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# Globalization, competition, and international production networks: policy directions for the Philippine automotive industry

*Rafaelita M. Aldaba*

Along with the heightening of globalization forces, the past two decades have witnessed the deepening of economic integration among countries as restrictions on the free flow of trade and investment are removed. With rising globalization and economic integration, competition has also intensified. In response to these developments, a new form of industrial organization has emerged known as international or regional production networks (IPNs/RPNs). In IPNs, multinational corporations (MNCs) fragment their production processes and locate these in various countries. These are common in industries such as auto, machinery, electronics, and garments, and are characterized by the exports of parts and components, capital equipment, and other industrial inputs for assembly into finished goods.

Production networks are at the heart of intraregional trade and investment flows in the Association of Southeast Asian Nations (ASEAN) and East Asia and are the main drivers of growth in the region. Recognizing this, one of the main objectives of the ASEAN Economic Community (AEC) Blueprint is to deepen and promote the development of RPNs in order to increase foreign direct investment (FDI) flows to ASEAN. The AEC Blueprint aims not only to create ASEAN as a single market but also for it to serve as a single production base. Thus, IPN participation is crucial as this can serve as a

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The author is Senior Research Fellow at the Institute. The views expressed are those of the author and do not necessarily reflect those of PIDS or any of the study's sponsors.

channel or vehicle through which developing countries like the Philippines can benefit from regional trading arrangements and the removal of barriers to trade and investment flows. Moreover, IPNs can also provide, apart from FDIs, access to technology and greater access to larger markets through exports.

This *Policy Notes* deals with the impact of the rising trend of globalization and regional economic integration on the automotive industry. It aims to assess the responses of firms to rising globalization and examine how the government is managing and facilitating the transition process of the industry, from being a highly protected industry to becoming a more competitive market. Within the context of this new trade and investment environment, the following questions will be addressed: How has the industry fared so far in the face of rising competition? Are domestic firms able to integrate with the production networks of their mother companies? Are there complementary measures in place to support trade liberalization under the ASEAN and generate the necessary supply-side responses (i.e., increase investments in the industry) that would lead to growth and increase in employment?

The *Notes* is divided into five parts. After the introduction, the next section provides an overall view of major government policies that shaped the growth and development of the industry. Section three examines industry performance and competitiveness, compares the country's costs of production with Thailand, and identifies the main reasons for the industry's weak competitiveness. Section four looks at how the industry has been responding to changes in the domestic and international trade and investment environment while the final section puts forward some recommendations on necessary government measures to facilitate the adjustment process and help the industry integrate with production networks.

## Why an internationally competitive auto industry for the Philippines failed to take off

The Philippine automotive industry developed under heavy government protection, promotion, and regulation. Through the local content program, the government tried to encourage the development of parts and vehicles by limiting the number of domestic assemblers to five and requiring them to source their parts locally through the imposition of a domestic content requirement.

Starting in the early 1980s, unilateral trade liberalization was carried out by the Philippine government by reducing tariffs from 100 percent to 70 percent in 1981 to 50 percent in 1982. In 1993, this was further lowered to 40 percent and then to 30 percent in 2000. Within the ASEAN Free Trade Area (AFTA), tariffs dropped to 5 percent in 2003 and have been eliminated in early 2010. The import ban on new completely built units (CBUs) was also removed in 1996 by the government.

In terms of strategy, the Philippine government did not use domestic taxes as part of its industrial policy but applied them purely for

revenue generation. This is one important element that differentiates the Philippine policy from the Thai auto policy. Thailand used excise taxes strategically to stimulate and encourage the growth of pick-up trucks which later became the platform of their niche product, the one-ton pick-up. Thailand was also the first among the ASEAN countries to liberalize and was way ahead of the Philippines in removing the local content program.

Both the Philippines and Thailand initially adopted protectionist policies and local content programs to develop their industries. Both also later implemented liberalization policies with the aim of exposing their domestic firms to more competition and improving their competitiveness. Still, however, the auto industries in the two countries remain highly protected. The case of the Thai automotive industry, though, illustrates the important role played by the government in attracting new investments and making the reforms and liberalization work. The timing of its reforms, the coherence of its auto policy with other domestic policies, and its strategic product focus were crucial in the development of the industry and its emergence as the ASEAN hub of many international automakers. After 1987, the industry started to expand rapidly, led by the rapid growth of the Thai economy and increased purchasing power of the middle class, coupled with the surge of FDI inflows by Japanese firms after the Plaza Accord. Immediately, the government shifted its policy toward the liberalization of the auto industry with the goal of strengthening its international competitiveness by increasing competition among local producers.

While Thailand has been characterized by a favorable environment with growing domestic demand and large FDI flows, the Philippines, on the other hand, lagged in terms of maintaining a stable macroeconomic and regulatory environment, increasing domestic demand, and encouraging FDI.

After almost three decades of import substitution centered on local content policy, a large portion of the parts and components industry in the Philippines still remains underdeveloped. At best, the local content program only had a limited impact on the growth and development of the parts and components industry. As a result, the linkage between the automotive assembly sector and local parts and components has remained weak. Very little parts and components are locally sourced with the domestic parts sector, accounting only for 10 to 15 percent of the total number of parts and components needed by local motor vehicle assemblers.

## Industry performance and competitiveness

The total value added contribution of the assembly industry declined substantially to PHP 19 billion in 2008 from about PHP 72 billion in 2006 (Table 1). This represented a huge drop in its share from 8 percent of total manufacturing value added in 2006 to 2 percent in 2008. In terms of employment contribution, however, its

**Table 1. Total employment and value added contribution of the automotive industry**

| PSIC | Industry Description | Number of Establishments | | Total Employment | | Value Added (in 000) | |
|---|---|---|---|---|---|---|---|
| | | 2006 | 2008 | 2006 | 2008 | 2006 | 2008 |
| | Manufacturing | 5,024 | 4,603 | 973,178 | 862,665 | 868,301,960 | 816,462,528 |
| 3410 | Manufacture of motor vehicles | 17 | 14 | 5,717 (0.59%) | 4,938 (0.57%) | 71,745,691 (8.3%) | 18,625,312 (2.3%) |
| 3420 | Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers | 16 | 18 | 1,630 (0.17%) | 1,105 (0.13%) | 790,410 (0.1%) | 223,810 (0.03%) |
| 3430 | Manufacture of parts and accessories for motor vehicles and their engines | 76 | 84 | 18,097 (1.9%) | 22,487 (2.6%) | 9,597,339 (1.1%) | 13,828,202 (1.7%) |
| | Total | 109 | 116 | 25,444 (2.62%) | 28,530 (3.31%) | 82,133,440 (9.5%) | 32,677,324 (4%) |

Source: National Statistics Office

**Table 2. Sales and imports**

| Year | Sales | Production/ CKD Sales | New CBU Imports | CBU Imports as % of Total Sales | CKD Sales as % of Total Sales |
|---|---|---|---|---|---|
| 2000 | 74,000 | 70,851 | 3,149 | 4 | 96 |
| 2001 | 76,670 | 65,202 | 11,468 | 15 | 85 |
| 2002 | 85,587 | 74,734 | 10,853 | 13 | 87 |
| 2003 | 92,336 | 85,388 | 6,948 | 8 | 92 |
| 2004 | 88,068 | 58,822 | 29,246 | 33 | 67 |
| 2005 | 97,063 | 58,566 | 38,497 | 40 | 60 |
| 2006 | 99,541 | 56,050 | 43,491 | 44 | 56 |
| 2007 | 117,903 | 61,128 | 56,775 | 48 | 52 |
| 2008 | 124,449 | 61,513 | 62,936 | 51 | 49 |
| 2009 | 132,444 | 64,498 | 67,946 | 51 | 49 |
| 2010 | 168,490 | 74,509 | 93,981 | 56 | 44 |

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

share remained at almost 0.6 percent during the same years. The manufacture of bodies for motor vehicles followed the same downward trend in the assembly sector as it experienced reduction in employment and value added. However, the production of parts and accessories experienced rising employment, value added, and number of establishments, with its share to total manufacturing value added registering an increase to 1.7 percent and its share of employment to total manufacturing rising to 2.6 percent in 2008.

The decline in domestic assembly operations is also evident in Table 2. The share of domestically assembled vehicles sold dropped from 92 percent of total sales in 2003 to 49 percent in 2009 and to 44 percent in 2010. The share of CBU imports rose from 8 percent of total industry sales in 2003 to 51 percent in 2009. Given the shrinking scale of domestic production, completely knocked down (CKD) operations have become very costly. With the reduction of tariffs to 5 percent under the AFTA-Common Effective Preferential Tariff (AFTA-CEPT), domestic assemblers have shifted their

operations away from assembly or CKD operations toward CBU imports. This is indicated by the large increase of the latter in the proportion of imports to total industry sales from 4 percent in 2000 to 51 percent in 2009 and to 56 percent in 2010.

Currently, there are six major firms in the Philippine automotive industry: Toyota, Mitsubishi, Honda, Isuzu, Nissan, and Ford. Toyota has consistently been the industry leader with its share rising from 33.2 percent in 2004 to 38.2 percent in 2007. However, this dropped to 36.9 and 34.9 percent, respectively, in 2008 and 2009. Mitsubishi is a far second with a 17.6 percent share in 2009, up from 14.4 percent in 2004. Honda is third with a share of 12 percent in 2002 and 13 percent in 2009. In 2009, Hyundai came in fourth with its market share of 8.4 percent while Isuzu's share declined from 10.5 percent in 2002 to 7 percent in 2009. Ford follows with a share of 6.2 percent in 2009, down from its 8.3 percent posted in 2002 (Table 3).

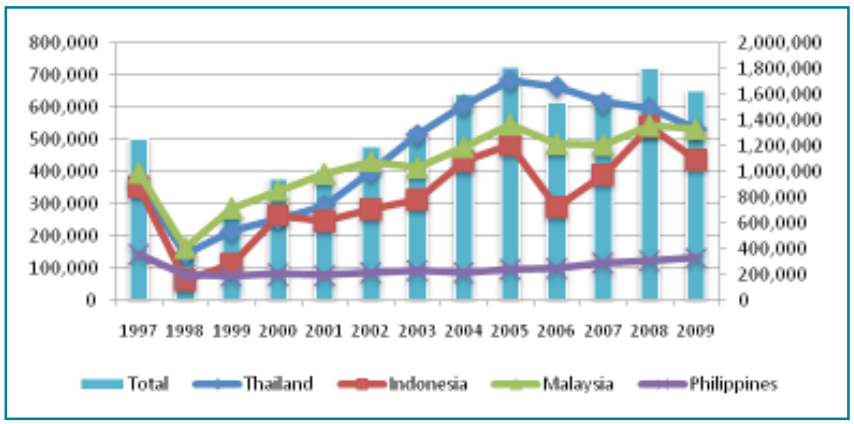
Figures 1 and 2 compare the Philippines' sales performance with other ASEAN countries. After the 1997 Asian financial crisis, sales of Thailand, Malaysia, and Indonesia were all down. Thereafter, however, they were able to recover fast from the crisis while the Philippines has continued to lag behind with its low sales volume. Note that Vietnam has already caught up with the Philippines in terms of sales and production volume.

**Table 3. Market shares, 2004–2010**

| Name of Company | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010* |
|---|---|---|---|---|---|---|---|
| Toyota | 33.2 | 36.6 | 38.4 | 38.2 | 36.9 | 34.9 | 33.7 |
| Mitsubishi | 14.4 | 13.4 | 12.6 | 12.7 | 14.1 | 17.6 | 19.2 |
| Honda | 12.0 | 10.1 | 13.9 | 14.7 | 11.5 | 13.0 | 9.9 |
| Isuzu | 10.5 | 9.9 | 8.2 | 8.3 | 8.1 | 7.0 | 6.4 |
| Nissan | 6.5 | 5.0 | 3.3 | 2.4 | 2.4 | 1.8 | 5.2 |
| Universal | 3.8 | 3.1 | 2.7 | 2.8 | 3.8 | 3.8 | |
| Ford/Mazda | 8.3 | 8.6 | 6.9 | 6.3 | 6.2 | 6.2 | 5.8 |
| Hyundai | 2.8 | 5.1 | 5.5 | 7.0 | 8.2 | 8.4 | 11.1 |
| Kia | 2.6 | 2.8 | 2.4 | 2.4 | 3.5 | 2.8 | |
| GM/TCCCI | 3.2 | 2.5 | 2.1 | 1.7 | 1.9 | 1.0 | 1.1 |
| Suzuki | 0.7 | 1.0 | 2.0 | 1.8 | 1.8 | 2.0 | |
| Hino | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 | 0.4 | |
| Columbia | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 3.3 |
| MAN | 0 | 0 | 0 | 0 | 0 | 0 | |
| BMW | 1.0 | 0.8 | 0.8 | 0.7 | 0.5 | 0.5 | |
| Volvo | 0.4 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | |
| PGA | | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | |
| Commercial | | 0.1 | 0.1 | | | | |
| Proton, Porsche | 0.1 | | | | | | |
| Dreamco | | | | 0.1 | 0 | 0.1 | |
| Daewoo | 0 | 0 | 0 | 0 | 0 | 0 | |

Source: CAMPI
*The remaining companies have a combined share of 4.4 percent.

**Figure 1. ASEAN-4 sales of cars, SUVs, MPVs, and LCVs up to 6 tons**




Source of basic data: J.D. Power Asia Pacific Forecasting

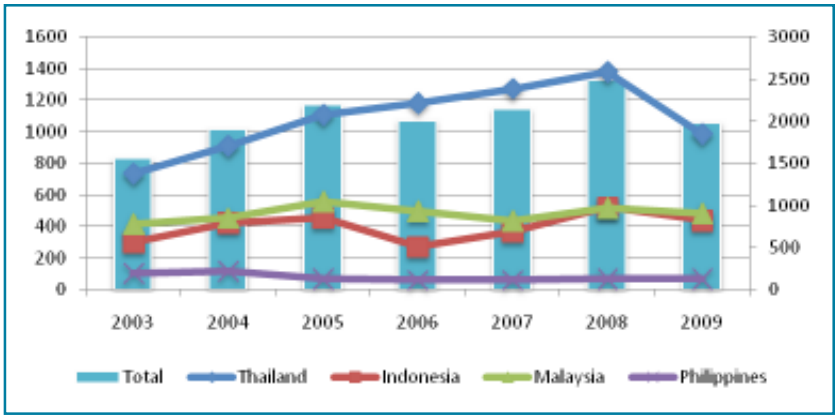
## *Competitiveness*

What issues affect the Philippine automotive industry's competitiveness?

First, *lack of economies of scale*. The industry requires large economies of scale in order to be competitive. In the Philippines' case, domestic demand has remained weak as its domestic market is relatively small compared with the other ASEAN countries. At the same time, the presence of smuggled vehicles has continued to put tremendous pressure on the industry; hence, production volume has remained low.

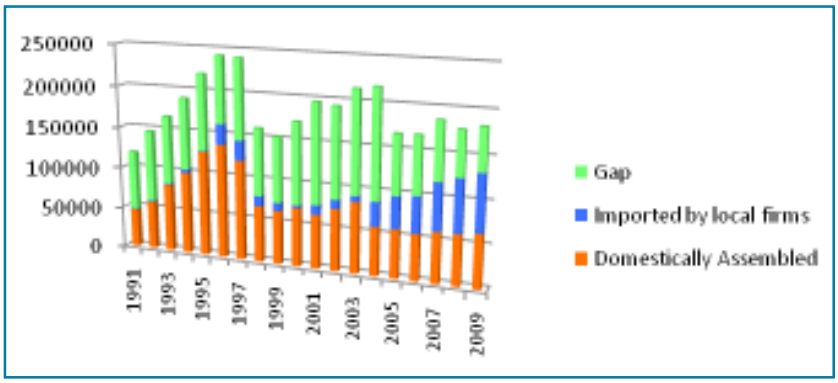
Figure 3 compares two sets of data: one from the Land Transportation Office (LTO) and the other from the Chamber of Automotive Manufacturers of the Philippines, Inc. (CAMPI). The LTO data refer to newly registered imported used vehicles while the CAMPI data cover sales of domestically assembled vehicles and imported CBUs. As the numbers reveal, there is a large discrepancy between the two datasets, with the difference between the two indicating a rough estimate of the volume of smuggled vehicles.

**Figure 2. ASEAN-4 production of cars, SUVs, MPVs, and LCVs up to 6 tons**




Source of basic data: J.D. Power Asia Pacific Forecasting

**Figure 3. LTO new registration and industry sales of cars, utility vehicles and sports vehicles**




Source: Land Transportation Office (LTO) and CAMPI

Second, *limited supply base*. The auto parts industry is composed of 256 suppliers, with 124 belonging to the first tier. The first tier includes the major players in the industry which are mostly multinational companies supplying parts to original equipment manufacturer (OEM) assemblers and are also engaged in exporting materials. These companies include, among others, Yazaki-Torres, Toyota Auto Parts, Honda Parts, Isuzu, Asian Transmission (Mitsubishi subsidiary), Temic, Fujitsu (electronic parts), and Aichi (forged parts).

The remaining 132 firms are tier 2 and 3 suppliers who supply to the first tier. These are mostly small and medium enterprises (SMEs) that are confronted with major problems such as lack of domestically available materials, low productivity, and old equipment and technology. Note, however, that due to the weak performance of the domestic assemblers, the total number of parts and components manufacturers has been

reduced to 121 companies since 2005. In Thailand, there are a total of 1,800 suppliers, 700 belonging to tier 1 and the remaining 1,100 are tier 2 and 3 suppliers. Local content in Thailand is about 80 to 90 percent while in the Philippines, it is only about 15–20 percent, a clear indication of the weak linkage of the industry to the domestic economy.

And third, *high cost of production*. With low production volume and limited supply base, the competitiveness of the auto assembly industry has remained weak. Production cost in the Philippines is 1.4 times higher than in Thailand (Aldaba 2008). If the vehicle is imported as a CBU from Thailand, including a 5 percent tariff and logistics cost, the gap is reduced to 1.2. Based on a study of the auto industry by Deloitte Consulting, the estimated gap between the Philippines and Thailand is around US$ 1,000–2,000 per vehicle.

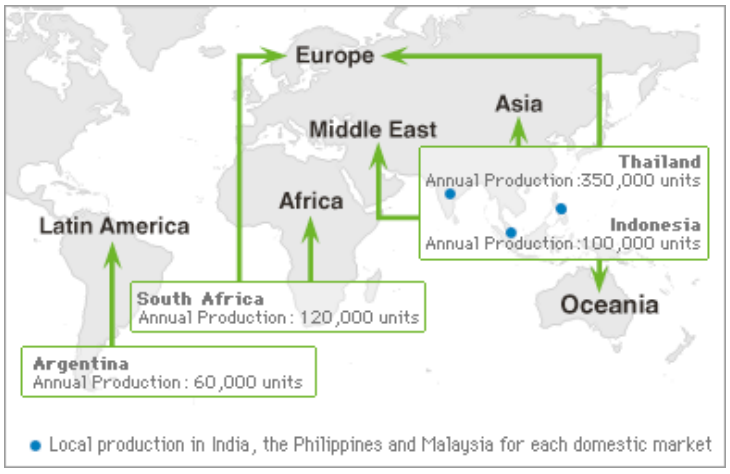
## Industry response to rising globalization and regional economic integration

The auto industry is known to be a highly global, high-technology industry. It is capital intensive and requires large economies of scale. To be competitive, cost, quality, reliability, and engineering must always be at par with global competitors. With respect to demand, consumers always want a variety of models at reasonable prices.

With rising globalization and economic integration, the concept of global production network (GPN) has emerged where to become more efficient, MNCs are fragmenting their production process by transferring certain production processes to developing countries. Competition has therefore become tougher because countries must compete not only against their competitors in the same industry but also within the same network where they need to compete against other subsidiaries of their mother companies located in other countries.

Figure 4 presents an example of Toyota's GPN, known as the Toyota Innovative International Multipurpose Vehicle (IMV) Project, where Toyota upgraded and expanded plants in Thailand (Toyota Motor Thailand or TMT), Indonesia (PT Toyota Motor Manufacturing Indonesia or TMMIN), Argentina, and South Africa, and turned them into assembly and export bases for a line of innovative IMVs. Philippine participation has been limited to transmission (India's role as well) while diesel engine has been assigned to Thailand and gas engine to Indonesia.

**Figure 4. Toyota's IMV Project**




Source: Toyota Motors Corporation

TMT is regarded as the key base and is expected to export 140,000 units of pick-up trucks and SUVs. In 2005, Japan's first R&D center (Toyota Technical Center Asia Pacific Thailand Co. Ltd) in an emerging market was opened in Thailand. This operates like those in developed countries, taking platforms and models developed in Japan to suit the needs of different emerging markets. Note that historically, Toyota established its research and development (R&D) centers only in Japan and developed countries in the US and Western Europe.

Toyota, Mitsubishi, Honda, Isuzu, and Ford are engaged in domestic assembly operations. Ford is the only CBU exporter since it has been assigned the role of passenger car hub of Ford in the region although its export volume has remained limited. Currently, there are about 30 models assembled for the domestic market. Toyota has Vios and Innova while Mitsubishi has several models, with Adventure, L300, and Canter as the most popular ones. Honda has City and Civic. Isuzu also assembles quite a number of models, the major ones of which are Crosswind and Dmax. Ford has Escape, Tribute, Mazda 3, and Focus. Universal has Frontier, Patrol, and Urvan while Nissan has Sentra, X-trail, and Grand Livina.

## More focused strategic measures and industrial policy to facilitate integration of domestic firms with IPNs

Early this year, auto tariffs were eliminated within AFTA. One important question that needs to be asked is: Will the Philippine automotive industry survive, given its current lack of scale economies, weak supplier base, and low competitiveness? As seen in Table 2, the gap between CBU imports and CKD operations has been getting smaller since 2004. In 2010, import share already surpassed the share of domestically assembled vehicles. The above concerns are the fundamental issues that must be addressed in order to strengthen the industry and integrate it with RPNs of foreign automakers.

In June 2010, Executive Order (EO) 877 or the Comprehensive Motor Vehicle Development Plan (MVDP) reiterated the objectives of the previous plan under EO 156 and enhanced its industry policy framework by establishing a Motor Vehicle Industry Council under the supervision of the Department of Trade and Industry (DTI). Said council will act as the central body to coordinate policy for the development of the motor vehicle industry. To provide support and improve the competitiveness of the industry, an Industry Development Fund would be created for research and development, acquisition and upgrading of equipment, human resource development, and market access support for exporters. Like the previous plan, the new MVDP also indicated that tariffs and excise taxes would be restructured to promote the development of the industry.

Addressing the smuggling issue is a necessary condition for the growth of the domestic assembly sector. At the same time, the government should carefully plan and manage the process well in order not to fall into the

policy reversal trap. This had happened in the country's previous trade liberalization episodes where without any strategic measures in place, the government had to resort to either a postponement or non-implementation of its own tariff reform schedule. Policy inconsistency increases uncertainty for doing business. Given the need to adopt to the changing economic landscape arising from globalization, the government needs to formulate more coherent and well-coordinated policies for the industry. It must act swiftly to reorient the industry and help firms adjust to the new economic environment characterized by more open markets. Clearly, industrial policy is necessary.

The traditional intervention measures such as tariffs, however, may not produce the expected results. For instance, a tariff is the equivalent of a tax on consumption plus a subsidy to production. Increasing tariffs would negatively affect auto imports from non-ASEAN countries such as Korea, US, and Germany, particularly for those models that are not manufactured in regional production bases in Thailand. Increasing tariffs would also exacerbate the trade diversion effects of AFTA. With the elimination of tariffs among ASEAN members, the tendency would be to buy more from ASEAN partners and divert trade away from efficient manufacturers. Increasing tariffs on imports will exaggerate the cost of imported cars from non-ASEAN members, resulting in much bigger trade diversion costs.

One way to counter the trade diversion effect is to keep the country's external tariff rates (MFN or most favored nation) low. The other alternative is to forge an agreement with efficient manufacturers like Korea and use this to facilitate Korean investments in the Philippines, particularly the location of one of its ASEAN vehicle models. Currently, the ASEAN-Korea free trade agreement (FTA) excludes early auto liberalization since motor vehicles are still in the sensitive list of ASEAN member countries. A zero to five percent tariff reduction is scheduled only in 2016.

Imposing local content requirement or a discriminatory policy that increases domestic taxes on imported vehicles is no longer allowed by the World Trade Organization (WTO). Policy tools such as local content did not work in the past; hence, the Philippines should try to avoid committing the same mistakes by focusing on the lessons learned.

Globalization and liberalization have become an irreversible trend. With intense competition, market participants must always be on their toes. Given the country's limited domestic market, individual brands and models cannot be produced in large quantities. Firms should therefore specialize in certain niche products and markets in which they can best compete. With the removal of tariff and nontariff barriers through AFTA, a larger market has been created that is of sufficient size to allow economies of scale in production and provide incentives for investment. Moreover, given the country's 90 million population, US$20 billion annual overseas Filipino worker (OFW) remittances, expanding middle class, and brighter prospects

for sustained and high level of economic growth, the auto industry's potentials remain strong. Though automakers have chosen Thailand as their production hub, risk diversification dictates that they will not put all their investments in only one country.

To take advantage of these opportunities, firms should continue to rationalize their operations through greater specialization in the product niches that they produce. To help firms achieve this, there is a need for strategic industrial policy and carefully designed temporary subsidies that would target improvement of firm level competitiveness. *Any incentive should be conditioned on firm competitiveness improving activities such as innovation and research and development activities*, together with human resource development. The Philippines' industrial policy should make innovation as its main focus for providing temporary support to industries. Fiscal incentives to the industry should be consolidated and linked with the promotion of innovation activities. As countries opened up their economies through the removal of barriers to trade and investment, competition has intensified and presented both opportunities and challenges for domestic firms to innovate and improve their competitive position. Firms that survive competition are those that engage in innovation and R&D activities.

Equally important is the need to strengthen domestic parts and suppliers, particularly SMEs, and deepen their linkage with domestic large enterprises and MNCs. The government needs measures to establish common support facilities for SME parts and components suppliers and a complete package of technical, financial, marketing, and human resource development for the auto parts sector. Government support to SMEs should not be through increased tariff protection but through the provision of access to capital and technology which are at the root of their underdevelopment.

Another crucial policy is the need to encourage and promote investments in the industry through joint ventures and technology agreements with foreign companies. FTAs with other East Asian neighbors like Korea and Taiwan could play a crucial role in facilitating investments and technical cooperation in the industry. Both Korea and Taiwan have strong motor vehicle and parts industries and have their own production networks in these products. This could serve as one of the possible areas for cooperation with Korea and Taiwan.

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*For further information, please contact*

The Research Information Staff
Philippine Institute for Development Studies
NEDA sa Makati Building, 106 Amorsolo Street, Legaspi Village, 1229 Makati City
Telephone Nos: (63-2) 894-2584 and 893-5705
Fax Nos: (63-2) 893-9589 and 816-1091
E-mail: raldaba@mail.pids.gov.ph; jliguton@mail.pids.gov.ph

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