

Industrial Production Status

Indicators	2016	2017					2018									
	Year	Sep.	Oct.	Nov.	Dec.	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Year(f)
MPI*	1.4	5.3	1.0	6.3	5.8	2.5	4.7	4.6	3.2	3.1	2.9	5.0	4.9	0.8	-2.6	3.0

* 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.

The industrial economics status in **September 2018**, when considering **the manufacturing production index (MPI)**, **dropped by 2.6 percent** from the same time last year. This was a result of the high base in September 2017, whereby many major industries grew at high levels such as automobiles, hard disk drives, and fruit and vegetable processing. Also, in September 2018, the export of cars to Australia contracted significantly from accelerated exports in the past, believed to be a short-term adjustment as the import value of raw materials excluding gold, which are indicators of industrial production, also expanded. Growth was at 7.1 percent, while the industrial confidence index for the next three months rose to 106.1 from 105.6 in August.

When considering the MPI for the past 3 months (June, July, and August) compared to last year (%YoY), the trend of industrial production continued to grow and the rate of change was 5.0 percent, 4.9 percent and 0.8 percent, respectively. As a result, MPI grew by 2.9 percent in the first nine months of this year, a significant growth compared to the first nine months in 2017 whereby the MPI grew at an average of 1.9 percent.

Indicators	2017				2018									
	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	
MPI	1.6	-5.0	6.5	-3.2	5.0	-0.1	10.5	-20.9	14.7	-1.1	-2.8	0.2	-1.75	

The change rate of MPI (%MoM) for the past three months (June, July, and August) was normal which was at -1.1 percent, -2.8 percent, and 0.2 percent, respectively. This was according to seasonal changes throughout the year as the MPI of June and July decreased after most factories accelerated the production in May to compensated the production loss during the Songkran festivities in April.

Key industries that contributed to the MPI decline in September 2018 were:

- Production of cars and engines dropped by 3.89 percent from a decrease of gasoline engines, diesel engines and pickup trucks, in line with a slowdown of exports to Oceania, the Middle East, Europe and North America. Meanwhile, domestic sales continue to expand.
- Production of non-tire rubber products dropped by 12.9 percent from rubber sheets, as Chinese customers still had high stock, an effect by trade barriers between the United States and China, resulting in slower orders from China.
- Production of electrical motors dropped by 34.0 percent from fewer orders from dealers in China, coupled with changed production plans among manufacturers into production-to-order instead of production-to-stock.

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

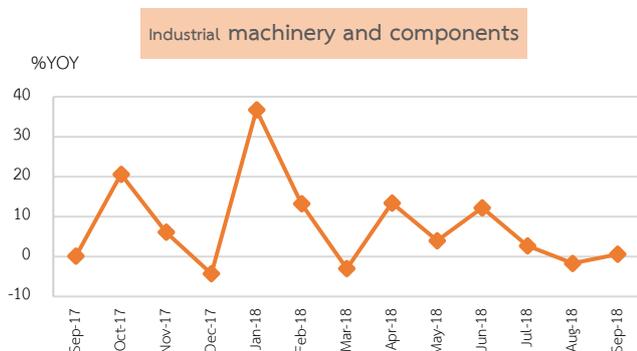
- Production of sugar grew by 108.0 percent due to the higher yield of sugarcane, which caused the factories to cease production slower than last year, and thus could convert raw sugar into white sugar.
- Production of electronic components grew by 7.1 percent, especially PCBA and integrated circuits (ICs), in line with the increasing demand for electronic components in the global market.
- Petroleum refinery grew by 8.6 percent from gasohol 95 and diesel, in line with domestic demand for transportation.

In terms of forecasts, **the MPI for 2018 is expected to grow at an average of 3.0 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 sector as agricultural output increased. In addition, 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 retaliations from countries, are expected to slow down exports slightly.

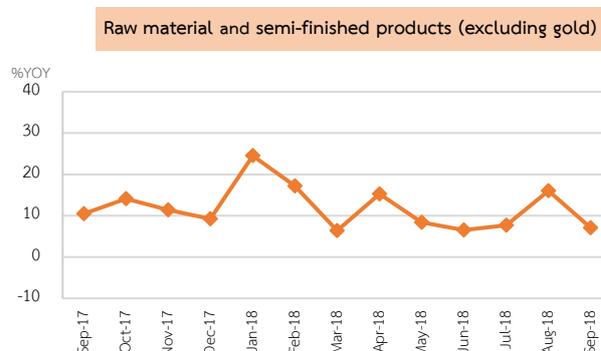
Other Industrial Economic Indicators in September 2018

Other Industrial Economic Indicators in September 2018

Thailand's Industrial Sector Importation



Source: Ministry of Commerce

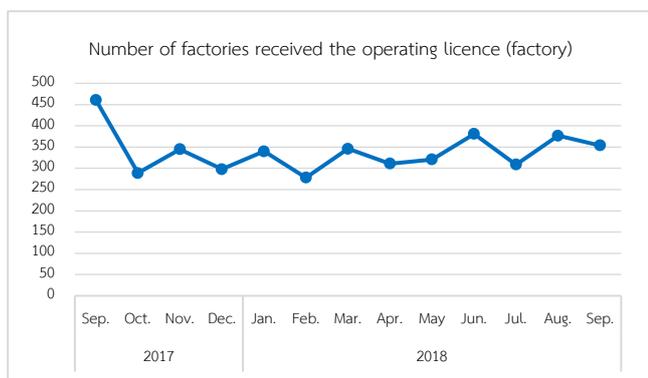


Source: Ministry of Commerce

+ The import value of industrial machinery and components in September 2018 was 1,409.4 million USD, a 0.6 percent growth compared to the same month last year, from the imports of engines, shafts, and other components, construction machinery and components, metal processing machinery and components, and rubber or plastic processing machinery and equipment.

+ The import value of raw material and semi-finished products (excluding gold) in September 2018 was 7,199.2 million USD, a 7.1 percent growth compared to the same month last year, in line with the import of chemicals, equipment and parts of the electrical appliance and electronics, including iron, steel and products thereof.

■ Status of Industrial Operations



Source: Department of Industrial Works



Source: Department of Industrial Works

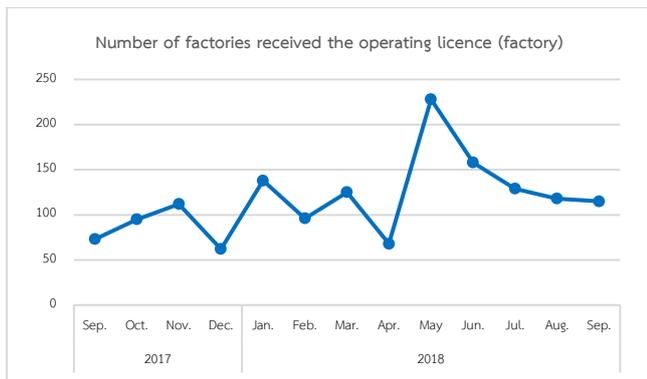
➡ A total of 354 factories were licensed to operate in September 2018. The number decreased by 6.1 percent from August 2018 (%MoM) and a 23.2 percent drop compared with the same month last year (%YoY).

➡ The total value of investment from the licensed factories for operation in September 2018 was 15,435.4 million Baht, a 5.7 percent decrease from August 2018 (%MoM) but a 35.5 percent drop compared with the same month last year (%YoY).

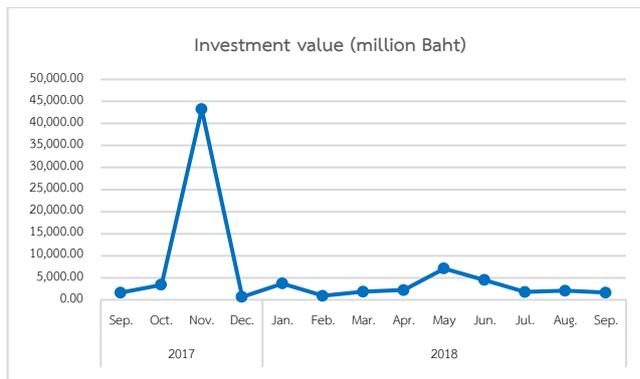
“The industry with the highest number of licensed factories commencing the business in September 2018 was the gravel, sand, or soil extraction and dredging industry (30 factories), followed by the concrete product manufacturing and gypsum-mixed concrete product manufacturing industry (22 factories).”

“The industry with the highest value of investment in September 2018 was the smelting, forging, or iron or steel manufacturing industry valued at 1,730 million Baht, followed by the boiling, steaming or dehydrate of plant or seed industry valued at 1,333 million Baht.”

■ Status of Industrial Operations (cont.)



Source: Department of Industrial Works



Source: Department of Industrial Works

➖ A total of 115 factories shut down the operation in September 2018. The number decreased by 2.5 percent from August 2018 (%MoM) and a 57.5 percent from the same month last year (%YoY).

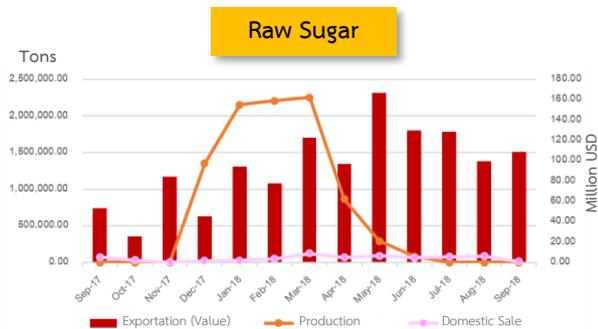
➕ The lost investment value on shutdowns in September 2018 equated to 1,607.9 million Baht, a 21.9 percent decrease from August 2018 (%MoM), and a 0.5 percent drop from the same month last year (%YoY).

“In September 2018, the industry with the highest number of factories being shut down were sand dredging industry (11 factories) and gravel, sand, or soil extraction industry (10 factories).”

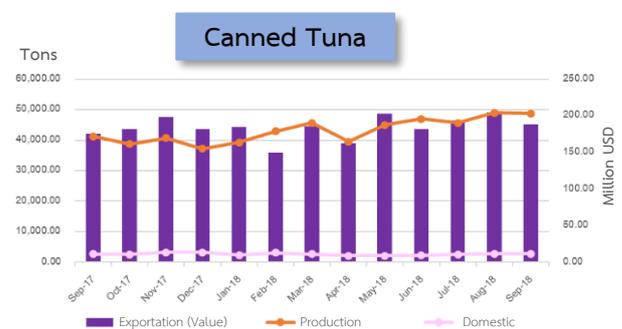
“The shutdown of the industry with the highest value of the investment in September 2018 was the industry of plastic pellet, bar, pipe, tube, sheet, chip, powder, or other forms valued at 156 million Baht, followed by concrete product manufacturing and gypsum-mixed concrete product manufacturing, valued at 137 million Baht.”

Industrial Economic Status for September 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 September 2018 increased by 8.3 percent (%YoY), classified as follows:

1) Export-orientated products namely, sugar increased by 111.0 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 which grew by 18.3 percent (%YoY) from pressure easing on raw material and product prices, resulting in more purchase orders from trade partners.

2) Domestic market-orientated products namely, refined palm oil and ready-to-drink milk increased by 2.7 percent and 3.0 percent (%YoY) respectively from the result of the continuous increase in consumer demand.

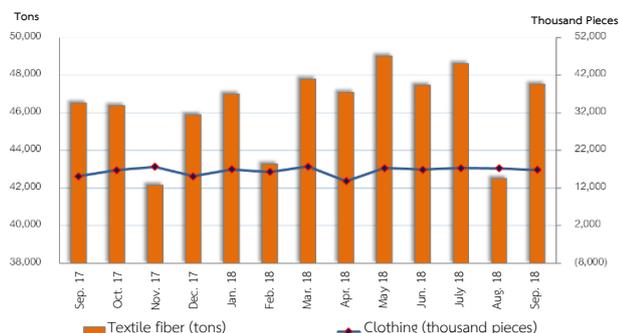
+ **Domestic sales** volume of food products in September 2018 grew by 5.1 percent (%YoY), resulting from a positive economic trend.

+ **Export markets:** The export value of food products in September 2018 increased by 4.9 percent (%YoY) in almost products such as fresh Durian, raw sugar, tapioca flour, white rice, canned sardine, jasmine rice, canned tuna, canned pineapple, and fresh and frozen chicken which increased by 151.73 percent, 104.8 percent, 62.8 percent, 22.2 percent, 18.3 percent, 7.0 percent, 4.9 percent, and 3.0 percent, respectively (%YoY) resulting from the global demand for commodities that increased according to the global economic recovery.

+ **Trend forecast:** It is expected that the production and export value of the food industry in October 2018 will increase due to opportunities to expand exports to China in replacement of the U.S. products including shrimp, chilled and frozen chicken, processed pork and cassava products. It is expected that China will import less of these products from the US due to increased taxes to counter trade measures. This also includes rice products (white and jasmine rice) which partner countries have constantly increased demand. Furthermore, positive factors from the government's agriculture and base economy supporting policies help to boost the Thai economy to grow continuously and higher than expected.

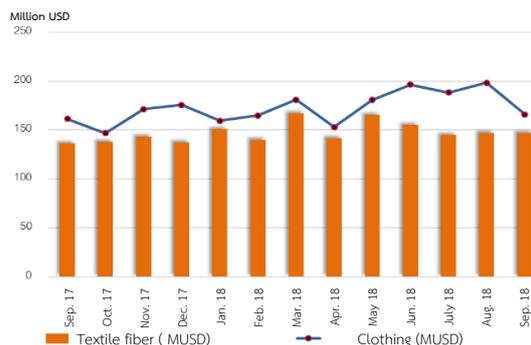
2. Textile and Garment Industry

Production volume of textile fibers and clothing



Source: Office of Industrial Economics

Export value of textile fibers and clothing



Source: Ministry of Commerce

Production

+ Production of textile fibers and apparels increased by 2.16 percent and 10.94 percent respectively (%YoY), in synthetic and specialty fibers such as collagen and aramid fibers and production of menswear, in line with the growing export trend.

- Production of fabrics dropped by 14.79 percent (%YoY) as some major fabric manufacturers stopped producing for maintenance. Also, demand for cotton fabrics from both domestic and export markets declined.

Domestic sales

+ Textile fibers and apparels grew by 3.56 percent and 25.23 percent respectively (%YoY) resulting from demand for uniforms of large companies in the country.

- Fabrics dropped by 1.52 percent (%YoY) in cotton woven fabrics as demand in the market decreased.

Exports

+ Textile fibers and apparels increased in value by 2.62 percent and 2.71 percent, respectively (%YoY), whereby textile fibers grew for twenty-three consecutive months from November 2016. Key export products were synthetic fibers and fabrics which are made from fibers with special properties, whereby Thailand has the potential for both production and export. Key export markets were Vietnam, Myanmar, Bangladesh, and Cambodia.

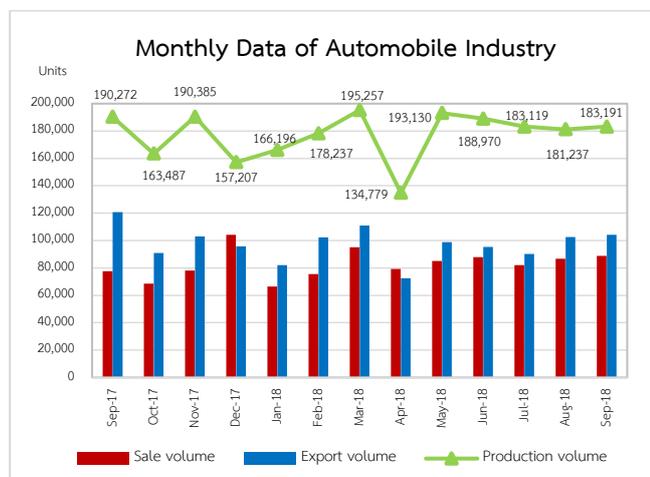
- The export value of fabrics dropped by 8.55 percent (%YoY), especially cotton fabrics of which Thailand has no raw material. The major markets where exports declined were Vietnam and Myanmar.

Forecast for October 2018

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

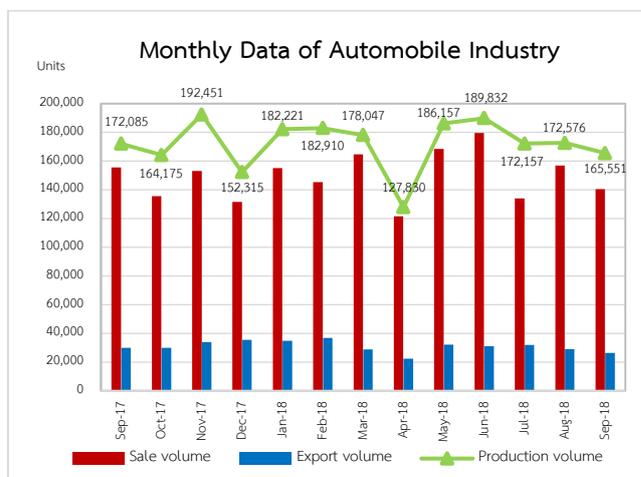
3. Automotive Industry

■ Automobile Production Industry



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

■ Motorcycle Production Industry



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

+ **Automobile production** in September 2018 reached 183,191 units, a 1.08 percent increase from August 2018 (%MoM) but a 3.72 percent decrease from the same month last year (%YoY), due to the decrease in production of passenger cars, 1-ton pickup trucks and derivatives, and commercial vehicles.

+ **Domestic sales of automobiles** in September 2018 reached 88,706 units, a 2.18 percent increase from August 2018 (%MoM) and a 14.32 percent increase from the same month last year (%YoY), resulting from an increase in sales of passenger cars, 1-ton pickup trucks, PPV and SUV cars. The increase was a result of the expansion of public and private investment, agricultural products, including continued growth of construction of state-owned and private enterprises.

+ **Automobile exports** in September 2018 reached 104,163 units, a 1.61 percent increase from August 2018 (%MoM) but a 13.67 percent drop from last year (%YoY). Exports to Oceania, the Middle East, Europe and North America slowed down as exports of cars in the same month last year were very high, coupled with the indirect impact of the US-China trade war.

“In October 2018, the trend of the automobile industry is expected to slow down compared to October 2017 due to the tendency of automobile export will decrease when compared to the same period last year.”

- **Motorcycle production** in September 2018 reached 165,551 units, a 4.07 percent decrease from August 2018 (%MoM) and a 3.80 percent decrease from the same month last year (%YoY) resulting from decreasing in the production of sports motorcycles.

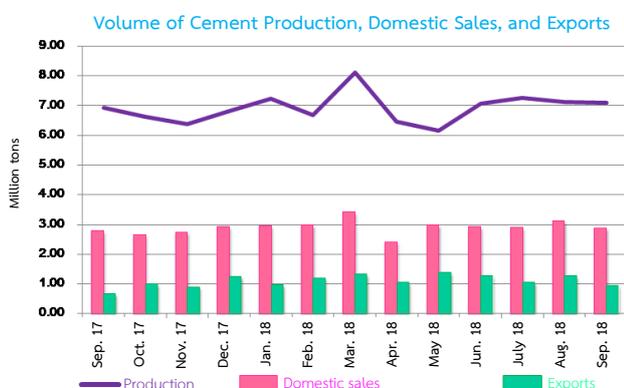
- **Domestic sales of motorcycles** in September 2018 reached 140,500 units, a 10.43 percent decrease from August 2018 (%MoM) and a 9.67 percent decrease from the same month last year (%YoY) resulting from the decline in sales volume of 51-100 cc, 111 – 125 cc, 400 cc Motorcycle and above.

- **Exports of motorcycles** in September 2018 reached 26,403 units, an 8.77 percent decrease from August 2018 (%MoM) and an 11.74 percent decrease from the same month last year (%YoY), whereby export markets in the US, UK, and Myanmar slowed down.

“In October 2018, the trend of the motorcycle production industry is expected to grow slightly compared to October 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.

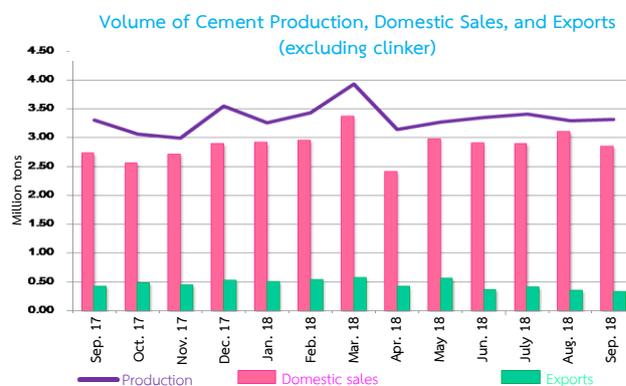
+ Total cement production in September 2018 reached 7.11 million tons, a 0.14 percent drop from August 2018 (%MoM) but a 2.43 percent increase from the same month last year (%YoY) to support the expansion of public utility construction projects.

+ Overall domestic cement sales in September 2018 reached 2.87 million tons, a 7.59 percent drop from August 2018 (%MoM) but a 3.70 percent increase compared to the same month last year (%YoY) from continued progress in construction of public utilities and expanded construction in the private sector.

+ Total cement exports in September 2018 reached 0.95 million tons, a drop by 24.46 percent from August 2018 (%MoM) but a 40.51 percent increase from the same month last year (%YoY) as key export markets increased orders such as Bangladesh (for clinker), which increased by 351.61 percent, and back orders from Ghana increased.

The trend of the overall cement production in October 2018 is expected to lower than this month due to it is still rainy season.

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.

+ Cement production (excluding clinker) in September 2018 reached 3.32 million tons, a 0.66 percent increase from August 2018 (%MoM) and a 0.27 percent increase from the same month last year (%YoY).

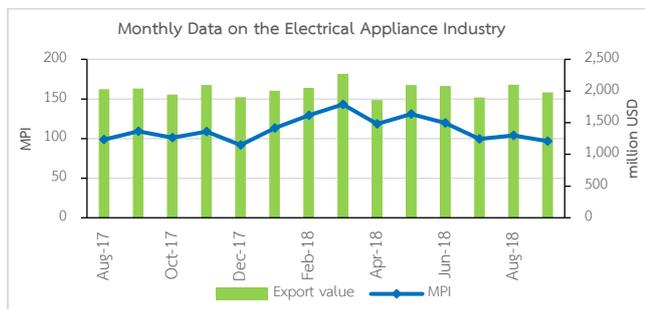
+ Domestic sales of cement (excluding clinker) in September 2018 reached 2.85 million tons, an 8.23 percent drop from August 2018 (%MoM) but a 4.49 percent increase compared to the same month last year (%YoY) in line with the progress of public utilities and private real estate construction.

- Export of cement (excluding clinker) in September 2018 reached 0.34 million tons, down 4.60 percent (%MoM) and 21.38 percent (%YoY) from the same month of last year. This was a result of fewer orders, especially Bangladesh which had no orders for cement (excluding clinker) for the sixth consecutive month, followed by Sri Lanka with no orders for the third consecutive month.

The trend of the cement industry (excluding clinker) in October 2018 is expected to shrink as it is still in the rainy season, unfavorable to construction.

5. Electrical and Electronics Industry

■ Electrical Industry



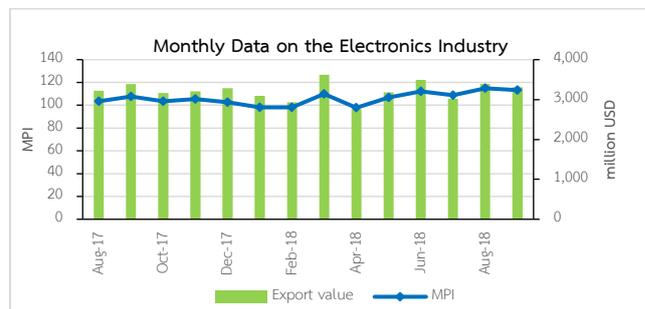
Source: Office of Industrial Economics

⊖ Production of electrical appliances reached an MPI of 96.5, an 11.4 percent drop from the same month last year. Products which decreased in production were electric motors, washing machines, electric wires, kettles, refrigerators, microwave ovens and household fans by 34.0 percent, 30.9 percent, 21.1 percent, 15.7 percent, 10.0 percent, 6.0 percent and 0.8 percent respectively. Production of electric motors, kettles, household fans and electric wires decreased due to reduced domestic demand, whereas refrigerators, microwave ovens and washing machines dropped from fewer overseas orders. Meanwhile, products which increased in production were air conditioners with separated compressor units, were air conditioners with separated fan coil units, compressors and rice cookers by 23.0 percent, 9.4 percent, 12.7 percent, and 3.1 percent respectively. Air conditioners increased from overseas orders, especially from Vietnam, Japan and Indonesia by 26.0 percent, 21.0 percent and 16.1 percent, respectively, as businesses sought new markets to replace the Turkish market facing tax rebate measures and as demand among trade partners increased. As for compressors and rice cookers, domestic sales improved.

⊖ Exports of electrical appliances reached a value of 1,979.9 million USD, a slight decline by 0.8 percent compared to the same month last year from important markets that shrank such as China and the United States. Exports of switchboards and control panels were 173.2 million USD, a decrease of 5.3 percent, whereas refrigerators, freezers and components were valued at 142.8 million USD, down 18.7 percent. Washing machines and components valued 92.3 million USD, a 44.6 percent drop, whereby exports to the United States shrank by 87.6 percent from safeguard measures that the United States has on Thailand. Meanwhile, air conditioners and components valued at 368 million USD, a 31.3 percent increase, whereas electric circuit breakers and protectors had an export value of 154.2 million USD, a 2.7 percent increase.

"Production forecast for October 2018 is expected to increase by 2.2 percent from last year, from air conditioners with increased overseas orders, such as ASEAN and Japan, while washing machines experiences fewer overseas orders from the US market."

■ Electronics Industry



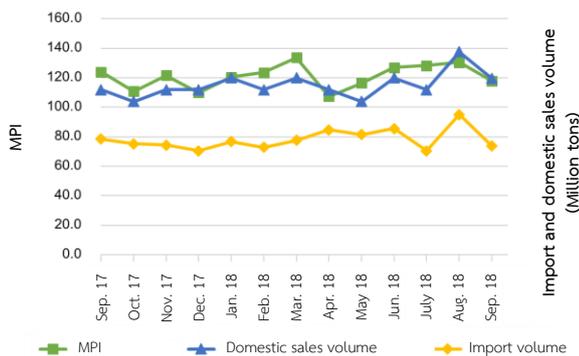
Source: Office of Industrial Economics

⊕ Production of electronics reached an MPI of 113.2, a 5.2 percent increase from last year as vital electronic groups such as printers, PCBAs, other ICs, semiconductor devices transistor and monolithic ICs grew by 15.1 percent, 10.4 percent, 6.5 percent, 6.1 percent and 3.1 percent respectively. This was due to the expansion of electronic products, especially ICs used as a key component in the development of high-tech products, including smartphone parts and tablets. The market has also increasingly developed semiconductors, used as a component of smart devices such as LED clocks and photosensors used in cameras, while HDDs dropped slightly by 1.6 percent as some businesses moved stored inventory, resulting in less production of HDDs, which are developed to accommodate more storage capacity.

⊖ Exports of electronics reached a value of 3,306.4 million USD, a 4.1 percent drop from the same month last year, as key markets such as Japan, ASEAN and China contracted. Electric circuit valued 693.4 million USD, down 10.6 percent and a contraction by 50.8 percent in China alone due to counter-trade measures between the United States and China; this affected the Thai export chain. Meanwhile, computers accessories and parts valued 1,776.9 million USD in exports, a 4.5 percent increase.

"Production of electronics in October 2018 is expected to increase by 1.1 percent compared to the same month last year, because of the increase in exports of computer accessories and parts."

6. Iron and Steel Industry



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

- The manufacturing production index in September 2018 reached 117.9, a 5.0 percent drop compared to the same period last year. Analyzed by key products that were flat and long-formed steel, flat steel declined by 2.7 percent, a result of the decline of tin-plated sheets which dropped by 31.1 percent due to fewer purchase orders from downstream industries such as the metal canning industry, whereas hot-rolled steel sheets decreased by 8.1 percent. On the other hand, chromium plated sheets grew by 37.46 percent, the fourth consecutive month of increase since June 2018. Meanwhile, long-formed steel declined by 7.1 percent, whereby deformed bars contracted by 23.3 percent, followed by cold-rolled structural steel and wires dropped by 21.4 percent and 3.6 percent respectively. Steel production in September dropped due to falling steel prices in China and Asia. As a result, businesses delayed production to wait for the direction of the market.

+ Domestic sales in September 2018 reached 1.5 million tons, a 7.8 percent growth compared to the same period last year. Consumption of long-formed steel reached 0.6 million tons, a 35.6 percent increase, whereby steel rods and structural steel grew by 67.1 percent, growing for the third consecutive month after four consecutive months of contraction from March to June 2018. The support of government infrastructure drives the growth. Flat-formed steel reached 0.9 million tons, a 4.4 percent drop whereby thick hot-rolled sheets declined by 28.0 percent followed by galvanized and chromium plated sheets which dropped by 15.9 percent and 9.9 percent respectively.

- Imports in September 2018 reached 0.9 million tons, a 5.3 percent drop compared to the same period last year. Flat-formed steel products reached 0.7 million tons, a 7.7 percent decrease from imports of thick hot-rolled alloy steel sheets which contracted by 76.1 percent, followed by chromium plated and thick hot-rolled carbon steel sheets which decreased by 45.2 percent and 22.1 percent respectively. Meanwhile, thick hot-rolled stainless steel and alloy steel sheets drew by 30.0 percent and 16.6 percent. Long-formed steel reached a volume of 0.2 million tons, a 2.7 percent rise from imports of hot-rolled structural carbon steel which grew by 86.2 percent, followed by carbon steel wires and carbon steel rods which grew by 32.1 percent and 16.9 percent respectively.

"The trend for the steel industry in October 2018 is expected to increase in production slightly from last year, whereby long-formed and flat-formed steel groups are expected to grow from increased orders from downstream industries, such as the electrical appliances and canned food industry, coupled with the expansion of the construction sector, supported by the construction of state-owned infrastructure. However, there are still some issues to be addressed in terms of declining steel prices in China and in Asia. This is expected to result in more imported steel products, especially galvanized steel from China and steel wires from Vietnam which may affect domestic steel production."