Abstract

the country's development strategy.

Industrial Policies and Implementation: Philippine Automotive Manufacturing as a Lens[1]

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I. Introduction

Since the Philippines' return to democratic governance in 1986, successive administrations have committed to sustain growth and reduce poverty. The present Philippine Development Plan 2011-2016 reiterates this in terms of an inclusive growth agenda with the twin goals of high, sustained growth and quality jobs to reduce poverty and income inequality. Industrial policies such as those bearing on the manufacturing sector are a critical element of the country's development strategy. Manufacturing creates opportunities for higher value-addition and extensive employment owing to forward and backward linkages with other sectors of the economy, and linkage to regional production networks, which has become a key factor in the growth of major ASEAN countries. Policy and business circles assert that participation in regional production networks in the manufacturing and machineries industries could promote the government's inclusive growth agenda[2].

This paper discusses Philippine industrial policy reforms and implementation over the period 1973-2014 through the lens of the automotive manufacturing industry. An underlying aim of the paper is to understand the policy reforms undertaken by the government but more importantly to analyze the capacity of the government to implement such reforms, and how the government responds to challenges and obstacles to reform.

Automotive manufacturing is an important sector of the economy. According to the Philippine Automotive Manufacturing Industry [PAMI] Roadmap in 2011, the automotive industry had a 12 percent share in total industrial output, or approximately 4 percent of GDP[3]. It has generated around 410,000 direct and indirect jobs in vehicle and parts manufacturing, auto dealerships and other auto-support jobs [Kabigting 2013]. Preliminary results of the 2012 Census of Philippine Business and Industry – Manufacturing Sector for Establishments with total employment of 20 and over indicate that out of the total employment of 1,056,172 in manufacturing establishments, around 6 percent (63,370 jobs) are in the Parts and Accessories for Motor Vehicles sector.

In analyzing the experience of the Philippine automotive manufacturing industry it is important to note that there are many internal and external factors that work for or against certain policy experiments. This paper posits that failure or success in promoting the development of the automotive industry in the Philippine case has much to do with the policy reforms pursued by the government and how these are implemented. The top-down policy package provided by the government in the 70s to the 90s to the automotive manufacturing industry has given way to the present approach of adopting a more nuanced

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[2] Kimura and Obashi [2011] describe production networks in East Asia, particularly in the manufacturing and machinery industries, as the most advanced in the world, in terms of their magnitude, extensiveness and sophistication.

[3] Source: http://www.campiauto.org/campi-celebrates-industry-progress-launch-5th-philippine-international-motor-show-pims/

public-private collaboration and coordination. The paper discusses the factors that will facilitate or will hinder the process of reforms and implementation under the new approach to the development of the automotive manufacturing industry. It highlights issues for successful implementation.

The paper is organized as follows: After the Introduction, Section 2 discusses the context of industrial policy reform in the country. Section 3 looks at the application of industrial policy on the automotive manufacturing sector. Section 4 provides some thoughts on policy implementation and the challenges faced by the government and other stakeholders in the reform agenda. Section 5 concludes with some comments on the importance of developing state capacity for reform.

II. Industrial Policy Reforms in Context

The policies impacting on automotive manufacturing may be considered at two levels[4]: at the macro level are the economy wide trade, industrial and foreign exchange policies that impact all sectors of the economy, and at the next level are the automotive industry specific policies[5]. From the 1950s to 1970s, the Philippine government adopted import substitution policy as its primary vehicle towards industrialization[6]. High protective tariff walls, non-tariff barriers, foreign exchange controls, and quantitative restrictions supported inward-looking import-substitution policy. The inward-looking import substitution strategy initially worked for the economy. Canlas and others, [2009] estimated that it raised the level of capital per worker, allowing GDP to grow by about 6.4 percent annually during the decade of the 60s-70s[7]. However, protectionist policies and foreign exchange controls eventually took its toll on the economy in terms of a balance of payments crisis, large external debt, and inefficient manufacturing industries, and an export industry with weak backward linkages [Aldaba, 1994; Austria, 2002]. Import substitution incentives led to a misallocation of resources and capital intensity in production processes, and failure to make full use of the country's abundant resource, labor. U [2005] noted that the share of labor-intensive manufactured goods to total exports remained small throughout the decades of the 50s and 60s.

Domestic manufacturers did not have the incentive to modernize and adopt innovations because of lack of competition and protectionist policies ensured their access to a domestic market, which unfortunately stayed relatively small. The protective tariff and non-tariff barriers to trade led to the rise of highly inefficient and uncompetitive industry and manufacturing sectors that only catered to the domestic market. Yap (1999) observed that protectionist policies channelled resources to sectors where the economy did not have comparative advantage.

While neighboring countries have started to embrace an export-led industrialization strategy, Philippine trade and development policy was fixated on maintaining a mercantilist and protectionist industrial policy and providing state support for inefficient but politically well-connected domestic firms. Domestic firms were also not able to develop the export capacity that would have expanded the market for tradable goods and created job opportunities for a growing domestic labor force [Llanto 2012].

There was an attempt to break free of the heavy import substitution of the 1950s and 1960s with the passing of the Export Incentives Act of 1970 [Republic Act No. 6135]. This was government's first initiative to move away from import-substitution policy. The Export Processing Zone Authority was also created in 1972 but this remained a relatively small enclave without linkages to the rest of the economy.

[4] Automotive manufacturing includes parts manufacturing, unless otherwise stated.
[5] U [2000] used this approach in a paper comparing the automotive and electronic industries in the Philippines.
[6] There are many excellent chronicles of import-substitution policy and its impact on the economy and industrialization. This section draws from, among others, Medalla and others [1996], Bautista and Tecson [2003], and Medalla [2002].
[7] Canlas, Khan, and Zhuang [2009].

There was a policy shift towards a more outward-looking industrial development strategy [Bautista 2003]. The government had an export promotion strategy in the 1980s and 1990s with trade liberalization efforts and major revisions in the investment incentive system. The export industry strengthened. Notably, there was a shift toward non-traditional products, i.e. electronic components and garments for exports (Dobner and Intal 1989). However, the overall policy stance remained biased against a more outward looking policy, and was largely inward-oriented as indicated by the support given to 11 major industrial projects deemed "winners" by the Marcos administration technocrats.

During the early part of the 1980s, a Latin American debt crisis blew with Mexico, Brazil and Argentina unable to service their foreign debt. A severe liquidity crunch followed affecting developing countries; capital sought safe havens in the developed world, and global trade contracted. A heavily-indebted Philippines suffered a balance of payments crisis in 1983-1985. The severe political turmoil brought about by the assassination of a prominent political opposition leader in August 1983 and a foreign exchange crisis were too much for the domestic economy to bear. Growth collapsed in 1984. With the economy on a tailspin, manufacturing activities all but ground to a stop with factories closing and labor laid off. The government's eleven [11] ambitious projects were put to a halt[8].

Martial rule ended in 1986. The Corazon Aquino administration restored democracy and embarked on far-ranging economic policy reforms, dismantling monopoly control in some industries, e.g., fertilizer, sugar, lifting price controls and some quantitative restrictions. Export development and promotion continued with the implementation of the National Export Development Plan.

There were attempts to liberalize trade in the early 1980s but the real major effort in achieving greater openness of the economy and more vigorous trade liberalization started in the late 1980s under the administration of Corazon Aquino. From thenceforth, trade and industrial policies were geared toward trade liberalization, privatization, and deregulation [Medalla, 1986; Medalla, 1998; Llanto, 2014]. The main driver of economic and regulatory reform in the post-Marcos period was the desire to recover growth and stabilize the economy after years of patchy economic performance during the martial rule period.

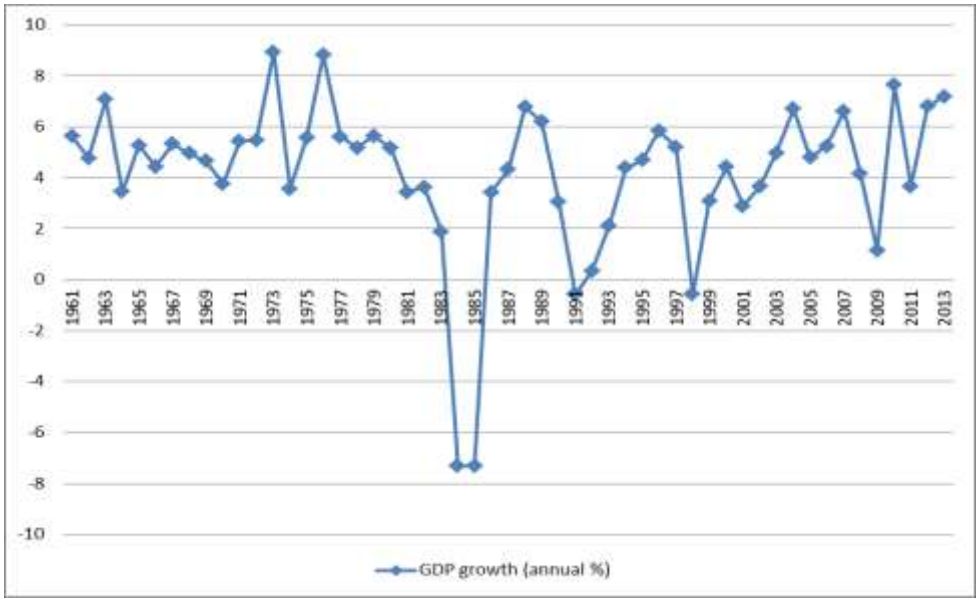
The Ramos administration unilaterally put in place a profound tariff reduction and import liberalization program geared for long-term industrial restructuring [Canlas, 1996] but this happened mainly because of the support and cooperation of a political coalition hammered in Congress by a pragmatic Speaker of the House of Representatives. Other significant reforms in the 1990s covered central banking, energy, telecommunications, shipping, and water. Monetary policy, financial stability and regulation of banks were strengthened through the creation of the Bangko Sentral ng Pilipinas, replacing the debt-ridden Central Bank of the Philippines, which had threatened to be a drag to the economy. The Public Telecommunications Policy Act enacted in 1995 provided a regulatory framework for the telecommunications industry, which has just come out from a monopoly [Llanto, 2015]

The Philippines continued to liberalize the economy in the 2000s. It entered into several trade agreements such as ASEAN+1 and the Japanese Philippines Economic Partnership Agreement (JPEPA). As of today, the government is engaged in 11 free trade agreements such as ASEAN-EU, ASEAN-Hong Kong, China, Philippines European Free Trade Association, Regional Comprehensive Economic Partnership, ASEAN Free Trade Area, ASEAN-Australia and New Zealand, ASEAN-India, ASEAN-Japan Comprehensive Economic Partnership, ASEAN-PRC Comprehensive Economic Cooperation Agreement, and JPEPA.

[8] The 11 major industrial projects were as follows: 1) copper smelting, 2) alcogas development, 3) diesel engine manufacturing, 4) iron and steel mill complex, 5) a petrochemical complex, 6) cement industry expansion, 7) aluminum smelting, 8) phosphatic fertilizer, 9) heavy industry development, 10) coconut industry rationalization, 11) integrated pulp and paper.

The economy recovered and grew during the post-Marcos years but there were slippages, in 1992 due a debilitating domestic energy crisis, in 1997 due to the Asian financial crisis, which originated in Thailand, and in 2009 due to spillover effects of the global financial crisis that originated from sub-prime mortgages in the U.S. [**Figure 1]**. The economy has since rebounded and recent economic performance under the present administration has shown signs of sustained growth although poverty reduction remains problematic.

Figure 1. Annual Gross Domestic Product Growth, 1961 to 2013



Source of basic data: World Bank's World Development Indicators

Policy reforms, the transition to a more open economy, and improved governance have resulted in a much better performing economy [**Tables 1** and **2].** Bautista and Tecson [2003] pointed out the shift from exports of traditional primary sector products to exports of higher value manufactured products, with an increase in its share of over four-fifths of total exports by 2000 from about one-third in 1970. The liberalization of foreign investment followed the passage of the 1991 Foreign Investment Act. The law allowed foreign entry up to 100 percent equity ownership in all sectors of the economy except those contained in its negative list and those expressly limited by the country's constitution [U, 2005]. The Philippine economy has registered strong growth and also an improved performance for the manufacturing sector in the last two years [**Table 2**].

Table 1. Philippine Value Added and Employment (1980s, 1990s, 2000s)

	Value Added						**Employment**		
	Average Growth			**Average Share**			**Average Share**		
	80s	**90s**	**20s**	**80s**	**90s**	**20s**	**80s**	**90s**	**20s**
GDP	1.7	3	4.7	100	100	100	100	100	100
Agriculture	1.1	1.8	3.0	23.9	20.8	18.9	49.6	43.2	36.1
Industry	0.3	3.0	4.2	38.0	34.1	33.1	14.5	16.0	15.1
Manufacturing	0.9	2.5	4.1	26.3	24.3	23.7	9.9	10.0	9.1

Services	3.3	3.6	5.8	40.4	42.4	48.0	35.9	40.9	48.8

Note: 2000s figures cover data up to 2012.
Source: Aldaba (2013a).

Table 2. Philippine Value Added and Employment, 2013 and 2014

	Value Added				Employment	
	Growth		Share		Share	
	2013	2014	2013	2014	2013	2014
GDP	7.2	6.1	100	100	100	100
Agriculture	1.1	1.9	10.4	10.0	30.4	30
Industry	9.3	7.5	32.8	33.3	15.8	16
Manufacturing	10.3	8.1	22.7	23.2	8.5	8.4
Services	7.2	6.0	56.8	56.7	53.8	53.9

Source of basic data: Philippine Statistics Authority

It is noted that services have been the major growth driver in the 2000s while manufacturing has yet failed to recover its major role in value addition and employment. Various studies have pointed out the very little movement of resources into manufacturing, its failure to generate substantial employment, and failure of long-term manufacturing strategy. Aldaba [2013] explained this phenomenon well. According to her, a strong and modern industrial sector is needed. However, the overall performance of the manufacturing industry in the past two decades has been weak in terms of its contribution to employment, investment, and productivity growth. From the 1980s up to the early 2000s, manufacturing growth was slow with an average of 0.9 percent in the 1980s and 2.5 percent in the 1990s. Modest growth was posted in the 2000s averaging 4.1 percent. The share of manufacturing to total industrial output remained unchanged during the same periods, accounting for 28 percent of total output in the 1970s, 26 percent in the 1980s, and 24 percent in the 1990s and 2000s. In terms of employment generation, the manufacturing industry failed in creating enough employment to absorb new entrants into the labor force as its share to total employment dropped from 11 percent in the mid-1970s to 9 percent in the 2000s.

It seems that previous industrial policies have failed to contribute to structural transformation of the economy. While the services sector has become a major growth driver, the economy would have been served better by a robust manufacturing sector at the same time because of its higher employment generation potential compared to that of services.

From this perspective, a "new industrial policy" has been crafted by the present administration to reinvigorate the manufacturing sector and make it a major growth and employment driver. The new industrial policy looks at the most binding constraints affecting firm growth and productivity and focuses state intervention to such constraints. The idea is to eliminate those critical barriers to growth and productivity through a more nuanced and targeted set of interventions. The new industrial policy is not about providing comprehensive and non-discriminating incentives to firms or sectors targeted for state intervention. Canlas and others [2009] have identified the lack of infrastructure, weak investor confidence arising from governance issues, and weaknesses in the regulatory environment and investment climate as the most binding constraints affecting industry growth, entry of new firms, and their movement to a higher technology scale.

Thus, the policy advice given to government is as follows: 1) improve the competitiveness of industries, which requires improvement of the investment climate and efficient use of existing capacity expansion and expansion of productive capacity through technological catch-up, structural transformation; and 2) create and implement effective government policies to accelerate the growth and development of the private sector, which may be done through strengthened public and private sector (industry) collaboration for industrial and technological upgrading [Aldaba, 2013]. Investments in much needed hard infrastructure will complement these market-enhancing policies. **Figure 2** shows the framework of the new industrial policy.

Government is presently collaborating with the private sector in producing industry roadmaps, which identifies measures to address constraints to firm growth and productivity, and coordination mechanisms for consistent policies and interventions. The horizontal measures focus on human resource development, technology upgrading and innovation, measures to address power, logistics and infrastructure costs, smuggling, and measures to promote investments and competitive exchange rate policy. The vertical measures are those that will close the supply-chain gaps in food, furniture and garments; integrate mechanisms that would link together different segments of iron and steel, copper, and chemicals industries; and expand domestic market and exports, i.e. automotive and shipping industries The coordination mechanism serves as the venue for discussion, problem solving, and monitoring of horizontal and vertical measures [CPBRD 2013]. **Figure 3** shows an implementation timeline.

Figure 2. Framework of Philippine New Industrial Policy, Targets and Strategic Actions

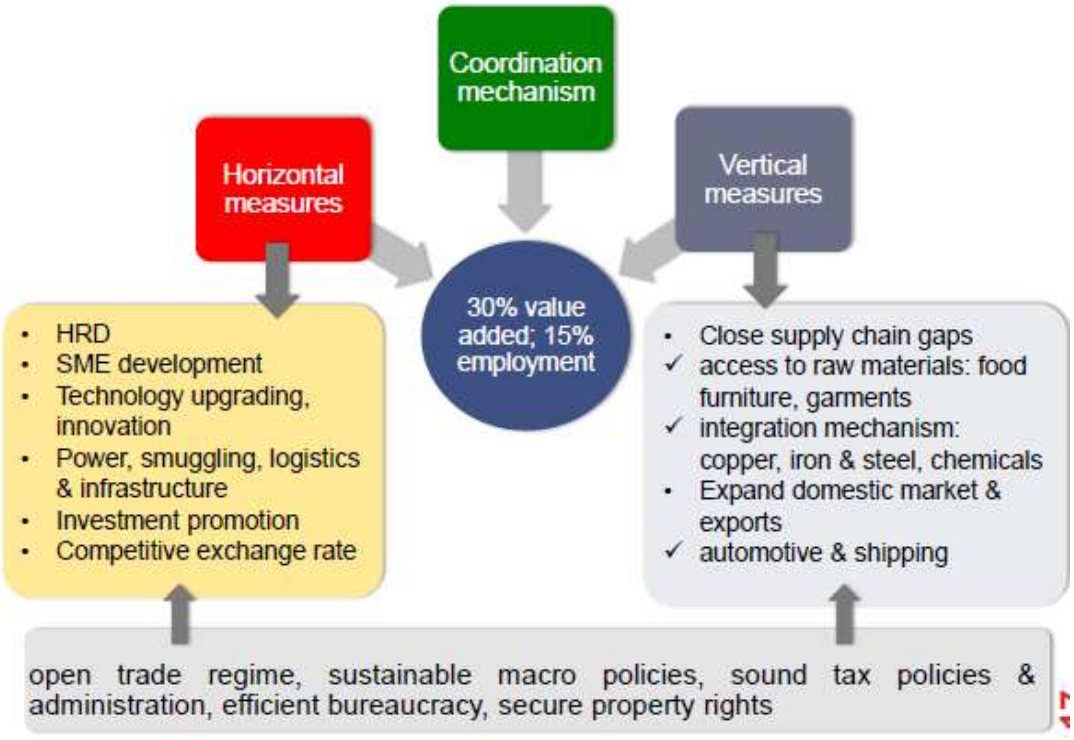
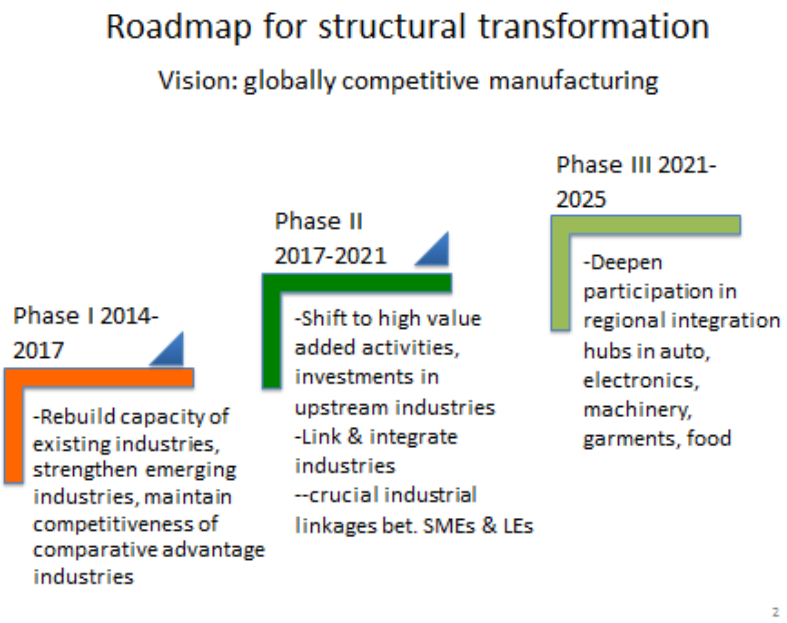


Figure 3



Source: Aldaba [2013]

In sum, the "boom-bust" characterization of the Philippine economy seems to be a thing of the past. The economy has recovered and shows signs of sustained growth. Economy wide policy reforms as well as sector-specific reforms and a more stable political framework combined to provide the impetus for sustained growth but the reduction of poverty and inequality has remained elusive. At present, the main reform driver is the urgent need to have more inclusive growth. Indeed, growth appears to be self-sustaining but various pundits call it "jobless growth." The quest for inclusive growth, thus, provides the government with the rationale to craft its "new industrial policy" that is expected to create opportunities for higher value-addition and extensive employment generation especially through a reinvigorated manufacturing sector. To achieve this objective, the current broad industrial reform policy seeks to improve the competitiveness and productivity of firms, and diversify the manufacturing export base.

Aldaba [2013] documented the concentration of the country's exports to three product groups: electronics, garments and textiles, and machinery and transport equipment, signifying the lack of diversification of the export base. These are mostly low value-added and labor-intensive product sectors, dependent on imported inputs. In terms of product space [Hausmann and Klinger, 2006] the Philippines operates along the periphery [Usui, 2012]. However, there are opportunities to diversify the manufacturing export base and to produce higher value products as pointed out in such studies as that of Nomura Research [2010], which indicated Philippine comparative advantage in electronics subsectors like printers, multifunction peripheral, projectors, scanners, and digital cameras. The Philippines has comparative advantage in a number of products like ignition/other wiring sets for vehicles; radio receivers, external power; lead-acid electric accumulators; brake system parts; transmissions for motor vehicles; pneumatic tyres for motor cars and other parts and components [Aldaba, n.d][9].

[9] Auto Parts Industry Roadmap

Among the priority industries[10] identified by the present government is the Philippine automotive manufacturing industry, which has two subsectors, namely: the motor vehicle assembly sector (passenger cars, commercial vehicles, and motorcycles) and the parts and components manufacturing sector. The interest and support given by the Philippine government and the private sector to the automotive manufacturing industry can be explained by its great potential for higher value-addition and employment. It has an extensive and significant backward and forward linkages with other sectors of the economy. U [2005] referring to Yannis [1990] indicated the extensive linkages of the automotive industry with other sectors of the economy: to manufacture a motor vehicle, products from a wide array of sectors in the economy are assembled: tires (rubber), windshield (glass), metal body parts (iron and steel), upholstered seats (garments/leather), instrumentation panel (electronics and plastics), wiring harness (metal products), and many others.

III. Industrial Policy Making: Case of Automotive Manufacturing

A Brief History[11]

As early as 1916, completely built up (CBU) automotive vehicles were already made available in the country through importation. However, according to U (2005), the importation of CBUs was eventually put on a halt due to the Import Control Law of 1950 which was passed in response to a foreign exchange crisis. This led to the creation of the first Filipino automotive company to import and assemble completely knocked down (CKD) vehicles. It also marked the beginning of a Philippine automotive market that generally favored the local automotive assembly industry supported by protectionist policies such as local content requirements and restrictive import barriers. **Table 3** chronicles the evolution of policies and programs for the development of the automotive manufacturing industry.

Table 3. Evolution of Government Policies and Programs on the Automotive Industry

Year	Program/Policy	Features/Objectives
1973	• Progressive Car Manufacturing Program (PCMP) • Progressive Truck Manufacturing Program (PTMP)	- increase local assemblers domestic content from 10 percent in 1973 to 60 percent in 1976 - promote horizontal integration in the industry by the creation of new manufacturing activities among small and medium scale enterprises through subcontracting and transfer of technology - build up exports of manufactured products in a regional (ASEAN) automotive complementation program
1987	• Car Development Program (CDP); Commercial Vehicle Development Program (CVDP); Motorcycle Development Program (MDP)	- increase local assemblers domestic content from 32.26 percent in 1988 to 40 percent in 1990 - develop a viable automotive parts manufacturing industry - facilitate technology transfer and development - generate employment, make available reasonably priced passenger cars, and earn and save foreign exchange for the country

[10] This includes the following: automotive motorcycle, shipbuilding, chemicals and allied industries, electronics, electrical appliances, garments, textiles, copper, food and agri-business, pulp and paper, rubber, furniture, jewelry, and iron and steel. These priority industries were selected based on the analysis of their revealed comparative advantage in the past 20 years, sector specific roadmaps, and potential product opportunity sets for the country (CPBRD 2013).

[11] This section drew from U [2005].

Year	Program/Policy	Features/Objectives
1990	• People's Car Program (PCP)	- include the assembly of smaller cars, named as people's car, or passenger cars with gasoline engine displacement of not more than 1200 cc - meet the minimum local content usage from 35% in 1991 to 51% in 1993
1992	• Luxury Car Program	- allow the entry of high end passenger cars defined as passenger cars with engine displacement greater than 2800 cc
1994	• ASEAN Industrial Joint Venture (AIJV) Scheme	- allow the entry of new assemblers under the ASEAN Industrial Joint Venture (AIJV) Scheme
1996	• Memorandum Order Number 346 • Car Development Program • Commercial Vehicle Development Program	- open up the closed vehicle categories to new participants and removed restrictions on the number of models and variants - terminate the foreign exchange and local content requirements under the CDP and CVDP in the year 2000
2002	• New Motor Vehicle Development Program (EO 156)	- ban the importation of all types of used motor vehicles and parts and components, except those that may be allowed under certain conditions - restructure the Most Favored Nation (MFN) tariff rates for motor vehicles and their raw materials and parts and components at such rates that will encourage the development of the Philippine motor vehicle industry. - restructure the current excise tax system for motor vehicles with the end view of creating a simple, fair and stable tax structure - continue the application of AICO scheme as maybe adopted by the Association of Southeast Asian Nations (ASEAN) - give incentives to assemblers and parts and components makers for the export of CBUs and parts and components
2003	• EO 262 • EO 244	- modify the tariff rates on motor vehicle parts and components - provide special incentives to certain CBU exports
2004	• EO 312	- modify EO 244 to expand coverage of CBU exports and provide special incentives for the export of certain CBUs
2012	• Philippine Industrial Development Plan	- revive the manufacturing industry to promote inclusive growth - pursue the following activities per Department of Trade and Industry (DTI): (1) continued implementation and monitoring of the completed roadmaps; (2) completion of remaining industry roadmaps; (3) information dissemination on the industry roadmaps' contents; (4) revival of the Industry Development Council; (5) preparation of feasibility studies and capacity-building sessions for key stakeholders; and (6) advocacy programs to undertake policy and industry-level reforms - craft roadmaps among 26 identified industries, led by the private sector - implementation of the Manufacturing Resurgence Program

Source: Table 1A in Aldaba (2007) - for period 1973 to 2004; compiled by author - 2005 to present

The first comprehensive program crafted for the development of the automotive manufacturing sector was the Progressive Motor Vehicle Program (PVMP), which was implemented in 1972. It had three major components, namely: 1) the Progressive Car Manufacturing Program (PCMP); 2) the Progressive Truck Manufacturing Program (PTMP); and 3) the Progressive Motorcycle Manufacturing Program

(PMMP). The program's objectives centered on increasing domestic content requirement, controlling the number of local assemblers, and banning of importation of vehicles (U 2005). The program seemed to have benefited the sector as substantial growth of the parts and components manufacturing sector was achieved primarily owing to the growth of the vehicle industry itself and the implementation of the domestic content requirement. Assemblers, which also export their products, also had to invest more on capital intensive undertakings in automotive parts (U 2005). However, in the latter years of the program, the sector suffered due to the previously discussed political and economic turmoil starting in 1982-1983. There was a decline in parts manufacturers by 40 firms while out of the five car assemblers, only two car assemblers remained in operation, i.e. PAMCOR-Mitsubishi Motors and Nissan Motors.

The automotive industry development program under the presidency of Corazon Aquino was the "The Rationalized Motor Vehicles Program." It had the following components: 1) Car Development Program (previously PCMP); 2) Commercial Vehicle Development Program (previously PTMP); and 3) motorcycle development program. Overall under this program was development of a viable automotive parts industry due to the increase in local content requirement from 35 percent in 1988 to 51 percent in 1990. However, the manufacturing and exports industry was not able to perform as expected.

In 1990, the People's Car Program was implemented, which included the assembly of small cars with a selling price of about PHP 175,000. The price was later on increased by the BOI to PHP 300,000 by the mid-1990s. The Program aimed to increase investments in the sector by at least PHP 200 million. In 1992, entry of high-end passenger cars was allowed through the implementation of the Luxury Car Program. In 1994, the new assemblers were allowed to join the market under the ASEAN Industrial Join Venture (AIJV) scheme. This system comprises the following features: 1) foreign exchange requirement which allows them to earn 50 percent of their foreign exchange requirements in the first six months of SKD/CKD operations, while the other half will be paid during the succeeding month. Under this amendment in the CDP, Proton of Malaysia arrived in the industry.

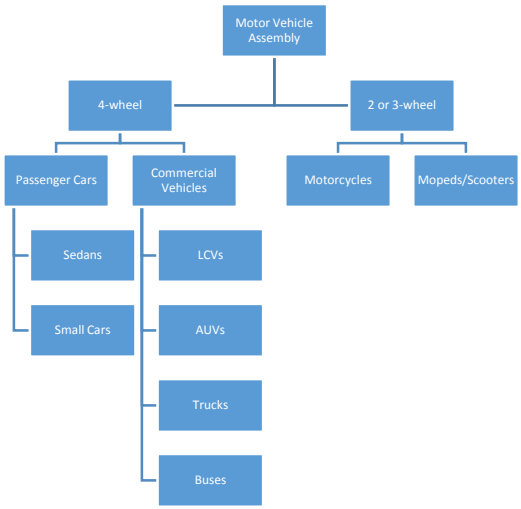
The New Motor Vehicle Development Program created in 1996 introduced significant changes in MVDP policy objectives, particularly, the specification of the need to increase exports of automotive parts and components to develop a viable automotive parts manufacturing industry. Liberalization of previously closed categories, i.e. People's car, passenger cars, and light commercial vehicles also took place. Thus, from the 1987 MVDP policy up to the 1996 amendments, U (2005) found the following as the main policy tools of the government in developing the automotive parts industry: 1) local content requirements; 2) foreign exchange requirement (earned by directly or indirectly exporting motor vehicles, auto parts); 3) minimum investment requirements on auto parts manufacturing; 4) promotion of ASEAN Brand-to-Brand Complementation scheme; and 5) tariff differential between CKDs and CBUs.

Present Situation of the Philippine Motor Vehicle Industry[12]

The Philippine motor vehicle industry is comprised of two sectors: the motor vehicle assembly and the motor vehicle parts and components manufacturing. The motor vehicle assembly sector is grouped based on the type of motor vehicles, such as passenger cars, commercial vehicles (utility vehicles, pick-ups, vans, trucks, buses, special purpose vehicles) and motorcycles [**Figure 4**].

[12] This is taken from the Auto Industry Profile 2013

Figure 4 Philippine Motor Vehicle Assembly



Passenger cars refer to any four-wheeled motor vehicle, which is propelled by gasoline, diesel, electricity or any other motive power and principally designed to transport persons and not primarily to transport goods.

Commercial Vehicles refer to any or more wheeled motor vehicle, which is propelled by gasoline, diesel, electricity and any other motive power and principally designed to transport persons and/or goods/cargoes, such as light commercial vehicles, buses, trucks, and special purposes vehicles (for example. Ambulances, fire trucks, and the like)

Light Commercial Vehicles refer to vehicles whether 4-wheeled drive or not, which may be classified under but not limited to the following: utility vehicles, sports utility vehicles, Asian utility vehicles, commuter vans, pick-ups, which are designed to carry both passenger and goods/cargoes.

Motorcycles refer to any two or three-wheeler vehicle fitted with an auxiliary motor, with or without sidecars.

Motor Vehicle Assembly

The Philippine motor vehicle industry is principally dominated by Japanese automobile manufacturers such as Toyota Motor Phils. Corp. (TMPC), Mitsubishi Motor Phils. Corp. (MMPC), Honda Cars Phils., Inc. (HCPI), Nissan Motor Phils., Inc. (NMPI) and Isuzu Phils., Inc. (IPC). While Pilipinas Hino, Inc (Hino) and Columbian Motors Corp. (Nissan Diesel) dominate the trucks and buses category. Other vehicle assemblers carry German and Chinese brands: Man Automotive Concessionaires Corp. (MAN buses-rear engine), Dreamco Automobile Co., Inc. (JMC light trucks), Transport Equipment Automotive Components, Inc. (KAMA and Dongfeng light trucks), IKK Ichigan, Inc. (Jinbei light trucks), JAC Automobile (JAC Motors) and Statemotor (Great Wall).

At present, there are 4 passenger cars assemblers, 14 commercial vehicle assemblers and 30 motorcycle assemblers registered participants under the program with a total plant capacity of 2,937,480 units / year [**Figure 5**].

Figure 5. Breakdown of motor vehicle assembly by number of participants and capacity

Classification	No. of Participants	Total Capacity
Passenger Car	4	200,000 units/year
Commercial Vehicle	20	146,022 units/year
Motorcycle	31	2,570,008 units/year

In terms of production and sale, the motorcycle industry is likewise dominated by Japanese manufacturers: Honda Phils., Inc. (HPI), Kawasaki Motor Phils. Corp., Suzuki Phils., Inc. and Yamaha Motor Phils., Inc. (YMPI). Most of the other motorcycle assemblers' are carrying Chinese brands such as Sinski, Lifan, Skygo, Shineray, Loncin, Zongshen and others. Others participating motorcycle brands are Taiwanese (SYM and Kymco), Thai (Tiger), Malaysian (Demak) and Indian (Granstar).

Parts and Components

There are 272 companies that form the Philippine Automotive Supply Base producing over 330 parts and components made of metals, plastic, rubber and composite materials for both the original equipment manufacturer (OEM) and replacement market. Almost forty percent (40%) of all parts manufacturers produce OEM parts while the remaining sixty percent (60%) caters to the post-sales market. The principal parts and components manufacturers such as Yazaki-Torres Manufacturing Corp., International Wiring Systems Phils., Inc., Asian Transmission Corp., Toyota Autoparts Phils., Philippine Auto Components, Inc., are also serving the export market.

The parts and components industry are composed of members from Motor Vehicle Parts Manufacturers Association of the Philippines (MVPMAP) with a total number of 131 members. Other parts manufacturing companies are from Motorcycle Parts Producers and Exporters Association (MCPPEA) composed of 76 members and 49 represents second and third tier suppliers.

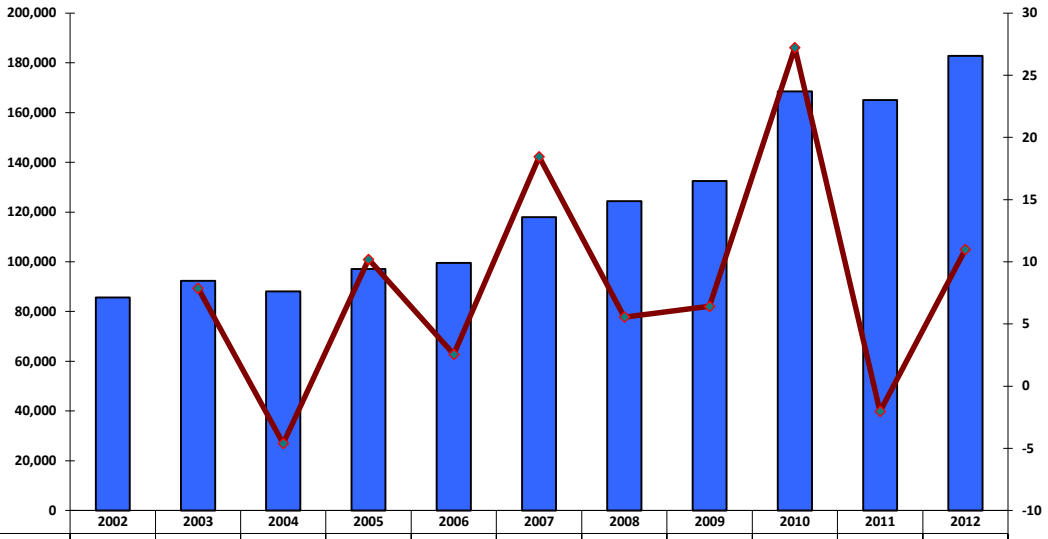
The parts and components industry approximately employs 60,000 workers. The present workforce is recognized to be highly skilled and trainable. The manufacturers themselves have contributed to the growth of the industry through the continuing education and training of its workers in vocational schools with the assistance of agencies like the Technical Education and Skills Development Authority (TESDA) and foreign funded technical assistance program provided by the Japanese government. The objective is to improve labor skills through issuance of Skills Certification.

Industry Performance

Passenger Cars and Commercial Vehicles

The performance of the motor vehicles (passenger cars and commercial vehicles) sector has been doing well since 2002. Total industry sales dropped by 2.04% in 2011 with 165,055 but slightly recovered in 2012 with 182,779 units sold [**Figure 6**].

Figure 6 - Passenger Car and Commercial Vehicle Sales (2002-2012)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
PC and CV	85,594	92,336	88,077	97,064	99,541	117,903	124,449	132,444	168,490	165,055	182779
Growth		7.88	-4.61	10.2	2.55	18.45	5.55	6.42	27.22	-2.04	11

Source: Chamber of Automotive Manufacturers of the Philippines, Inc. (CAMPI)
Truck Manufacturers Association of the Philippines (TMA)

Export Sales

CBU Exports: Ford Motor Co. Phils., Inc. pioneered the volume exports of finished automobiles in 2004 when it participated in the Automotive Export Program (AEP). Ford exported CBU cars to Thailand, Malaysia, Indonesia and Singapore. However, in December 2012, Ford the sole volume exporter of CBUs, decided to shut down its production.

Major Export Products (Automotive Parts): The export revenues of the industry have constantly been increasing and maintain its competitiveness. The bulk of total exports were accounted for by wiring harness, lead-acid storage batteries, road wheels, intake air filters, brakes and clutch pedals, steel-belted automobile tires, other gear boxes, body parts and accessories, and other motor vehicle parts (excluding rubber tires, engine and electric parts).

In 2012, the parts manufacturing has generated US$ 3.49B in exports from only US$ 600M in 1995. The better part of automotive parts exports is that total export value has been increasing moderately since 2002. In 2012, automotive parts exports slightly decreased to US$3.49B compared to US$3.75B in 2011.

Over 90% of exports are accounted for by MNCs. More than 50% of local parts manufacturers are largely domestic-oriented, relying on local parts purchases from assemblers for their production and sales. The current top five (5) markets of automotive parts include Japan, Germany, United States of America, Thailand and Indonesia.

Source of Motor Vehicles KD's

The industry's basic activity is assembly of knocked-down (KD) and some manufacturing of parts. KD's are source mainly from Japan, ASEAN countries (Thailand, Indonesia and Malaysia), China, and some from India and Taiwan.

Since the 1970s, the government has been attempting to develop the industry as it is deemed to have strong potential in creating quality employment, comprising the professional, technical, and skilled workers, given its extensive forward and backward linkages to various domestic industries. So far, this objective has not been fully realized. The CPBRD (2014) reported that export sales of motor vehicles has been on a decline since 2011, that is, from USD 127.7 million in 2010 to USD 59.2 billion in 2012. Some car assemblers like Ford has moved to Thailand, attracted by a large domestic market and agglomeration economies in that country. This is also understandable because the automotive industry subsists and develops on economies of scale, which the relatively small Philippine market does not provide.

But there seems to be a huge potential as indicated by the increasing demand in the recent years. **Figure 7** shows the trend of sales of passenger cars and commercial vehicles in the country. As the economy develops on a fast clip, this is expected to grow even further up to 500,000 units of sales by 2020.
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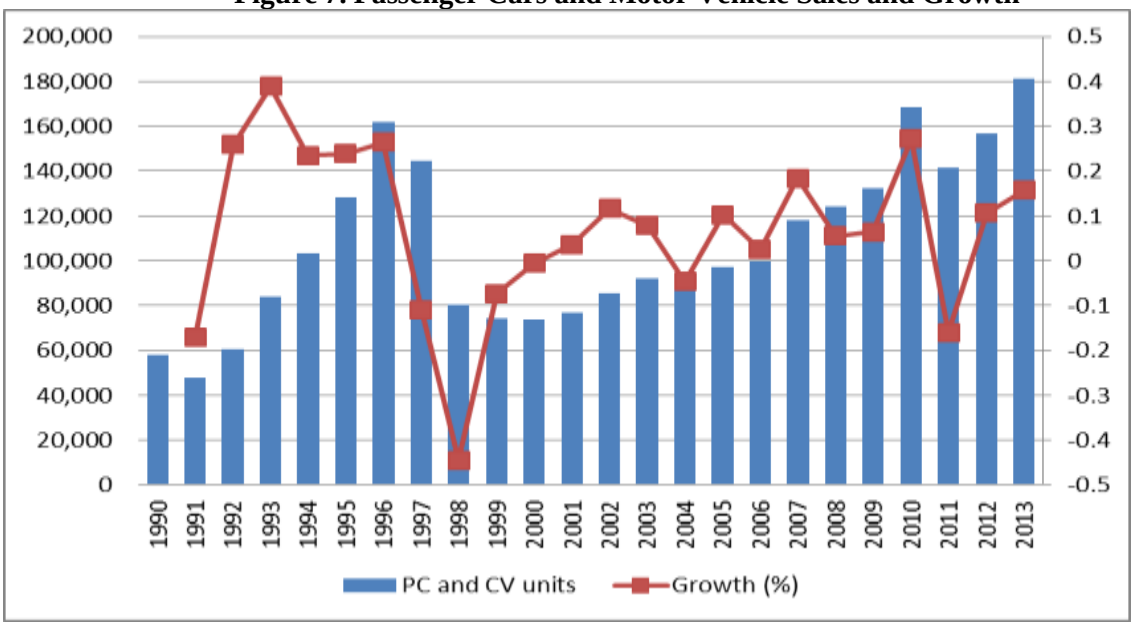
Figure 7. Passenger Cars and Motor Vehicle Sales and Growth



Source: Chamber of Automotive Manufacturers of the Philippines, Inc. (CAMPI) as reported in the Philippine Statistics Authority's Economic Indicators (various monthly publications); Table 6 in Aldaba (2007)

The Philippine National Competitiveness Council (NCC) highlighted that the automotive industry is now considered as one of eight identified sectors that are likely to succeed in the world market, thus adding justification to current attempts to reinvigorate the domestic automotive manufacturing industry.

The Philippine Automotive Manufacturing Industry Roadmap*: *"New Industrial Policy"

In general, both the private sector and the government have realized that the era of import-substitution and protectionist policies has long passed and that a more outward looking policy, e.g., trade liberalization, greater openness to foreign direct investments offers important pathways to increase growth and foster competitiveness and productivity of domestic industry and manufacturing. Finding a niche in a competitive global and regional market place is a challenge that local private firms have realized they have to deal with. Through a series of meetings and workshops on different sectors of industry and manufacturing, e.g., chemicals, automotive, pulp and paper, electronics, facilitated by the PIDS these stakeholders [government and private] have found a common cause to reinvigorate the automotive manufacturing industry, and a resolve to discover, formulate and support a private-sector led industrial strategy to develop the sector.

Eschewing protectionist policies, which have proven ineffectual in the development of automotive manufacturing, the government and the private sector have teamed up to develop a Roadmap for the industry. It should be noted that the Roadmap was an initiative of the private sector [PACCI]. Government through DTI has assumed the role of enabler whose main task is to provide market-enhancing policies and a more nuanced support to private firms. The new approach to industrial policy consists of a program, which came out of the consultations between government and the private business sector, that is supposed to be well-targeted, time-bound and performance-based,.

The main champions from the government side is the Department of Trade and Industry[13]At the private sector side is the Philippine Automotive Competitiveness Council, Inc. [PACCI] composed of domestic car and truck assemblers and parts manufacturers and suppliers. Before the formation of PACCI, car and truck assemblers on one hand, and parts manufacturers and suppliers on the other hand, have their respective trade and industry associations. The PACCI is a recent organization established after the different trade and industry associations realized the advantages of working together for a common goal bound by a same set of principles.

The government and the private sector collaborated in producing the automotive manufacturing industry road map. In particular, the Roadmap Team of the Philippine Automotive Competitiveness Council, Inc. (PACCI)[14] prepared the road map, which will guide the crafting of the National Industrial Strategy for the Automotive Manufacturing Industry, an effort led by the Department of Trade and Industry.

The general objective of the Roadmap is to increase the market share of completely knocked-down (CKD) units relative to completely build units [CBUs] to 70:30 by 2022, achieve full capacity utilization, and contribute to national economic growth through increased investments, jobs, production in allied sectors, and resumption of exports[15]. See **Box 1**.

[13] DTI was assisted by Philippine Institute for Development Studies in conducting assessments of various sectors in industry and manufacturing, e.g., automotive manufacturing industry, chemicals, pulp and paper.

[14] PACCI was formed to provide a unified voice to support the Philippine domestic vehicle and parts' manufacturing industry. PACCI aims to increase the overall competitiveness of the industry within the global market. PACCI's mission is to to play an active role within the dynamic collaboration between the Philippine Automotive Manufacturing and the government in full support of their shared objectives towards sustained productivity and increasing global competitiveness (PACCI website).

[15] From PIDS notes on a seminar held by automotive firms and auto parts suppliers on December 3, 2012.

Box 1. Roadmap Strategic Objectives

IMMEDIATE GOAL: INCREASE THE SHARE OF CKDs IN THE GROWING PHILIPPINE MARKET

- **Objective 1: support participating manufacturers**
    - Preserve and increase market share (70:30 CKD:CBU)
    - Increase nationwide capacity 150% by 2020
    - Achieve full capacity utilization
- **Objective 2: contribute to national economic growth**
    - PHP 41 billion additional investments
    - 70,000 new jobs
    - PHP 151 billion additional production in related sectors
    - Resume export operations

Source: PACCI (2012).

To attain the targets, the roadmap proposes a package of development measures categorized into two components. The first component is the industry-wide non-fiscal policy support measures that aim to foster the domestic market through regulatory reforms and improvement of the policy environment for automotive manufacturing, e.g., regulations on motor vehicle importation, registration and operation. The second component consists of fiscal incentives, e.g., tax credits, duty-free importation.

PACCI expects that by 2015-2016, the sales of CKD and CBU units will approximately reach 300,000 units. More importantly, it is estimated that the 70:30 split between CKDs and CBUs is completely attainable by 2019. In terms of production, the industry has the potential to make 273,000 units by 2017 (225,000 for domestic market and 48,000 for exports market) and 506,000 units by 2022 (350,000 for domestic and 156,000 for exports market). Projected additional outputs, increase in household incomes, and increase in employment is illustrated in **Figure 8.**

Figure 8. Projected Additional Outputs, Increase in Incomes and Employment

Php 41 Billion additional investments

Php 150.5B worth of additional output	**Php 11.1B** worth of additional household income	**70,000** additional employment

Auto industry	Php 54.2B	Php 4.4B	27,090
Other industries	Php 96.3B	Php6.7B	42,910

*Multipliers used (C. Terosa, September 2010)
- Output = 3.67
- Household Income = 0.27
- Employment = 169K jobs/ Php100B investment

IV. Policy Implementation and Challenges

The main thrusts of the new industrial policy are the identification of market failures that act as barriers to growth of the industry such as information externalities and coordination failure, and the design of innovative measures that could effectively address them. Altenburg [2011] pointed out that the most important market failures in poor countries consist of information externalities, inability to deal with dynamic scale economies and knowledge spillovers, and coordination failure.

The most challenging and difficult dimension of the policy reform process is policy implementation. Even the best laid industrial plan may be waylaid by anticipated and unforeseen factors. Policy reform and implementation are not easy tasks because of the diversity of interests in a given society. The success of the policy reform program for the automotive manufacturing industry will depend on a number of factors and the interplay of goals and interests of various stakeholders. It is important to have state capacity for policy reform and implementation. Public institutions should be adept at navigating the currents of political economy issues that could stand in the way of the implementation process. Public institutions [DTI, BOI in the case of the automotive manufacturing industry should have the capacity to shepherd policy reform and the implementation process involving several protagonists, e.g., local governments, the PACCI [advocacy group composed of car assemblers and parts and component makers], with competing interests and goals.

Broadly, the stakeholders in this sector are [i] private car and truck manufacturers [assemblers], consumers, and government. Academics and caused-oriented civil society are also potential stakeholders but together with consumers, they were not actively involved in the formulation of the Industry Roadmaps, including that for the automotive sector, and they will neither be involved in implementation.

The main government agency involved in policy implementation in the automotive industry is the Department of Trade and Industry and its attached bureau, the Board of Investments. These government agencies are currently headed by competent professional managers [DTI Secretary and officials recruited from the academe and private law or business practice] and are peopled by long-serving civil servants. Currently the morale and motivation for reforms and implementation are high and it helps that the DTI Secretary has direct access to the President himself. There seems to be no reason to doubt the professional integrity and capacity of the top officials who will collaborate with the private sector in policy implementation. The Philippine civil service is populated by capable professionals and technicians but such bureaucrats have to be constantly motivated and inspired to do a good job. In a leadership-centric society such as Philippine society, the quality and commitment of the leadership matters a lot successful implementation of policy reforms. Possible weak areas are the lack of familiarity with the new industrial policy approach and lack of experience in implementing a complex reform program with the private sector.

The envisaged policy reform and implementation package for the automotive industry calls for close coordination and transparency over a long period of time. Stakeholders have to stay the course for the new industrial policy to succeed. Implementing the package of assistance to industry will require a long-term relationship and close engagement with the private sector and thus, the government agencies involved should develop the capacity and the commitment to achieve program objectives.

Participation in international trade, for example through regional production networks, which is a professed goal of a reinvigorated automotive manufacturing industry, will require "a dedicated infrastructure to harmonize national and international standards, test products and processes, and others" [Altenburg 2011, page 58]. This is because international trade is increasingly taking place in governed value chains, which require compliance with increasingly sophisticated standard, implying higher entry barriers for newcomers or even for existing firms [Gereffi 1999]. This means that DTI and BOI, which have taken the role of enabler and facilitator tasked with ensuring market-enhancing policies and interventions, have to develop the knowledge and skills set to handle such market failures, and help the private sector in hurdling the challenges of meeting standards in global and regional value chains.

The DTI has established an Industry Development Council made up of high-level representatives from the private sector, government, academe, labor and civil society and chaired by the DTI Secretary. It will be the main coordination mechanism and venue for discussing measures that will address vertical and horizontal issues affecting industries. This seems to be patterned after the industry councils of Japan. Under the Industry Development Council are the Industry Working Groups for different sectors co-chaired by the Board of Investments [BOI] and industry associations. An advisory group called the Eminent Persons Group was also established to provide advice and guidance to the Industry Development Council.

Looking at political economy issues, the foremost factor in policy reform and implementation in the Philippine setting is the support of the highest political leadership, the Presidency. Under the Philippine governmental tradition, the nation moves as the President moves. *Qualis rex, talis grex*, as the Roman maxim says. Problems of governance and trust hounded the previous administration, which derailed policy reform efforts. It is noted that improvements in governance under the present political leadership has been instrumental in establishing a more positive business outlook among private business groups and in generating trust in public institutions. The current political leadership appears committed to reforms and good governance. Policy reform and implementation of a package of assistance in the industrial and manufacturing sector has strong political support. This will be crucial in the immediate future when implementation of the new industrial policy and program would have started.

A challenging question is the issue of continuity of policy reform under the next administration. The country will elect its national leaders [President, Vice-President, and senators] in May 2016 and

continuing policy reform efforts is uppermost in the minds of the people. It is noted that the salutary effects of policy reform could build a natural constituency for reforms who could oppose any attempt by a weak or political leader to reverse the reform process. The constituency of reforms composed of consumers, academics, civil society, church groups, and a rising middle class can use the combined power of transparency and access to information through various traditional media and social media to make it politically costly for a weak or corrupt leader to reverse the policy reform process. On this point, the creditable economic performance has provided palpable economic benefits to such constituency of reforms. It will be up to these economic agents to put pressure on the political leadership to implement policy reforms.

A clear vision for the economy and clear objectives behind the policy reform effort are indispensable in implementing reforms, notwithstanding difficulties. On this score, both DTI [policy reform champion] and private stakeholders, chiefly represented by PACCI stand on common ground. The PACCI objective of increasing private benefits [improving market share of CKDs relative to CBUs, full capacity utilization, and ultimately higher return to capital] are not incompatible with the government's objective of realizing social benefits [higher growth through increased investments and higher employment, estimated at additional 70,000 direct jobs]. Inclusive growth will be attained through the generation of more high quality and better paying jobs. The private sector, not government, creates jobs and hence, providing a policy and regulatory environment *cum* a package of fiscal and non-fiscal measures to private firms who risk capital and create those jobs seems logical and appropriate. This seems to be the consensus in public-private workshops and seminars on developing the automotive industry[16]. However, it is important to bear in mind the importance of establishing an incentive structure for those industry groups who stand to benefit from subsidies and other public goods to perform and achieve the envisaged goals of industrial policy. A performance-based incentive package is a good step to prod PACCI members to exert serious effort to achieve the envisaged goals of the automotive manufacturing industry.

Implementing the Roadmap involves a close collaboration and coordination between DTI and PACCI. Under the present political leadership, there is fertile ground for better and stronger public-private collaboration and coordination because of the honesty and sincerity of the current President. For example, public-private partnership schemes have been successfully applied to a few major infrastructure projects to address the lack of infrastructure. By the same token, public-private collaboration and coordination could be successfully applied to the automotive manufacturing industry. It will be interesting to see if the coming years will validate this hypothesis in view of a change in administration following the national elections in May 2016.

In sum, there may be reasons to feel optimistic that the new industry policy package cobbled by public-private collaborative effort might work this time for the automotive manufacturing industry. There is a powerful coalition of support, adequate authority given to DTI and BOI to work with the private automotive manufacturing industry and some capacity on the part of implementing agencies [DTI, BOI] to implement the reform.

What could possibly undo these efforts? The automotive manufacturing industry is a global, not just a regional, industry and it is very competitive, relies on scale economies, needs a large domestic market, and is highly knowledge- and technology-intensive. In an emerging economy such as the Philippines [low middle income but with huge potential for sustained growth], private firms have to find their comparative

[16] According to the DTI Undersecretary who oversees public-private collaboration in preparing Roadmaps for industry and manufacturing: "The first principle is the primary role of the private sector. . . The state's role is to support the industries in crafting and executing the Roadmaps, catalyzing strategic and tactical initiatives, coordinating with government agencies, collaborating with stakeholders, facilitating or brokering constructive relationships, providing public goods and other incentives, implementing responsive programs and projects, and generally, promoting an attractive business climate to enable industries to grow and create wealth and jobs."

advantage and niche in dynamic regional production networks. This requires astute and nimble leadership, close collaboration between the private sector and public institutions, which hopefully are capable of dealing with information externalities and coordination failure, and a committed and motivated bureaucracy.

V. Concluding Remarks: Policy Evaluation

The country's industrial policy has undergone significant changes over time. The country started with a highly protectionist policy stance to develop industry during the immediate post-war years. The main strategy was to use an import substitution policy with several policy tools such as high tariff walls, import quotas, and picking winners [some major industrial projects during the martial law period]. The expected structural transformation through growth of industry and manufacturing did not take place despite some initial successes during the import substitution period. Trade liberalization, privatization, and globalization led to greater openness of the economy with an overall shift to more market oriented economic policy. The manufacturing sector, however, shrank because of lack of competitiveness and inability to penetrate global markets. It has always been orientated toward the domestic market under an import substitution policy.

The series of economic policy reforms in succeeding administrations during the post-martial rule regime has led to a gradual restructuring of the economy with a surging services sector and recently, a rise in manufacturing output and employment. Emboldened by the governance reforms under the current Aquino administration, the private sector [in this paper, the automotive manufacturing sector] wasted no time in working with government [basically, the Department of Trade and Industry] and some policy analysts in constructing "industry roadmaps," which recasts the approach to be taken by the government in assisting the transformation of the manufacturing and industry sector. The government has recently reformulated its industrial policy into a New Industrial Policy. In this paper the automotive manufacturing serves as a lens to understand the impact of the shift from the old industrial policy to the New Industrial Policy intended to revive and restructure the manufacturing sector. The key stakeholders in the particular case of the automotive manufacturing sector focused on the sector's critical constraints to the growth and development. Information externalities and coordination failure seem to constitute the major challenges to the sector and as discussed above under the new industrial policy a more nuanced set of targeted interventions is employed to achieve envisaged policy goals. The crucial question is whether there is state capacity for implementing the reforms. It could be that weak state capacity and worse, lack of political will stand in the way of successful policy implementation.

The political will to reform that has been demonstrated by the current administration has motivated the DTI bureaucracy to work closely with the private sector in shepherding the automotive manufacturing sector in implementing the sector roadmap. Strong leadership in this line department [ministry] and the recruitment of highly capable individuals to work with the private sector in implementing industry roadmaps indicate strong capacity to implement the policy reform package for industry and manufacturing. In this regard, it is important to stress the importance of developing capacity to implement policy reforms across other government agencies. Lack of policy coordination in reform efforts is always a serious issue in the country and hence, successful implementation of the new industrial policy will also be conditional on the political leadership and bureaucratic capacity across a number of government agencies.

Who drives the reform and the reason behind the reform effort are critical issues in policy implementation. Credible leadership and ownership by bureaucrats as well as other stakeholders while necessary are not a sufficient condition for the success of reform efforts. Equally important is the buy-in or ownership of those reform efforts by the polity. It may be that a well-conceived reform agenda may be stopped on its tracks by societal apathy or even opposition to the reform because of lack of understanding

brought about by the failure of a reforming administration to clearly convey the message. On this point, the DTI reports doing "roadshows" to explain to the people outside Metro Manila what the government with private sector collaboration intends to accomplish. Casting the new industrial policy in terms of its contribution to achieving inclusive growth, i.e., higher incomes, more and better employment for the people will clarify to the polity why the government has reformulated its industrial policy. Greater clarity and transparency will help generate support to the reform efforts. Past industrial policy has the unflattering reputation of supporting and protecting particular vested interest groups.

The recent economic performance of the country builds the case for intensifying the policy reform process. Policy reforms work although there may be no immediate results after the reform effort. This could be because it takes time for the reform effort to produce results although in some cases, the welfare gains are immediately visible, e.g., greater efficiency and coverage of telecommunications services arising from the Ramos decision to end the monopoly hold of PLDT on telecommunications. There are no easy pathways in the reform process. By definition, policy reform means introducing changes or even challenging the status quo. It is a disruptive process and adept handling of it rests in able leadership and strong state capacity.

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