

Industrial Production Status

Indicators	2020	2021	20	21	2022										
<u>%YoY</u>	Year	Year	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
MPI	-9.5	5.9	4.6	6.7	2.0	2.5	0.4	-0.03	-2.0	-0.2	6.4	14.9	3.3	-3.9	-5.6

In November 2022, the Manufacturing Production Index (MPI) contracted by 5.6 percent from the same period last year, with the main factor being the contraction in the export sector due to the impact of the global economic slowdown. However, some domestic industries, such as automobiles, palm oil, and animal feed, continued to expand.

Considering the MPI data for the past three months in terms of the same month last year (%YoY), the MPI in August, and September increased by 14.9 percent and 3.3 percent, respectively, but decreased by 3.9 percent in October.

Indicators	2021		2022										
<u>%MoM</u>	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
MPI	3.3	1.5	2.1	-2.6	8.1	-17.0	7.6	-0.3	-2.2	4.1	-1.7	-4.3	1.5

The Manufacturing Production Index (MPI) for the past three months (August, September, and October 2022) in terms of the previous month (%MoM) increased by 4.1 percent in August but decreased by 1.7 percent and 4.3 percent in September and October, respectively.

Key industries that contributed to the MPI contraction in November 2022 compared to the same period last year were:

- Petroleum refinery industry contracted by 20.58 percent, mainly due to ongoing maintenance shutdowns at some refineries from the previous month. However, jet fuel production increased as travel demand increased from the last year, following the full reopening of the country for tourism in 2022.
- Hard Disk Drives Industry contracted by 47.67 percent due to the gradual cancellation of production of products with decreased demand in the world market, as well as the global economic slowdown affecting investment and purchasing power.
- Plastic pellet industry contracted by 15.32 percent, as some manufacturers shut down for maintenance; production and distribution were reduced due to concerns about the economic recession that affected purchasing power.

Key industries that remained growing in November 2022 compared to the same month last year were:

- Automobile industry grew by 12.95 percent as the chip shortage was alleviated, allowing manufacturers to produce and deliver more vehicles gradually.
- Palm oil industry grew by 32.47 percent due to increased demand for consumer goods in the industrial and energy sectors, as well as higher palm oil production volume in the market compared to the previous year.



Other Industrial Economic Indicators in

November 2022



Other Industrial Economic Indicators in November 2022

■ Imports of Thailand Industrial Sector

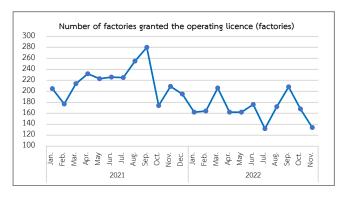


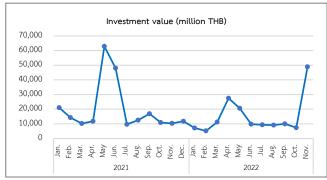
Imports of industrial machinery and components in November 2022 were valued at 1,467.6 million USD, a contraction of 2.9 percent compared to the same month last year. The decline was mainly due to decreasing imports of rubber or plastic processing machinery and equipment, construction machinery and parts, metal processing machinery, and parts.

Imports of raw and semi-finished goods (excluding gold) in November 2022 were valued at 8,617.0 million USD, a contraction of 6.9 percent compared to the same month last year. Imports declined among iron, semi-finished products of iron or stainless steel, aluminum and its products, and scraped metal and other products.



Industrial Operation Status





Source: Department of Industrial Works

Source: Department of Industrial Works

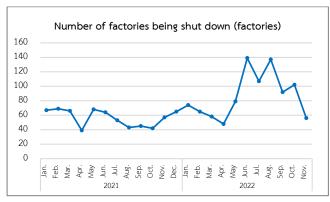
- The total number of factories licensed for operation in November 2022 was 134 factories, a decrease of 20.24 percent (%MoM) from October 2022 and a decrease of 35.89 percent (%YoY) from the same month last year.
- The total investment from factories licensed for operating in November 2022 decreased by 557.8 percent (%MoM) from October 2022 to 48,873 million THB and increased by 374.71 percent (%YoY) from the same month last year.

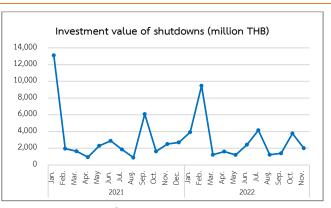
"The industry with the highest number of newly licensed factories to operate in November 2022 was the excavation or dredging industry of gravel, sand, or soil (18 factories), followed by the manufacture of concrete, ready-mixed concrete articles, and gypsum products (15 factories)."

"The industry with the highest investment value in November 2022 was the manufacturing industry of bioplastics from chemical products, chemicals, or chemical materials derived from agricultural raw materials or continuous products (19,810 million THB), followed by the manufacturing, assembling, or modifying plants of tools or electrical appliances not elsewhere classified (15,000 million THB)."



■ Industrial Operation Status (cont.)





Source: Department of Industrial Works

Source: Department of Industrial Works

- A total of 56 factories were shut down in November 2022, decreasing by 45.1 percent (%MoM) from October 2022 and decreasing by 1.75 percent (%YoY) from the same month last year.
- The lost investment value on shutdown in November 2022 totaled 2,001 million THB, decreasing by 46.78 percent (%MoM) from October 2022 and decreasing by 19.86 percent (%YoY) from the same month last year.

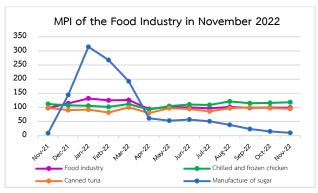
"The industry with the highest number of factory shutdowns in November 2022 was the excavation or dredging industry of gravel, sand, or soil had the highest number of factory shutdowns (12 factories), followed by the peeling, or Julienne, slicing, or Batonnet cutting industry of tuber (4 factories)."

"The manufacturing industry with the highest investment value to shut down in November 2022 was the manufacturing, assembling, modifying, or repairing industry of radio and television receivers, with an investment value of 864 million THB, followed by the excavation or dredging industry of gravel, sand, or soil with an investment value of 155 million THB."



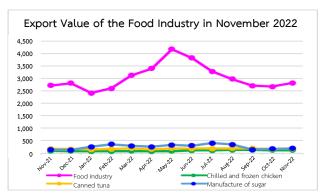
Industrial Economic Status by Industrial Sectors in November 2022

1. Food Industry



Source: The Office of Industrial Economics

<table-cell-rows> The MPI of the food industry in November 2022 contracted by 1.6 percent compared to the same period last year (%YoY). Food products that decreased in MPI included 1) Processed fruits and vegetables (-17.4%) contracted from key products, such as dried fruits and vegetables (-38.4%) due to a decrease in domestic and overseas consumption and canned pineapple (-1.1%) due to a reduction of pineapple plantation this year from higher costs. 2) Cassava (-10.3%) contracted from key products, namely cassava starch (-10.6%), due to less quantity of cassava tubers entering the market, as rainfall continued in many areas, affecting harvest areas and damage to some parts of cassava production. 3) Fisheries (-7%) contracted from key products such as frozen shrimp (-6.1%) due to higher shrimp feed prices. As a result, the cost of cultivation and selling increased, causing domestic market consumption demand to decrease. However, some food products continued to grow, including 1) Palm oil (32.5%) grew mainly from crude palm oil (49.4%) and refined palm oil (18.5%) due to higher demand from many various industries following the economic recovery. In addition, this year, a large volume of oil palm products was released to the market. Businesses also sped up production to increase the oil ratio of crude palm in the biodiesel mixture from B5 to B7. 2) Sugar (19.6%) grew mainly from white sugar (92.7%) as domestic and export demand increased following the gradual recovery of the economy. Additionally, factories could return to normal production. 3) Livestock (3.6%) increased mainly from chilled and frozen chicken (6.2%) from the relaxation of various measures, resulting in higher demand for the products in both domestic and international markets, as well as Thailand's expansion into new export markets.



Source: Ministry of Commerce

Domestic sales: In November 2022, the production volume for domestic food products experienced a decrease of 22.8 percent (%YoY) from key products, including 1) rice whisky (49.4%), 2) other canned fruits (-43.5%), 3) canned tuna (-28.1%), and 4) soy milk (-19.7%).

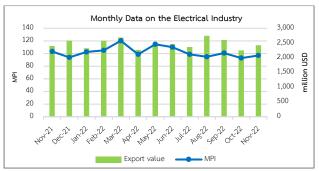
Export markets: In November 2022, overall food exports increased by 3.6 percent compared to the same period the previous year, driven by 1) livestock, particularly chilled and frozen chicken, which was the main products. These exports saw significant growth in key markets such as China and Japan; 2) wheat products and other instant foods, which are commonly used in the instant noodle industry. The exports increased in the US and China; and 3) sugar and molasses also increased, with sugar being the key product. Major export markets are Indonesia and South Korea.

Outlook for the food industry: It is expected that there will be a contraction in December 2022 compared to the same period last year due to the global economic and financial slowdown. Additionally, the high base of the previous year, which benefited from better economic conditions following the relief of the COVID-19 virus, also contributed to the contraction. Despite this, there is still a growth trend in terms of export value due to the decrease in transportation and freight costs. This makes the price of Thai food products competitive in the world market.



2. Electrical and Electronics Industry

Electrical Industry



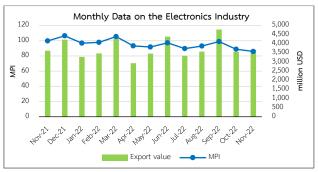
Source: The Office of Industrial Economics, Electrical and Electronics Institute, and Ministry of Commerce

Production of electrical appliances, the MPI declined by 6.2 percent compared to the same month last year, as measured by the Manufacturing Production Index (MPI) at 96.9 points. Products that experienced a decrease in production included electric motors (-27.1%), refrigerators (-26.7%), microwave ovens (-21.7%), cables (-18.3%), washing machines (-14.5%), and transformers (-10.9%) due to a reduction in both domestic demand and overseas orders. However, some products experienced an increase in production, such as thermoses (34.3%), electric cables (12.1%), rice cookers (12.0%), air conditioners (10.2%), compressors (4.9%), and electrical fans (0.8%) as a result of growing overseas orders.

Exports of electrical appliances were valued at 2,423.0 million USD, an increase of 1.1 percent compared to the same month last year. Products that experienced a decline in orders were 1) microwave ovens, which increased by 27.0 percent to 24.4 million USD in Canada, Vietnam and Japan markets; 2) electrical fans, which increased by 13.5 percent to 47.3 million USD in the ASEAN, Germany, and the US markets; 3) electrical wires and cables, which increased by 12.8 percent to 109.0 million USD in France, Vietnam and China markets; and 4) air conditioners and parts, which increased by 5.5 percent to 546.8 million USD in Italy, Taiwan, and Spain markets. On the other hand, products that experienced a decrease in orders were 1) refrigerators, freezers, and parts, which decreased by 26.6 percent in Canada, the US, and Australia markets; 2) electric motor and generators, which decreased by 13.6 percent in Hong Kong, Japan, and the US markets; 3) washing machines, dry cleaning machines, and parts, which decreased by 10.1 percent in South Korea, Japan and Australia markets; and 4) circuit breakers and circuit protectors, which decreased by 8.2 percent in China, Singapore, and South Korea markets.

"The production forecast for December 2022, the electrical appliance industry, is expected to decline slightly by 0.1 - 2.0 percent compared to the same month last year. This is primarily due to the ongoing economic slowdown caused by high energy and raw material costs, including the impact of inflation that still needs to be monitored."

■ Electronics Industry



Source: The Office of Industrial Economics, Electrical and Electronics Institute, and Ministry of Commerce

The manufacturing of electronic products Electronics production reached an MPI of 85.9 points, a decrease of 13.9 percent compared to the same month last year. Among the products contracted, HDDs, PWBs, and semiconductor device transistors showed the most significant decrease of 51.8 percent, 26.0 percent, and 12.4 percent, respectively—particularly HDD with the increased development of HDD technology, leading to an increase in capacity, which, coupled with the easing of the COVID-19 situation, resulted in fewer work-fromhome arrangements and lower demand. On the other hand, products that increased included PCBA (27.6%), integrated circuits (IC) (2.5%), and printers (0.1%) due to increased demand for products in domestic and foreign markets.

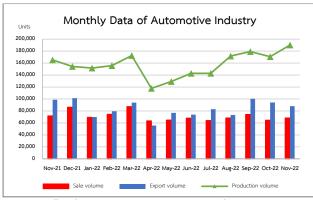
Electronic exports totaled 3,665.0 million USD, an increase of 1.2 percent compared to the same month last year. Among the products that increased in orders were semiconductors, transistors, and diodes, valued at 349.2 million USD, representing a growth of 73.1 percent in the ASEAN and US markets, and circuit boards valued at 816.1 million USD, registering an increase of 3.9 percent in the Taiwan, the EU, and the US markets. Conversely, products that declined in orders included HDDs, which decreased by 31.8 percent to 683.6 million USD in ASEAN, the EU, and the US markets, and printed circuit boards, which decreased by 15.4 percent to 113.5 million USD in the US and ASEAN markets.

"The production forecast for December 2022, the electronics industry, is expected to decline by 0.1- 3.0 percent compared to the same month last year. This is due to the development of HDD capacity technology and the shortage of raw materials in production that causes an increase in prices "



3. Automotive Industry

Automotive Manufacturing Industry



Source: The Office of Industrial Economics who obtained data from Automotive Division, Federation of Thai Industries.

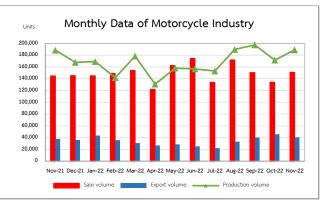
Production of automobiles in November 2022 reached 190,155 units, an increase of 11.39 percent from October 2022 (%MoM) and an increase of 15.00 percent from the same month last year (%YoY). The growth was driven by an increase in semiconductor components in some models of passenger cars. The growth was an increased production of passenger cars and 1-ton pick-up trucks and derivatives.

Domestic automobile sales in November 2022 reached 68,248 units, an increase of 5.67 percent from October 2022 (%MoM) but a decrease of 4.79 percent compared to the same month last year (%YoY). The decrease was driven by lower sales of passenger cars, 1 ton pick-up trucks and derivatives, and commercial vehicle.

Automobile exports in November 2022 totaled 87,979 units, a decrease of 6.63 percent from October 2022 (%MoM) and a decrease of 10.98 compared to the same month last year (%YoY). Export markets decreased in Asia, Oceania, the EU, North America, and Central and South America.

"The outlook for the automobile manufacturing industry in December 2022 is optimistic, with an expected increase in production compared to December 2021. This is due to the easing of the COVID-19 epidemic and the resolution of semiconductor shortages."

Motorcycle Manufacturing Industry



Source: The Office of Industrial Economics who obtained data from Automotive Division, Federation of Thai Industries

Production of motorcycles in November 2022 reached 189,040 units, an increase of 10.13 percent from October 2022 (%MoM) and a slightly increase of 0.29 percent from the same month last year (%YoY). The growth was driven by increased production of sport motorcycles.

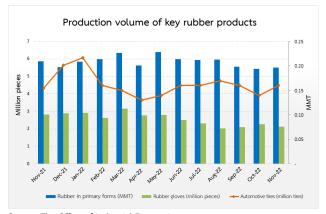
Domestic motorcycle sales in November 2022 reached 150,980 units, an increase of 12.66 percent from October 2022 (%MoM) and an increase of 4.38 percent compared to the same month last year (%YoY). The growth was driven by higher sales of 51-110 cc, 111-125 cc, 126-250 cc, and ≥ 400 cc engine motorcycles.

Automobile motorcycle exports in November 2022 reached 40,697 units, a decrease of 10.97 percent from October 2022 (%MoM) but an increase of 7.41 percent from the same month last year (%YoY), with export markets increasing in Belgium, the US, and Japan markets.

"The outlook for the motorcycle manufacturing industry in December 2022 is expected to increase compared to December 2021 due to the industry's tendency to expand in both domestic and export markets, as the COVID-19 outbreak situation improves."



Rubber and Rubber Product Industry



Source: The Office of Industrial Economics

Production

• Primary processed rubber (smoked rubber sheets, blocked rubber, and concentrated latex) increased by 1.54 percent due to the production growth of concentrated latex.

Automotive tires decreased by 6.38 percent due to decreased output for various vehicle types, including passenger cars, trucks, and buses.

Rubber gloves decreased by 24.43 percent, in line with the ongoing decline in international demand for rubber gloves.

Domestic Sales

Primary processed rubber (smoked rubber sheets, blocked rubber, and concentrated latex) decreased by 10.17 percent due to the decline in demand for rubber sheets and block rubber in downstream industries.

→ Automotive tires decreased by 10.80 percent, in line with the slowdown of the Replacement Equipment Manufacturer (REM) market

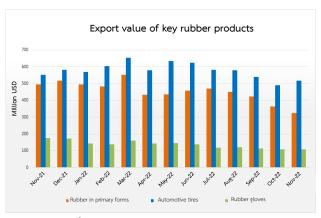
Rubber gloves increased by 16.64 percent, driven by high demand for rubber gloves in the country for disease prevention.

Exports

Primary processed rubber (smoked rubber sheets, blocked rubber, and concentrated latex) decreased by 34.17 percent due to a reduction in exports of rubber sheets and blocked rubber to China, as well as exports of concentrated latex to Malaysia.

➡ Automotive tires decreased by 6.60 percent, primarily as a result of a slowdown in exports to the US market.

Rubber gloves decreased by 37.87 percent, due to lower demand from international markets and a decrease in the price of rubber gloves compared to previous periods.



Source: Ministry of Commerce

Industry outlook for December 2022

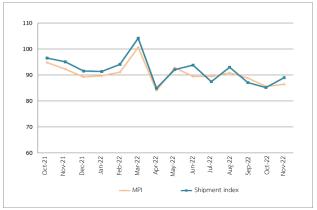
The production and domestic sales of processed rubber in primary forms are likely to experience a slowdown in production and domestic sales due to decreased demand for rubber sheets, blocks, and concentrated latex in domestic and international markets. Additionally, heavy rainfall in the southern region during December has caused a decrease in the supply of raw latex to the industrial sector. On the other hand, the production and domestic sales of tires are expected to increase due to the continued growth of the domestic automotive industry and the anticipated recovery of the demand for tires in the REM market towards the end of the year. The production of rubber gloves is forecasted to decline, mainly due to a decrease in global demand for these products. However, domestic sales of rubber gloves are expected to grow as demand for disease prevention remains high.

Exports of processed rubber in primary forms are predicted to decrease continuously in value due to China, a major export market for rubber sheets, blocks, and concentrated latex, has slowed its purchases of these products from Thailand. Exports of tires are projected to increase in value as demand in the US market is expected to recover. However, exports of rubber gloves are expected to continue to decrease in value due to a high base of exports last year and the decreasing price of rubber gloves over the past period.



5. Plastics Industry

MPI and Shipment Index



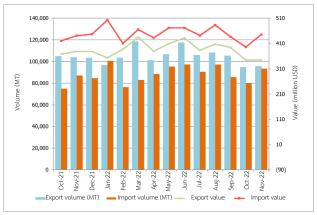
Source: The Office of Industrial Economics

The Manufacturing Production Index (MPI) in November 2022 stood at 86.48 points, a contraction of 6.26 percent compared to the same period the previous year. The MPI experienced a decline in many products, such as plastic sacks (-23.15%), plastic sheets (-20.93%), and other plastic packaging (-17.16%) compared to the same period last year.

The shipment index in November 2022 was 89.04 points, a contraction of 6.34 percent compared to the same period last year. Products that experienced the contraction were plastic sacks (-19.46%), plastic sheets (-18.48%), and plastic films (-16.12%) compared to the same period last year.

Exports in November 2022 were valued at 344.34 million USD, a decrease of 8.94 percent compared to the same period last year. Products contributing to the decline in exports included plates, sheets, film, foil and strips of noncellular plastics (HS 3920) (-28.32%), builder's ware of plastic (HS 3925) (-22.74%); and other plastic plates, sheets, film, foil and strip (HS 3921) (-14.65%) compared to the same period last year.

Volume and value of exports and imports



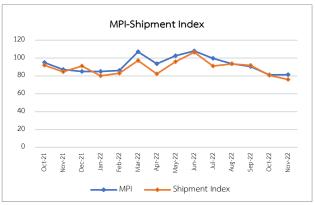
Source: Office of the Permanent Secretary, Ministry of Commerce

Imports in November 2022 were valued at 445.77 million USD, an increase of 0.96 percent compared to the same period last year. Key products contributing to the decline in imports were household articles (HS 3924) (12.22%); other plates, sheets, film, foil and strip, of plastics, non-cellular (HS 3920) (10.15%), and sanitary ware of plastics. (HS 3922) (7.51%) compared to the same period last year.

Plastics industry outlook for December 2022, the global crude oil price tends to increase. As a result, companies are expected to scale back production to monitor prices and produce products based on specific orders only.



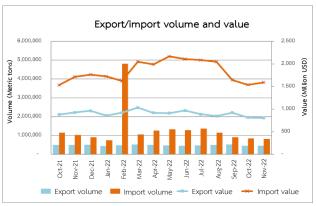
Chemical products Industry



Source: The Office of Industrial Economics

The Manufacturing production index in November 2022 was at 81.40 points, decreasing by 6.00 percent compared to the same period last year. The downstream chemical segment experienced a decrease of 11.44 percent, with products such as oil paints (-25.41%), hair shampoo (-20.74%), and industrial paints (-18.88%) experiencing a decline in production compared to the same period last year. In contrast, the basic chemical product segment increased by 20.56 percent, with products such as caustic soda (46.50%), chlorine (32.85%), and hydrochloric acid (8.51%) experiencing an increase in production compared to the same period last year.

The shipment index in November 2022 was at 75.97 points, a contraction of 9.26 percent compared to the same period last year. The basic chemical product segment decreased by 12.02 percent, with products such as chemical fertilizers (-56.07%), hair shampoo (-16.89%), oil paints (-6.56%) experiencing a decline in shipments. However, the downstream chemical product segment grew by 3.75 percent, with products like caustic soda (2.31%) and chlorine (0.43%) experiencing a growth in shipments compared to the same period the previous year.



Source: Office of the Permanent Secretary, Ministry of Commerce

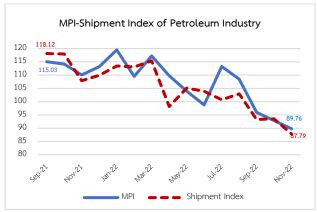
Exports in November 2022 decreased in value by 13.30 percent to 803.03 million USD compared to the same period last year. The basic chemical product segment decreased by 20.67 percent, with an export value of 465.58 million USD. The downstream chemical product segment also decreased 0.56 percent with an export value of 337.45 million USD. The decrease in export value was driven by the contraction of products such as organic chemicals (-30.06%), miscellaneous chemicals (-19.95%), and chemical fertilizers (-9.92%), compared to the same period last year.

Imports in November 2022 decreased in value by 7.12 percent to a total value of 1,592.97 million USD compared to the same period last year. The downstream chemical product segment decreased by 4.49 percent, with imports valued at 1,137.33 million USD. The basic chemical product segment also experienced a decrease of 13.08 percent, with imports valued at 455.64 million USD compared to the same period last year.

Chemical industry outlook for December 2022, the industry is expected to experience higher crude oil prices following the global economic recovery. Exports of oil-related products, such as plastic pellets and chemicals, are forecast to increase in price in line with the increased cost of production. The increased production of goods may result in lower production and exports.



7. Petrochemical Industry

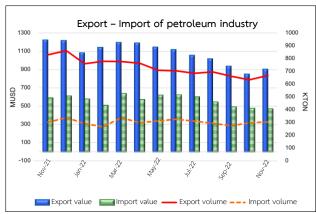


Source: The Office of Industrial Economics

The Manufacturing Production Index in November 2022 decreased by 15.32 percent compared to the same period last year and a decrease of 3.56 percent from last month. Upstream petrochemicals such as Propylene and Toluene decreased in the MPI by 28.29 percent and 18.58 percent, respectively, compared to the same month last year. Similarly, downstream petrochemicals such as PS and PP resins also declined by 40.17 percent and 16.34 percent, respectively, compared to the same month last year.

The shipment index in November 2022 decreased by 17.44 percent compared to the same month last year and decrease by 5.95 percent compared to the previous month. Among the basic petrochemicals, Toluene declined by 52.91 percent compared to the same month last year. Similarly, downstream petrochemicals, such as PS and PE resins, decreased by 31.07 percent and 16.04 percent, respectively, compared to the same month last year.

Exports in November 2022 were 907.63 million USD, indicating a decrease of 25.96 percent compared to the same period in the previous year. However, exports increased by 6.96 percent when compared to the previous month. The decrease was mainly due to reduced exports of upstream petrochemicals such as PE and PP resins, as well as downstream chemicals like Ethylene and Propylene. This was caused by market speculation and a wait-and-see approach for prices to decline. Furthermore, the demand for downstream products, such as Personal Protective Equipment (PPE) for COVID-19, also decreased. Nevertheless, as China eases its COVID-19 restrictions, there may be a need to import upstream petrochemicals to adjust stock levels for production planning before resuming production after the previous period of reduced production due to COVID-19.



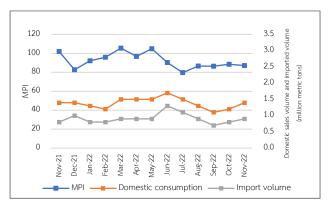
Source: Office of the Permanent Secretary, Ministry of Commerce

☐ Imports in November 2022 were valued at 474.57 million USD, a decrease of 19.97 percent to compared to the same month last year and a decrease of 0.83 percent compared to last month. The decline was primarily seen in the imports of upstream products such as Ethylene and downstream products like PE and PP resins.

The outlook for the petrochemical industry in December 2022 predicts a slowdown in the overall industry compared to the same period last year. This is primarily due to a decline in exports of basic petrochemicals such as Ethylene and Propylene caused by rising crude oil prices, which were affected by production shutdowns in various countries, the ongoing Russia-Ukraine conflict, the China-Taiwan conflict, and terrorism in the Middle East. Additionally, OPEC countries have yet to consider increasing production, and Russia, a major global energy producer, has halted natural gas supplies to European countries. Furthermore, demand for protective equipment related to COVID-19 has dropped, leading to decreased demand for related plastic pellets.



8. Iron and Steel Industry



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

The Manufacturing Production Index (MPI) in November 2022 was 87.2 points, contracting by 14.3 percent compared to the same period in the previous year. This was primarily due to a slowdown in downstream industries such as private-sector construction and electrical appliance manufacturing. When considering key products, the Manufacturing Production Index contracted in both long and flat products. For long products, the MPI was 85.2 points, a contraction of 12.8 percent. The largest reduction in production was seen in hot-rolled structural steel sections (-27.9%), followed by high tensile wires (-18.1%), wires (-13.1%), and round bars (-12.0%). For the flat product sector, the MPI was 88.2 points, a contraction of 21.2 percent. Tinplate production saw the biggest decline (-34.2%), followed by cold-rolled sheets (-26.6%), hot-rolled coils (-22.4%), and galvanized sheets (-15.3%).

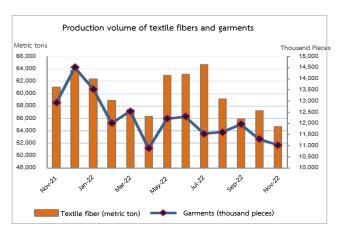
Domestic consumption in November 2022 reached 1.4 million metric tons, increasing by 1.4 percent from the same period last year. Consumption of long products grew 13.1 percent to 0.6 million metric tons from the increase in consumption of wire rods (9.1%) and rebars and structural steel sections (8.0%). As for flat products, the consumption reached 0.8 million metric tons, a decrease of 5.7 percent from the decline in the consumption of tinplate (-38.0%), followed by cold-rolled sheets (-16.6%) and hot-rolled sheets (-15.9%).

• Imports in November 2022 reached 0.9 million metric tons, a 10.2 percent increase compared to the same period in the previous year, driven mainly by the long product sector. Import volume for long products was 0.3 million metric tons, expanding by 46.0 percent. Long products that increased in imports included carbon-type structural steel sections which increased by 429.1 percent (key countries from which Thailand increased imports were China, South Korea, and Japan), seamless steel pipes which increased by 302.8 percent (key countries from which Thailand increased imports were China, Japan, South Korea, Italy, and Argentina), steel wire which increased by 108.9 percent (key countries from which Thailand increased imports were Russia), and alloy steel wire rods which increased by 108.9 percent (key countries from which Thailand increased imports were China and Russia). Meanwhile, the flat product sector had an import volume of 0.7 million metric tons, a decrease of 0.2 percent. Flat products with reductions in import volume include electro galvanized (EG) which decreased by 71.2 percent (key countries from which Thailand decreased imports were Japan, South Korea, China, and Taiwan), chromium-coated sheets which decreased by 43.1 percent (key countries from which Thailand decreased imports were China, South Korea, and Japan), cold-rolled carbon steel sheets which decreased by 36.6 percent (key countries from which Thailand decreased imports were South Korea and Taiwan), and hot-rolled alloy steel plates which decreased by 34.6 percent (key countries from which Thailand decreased imports were China and Germany).

"In December 2022, the iron and steel industry is expected to see a decline in the production compared to the same period last year. This can be attributed to a slowdown in the downstream industry, increased inflation, and a decrease in foreign steel prices, leading to consumers delaying purchases and waiting for price direction. Key factors to monitor include global economic and trade developments, international steel prices, and China's steel industry policy, as China is the world's largest steel producer, consumer, and exporter, and its actions can significantly impact the production volume of steel products in Thailand.



9. Textile and Wearing Apparel Industry



Source: The Office of Industrial Economics

Production

Production across the supply chain contracted. Textile fibers decreased by 10.43 percent (%YoY) in polyester fibers, man-made fibers, and cotton yarn. Fabrics decreased by 9.65 percent (%YoY) in woven fabrics (cotton and synthetic fibers), and garments decreased by 14.64 percent (%YoY) from woven garments and knitted garments due to higher labor and energy costs leading to reduced production from upstream to downstream raw materials.

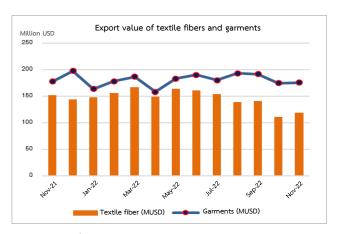
Domestic sales

Sales of garments increased by 2.76 percent (%YoY) in woven garments, supported by improved domestic demand after the relaxation of COVID-19 control measures and preparations for the festive season. This resulted in increased spending.

Sales of textile fibers decreased by 6.05 percent (%YoY) from cotton yarns and man-made fiber yarns. Domestic fabrics sales decreased by 16.69 percent (%YoY) from woven cotton and synthetic fibers fabrics.

Imports

Imports expanded throughout the supply chain, with yarns and fibers growing by 9.94 percent (%YoY) from key markets such as Australia, Japan, and Vietnam to prepare for use as raw materials for fabric and garment production. The fabric sector grew by 0.16 percent (%YoY) from growth in key markets, including China, India, and South Korea, to support the festive season and to use as New Year's gifts or lucky draws. The garment sector grew by 10.30 percent (%YoY) in key markets, including China, Vietnam, and Italy.



Source: Ministry of Commerce

Exports

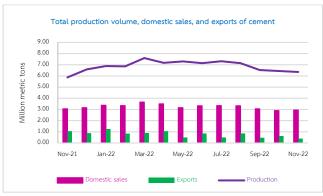
Exports contracted throughout the supply chain, with textile fibers, fabrics, and garments contracting by 21.90 percent, 12.45 percent, and 1.15 percent (%YoY), respectively, due to a decrease in orders from major trading partners and the global economic situation that continued to slow down from key markets such as China, Japan, the US, India, Indonesia, Hong Kong, Germany, and Vietnam.

Industry outlook for December 2022

It is expected that production will contract slightly due to inflation in many countries worldwide, leading to a slowdown in the global economy. Geopolitical conflicts and power shortages in Europe may also be a pressure factor causing the economy of partner countries to slow down, including the increase in electricity and labor costs. This will impact the production cost of the textile and wearing apparel industry, resulting in higher product prices.



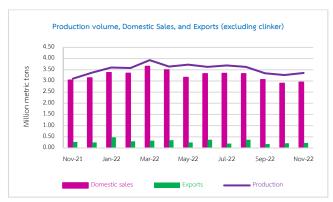
10. Cement Industry



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

- 2. Export volume: Information and Communication Technology Center, Office of the Permanent Secretary, Ministry of Commerce
- Total production of cement in November 2022 reached 6.35 million metric tons, increasing from October 2022 by 0.12 percent (%MoM) and increasing from the same month last year by 4.17 percent (%YoY).
- Total domestic sales of cement in November 2022 reached 2.95 metric million tons, increasing from October 2022 by 3.24 percent (%MoM). However, compared to the same month last year, domestic sales decreased by 1.93 percent (%YoY) due to a slight recovery in the real estate sector.
- Total cement exports in November 2022 was at 0.39 million metric tons, decreasing from October 2022 by 36.64 percent (%MoM) and decreasing from the same month last year by 63.00 percent (%YoY). The contraction was mainly due to decreased orders from Bangladesh (-74.78%) and Cambodia (-34.78%).

Outlook for December 2022, the cement manufacturing industry is expected to slow down in December 2022 due to the global economic slowdown that is beginning to affect the export market.



Source: 1. Domestic production and sales volume: Division of Information and Industrial Economic Indices, The 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 November 2022 reached 3.36 million metric tons, increasing from October 2022 by 4.62 percent (%MoM) and increasing from the same month last year by 4.63 percent (%YoY).
- Domestic cement sales (excluding clinker) in November 2022 reached a volume of 2.95 million metric tons, increasing from October 2022 by 3.24 percent (%MoM), driven by government construction projects and the acceleration of the private real estate market. Despite, sales decreased by 1.93 percent (%YoY) compared to the same month last year.
- Exports of cement (excluding clinker) in November 2022 reached 0.23 million metric tons, increasing from October 2022 by 9.73 percent (%MoM) but decreasing from the same month last year by 13.51 percent (%YoY). The contraction was mainly decreased orders from the Philippines (-81.97%), Vietnam (-6.23%), and Cambodia (-32.23%).

Outlook for December 2022, the cement industry (excluding clinker) is expected to slow down following the global economic slowdown.