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Abstract

This paper investigates the policy space open to developing countries under the WTO regime. It is apparent that industrial policy options in developing countries are limited by TRIPs, GATS, TRIMs and SCMs agreements under the WTO. However, policy options are not fully closed, and a narrower range of policy options is still available for developing countries today. This paper examines the contrasting development of the automotive industry in Thailand and Malaysia from the perspective of industrial policy option as a case study.

Keywords

WTO, Industrial Policy, Automotive Industry, Thailand and Malaysia

1. Introduction

The establishment of the World Trade Organization (WTO) in 1995, and the continuing influence of the Washington Consensus and its accompanying neo-liberal policy prescriptions, have lessened the policy space, or range of policy options, in developing countries in recent years (Gallagher 2005, Khan 2007, UNDP 2005, Wade 2003). Several studies have argued, however, that even though policy options have been significantly diminished with the rise of the WTO, they are not fully closed down: rather, a narrower range of options are still available for developing countries today (Amsden and Hikino 2000, Rasiah 2005, Rodrik 2004, Shadlen 2005 and UNCTAD 2006).

The aim of this study is firstly to survey the policy space open to developing countries under the WTO regime in terms of four agreements: the Agreement on Trade-Related Aspect of Intellectual Property Rights (TRIPs); the General Agreement on Trade in Services (GATS); the Trade-Related Investment Measures (TRIMs); and the Agreement on Subsidies and Countervailing Measures (SCMs).

Secondly, this study examines the automotive industry in Thailand and Malaysia as a case study. The Thai government, which liberalised the country's automotive industry by abolishing local content requirements (LCRs) in response to WTO rules in 2000, and since 2002 has introduced a selective industrial policy in order to attract foreign direct investment (FDI) and to expand the automotive and related parts industry. The government targeted particular national *product champions* by picking winning models to be developed in the Thai market, and by linking them with successful fiscal policies, such as the provision of excise tax reductions for particular types of models, hence

creating a particular market. At the same time, it provided corporate tax exemptions for producers and their suppliers by linking with some local requirements that are contradiction to WTO rules (ARD-A). In contrast, the Malaysian government created *national champion firms* (picking winners) in the automotive industry. After finally liberalising the industry by abolishing LCRs and other preferential policies for national car producers in 2004 the Malaysian government implemented new schemes, such as the Industrial Adjustment Fund and the Industrial Linkage Programme, which serve as indirect protection for the national producers, allowing them to receive various financial benefits according to their local content ratio (ARD-B).¹ These policies are not necessarily illegal under the WTO rules, but can be protested against.

This article investigates how the Thai and Malaysian governments shifted their automotive industry policies from the pre-WTO period to the current WTO regime, and examines how these policy differences have effected the development of the automotive industry in comparative perspective, and includes a case study of one Japanese automotive producer in the region. We use a wide range of secondary and survey resources, including Japanese literature, together with a programme of qualitative interviews undertaken in 2010, 2011 and 2012. Section 2 now sets out to examine policy space under the WTO regime. Section 3 explores the automotive industrial policy in Thailand and Malaysia before and under the WTO regime and examines comparative differences in the policy orientation in recent years. Section 4 concludes.

2. Policy Space under the WTO regime

¹ National producers such as Proton have much higher local content ratio in comparison with foreign producers such as Toyota (see the later section).

The World Trade Organization (WTO) was established in 1995 as a result of the Uruguay Round (1986-1994) trade negotiations held under the auspices of GATT, the General Agreement on Tariffs and Trade. Under the WTO, a new set of agreements on 'trade-related' activities, was introduced beyond traditional tariff reduction agreements. The following four new agreements – TRIPs, GATS, TRIMs and SCMs – were set up under the WTO regime.

TRIPs

The TRIPs agreement established the protection of intellectual property rights (IPRs), such as trademarks, copyrights, industrial designs, and patents. TRIPs supporters argue that strong protection of IPRs would enhance increased flows of FDI and facilitate technology transfer to developing countries, and consequently stimulate local innovation capacity (Correa 2005, p. 126). However, Helpman's (1993) empirical analysis suggested that strong protection of IPRs would not enhance the welfare of developing countries. Similarly, Kumar (2003) shows that the TRIPs agreement adversely effects technological activity in developing countries by limiting the knowledge spillovers from developed countries. Correa (2000) had indicated too that there is no persuasive evidence, showing that TRIPS enhance higher return to knowledge generation in developing countries, but that it does it cause a significant revenue transfer from developing countries to developed countries. UNDP (2005) argues that the TRIPs agreement has rather been widening the technological gap between developed and developing countries (UNDP 2005, p. 135). In historical perspective, today's developed countries, including the United States, European countries and Japan employed industrial and technology policies to promote domestic

industrialisation: reverse engineering, imitating and copying technologies developed were critical elements in the process of economic catch-up (Chang 2002). By the same token, East Asian late industrialising countries have successfully upgraded local industries by *borrowing technology* (Amsden 1989). What is different under the WTO regime? The current developing countries cannot pursue the same policies as the current developed countries and East Asian countries did in the past, because the TRIPs limit developing countries' access to technology and knowledge. In another words, the policy space for such technology policies has been shrunk, and the upward ladder towards development has partly been *kicked away* (Chang 2002).

GATS

The GATS agreement restricts government intervention in the market and the regulation of the behaviour of multinational corporations operating in their country. In the definition of GATS, investment is included under 'trade', thus GATS also can be considered as an investment agreement (Brewer and Young 1998, Wade 2003). GATS covers four modes of supply, namely cross-border, consumption overseas, commercial presence and temporary movement of people (UNDP 2005, p.136). In addition, GATS requires 'most favoured treatment', in which a government must treat firms from all WTO members equally, and 'national treatment', in which a government must treat WTO member's and domestic firms equally (Wade 2003, p.629). From a pro-GATS perspective, strict discipline over trade distorting policies reduces discrimination, facilitates domestic policy reform, and consequently enhances welfare for all (Adlung 2000). However, an UNCTAD study found that there is no empirical evidence for this, indicating a relation between a significant increase in investment flows to developing

countries and the conclusion of GATS (UNCTAD 2000, p.172). In addition, a UNDP study was concerned with the role of GATS in relation to human development goals, particularly within the water, health and education sectors, instead emphasising the importance of national strategies (UNDP 2005, p.136). Resistance built towards GATS, which was particularly derived from a desire to protect socially, politically, and environmentally sensitive space for domestic policy. From a con-GATS perspective, it encroaches upon domestic policy autonomy (Cho and Dubash 2005). In this context, the GATS agreement diminishes the development policy space in developing countries.

TRIMs

The TRIMs agreement relates a country's investment policy to the core rules of the multilateral trading regime by identifying measures that are inconsistent with national treatment and outlawing applications of performance requirements and quantitative restrictions, such as LCRs, trade balance requirements, foreign exchange balancing requirements and export restrictions (Brewer and Young 1998, UNCTAD 2006). In the past, many developing countries have employed performance requirements in order to enhance backward linkages from foreign firms to local firms, although such linkages are not necessary 'good linkages' in the sense of producing internationally competitive activities (Thoburn 1973). For instance, LCRs, which placed an obligation on foreign investors to source components locally, were one of the commonly used policies, by aiming to increase domestic value added, job creation and technology transfer. Similarly, trade balance requirements, which obliged foreign investors to include sufficiently high levels of domestic input in exports to offset imported inputs, were used as a means of integrating the affiliates of the host country into global production networks (Shadlen

2005, UNCTAD 2006). Under TRIMs, such performance requirements are banned. As under TRIPs, the policy space for such industrial policies has been reduced in developing countries by TRIMs.

SCMs

SCMs establish multilateral disciplines for regulating the provision of subsidies, which cover only goods (not services), which are classified into two categories. The first category is 'prohibited' subsidies that are considered as distorting international trade and hurting other countries. Prohibited subsidies include export subsidies (to encourage recipients to meet certain export targets) or local content subsidies (to encourage recipients to use domestic inputs rather than imported inputs). However, least-developed countries and developing countries with per capita income below US\$1,000 are exempt from this prohibition. The second is 'actionable' subsidies that are not necessary illegal but can be declared as such if another country demonstrates proof of injury. There are three types of injury: i) damage to domestic industry in importing countries, ii) serious prejudice as a result of adverse effect in a third country market, iii) nullification or impairment of benefits accruing under GATT 1994 (typically, improved market access presumed to flow from a bound tariff reduction is undercut by subsidisation).² The third category, 'permissible (non-actionable)' subsidies to promote R&D (up to 75 percent of research costs and 50 percent of pre-competitive development); regional development (assistance to disadvantaged regions or unemployment); environmental objectives (assistance to introduce plant and equipment for new environmental regulations) existed

² WTO's Website: http://www.wto.org/english/tratop_e/scm_e/subs_e.htm [accessed on the 24th June 2012]

until December 1999, have now integrated into the actionable subsidies category (Dunkley 1997, pp.59-60; UNCTAD 2006, p.170).

How open is policy space now?

Since the establishment of the WTO in 1995, policy options in developing countries have significantly diminished. The most critical question is how far policy space actually has been closed. Where the space is still open, what types of policy can developing countries employ? Some researchers, such as Lee and Han (2006) and Moon and Rhyu (2000), are pessimistic in relation to the role of the state in the WTO era, arguing that such policy reforms resulted in the closing of policy space and the end of East Asian style developmental states. In contrast, others, such as Amsden and Hikino (2000), Rasiyah (2005), Rodrik (2004), Shadlen (2005) and UNCTAD (2006), argue that developing countries still have policy space for development, although a narrower range of policy options is available today.

There are several further issues in relation to policy space under WTO rules. Firstly, one of the biggest changes is in relation to ownership – domestic versus foreign firms. Policies based on favouring local firms are no longer allowable. But as long as governments treat domestic and WTO members' firms equally, policy space still exists. In addition, FDI regulating measures that do not violate national treatment or impose quantitative restrictions continue to be consistent with WTO rules (UNCTAD 2006). This is related to the second feature. Development policies related to science and technology, regional development, environment, infrastructure, human capital and capacity building are still usable under the WTO regime. In this regard, governments

can require foreign firms to transfer technology by specifying a certain proportion of R&D activity locally or license a specified technology to a local firm (UNCTAD 2006, p.169), and can also influence foreign firm's employment practice with the aim of enhancing human capital and skills (Shadlen 2005, p.759). Similarly, Amsden and Hikino (2000) argue that developing countries can continue to support their own particular industries by providing government assistance in the name of science and technology. For instance, countries such as Korea, Taiwan, China and India have recently established science parks and targeted industries, including biotechnology, by providing subsidies, tax incentives and special loans to catch up to more advanced countries. Thirdly, in relation to performance requirements and fiscal policy, Dunkley (1997, pp.67-68) asserts that TRIMs can be classified into 'positive' (e.g. tax concessions to attract investment) or 'negative' (various requirements imposed on foreign investors) policies. In fact, governments can control foreign participation in a particular sector's economy through the provision of tax incentives (Shadlen 2005, p.759). In this context, policy space is still open. In sum, the WTO rules still allow developing governments to select strategic industries or particular operations and functions (such as R&D, human resource development, regional headquarters) for industrial development. This can be still done by employing discretionary power in providing subsidies or positive tax incentives. The next section now examines the development of the automotive industry in Thailand and Malaysia from the perspective of policy space and industrial policy, with particular attention to TRIMs and SCMs.

3. The Automotive Industry in Thailand and Malaysia

3.1 Automotive Industrial Policies before the WTO Regime

Thailand

The automotive industry in Thailand up to 1960 was based on repair business with importation of completely built up (CBU) vehicles. The Thai automotive industry was established in the 1960s as an integral part of import substituting industrialisation (ISI) policies, in collaboration with foreign capital by introducing the first Thai industrial policy, the 'Industrial Investment Promotion Act' in 1960. Consequently, seven joint venture (JV) firms, including Ford and Toyota in association with local capital, started conducting local assembling operations by imported completely knocked down (CKD) kits in the 1960s. During the 1960s, the Thai government's policy was based on tariffs, setting relatively high tariff rates in order to stimulate the domestic automotive market, providing 30 percent for CKD passenger vehicles (PVs) and 20 percent for CKD commercial vehicles (CVs) and 60 percent for CBU PVs and 40 percent for CBU CVs in 1962 (Adachi 1987). Since the tariffs on CBU vehicles were higher than on CKD kits, the effective protection (that is, protection on value-added) was higher on vehicles than their nominal tariffs indicate.

With an aim of enhancing more locally value added activities, the Thai government shifted their development policy slightly in the 1970s by employing various performance requirements. Following the Federation of Thai Industries' strong criticism of trade payment deficits, caused by the importation of CKD kits and the failure to develop a long-term industrial strategy (Doner 1991), the government introduced the first automotive specific industrial policy in 1971, consisting of a LCR of 25 percent; limits on the number of models and series in order to achieve economies of scale; and requirements for new market entry for over 0.2 million baht of investment capital (except for land) and production capacity of 30 units per day (Adachi 1987, Kaosa-ard

1993).³ Moreover, the government supported further localisation policies based on increases in LC ratios and the introduction of a mandatory deletion⁴ programme (MDP), by targeting in 1978 specific parts to be localised (Doner 1991; Higashi 2000). These localisation policies forced foreign assembly firms into two groups. Large assemblers, such as Toyota and Nissan, were able to meet the requirements and increased investment in components production. In contrast, smaller assemblers, such as Hillman and Simca, could not meet the localisation policies, and were subsequently eliminated from the market in the late 1970s. In 1989, the Thai government also mandated assemblers to use locally-made diesel engines for their pick-up trucks. In the period of the late 1970s and 1980s, the Thai automotive industry was highly protected by tariffs (e.g. 300 percent for CBU PVs over 2,300 cc) and import bans (for CBU PVs under 2,300 cc), and the rate of LCRs reached over 50 percent.

The Thai government began pursuing liberalisation in the automotive sector for the first time in 1991, by lifting the import ban and substantially reducing tariffs on both CBUs and CKDs. Foreign ownership restriction to less than 49 percent, enacted in 1979, was also relaxed, and eventually 100 percent ownership became possible (Yoshimatsu 2002). Yet though the Thai government introduced liberalisation in the automotive industry, the LCRs kept increasing, finally reaching a peak of 72 percent for pick-up trucks with diesel engines in 1994. In 1996, the government eventually announced the abolition of the LCRs by July 1998, prior to the WTO target date, and was finally enacted in January 2000, delayed due to the effects of the Asian Crisis in 1997 (Terdudomthan 2004, pp.

³ Policies limiting the number of models and series and production capacity failed due to political changes and new automotive assembly firms (Higashi 2000).

⁴ That is, particular components would be required to be *deleted* from CKD kits.

39-40).

Malaysia

Like Thailand, the automotive industry in Malaysia up to the mid 1960s was based on the repair business with importation of CBU vehicles. The Malaysian government introduced two schemes in order to encourage the local automotive industry: the import license, or so-called “Approved Permit (AP)” system, in 1966, and the Manufacturing License (ML) system in 1967 (Abdulsomad 1999, Jayasankaran 1993, Torii 1991a). After an initial approval of six companies, the Malaysian government restricted the establishment of new assembly plants, with exception of Tan Chong Motor Assemblies (assembly firm for Nissan), in 1974. In 1976, the Malaysian government shifted their approval criteria, based on i) a relatively high level of local indigenous capital and ii) building a plant in the government’s development priority areas, in order to enhance local indigenous Malay (*bumiputera*)⁵ participation in the automotive industry (Torii 1991b).

Like Thailand, the Malaysian government started employing a performance requirement policy for the MDP in 1980, requiring foreign assemblers to produce thirty specified components locally, rather than importing components, and providing investment incentives and tariff protection for components producers and duty exemptions and penalties for assemblers (Doner 1991; Tham 2004). As a result, the local content levels increased from only 8 percent in 1979, to 18 percent in 1982, and reached 30 percent in 1986 (Jayasankaran 1993, p. 273-274). In 1991, the government adopted a new Local

⁵ The term also includes some other indigenous people in Malaysia, but ethnic Malays predominate.

Material Content Policy, which required an increase of LC every year, reaching 60 percent for PVs of less than 1,850 cc and 45 percent for PVs of 1,851- 2,850 cc by 1996. Consequently, Malaysia's national car, Proton,⁶ achieved a 67 percent local content ratio in 1995 (Abdulsomad 1999, p.290).

The biggest difference between the Thai and Malaysian automotive policies is Malaysia's national car project (NCP). In the early 1980s, the Malaysian government initiated the second stage of ISI with strong state intervention, with a strong secondary aim of enhancing *bumiputera* participation in heavy industries. In 1983, the first Malaysian national car company, Proton, was established as a JV between the state-owned enterprise of Heavy Industry Corporation of Malaysia (HICOM), Mitsubishi Motors Corporation (MMC) and Mitsubishi Corporation (Jomo 1994; Tham 2004). This NCP aimed to develop supporting industries, encourage the upgrading of technology and technical skills, and provide an affordable, original automobile in the market through *bumiputera* participation in the industry (Anazawa 2006, Torii 1991a, Jomo 1994). By the same token, 10 years later in 1993, a second national car company, Perodua⁷ was established as a JV between Daihatsu Motor and Malaysian firms, with the aim of producing small sized vehicle with an engine capacity of 660 cc.

In parallel to the NCP, the Malaysian government aggressively developed the automotive components industry by employing a state-led development model. The government assigned Proton to promote the development of small and medium sized enterprises (SMEs) in the country through the 'Vendor Development Programme

⁶ *Perusahaan Otomobil Nasional* - National Automobile Enterprise, in Malay

⁷ *Perusahaan Otomobil Kedua* - Second Automobile Enterprise, in Malay.

(VDP)', aiming to create greater industrial linkages between a large firm and its components suppliers. Indeed, the Ministry of International Trade and Industry of Malaysia (MITI) provided a total of RM 22 million in subsidies to Proton in the period of 1986-1995, in order to expand *bumiputera* participation in high-technology component manufacturing, as well as supporting industries, such as forging, electroplating, tool-making and machining (Abdulsomad 1999, p.292). Consequently, the number of components suppliers for Proton increased rapidly, from 17 firms in 1985, to 134 in 1994, 186 in 1999, and reached a peak of 291 in 2005 (Fourin 2008, p.62; Rosli and Kari 2008, p.108).

In order to assist the national car producers, the Malaysian government employed a series of discriminatory and protective policies, which contravene the current WTO rules. With regards to tariffs on components, the Malaysian government set preferential treatment for national car producers. CKD kits were imposed at a 40 percent import duty, while national car producers were exempt from this requirement until the early 1990s, and later set at only 13 percent in July 1992 until December 2003. By the same token, national car producers were given a 50 percent discount on excise duties until December 2003. Furthermore, the government also exclusively provided low interest, subsidised automotive loans for the purchase of national cars for public servants, in order to expand market demand for national cars within the country (Anazawa 2006).

3.2 Automotive Industrial Policies under the WTO Regime

Thailand

Since 2000, when the Thai government completed the liberalisation of the automotive

industry by lifting LCRs in response to the WTO, Thailand has not shifted its policy orientation simply to *laissez faire*; rather it has started using discretionary powers that are still compatible with the WTO rules. To be precise, the Thai government started employing a selective industrial policy by *picking a winner* vehicle model, or *product champion*, and linking this with effective fiscal policy and some local production incentives. The Thai government selected pick-up trucks as the first product champion, and later ‘eco cars’, creating particular segment of market demands that were used as leverage to attract foreign investments into particular models of production. In order to do this, the Thai government modified the excise tax rates (e.g. decreasing for double-cab pick-up trucks⁸ from 35-48 percent to 12 percent and for Eco Cars from 30 percent to 17 percent) for consumers on the one hand, while on the other, the government provided corporate tax exemption in order to attract foreign investors.

In 2002, the Thai government introduced a ‘New Automotive Investment Policy’, aiming to attract foreign investment and to develop Thailand into a regional centre for the automotive industry in Southeast Asia. This policy targeted the pick-up truck as the *first product champion* of Thailand, providing favourable tax incentives⁹ and reducing the excise tax rate prior to the policy. The beneficiaries of this scheme were not only assemblers, but also their parts suppliers. More importantly, the government planned to establish R&D and regional operating headquarter functions in order to upgrade the industry, through provision of various tax incentives under the scheme.

⁸ Single-cab pick-up truck retained the lowest rate of 3 percent.

⁹ Incentives included exemption of import tariff on machinery and three years corporate tax including parts suppliers in the case of over 10 billion baht projects (Fourin 2002, pp.214-215).

Further, in 2004, the populist Thai government of Thaksin Shinawatra introduced the automotive development plan ‘Detroit of Asia’, later renamed ‘Production of Asia’. This plan targeted 2.5 million units of CBU vehicle production, and aimed to join the top ten automobile producers in the world by 2016.¹⁰ Along with this plan, the government selected the ‘Eco Car’ as the *second product champion* in 2007, due to the expectation that, as the income and ecological consciousness of the middle class grows, there will be a shift in demand from pick up trucks to smaller, more economical and ecological passenger vehicles (PVs).

Table 1. Overview of the Eco Car Project

1. Requirements	
Engine size	Diesel engine - under 1,400 cc / Gasoline engine - under 1,300 cc
Mileage	Over 20 km per litter
Environmental standard	Meeting Euro 4 exhaust gas standard and under 120 g of CO2 emission per 1 km mileage
Safety standard	Meeting UN/ECE regulation article 94 and 95
Investment	Over 5 billion baht investment
Local production requirement	Local production requirements for vehicles and engines and for 4 out of 5 component items (cylinder head, cylinder block, crankshaft, camshaft, connecting rod). Additional requirement for local machine work for 3 items (cylinder head, cylinder block, crankshaft)
Production Volume	Over 100,000 units of production after 5 years the project commences
2. Benefits	
Excise tax	17% (the rate of under 2,000 cc and 220 hp engine vehicle is normally 30%)
Corporate tax	Maximum of 8 years tax exemption for Eco Car project, but the amount of tax exemption should not exceed investment amounts
Tariffs	Import tariff exemption for all production equipment and machineries, and maximum of 90% of tariff exemption for input materials for 2years

Source: ARD-A, adapted from Fourin (2011, p.191)

Under the Eco Car scheme, the government tactically linked their fiscal policies,

¹⁰ Interview with the President of TAIA on the 23rd August 2011. Indeed, Thailand successfully became the top 9 producer in the world in 2012.

including excise tax reduction, corporate tax exemption and tariff exemption, to local production requirements in 4 out of the 5 most important engine components (see Table 1). The Thai government carefully selected which technology should be localised, and encouraged *local production* by offering several favourable tax incentives. In the view of Dunkley (1997), this policy is considered as a *positive* TRIMs application.

Malaysia

The Malaysian government became concerned about Proton's heavy technological dependence on Mitsubishi Motors, including MMC's high licensing fees and their reluctance to share the latest technology (Jomo 1994). In order to develop its own technology and R&D capacity, Proton took over the British Lotus International Group in 1996 (Fourin 1999), a producer of high-performance sports cars. However, although Proton developed their own engines and platform in collaboration with Lotus, Proton suffered from weak product development and marketing capacity, and failed to supply what consumers wanted in the market.¹¹ In addition, Proton's export strategy also failed in the early 2000 (Wad and Govindaraju 2011). Consequently, Proton has been facing a serious sales slump and the country's leading position has been taken over by Perodua since 2005. Additionally, due to MMC's financial problems in Japan and diminishing sales in Malaysia, they sold their equity holdings in Proton in January 2004. Furthermore, Lotus became a heavy financial burden for Proton as a solitary source of technology transfer. The VDP also became a burden on Proton, resulting in higher costs and poorer quality components (EIU 2005, p.17).

¹¹ Interview with Vice President of MACPMA on the 21st February 2012.

Under such circumstances, and in response to the WTO, the Malaysian government had to introduce its first liberalisation policy, which came into effect in January 2004.¹² This included the lowering of tariffs; the abolition of performance requirements, such as LCRs and MDP; and removal of the preferential tariff rate of CKD kits and excise duties on national producers. In particular, the WTO requested the Malaysian government to abolish LCRs and the MDP by January 2000 (which was eventually extended to January 2004), as they saw Malaysia's performance requirement policies as a violation of the TRIMs agreement (Alavi and Hasan 2001, p.30).

However, Malaysia's tariff and excise tax policies in the automotive industry after the liberalisation were rather controversial. Although all the tariffs on CBU and CKD vehicles were reduced,¹³ the government introduced a new excise duty system by compensating the reduction of tariffs in 2004. In March 2006, they also introduced the National Automotive Policy (NAP), which linked tax refunds of the excise duty according to the level of local content ratio, enabling the Malaysian government to protect local national car producers that, in general, use locally made components of lower cost and quality.

In accordance with the NAP, the Malaysian government implemented several schemes. The Automotive Development Fund (ADF)¹⁴ was established in order to rationalise and

¹² 11 mandatory delete items were removed in 2002 and 19 items were abolished in 2004.

¹³ For example, the tariff on CBU PVs with less than 1,800cc engine decreased from 140 percent to 80 percent in 2004 and 30 percent in 2006, and to 70 percent in 2004, 5 percent in 2006 and zero percent in 2011 under the CEPT scheme. The excise tax on the same category of CBUs and CKDs was imposed by 90 percent in 2004 and 75 percent in 2006.

¹⁴ To be eligible for the scheme, the vendor must be a member of either the Proton Vendor Association, Perodua Vendor Association or MACPMA, and is entitled to access a maximum of RM 10 million.

restructure supporting industries by providing low interest loans to vendors, which could allow the merger and acquisition of weaker vendors affected by the reduction of CKD tariffs (Onozawa 2008). Proton had a lot of weak suppliers, so the reorganisation of its supply chain networks was inevitable.

More controversially, the Malaysian government introduced two industrial policies that were linked to local content: i) the Industrial Linkage Programme (ILP), which makes assemblers eligible for a refund of the excise duty according to the level of locally added value¹⁵(METI 2011, pp.90-91); and ii) the Industrial Adjustment Fund (IAF), which enables assemblers to receive a subsidy based on scale and industry linkage subject to a sustainable level of overall capacity - namely the level of local content¹⁶ (MACPMA 2008, p.8).

These industrial policies are indeed very contentious. It is true that there is no direct discrimination between national and foreign assemblers,¹⁷ and in this regard, these policies do not directly contradict WTO rules. However, it is obvious in practice that national car producers get a lot of advantages. They are more likely to access a higher excise tax refund, which enables them to set lower selling prices¹⁸ to their dealers. For example, Proton's major models, such as Saga and Wira, are estimated to have a local content ratio of up to 90 percent.¹⁹ In contrast, Japanese models are estimated to have a

¹⁵ Local added value = ex factory value – input material value (= local procurement costs + labour costs + direct expenditure + profit). The scheme requires over 30 percent of LAV for less than 2500 cc engine cars and 25 percent for over 2,500 cc (METI 2011).

¹⁶ Further consideration will be provided to firms that promote sustainable and competitive *bumiputera* participation.

¹⁷ To be precise, extra consideration is based on race (indigenous) background, not nationality.

¹⁸ Dealer prices include vehicle price, excise tax and sales tax.

¹⁹ Note, though, that this figure would exclude indirect import content, as when a

local content ratio of 40-50 percent.²⁰ In short, technically, the Malaysian government has been maintaining protection for national car producers through new local production incentives under the WTO regime. In this context, the nature of the Malaysian automotive industrial policies have retained their protectionist stance towards Proton.

Furthermore, two non-tariff barriers, the AP system in 1966 and ML system in 1967, which are not conformity with the WTO rules, continue in the Malaysian automotive sector.²¹ With regard to the AP system, Open AP (for used vehicles) and Franchise AP (for particular producer's new vehicles) would be abolished by December 2015 and by December 2020, respectively (MITI 2009). With regards to ML, the Malaysian government froze issuances of new ML while still protecting small size engine vehicles. This is not a problem for already existing automotive producers in the market, such as Toyota and Nissan, but might be a problem for newly advancing automotive producers, such as Indian TATA Motors.²²

3.3 Comparative Performance Differences between Thailand and Malaysia

Production, Domestic Sales and Export

Although the automotive industrial policies of Thailand and Malaysia have differed since the mid 1980s, the volume of vehicle production in both countries evolved along a similar path of development until early 2000. However, a significant difference in

component is assembled locally using imported sub-components.

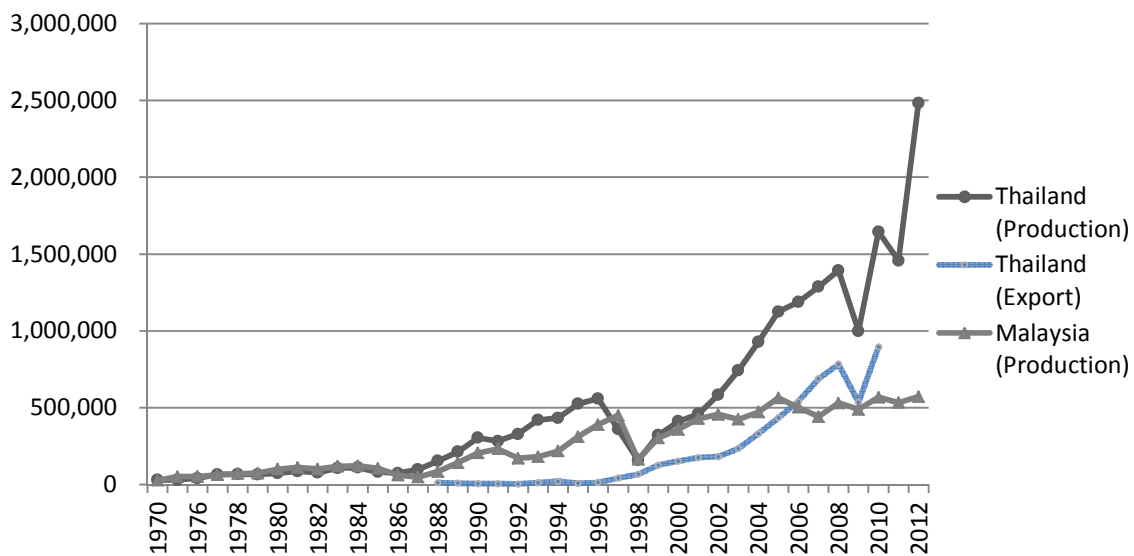
²⁰ Perodua's Myvi is estimated at 60-70%. Interview with Malaysian Automotive Association on the 2nd March 2012.

²¹ Malaysia is an original WTO member. During the trade review with WTO, the Malaysian government explained the special circumstance of the Malaysian automotive sector, including the *bumiputera* policy, and the WTO understood the situation (Interview with the Deputy Secretary General in MITI, Malaysia on the 28th February 2012).

²² Interview with Commercial Attaché at the Japanese Embassy in Malaysia on the 23rd February 2012.

production has appeared since 2002, with Thailand's rapid growth in vehicle exports that can be explained in substantial part as a result of Thailand's *product champion* policy (see Figure 1).²³

Figure 1. Automotive Production and Export in Thailand and Malaysia, 1970-2012



Unit: Number of Vehicles

Source: Data Compiled from Fourin (various years) and OICA (International Organisation of Motor Vehicle Manufactures)

In 2012, Thailand was ranked as the 9th largest automotive producer in the world, accounting for 2,483,043 units in production and 1,380,000 units in domestic vehicle sales, while Malaysia was ranked at 23rd, accounting for 572,150 units and 627,753 units, respectively (OICA Website²⁴). Although the domestic market in Thailand was twice as large as that of Malaysia, the total vehicle production in Thailand was 4 times

²³ Automotive exports from Thailand were also driven initially by the collapse in the Thai domestic market following the Asian crisis of 1997 (ARD-A).

²⁴ OICA Website: <http://oica.net/category/production-statistics/> [accessed on 19 March 2013].

that of Malaysia. This indicates Thailand's export capacity in the automotive industry. With regard to market share, Japanese automotive producers dominated the Thai market, with approximately 90 percent. In contrast, national car producers, such as Perodua and Proton, occupied the leading position in Malaysia (see Table 2).

Table 2. Market Share by Producers in Thailand and Malaysia in 2010

Rank	Thailand			Malaysia		
	Firms	Number	%	Firms	Number	%
1.	Toyota	326,007	40.7	Perodua	188,641	31.2
2.	Isuzu	152,787	19.1	Proton	157,274	26.0
3.	Honda	114,056	14.3	Toyota	91,990	15.2
4.	Nissan	54,388	6.8	Honda	44,483	7.4
5.	Mitsubishi	39,549	4.9	Nissan	32,998	5.5
Others	-	113,570	14.2	-	89,770	14.8
Total	-	800,357	100.0	-	605,157	100.0

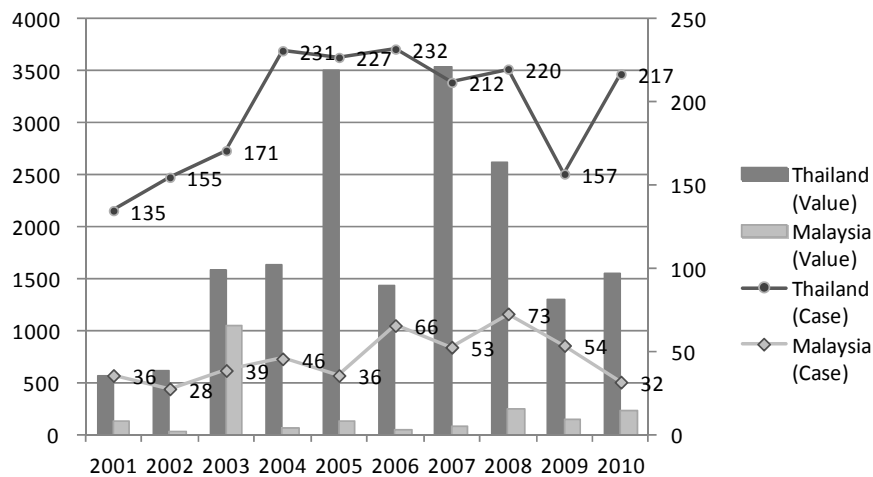
Source: Data Compiled from Fourin (2011, p.198 and p.244)

Over the period 2000-2012, Thai automotive production grew 6 fold, while Malaysia accounted for approximately 1.6 fold. Moreover, Thai exports increased over 5.8 fold from 152,836 units in 2000 to 895, 855 units in 2010, and finally its exports overtook domestic sales. This phenomenon can be explained as a result of Thailand's successful industrial policy of *product champion* strategy, focussing initially on one-ton pick-up trucks and later eco-cars, accompanied by the decision of major Japanese motor assemblers to make Thailand a regional centre of production. It is apparent that Thailand has become a regional hub of the automotive industry in Southeast Asia and one of the leading automotive producing countries in the world. In contrast, Malaysia accounted for 55,603 units of a net import of vehicles in 2012.

FDI

Figure 2 shows the inflow FDI into the automotive sector in Thailand and Malaysia. According to Thailand’s official statistics, the automotive industry is included in the Metal Product & Machinery category. Therefore, it might be difficult to compare the two countries. However, we can identify some differences, particularly that the accumulative automotive FDI amounted to US\$18.36 billion and 1,957 cases in Thailand and US\$ 2.2 billion and 463 cases in Malaysia in the period of 2001-2010 (see Figure 2). More importantly, in terms of FDI from the largest automotive investor in the region of Japan, Thailand attracted approximately 20 times more Japanese FDI than Malaysia in the period 2005-2010. During this period Thailand received 445.5 billion yen (approximately US\$5.1 billion²⁵), while Malaysia attracted only 22.6 billion yen (US\$ 260 million) (see Figure 3).

Figure 2. Transport Equipment FDI in Thailand and Malaysia, 2001-2010

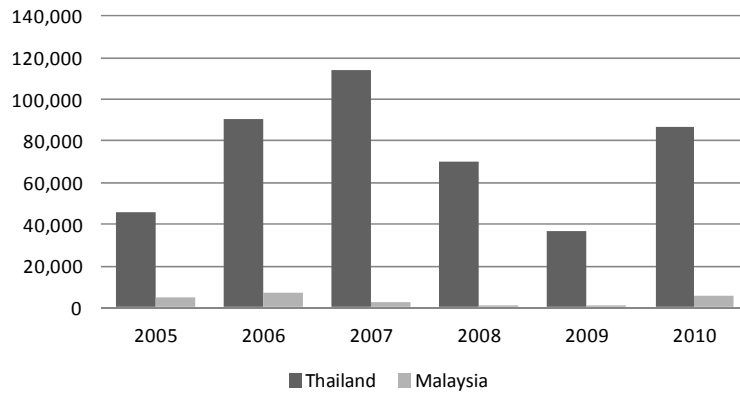


Note: 1) Unit, US\$ Million; 2) Approved project basis; 3) Category of Thailand: Metal Product & Machinery (including Transport Equipment); 4) Category of Malaysia: Transport Equipment
 Source: Data Compiled from ASEAN-Japan Centre Website²⁶

²⁵ 1 US\$ = 86.8 yen (the average exchange rate in 2010)

²⁶ <http://www.asean.or.jp/ja/asean/know/statistics/5.html> [accessed on the 13th August 2012]

Figure 3. Japanese Transport Equipment FDI in Thailand and Malaysia, 2005-2010



Note: Unit, Million Yen

Source: Data Compiled from ASEAN-Japan Centre Website

Supporting Industry

Although the number of assemblers in both countries is similar (16 assemblers in Thailand and 15 assembly plants in Malaysia), there is a significant difference in the level of supporting industry. Thailand has over 3.5 times more vendors (component suppliers) than Malaysia, with approximately 2,390 vendors (from 1st to 3rd tier suppliers), of which, 690 firms are classified as a 1st tier suppliers, 47 percent are foreign majority JV firms, 30 percent are Thai majority JV firms, and 23 percent are 100 percent Thai firms. The rest of 1,700 firms are classified as 2nd or 3rd tier vendors, which are locally owned small and medium sized enterprises (SMEs). In Malaysia, there are approximately 690 vendors (from 1st to 3rd tier suppliers), which equals the number of 1st tier suppliers in Thailand, of which 70 percent are 100 percent Malaysian or Malaysian majority JVs, while 30 percent are foreign or foreign majority JV vendors.

With regard to employment creation, the Thai Automotive Industry Association (TAIA) estimated that the automotive and auto parts industry generates approximately 400,000

jobs,²⁷ while the Malaysian official statistics indicate that automotive and parts industry generates 47,947 jobs within the country (Department of Statistics, Malaysia 2011:60-61).²⁸

Case Study: A Japanese Automotive Producer's Response to the Industrial Policies

As we showed, there are significant differences in the level of development of the automotive industry between Thailand and Malaysia. Since 2002, Thailand has successfully upgraded their industry, with the expansion of a local supporting industry, and has integrated into the global automotive production networks. In contrast, Malaysia is facing difficulties in integrating into the global markets, as well as developing a local supporting industry. A case study of *Z Corporation's* strategy indicates how it has responded to Thai and Malaysian policies.

After the Thai government initiated its *product champion* strategy, *Z Corporation* decided to shift all global pick-up truck production capacity from Japan to Thailand, commencing a multipurpose vehicle (MV) project in 2002. One of the main reasons for *Z Corporation's* relocation to Thailand was the opportunity to access the largest pick-up truck market in the world, while also creating a platform to export the model to the rest of the world. In this regard, Thailand's *product champion* policy was a very effective policy measure. As a result, *Z Corporation* and their parts suppliers made substantial investments in Thailand and expanded their production capacity. In parallel to the MV production, *Z Corporation* established a global product development base for MVs,

²⁷ Assemblers (50,000) and auto parts (350,000). Interview with TAIA on the 3rd March 2010.

²⁸ The total number of manufactures of motor vehicles (2,4513), bodies for vehicle (909), and parts and accessories for motor vehicles (22,525).

which was the first R&D centre outside of North America and Europe, and in 2007 also relocated some of its regional operating functions to Thailand, as a response to the Thai government's incentives. Furthermore, *Z Corporation* was planning to commence production of the second *product champion*, the 'Eco Car', with substantial initial output in 2012.

One of the senior managers of *Z Corporation* explained the differences between Thailand and Malaysia as follows: although Malaysia has good infrastructure and human resources, *Z Corporation* cannot commit to Malaysia as a regional hub for automotive exports, due to the various negative aspects of Malaysia's automotive industrial policies. However, because of Thailand's favourable government policies, it is much easier for *Z Corporation* to make investment in Thailand. Consequently, *Z Corporation's* strategy in Malaysia is more about maintaining the existing production volume in the domestic market. This statement is reflected in *Z Corporation's* production and intra-firm trade data. *Z Corporation* produced about nine times more vehicles in Thailand (of which about half were exported), than were produced in Malaysia, where they were sold virtually entirely in the domestic market. With regards to the number of suppliers, *Z Corporation* has more than three times more first tier suppliers in Thailand than in Malaysia.²⁹ Consequently, there is a significant difference in local content ratios. For instance, in the most popular PV, V model, the Thai affiliate can procure 75 percent of its components within the country. In contrast, the Malaysian affiliate can only locally source 35 percent and is highly dependent on imports from other ASEAN countries (mainly from Thailand) and Japan (see Table 3). Arguably, this

²⁹ Interview with *Z Corporation* on 5th March 2010 and MACPMA on 21st February 2012.

indicates a clear difference in the level of local supplier networks.

Table 3. Local Contents of Major Vehicles in ASEAN4 in 2011

Country	Vehicle Model	Local Contents	ASEAN Contents	Others
Thailand	PV: V model	76.1%	5.9%	18.0%
	CV: H model	78.9%	5.5%	15.6%
Malaysia	PV: V model	34.6%	45.6%	19.8%
	CV: H model	18.0%	57.8%	24.2%
Indonesia	PV: V model*	-	-	-
	PV: I model	66.3%	23.2%	10.5%
Philippines	PV: V model	27.5%	43.4%	29.1%
	PV: I model	26.5%	59.2%	14.3%

Note: * all import from Thailand

Source: Data Supplied by *Z Corporation* in 2012

Moreover, Table 4 shows *Z Corporation's* intra-firm trade figures within ASEAN 4. *Z Corporation's* intra-firm trade within the region has grown from US\$220 million in 2000 to 1.67 billion in 2011. The Thai affiliate has rapidly expanded its trade surplus, but contrastingly, the Malaysian affiliate has rapidly widened its trade deficit. As above, we can clearly identify that the government's industrial policy has resulted in differences in *Z Corporation's* corporate strategy between the two countries.

Table 4. *Z Corporation's* Intra-Firm Trade within ASEAN 4 in 2000 and 2011

Country	2000			2011		
	Export	Import	Balance	Export	Import	Balance
Thailand	83.7	44.7	39.0	986.6	411.3	575.3
Malaysia	32.4	37.0	-4.6	178.3	433.3	-255.0
Indonesia	60.4	101.1	-40.7	262.8	651.8	-389.0
Philippines	43.7	37.4	6.3	245.3	176.6	68.7
Total	220.2	220.2	0	1673.0	1673.0	0

Note: Unit, US\$ Million

Source: Data Supplied by Data Supplied by *Z Corporation* in 2012

4. Conclusion

This paper has surveyed the policy space now available under the WTO. It is apparent that industrial policy options in developing countries are limited by TRIPs, GATS, TRIMs and SCMs agreements under the WTO. However, policy options are not fully closed, and a narrower range of policy options is still available for developing countries today. Such options include policies related to particular areas, such as science and technology, regional development, infrastructure and human development; equal treatment of national and foreign firms; and 'positive' fiscal policy.

Secondly, we have examined the contrasting development of the automotive industry in Thailand and Malaysia from the perspective of industrial policy options before and under the WTO system. In the early period, both countries pursued ISI and employed high tariff protection, limits on the number of assemblers, the mandatory deletion programme, local content requirements and subsidies in order to upgrade the automotive industry. Moreover, the Malaysian government initiated its National Car Policy in order to enhance *bumiputeras*' participation in the automotive sector and protected national car producers by providing favourable treatment, including subsidies and discriminatory tax reductions. With the rise of the WTO, such policy orientation in Thailand and Malaysia had to be revised in the early 2000s. Both countries abolished all performance requirement policies, such as the MDP and LCRs, and preferential policy for national producers (in the case of Malaysia) in response to the WTO rules. In this context, it is apparent that policy options for both countries have significantly diminished.

However, some common policy orientation can be identified after the liberalisation of the industry in Thailand and Malaysia. Both countries have started employing fiscal policy as a core instrument of industrial policy. In Thailand, the government set a lower rate of excise tax on particular types of vehicles (selecting product champions), which led to the creation of particular market segments. At the same time, the government provides various tax exemptions for attracting foreign investments into a particular segment. Furthermore, this tax exemption is linked with local production requirements. Such Thai policies can be classified as 'positive' under TRIMs according to Dunkley (1997). The Thai government successfully uses discretionary power in selecting strategic models and functions within the industry and to stimulate the growth and upgrading of the automotive industry, including the expansion of local supporting industries.

In contrast to Thailand, though, Malaysia has used some more controversial automotive industrial policy measures since liberalisation. The Malaysian government tactically linked excise tax refunds with the local content ratio of vehicles. Under this policy, the government treats all firms equally, thus it is not directly contradicting the WTO's rules. However, it is obvious that the government indirectly protects local automotive producers (advantageous policy for local automotive producers due to their higher local contents ratio). Furthermore, the Malaysian government also established subsidies such as IAF and ADF to support local firms, particularly, *bumiputera* firms. These subsidies are 'actionable' subsidies that are not necessary illegal under SCMs, but can be declared as such if another country demonstrates evidence of injury. In addition, Malaysia has

still quantitative restrictions, such as AP system and ML system, which are contradictory with WTO rules.

With regards to technology transfers, Proton has been facing difficulties in accessing technology under the TRIPs agreement. The Malaysian government's decision to take over Lotus International as a source of technology transfer for Proton turned into financial burden for the manufacturer. As result of Proton's continuous losses, its largest share holder, the Malaysian government's sovereign wealth fund *Khazanah Nasional*, sold all of its Proton shares to DRB-HICOM in March 2012, which has announced that it may sell the unprofitable Lotus if Lotus fails to meet its performance target. Ironically, Proton also returned to MMC for technical cooperation in December 2008.³⁰ In contrast, Perodua, which is under Japanese management control (Daihatsu and Mitsui Corp took over 51 percent of equity in 2001), utilises Japanese technology and global networks, and has been increasing production and market share, and even exporting vehicles under Daihatsu's brand (ARD-B). Malaysian automotive policy has still a lot of protectionist elements. These policies are, in general, not for Perodua or other automotive producers, but for only Proton. An executive in the Malaysian automotive industry commented that Proton is a political creation and political problem, and the reality is that local suppliers cannot win in competition with foreign suppliers in such an environment.³¹

Although both Thailand and Malaysia employed fiscal (particularly excise tax) policy in order to facilitate the development of the automotive industry under the WTO rules, the

³⁰ There also have been recent press reports of possible cooperation between Honda and Proton. See <http://www.autoblog.com/2012/11/04/honda-to-share-platforms-facilities-with-proton/> (accessed 21 December 2012).

³¹ Interview 21 February 2012.

Malaysian case indicates a negative policy towards foreign producers as a result of the protection of Proton and its *bumiputera* supplier network. In this context, it is apparent that the Malaysian automotive policies are distorted, mainly because of Proton. Unlike Malaysia, Thailand has employed a more industry-wide automotive policy that focuses on selecting a national *product champion*, a winning type of vehicle such as pick-up trucks and Eco Cars. In conclusion, there are two lessons for other developing countries. Firstly, policies should be oriented towards the industry as a whole, not tailored towards one particular firm. In another words, *picking a national champion firm* is no longer a successful strategy under the WTO regime. Secondly, even though picking an industry winner is difficult, discriminatory measures can be still employed successfully in order to enhance the development of strategic industries or particular operations and functions. However, such policies are limited to the effective use of actionable subsidies or ‘positive’ fiscal incentives.

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