



# **A RESEARCH ON SUPPORTING INDUSTRY FOR AUTOMOBILE ASSEMBLERS IN VIETNAM (Phase 1)**

Final Report

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## LIST OF ABBREVIATIONS

AAF	ASEAN AUTOMOTIVE FEDERATION
AEC	ASEAN ECONOMIC COMMUNITY
ASEAN	ASSOCIATION OF SOUTH EAST ASIAN NATION
CBU	COMPLETELY BUILT UNIT
CEPT	COMMON EFFECTIVE PREFERENTIAL TARIFF
CTH	CHANGE IN TARIFF HEADING
EVFTA	EU – VIETNAM FREE TRADE AGREEMENT
FTA	FREE TRADE AGREEMENT
IPSI	INDUSTRIAL POLICY AND STRATEGY INSTITUTE
JETRO	JAPAN EXTERNAL TRADE ORGANIZATION
JICA	JICA INTERNATIONAL COOPERATION AGENCY
MFN	MOST FAVOURED NATION
MOIT	MINISTRY OF INDUSTRY AND TRADE
NAFTA	NORTH AMERICAN FREE TRADE AGREEMENT
OEM	ORIGINAL EQUIPMENT MANUFACTURER
OICA	INTERNATIONAL ORGANIZATION OF MOTOR VEHICAL MANUFACTURERS
RVC	REGIONAL VALUE CONTENT
SCT	SPECIAL CONSUMPTION TAX
SQCD	SAFETY, QUALITY, COST, DELIVERY
TPP	TRANS-PACIFIC PARTNERSHIP
VAMA	VIETNAM AUTOMOBILE MANUFACTURERS ASSOCIATION
WTO	WORLD TRADE ORGANIZATION

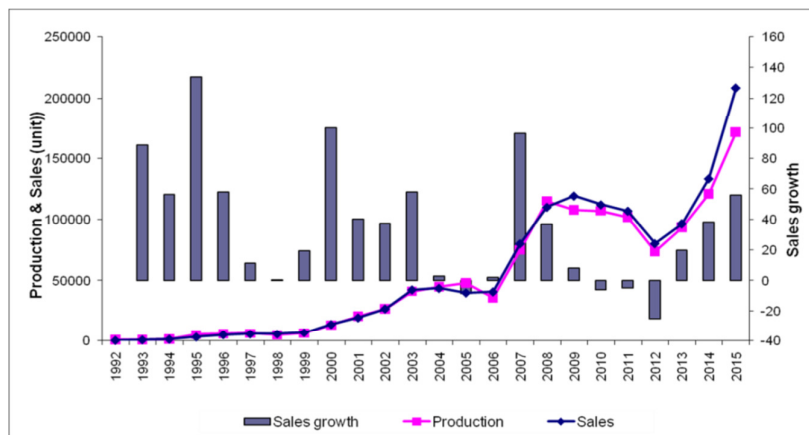
# 1. OVERVIEW OF AUTOMOBILE AND AUTO PART INDUSTRIES IN VIETNAM

## CURRENT SITUATION OF VIETNAM’S AUTOMOBILE INDUSTRY

According to the General Statistics Office of Vietnam, by 2014, there are 406 enterprises operating in manufacture of motor vehicles, trailers and semi-trailers sector, which generate 105,655 jobs. Among these 406 enterprises, about 82% are small and medium enterprises, and 14% are automakers. Vietnam’s automobile industry is dominated by the members of Vietnam Automobile Manufacturing Association (VAMA), including 16 joint ventured and some local automakers. Several global OEMs like Toyota, GM, Ford, Honda, and Mercedes Benz... have established their factories in Vietnam.

Vietnam automobile market size is small, annual sales reach about 200,000 vehicles. Currently, the industry is still protected with high tariffs (5-40% from ASEAN, 15-70% from WTO members), thus local assembled vehicles are able to meet about 60-70% of the market demand. Passenger vehicles and trucks are the two major segments of the automobile industry in Vietnam. In recent two years, the domestic automobile market have prospered thanks to more stable policies and the CEPT import duty reduced by 10 percentage points, from 60% to 50% in 2015 and to 40% in 2016 according to the tariff reduction schedule in ASEAN. In 2015, the production reached 150,000 vehicles and sales reached over 200,000 vehicles. The gap between production and sales is being expanded to show the rising trend of CBU imports.

FIGURE 1: VEHICLES PRODUCTION AND SALES

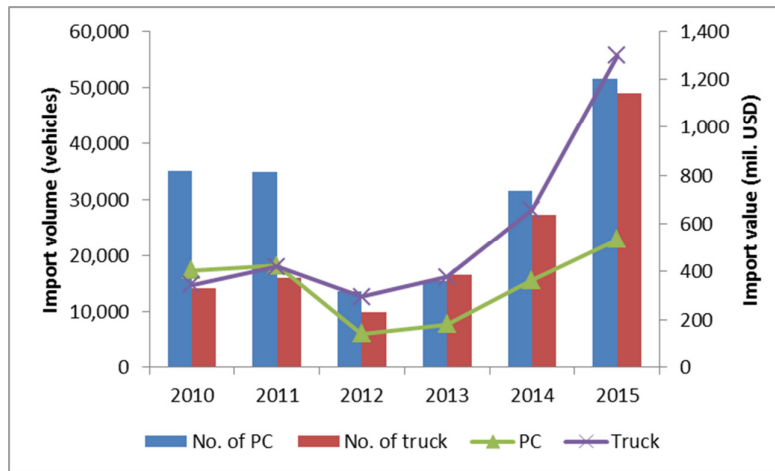


Source: VAMA

In 2015, Vietnam imported almost three billion USD of vehicles, accounting for 1.8% of total import value. Trucks import made the highest share of 43%, and under-nine-seat vehicles accounted for 16.7%. Major exporters of passenger vehicles for

Vietnam included Japan, Germany, Korea, India, Thailand, USA, and UK, while major exporters of trucks were China, Thailand, Korea and Japan. Notably, while imports of passenger cars and trucks were almost equal in term of quantity but the former was double lower in term of value. In 2012, passenger cars import dropped down sharply because of local market stagnancy, and the promulgation of the Circular 20 regulating the import of under-nine-seat vehicles. Since then, imports of passenger cars and trucks have grown steadily at the average rate of 37%. In the end of 2015, new rates of special consumption tax (SCT) were approved by the National Assembly and came into effect from July 1, 2016. The new SCT scheme reduces SCT rate on passenger cars under 2000cc, and imposes higher rates on passenger cars over 3000cc (Annex 1). This change led to an increase in passenger cars imports in the first half of 2016 to avoid higher tax, especially in the over 3000cc models.

FIGURE 2: IMPORTS OF PASSENGER CARS AND TRUCKS



Source: Vietnam Customs

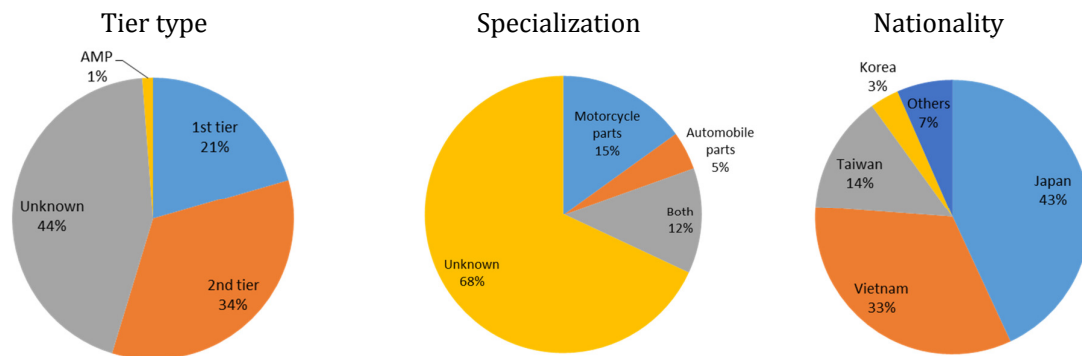
#### CURRENT SITUATION OF VIETNAM'S AUTO PARTS INDUSTRY

The small domestic vehicle market does not encourage the development of auto parts industry, which is usually mentioned in some other terms, such as supporting industry for automobile assemblers, localization rate, or local procurement. Currently, the localization rate of Vietnam's automobile industry achieves at different levels depending on the vehicle types and manufacturers (10-30% for passenger cars, about 30% for trucks, and about 40% for buses). Among the existing suppliers, more than 90% are FDI enterprises, only a few local suppliers can participate in the supply chains of auto manufacturers in Vietnam. Compared to Thailand, the number of suppliers in the Vietnam's automobile industry is too little. Regarding the first tier suppliers, Thailand has nearly 700 enterprises, but Vietnam has less than 100. For the second and third tier suppliers, Thailand has about 1700 suppliers, while Vietnam has nearly 150 only. Moreover, while the vehicle market volume of Vietnam is nearly 10 times smaller than that of Thailand, Vietnam has more than 20 automobile manufacturers but Thailand has

only 17. The condition of more number of assemblers sharing smaller and more scatter size makes Vietnam harder to develop supplier networks. The local parts available for auto assemblers are normally labor intensive, simply produced, bulky and heavy parts, such as auto chairs, glasses, tires, wheels, etc...

Breaking down the existing auto part suppliers by tier type, among 404 suppliers identified by JETRO and JICA experts, there are 83 first tier suppliers, 138 second and third tier suppliers, 5 aftermarket producers, and 178 are not classifiable. By supplier specialization, 61 firms supply motorcycle parts, 50 firms supply both motorcycle and automobile parts, 18 firms supply automobile parts, and 275 firms are not classifiable. By nationality, there are 177 Japanese, 136 Vietnamese, 57 Taiwanese, 14 South Korean, and the remains belong to Germany, Malaysia, USA, etc.

FIGURE 3: BREAKDOWN SUPPLIERS BY TIER TYPE, SPECIALIZATION, AND NATIONALITY



Source: Synthesizing from JETRO's and JICA's list of local firms.

To serve local vehicles assembling, in the period 2010 – 2015, Vietnam imports all types of auto parts, with an average value of 2 billion USD per year, mainly from Japan (23%), China (23%), Korea (16%), and Thailand (16%). Despite of underdevelopment, export value of auto parts recently achieves good growth, with annually growth rate of 18% in the period 2010-2015. Export value increased from 0.7billion USD in 2010 to 3.5 billion USD in 2015. The most exported part is ignition-wiring set (HS8544), accounts more than 50%, and the main markets are Japan (50%) and USA (13%). The second largest exported auto part is gearbox part (HS870840) with 10% share of total auto part exports, and the main destinations are Japan, Mexico, and China.

#### EXTERNAL FACTORS

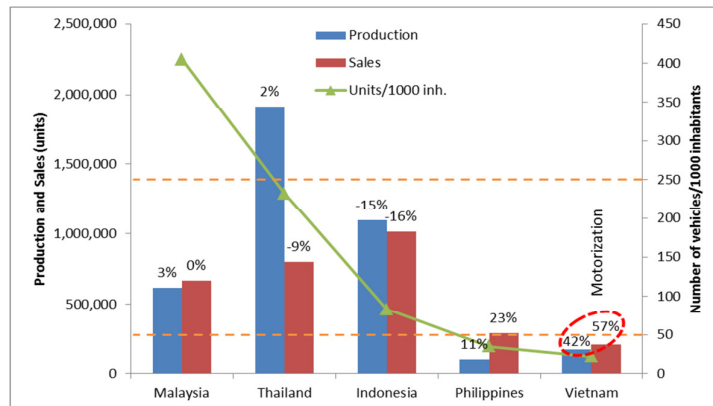
The development of auto market depends on some external factors, including transportation infrastructure, demographics, per capital incomes, and the market's openness.

In March 2016, the government approved the Master Plan for Development of Highways Network until 2020, vision to 2030 by the Prime Minister Decsion No 326/QD-TTg dated March 1, 2016. According to the plan, the Eastern and Western

North – South highways will be constructed with total length of more than 3,000km. Currently, some segments of the Eastern North-South highway have been completed. Besides, highways connecting provinces in three regions are also in operations or under construction. It is expected that 21 highways will be completed by 2020 with total length of nearly 6,500km (Annex 2). Such highways network will lead to more convenient, shortening travel time thus will accelerate consumption of passenger vehicles and development of automobile industry in coming years.

In ASEAN as of 2015, Vietnam is the third largest in term of population with 94.4 million people, and ranks seventh in term of GDP per capital at 2,171 USD. Vietnam has young population with more than 60% under 54 years old, and the demographic dividend in Vietnam characterized by abundance of people at working ages is estimated to continue in next two decades. According to the World Bank’s forecast, Vietnam’s GDP per capital will reach 3,000 USD by 2020. Besides, the motorization rates in five ASEAN countries that have automobile industries, namely Thailand, Malaysia, Indonesia, Philippines, and Vietnam, show that Malaysia is at motorization matured stage<sup>1</sup>, Thailand is going to finish its motorization stage, and Indonesia is starting its motorization, while Philippines and Vietnam are approaching motorization starting point. This fact implies that the opportunity of automobile market expansion is limited in Malaysia and Thailand, promising in Indonesia, and will come soon in Philippines and Vietnam. The convergence of demographic dividend, growing GDP per capital, and motorization stage will make ASEAN in general and Vietnam in particular to be a high promising market for automobile manufacturers.

FIGURE 4: PRODUCTION, SALES, AND MOTORIZATION RATE IN ASEAN, 2015



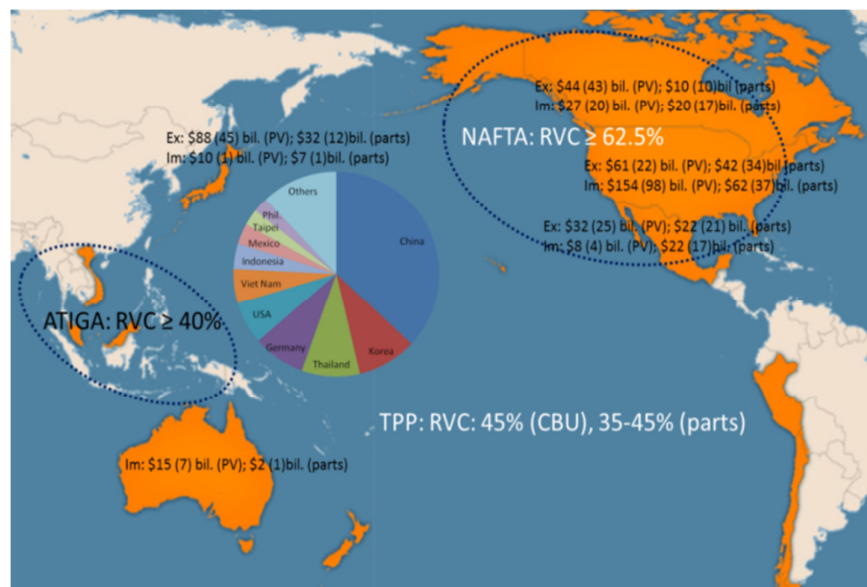
Source: AFF, OICA

<sup>1</sup> The growth of automobile market is divided into five stages, including (i) pre-motorization (when the number of vehicles per 1,000 inhabitants < 50), (ii) motorization (> 50), (iii) motorization matured (> 250), (iv) multi-ownership (> 400), and (v) multi-ownership matured (> 500). The market booming happens in motorization stage, and slowdown in next stages.

In addition, the deeper integration to the global economy through free trade agreements (FTAs) provides Vietnam bigger chances to access global market, expand exports, and attract foreign investments. Automobile is one of major industries in the FTAs that Vietnam has participated, namely TPP, EVFTA, and AEC. Among these, the TPP region overlaps with two other free trade areas, i.e. NAFTA and ASEAN, the two dynamic automobile trading and manufacturing regions in the world. While all NAFTA members are included in the TPP, only four of the ten ASEAN members are parties to the TPP, namely Brunei Darussalam, Malaysia, Singapore, and Vietnam. In addition, amongst them, only Malaysia and Vietnam have an automobile industry, providing them a great advantage over the three other ASEAN automobile manufacturing countries, i.e. Thailand, Indonesia, and the Philippines, which are non-TPP members. These three countries have recently expressed their interest in joining the agreement, meaning that Malaysia and Vietnam should make good use of their advantage before it will be neutralized by the participation of their neighboring competitors in the agreement.

Each free trade area has specific provisions on regional value content (RVC) requirements. The NAFTA rules of origin for automobile products are based on a tariff change alone, or a tariff change and a RVC requirement, and the RVC for these products is calculated using the net cost method. The RVC requirement for autos and light vehicles, and their engines and transmissions, is 62.5 percent; and for other vehicles (e.g., tractors, vehicles for the transport of 16 or more persons, trucks), and their engines and transmissions, as well as other auto parts, is 60 percent. In the ASEAN, to be considered originating, automobile products must meet the RVC requirement of not less than 40 percent of value-added or change in tariff heading (CTH).

FIGURE 5: TPP'S RULES OF ORIGIN ON VEHICLES

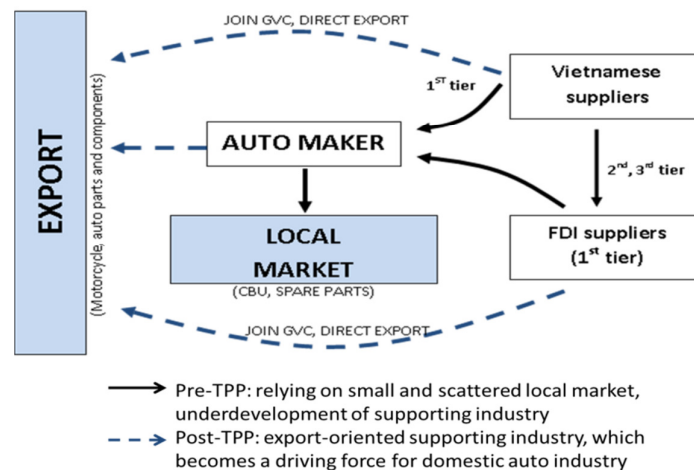


Source: IEC (2016)



The differences in RVC requirement and calculating methods between regions provide greater flexibility for the automobile manufacturers in qualifying their products. With a higher requirement on RVC percentage and the same calculating method, NAFTA countries have an advantage over the non-NAFTA countries in satisfying TPP's RVC requirement. In other words, the TPP members in Asia, Australia, and Latin America have a larger space in taking advantages of the TPP to integrate more in automobile global value chain. Notably, among the major automobile traders, Japan is a non-NAFTA country, and automobile trading between Japan and other TPP partners is still modest. The current biggest automobile trading partners with Japan are China, Korea, and Thailand, which are non-TPP members. It is crucial for Japan to take a leading role in collaborating with other TPP member to utilize the agreement for restructuring automobile supply chain model, and among them, Malaysia and Vietnam are two potential candidates. Regarding to Japan, however, there is another idea saying that despite trade data, Japanese OEMs possibly have the least problems to utilize the agreement as they are more or less fully localised in NAFTA and add production capacities in Mexico. Thus, their ability to utilize TPP should be higher than that of competitors such as the US "Big 3" (FCA, Ford, and GM), and thus, strengthening partnership with Japanese OEMs may be a wise strategy for non-NAFTA countries.

FIGURE 6: FTA GIVE A NEW APPROACH FOR AUTO INDUSTRY DEVELOPMENT IN VIETNAM



Source: Nguyen (2016)

Besides export potential, FTAs also bring about competition pressure on local automobile industry. Specifically, full tariff elimination by 2018 on vehicles imported from ASEAN is the hardest pressure as currently local automobile industry is protected by relative high tariff barriers (5-40% from ASEAN, and 15-70% from MFN), which allows locally assembled vehicles to be able to compete with imported ones, occupying market share of 60-70% even though their production costs are about 20% higher than

that of neighboring countries<sup>2</sup>. Without those tariff barriers, an increase in CBU imports from ASEAN is foreseen in near future unless specific measures supporting local production are introduced.

## 2. GLOBAL TRENDS & OTHER COUNTRIES' AUTOMOBILE INDUSTRY DEVELOPMENT POLICY

### GLOBAL TRENDS OF AUTOMOBILE INDUSTRY

Thanks to disruptive innovation in automobile sector, e.g. electrical vehicles, autonomous cars, connectivity and digitalization in auto industry, etc... new trends in automobile sector have made their way and new markets have opened up. In 2015, 89.1 million cars were sold and 90.6 million cars were produced. Comparing to last year, the production and sales increased in EU, Asia, and NAFTA, but declined in the other part of the world. Global car sales are expected to exceed 100 million units by 2020. In coming years, the key trends that can be observed may include:

*Changes in customer demand:* Many customers are inclining towards greener, fuel efficient and sustainable vehicles. With the introduction of e-vehicles & alternative fuel such as Shale gas, CNG and electric vehicles, gone are the days when the design and style was the major decision making factor.

*Changes in mobility:* Mobility no longer means auto-mobility by default; the only thing that counts is efficient and inexpensive transport. Self-driving cars are not the only trend challenging the automotive industry. Views about mobility, about what we can do with a car, about the status of owning a car, are in transition. The number of female buyers is increasing and becoming more and more commonplace.

*Technological advances:* The global automotive industry has witnessed a lot of transformation in the last two decades with the digitization of vehicles. Linking mobile devices to the vehicle creates many options. One can easily check how much fuel is left, the condition of the brakes, when maintenance is needed, etc. It can also be used as a car key, or for applying personal settings in a car you rent. Cars just might be the next big platform for application developers. McKinsey predicts up to 15% of new cars sold in 2020 could be fully autonomous. The concept of 'connected vehicles', which focuses on connecting vehicles with the outside world and enhancing on-board experience, combines telecommunication and informatics to provide various services such as live traffic updates, smart routing and tracking, roadside assistance in case of accidents,

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<sup>2</sup> See Annex 3 for price's components of Vietnam's vehicle, and comparison between vehicle production costs of Vietnam and other ASEAN countries.

automatic toll transactions, automatic parking/parking management, on-board entertainment, and much more.

*Change in relationship between OEMs and suppliers:* In the future, the global automobile industry will change significantly with the shorter lifecycle of vehicles. The OEMs must increase the level of outsourcing, and become more dependent on suppliers. As a result, suppliers will have opportunities to generate higher added value and take more important role in the design of future cars. Suppliers' innovation power will thereby become more apparent. Due to the restructure of automotive value chains, first tier suppliers in the automotive industry will also play stronger role in managing a complex network of sub-suppliers in lower tiers.

*Market growth fast in emerging countries:* The global auto industry has witnessed enormous growth within the last few years, predominantly in BRIC economies. However, KPMG predicts a new wave of growth will take place in new emerging countries in next few years, and those countries is mainly located in ASEAN led by Thailand and Indonesia. Other region will also become more important for automobile industry, including South Africa in Africa, Turkey in South Eastern Europe, Argentina in Latin America.

Eventhough the above trends are frequently mentioned in the automobile sector forecast reports, and projections on customer demand and technologic development may be right in advanced countries, but in the context of Vietnam, a newcomer in this sector, these trends seem not be going to happen soon. However, in the internet era, digitalized and connected vehicles soon or later will become popular even in countries where automotive industry is still less developed like Vietnam. In addition, regarding power balance between OEMs and suppliers, in Vietnam, OEMs and first tier suppliers have still maintained rather strong control over their suppliers mainly because of low capability of local suppliers.

#### AUTOMOBILE INDUSTRY DEVELOPMENT POLICY IN NEIGHBORING COUNTRIES

ASEAN becomes a hub of global automobile industry partly thanks to the strong policy introduced by the countries in the region. Some major policy implemented by Thailand, Malaysia, Indonesia, and Philippines are summarized as below.

Back to the early stage of Thailand's auto industry, in early 1990s, when the market volume was small, Thai government selected one-ton pick-up as its strategic vehicle and imposed lower excise tax (3% vs. normal rates of 30-50%) to encourage domestic consumption and create market volume. Thanks to this policy, which remains so far, producers could reach economic scales, expanded their production, and started to export completed built pick-up after some decades. In 2007, Thai government launched a new program to pursue a new strategic vehicle called eco-car with an aim to promote investment in environment friendly vehicles, and achieve higher level of technology and localization. If the automakers meet the program's requirements in

terms of product model, production volume, investment and localization, they will get tax incentives, including exemption of corporate income tax in 8 years, and enjoy lower excise tax rate (17% vs. normal rates of 30-50%).

Following Thailand, in 2013, Indonesia also introduced a low cost green car program to create market and promote investment in automobile industry. Local produced vehicles under 1200cc, consuming less than 5 liters of gasoline per 100 km, pricing less than 9,500 USD, and using local assembled engine and transmission are qualified to enjoy lower luxury tax of 10% in comparing to the normal one of 30% and above.

In the Philippines, a decade ago, auto market was “sleeping” in a range of 70,000 – 80,000 yearly registration, and the market was dominated by imported vehicles due to low tariff of CBU from ASEAN and other FTA partners. Local production was struggling because of no support from government, and small market volume. However, last year in 2015, the Philippines government launched a comprehensive automotive resurgence strategy program in order to reactivate auto manufacturing inside the country. If a new model or full model change of existing model has accumulation production volume of more than 200,000 unit in whole model life (maximum six years), uses local big resin parts, and has local body parts weighted more than half of total vehicle body weight, it can enjoy maximum of 1,000 USD per unit through deducted payments of taxes and tariffs.

TABLE 1: AUTOMOBILE INDUSTRY POLICY IN ASEAN COUNTRIES

		Philippine (Comprehensive Automotive Resurgence Strategy Program) (newly issued in May 2015)	Thailand (Eco-car policy)	Indonesia (Low cost green car)	Malaysia (Excise duty reduction under the IAF-Industry Adjustment Fund)
Requirement	Model	Engine	≤1.3L	≤1.2L	--
		Fuel Consumption	5L/100km	5L/100km	--
		Co <sub>2</sub> Emission	<120g/km	--	--
		Others	--	Price: 9,500USD Indonesian Logo	--
	Production volume (units)	Accumulated production volume ≥ 200K during model life (max 06 years)	100K/year after 5 years	--	--
	Investment	--	205 Mil. USD ~	--	--
	Localization	<ul style="list-style-type: none"> <li>✓ Localized body parts ≥ 50% of weight of body sell</li> <li>✓ Localized big resin parts</li> </ul>	Engine	Engine & Transmission	Needed
	Incentive	max1K USD/unit (by tax payment certificate to be deducted payment of SCT,CIT,ID,VAT)	Excise Tax 30% → 17%  0% CIT (8 Years)	Luxury Tax 30% → 10%	Deduct localized cost from taxable vehicle price

Source: Synthesizing from interviews with OEMs.

In next five to ten years, Vietnam’s automobile industry must overcome some difficulties but also have market opportunities as well. The year 2018 is a milestone

marking the important changes in the market shares between local assembled and imported vehicles, and the growth and the existence of automobile assemblers in Vietnam. The AEC and other FTAs will also accelerate trading of auto parts between Vietnam and FTAs' partners, providing opportunities for local producers to integrate in regional and global auto value chains. Besides, in the future, Vietnam's automobile industry must grow in line with domestic conditions on traffic, infrastructure, local consumers' behavior, and harmonize with global auto industry's trends, especially in term of technological changes. For the development of automobile industry, it is crucial for Vietnam to design a sound policy to strengthen competitiveness of local production.

### 3. CURRENT STATUS OF DOMESTIC AUTO PART SUPPLIERS: KEY FINDINGS FROM THE STUDY

#### INTRODUCTION OF THE STUDY

To promote the development of automobile industry, the Vietnamese government has approved the strategy and the master plan on development of automobile industry until 2025 with a vision to 2035 by the Prime Minister's decisions No. 1168 dated July 16, 2014 and No. 1211 dated July 24, 2014 respectively. On the other hand, since 2011, Vietnam and Japan has started a joint initiative to accelerate industrialization in Vietnam, which has been formalized in the Prime Minister's decision No. 1043 dated July 1, 2013. In the framework of this industrialization strategy, six sectors were selected to strengthen Vietnam and Japan cooperation and contribute to Vietnam's industrialization. An action plan for each sector has been developed and got consensus of both sides, and been formalized by Vietnamese government's approval decision. The action plan for automobile and auto part industry was approved by the Prime Minister's decision No. 1829 dated October 28, 2015, including 20 activities grouped into 4 actions, each aims to overcome one strategic issues of the industry, namely (i) tax and fee related issue, (ii) low domestic value added and weak supporting industry, (iii) industrial human resource, and (iv) safety, environment, and infrastructure.

This study is carried out with joint efforts from the Ministry of Industry and Trade (MOIT) and the Japan International Cooperation Agency (JICA) to implement the action plan for development of automotive and auto part industry. Concretely, the study aims to implement the action (ii) aiming to level up domestic value added and strengthen supporting industry. The research group consists of researchers from the Industrial Policy and Strategy of MOIT, professors and researchers from Research Institute of Auto Parts Industry, Waseda University. To fulfill the study's purposes, from April to August 2016, the research group has conducted firm visits and hearings to 10 assemblers and first tier suppliers, and 6 local firms. In the hearings to the former, the research group aimed to grasp current situation of automobile and auto part industry,

their local procurement demand, their requirements to suppliers and supplier selection process, while in the hearings to the latter, the research group aimed to evaluate their advantages and difficulties to join the automobile supply chains, and identify the gap between their capability and assemblers and first tier suppliers' requirements. In the hearings, the research group also looked for answers to questions (i) should Vietnam continue to promote auto industry, and (ii) what are the major issues of Vietnam's automotive industry.

## KEY FINDINGS FROM THE STUDY

### *ROLES OF AUTOMOBILE INDUSTRY IN THE ECONOMY*

The global auto industry is a key sector of the economy for every major country in the world. According to the OICA, the industry is a major innovator, investing over €84 billion in research, development and production, plays a key role in the technology level of other industries and of society. Vehicle manufacturing and use are also major contributors to government revenues around the world, contributing well over €400 billion. The industry plays important role in job creation, contributes over 5 percent of the world's total manufacturing employment. It is estimated that each direct auto job supports at least another five indirect jobs in the community, resulting in more than 50 million jobs owed to the auto industry. Many people are employed in related manufacturing and services. Vehicles are built using the goods of many industries, including steel, iron, aluminum, glass, plastics, carpeting, textiles, computer chips, rubber and more. In Vietnam as of 2014, the auto industry creates about 100,000 jobs and contributes about 1 billion USD per year to tax revenues. If the auto industry grows soundly, it will also help to improve trade balance by substitution of imported vehicles and auto parts.

### *HIGH POTENTIAL AUTOMOBILE MARKET*

During the survey, we noted that Vietnam's automobile market has unique characteristics, which differentiates from those of other ASEAN countries. For instance, Vietnam has two major markets, Hanoi and Ho Chi Minh City, but others have only one big market in capital city (Indonesia may have two, Jakarta and Sulabaya). In Vietnam, potential market seems to have a wider distribution, not only in Hanoi and Ho Chi Minh City, but also in other big cities like Hai Phong, Da Nang... These market characteristics combining with other factors, i.e. demographic dividend, infrastructure, GDP per capital growth... will make Vietnam to become a high potential for automobile market in coming years. Besides, high growth rate and motorization rate is approaching a threshold of 50 is another positive factor for automobile market development in Vietnam.

### *SUPPLIER SELECTION PROCESS*

A single vehicle is normally made up of some thousands separated parts, including some large components, such as the engine, which is assembled as a unit

during the car making process but also contains thousands of individual pieces itself. The huge number of parts in a single vehicle explains why automakers have complex and multi-tier supply chains consisting of many suppliers in each tier. To survive in the intensely competitive global economy, it is critically important for automakers to develop and manage their supplier network effectively. Their supplier selection process therefore is often timely, costly, and involves in many steps. Generally, the process includes following steps.

*Searching for potential suppliers:* Regularly, the automobile assemblers or first tier suppliers (hereby, the buyers) usually look for new suppliers through databases developed by consulting companies or government organizations, trade fairs, or the introduction of the existing suppliers or employees.

*Profile screening:* When a potential supplier is identified, the buyers will look at its profile to collect necessary information about main products, size of business, year of establishment, main customers, equipment and technology in use, financial status, etc. If they find all conditions are satisfied, they will contact to make an appointment for factory visit.

*First visit:* The purpose of the first visit is to confirm the information gathered from profile screening, preliminarily assess the ability to meet requirements on safety, management systems, quality assurance, etc. During the first visit, the buyers may give some recommendations for factory improvement, such as layout rearrangement, quality management measures, etc. Normally, they use a checklist of criteria to assess.

*Request for quotation:* After the first visit, if a possibility of collaboration is visible, the buyers will contact to request for quotation for the products they offer. After receiving the quotation, if it is reasonable, they will send request for sample production.

*Request for sample production:* There can be several ways to request for sample production. The buyers can send detailed blueprints, on which potential suppliers will based on to produce moulds and make samples. The buyers can also send a sample product, and the potential suppliers should measure the sample to draw blueprints, making mould and then produce a copied one. In some cases, they provide moulds and require potential suppliers to use those moulds to produce samples in accordance with technical standards they require. Whatever the way they do, the buyers' expectation is to receive a sample satisfying all their requirements in terms of quality, technical standards, tolerant...

*Second visit:* If the samples meet the requirements, the buyers will require for a second visit. The purpose of this visit is mainly to confirm the progress of improvements per their recommendations in the first time, the readiness of potential suppliers to become their suppliers, as well as the enthusiasm and passionate of the firms' leaders.

*Oder for mass production:* If the second visit achieved positive results, the buyers will consider of making the first order for mass production. It normally takes about 1.5 to 2 years form this date until the launching date of the first vehicle assembled with their products. Throughout this period time, customers and suppliers still have to frequently collaborate, work together to ensure the quality and progress of work.

These are the basic steps of a supplier selection process. The order of steps and contents of each step can differ up to buyers. In general, the process of supplier selection usually lasts from two to 3 years or shorter if potential suppliers have met most of the buyers' criteria. Thus, from profile screening step to the completed vehicle launching, it takes in total about 3 to 5 years for selecting a qualified supplier, requiring perseverance, determination and enthusiasm of entrepreneurs, engineers, and workers.

Each buyer will have its own set of criteria to evaluate and select suppliers. Normally, the criteria are related to four main elements, called SQCD, the first letters of safety, quality, cost, and delivery. When considering the safety, the buyers often use criteria such as ISO14000 certification acquisition, measures applied to ensure the safety of people, working conditions, and surrounding environment. Regarding to quality, following criteria are commonly used, such as a certificate of quality management (ISO9000 or TS16949), percentage of damaged goods, quality management system, and commitments to quality assurance. About cost, the buyers' criteria include, *inter alia*, global competitive price, commitments to annual cost reduction, payment terms, etc. Finally, regarding to delivery, the buyers will check whether the potential supplier can meet delivery conditions or not, i.e. just in time, consignment stock, transportation requirements, electronic transactions, etc.

In the situation of underdevelopment of supporting industry in Vietnam, only little number of local firms could acquire TS16949 certification, thus TS16949 is not compulsory to become a supplier for local assemblers or first tier suppliers. However, for aftermarket producers, if they want to export and participate in global supply chains, obtaining TS16949 certification is regarded as a passport to enter the auto spare part trading market. Therefore, in long term, auto part makers should also aim to acquire this certification.

#### *LOCAL PROCUREMENT ROADMAP*

The buyer localization plan generally has a certain route depending on market size and capacity of domestic enterprises, and a number of other factors such as skills of labor forces, export possibilities, availability of raw materials, or investment incentives, etc. Typically, when the market size is small, the buyers tend to localize heavy, bulky and labor intensive parts that can be produced with simple technology, such as seats, batteries, tires, glass..., and import parts that are small, lightweight, technology and capital intensive, and easy to transport, such as engine, gearbox.... When the market size increases, the amount of localized parts will also increase in both quantity and value.



Besides, the signing of free trade agreements creates opportunities to attract manufacturers of export-oriented auto parts. For example, the wiring, airbags, control valves, and some small parts of engine, gearbox... have been manufactured in Vietnam to export to all over the world but not to serve the domestic market. It is expected that when the domestic market reaches a certain scale, these suppliers will switch to serve local market or both.

#### *AUTO PARTS AND LABOR SKILLS IN DEMAND*

In the conditions of low capability of domestic industry, along with the pressure of post 2018, auto assemblers are trying to increase localization rate to cut down production costs. Components and parts under localization plan are mainly plastic parts, rubber parts, and simple mechanical parts. At their plants, they buyers usually display parts and components need to be localized. To produce these parts and components, basic skills and processes are needed, such as molding, stamping, casting, forging, welding... Besides these hard skills, other soft skills are also essential for potential local suppliers, such as risk management, problem solving, innovation capability, teamwork, and negotiation and communication skills. The global trend of more integration of innovation and internet in automotive industry also creates chances for development of auto electronic parts. What buyers expect from their potential suppliers include an updated and attractive business profile; cost and quality competitiveness; samples following to drawings; entrepreneur's enthusiasm and perseverance; stable product quality, accurate tolerance; and ability to provide with different scales to different customers.

In summary, the results of this study show that market size and its stable growth are crucial issues for automobile and auto part industry. This depends largely on the government macroeconomic policies and efforts of assemblers in order to maintain automobile production after 2018. Once the market size reaches a certainty level, assemblers will increase their local procurement, develop their first tier supplier system, and create spillovers effect to grow up second and third tier supplier network. The hearing results from assemblers and first tier suppliers show that technical skill is not a major problem of local firms, but the key barriers for them to engage in the automotive supply chain are high cost, low management skills (production, quality, warehouse, human...), and their perception of safety, environment. In order to achieve the development goals of automobile and auto part industry set out by the government, besides the efforts of business sector, there should be strong supports from policymaking and non-governmental organizations. The next section will propose some policy recommendations and the necessary supports from non-governmental organizations such as the programs that JICA has implemented so far.

## 4. RECOMMENDATIONS

*Recommendations to policy makers:* The above analysis shows that policies to develop the automobile industry and auto parts will have a significant impact on the sector, especially the short-term policies in next few years. To support enterprises to overcome the post-2018 pressure, policy makers should work with businesses to design policy solutions to cut costs and prices, narrowing the production cost gap, controlling import of CBU from ASEAN to avoid overheat competitive pressure on locally assembled vehicles especially in 2018 when import tariffs decrease from 30% to 0%. The support policy and program implemented in other ASEAN countries are useful references for policy makers to design an appropriate supportive program for Vietnam automobile industry. After 2018, for sound development of the industry, it is necessary to focus on strengthening local suppliers by developing tailored programs to support businesses matching, supplier databases, and human resource training.

*Recommendations to JICA:* So far, JICA has implemented a number of programs to support businesses, such as the sending volunteer experts, two-step loan, and technical assistance for technical schools, etc... These programs have contributed to improve the capacity of small and medium-sized enterprises in Vietnam in general. However, to bring remarkable effects on automotive industry, JICA should design a specific program for targeted businesses to strengthen their capacity and connect them with supply chain of assemblers or first tier suppliers. These programs should also go in line with the actions proposed in the approved Action Plan. The more specific and focused these programs are, the more feasible they are, the more visible results they could achieve, and the easier to monitor and evaluate their progress and results.

*Recommendations to assemblers:* Recently, most of newspapers' articles on the automotive industry has a negative tone, such as the sector has been protected and given many incentives but does not meet the localization target; because of the government protection, consumers have to buy cars at very high prices; assemblers have invested long time ago and all machines, equipments have already been depreciated but their production costs are still too high; and all protective measures for auto industry, such as the Circular 20, should be removed to make local automobile market more healthy, more competitive, etc. These reactions from society more or less have influence on policy directions, directly affect to the automobile assemblers and auto parts makers. To change the attitude of the public, having their understanding, as well as getting consensus of policy makers, the role of the VAMA, automobile assemblers and auto parts makers is crucial in building image, policy advocacy, and proper communication with the mass media.

*Recommendations to potential suppliers:* For local firms, to become auto part suppliers and participate in automobile global supply chain, the process of supplier selection described above imply some suggestions for local businesses, such as take part

in auto part supplier databases and business matching programs, create attractive business profile, improve productivity, cut costs, compete on price and quality, improve management capability, and comply to the international norms of doing business, obtain international certification for quality, environment.

## 5. CONCLUSIONS AND A PROPOSAL FOR NEXT STEPS

In conclusion, it is essential to reaffirm that Vietnam has potentials to develop automobile industry, and its underdevelopment in last two decades is not because of low efforts from the assemblers, or less supports from the government, but mainly the short history of the sector's development. Four other ASEAN countries have more than fifty years of development, and their achievements differ with each other. Being a latecomer, but Vietnam already surpasses the Philippines in production, and is able to catch up with market volume.

However, in order to develop a healthy and sustainable automobile and auto parts industry in short and long term, Vietnam still has much work to do, and many efforts should be made not only by the assemblers and auto parts makers, but also by policy makers, supporting agencies, and non-governmental organizations. Specifically, from now to 2018, it is necessary to propose a list of key parts should be tariff reduced or eliminated, a list of potential parts for localization and necessary skills; conduct a comprehensive study on local market (demand, investment need, skills, labor...) and impact assessment of tax/tariff policy on automobile and auto parts industries; introduce a specific program for automotive industry development; and select potential local firms to be nurtured; and develop a capacity building program for selected firms. After 2018, it is possible to focus further on automotive human resource development program, capacity building for local enterprises, development of supporting industry in automotive sector, and promotion of auto part export.

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ANNEX 1: NEW SPECIAL CONSUMPTION TAX SCHEME IN VIETNAM

Source: Law No. 106/2016/QH13 dated April 6, 2016

No.	Goods/service	Tax rate (%)	
		Before 1 July 2016	After 1 July 2016
4	Motor vehicles for the transport of fewer than 24 people		
	a) Motor vehicles for the transport of not more than 9 people, except for those specified in Point 4dd, 4e, and 4g of this Schedule		
	- Of a cylinder capacity not exceeding 1,500 cm <sup>3</sup>	45	
	+ From July 01, 2016 to December 31, 2017 inclusive		40
	+ From January 01, 2018		35
	- Of a cylinder capacity exceeding 1,500 cm <sup>3</sup> but not exceeding 2,000 cm <sup>3</sup>	45	
	+ From July 01, 2016 to December 31, 2017 inclusive		45
	+ From January 01, 2018		40
	- Of a cylinder capacity exceeding 2,000 cm <sup>3</sup> but not exceeding 2,500 cm <sup>3</sup>	50	50
	- Of a cylinder capacity exceeding 2,500 cm <sup>3</sup> but not exceeding 3,000 cm <sup>3</sup>	50	
	+ From July 01, 2016 to December 31, 2017 inclusive		55
	+ From January 01, 2018		60
	- Of a cylinder capacity exceeding 3,000 cm <sup>3</sup> but not exceeding 4,000 cm <sup>3</sup>	60	90
	- Of a cylinder capacity exceeding 4,000 cm <sup>3</sup> but not exceeding 5,000 cm <sup>3</sup>	60	110
	- Of a cylinder capacity exceeding 5,000 cm <sup>3</sup> but not exceeding 6,000 cm <sup>3</sup>	60	130
	- Of a cylinder capacity exceeding 6,000 cm <sup>3</sup>	60	150
	b) Motor vehicles for the transport of 10 - 15 people, except for those specified in Point 4dd, 4e, and 4g of this Schedule	30	15

c) Motor vehicles for the transport of 16 - 23 people, except for those specified in Point 4dd, 4e, and 4g of this Schedule	15	10
d) Motor vehicles for the transport of both passengers and cargoes, except for those specified in Point 4dd, 4e, and 4g of this Schedule		
- Of a cylinder capacity not exceeding 2,500 cm <sup>3</sup>	15	15
- Of a cylinder capacity exceeding 2,500 cm <sup>3</sup> but not exceeding 3,000 cm <sup>3</sup>	15	20
- Of a cylinder capacity exceeding 3,000 cm <sup>3</sup>	15	25
dd) Motor vehicles running on both gasoline and electricity or bioenergy, the proportion of gasoline consumption does not exceed 70% of total energy used	70% of tax rates applied to vehicles of the same kind specified in Point 4a, 4b, 4c, and 4d of this Schedule	
e) Motor vehicles running on bioenergy	50% of tax rates applied to vehicles of the same kind specified in Point 4a, 4b, 4c, and 4d of this Schedule	
g) Motor vehicles running on electricity		
- For the transport of not more than 9 people	25	15
- For the transport of 10 - 15 people	15	10
- For the transport of 16 - 23 people	10	5
- For the transport of both passengers and cargoes	10	10
h) Motorhomes regardless of cylinder capacity		
- From July 01, 2016 to December 31, 2017 inclusive	70	
- From January 01, 2018	75	

ANNEX 2: MASTER PLAN ON DEVELOPMENT OF VIETNAM'S EXPRESSWAY NETWORK  
THROUGH 2020, WITH ORIENTATIONS TOWARD 2030

### ANNEX 3: PRODUCTION COST GAP AND VEHICLE PRICE'S COMPONENT IN VIETNAM

#### 2.1. Comparison of production cost between Vietnam and other ASEAN countries

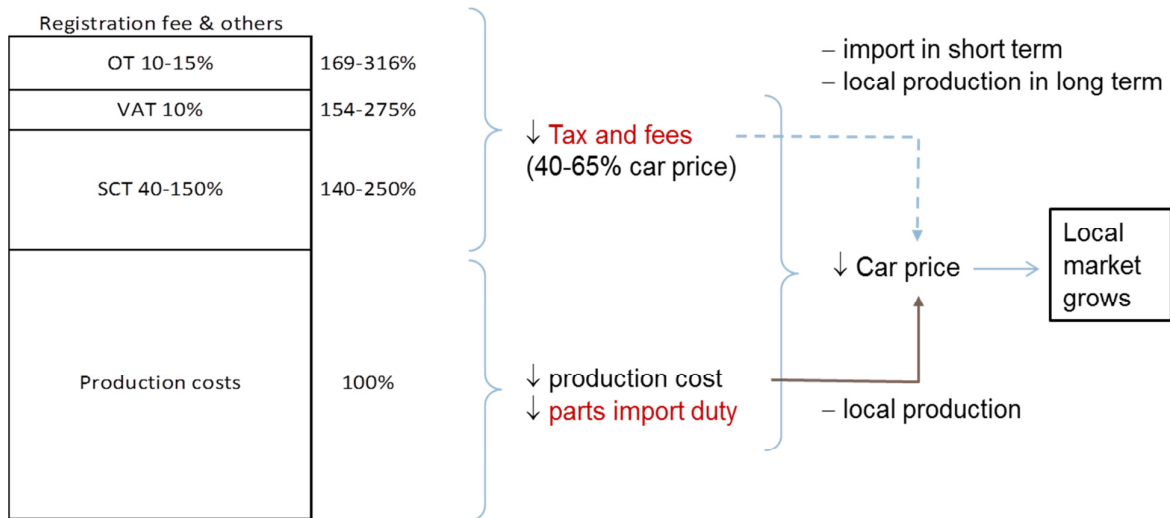
Production cost	(C) In-house production cost
	(B) Local parts procurements
	(A) Parts import duty

- (A) includes (i) import duty, (ii) logistics, (iii) parts price
    - ▣ Undeveloped SI → import more parts (+)
    - ▣ VJEPA signed later than that of other ASEAN, tariff reduction schedule is later than other ASEAN's schedule (+)
    - ▣ Parts imported from ASEAN are not able to enjoy 0% as RVC < 40% (+)
    - ▣ Higher logistics cost (+)
  - (B) SI is more developed in other ASEAN countries → their local parts procurement cost is higher (-)
  - (C) includes (i) depreciation, (ii) labor cost, (iii) operation cost
    - ▣ Higher depreciation as volume is smaller (+)
    - ▣ Lower labor cost but not much (-)
    - ▣ Equal operation cost
- VN's production cost is higher by 20% (±) comparing to other ASEAN countries'

Notes: (+) means higher cost, competitive disadvantage; (-) means lower cost, competitive advantage.

VJEPA: Vietnam – Japan Economic Partnership Agreement; RVC: Regional value content; SI: Supporting industries.

#### 2.2. Vehicle price's components in Vietnam





ANNEX 4: SEMINAR PRESENTATIONS (ATTACHED)

ANNEX 5: LIST OF SEMINARS' PARTICIPANTS (ATTACHED)

ANNEX 6: FIRM VISITS' MEETING SUMMARY (ATTACHED)