.19	1446.4	2232.27
Philippines	978.49	-223.85	-110.97	-11.03	75.52	206.46
Thailand	1332.08	-191.61	81.75	327.97	546	893.28
ROSEAsia	81.19	133.8	136.02	138.66	141.77	149.54
Singapore	877.55	332.23	52.6	-218.97	-482.1	-981.53
OECD	-5434.38	6458.44	7907.87	9362.33	10821.33	13751.25
Rest of World	-1514.17	732.65	1882	3058.3	4262.94	6758.53

Source: Authors' calculations based on EV variable changes in the GTAP database. See Appendix 1 for model aggregation. Scenario 2 assumes that CETs are only applied for imports coming into ASEAN-9 (minus Singapore). It is also assumed that Imports from Singapore continue to be tariff free into intra-ASEAN as per ATIGA in scenario 2.

<sup>1</sup>Represents Scenario 1 of zero tariffs within ASEAN-10 members.

<sup>2</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 0% .

<sup>3</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 2%.

<sup>4</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 3%.

<sup>5</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 4%.

<sup>6</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 5%.

**Table 10: Changes in Real GDP due to AFTA and ACU (%)**

	<b>Scenario 1</b>	<b>Scenario 2</b>				<b>Scenario 3</b>
	<b>AFTA<sup>1</sup></b>	<b>ACU with CET 5% only<sup>6</sup></b>	<b>ACU with CET 4% only<sup>5</sup></b>	<b>ACU with CET 3% only<sup>4</sup></b>	<b>ACU with CET 2% only<sup>3</sup></b>	<b>ACU with CET 0% only<sup>2</sup></b>
Cambodia	2.70	1.58	1.88	2.19	2.49	3.09
Lao	0.91	0.54	0.57	0.60	0.63	0.68
Vietnam	1.60	5.38	5.90	6.43	6.95	7.97
Indonesia	0.22	-0.18	-0.07	0.03	0.13	0.33
Malaysia	0.38	0.02	0.34	0.65	0.96	1.56
Philippines	0.69	-0.24	-0.08	0.08	0.24	0.52
Thailand	0.51	0.04	0.25	0.46	0.66	1.03
RO SEAsia	0.27	0.09	0.14	0.20	0.25	0.34
Singapore	0.21	0.10	0.03	-0.03	-0.09	-0.21
OECD	-0.01	0.01	0.01	0.02	0.02	0.02
Rest of World	-0.01	0.01	0.01	0.01	0.02	0.03

Source: Authors' calculations based on qgdp variable changes in the GTAP database. See Appendix 1 for model aggregation. Scenario 2 assumes that CETs are only applied for imports coming into ASEAN-9 (minus Singapore). It is also assumed that Imports from Singapore continue to be tariff free into intra-ASEAN as per ATIGA in scenario 2.

<sup>1</sup>Represents scenario of zero tariffs within ASEAN-10 members.

<sup>2</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 0% .

<sup>3</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 2%.

<sup>4</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 3%.

<sup>5</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 4%.

<sup>6</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 5%.

**Table 11: Aggregate Changes in Real GDP due to AFTA and ACU (%)**

	<b>Scenario 1</b>	<b>Scenario 2</b>				<b>Scenario 3</b>
	<b>AFTA<sup>1</sup></b>	<b>ACU with CET 5% only<sup>6</sup></b>	<b>ACU with CET 4% only<sup>5</sup></b>	<b>ACU with CET 3% only<sup>4</sup></b>	<b>ACU with CET 2% only<sup>3</sup></b>	<b>ACU with CET 0% only<sup>2</sup></b>
ASEAN-9	0.43	1.21	0.81	0.61	0.40	0.19
Singapore	0.20	-0.21	-0.09	-0.03	0.03	0.10
OECD	-0.01	0.02	0.01	0.01	0.01	0.01
Rest of World	-0.01	0.03	0.02	0.02	0.01	0.01

*Source: Authors' calculations based on qgdp variable changes in the GTAP database. See Appendix 1 for model aggregation. Scenario 2 assumes that CETs are only applied for imports coming into ASEAN-9 (minus Singapore). It is also assumed that Imports from Singapore continue to be tariff free into intra-ASEAN as per ATIGA in scenario 2.*

<sup>1</sup>Represents scenario of zero tariffs within ASEAN-10 members.

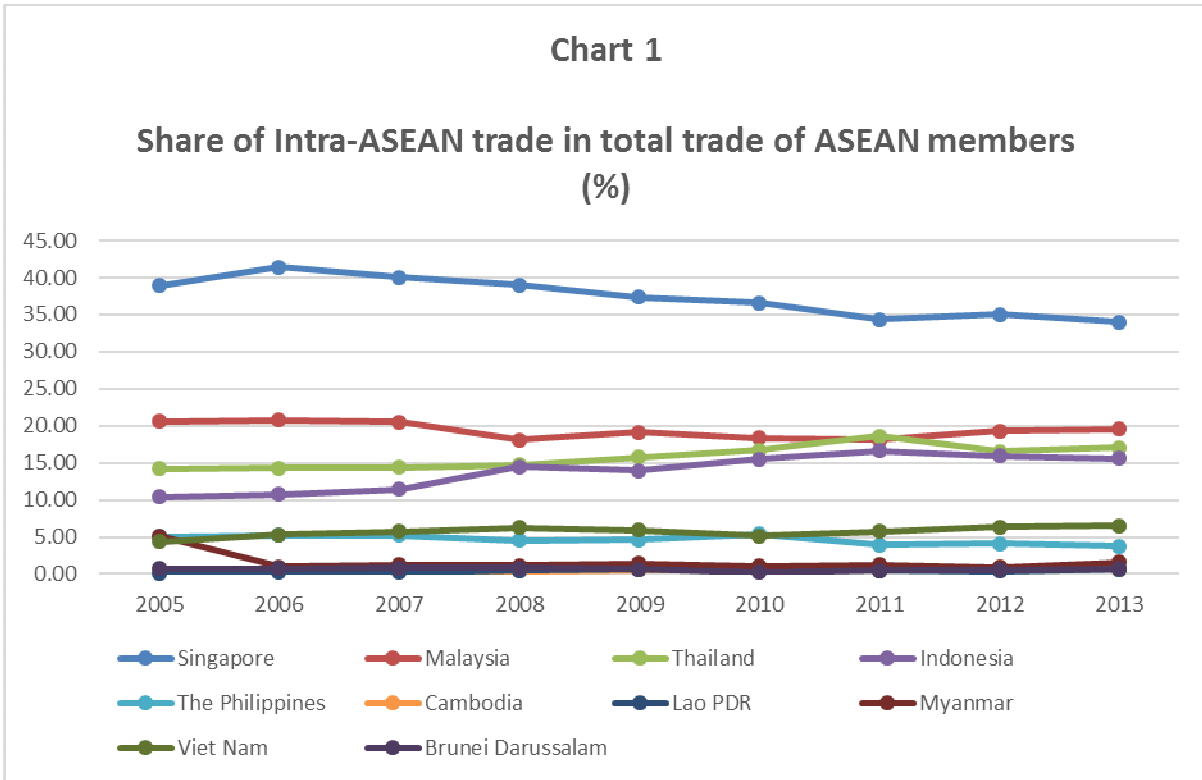
<sup>2</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 0% .

<sup>3</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 2%.

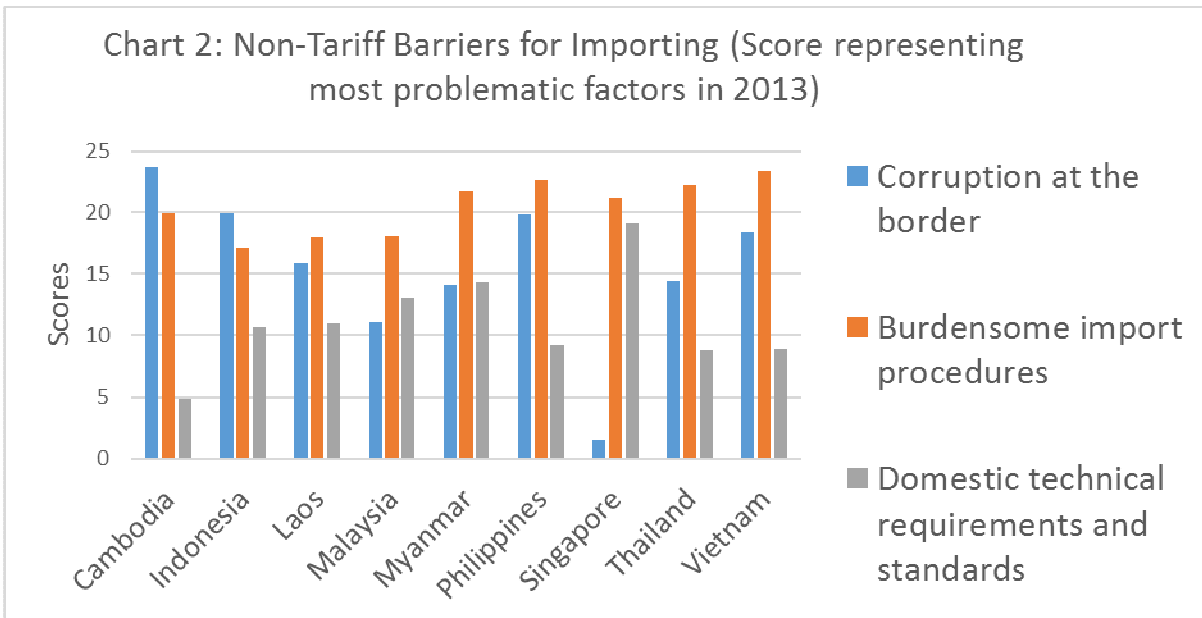
<sup>4</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 3%.

<sup>5</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 4%.

<sup>6</sup> Represents a move from AFTA with zero tariffs to an ACU involving a CET of 5%.

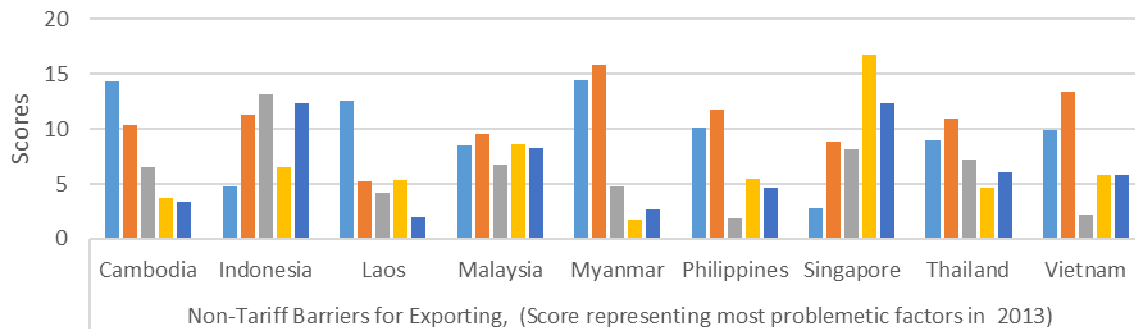


Source: ASEAN Statistical Yearbook 2013, The ASEAN Secretariat



Source: Compiled from World Economic Forum (2014)

**Chart 3**  
**Non Tariff Barriers for Exporting (Scores representing most problematic factors in 2013)**



- Difficulties in meeting quality/quantity requirements of buyers
- Technical requirements and standards abroad
- Corruption at foreign borders
- Burdensome procedures at foreign borders
- Rules of origin requirements abroad

Source: Compiled from World Economic Forum (2014)

**Appendix 1: Regional and Sectoral Aggregations used in the policy simulation**

<b>Regional Aggregation</b>			
<b>No.</b>	<b>Code</b>	<b>Region Description</b>	<b>Comprising old regions</b>
1	Cambodia	Cambodia	Cambodia.
2	Indonesia	Indonesia	Indonesia.
3	OECD	OECD	OECD Member countries
4	Lao	Lao PDR	Lao People's Democratic Republic
5	Malaysia	Malaysia	Malaysia.
6	Philippines	Philippines	Philippines.
7	Singapore	Singapore	Singapore.
8	Thailand	Thailand	Thailand.
9	Vietnam	Vietnam	Viet Nam.
10	ROSEAsia	Rest of Southeast Asia	Rest of Southeast Asia aggregating Brunei and Myanmar
11	RestofWorld	Rest of World	All the remaining GTAP countries
12	ASEAN-9	ASEAN-9 members of the ACU (excluding Singapore)	Aggregation of GTAP regions Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Philippines, Thailand, VietNam, and Rest of Southeast Asia

### Sectoral Aggregation

No.	GTAP Code (HS 2 digit)	Sector Description	Comprising old sectors
1	vol (15)	Vegetable Oil and Fats	Vegetable oils and fats.
2	omn (25, 27, 71)	Minerals, N.E.C	Minerals nec.
3	Agl	Agri, Forestry, Fishing	Agriculture, Forestry, Fishery, Beverages and Tobacco products
4	Extraction (27)	Mining and Extraction	Coal; Oil; Gas.
5	Petro (27)	Petroleum Products	Petroleum, coal products.
6	Crubplas (39 , 40)	Chemicals, Rubber, Plastics	Chemical,rubber,plastic products
7	othmfg	Other manufacturing	Textiles; Wearing apparel; Leather products; Wood products; Paper products, publishing.
8	LightMnfc (71, 72, 87)	Light Manufacturing	Metal products; Motor vehicles and parts; Transport equipment nec; Manufactures nec.
9	HeavyMnfc (84,85 and 87)	Heavy Manufacturing	Mineral products nec; Ferrous metals; Metals nec; Electronic equipment; Machinery and equipment nec.
10	Util_Cons	Utilities and Construction	Electricity; Gas manufacture, distribution; Water; Construction.
11	TransComm	Transport and Communication	Trade; Transport nec; Sea transport; Air transport; Communication.
12	OthServices	Other Services	Financial Insurance Business Recreation and other services; PubAdmin/Defence/Health/Educat; Dwellings.

Source: Based on GTAP 8.1; HS 2 digit concordances with the GTAP sectors are based on HS-6 digit combined –GTAP concordance information available at [http://wits.worldbank.org/product\\_concordance.html](http://wits.worldbank.org/product_concordance.html)