

Industrial Production Status

Indicators	2016	2017				2018										
	%YoY	Year	Oct.	Nov.	Dec.	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.
MPI*	1.4	1.0	6.3	5.8	2.5	4.7	4.6	3.2	3.1	2.9	5.0	4.9	0.8	-2.7	4.1	2.5

* MPIs have been adjusted for 2018 under ISIC Rev.4 classifications which cover 21 divisions, 57 industrial groups and 235 products. The industrial index was formed using the Laspeyres formula based on the 2011 fixed weights, with added value and output value referenced from "The 2012 Business Trade and Industry Census: The Manufacturing Industry" produced by the National Statistical Office of Thailand. Furthermore, the weights of weighted value have been adjusted with added value to reflect the current industrial structure

When considering **the manufacturing production index (MPI)**, the industrial economics status in **October 2018 grew by 4.1 percent** compared to the same period last year and last September which the index contracted. This resulted from both domestic consumption and exports that expanded; Domestic consumption and exports grew by 6.5 percent and 8.7 percent respectively.

When considering the MPI data for the past three months compared with the previous year (%YoY), the trend of industrial production projected in a good direction despite the temporary contraction in September which returned to expand again in October. In July, August and September, the rate of change was 4.9 percent, 0.8 percent and -2.7 percent respectively, which resulted in the MPI for the first ten months of 2018 to average a growth rate of 3.0 percent; an improvement compared to the first ten months of 2017 that had an MPI average growth of 1.8 percent.

Indicators	2017			2018										
	%MoM	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.
MPI	-5.0	6.5	-3.2	5.0	-0.1	10.5	-20.9	14.7	-1.1	-2.8	0.2	-1.9	1.6	

For the past 3 months (July, August and September 2018), the MPI (%MoM) had a standard rate of change. In July the change rate was -2.8 percent and 0.2 percent in August which was according to the seasonality in the year as the MPI slows down in June and July after most plants have accelerated production in May to compensate for closure during the Songkran festivities in April. However, for September 2018, there was a change rate of -1.9 percent according to normal seasonality as the MPI will increase in September; however, September of this year was affected by the temporary adjustment of exports.

Key industries that contributed to the MPI growth in October 2018 were:

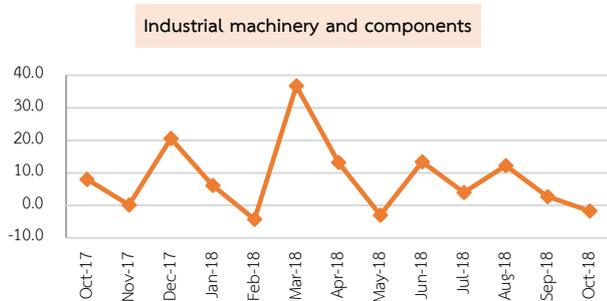
- Production of cars and engines grew by 16.7 percent from growth in almost every product item, especially diesel engines, pickup trucks and medium-sized passenger cars, in line with the expansion of the domestic market and launch of new models.
- Production of cigarettes grew by 434.6 percent from a low base in the year before from enforcement of the Excise Tax Act B.E. 2560 (2017) which caused the cigarette prices in the market to fluctuate, affecting order; plants thus stopped production for 2 weeks.
- Production of sugar grew by 145.1 percent from more sugarcane production than usual, causing factories to stop sugarcane processing later than the previous year, and therefore, there is still raw sugar to be processed to white sugar.
- Petroleum refinery grew by 9.8 percent mainly from gasohol 95, diesel fuel and 91- octane gasoline, in line with increasing demand for petroleum for transportation and domestic logistics.
- Production of air conditioners grew by 18.5 percent, in line with the expansion of the domestic market from marketing activities to stimulate consumption and increase sales of manufacturers, and exports which were mostly from orders from Japan, as well as growing orders from the African and Indonesian markets.

The MPI for **2018** is forecasted to **grow at an average of 2.5 percent** (in 2017 growth was 2.5 percent). The primary driver of this trend was the private sector's spending on consumption and investment, consistent with increased employment and household income in the agricultural industry as agricultural output increased. Also, the progress of government investment projects also encouraged private investment to grow. However, the economic growth of some trading partners slowed down and the US trade barriers, as well as countermeasures from countries, are expected to slow down exports slightly.

Other Industrial Economic Indicators in October 2018

Other Industrial Economic Indicators in October 2018

■ Thailand's Industrial Sector Importation



Source: Ministry of Commerce

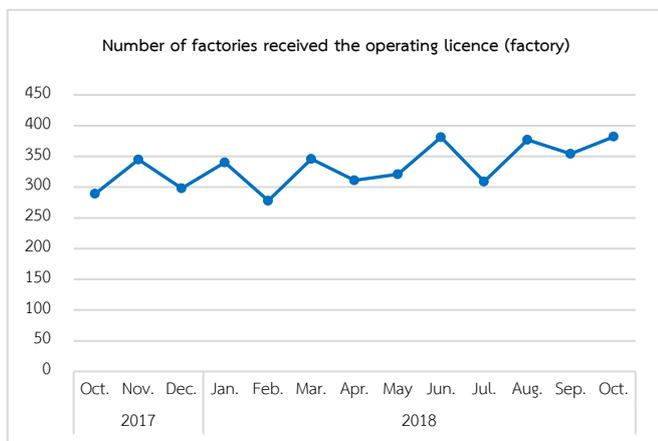


Source: Ministry of Commerce

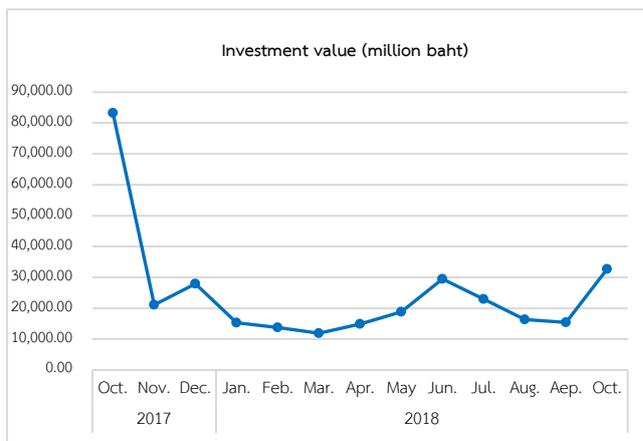
⊖ Imports of industrial machinery and components in October 2018, valued 1,512.8 million USD, a contraction by 5.6 percent compared to the same month last year. The contraction came from the decline in imports of engines, transmission shaft and other components; machinery used in other industries and components; and construction machinery and components, as the import base in the previous year was relatively high.

⊕ Imports of raw materials and semi-finished products (excluding gold) in October 2018, valued 7,882.8 million USD, increasing by 13.5 percent compared to the same month last year. The growth was in line with imports of electrical appliances and electronics and chemicals, including iron, steel, and products thereof. Imports increased as a result of growth in domestic sales and exports.

■ Status of Industrial Operations



Source: Department of Industrial Works



Source: Department of Industrial Works

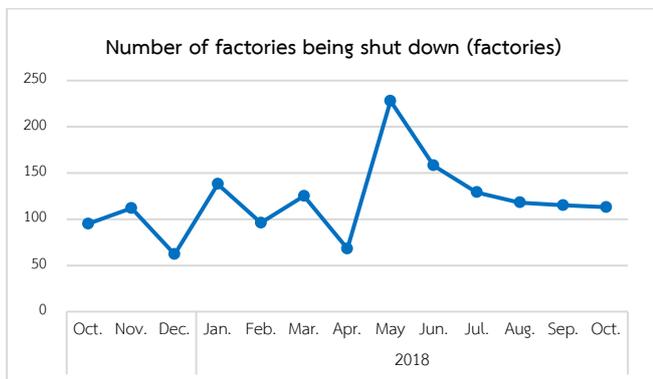
⊕ A total of 382 factories were licensed to operate in October 2018. The number increased by 7.9 percent and 32.2 percent compared with September 2018 (%MoM) and the same month last year (%YoY) respectively.

⊕ The total value of investment from the licensed factories for operation in October 2018 was 32,729.7 million Baht, increasing by 112.0 percent from September 2018 (%MoM), but decreasing by 60.7 percent compared with the same month last year (%YoY).

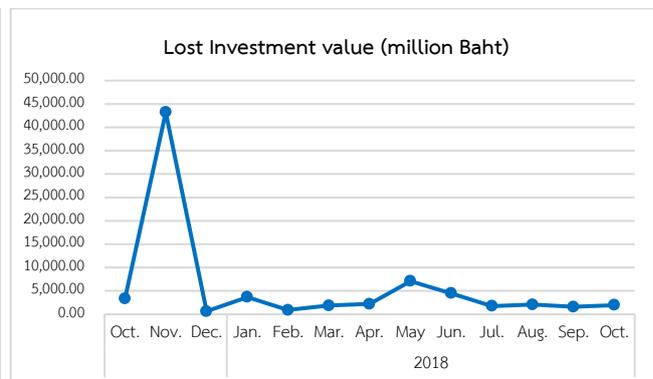
“The industry with the highest number of new licensed factories for operation in October 2018 was dredging or excavation industry of gravel, sand, or soil (31 factories), followed by the motor vehicle repair industry (28 factories).”

“The industry with the highest value of investment in October 2018 was the production of electricity from natural gas industry valued at 12,946 million Baht, followed by the tap water production industry valued at 1,980 million Baht.”

■ Status of Industrial Operations (cont.)



Source: Department of Industrial Works



Source: Department of Industrial Works

⊖ A total of 113 factories shut down the operation in October 2018. The number decreased by 1.7 percent from September 2018 (%MoM), but increased by 18.9 percent from the same month last year (%YoY).

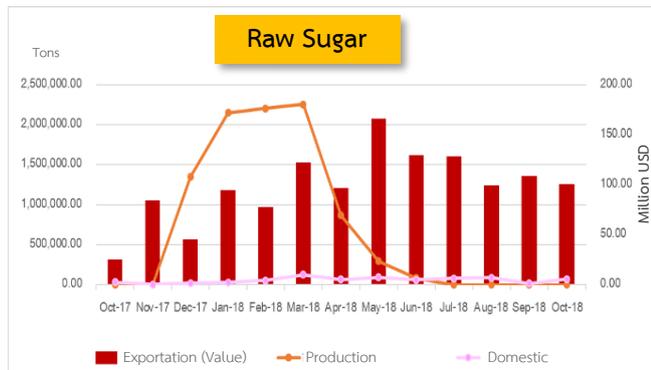
⊕ The lost investment value on shutdowns in October 2018 equated to 1,974.5 million Baht, increasing by 22.8 percent from September 2018 (%MoM), but dropping by 41.7 percent from the same month last year (%YoY).

“In October 2018, the industry with the highest number of factories being shut down were dredging or excavation industry of gravel, sand, or soil (11 factories) and wooden furniture industry (8 factories).”

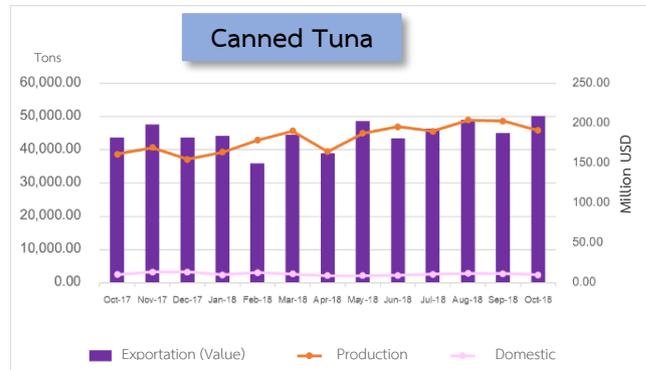
“The industry with the highest value of the investment with factory shutdowns in October 2018 was production, assembly, and modification of radio and television industry valued at 524 million Baht, followed by the container production industry such as bags or gunny sacks, valued at 232 million Baht.”

Industrial Economic Status for October 2018 by Industry

1. Food Industry



Source: Office of Industrial Economics and the Ministry of Commerce



Source: Office of Industrial Economics and the Ministry of Commerce

+ **Production** of food product in October 2018 increased by 11.0 percent (%YoY), classified as follows:

1) Export-orientated products namely, sugar increased by 145.7 percent (ton-%YoY) to support the increase of raw sugar solution being processed to white and refined sugar, as the result of sugarcane output increased by 40-45 percent from last year. This was coupled with the production of canned tuna and seasoned chicken which grew by 18.6 percent and 16.0 percent (%YoY) respectively, from the result of the continuous increase in trade partner’s demands.

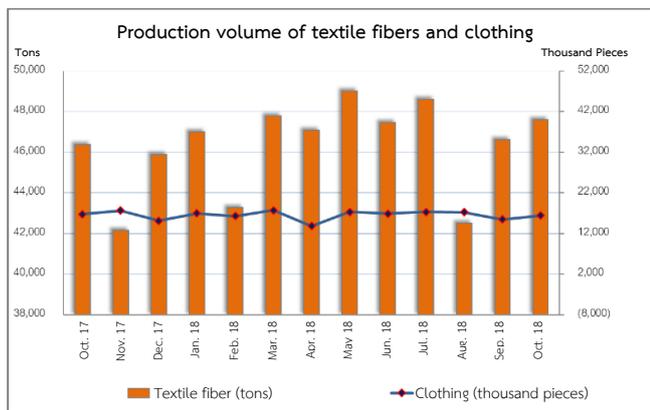
2) Domestic market-orientated products namely, chilled and frozen chicken, and ready-to-drink milk increased by 10.2 percent and 16.1 percent (%YoY) respectively from the result of the continuous increase in consumer demand.

+ **Domestic sales** volume of food products in October 2018 grew by 9.2 percent (%YoY), resulting from a positive economic trend.

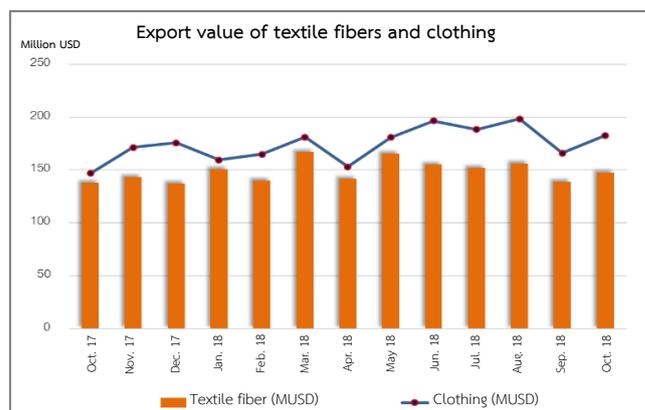
+ **Export markets:** The export value of food products in October 2018 increased by 15.5 percent (%YoY) in almost products such as raw sugar, white rice, cassava starch, canned sardine, white sugar, fresh durian, jasmine rice, processed chicken, canned tuna, and chilled and frozen chicken which increased by 299.4 percent, 83.0 percent, 74.3 percent, 36.0 percent, 29.4 percent, 26.5 percent, 18.4 percent, 16.7 percent, 14.9 percent, and 11.9 percent respectively (%YoY), resulting from the global demand for commodities that increased according to the global economic recovery.

It is expected that overall production in the food industry in November 2018 will grow, in line with increased advanced overseas orders and gradual expansion of domestic demand, such as chilled and frozen chicken, canned tuna, canned sardines and cassava starch including rice products (white rice and jasmine rice) that trade partners have continuously increased demand. This is combined with positive factors from the acceleration of public and private investment which will continue to expand, coupled with household spending which still has a good growth trend.

2. Textile and Garment Industry



Source: Office of Industrial Economics



Source: Ministry of Commerce

Production

+ *Production of textile fibers* increased by 2.68 percent, in synthetic and specialty fibers such as collagen and aramid fibers.

- *Fabrics and apparel* dropped by 0.67 percent and 2.15 percent respectively (%YoY), as weaving factory operators ceased cotton production since the demand of the domestic market and exports decreased. However, the production of synthetic woven fabrics continued to expand to support both domestic and international markets. Apparel in the women’s undergarments group dropped as imports from China replaced domestic production. On the other hand, the men's clothing sector grew in line with the export to neighbouring countries.

Domestic sales

+ *Textile fibers and fabrics* expanded by 11.31 and 10.93 percent respectively (%YoY), partly due to the use of domestic raw materials to produce apparel for export.

- *Apparels* dropped by 5.08 percent (%YoY), partly as a result of the popularity of foreign brand products among consumers.

Exports

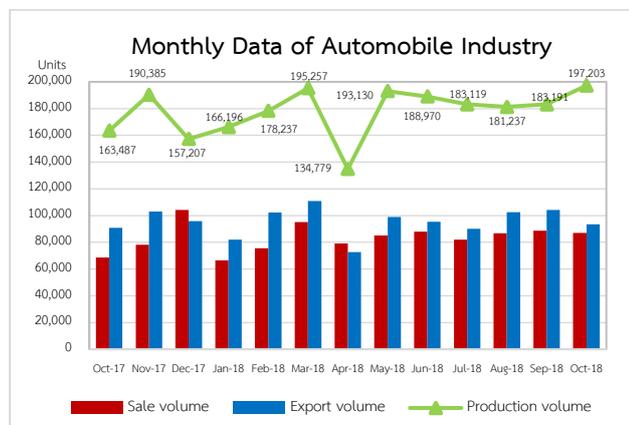
+ *Textile fibers, fabrics and apparel* increased in value by 6.97 percent, 2.65 percent and 24.29 percent, respectively (%YoY). Textile fibers grew for twenty-four consecutive months since November 2016. Key products were synthetic fibers and fabrics made from synthetic fibers, which were mostly fiber groups with special properties that Thailand has both production and export potential; major markets were Vietnam, Myanmar, Bangladesh and Cambodia. Apparel grew as Thailand gained trust in the production of clothing for foreign brands, which is part of the design and production model.

Forecast for November 2018

Trends in textiles fiber and apparel production are expected to grow in line with exports, mainly in the specialty fiber segment (technical fiber) and apparels made of including apparel made of specialty fibers. However, fabrics may have less production and slowed exports among cotton products which Thailand has no raw materials, coupled with less domestic demand.

3. Automotive Industry

■ Automobile Production Industry



Source: Office of Industrial Economics; data collected from Automotive Division, Federation of Thai Industries

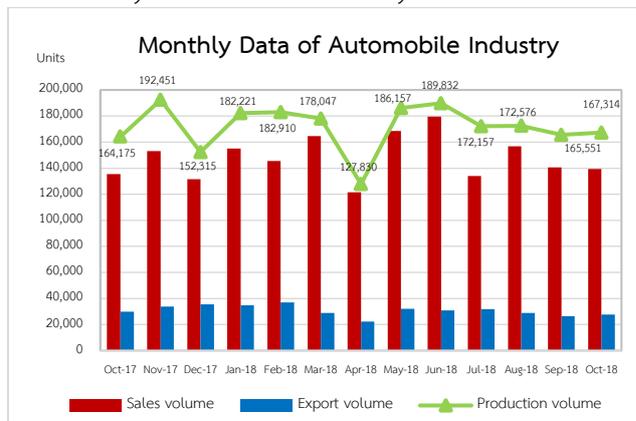
+ **Automobile production** In October 2018 reached 197,203 units, the highest level of production in 63 months. Production increased from September 2018 by 7.65 percent (%MoM) and by 20.62 percent from the same month last year (%YoY) due to an increase in production of passenger cars, 1-ton pickup trucks and derivatives and commercial vehicles.

+ **Domestic sales of automobiles** in October 2018 reached 86,931 units, decreasing by 2.00 percent from September 2018 (%MoM) but increasing by 26.81 percent from the same month last year (%YoY), resulting from an increase in sales of passenger cars, 1-ton pickup trucks, commercial purpose cars, and PPV and SUV cars. The increase was a result of the expansion of public and private investment, agricultural products, including increased agricultural products.

+ **Automobile exports** in October 2018 reached 93,338 units—decreasing by 10.39 percent from September 2018 (%MoM) but increasing by 2.75 percent from the same last year (%YoY) whereby exports to Asia, Oceania, North America, Central America and South America slowed down.

"The automotive industry is expected to slow down in November 2018 compared to November 2017, due to the wait for the launch of new models in the Motor Expo."

■ Motorcycle Production Industry



Source: Office of Industrial Economics; data collected from Automotive Division, Federation of Thai Industries

+ **Motorcycle production** in October 2018 reached 167,314 units—increasing by 1.06 percent and 1.91 percent from September 2018 (%MoM) and from the same month last year (%YoY) respectively—resulting from the increase in production of multi-purpose motorcycles.

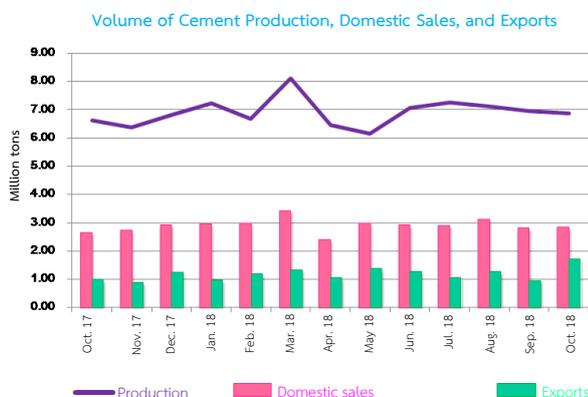
+ **Domestic sales of motorcycles** in October 2018 reached 139,290 units—decreasing by 0.86 percent from September 2018 (%MoM) but increasing by 2.74 percent from the same month last year (%YoY)—resulting from the increase in sales volume of 51-110 cc, 126 - 250 cc, and 251 - 399 cc motorcycle.

+ **Exports of motorcycles** in October 2018 reached 27,590 units—increasing by 4.50 percent from September 2018 (%MoM) but decreasing by 7.54 percent from the same month last year (%YoY)—whereby export markets in the US, the Netherlands, and Myanmar slowed down.

"In November 2018, the trend of the motorcycle production industry is expected to grow compared to November 2017."

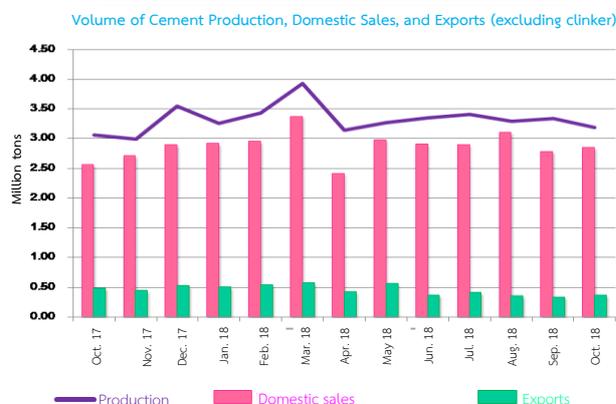
4. Cement Industry

Overall Cement Industry



Source: 1. Domestic production and sales volume: Division of Industrial Economics Information and Indices, Office of Industrial Economics
2. Export volume: Information and Communication Technology Center, Office of the Permanent Secretary, Ministry of Commerce.

Cement Industry (excluding clinker)



Source: 1. Domestic production and sales volume: Division of Industrial Economics Information and Indices, Office of Industrial Economics
2. Export volume: Information and Communication Technology Center, Office of the Permanent Secretary, Ministry of Commerce.

+ Overall cement production in October 2018 reached 6.88 million tons, a small drop by 1.04 percent from September 2018 (%MoM) but a rise by 3.68 percent compared to the same month last year (%YoY) to support growth in construction of public utilities which had continuous progress.

+ Overall domestic cement sales in October 2018 reached 2.85 million tons—increasing 1.50 percent and 7.92 percent compared to September 2018 (%MoM) and the same month last year (%YoY) respectively—from continued progress in construction of public utilities and expanded construction in the private sector.

+ Total cement exports in October 2018 reached 1.70 million tons—increasing by 79.21 percent and 71.98 percent from September 2018 (%MoM) and the same month last year (%YoY) respectively—as key export markets increased orders such as Bangladesh (for clinker), which increased by 351.61 percent, followed by the Philippines and Vietnam which increased by 107.07 percent and 35.95 percent respectively.

The trend of the overall cement production in November 2018 is expected to shrink slightly from this month.

+ Cement production (excluding clinker) in October 2018 reached 3.19 million tons—decreasing by 4.61 percent from September 2018 (%MoM) but increasing by 3.99 percent from the same month last year (%YoY).

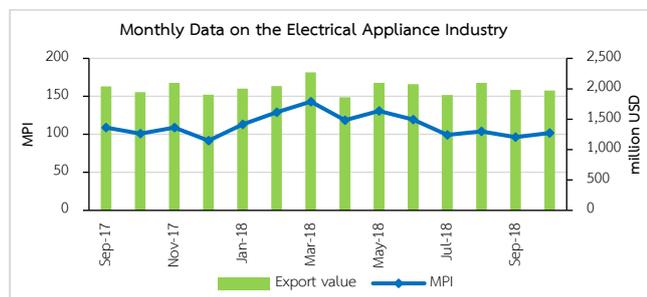
+ Domestic sales of cement (excluding clinker) in October 2018 reached 2.85 million tons—increasing by 2.23 and 11.04 percent compare to September 2018 (%MoM) and same month last year (%YoY) respectively, in line with the progress of public utilities and private real estate construction.

+ Export of cement (excluding clinker) in October 2018 reached 0.36 million tons—increasing by 7.76 percent from September 2018 (%MoM) but decreasing by 24.54 percent (%YoY) from the same month last year. This was a result of key export markets; namely, the Philippines, Cambodia, and Laos decreased purchase orders by 78.28 percent, 38.03 percent, and 15.94 percent respectively.

The trend of the cement industry (excluding clinker) in November 2018 is expected to shrink slightly from this month.

5. Electrical Appliance and Electronics Industry

■ Electrical Industry



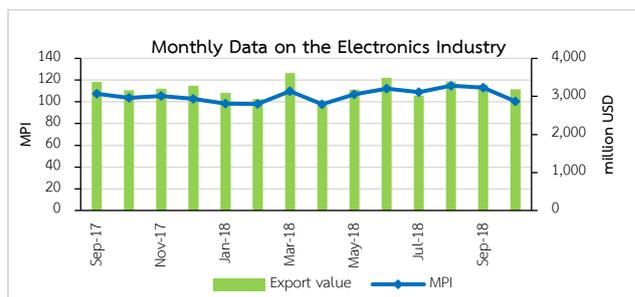
Source: Office of Industrial Economics

+ **Production of electrical appliances** reached a production index of 101.9, a growth by 0.9 percent compared to the same month last year. Products which increased in production were rice cookers, thermos, household fans, air conditioners with separate fan coil units, air conditioners with separate condensing units, microwave ovens and compressors by 32.2 percent, 29.5 percent, 21.6 percent, 20.12 percent, 17.7 percent, 12.5 percent and 5.2 percent respectively. Thermos, microwave ovens and air conditioners increased in production in line with more overseas purchase orders. Air conditioners in the Japanese and Indonesian market grew by 35.1 percent and 22.4 percent respectively, from increased demand among trading partners whereas household fans, compressors and thermos grew in domestic sales. Products that dropped in production were washing machines, electric motors, electric wires and refrigerators by 23.4 percent, 14.5 percent, 8.3 percent and 4.1 percent respectively. Electric motors and electric wire production decreased as inventory stock was used for sale, whereas refrigerators and washing machines decreased from less overseas purchase orders.

+ **Exports of electrical appliances** reached a value of 1,969.6 million USD—a slight increase by 1.2 percent compared to the same month last year from key markets that grew, including Japan, EU and ASEAN. Air conditioners and components reached an export value of 336.8 million USD, increasing by 3.8 percent, whereas switch and electrical control panels reached an export value of 174.6 million USD, increasing by 13.8 percent. Meanwhile, refrigerators had an export value of 119.9 million USD, down 6.8 percent; washing machines valued 89.9 million USD, decreasing by 42.9 percent of which 98.7% was in the US market due to the safeguard measures on washing machines that the US imposed on Thailand.

"Production forecast for November 2018 is expected to increase slightly by 0.5 percent from last year, from air conditioners with increased overseas orders, such as ASEAN and Japan, while washing machines experiences lower overseas orders from the US market."

■ Electronics Industry



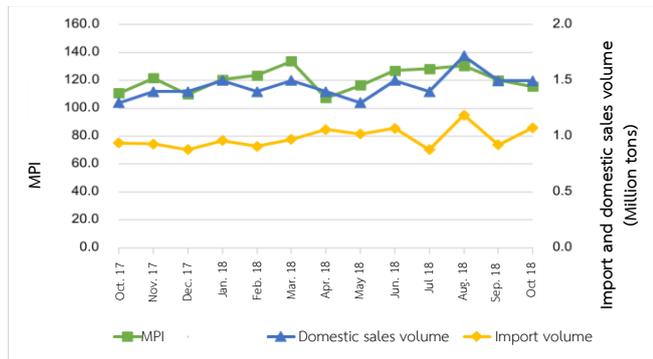
Source: Office of Industrial Economics

- **Production of electronics** reached an MPI of 100.3, down 3.2 percent compared to the same month last year. Electronics that dropped in production were other ICs and HDDs by 15.1 percent and 4.9 percent respectively, due to a decrease in overseas purchase orders and some companies used inventory for distribution causing the production to decrease, whereby HDDs have been developed to have more capacity for use in cloud storage. Meanwhile, printers, PCBA, semiconductor devices transistors and monolithic ICs increased by 16.1 percent, 16.0 percent, 8.6 percent and 5.6 percent respectively. The growth was in line with the expansion of the world's electronics products, especially ICs which increased as it is used as an essential part in the development of high technology products including smartphones and tablets, and in the market, semiconductors have been developed to for use as a component of various smart devices

+ **Exports of electronics** valued 3,188.2 million USD, a slight increase by 0.8 percent compared to the same month last year from growth in key markets including Japan and EU. Exports of telephones and accessories valued 287.1 million USD, increasing by 40.1 percent, with a growth of 69.1 percent to the Japanese market as some manufacturers produced to export products back to the parent company in Japan. Meanwhile, the export value of integrated circuits reached 630.4 million USD, a drop by 9.1 percent with a decline in the Chinese market by 38.6 percent. Computers, components and accessories reached an export value of 1,186 million USD, decreasing by 9.5 percent, whereas the export value of HDDs dropped by 19.5 percent, with contractions in the US and China by 26.7 percent and 12.8 percent, due to trade countermeasures between the US and China Which affects the production and export chain of Thailand.

"Production of electronics for November 2018 is expected to increase by 1.2 percent compared to the same month last year, from the increase in exports of computer parts and components.."

6. Iron and Steel Industry



Source: Office of Industrial Economics/Iron and Steel Institute of Thailand

+ The manufacturing production index in October 2018 reached 115.7—increasing by 4.4 percent compared to the same period last year. Analyzed by key products that were flat and long-formed steel, both product groups increased in MPI. Flat-formed steel reached an MPI of 113.9, a 1.9 percent growth from an increase in zinc plated steel sheets by 14.6 percent, as galvanized steel sheets (GA) is used in the automotive and electrical appliances industries. This was followed by cold-rolled steel sheets and hot-rolled steel coils which grew by 2.2 percent and 1.9 percent respectively. Long-formed steel reached an MPI of 116.7, increasing by 7.4 percent whereby cold-rolled structural steel grew by 16.9 percent, followed by steel wires, high tensile steel wires and hot-rolled structural steel which increased by 16.1 percent, 11.3 percent and 10.0 percent respectively. The increase in steel production in October was due to the expansion of construction following the support of government infrastructure construction.

+ Domestic sales in October 2018 reached 1.5 million tons—increasing by 13.7 percent compared to the same period last year. Consumption of flat-formed steel reached 1.0 million tons— increasing by 18.3 percent whereby thin hot-rolled steel sheets grew by 21.3 percent, followed by galvanized steel sheets and cold-rolled steel sheets which grew by 17.9 percent and 17.1 percent respectively. Consumption of long-formed steel reached 0.4 million tons, a 4.4 percent growth from an increase in steel rods and structural steel which grew by 13.4 percent in line with the construction of public infrastructure.

+ Imports in October 2018 reached 1.1 million tons, increasing by 14.4 percent compared to the same period last year. Flat-form steel reached 0.8 million tons, a 16.1 percent growth from increased imports of tin-plated sheets by 73.8 percent from China, South Korea and France. This was followed by hot-rolled alloy steel sheets and cold-rolled alloy steel sheets which grew by 57.1 percent and 42.6 percent respectively. Long-formed steel reached a volume of 0.3 million tons—increasing by 9.3 percent from imports of seamless steel pipes which grew by 68.8 percent, followed by steel wire and carbon steel wire, which grew by 28.5 percent and 19.1 percent respectively.

“The trend for the steel industry in November 2018 is expected to increase in production slightly from last year, with growth in long-formed steel products from growth in downstream industries such as the construction sector. However, there are still some issues to be monitored regarding declining steel prices in China and Asia. This is expected to result in more imported steel products which may affect domestic steel production.”