

## THE PHILIPPINE MANUFACTURING INDUSTRY PROFILE

*Updated as of July 2017*

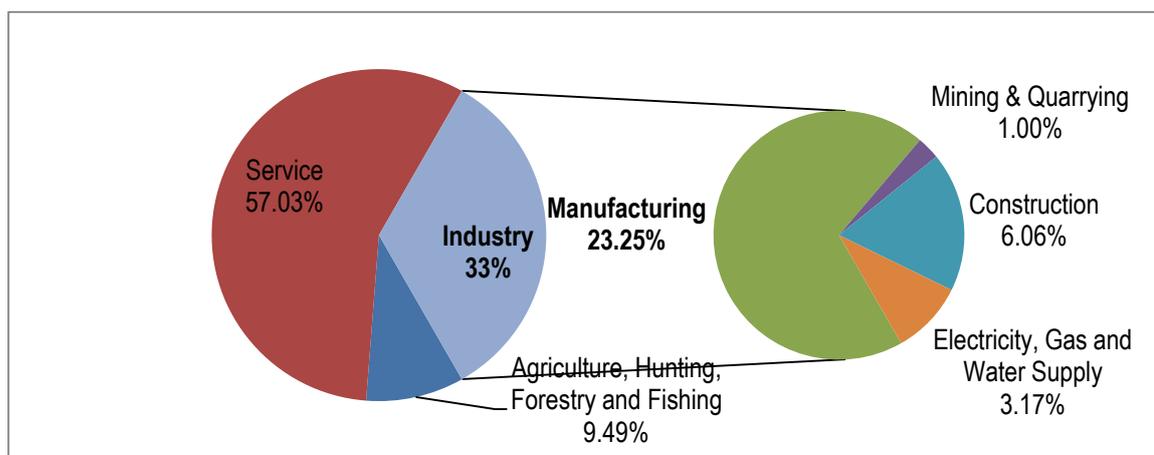
### Introduction

The Philippine manufacturing industry remains to be the most important sector for long-term productive employment, value-added generation, and innovation. It has the highest multiplier effect to the economy<sup>1</sup> compared to other sectors. Manufacturing is called the engine of the economy. Many services exist because of manufacturing; and many service jobs will disappear if manufacturing disappears.

Manufacturing creates more quality and gainful employment, as it has extensive linkages not only among its sub-sectors, but also with other industries, not to mention that it can further make the services and logistics sectors more active. Increasing manufacturing activities also have spillover effects of inducing additional demand from the agriculture and resource-based industries.

Industrialization, that is, promoting the resurgence of manufacturing, can contribute to sustainable economic development because it can provide employment to a wider pool of the labor force. Manufacturing can generate employment opportunities to vocational graduates apart from the university graduates. Manufacturing also brings in newer technologies, which can introduce quality jobs, skills and expertise in the country.

The Manufacturing Industry contributes to 23.25% of the Philippines' 2015 GDP, employing more than 3.2 million in the workforce. As of the 3<sup>rd</sup> Quarter of 2016, Manufacturing Industry contributes to 23.8% of total GDP.



Source: PSA, 2015

Year	81-90	91-00	01-10	2011	2012	2013	2014	2015	2016
<b>Agriculture, Fishery, Forestry</b>	24	21	19	12	11	11	11	9	9
<b>Industry</b>	38	34	33	32	32	33	33	33	34
<b>Manufacturing</b>	26	24	24	23	22	23	23	23	23
<b>Services</b>	40	42	48	56	57	57	57	57	57

Source: PSA as of 2017

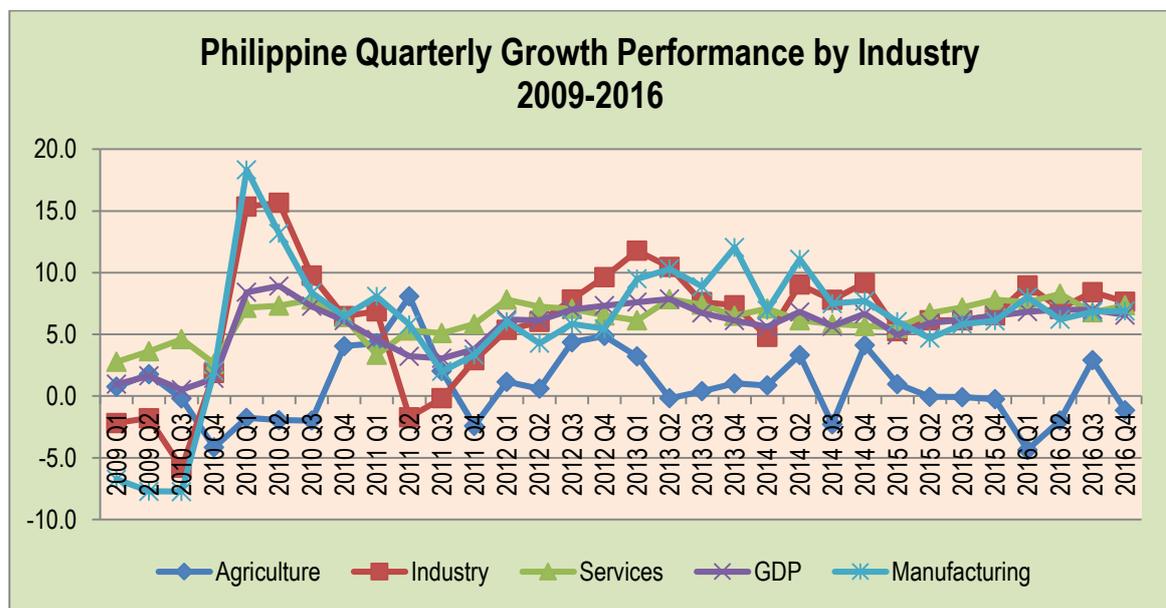
<sup>1</sup> Based from an article of Mr. Bobby Batungbacal, Director, Federation of Philippine Industries, Inc., entitled, "The Strategic Importance of the Philippine Manufacturing Sector" dated October 6, 2011.

Services has been the most important sector after the 1970s, growing from 40% of GDP in the 1980s, to 57% in 2015. The IT-BPM segment of the Services Industry has been especially important in this growth.

Even if the Manufacturing Growth rate has been steadily improving post-2010 crisis, we have observed that Manufacturing's share in GDP has decreased from 26% in the 1980s, to 23% in 2015.

Agriculture has been declining, from 24% share of GDP in the 1980s, to only 9% in 2015, effectively decreasing in half in a span of three decades.

GDP growth has consistently gone above 5% after the 2009-2010 global financial crisis. For the most part of the post-crisis period, Manufacturing growth rate is faster than GDP growth. We observe a rising trend of Manufacturing's performance after sluggish growth in the 1980s to the 1990s. Services growth is mostly at the same pace with GDP growth post-crisis. Agriculture growth is far slower than GDP growth post-crisis.

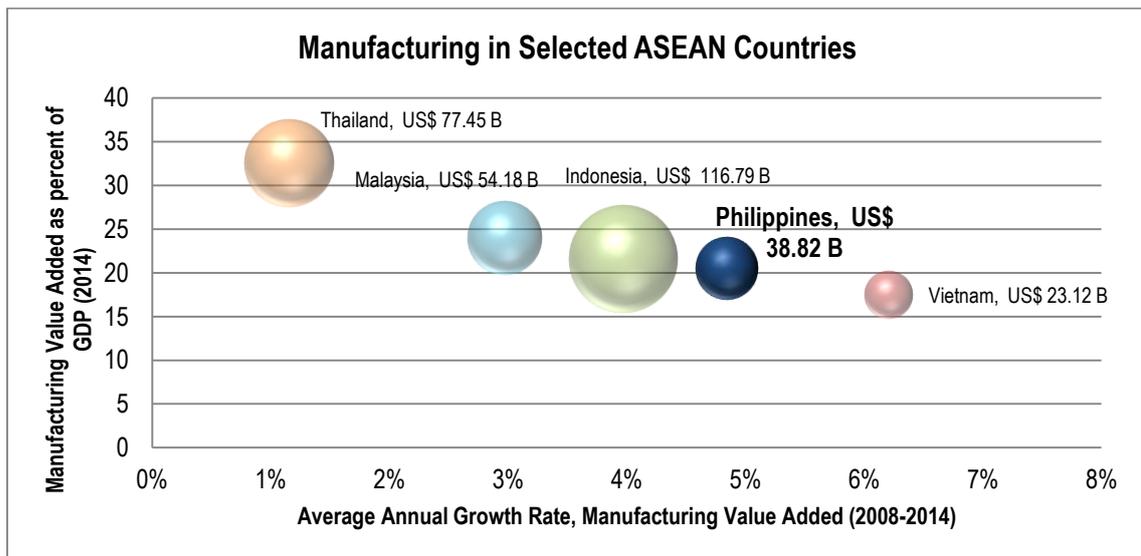


### Performance of the Industry

For the period 2008 to 2013, the Philippine manufacturing industry (based on manufacturing value added, MVA), **grew faster than the average growth rate of ASEAN's manufacturing sector**; and that it grew more than **2 times the global average**.

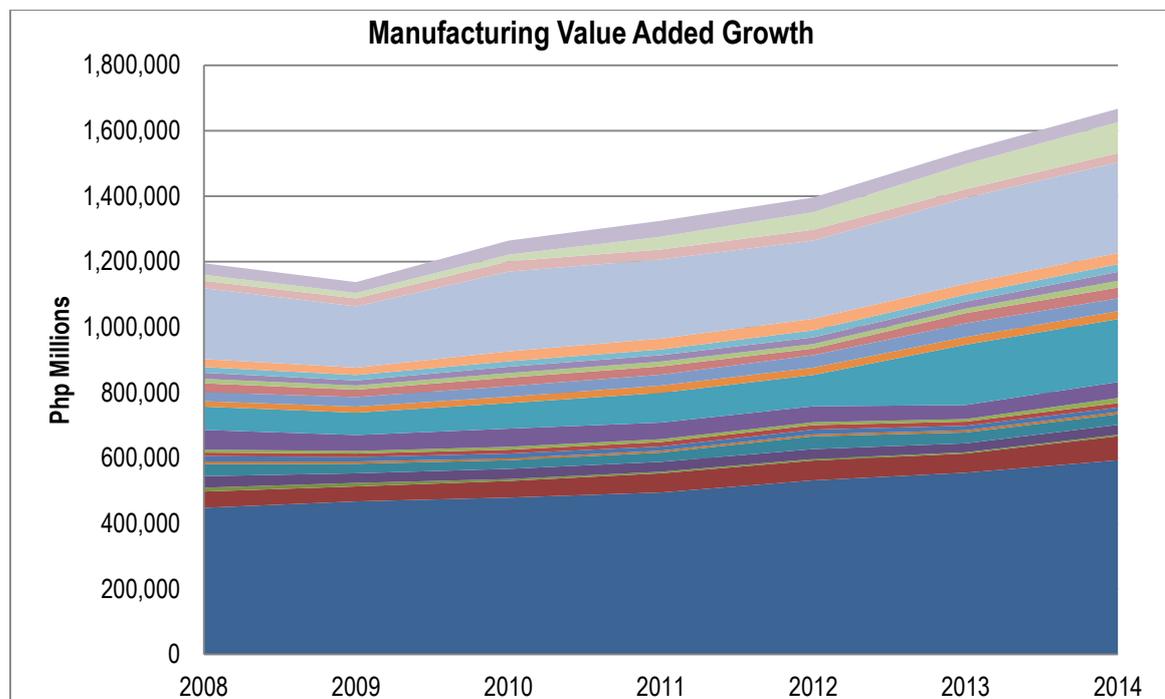
- World, 208 countries (2010-2013): **2.17%**
- ASEAN, 10 countries (2010-2013): **4.97%**
- Philippines (2010-2013): **5.77%**

(Source: *Philippine manufacturing revisited*, <http://philippinemanufacturing.wordpress.com>)



Source: World Development Indicators, World Bank

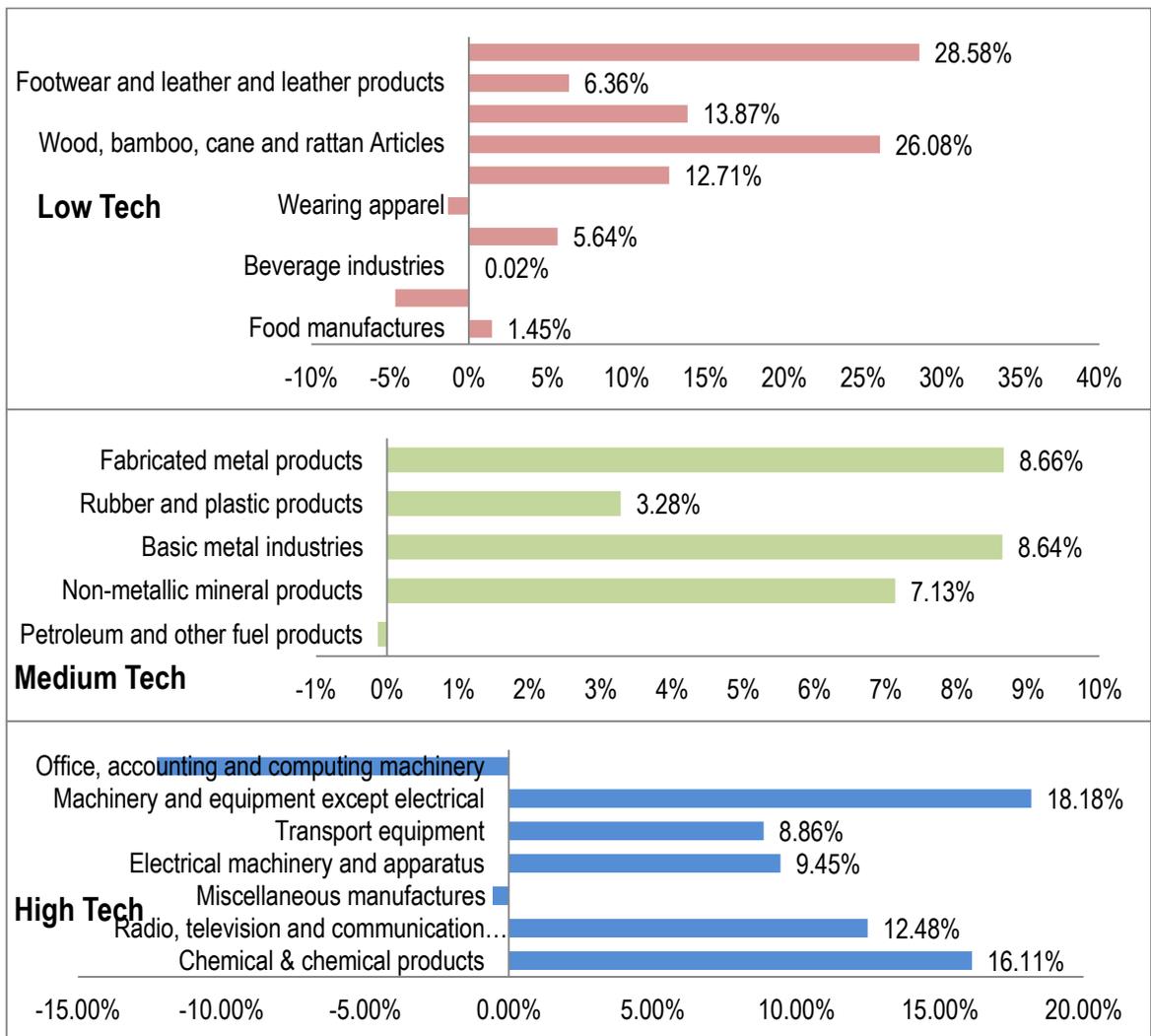
The Manufacturing Industry is composed of 22 sub-sectors, from the PSA definition and statistics in the National Accounts. It is quite the most diverse sector in terms of activities.



Indicators	2009	2010	2011	2012	2013	2014	2015	2016
<b>Manufacturing GVA (YOY Growth)</b>	-4.80%	11.16%	4.73%	5.39%	10.26%	8.29%	5.67%	6.98%
<b>Manufacturing Share to GDP</b>	21.47%	22.18%	22.39%	22.14%	22.80%	23.26%	23.19%	23.22%

It is important to note that year-on-year share of the manufacturing sector to total GDP has been increasing. Likewise, Manufacturing GVA is on an upward growth trend from 2010, post-financial crisis.

The 2015 Manufacturing Value-Added growth is driven primarily by the growth of **wood articles (28%)**, **tobacco (27%)**, **machinery and equipment (18%)**, **publishing and printing (17%)** **chemicals (16%)**, **paper and pulp products (15%)**, and **electronics (13%)**.



Source: PSA, 2015

It is encouraging to note that 17 out of the 22 major sub-sector experienced positive growth last year. It is likewise interesting to note that the Low-Tech sector led the growth last year. This group has the best potential to provide a lot of jobs, though at relatively low value and low productivity to the other technology groups.

It is encouraging to see the Medium Tech sectors gaining ground, with fabricated metals leading the growth. With the start up of a steel mill in Davao ([see related news](#)), and plans for future expansions ([see related news](#)), this is a good sector to watch. The medium tech group provides raw materials to the other sectors, enabling much needed integration across the value chain. These group provides fuel, cement, iron and steel, plastics and rubber.

Lastly, the High Tech sector is experiencing relatively slower growth compared to the low and medium tech sectors, due to the weak demand for semiconductor and electronics. Fortunately, the sector saw a rebound towards to 2nd half of the year, and we do hope to see better growth this year. The chemical sector experienced faster growth this 2015 after a low growth rate last year. We may see this sector sustain its high growth rate with the start up of very large projects like the first naphtha cracker late last year ([see related news](#)).

Based on the 2012 Census of Philippine Business and Industry (CPBI) published by the PSA, the total number of manufacturing establishments with total employment (TE) of 20 and over was estimated at 7,313. This number is about 57% higher than the estimated number of establishments in 2010. This is attributed mostly to the newly listed manufacturing establishments with TE of 20 and over. (Source: PSA)

## Production, Sales and Capacity Utilization

The manufacturing sector performed relatively well as shown by the **May 2017** Monthly Integrated Survey of Selected Industries (MISSI). (Source of data: Philippine Statistics Authority):

- **Value of Production Index posts positive growth in May 2017**

Value of Production Index (VaPI) for manufacturing exhibited an annual growth of 3.6 percent, posting the same growth as in May 2016, according to the preliminary results of the Monthly Integrated Survey of Selected Industries (MISSI). Ten of the 15 major sectors significantly contributed to the positive increase in the value of production, as follows: **footwear and wearing apparel** (35.9%), **basic metals** (34.3%), **printing** (32.1%), **tobacco products** (29.9%), **fabricated metal products** (27.5%), **petroleum products** (27.4%), **transport equipment** (19.7%), **non-metallic mineral products** (17.5%), **electrical machinery** (11.9%) and **leather products** (11.8%).

- **Volume of Production Index grows at a slower pace**

Volume of Production Index (VoPI) continued to gain at a slower rate of 5.8 percent in May 2017, compared with 7.4 percent during same period last year. **Fabricated metal products** contributed significantly to the growth with 116.9 percent, followed by major sectors that registered two-digit growth in VoPI, namely: **leather products** (44.3%), **footwear and wearing apparel** (34.6%), **furniture and fixtures** (34.4%), **basic metals** (29.1%), **tobacco products** (28.2%), **printing** (28.2%), **non-metallic mineral products** (22.6%), **transport equipment** (22.2%), **petroleum products** (16.8%), **electrical machinery** (13.0%) and **paper and paper products** (11.1%).

- **Value of Net Sales Index expands**

Value of Net Sales Index (VaNSI) grew slowly in May 2017 as it recorded an increase of 3.4 percent from 3.3 percent during the same month of the previous year. Four major sectors exhibited double-digit increases in VaNSI led by **machinery except electrical** (60.3%) followed by **transport equipment** (40.6%), **printing** (25.9%), **petroleum products** (15.4%) and **electrical machinery** (14.0%).

- **Volume of Net Sales Index likewise increase**

Volume of Net Sales Index (VoNSI) continued to gain as it posted a year-on-year growth of 5.7 percent in May 2017. The major contributing factor were the increases in VoNSI exhibited by nine major sectors, with significant expansion observed in **machinery except electrical** (69.5%), **fabricated metal products** (67.5%), **transport equipment** (40.3%), **leather products** (28.7%), **printing** (22.2%), **furniture and fixtures** (20.7%), **electrical machinery** (15.9%), **non-metallic mineral products** (11.5%), and **paper and paper products** (10.0%).

- **Average Capacity Utilization Rate in May 2017 is 83.8 percent with basic metals posting the highest among industries**

Average capacity utilization rate in May 2017 for total manufacturing was recorded at 83.8 percent. Fifty-five percent or 11 of the 20 major industries operated at 80 percent and above capacity utilization rates. These are:

- **basic metals** (88.7%)
- **petroleum products** (88.6%)
- **non-metallic mineral products** (86.7%)
- **machinery except electrical** (85.5%)
- **food manufacturing** (84.9%)
- **electrical machinery** (84.5%)
- **chemical products** (83.8%)
- **paper and paper products** (83.6%)
- **rubber and plastic products** (82.7%)
- **wood and wood products** (81.3%)
- **printing** (80.4%)

The proportion of establishments that operated at full capacity (90% to 100%) was recorded almost one-fourth of the total number of establishments (24.3%) in May 2017. Around 56 percent of the total establishments operated at 70 percent to 89 percent capacity while one-fifth of the total establishments (20.1%) operated below 70 percent capacity.

### **Employment Generation**

In terms of employment generation, the manufacturing sector has provided jobs for 3.21 million in 2014 which is about 1.68% higher than it generated the previous year.

<b>INDICATOR</b>		<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>ALL INDUSTRIES (000)</b>		<b>3,112</b>	<b>3,159</b>	<b>3,212</b>
10	Manufacture of Food Products	767	797	807
11	Manufacture of Beverages	73	83	88
12	Manufacture of Tobacco Products	13	12	14
13	Manufacture of Textiles	148	152	137
14	Manufacture of Wearing Apparel	441	461	442
15	Manufacture of Leather and Related Products	63	72	85
16	Manufacture of Wood and of Products of Wood and Cork, except Furniture; Manufacture of Articles of Bamboo, Cane, Rattan and the like; Manufacture of Articles of Straw and Plaiting Materials	317	293	313
17	Manufacture of Paper and Paper Products	50	49	51
18	Printing and Reproduction of Recorded Media	55	56	67
19	Manufacture of Coke and Refined Petroleum Products	6	5	7
20	Manufacture of Chemicals and Chemical Products	51	63	55
21	Manufacture of Basic Pharmaceutical Products and Pharmaceutical Preparations	31	30	31
22	Manufacture of Rubber and Plastic Products	72	79	84
23	Manufacture of Other Non-metallic Mineral Products	91	89	86
24	Manufacture of Basic Metals	45	56	45
25	Manufacture of Fabricated Metal Products, except Machinery and Equipment	151	131	155
26	Manufacture of Computer, Electronic, and Optical Products	322	337	357
27	Manufacture of Electrical Equipment	58	59	51
28	Manufacture of Machinery and Equipment, NEC	19	16	16
29	Manufacture of Motor Vehicles, Trailers, and Semi-trailers	39	42	53
30	Manufacture of Other Transport Equipment	38	33	42
31	Manufacture of Furniture	139	118	101
32	Other Manufacturing	86	88	84
33	Repair and Installation of Machinery and Equipment	36	37	42

Source: PSA

### **Multiplier Effects**

Nine of the top ten sub-sectors with the highest output multipliers<sup>2</sup> belong to manufacturing. The top five industries with the highest output multiplier are: manufacture of semiconductor devices and other electric components (3.773), manufacture of office, accounting and computing machinery (3.6391), building and

<sup>2</sup> An output multiplier is the additional output produced in the economy due to a one-peso change in final demand. The multipliers above (both output and employment) are based on the 2006 Input-Output Tables of the PSA. Both multipliers are computed under an open global model, which assumes that household final consumption spending is exogenous, and takes into account both domestically-produced and imported intermediate inputs.

repairing of ships and boats (3.4371), miscellaneous manufacturing (3.1254), and manufacture of other fabricated metal products (3.0162). This is understandable, since the electronics and other machinery parts industries are the prime exports of the Philippines, fuelled by global and regional consumer demands.

Rank	Manufacturing Sub-Sector	OUTPUT MULTIPLIER
1	Manufacture of semi-conductor devices and other electronic components	3.7773
2	Manufacture of Office, Accounting and Computing Machinery	3.6391
3	Building and repairing of ships and boats	3.4371
4	Miscellaneous manufacturing, n.e.c	3.1254
5	Manufacture of other fabricated metal products, n.e.c.	3.0162
6	Manufacture of cutlery, hand tools and general hardware	2.9914
7	Manufacture of basic iron and steel	2.9288
8	Manufacture of man-made fibers	2.9279
10	Manufacture of non-structural, non-refractory ceramic ware	2.8604
11	Manufacture of other special purpose machinery	2.8263

The top five manufacturing sub-sectors with the highest employment multiplier effects <sup>3</sup> are: manufacture of knitted and crocheted articles (2,449), ready-made garments manufacturing (2,139), manufacture of rubber products (2,090), manufacture of shoes (2,066) and manufacture of watches and clocks (2,059). These sub-sectors are labour-intensive, hence, they have among the biggest employment effects.

Rank	Manufacturing Sub-Sector	EMPLOYMENT EFFECT
16	Manufacture of knitted and crocheted articles, n.e.c.	2,449
23	Ready-made garments manufacturing (excluding embroidered garments)	2,139
25	Manufacture of rubber products	2,090
26	Manufacture of shoes	2,066
27	Manufacture of watches and clocks	2,059
30	Manufacture of carpets and rugs	2,010
34	Manufacture of other wearing apparel n.e.c	1,961
35	Manufacture of other footwear, n.e.c.	1,952
37	Manufacture of aircraft and spacecraft	1,917
39	Manufacture of builders' carpentry and joinery; millworking	1,909

Source: PSA

### Major Industry Players

The 2014 Top 1,000 Corporations in the Philippines <sup>4</sup> includes **332 manufacturing firms**, which posted gross revenues totalling **Php 3.2 trillion**, up by **2.9%** from 2013.

Below is a summary of the major manufacturing players in the Philippines per sub-sector, vis-à-vis their gross revenues in 2013:

Manufacturing Sub-sector	Major Players in the Philippines	Gross Revenues 2013 (Php Billions)
Food, beverages and tobacco	Nestlé Philippines, Inc.	106.6
	San Miguel Pure Foods Company, Inc. and Subsidiaries	101

<sup>3</sup> An employment effect is the additional initial, direct and indirect employment generated in the economy due to a one billion-peso change in final demand.

<sup>4</sup> BusinessWorld Vol. 28, 2014 (Factories Churn Out More, Leo Jaymar Uy)

Manufacturing Sub-sector	Major Players in the Philippines	Gross Revenues 2013 (Php Billions)
Basic metals	Philip Morris International Philippines	91
	San Miguel Foods Inc.	89.7
	Universal Robina Corp. and Subsidiaries	82.8
	Monde Nissin Corp. and Subsidiaries	32.1
	SteelAsia Manufacturing Corp. and Subsidiary	27.2
Coke and petroleum, glass and other	Petron Corp.	231.8
	Pilipinas Shell Petroleum Corp.	199.3
	Philippine Associated Smelting and Refining Corp.	74.8
	Holcim Phils. Inc. and Subsidiaries	29.2
	Semirara Mining Corp. and Subsidiaries	27.6
	Chevron Malampaya LLC	26.9
	Shell Philippines Exploration BV	25.4
Machinery, equipment and telecommunications	Texas Instruments (Phils.), Inc.	142.6
	Toshiba Information Equipment (Phils.), Inc.	104.7
	Epson Precision (Phils.) Inc. and a Subsidiary	40.2
	Integrated Micro-Electronics Inc. and Subsidiaries	31.8
	Samsung Electronics Phils. Corp.	30.5
	Rohm Electronics Phils. Inc.	27
Transport equipment	Toyota Motor Phils. Corp. and Subsidiaries	81
	Mitsubishi Motors Phils. Corp. and Subsidiaries	35.6
	Hanjin Heavy Industries and Construction (Phils.) Inc.	32.6
Chemicals, rubber and plastic products	JG Summit Holdings, Inc. and Subsidiaries	150.1
	Unilever Philippines Inc.	43.7
	United Laboratories, Inc. and Subsidiaries	42.7

## Exports

The Philippines' exports are concentrated on electronics and semiconductors, and machinery and equipment parts, which represents 56% of total exports in 2014. This indicates the Philippines' foothold in the global value chains of the electronics industry, likewise in the value chains of allied industries such as automotive and aerospace parts as well. The decrease in exports from 2008 to 2011 is caused by weak demand of consumer goods from its major trade partners due to the financial crisis. But exports picked up fast post-crisis, with total Philippine exports valued at US\$ 61.52 billion in 2014.

The country's total external trade in goods in 2016 was recorded at \$141.514 billion, expanding by 8.9 percent from \$129.894 billion in 2015. Total import receipts went up by 8.9 percent to \$84.108 billion in 2016 from \$71.067 billion in 2015. However, total export receipts decreased by 2.4 percent from \$58.827 billion in 2015 to \$57.406 billion in 2016. This translate to country's balance of trade in goods (BoT-G) at negative \$26.702 billion in 2016 higher than the \$12.240 billion deficit in 2015.

Export sales from the top ten commodities totaled to \$47.465 billion, accounting for 82.7 percent of the total export revenue in 2016. This registered a decrease of 3.3 percent from \$49.096 billion in 2015.

**Electronic Products** continued to be the top export earner in 2016 with 51.2 percent share of the total export revenue. This increased by 1.8 percent to \$29.418 billion in 2016 from \$28.904 billion in 2015.

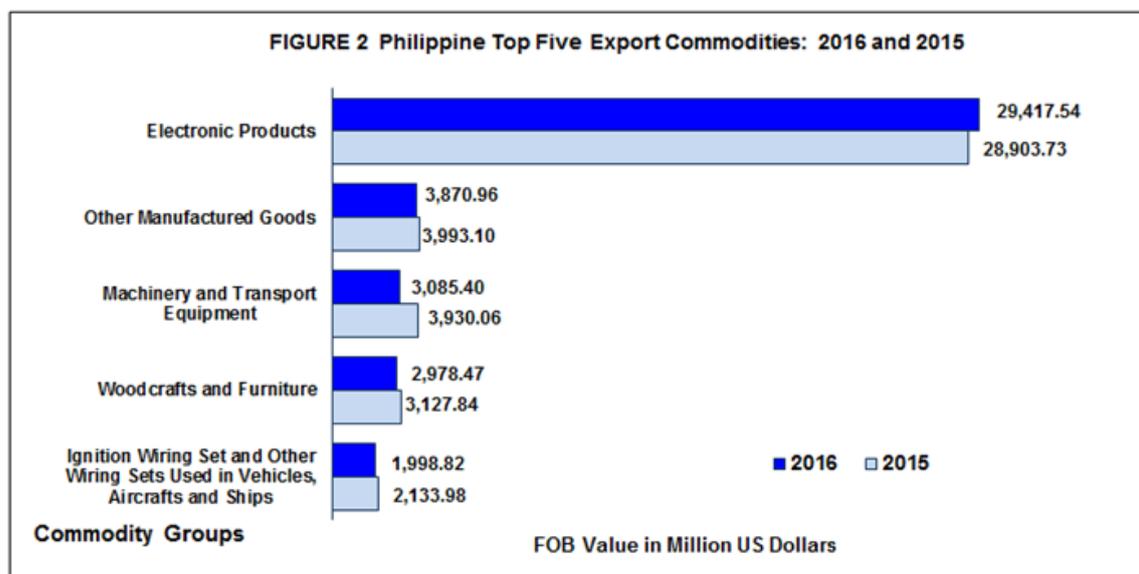
**Other Manufactured Goods** placed second with a share of 6.7 percent and a total receipt of \$3.871 billion. It declined by 3.1 percent from the 2015 value of \$3.993 billion.

**Machinery and Transport Equipment** contributing 5.4 percent of the total export receipt, was the third top export in 2016 with revenue amounting to \$3.085 billion. This recorded a decrease of 21.5 percent from the 2015 value of \$3.930 billion.

**Woodcrafts and Furniture**, which ranked fourth with a share of 5.2 percent, declined by 4.8 percent from \$3.128 billion to \$2.978 billion in 2016.

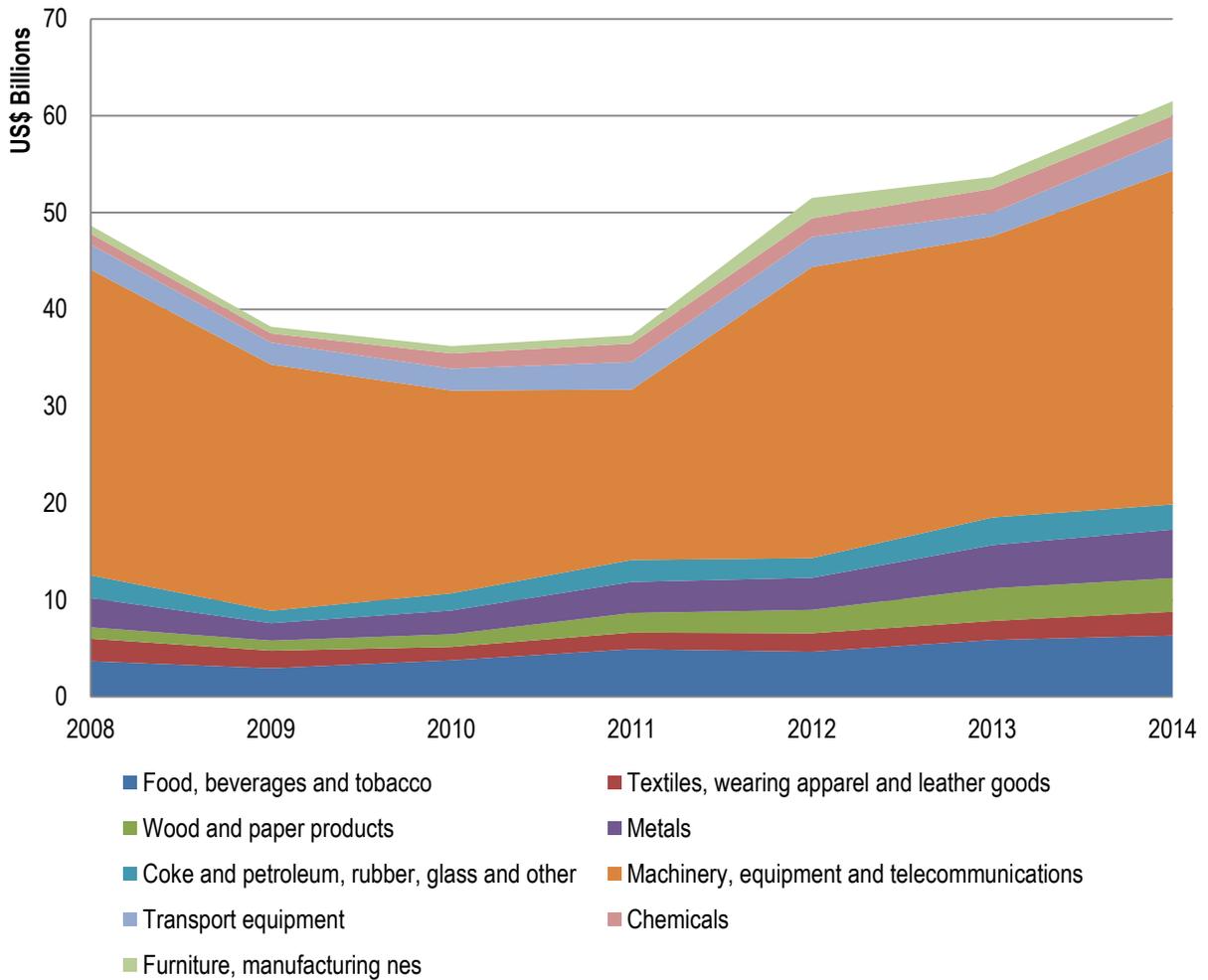
**Ignition Wiring Set and Other Wiring Sets Used in Vehicles, Aircrafts and Ships** with share of 3.5 percent, ranked fifth with export receipts amounting to \$1.999 billion. It went down by 6.3 percent from the 2015 value of \$2.134 billion.

Completing the list of top ten export commodities for 2016 were: **Chemicals** with an export value of \$1.603 billion, decreased by 10.0 percent from \$1.782 billion in 2015; **Metal Components** with proceeds billed at \$1.209 billion, fell by 2.5 percent from \$1.240 billion in 2015; **Coconut Oil**, worth \$1.152 billion, rose by 2.0 percent from \$1.129 billion; **Articles of Apparel and Clothing Accessories** with \$1.099 billion export receipts, decreased by 24.7 percent from \$1.459 billion; and **Other Mineral Products**, worth \$1.050 billion, declined by 24.9 percent from \$1.397 billion export receipts in 2015.



Source: PSA (2017)

**Structure of Philippines' Exports**



Philippine Exports to World	2014 (US\$ Billions)	CAGR (2008-2014)
Machinery, equipment and telecommunications	34.490	1.27%
Food, beverages and tobacco	6.308	8.13%
Metals	5.021	7.49%
Transport equipment	3.465	4.29%
Wood and paper products	3.460	16.81%
Coke and petroleum, rubber, glass and other	2.585	1.44%
Textiles, wearing apparel and leather goods	2.468	0.72%
Chemicals	2.212	10.16%
Furniture, manufacturing nes	1.511	8.40%

Source: World Integrated Trade Solutions Database, World Bank

**Regional Performance**

Region	Manufacturing (2014, in Thousand Pesos)	Manufacturing Growth (2013-2014)	Manufacturing Share to Regional GDP (%)
CALABARZON, Region 4A	664,102,978	5.19%	12.47%
National Capital Region	324,144,026	0.92%	39.79%
Central Luzon, Region 3	227,997,026	8.86%	5.10%
Central Visayas, Region 7	114,612,411	13.78%	1.46%
Davao, Region 11	61,804,112	19.10%	34.17%

Manufacturing industries are densely located in industrial areas, such as CALABARZON, National Capital Region, Central Luzon, Cebu (Central Visayas) and Davao. These areas have an expanse of economic zones and export processing zones. In the Philippines, there are around 277 operating economic zones, 65 of which are manufacturing economic zones, managed by the Philippine Economic Zone Authority (PEZA).

### **Growth Projections and Opportunities**

The Philippines is seen as a new manufacturing hub in Asia. With a combined and estimated investments of Php16.7 B or US\$400MM from 10 foreign companies of neighbouring Asian countries, half of which are new investments from Japanese investors, the Philippines is considered as the preferred investment destination for manufacturing operations in Asia.

Current developments such as the ASEAN Economic Community (AEC) by 2015 is seen to optimistically develop and stimulate the manufacturing industries in ASEAN to challenge China and India as the current global manufacturing hubs. The AEC calls for ASEAN to be a single market and production base, and is aimed at increasing intra-regional trade, and attracting more production and investments in the region. The AEC also calls for measures to facilitate trade and address non-tariff measures.

The Philippines competes as a manufacturing economy among the ASEAN-5. Specifically, the Philippines is one of the top 4 attractive ASEAN countries by cost and quality considerations in **motor vehicles and components**, and **food beverage and tobacco**.<sup>5</sup>

The free trade agreement (FTA) of ASEAN economies and their dialogue partners, Japan, China, Korea, Australia, New Zealand and India are being negotiated under the Regional Comprehensive Economic Partnership (RCEP). The Philippines also has a bilateral economic partnership agreement with Japan. Negotiations of a free trade agreement with EFTA economies (Switzerland, Norway, Iceland and Liechtenstein) are also underway. The Philippines is the only ASEAN country granted with a GSP+ status by the European Union, which means that most Philippine exports can enter duty-free the European markets.

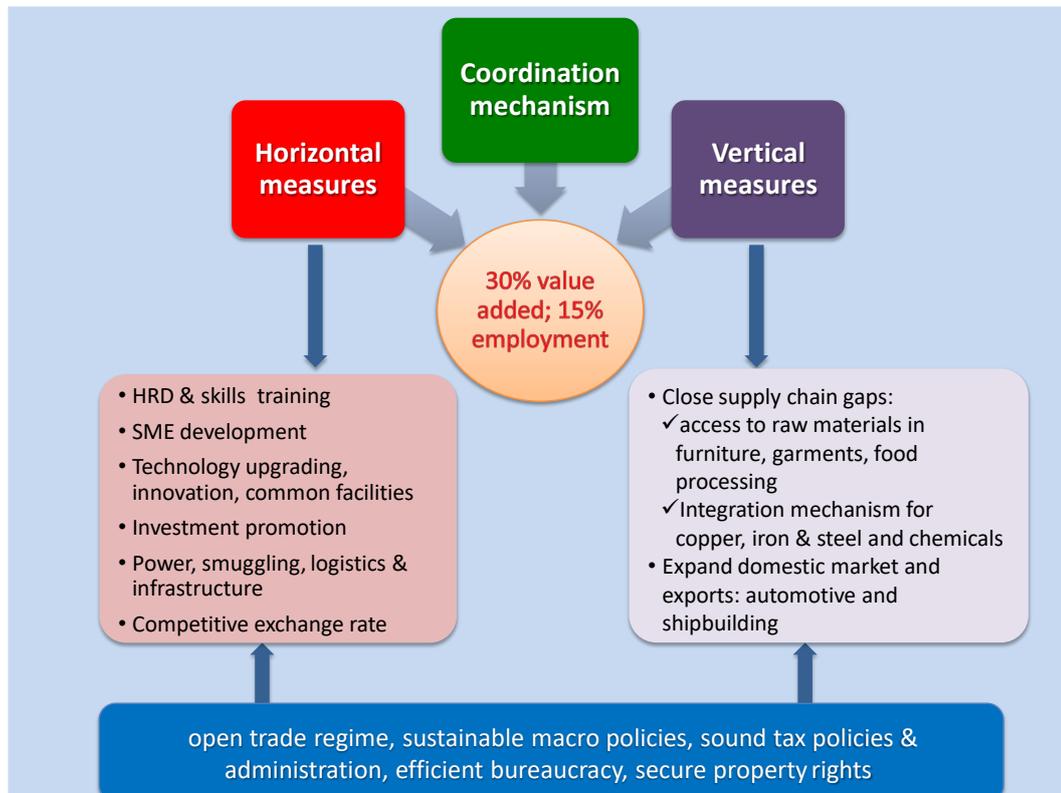
All of these FTAs and developments present widening market access of the Philippines' manufacturing industries to regional and global markets.

---

<sup>5</sup> Understanding ASEAN: The Manufacturing Opportunity (McKinsey Productivity Sciences Center, October 2014)

## Manufacturing Industry Roadmap

The roadmap aims to increase the contribution of manufacturing to 30% of total output and 15% of total employment by 2025. There are three main pillars to achieve these targets shown as follows:



The Manufacturing Industry Roadmap will coordinate measures to address the most binding constraints that prevent the entry of firms into the sector and hinder their integration into global value chains. The goal is to help markets work better by developing an investment strategy, optimising supply-chain integration, improving regulation, making education more industry appropriate, and encouraging industrial clustering to achieve agglomeration effects and reduce transaction costs.

The effective implementation of this roadmap is crucial and timely given the success of governance reforms that have led to the economy's recent strong performance and the growing interest of investors, who are now seriously looking at the Philippines as a good place to do business.

## Government Support Programs

The government is currently implementing the Manufacturing Resurgence Program (MRP). The MRP consists of projects and sub-programs that will enhance the competitiveness of the manufacturing industry including SME Development Program. It is being led by the DTI and participated in by the DOST, DOLE, TESDA, CHED, DOE, DA, NPC, NEA and PCA. Among the programs being implemented by these agencies are Industry Development Program, SME Roving Academy, Micro Enterprise Development Program and Industry Cluster Development of the DTI, various R&D and S&T programs of the DOST, Amendment of the Labor Code and Labor Law Compliance and Incentivizing System by the DOLE, various Energy Resource Assessment by the DOE, and the Agro-industrial Hubs of the PCA.

The President likewise issued Executive Order No. 182, the Comprehensive Automotive Resurgence Strategy (CARS). The CARS aims to scale up the manufacture of automobiles in the Philippines, by providing fiscal incentives to encourage carmakers to increase localization of parts and components. The CARS aims to improve competitiveness and increase the value addition of the parts and components manufacturers in the automotive industry of the Philippines, and to enable the sub-sector, especially the SME parts makers to increase their participation in the automotive global value chains as well.

## **Accomplishments of the Industry Development Program (IDP) – 2014 to 2015**<sup>6</sup>

With the implementation of the IDP, initiatives to achieve objectives in various aspects of industry development were undertaken. In the area of Ease of Doing Business, measures to facilitate business transactions were identified and implemented. HRD/Capacity Building includes projects that will improve the skills and productivity of industrial workers. In the area of Support Facilities, initiatives to upgrade existing equipments of the industry were pursued. To have cutting edge industrial advantage, feasibility studies were prepared for priority products. Special Projects were undertaken for identified strategic measures that will have high economic impact or with concerns that cut across various industries.

### **Special Projects/Policies**

- Executive Order 182: Comprehensive Automotive Resurgence Strategy (CARS) Program
- Petrochemical Industry Clustering Project
- Proposed STE Innovation Ecosystem anchored on Cultivating the Life Science BPO Sector
- Conceptualization of the Ecological Industrial Zone in Leyte as a potential for copper manufacturing activities
- Technical specifications and capability for paper industry to enable participation in the government's Green Procurement Program
- Pilot Geo-mapping of Industries (Automotive and Tool & Die)

### **HRD/Capacity Building**

- Holding of 5th Integrated Circuit (IC) Design Training with Taiwanese Professors in UP (2014)
- Memorandum of Agreement (MOA) between Philippine Rubber Industry Association (PRIA) and Mapua for the first Rubber course in the Philippines
- Series of Trainings on Die & Mould Making and Design by the DOST Metal Industry Research and Development Center (MIRDC) and the Philippine Die and Mould Association (PDMA) using computer-aided design/computer-aided manufacturing (CAD/CAM) (2014-2016)
- Completed training regulations for plant process operators and Quality Assurance and Quality Control (QA/QC) laboratory technicians

### **Support Facilities**

- Establishment of the Advanced Device and Materials Testing Laboratory (ADMATEL), Electronics Product Development Center (EPDC), Philippine Institute for IC Design (PIIC)
- Establishment of the Die and Mould Solution Center at the DOST-MIRDC
- Establishment of the Automotive Parts Testing Center at the DOST-MIRDC
- Shared Service Facilities (e.g. testing laboratories for rubber, wood working equipment for furniture) by the DOST

### **Research/Study**

- Completion of Pre-Feasibility Study on Copper Wire Rod
- Brief Market Study on Copper Enameling Plant
- IC Design Roadmap as focus sub-sector of the Electronics Industry
- Shipbuilding and Ship-repair Roadmap
- Rapid Industry Assessments on Condiments, Confectioneries/ Chocolate, Shrimps/Prawns, Mango and Carrageenan
- Enhancement of strategic roadmaps
- Greening the Industry Roadmaps with GIZ
- PATHS Project to identify product niching in the Electronics Industry
- Value Proposition Development Project for key industries

### **Ease of Doing Business**

- New DENR Department Administrative Order (DAO) on Exemption of Certain Chemical Mixtures from the Priority Chemical List (PCL)

---

<sup>6</sup> Source: BOI 2014 Annual Report; 2015 Industry Development Program Status Report (BOI's internal document)

- Finalized product standards on semi-gloss latex topcoat paints
- Reverse Trade Arrangement Between Boysen Paints and the Subdivision and Housing Developers Association (SHDA)
- Series of Workshops on Ease of Doing Business for the Chemicals Industry

**Promotions and Advocacy**

- Promo collaterals to strengthen PH brand
- Conduct of Trade and Industry Development (TID Updates) and Regional Conferences/Localization of Roadmaps
- Thematic Multi-Sectoral Meetings on Power and Smuggling