

# Industrial Production Status

| Indicators | 2016 | 2017 |      |      |      |     |      |      |      |      |      |      |      | 2018 |      |      |      |      |         |
|------------|------|------|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|---------|
| %YoY       | Year | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. | Year | Jan. | Feb. | Mar. | Apr. | Year(f) |
| MPI*       | 1.4  | 1.0  | -1.6 | 0.9  | -1.6 | 3.0 | 1.0  | 4.0  | 5.6  | 5.3  | 1.0  | 6.3  | 5.8  | 2.5  | 4.7  | 4.6  | 3.2  | 4.0  | 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 April 2018 grew for 12 consecutive months since May 2017. The manufacturing production index (MPI) grew by 4.0 percent compare with the same period last year, resulted from export recovery, consistent with the global economic status. Industrial exports in April 2018 grew by 12.2 percent. Furthermore, domestic purchasing power grew in a positive direction, whereby the consumer confidence index (CCI) in April 2018 reached the highest level in 40 months since January 2015. MPI for the first 4 months of 2018 grew by 4.1 percent which was fairly good growth compared to the first 4 months of 2017 with a negative growth of 0.3 percent.

The MPI of January, February, and March 2018 showed a trend of growth compared to the same period in the previous year (%YoY) for the past 3 months. The rate of change in January, February, and March 2018 was 4.7 percent, 4.6 percent, and 3.2 percent respectively. This reflected a stronger and more stable direction of industrial growth.

| Indicators | 2017 |      |      |       |      |      |      |      |      |      |      |      |      | 2018 |      |       |  |
|------------|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|-------|--|
| %MoM       | Jan. | Feb. | Mar. | Apr.  | May  | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr.  |  |
| MPI        | 6.1  | 0.0  | 12.0 | -20.9 | 15.0 | -3.1 | -2.8 | 4.4  | 1.6  | -5.0 | 6.5  | -3.2 | 5.0  | -0.1 | 10.5 | -20.2 |  |

The change rate of MPI (%MoM) for the past 3 months (January, February, and March) was normal, which was 5.0 percent, -0.1 percent, and 10.5 percent respectively, in accordance with seasonal changes throughout the year. MPI in February slowed down as the month has the least working days in the year, and accelerated again in March to support purchase orders before most factories close during the Songkran festivities in April.



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

Sugar - The production increased by 25.59 percent from expansion of plantation area and better weather condition promoting large yields of sugarcane to supply factories.

➤ Automobiles - Production increased when compared to the same period last year, from growth in both domestic and export markets as the result from consistent growth of the domestic economy, public and private investment, coupled with the expiration for consumers purchasing under the first car scheme and recovering export markets in the Middle East, Africa, North America, Central America and South America. Domestic sales grew by 25.2 percent, whereas exports grew by 5.3 percent.

▶ Plastic Pellets - Production increased due to capacity expansion in some companies and to support exports and the domestic market that grew in line with demand for industrial applications such as packaging, automotive parts, and electrical appliances.

➤ Computer Parts - Production increased by 19.8 percent from hard disk drives, whereby the overall industry grew well and demand increased consistently.

▶ Petroleum Refinery - Production increased mostly from Gasohol 95 and diesel, in line with consumption of petroleum for transportation during the Songkran festivities

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). Exports of goods and tourism were major driving forces, in line with the economic growth of the trading partners. In addition, public spending remained a major economic driver, coupled with the progress of major government infrastructure projects and the development of special economic zones. It is expected that this will help boost business confidence and stimulate private investment in the country. Private consumption is expected to continue to grow, supported by non-farm payrolls showing signs of improvement following rising employment in export-related businesses.

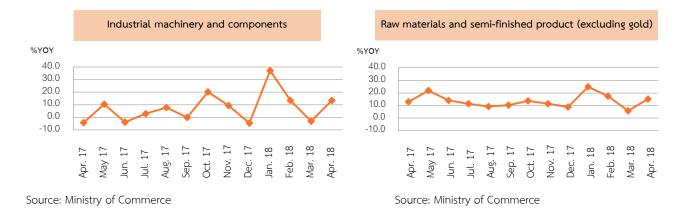


# Other Industrial Economic Indicators in

# April 2018



# Other Industrial Economic Indicators in April 2018



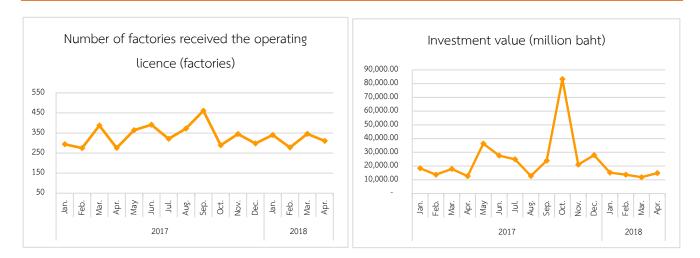
# Thailand's Industrial Sector Importation

• The import value of industrial machinery and components in April 2018 was 1,435.0 million USD which increased by 13.4 percent compared to the same month last year, from the increase of imports of engine, shaft, air pumps, liquid pumps, steam turbines and components, metal processing machineries, and printing machines.

The import value of raw material and semi-finished products (excluding gold) in April 2018 was 7,454.7 million USD, a 15.3 percent growth compared to the same month last year, in line with import growth of chemicals, iron and steel, other metal ores and products (copper, aluminum, tin, and zinc).



## Status of Industrial Operations



Source: Department of Industrial Works

Source: Department of Industrial Works

A total of 311 factories obtained licenses for operation in April 2018. The number decreased by 10.1 percent from March 2018 (%MoM), but increased by 12.7 percent compared with the same month last year (%YoY).

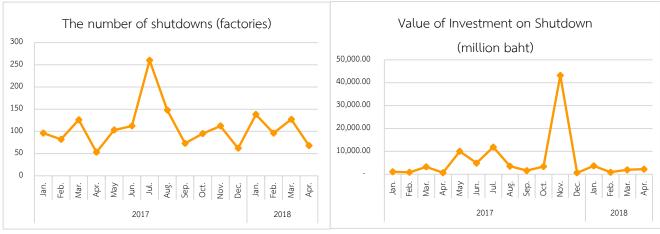
The total value of investment from the factories that obtained licenses for operation in April 2018 was 14,864 million Baht, an increase by 24.9 percent from March 2018 (%MoM) and 17.5 percent compared with the same month last year (%YoY).

"The industry with the highest number of factories obtained licenses for operation in April 2018 was the lateritic soil scooping industry for construction and commercial use (23 factories), followed by concrete and gypsum concrete product manufacturing industry (16 factories)."

"The industry with the highest value of investment in April 2018 was water purification or water distribution to buildings and factories valued at 1,851.00 million Baht, followed by flour industry valued at 1,248.6 million Baht."



## Status of Industrial Operations (cont.)



Source: Department of Industrial Works

Source: Department of Industrial Works

A total of 68 factories shut down operation in April 2018. The number decreased by 45.6 percent from March 2018 (%MoM) but increased by 28.3 percent from the same month last year (%YoY).

The lost investment value on shutdowns equated to 2,220 million Baht, increased by 19.6 percent from March 2018 (%MoM) and 213.5 percent from the same month last year (%YoY).

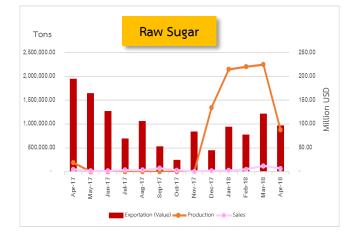
"In April 2018, the number of factory shutdowns were metal lathing, machining or general welding industry (7 factories); and concrete and gypsum concrete product manufacturing industry (6 factories)."

"The highest loss of investment value from factory shutdowns in April 2018 was the packaging and container manufacturing valued at 748 million Baht, followed by the wood milling or processing industry valued at 468 million Baht."



# Industrial Economic Status for April 2018 by Industry

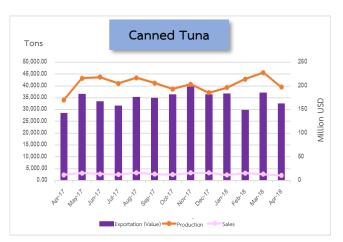
## 1. Food Industry



• **Production** of food product in April 2018 increased by 46.8 percent (%YoY), classified as follows:

1) Export-orientated products which were raw sugar and tapioca starch increased by 360.0 percent and 5.7 percent (%YoY) respectively, to serve the increase in agricultural output, especially sugarcane yield. This was coupled with the production of canned tuna which increased by 15.8 percent (%YoY) due to pressure on raw material prices and a drop in product prices became loose, resulted in trade partners increased purchase orders.

2) Domestic market-orientated products which were pure and crude palm oil, increased in production by 13.3 percent and 21.3 percent (%YoY) respectively, due to an increase in palm oil production as the result of the expansion of plantation area. This was coupled with frozen chicken production which increased by 3.4 percent (%YoY) due to continuous increase in demand and exports to the Chinese market (Yunnan), where exports were first officially established in March 2018.



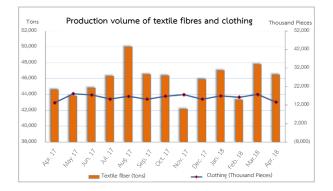
• Domestic market: Domestic sales volumes of food products grew by 13.3 percent in April 2018 (%YoY), resulting from a positive economic trend.

The export value of food products in April 2018 increased by 16.1 percent (%YoY) in major product groups such as jasmine rice, tapioca products, canned sardines, rice products, instant noodles, chilled and frozen chicken, canned tuna, and processed chicken products which grew by 49.6 percent, 25.8 percent, 25.6 percent, 24.5 percent, 19.0 percent, 18.1 percent, 13.9 percent, and 10.8 percent (%YoY) respectively. This was a result of strong economic recovery among major trading partners, especially the US, Japan, China, and CLMV countries which helped boost demand for Thai products both directly and indirectly.

• Overall production in the food industry for May 2018 is forecasted to grow due to increased exports to Japan, US, EU, and CLMV, as well as continuous growth in new markets such as ASEAN, Africa, and the Middle East. This is especially for key products such as chilled, frozen, and processed chicken products which have grown continuously with improved confidence in Thai product standards, including seafood products such as canned tuna and sardines as raw material and product prices drop. Furthermore, demand for rice (white and jasmine rice) continued to increase as demand among trading partners improved consistently.



## 2. Textile and Garment Industry



## Production

● Production of textile fibres and apparel grew by 4.24 percent and 2.52 percent (%YoY) from a growth in synthetic fibres and fibres with special properties such as collagen, carbon fibres, and aramid fibres (synthetic fibres that are strong, heat-resistant, abrasion-resistant, and impact-resistant) to accommodate expansive exports. The garment section expanded to meet domestic demand and exports to foreign countries

*Fabrics* dropped by 2.78 percent (%YoY) partly due to the import of fabrics from China used in the manufacture of apparel.

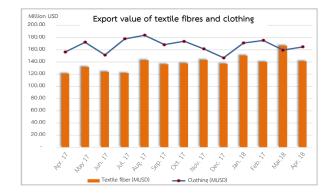
#### Domestic Sales

*Textile fibers* decreased by 5.43 percent (%YoY) due to partial imports of fabrics from China for use in production of apparel. As a result, demand for textile fibers for apparel production reduced.

• Fabrics and apparel increased by 3.10 percent and 13.14 percent (%YoY), partly due to the growth of the online market.

#### Exports

• Textile fibres, fabrics and garments increased in value by 16.90 percent, 9.50 percent, and 0.92 percent respectively, whereby textile fibres grew for 18 consecutive months from November 2016. Key export products were artificial fibres and fabrics made from fibres with special properties, whereby Thailand has potential for both production and export. Key export markets were Vietnam, Myanmar, Bangladesh, and Japan, while key export markets of garments were US, Japan, and Belgium.



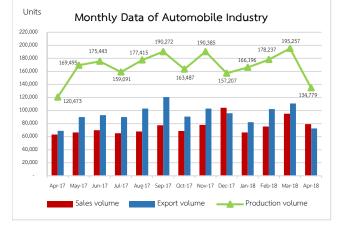
#### Forecasts for May 2018

• Production of textile fibers and apparel are expected to grow from exports of synthetic fibers, fabrics with special properties and apparel, which are undergarments to Japan, South Korea, and the EU which is growing due to the global economic expansion



### 3. Automotive Industry

Automobile Production Industry



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

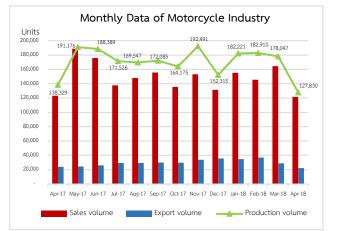
• Automobile production in April 2018 reached 134,779 units, a 30.97 percent decrease from March 2018 (%MoM) but a 11.87 percent growth from the same month last year (%YoY) from increased production of passenger cars, 1-ton pickup trucks and derivatives.

Domestic sales of automobiles in April 2018 reached 79,206 units, a 16.70 percent decrease from March 2018 (%MoM) but a 25.19 percent growth from same month last year (%YoY), resulting from an increase in sales of passenger cars, 1-ton pickup trucks, commercial cars, PPV and SUV vehicles. This was a result of an introducing of new model to the market, public and private investment, coupled with the expiration for consumers purchasing under the first car scheme.

• Automobile exports in April 2018 reached 72,571 units, a 34.59 percent drop from March 2018 (%MoM) but a 5.29 percent growth from the same period last year (%YoY). Exports of automobiles grew for 6 consecutive months, the increase was in Middle East, Africa countries, South America, Central America, and North America countries.

"In May 2018, the trend of the automobile industry is expected to grow compared to May 2017 from the recovery of both domestic and global economy, coupled with the expiration for consumers purchasing under the first car scheme."





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

Motorcycle production in April 2018 reached 127,830 units, a 28.20 percent decrease from March 2018 (%MoM), and a 7.59 percent decrease from the same period last year (%YoY). This was result from a decrease in production of multi-purpose and sport motorcycles.

Domestic sales of motorcycles in April 2018 reached 121,601 units, a 26.11 percent drop from March 2018 (%MoM), and a 1.20 percent drop from the same month last year (%YoY)

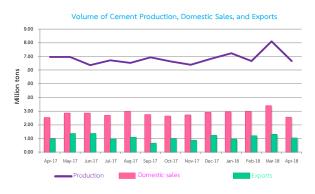
Exports of motorcycles in April 2018 reached 22,269 units, a decrease from March 2018 by 22.95 percent (%MoM) and a 7.29 percent drop from the same month last year (%YoY), whereby export markets that slowed down were US, the Netherlands, and Australia.

"In May 2018, the trend of the motorcycle production industry is expected to slow down compared to May 2017."



### 4. Cement Industry





Source: 1. Domestic production and sales volume: Division of Industrial Economics Information and Indices, Office of Industrial Economics

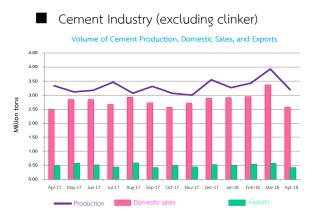
2. Export volume: Information and Communication Technology Center, Office of the Permanent Secretary, Ministry of Commerce.

Overall cement production in April 2018 reached 6.67 million tons, a drop by 17.73 percent from March 2018 (%MoM) and 4.19 percent from the same month last year (%YoY), as the result of domestic market have slightly grown, and production increased significantly in the previous month to meet the expected growth in demand.

Domestic cement sales in April 2018 reached 2.58 million tons, a 24.54 percent decrease from March 2018 (%MoM) but a 1.71 percent growth compared to the same month last year (%YoY).

Export of cement in April 2018 reached 1.05 million tons, a decrease by 20.73 percent from March 2018 (%MoM) but a 6.84 percent increase from the same month last year (%YoY). This resulted from increased purchase orders from the key export markets namely, the Philippines, Myanmar, and Bangladesh by 969.87 percent, 6.29 percent, and 3.97 percent respectively.

• Overall production in the cement industry in May 2018 is expected to grow, from projected progress in public sector investment in public utilities.



Source: 1. Domestic production and sales volume: Division of Industrial Economics Information and Indices, Office of Industrial Economics

 Export volume: Information and Communication Technology Center, Office of the Permanent Secretary, Ministry of Commerce.

Cement production (excluding clinker) in April 2018 reached 3.20 million tons, a decrease by 18.61 percent from March 2018 (%MoM) and a 4.11 percent decrease from the same month last year (%YoY)

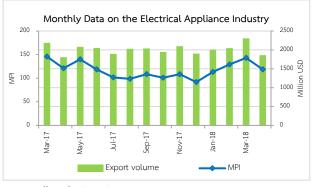
• Domestic cement sales (excluding clinker) in April 2018 reached 2.58 million tons, a 23.72 percent drop from March 2018 (%MoM) but a growth by 3.34 percent compared to the same month last year (%YoY), from stable market demand and high market competition.

Export of cement (excluding clinker) in April 2018 reached 0.42 million tons, a 26.21 percent drop from March 2018 (% MoM) and a 13.07 percent drop from the same month last year (%YoY), as a result from a slowdown in purchase orders from export markets including, Cambodia, and Vietnam by 7.17 percent and 61.86 percent respectively.

• In May 2018, the cement industry (excluding clinker) is expected to have a good growth.



## 5. Electrical and Electronics Industry



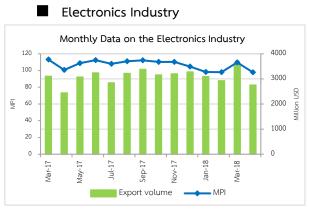
#### Electrical Industry

Source: Office of Industrial Economics

Production of electrical appliances reached a production index of 118.58, a slight drop by 2.04 percent compared to same month last year. Products which decreased in production were refrigerators, rice cookers, compressors, air conditioners, and electrical motors by 17.13 percent, 17.13 percent, 10.22 percent, 5.87 percent, and 1.75 percent respectively. Production of refrigerators dropped as orders from Japan, and the US decreased, whereas production of rice cookers, compressors, air conditioners, and electrical motors dropped as domestic demand reduced. This was coupled with uncertainty and change of measures and trade policies in key trading partners such as the US, and China, which resulted in caution for production. On the other hand, production of kettles, washing machines, electrical wires, microwaves, and household fans grew by 50.80 percent, 29.22 percent, 14.34 percent, 0.32 percent, and 0.27 percent respectively. This was because demand for household use increased, whereas electrical wires were used in national infrastructure development.

● Export of electrical appliances valued 1,860.35 million USD, an increase by 3.15 percent compared to the same month last year. Exports to key markets rose, including China, ASEAN, EU, and Japan, with the export of air conditioners reaching 400.10 million USD, rising 2.61 percent, followed by exports of circuit protection and parts thereof which valued at 122.66 million USD, an increase of 5.76 percent, while the exports of refrigerator valued at 107.31 million USD, a decrease of 14.79 percent.

"The manufacturing production index is forecasted to increase slightly in May 2018, by 1.88 percent compared to the same period last year. Products that are expected to grow are washing machines from overseas purchase orders and electrical writes for infrastructure development, whereas products that are expected to slow down are air conditioners from less domestic sales and purchase orders from abroad."





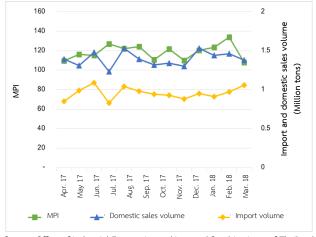
• Production of electronics reached a production index of 97.80, an increase by 6.03 percent from the same month last year. This was because of key products such as HDDs, monolithic ICs, semiconductors, PCBAs had increased by 22.09 percent, 18.33 percent, 9.81 percent, and 9.53 percent respectively, in line with the global growth of electronics. The production of ICs grew continuously as they are crucial parts to advanced technological development and being used in smart phones, tablets; meanwhile HDDs has been developed to expand capacity in cloud storage.

Export of electronics valued at 2,756.85 million USD, a 12.72 percent growth compared to the same month last year. Exports to all key markets improved including China, Japan, ASEAN, EU, and US. Electronic products with the highest export value were computer equipment and parts with a value of 1,154.66 million USD, an increase by 19.51 percent, followed by ICs valued at 606.19 million USD, an increase by 2.97 percent

"The manufacturing production index for electronics in May 2018 is expected to increase by 9.55 percent compared to the same month last year, from exports of computer equipment, parts thereof, and ICs which have grown consistently."



#### 6. Iron and Steel Industry



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

The manufacturing production index in April 2018 reached 107.95, a 1.43 percent drop compared to the same period last year. When considered by key products namely, flat and long-formed steel, it was found that flat steel dropped by 2.34 percent from a 38.50 percent drop in chromium-plated steel sheets. This was followed by tin-plated and cold-rolled steel sheets which dropped by 18.07 percent and 13.86 percent respectively, whereby chromium-plated steel sheets dropped for 12 consecutive months since May 2016 to April 2017. Production decreased as imports continued to increase, especially from China, South Korea, and Taiwan, resulting in Thai manufacturers unable to compete with prices. Long-formed steel products decreased by 0.03 percent, while deformed bars dropped by 27.09 percent, decreasing 7 months from October 2017 to April 2018. This was followed by cold rolled structural steel which decreased by 7.78 percent as domestic construction and real estate experienced a slowdown. This was coupled with higher raw material costs; as a result, some manufacturers delayed production. Round bars increased by 32.16 percent as small-scale construction such as 2-storey or smaller residential houses continued to grow.

Domestic sales volume in April 2018 was 1.38 million tons, a 0.15 percent drop from last year. Long-formed steel equated to 0.34 million tons, a 38.90 percent drop, whereby steel rods and structural steel products dropped by 59.03 percent, decreasing for second month. This was due to imports of carbon structural steel and rods which dropped by 100.00 percent and 44.74 percent respectively. Flat steel products increased by 25.90 percent to 1.04 million tons, whereby galvanized steel sheets increased by 52.49 percent, followed by hot-rolled carbon steel sheets, tin-plated sheets, and cold rolled steel sheets which increase by 21.25 percent, 17.93 percent, and 15.17 percent respectively.

The import volume in April 2018 was 1.06 million tons, a 25.93 percent increase compared to the same period last year. Flat-form steel products reached 0.85 million tons, a 29.63 percent growth as import volume of chromium steel plate (tin free), thick hot-rolled steel sheets, galvanized steel sheets and thin hot-rolled steel sheets increased by 86.26 percent, 81.41 percent, 77.85 percent, and 65.84 percent respectively. Longformed steel reached 0.22 million tones, a 13.47 percent increase from imports of hot-rolled alloy and stainless structural steel increase by 856.54 percent, 33.73 percent, and 32.43 percent respectively.

"The trend for the steel industry in May 2018 is expected to increase in production by 5.94 percent, with long-formed steel increasing by 0.31 percent, whereby flat-formed steel is projected to increase by 13.21 percent. Domestic sales increased by 15.74 percent, due to the continuous improvement of the industry. Moreover, there were some issues related to US trade measures which is likely to be a barrier for steelmakers and exporters. However, some products such as steel pipes are exempt from taxation, but there must be a process for US importers to make a request to the US Department of Commerce in all import cycles. For national tax exemption, this is still under consideration. "