



Report on the Industrial Economics Status in 2022 and Outlook for 2023



สำนักงาน | OFFICE
เศรษฐกิจอุตสาหกรรม | OF INDUSTRIAL ECONOMICS

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Executive Summary


Summary of Thai Industrial Economic Status in 2022 and Outlook for 2023

The industrial economy status in 2022, when considered from the Manufacturing Production Index, was expected to grow by 1.0 percent, slowing from 2021, when the MPI grew by 5.85 percent. The MPI was partly affected by the conflict between Russia and Ukraine, causing rising product prices. In addition, there was an impact from the global economic slowdown, the volatility of the global financial markets, and the disruption of global production chains. However, the domestic economy gradually recovered after the country's reopening to tourists. **Some key industries that grew in 2022 included the automobile industry** from a growth in the domestic market, as the chip shortage began to resolve and automobiles could be produced and delivered as usual. In addition, COVID-19 control measures relaxed, causing economic activities to return to normal. **Petroleum refining** grew due to the strong recovery of both domestic and foreign tourism after the country's full opening. **Electronic components** grew from the demand for electronic products in the global market that continued to expand. **Sugar production** increased this year as factories resumed normal production after the COVID-19 situation improved, while last year, factories were affected by the COVID-19 outbreak. **Pharmaceuticals** improved following increased orders from the domestic market, especially hospitals that have to reserve medicines to prevent shortages of some medicines and to support the needs of patients with both communicable and non-communicable diseases.

Outlook for 2023

The Manufacturing Production Index (MPI) for 2023 is expected to grow 2.5 to 3.5 percent from supporting factors: (1) Domestic demand is expected to increase employment outside the agricultural sector and private consumption. (2) The tourism sector is anticipated to recover with the country's reopening to foreign tourists and the relaxation of international travel control measures, which is expected to bring conditions closer to normal. (3) The agricultural sector is expected to experience favorable growth due to an upward trend in agricultural products, primarily driven by sufficient water for cultivation. As a result, the purchasing power of the agricultural sector is likely to improve.

 **Iron and Steel:** The production of iron and steel is expected to increase slightly by about 0.5 percent compared to the previous year. Steel consumption in 2023 is expected to reach a volume of 17.5 million tons, an increase of 3.0 percent, supported by the growth of downstream industries such as the construction industry, especially government construction projects which are expected to increase production and domestic consumption of steel products. A factor to monitor is the implementation of China's steel industry policy. China is the world's largest producer, consumer, and exporter of steel, which may affect the production of steel products in Thailand.

 **Electrical appliances:** The Manufacturing Production Index (MPI) is expected to increase production and exports by approximately 5.0 to 10.0 percent compared to the previous year, from the recovery of the global economy and Thailand's main export markets after the COVID-19 pandemic has improved. This growth is further supported by innovation and the development of modern technology, especially in the electrical appliances sector relating to health and the environment. Moreover, the ongoing trade conflict between the US and China could allow Thailand to export some electrical appliances, such as air conditioners and refrigerators, to the US market, thus boosting demand for electrical appliances and leading to a sustained increase in orders for electrical appliances produced in Thailand.

↑ Electronics: The production and exports are expected to increase by approximately 5.0 to 10.0 percent compared to the previous year as the global economy recovers from the outbreak of the COVID-19. In addition, semiconductor manufacturers have adjusted to the chip shortage situation. As a result, electronic products will be in continuous demand. The rise of remote work and education will also increase demand for electronic products, both domestically and internationally.

↑ Automobile: It is estimated that the production will reach approximately 1,800,000 units, an increase of 2.86 percent from last year. The production is 50-55 percent for domestic sales and 45-50 percent for export.

↑ Motorcycle: The production is expected to grow, reaching approximately 2,000,000 units. From the expected production volume, around 85 to 90 percent is expected for domestic sales and 10 to 15 percent for exports.

↑ Pulp, Paper, and Print Media: Paper products used to produce packaging boxes (paperboard and Kraft paper) are expected to grow in line with domestic consumption. Additionally, paper packaging will benefit from its increasing use in online shopping. In terms of exports, the pulp industry is expected to grow again if China, a key market for Thai pulp exports, relaxes COVID-19 control measures. As for the printed matter, the industry is expected to experience growth, specifically in the areas of printed books, brochures, leaflets, and other publications.

↔ Textiles and wearing apparel: The production is forecasted to decline, in line with global demand and trading partner economies. Meanwhile, exports and domestic sales are expected to grow slightly from the recovery of the tourism sector, the relaxation of international travel control measures, and the government's economic stimulus measures. As a result, domestic consumption and exports of garments are expected to grow. However, there may be risk factors such as inflation in many countries. Power shortages in Europe may be a pressure factor that causes the economy of partner countries to slow down, together with the increase in electricity and labor costs which affects the cost of production of the textile and garment industry.

↓ Pharmaceuticals: The industry is expected to shrink by 4.00 to 6.00 percent due to the relatively high base of 2022. However, the industry will still be on a good average, following the direction of the pharmaceutical demand, which is expected to increase continuously. Meanwhile, exports are expected to grow more, especially in the ASEAN market.

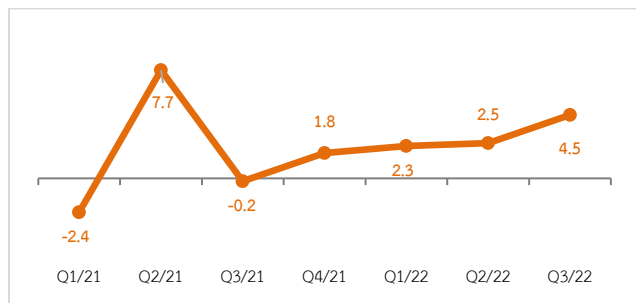
↔ Rubber and Rubber Products: Production of processed rubber in primary forms and automotive tires is expected to grow continuously from production to meet domestic and international market demand. On the other hand, the production of rubber gloves is expected to slow down from the declining trend of domestic and foreign demand for rubber gloves.

↑ Food: In 2023, the MPI of the food industry is expected to grow as Thailand welcomes tourists, together with the relaxation of various measures in the country. Key product groups expected to grow in 2023 include chilled and frozen fruits, which are still popular in China and those of which Thailand is exempt from import duties; tapioca products, including tapioca starch to replace the expensive corn starch; fresh and frozen chicken, which is expected to grow continuously from new market expansions; sugar, which is projected to see growth; and processed food and animal feed markets that may also expand with new market expansions to the Middle East countries. Although the industry is expected to grow, the global economic recession must be monitored, especially in Thailand's major trading partners. This may affect some agricultural products that grew well in the past year. Additionally, the fluctuating prices of raw materials and energy costs, such as chemical fertilizers, must be kept in check as they could increase the cost of production.

Part 1 Thailand Economic and Industrial Overview in 2022 and Outlook for 2023

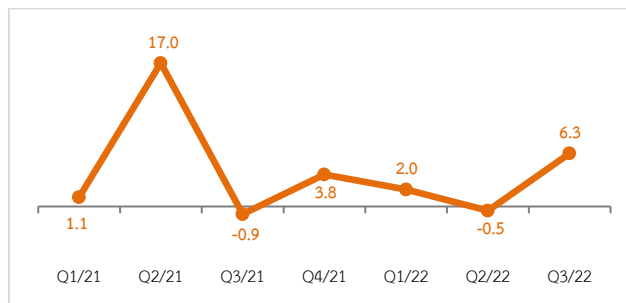
Thailand's Economic and Industrial Overview in 2022 and Outlook for 2023

GDP of the first three quarter increased by 3.1 percent (%YoY).



Source: Office of the National Economic and Social Development Council

Industrial sector GDP in the first three quarter increased by 2.6 percent (%YoY).



Source: Office of the National Economic and Social Development Council

Gross domestic product or GDP in the first three quarters of 2022 increased by 3.1 percent compared with the first three quarters of 2021 which increased by 1.5 percent.

Key factors effecting the DGP



Agricultural production increased by 2.7 percent.



The service sector increased by 4.2 percent.



Private consumption and expenditure increased by 6.5 percent.



Total investment increased by 1.6 percent.



Industrial production increased by 2.5 percent.



Exports of goods and services increased by 10.0 percent.

In the first three quarters of 2022, agricultural production increased by 2.7 percent. The service sector increased by 4.2 percent. Private consumption and expenditure increased by 6.5 percent. Total investment increased by 1.6 percent. Industrial production increased by 2.5 percent. Exports of goods and services increased by 10.0 percent.

Industrial growth in the first three quarters of 2022 grew from the same period last year, from the relief of the COVID-19 pandemic and the country's opening to foreign tourists. Various activities, including production, resumed operations to accommodate the increasing orders from trading partner countries.

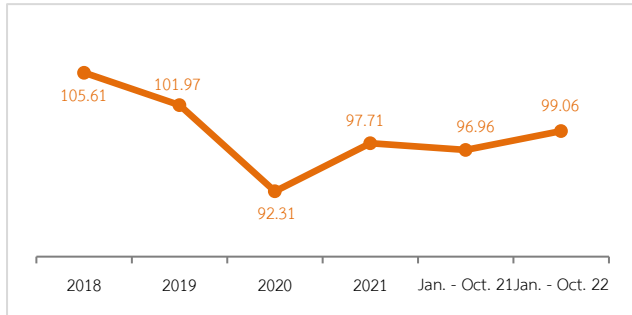
The GDP of industrial sector recorded a growth of 2.5 percent in the first three quarters of 2022, compared to a growth of 5.3 percent in the same period last year. This growth was mainly attributed to the increased production of automobiles, as trading partners placed more orders and the shortage of automotive parts like chips and semiconductors eased.

Thai economy outlook for 2023 is expected to expand by 3.0 to 4.0 percent, supported by (1) the recovery of the tourism sector, (2) the expansion of both private and public investment, (3) the continuous growth of domestic consumption, and (4) good expansion of the agricultural sector.

Key Industrial Index

Manufacturing Production Index in

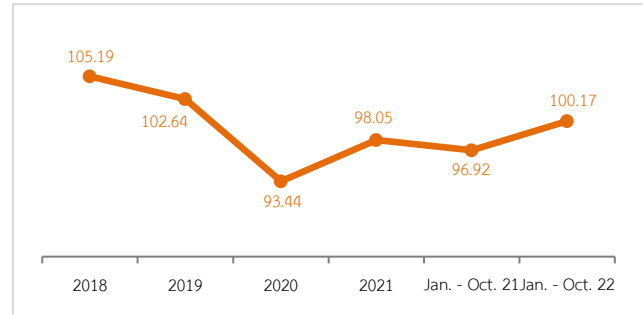
Jan. – Oct. 2022 increased by 2.17 percent (%YoY)



Source: The Office of Industrial Economics

Shipment Index in

Jan. – Oct. 2022 increased by 3.36 percent (%YoY)



Source: The Office of Industrial Economics

During the first ten months (January - October) of 2022, the Manufacturing Production Index (MPI) stood at 99.06 points, an increase of 2.17 percent from the same period in 2021 (96.96 points).

Industries that caused the Manufacturing Production Index to increase from the same period in 2021, included the manufacture of automobiles, refined petroleum products, and electronic components and circuit boards.

In 2023, the Manufacturing Production Index is expected to improve compared to 2022. It may return to the same level as in 2018, as the COVID-19 pandemic has eased and economic activities have returned to normal. Additionally, production will run efficiently from growing domestic consumption, especially agricultural and food products.

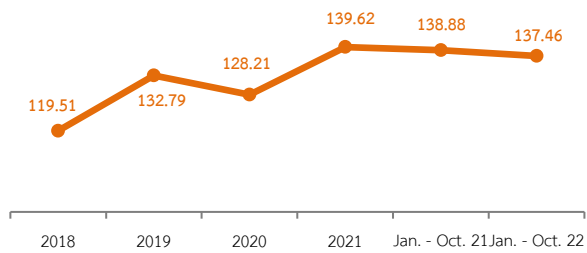
During the first ten months (January - October) of 2022, the Shipment Index stood at 100.17 points, an increase of 3.36 percent from the same period in 2021 (96.92 points).

Industries that contributed to the increase of the Shipment Index in 2021 were the manufacture of automobiles, refined petroleum products, and sugar.

Outlook 2023, the Shipment Index is predicted to be in line with the MPI in 2022.

Finished Goods Inventory Index in

Jan. – Oct. 2022 decreased by 1.02 percent. (%YoY)



Source: The Office of Industrial Economics

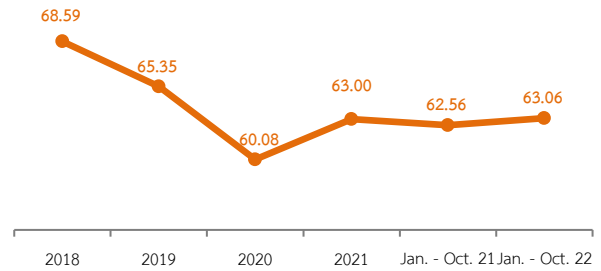
During the first ten months (January - October) of 2022, the finished goods inventory index stood at 137.46 points, a decrease of 1.02 percent from the same period last year (138.88 points).

Industries that contributing to the decrease of finished goods inventory index from the same period in 2021 were the manufacture of automobiles, other rubber products, and motorcycles, for example.

In 2023, the finished goods inventory index is expected to decrease from 2022 as production is made to deliver to customers according to orders, both from domestic consumption and exports abroad. As a result, the amount of finished goods inventory is not as high as the previous year.

Capacity Utilization Rate

stood at 63.06 percent.



Source: The Office of Industrial Economics

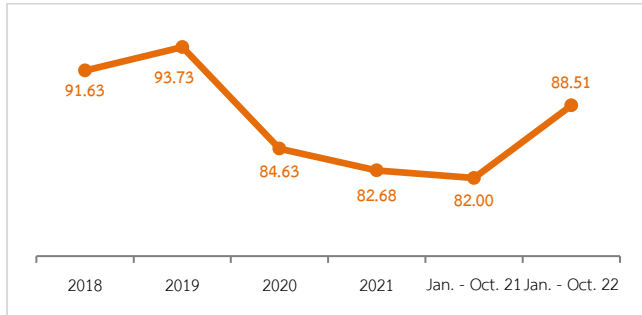
During the first ten months (January - October) of 2022, the capacity utilization rate stood at 63.06 percent, increasing from the same period in 2021 (62.56%).

Industries that contributed to the decrease of capacity utilization rate from the same period in 2021 were the manufacture of automobiles, refined petroleum products, pharmaceutical products, and medicinal chemical products, for example.

In 2023, the capacity utilization rate is expected to improve as production and services resume normal production.

Industrial Sentiment Index in

Jan. – Oct. 2022 stood at 88.51 points.



Source: The Federation of Thai Industries

During the first ten months (January - October) of 2022, the average industry sentiment index stood at 88.51 points, increasing from the same period last of 2021 (82.00 points). Meanwhile, the three-month forecast for the sentiment index was at 98.20 points, increasing from the same period in 2021 (92.07 points).

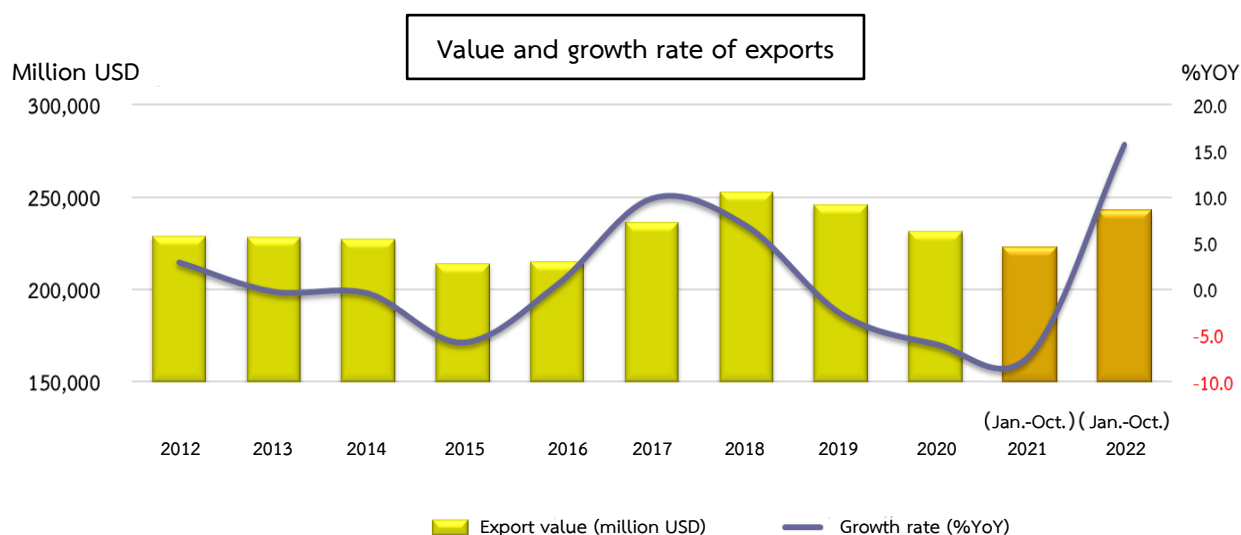
In 2023, the industrial sentiment index is expected to improve as the COVID-19 situation eases and the government has declared it endemic. The country has been opened to more foreign tourists, economic activities have returned to normal, and domestic demand has recovered. In addition, entrepreneurs have more confidence, which positively affects the growing manufacturing sector and industry.

Foreign Trade

"Foreign trade in 2022 (Jan - Oct) increased compared to the same period in 2021, indicating continued recovery following the subsiding of the COVID-19 pandemic. The relaxation of pandemic control measures in many countries led to the resumption of economic activities in Thailand's major trading partners. Moreover, container shortages have been alleviated, and freight costs have begun to balance out. The depreciation of the Thai Baht has also helped increase Thai products' price competitiveness. These factors have positively impacted private consumption growth, resulting in an increase in Thailand's international trade."

Thailand's international trade in 2022 (Jan. – Oct.) was valued at 501,858.3 million USD. The export value was 243,138.5 million USD, increasing by 9.1 percent compared to the same period last year. The import value was 258,719.8 million USD, increasing by 18.3 percent compared to the same period last year. The overall trade balance in 2022 (Jan. – Oct.) was in deficit of 15,581.3 million USD.

Export Structure

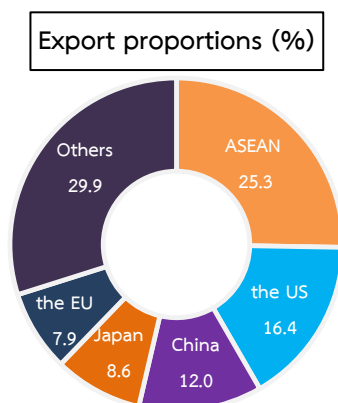


Source: Ministry of Commerce

In 2022 (Jan. – Oct.), exports of products were valued at 243,138.5 million USD, increasing by 9.1 percent compared to the same period last year. The major changes in product categories were as follows: exports of **agricultural products** increased by 4.3 percent, reaching 22,697.8 million USD; **agro-industrial products** increased by 22.6 percent, reaching 19,438.1 million USD; **industrial products** increase by 7.8 percent, reaching 190,672.4 million USD; **mineral and fuel products** increased by 24.4 percent, reaching 10,330.2 million USD. Overall export increased in all product categories.

Industrial products that increased in export value included **chemical products** increased by 3.3 percent, reaching 8,253.0 million USD; **electrical circuits** increased by 11.4 percent, reaching 7,756.7 million USD; **machinery and parts** increased by 9.7 percent, reaching 7,389.4 million USD; **air conditioners and parts** increased by 11.0 percent, reaching 5,981.2 million USD; **iron, steel, and products** increased by 5.0 percent, reaching 5,946.5 million USD.

Export Markets

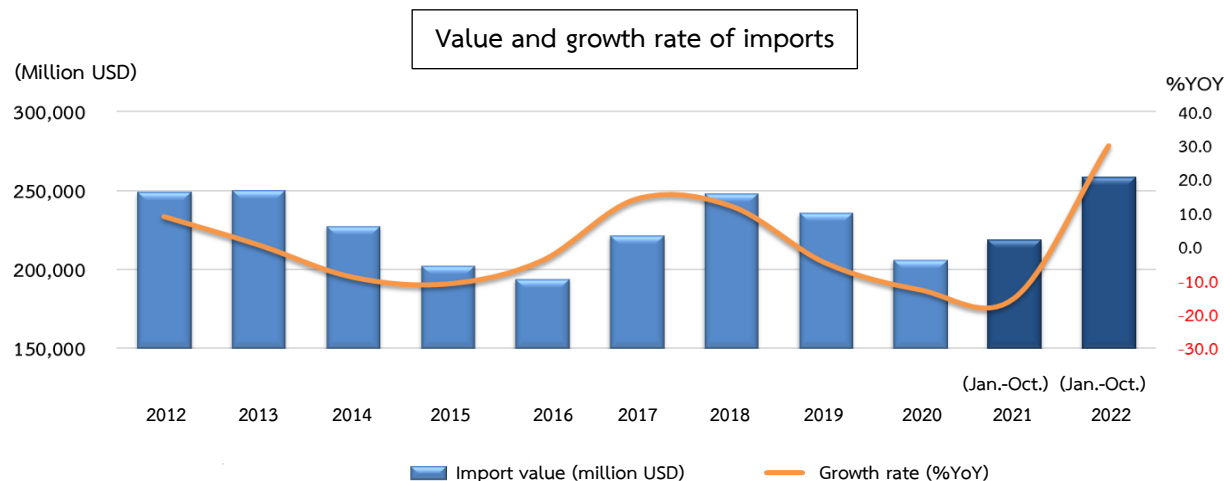


Source: Ministry of Commerce

In 2022 (Jan - Oct), exports of merchandises increased in major trading partner markets, such as ASEAN (9 countries), the US, Japan, and the EU (27 countries). However, exports to China decreased. This was partly due to the impact of China's zero-tolerance measures on COVID-19. The proportion of exports to five markets accounted for 70.2 percent, and exports to other markets accounted for 29.8 percent of the total exports. The details are as follows:

- Thailand's export value to ASEAN, the US, China, Japan, and the EU accounted for 25.3%, 16.4%, 12.0%, 8.6% and 7.9%, respectively.
- The growth rate of the export value compared to the same period last year indicates an overall increase in exports to major trading partners, such as the US, ASEAN, the EU, and Japan, which rose by 16.8%, 16.1%, 6.8%, and 0.5%, respectively. However, there was a contraction of 6.1% in exports to China.

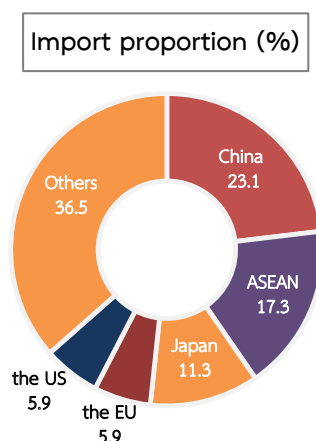
Import Structure



Source: Ministry of Commerce

In 2022 (Jan. - Oct.), Thailand's imports were valued at 258,719.8 million USD, increasing by 18.3 percent compared to the same period last year. The major changes in product categories are as follows: imports of **fuel products** increased by 76.8 percent, reaching 54,016.3 million USD; **capital goods** increased by 3.9 percent, reaching 56,118.8 million USD; **raw materials and semi-finished products** increased by 12.1 percent, reaching 107,824.8 million USD; and **consumer goods** increased by 7.5 percent, reaching 27,362.2 million USD. Meanwhile, the import value of **vehicles and transportation equipment** decreased by 15.9 percent, reaching 10,177.7 million USD, while the import value of **military weapons and other goods** increased by 947.6 percent, reaching 3,220.0 million USD.

Import markets



Source: Ministry of Commerce

In 2022 (Jan - Oct), Thailand's imports increased in China, ASEAN (9 countries), the EU (27 countries), and the US markets, while imports from Japan slightly decreased. The combined proportion of total imports from these five countries was 63.5 percent, while imports from other markets accounted for 36.5 percent of the total imports. The details are as follows:

- Thailand imported from China, ASEAN, and Japan, which accounted for 23.1%, 17.3%, 11.3%, of the imports, respectively. The US and the EU each accounted for 5.9% of imports.
- The growth rate of the import value compared to the same period last year indicates an increase in exports from major trading partners, the US, ASEAN, China, and the EU, which rose by 30.6%, 18.7%, 9.8%, and 1.9%, respectively. However, Japan was the only market, from which imports decreased by 2.1 percent.

Global Economy in 2022

"The world economy in 2022 continued to expand, but at a slower rate. The Thai economy accelerated. While the trade environment and manufacturing sector grew, inflation, interest, and unemployment were high."

Summary of Key Economic Indicators in 2022

	GDP	Inflation	MPI	Export	Import	Unemp.	Policy
	2022 ^F	2022 ^F	(JAN-OCT)	(JAN-OCT)	(JAN-OCT)	Rate ^F	Rate ^F
the US	↑ 1.6	↑ 8.1	↑ 3.9	↑ 19.9	↑ 18.3	At 3.7	At 3.75-4.00
China	↑ 3.2	↑ 2.2	↑ 3.3 ^F	↑ 11.1	↑ 3.8	At 4.2	At 3.65
Japan	↑ 1.7	↑ 2.2	↑ 0.3 ^F	↓ 0.4	↑ 19.4	At 2.6	At -0.10
South Korea	↑ 2.6	↑ 5.5	↑ 3.6 ^F	↑ 10.3	↑ 23.4	At 3.0	At 3.00
Singapore	↑ 3.0	↑ 5.5	↑ 3.4 ^F	↑ 17.2	↑ 22.2	At 2.1	n.a.
Thailand	↑ 3.2	↑ 6.3	↑ 2.2	↑ 9.1	↑ 18.3	At 1.0	At 1.25

Source: Data gathering from www.ceicdata.com, www.imf.org, www.oie.go.th, www.nesdc.go.th

Note: F = estimated figures

In 2022 and 2023, the IMF estimated that the global economy would grow by 3.2 percent and 2.7 percent, respectively, with the overall global economy showing signs of recession in the face of economic uncertainty, protracted geopolitical conflicts, the energy crisis, and high costs of living caused by inflation and high policy interest rate. In late 2022, the US Federal Reserve signaled that the interest rate would be maintained at 3.75 to 4.00 percent and would slow down the rate hike to balance the economy from tight monetary policy. At the same time, international trade and manufacturing in many countries continued to grow well.

The price of crude oil in the world market continued to rise, reflected by Dubai crude oil prices in the first ten months of 2022 (Jan to Oct) stood at 99.2 USD/barrel, an increase compared to 2021, where the price was 67.9 USD/barrel in the first ten months. The group of oil-producing countries and allies implemented a policy to reduce production. As a result, production supply tightened in contrast to the continued growth in oil demand following economic activity recovery. Additionally, China relaxed lockdown measures. As a result, the next phase of oil prices continued to increase.

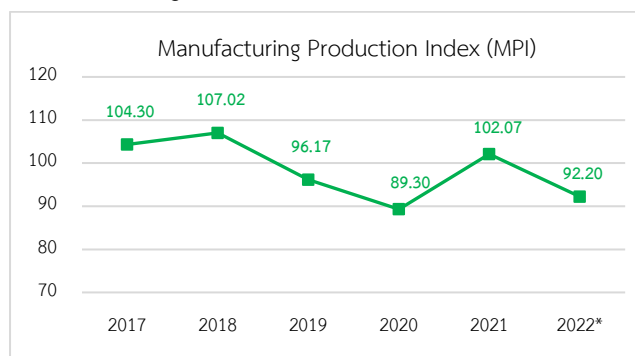
In addition, the global economy needs to be monitored, including the economic slowdown, trade tensions between superpowers, high energy prices and interest rates, fluctuating exchange rates, limited recovery of the household and small business sectors, and stagnant income and purchasing power of consumers. However, inflation is expected to slow down in the near future, as well as the recovery of the service and tourism sectors after the country's opening up around the world are factors supporting further growth in consumption, which is an important force that drives exports and production to expand. However, the business sector must be prepared to manage risks under such circumstances, particularly in optimizing limited raw materials and labor resources for maximum efficiency.

Part 2 Thai Industrial Economic Sectors in 2022 and Outlook for 2023

Iron and Steel Industry

The MPI of the iron and steel industry in 2022* fell compared to 2021, decreasing in both long and flat products. Long products that contracted included round bars, hot-rolled structural steel sections, wire rods, and wires. Flat products that contracted included cold-rolled steel sheets and galvanized sheets.

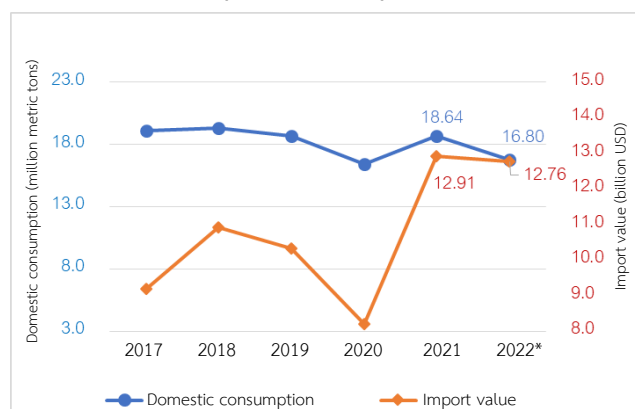
Manufacturing Production Index (MPI)



Source: The Office of Industrial Economics

* estimated figure in 2022 by the Office of Industrial Economics

Domestic consumption and import value



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

* estimated figure in 2022 by the Office of Industrial Economics / Iron and Steel Institute of Thailand

The MPI for 2022* was expected to decline compared to the previous year. The MPI was 92.2, down 9.7 percent (%YoY), decreasing in long and flat products. Long products that contracted included round bars, hot-rolled structural steel, wire rods, and steel wires from a slowdown in private construction. Flat products that contracted included cold-rolled steel sheets and galvanized steel sheets from decreased production of downstream industries such as the electrical appliance industry.

Domestic consumption in 2022* was expected to reach 16.8 million tons, a decrease of 9.9 percent (%YoY) from a decrease in long and flat products. The consumption of all types of long-formed steel products decreased, especially wires used to produce nails, wire meshes, nuts, screws, welding rods, and tire reinforcement wires. As for flat products, there was a decrease in all types of consumption, especially tinplates, other types of coated sheets, and hot-rolled sheets, which are used in downstream industries such as construction, automotive, and electrical appliances.

Imports in 2022* were expected to reach 12.8 billion USD, down 1.2 percent (%YoY), across both long and flat products. Long products that decreased import value included rebars and structural steel sections used in downstream industries such as the construction and wire rods. Flat products with a lower import value included tinplates, chromium-plates, and hot-rolled sheets used in downstream industries.

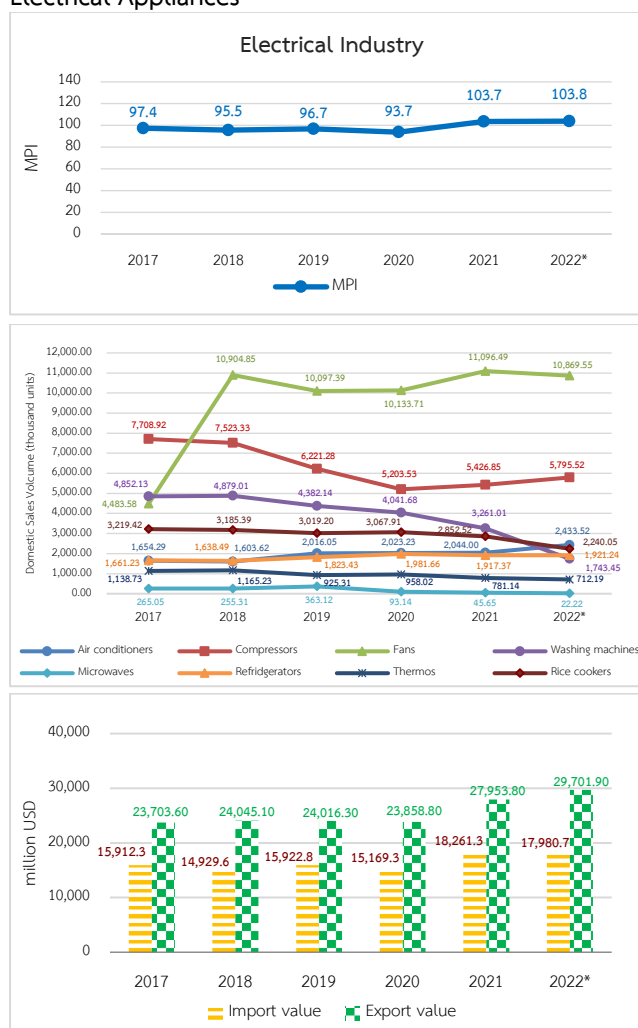
Iron and Steel Industry Outlook for 2023

Production in the steel industry in 2023 is expected to increase slightly at 0.5 percent compared to the previous year. Steel consumption in 2023 is expected to reach 17.5 million metric tons, an increase of 3.0 percent, supported by the expansion of downstream industries such as the construction industry, especially government infrastructure construction projects, which is expected to result in increased production and domestic consumption of steel products. However, there are important issues to monitor such as the economic situation, global trade, and the implementation of China's steel industry policy. China is the world's largest producer, consumer, and exporter of steel, which can affect Thailand's production of steel products.

Electrical Appliance Industry

Production of electronic appliances in 2022* increased slightly from 2021 by 0.2 percent, from electric motors, compressors, electrical cables, fans, and air conditioners, which grew as the global economy began to recover from the COVID-19 outbreak. As a result, demand for electrical products increased. Additionally, exports of water heaters, transformers, electric motors, and air conditioners increased.

MPI, Import and Export Value, and Domestic Sales of Electrical Appliances



Source: Information on production: The Office of Industrial Economics

Information on import-export: Electrical and Electronics Institute

Electrical Appliance Industry Outlook for 2023

In 2023, production and exports are expected to increase by about 5.0 to 10.0 percent compared to the previous year, from the global economy and Thailand's main export markets recovering from the COVID-19 outbreak. Additional factors include innovation and development of modern technology, especially electrical appliances related to health and the environment. Furthermore, the trade conflict between the US and China should allow Thailand to export some types of electrical appliances, such as air conditioners and refrigerators, to the US market, resulting in more demand for electrical appliances and supporting the volume of orders for electrical products in Thailand to continue to increase in 2023.

Production of electrical appliances in 2022* experienced a slight increase of 0.2% (YoY), with a production index of 103.8 points. This growth was due to an increase in foreign orders, particularly for electric motors (12.1%), compressors (10.8%), electrical cables (10.2%), fans (7.2%), and air conditioners (5.3%). However, several products that decreased in production, including microwave ovens (-18.6%), washing machines (-15.5%), electric thermo pots (-14.5%), rice cookers (-13.5%), and refrigerators (-4.7%) due to a decrease in domestic sales and orders from abroad.

Domestic sales in 2022* increased compared to the previous year, namely air conditioners (16.7%), compressors (6.4%), and refrigerators (0.2%). However, products that decreased in domestic sales included microwave ovens (-105.4%), washing machines (-87.0%), rice cookers (-27.3%), electric thermo pots (-9.7%), and fans (-2.1%).

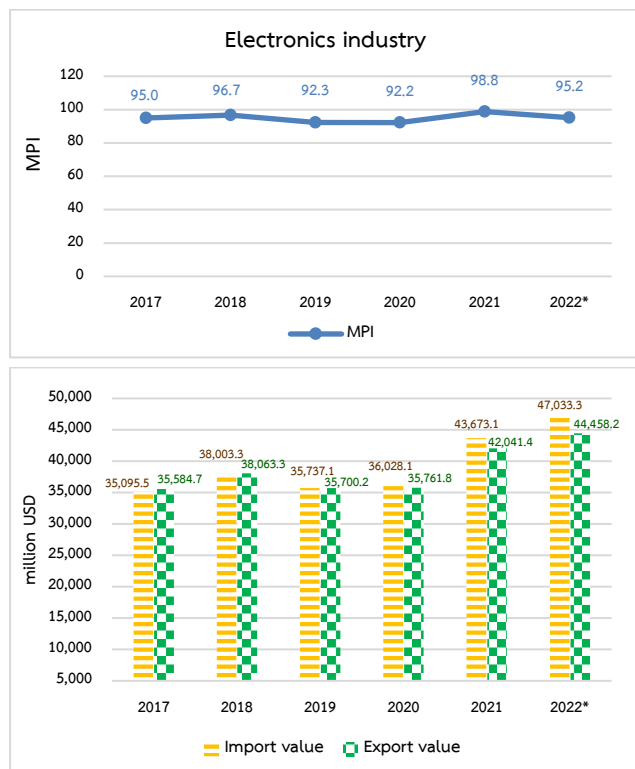
Imports of electrical appliances in 2022* valued at 17,980.7 million USD, a decrease of 1.6 percent from the previous year (%YoY) from imports of air conditioners, rice cookers, refrigerators, compressors, and washing machines.

Exports of electrical appliances in 2022* valued at 29,701.9 million US dollars, an increase of 5.9 percent from the previous year (%YoY) from exports of water heaters, electric transformers, electric motors, and air conditioners.

Electronics Industry

Production of electronics in 2022* contracted by 3.8 percent from 2022. Electronic products that decreased included PCBAs, semiconductor device transistors, printers, and ICs due to a shortage of raw materials in production and higher costs. In addition, printers, photocopiers and components, calculators, and integrated circuits, increased

MPI, Import and Export Value of Electronics



Source: Information on production: The Office of Industrial Economics
Information on import-export: Electrical and Electronics Institute

Electronics production in 2022* reached an MPI of 95.2 points, a contraction of 3.8 percent compared to the previous year. This was mainly due to the shortage of raw materials in production and higher costs. The decline was particularly evident in PCBA (-24.9%), semiconductor device transistors (-21.0%), printers (-5.1%), and ICs (-3.6%).

Exports of electronic products in 2022*, increased by 5.4 percent, to 44,458.2 million USD. This growth was driven by exports of printers, photocopiers and parts, calculators, and integrated circuits.

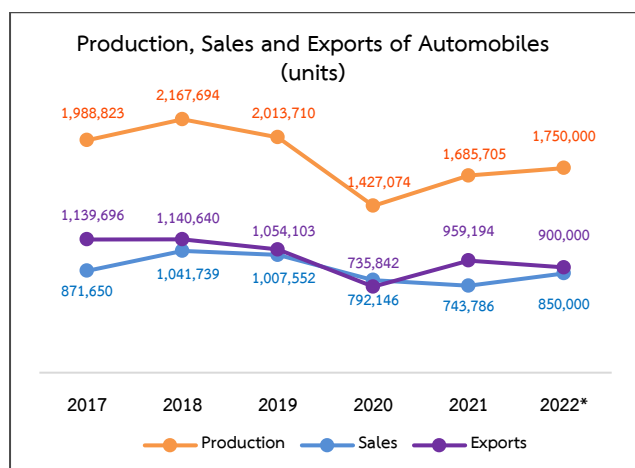
Imports of electronic products in 2022* also increased by 7.1 percent from the previous year, reaching a value of 47,033.3 million USD. This was primarily due to imports of integrated circuits, printed circuits, diodes, transistors, semiconductors, and their components.

Electronics Industry Outlook for 2023

“The electronics industry in 2023 is expected to increase in production and exports of electronic products by 5.0 to 10.0 percent compared to the previous year. The growth comes as the global economy recovers from the COVID-19 outbreak, and semiconductor product manufacturers adjust from a shortage of chips, resulting from continuous demand for electronic products. In addition, the rise of remote work and education will increase demand for electrical appliances and electronic products, both domestically and internationally.”

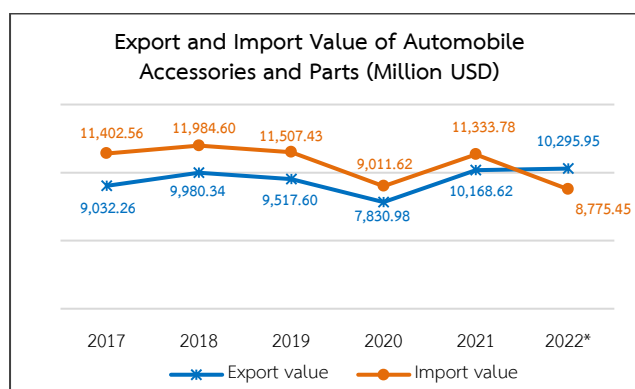
Automotive and Part Industry

The automobile industry is expected to experience a rise in production in 2023 compared to the previous year, primarily due to the resolution of the chip shortage; as a result, manufacturers can produce and deliver automobiles as normal. Additionally, with the easing of COVID-19 control measures, economic activities are returning to normal, which is expected to support the industry's growth further.



Source: - The Office of Industrial Economics; data gathered from the Automotive Industry Club, The Federation of Thai Industries

- * Estimation of the Office of Industrial Economics



Source: - Information and Technology Communication Center, Office of the Permanent Secretary, Ministry of Commerce in collaboration with Customs Department.

- * Estimation of the Office of Industrial Economics

Outlook for Automotive Industry for 2023

According to the Office of Industrial Economics, it is estimated that around 1,800,000 units will be manufactured, marking an increase of 2.86 percent from the same period last year. The production will be divided into approximately 50-55 percent for domestic sales and 45-50 percent for exports.

Automotive Production

In 2022, automobile production was expected to reach 1,750,000 units, an increase of 3.81 percent from the 1,685,705 units produced during the same period last year. The production was divided into passenger cars at 30 percent, 1-ton pickup trucks and derivatives at 67 percent, and other commercial vehicles at 3 percent.

Domestic Sales of Automobiles

In 2022, domestic sales of automobiles were expected to reach 850,000 units, an increase of 14.28 percent from the 743,786 units sold during the same period last year. The sales are divided into 31 percent passenger cars, 49 percent 1-ton pickup trucks, 15 percent PPV and SUVs, and 5 percent other commercial vehicles.

Exports of automobiles

In 2022, CBU exports were expected to reach 900,000 units, a decrease of 6.17 percent from the 959,194 units exported during the same period last year.

Export Value of Automotive Parts and Accessories

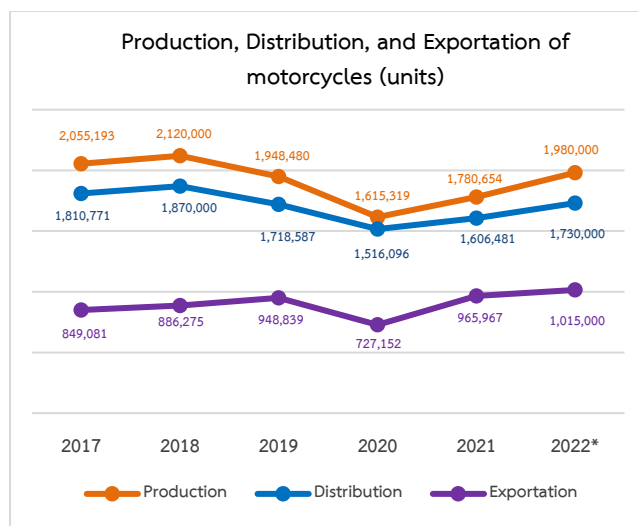
In 2022, export value of automotive parts and accessories was expected to be 10,295.95 million USD, an increase of 1.25 percent from the 10,168.62 million USD recorded during the same period last year. The major automotive parts and accessories export markets were the US, Japan, and Malaysia.

Import Value of Automotive Parts and Accessories

In 2022, the import value of automotive parts and accessories was expected to be USD 8,775.45 million, a decrease of 22.57 percent from the 11,333.78 million USD recorded during the same period last year. The major automotive parts and accessories import markets were Japan, China, and the US.

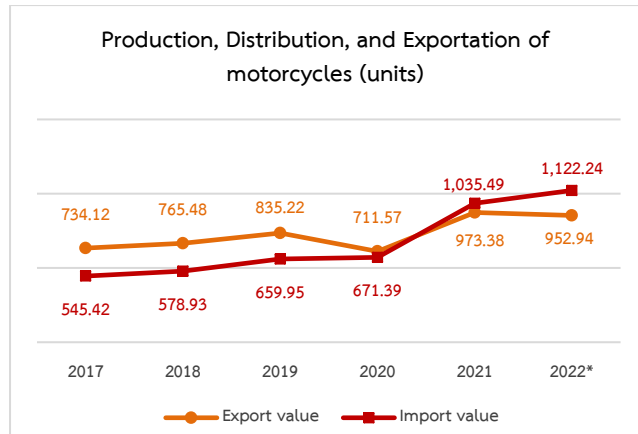
Motorcycle and Part Industry

The motorcycle industry in 2022 expects that the production of motorcycles will continue to grow compared to last year due to increasing demand in domestic and export markets. The domestic market will benefit from transportation businesses.



Source: - The Office of Industrial Economics; data gathered from the Automotive Industry Club, The Federation of Thai Industries

- * Estimation of the Office of Industrial Economics



Source: - Information and Technology Communication Center, Office of the Permanent Secretary, Ministry of Commerce in collaboration with Customs Department.

- * Estimation of the Office of Industrial Economics

Motorcycle Production

In 2022, the production of motorcycles was expected to reach 1,980,000 units, an increase of 11.20 percent from the 1,780,654 units produced during the same period last year.

Domestic Sales of Motorcycles

In 2022, domestic sales of motorcycles were expected to reach 1,730,000 units, an increase of 7.69 percent from the 1,606,481 units sold during the same period last year.

Motorcycle Exports (CBU&CKD)

In 2022, exports of motorcycles were expected to reach 1,015,000 units (404,000 completely built units (CBUs) and 611,000 completely knocked down units (CKDs)), which was an increase of 5.08 percent from the 965,967 units (437,147 CBUs and 528,820 CKDs) exported during the same period in the previous year.

Export Value of Motorcycle Parts

In 2022, the export value of motorcycle parts was expected to be 952.94 million USD, a decrease of 2.10 percent from the previous year's value of 973.38 million USD. The major export markets for these parts were China, Belgium, and the UK.

Import Value of Motorcycles Parts and Accessories

In 2022, the import value of motorcycle and bicycle parts and accessories was expected to be 1,122.24 million USD, an increase of 8.38 percent from the previous year's value of 1,035.49 million USD. The major import markets for these parts and accessories were Japan, the US, and China.

Outlook for Motorcycle Industry for 2023

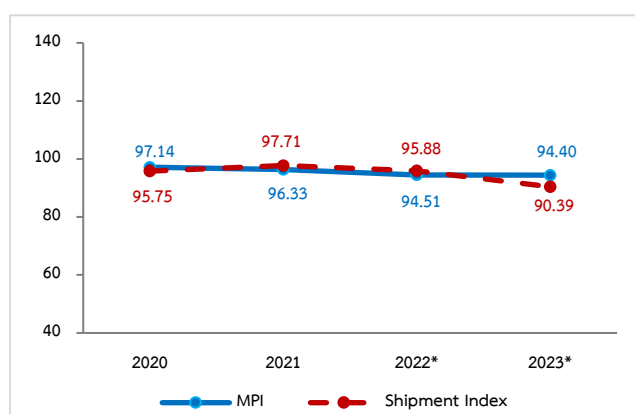
The Office of Industrial Economics forecasts that motorcycle production will increase and reach a total output of approximately 2,000,000 units. Out of the expected production volume, around 85-90 percent will be intended for domestic sales, while the remaining 10-15 percent will be for export.

Chemical Industry

In 2022, some operators in the chemicals industry delayed their production activities to monitor the increasing costs caused by the rising prices of crude oil. Certain products were only produced based on the needs of consumers. Despite this, the exports and imports of chemical products continued to grow, compared to the same period in the previous year, due to demand from key markets.

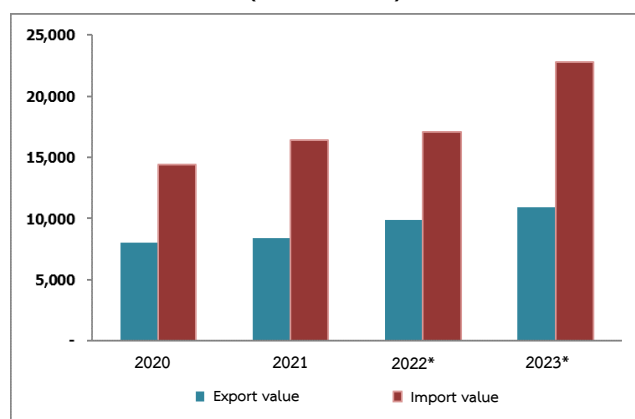
Marketing and sales

MPI and Shipment Index



Source: The Office of Industrial Economics, 2023* is the forecasted figures.

Export and import value of chemicals products
(Million USD)



Source: Information and Technology Communication Center, Office of the Permanent Secretary, Ministry of Commerce in collaboration with Customs Department, 2023* is the forecasted figures

The manufacturing Production Index in 2022 stood at 94.51 points, a decrease of 1.89 percent compared to 2021. Chemical products that contributed to the decline in the MPI were oil paint (-25.66%), fabric softener (-7.93%), and hair shampoo (-6.79%).

The shipment index in 2022 stood at 95.88 points, a decrease of 1.87 percent compared to 2021. Chemical products that contributed to the decline in the shipment index were chemical fertilizers (-31.28%), oil paints (-24.79%), and fabric softeners (-8.66%).

Exports of chemicals in 2022 were expected to increase by 17.64 percent compared to 2021, reaching a total value of 9,908 million USD. Products that increased in export value were chemical fertilizers (58.13%), organic chemicals (56.48%), and miscellaneous chemicals (36.40%).

Imports of chemicals in 2022 were expected to be worth 17,068.53 million USD, an increase of 3.81 percent compared to 2021. Chemical products that increased in import value were chemical fertilizers (58.13%), organic chemicals (56.48%), and miscellaneous chemicals (36.40%).

Outlook for Chemical Industry for 2023

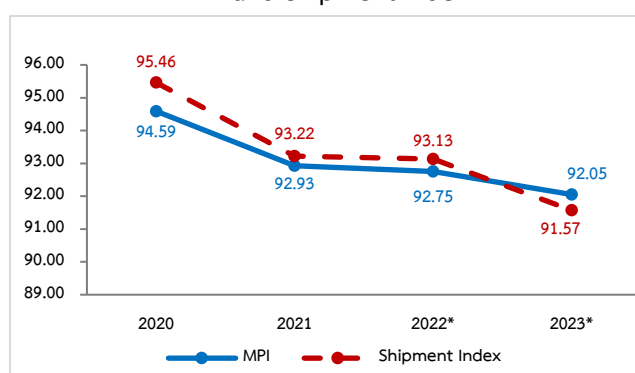
The chemicals industry in 2023 is likely to see increased crude oil prices. As a result, the export of oil-related products, such as plastic pellets and chemicals, will have increased raw material costs in producing products. Entrepreneurs will slow down production to monitor production costs. Exports and imports are forecasted to grow with the global economic recovery.

Plastics Industry

The plastic industry in 2022 experienced a rise in oil and gas prices, which caused an increase in the cost of raw materials used in the production process. The main raw material used in plastic production, plastic pellets, became more expensive, leading to a general price increase. As a result, some operators adjusted their selling prices to accommodate the rising costs, while others postponed production to wait and see if prices would stabilize. Despite these challenges, the exports and imports of plastic products continued to expand.

Production and Sales

MPI and Shipment Index

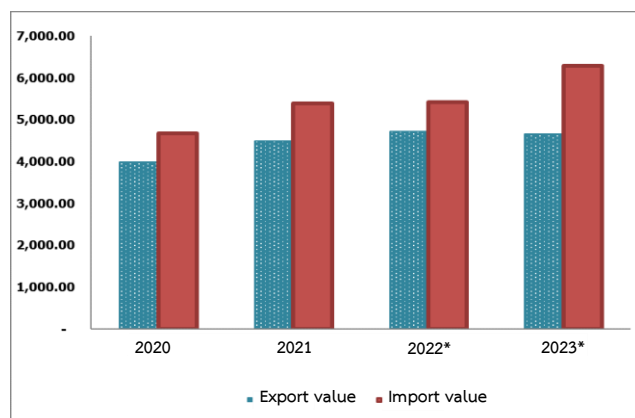


Source: The Office of Industrial Economics
2022* and 2023* are the forecasted figures.

The **manufacturing Production Index** in 2022 stood at 92.75 points and was expected to decrease by 0.19 percent compared to 2021. Plastics products that contributed to the decrease of the index were plastic pipes and fittings (-1.58%), plastic sheets (-4.16%), and plastic bags (-0.27%).

The **shipment index** in 2022 stood at 93.13 points and was expected to decrease by 0.10 percent compared to 2021. Plastics products that contributed to the decline in the index were plastic pipes and fittings (-1.85%), plastic sheets (-1.77%), and plastic bags (-0.30%).

Export and Import Value (MUSD)



Source: Information and Technology Communication Center, Office of the Permanent Secretary, Ministry of Commerce in collaboration with Customs Department
2022* and 2023* are the forecasted figures

Exports of plastic products in 2022 were expected to be worth 4,712.65 million USD, expanding by 5.0 percent compared to 2021. Plastics products that increased in export values were sanitary ware (HS 3922) (63.0%), household articles (HS 3924) (13.57%), and articles for the conveyance or packing of goods (HS 3923) (8.97%).

Imports of plastic products in 2022 were expected to be worth 5,415.43 million USD, an increase of 0.51 percent compared to 2021. Plastics products that increased import values were household articles (HS 3924) (15.70%), monofilament products (HS 3916) (15.29%), and sanitary ware (HS 3922) (12.29%).

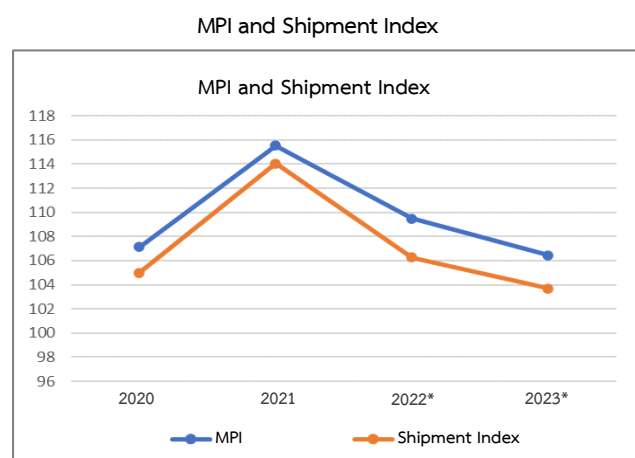
Outlook for Plastics Industry for 2023

The plastics industry in 2023 is expected to contract in the MPI from certain types of plastic products due to the growing trend towards environmentally friendly products and measures to reduce or eliminate the use of some types of plastic. As a result, entrepreneurs in the industry must adapt by producing alternative products or using more bio-renewable raw materials. However, the tourism revival is expected to lead to increased domestic economic activities, which may partially offset the decline in the production of certain plastic products. Additionally, imports and exports of plastic products are expected to continue to expand as major markets improve.

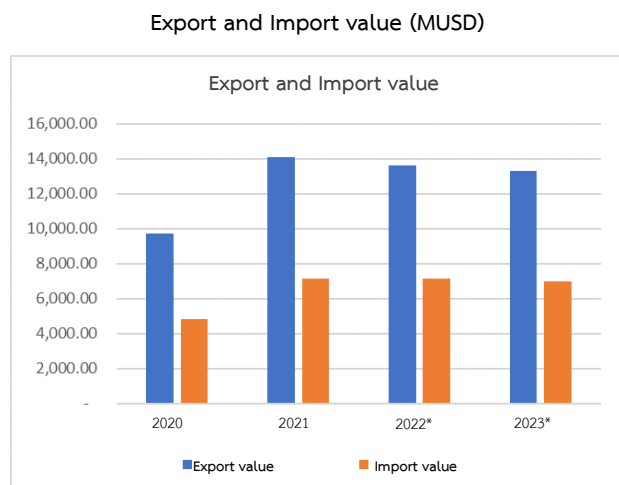
Petrochemical Industry

The overall petrochemicals industry anticipated a decrease of 5.22 percent in the MPI in 2022 compared to the previous year. Exports were also expected to decline by 3.18 percent and imports by 0.1 percent due to the global economic slowdown caused by the ongoing conflict between Russia and Ukraine, which has impacted oil prices and inflation caused by adjusted commodity prices. Furthermore, the persisting inflation has increased pressure on interest rates to align with higher US interest rates, resulting in a slowdown in investment and consumption.

Production and Distribution



Source: The Office of Industrial Economics,
2022* and 2023* are the forecasted figures.



Source: Information and Technology Communication Center, Office of the Permanent Secretary, Ministry of Commerce in collaboration with Customs Department
2022* and 2023* are the forecasted figures

Outlook for Petrochemical Industry for 2023

In 2023, the petrochemical industry foresees a decline in the MPI by 2 to 5 percent, and a contraction in exports of petrochemical products by 5 to 10 percent compared to 2022. The anticipated contraction in the petrochemical industry in 2023 is attributable to the global economic slowdown caused by inflation resulting from the escalation of oil and food prices in the world market. Additionally, investment is likely to slow down due to rising interest rates. Furthermore, despite the continued depreciation of the Thai Baht compared to the previous year, the sluggish market and increasing environmental protection trends are expected to hamper demand for petrochemical products, affecting production and exports.

The MPI in 2022 was expected to contract by 5.22 percent compared to 2021. Upstream and downstream petrochemical products that resulted in a contraction of MPI were propylene which decreased by 9.83 percent, and polyethylene by 7.04 percent.

The shipment index in 2022 was expected to contract by 8.62 percent compared to 2021 in almost all product groups. Upstream and downstream petrochemical products that contributed to the decline in the shipment index were ethylene and polyethylene, with a contraction of 10.99 percent and 6.94 percent.

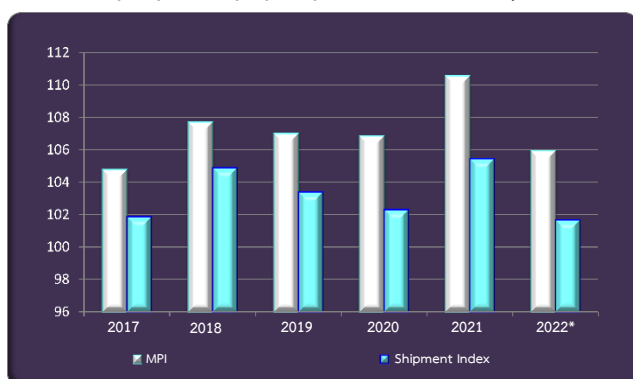
Exports of petrochemicals in 2022 were expected to be worth 13,639.43 million USD, a decrease of 3.18 percent compared to 2021. Upstream and downstream petrochemical products that contributed to the decline in exports were propylene (-9.83%) and polyethylene (-7.04%).

Imports of petrochemicals in 2022 were expected to be worth 7,165.68 million USD, a decrease of 0.1 percent compared to 2021. Upstream and downstream petrochemical products that contributed to the decline in import value were propylene (-12.74%) and PP resin (-0.43%).

Pulp, Paper, and Print Media Industry

The pulp, paper, and printing industry in 2022 saw a contraction in the total industrial production index of the pulp industry and paper products, aligned with the decline in the shipment index. The decline in production and shipment indexes was attributed to declined orders from major trading partners.

MPI – Shipment Index of
pulp and paper products Industry



Source: The Office of Industrial Economics

Export-Import of Pulp, Paper and Print Media



Source: Information and Technology Communication Center, Ministry of Commerce
Import – export value was forecasted by the Office of Industrial Economics.

Production

In 2022, there was a decrease in production and sales of paper and paper products by 4.19% and 3.59%, respectively, compared to the previous year. This decrease was observed in all product groups, with the pulp group experiencing the most significant decline of 8.27%. More than 90% of the orders for pulp came from China, which was still struggling with the COVID-19 outbreak. However, printing and writing paper production continued to grow domestically and in exports.

Exports

The value of exports for pulp and paper products in 2022 was 2,421.98 million USD, a slight decrease of 0.35 percent compared to the previous year. Pulp exports contracted by 4.47 percent, while paper and paper products, books, and publications sectors saw growth of 1.32 and 6.28 percent, respectively. The growth was attributed to increasing demand and orders from trading partners in ASEAN.

Imports

The imports of pulp and paper products in 2022 amounted to 3,547.19 million USD, which showed an increase of 5.63 percent compared to the previous year. This increase was due to a relatively large reduction in domestic production. Some of them also need to be imported, especially pulp, recycled paper or cardboard, and paper products such as packaging paper, newsprint, and paper products such as packaging paper, newsprint, printing and writing paper, and Kraft paper, among others.

Outlook for 2023

In 2023, the demand for paper products used in packaging, such as cardboard, Kraft paper, and corrugated paper, is expected to increase due to domestic consumption growth. With the rise of online shopping, paper packaging is expected to benefit from the increased demand, some of which may be imported. If China eases its COVID-19 control measures, exports of pulp are expected to rebound, given that China is a major trading partner for pulp. The publication sector is expected to experience growth in printed books, brochures, leaflets, and other publications.

Ceramic Industry

In 2022, the production and exports of floor and wall tiles increased from last year, which was in line with higher demand from trading partner markets, while sanitary ware sales grew due to increased demand from real estate operators.

Production, Sales, and Export of Ceramics



Source: 1. Domestic Production and Sales: Division of Information and Industrial Economic Indices, Office of Industrial Economics (OIE) (estimated figures)
Note: From the survey of 13 wall and tiling factories and 34 sanitary ware factories
2. Export Value: Information and Technology Communication Center, Office of the Permanent Secretary, Ministry of Commerce and estimated by OIE

Production of floor and wall tiles in 2022 reached 131.71 million square meters, increasing by 0.74 percent (YoY) to meet the demand from export markets. Meanwhile, the production of sanitary ware decreased by 7.74 percent (YoY) to 7.21 million pieces due to reduced orders from European trading partners.

Sales of floor and wall tiles reached 157.15 million square meters in 2022, a decline of 0.78 percent (YoY) due to economic conditions and the reduced purchasing power of consumers. However, sales of sanitary ware increased by 8.06 percent (YoY) to 3.39 million units due to higher demand from real estate operators and market stimulus measures of the private sector.

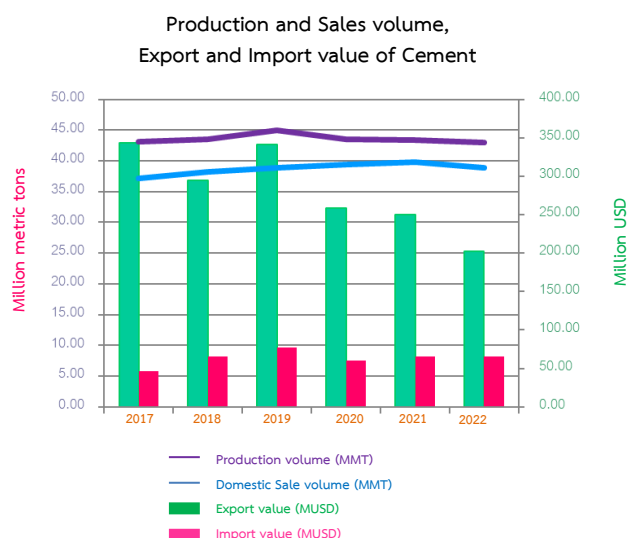
Exports of floor and wall tiles in 2022 were valued at 123.76 million USD, increasing by 21.62 percent (YoY), driven by demand from trading partner markets in CLMV. However, the export value of sanitary ware contracted by 13.55 percent (YoY) to 223.52 million USD.

Ceramic Industry Outlook for 2023

The production and sales of ceramics in 2023 are expected to grow from the production of sanitary ware and the sale of floor and wall tiles in response to consumer demand and the government's economic stimulus measures. However, key factors may still affect the growth, such as the cost of raw materials and transportation, domestic retail prices of fuel, and the rising cost of living for consumers. The export value of ceramic products is expected to slow following demand from trading partners, the global economy, and the spread of COVID-19 in many countries. If the situation returns to normal, exports may recover in the last six months of 2023. The key export markets for ceramic products will still be the US, China, Japan, and CLMV.

Cement Industry

In 2022, the cement industry experienced a decline in production volume, sales volume, and value of exports compared to the previous year. This can be attributed to several factors, including the impact of inflation and higher energy prices due to the Russian-Ukrainian conflict. Furthermore, the import value also decreased from the previous year.



Source: 1. Domestic Production and Sales: Division of Information and Industrial Economic Indices, Office of Industrial Economics (OIE) (estimated figures)
2. Export-Import Value: Information and Technology Communication Center, Office of the Permanent Secretary, Ministry of Commerce and estimated by OIE

Cement production (excluding clinker) in 2022 amounted to 42.96 million metric tons, a decrease of 0.86 percent from last year.

Domestic sales of cement (excluding clinker) in 2022 slightly decreased by 2.08 percent (%YoY) to 38.93 million tons, mainly due to inflation and higher energy prices caused by the Russian-Ukrainian conflict and the ongoing impact of the COVID-19.

Cement exports and imports (excluding clinker) in 2022 decreased by 19.16 percent (%YoY) to 202.53 million USD compared to the previous year. The decline was mainly due to the economic impact of the Russian-Ukrainian conflict and the ongoing spread of the COVID-19, which affected major export markets such as Bangladesh and Myanmar, the same as Thailand.

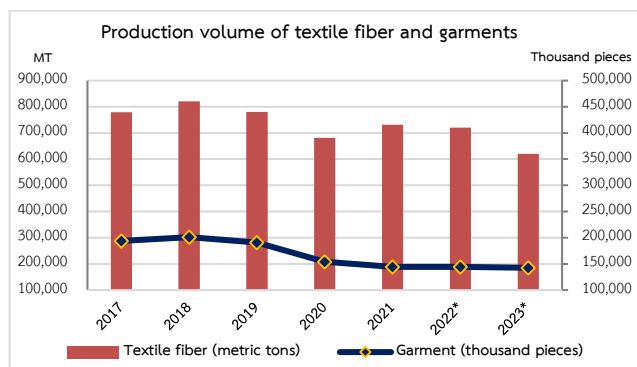
Imports also decreased by 0.41 percent (%YoY) to 65.20 million USD, with Lao PDR and Taiwan being the main contributors to the decline.

Cement Industry Outlook for 2023

"In 2023, the cement industry (excluding clinker) is expected to slow down. This is due to the positive factor from the government that has continued to expand the construction of large-scale infrastructure projects. However, the cement industry is still exposed to several negative factors, both domestically and abroad, that affect the real estate sector. In addition to the Loan to Value (LTV) measure ending by the end of 2022, important factors will continue to affect the global economy until 2023, namely the protracted conflict between Russia and Ukraine. If the situation becomes more severe, it will cause global economic growth to slow down due to energy prices, inflation, and higher interest rates, affecting the cost of entrepreneurs and the purchasing power of consumers. In addition, the trend of the COVID-19 that may return to spread again will cause economic growth in the next year to slow down even more."

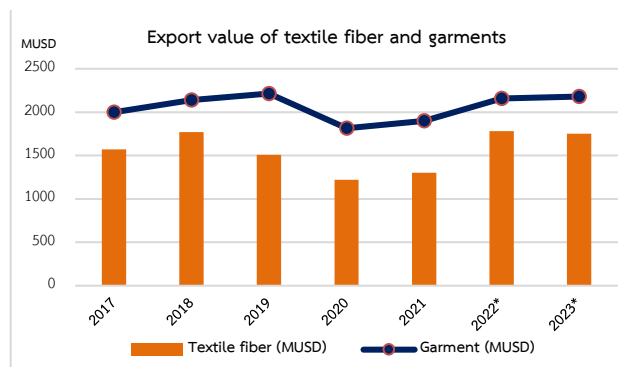
Textile and Wearing Apparel Industry

In 2022, production is expected to grow from woven fabrics (synthetic fibers). Domestic sales will expand from textile fibers and garments due to the growing demand for exporting raw materials. Additionally, the relaxation of COVID-19 measures in many countries will increase exports in key markets such as the US, UK, and China.



Source: The Office of Industrial Economics, Ministry of Commerce

/ 2022-2023 are forecasted figures



Production

In 2022, fabric products are expected to increase by 3.73 percent (%YoY) from woven fabrics (synthetic fibers) due to last year's low base affected by the COVID-19 pandemic. This was coupled with the recovery of the tourism sector and momentum from the recovering market of key trading partners.

Meanwhile, textile fibers and garments contracted by 1.44 and 0.20 percent (%YoY) due to declining domestic consumption and a slowdown in orders from trading partners and key markets.

Domestic Sales

In 2022, textile fibers and garments are expected to increase by 0.63 percent and 0.11 percent (YoY) due to rising demand for raw materials for export, the domestic economic situation, and the recovery of the tourism sector. Meanwhile, fabrics contracted by 3.99 percent due to the slowdown in the purchasing power of domestic consumers, especially the main tourist groups like China, who have not returned yet

Exports-Import

Exports of textiles and garments for the whole year of 2022 are expected to grow throughout the supply chain, reaching a value of 6,994.14 million USD, an increase of 7.17 percent (%YoY). Considering the product categories, textile fibers are expected to value 1,782.80 million USD, an increase of 9.57 percent, and garments are expected to value 2,158.67 million USD, an increase of 8.01 percent increase due to the COVID-19 pandemic improving in key trading partner countries, causing economic activities to return to normalcy. Thus, exports will continue to increase in key markets such as the US, Japan, Belgium, China, and Italy.

Outlook for 2023

Production is forecasted to slow with global demand and trading partner economies. Exports and domestic sales are expected to grow slightly from the recovery of the tourism sector, the relaxation of international travel measures, and the government's economic stimulus measures. As a result, domestic consumption has increased. Additionally, the export of garments continued to grow. However, there may be risk factors such as inflation in many countries and power shortages in Europe, which may be a pressure factor that causes the economy of trading partner countries to slow down. Additionally, the increase in electricity and labor costs may impact the production costs of the textile and wearing apparel industry as well.

Wood and Wooden Furniture Industry

Compared to the previous year, it is expected that in 2022, the production and domestic sales of wooden furniture will decrease by 23.69 percent and 2.40 percent, respectively, due to rising living costs and inflation, affecting consumer spending. The export value of wood and wood products is expected to increase by 3.39 percent due to the increasing demand from major trading partners such as the United States and China.

Domestic Production and Sales of Wooden Furniture (million pieces)

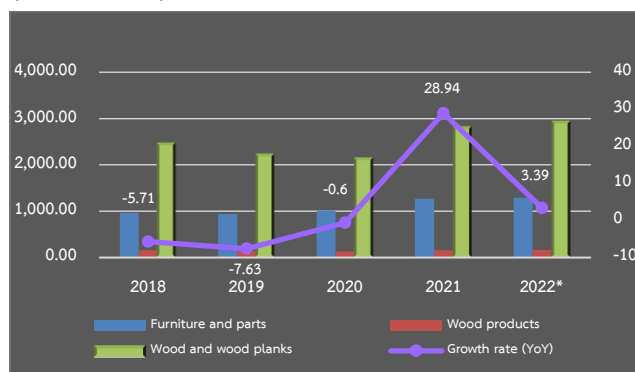


Source: The Office of Industrial Economics Note: * estimated value

Production of wooden furniture in 2022 was expected to reach 8.31 million pieces, a decrease of 23.69 percent compared to the previous year. This was mainly due to the high production base last year and the slowdown in the domestic market.

Domestic sales of wooden furniture in 2022 are expected to reach 1.22 million pieces, a decrease of 2.40 percent compared to the previous year. This was due to the economic slowdown in the country, inflation, and the rising cost of living. As a result, consumers' spending power was reduced.

Export Value of Wood and Wooden Products (million USD)



Source: Ministry of Commerce Note: * estimated value

Exports value of wood and wooden products in 2022 are expected to reach a value of 4,392.20 million USD, increasing by 3.39 percent compared to the previous year. The export value of wood and wooden sheet products was expected to reach 2,935.78 million USD, an increase of 4.17 percent compared to the previous year. Furniture and parts were expected to reach 1,293.31 million USD, an increase of 1.74 percent, and wooden products were expected to reach 163.11 million USD, an increase of 2.80 percent. Overall, the export value of wood and wooden products was expected to increase in all product groups due to increasing demand from major trading partner countries such as the US and China and the growth in the Saudi Arabian market. This was a result of the recent restoration of relations and the opening of trade between the two countries.

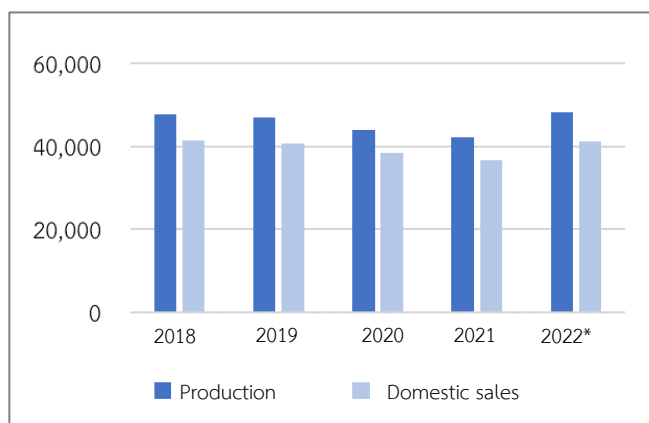
Wood and Wooden Furniture Industry Outlook for 2023

"The production and domestic sale of wooden furniture in 2023 is expected to increase from production to meet domestic and international market demand. The export value of wood and wooden products is expected to increase from the value of wooden furniture exports to the US market and the value of processed wood products to the Chinese market, which will increase continuously. The value of imported wood and wood sheet products is expected to increase from the demand for raw materials used in the production process that is forecasted to grow."

Pharmaceutical Industry

In 2022, the production and domestic sales are expected to grow compared to last year by 13.99 percent and 11.77 percent, respectively, following higher demand from more elderly people and patients that continues to increase. Exports are expected to continue to grow well in the key ASEAN markets.

Domestic Production and Sales (metric tons)



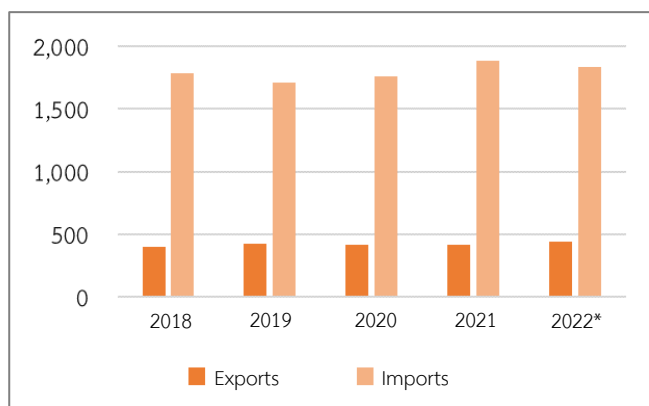
Source: The Office of Industrial Economics

Note: * Estimated by the Office of Industrial Economics

Pharmaceutical production in 2022 was expected to reach a volume of 48,091.73 tons, an increase of 13.99 percent from the previous year, mainly due to the growth in the production of tablets, liquids, capsules, and creams. The growth followed increasing orders from the domestic market. In particular, hospitals had to stock up medicines to prevent shortages of certain medicines. The growth was also to support the needs of patients with both communicable and non-communicable diseases (NCDs).

Pharmaceutical sales in 2022 were expected to reach 41,018.55 metric tons, an increase of 11.77 percent from the previous year, as the demand for use in the country increased due to the rising number of elderly people and patients.

Pharmaceutical Import-Export Value (Million USD)



Source: Ministry of Commerce

Note: * Estimated by the Office of Industrial Economics

Exports of pharmaceuticals in 2022 were expected to value 441.36 million USD, an increase of 5.70 percent from the previous year due to market expansion in ASEAN, such as Myanmar, Cambodia, Vietnam, Lao PDR, Malaysia, Singapore, and Indonesia. Pharmaceutical imports are expected to value 1,830.14 million USD, a contraction of 2.88 percent from the previous year. The pharmaceutical imports decreased mainly from key markets such as India, Japan, Italy, Switzerland, the UK, Spain, and China.

Pharmaceutical Industry Outlook for 2023

The production and domestic sales of pharmaceuticals in 2023 are expected to decrease by 4.00 to 6.00 percent due to the relatively high base in 2022. However, it will still be on a good average following the direction of the pharmaceutical demand, which will increase continuously. Furthermore, exports are expected to grow more, especially in the ASEAN market.

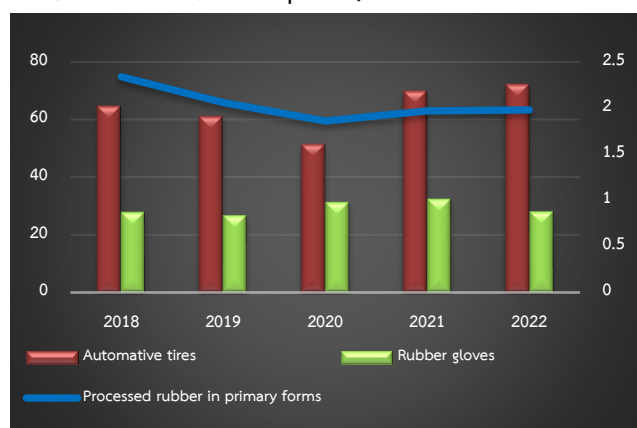
Government Policies Relevant to the Pharmaceuticals Industry

The government has provided budget support totaling 5,280.22 million Baht to research institutes and the private sector in developing a COVID-19 vaccine in Thailand, with progress being made sequentially. Some of them are expected to be able to register within 2023.

Rubber and Rubber Product Industry

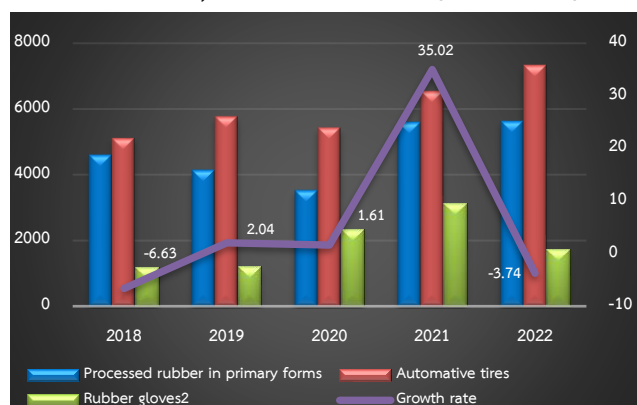
In 2022, the production of processed rubber in primary forms was predicted to increase by 0.5 percent compared to the previous year, primarily to fulfill the requirements of international markets. Meanwhile, automotive tire production volume increased by 3.42 percent, driven by the growth of both domestic and foreign markets. However, the production of rubber gloves decreased by 13.55 percent due to the reduced demand for rubber gloves to prevent diseases.

Production Volume of Processed Rubber in Primary Form, Automotive Tires, and Rubber Gloves (million metric tons/million tires/billion pieces)



Source: The Office of Industrial Economics, Note: * Estimated figures

Export Value of Processed Rubber in Primary Forms, Automotive Tires, and Rubber Gloves (million USD)



Source: Ministry of Commerce, Note: * Estimated figures

The production of processed rubber in primary forms, automotive tires, and rubber gloves in 2022 was expected to reach 1.98 million metric tons, 72.18 million tires, and 27,986.75 million pieces, respectively. Compared to last year, processed rubber in primary forms production was projected to increase by 0.51 percent, mainly due to increased block rubber production. Automotive tire production was projected to rise by 3.42 percent due to an increase in passenger car tires, pick-up truck tires, truck and bus tires, and tractor tire production. However, the production of rubber gloves was projected to decrease by 13.55 percent due to declining demand both domestically and internationally.

Sales of processed rubber in primary forms, automotive tires, and rubber gloves in 2022 were expected to reach 0.46 million metric tons, 45.52 million tires, and 2,347.51 million pieces, respectively. Compared to last year, the sale volume of processed rubber in primary forms decreased by 4.17 percent due to lower demand from downstream industries. Tire sales increased by 1.95 percent in line with the expansion of the domestic automotive industry, while rubber glove sales decreased by 5.61 percent due to weaker demand.

Exports of processed rubber in primary forms, automotive tires, and rubber gloves in 2022 were expected to be worth 5,624.94, 7,330.34, and 1,736.00 million USD, respectively. Compared to last year, the value of processed rubber in primary forms and automotive tire exports increased by 0.63 and 12.02 percent, respectively, due to strong growth in major export markets. However, the export value of rubber gloves decreased by 44.48 percent due to lower demand and prices.

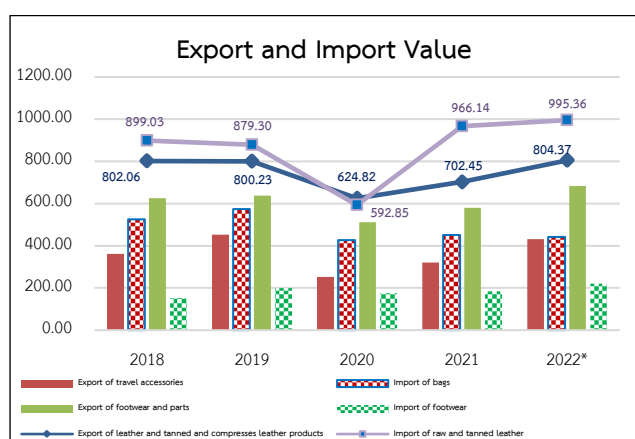
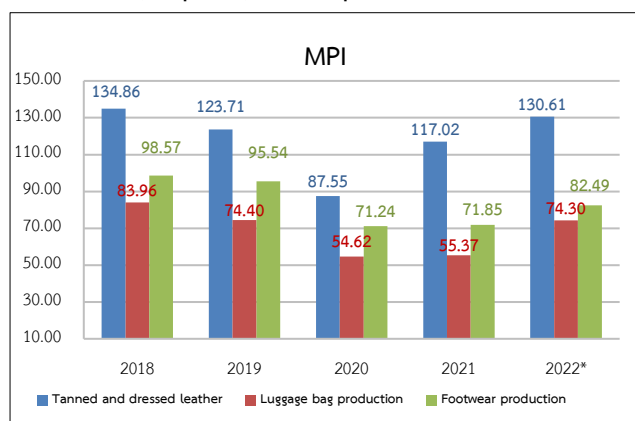
Rubber and Rubber Products Industry Outlook for 2023

It is projected that the production of processed rubber in primary forms and automotive tires will grow further in 2023 due to the increasing demand in both domestic and international markets. However, the production of rubber gloves is anticipated to decrease as there is a continuing trend of declining demand for rubber gloves domestically and internationally.

Footwear and Leather Product Industry

In 2022, the footwear and leather industry was expected to see an increase in the production, tanning and dressing of leather, as well as the manufacture of bags and shoes, due to rising demand from both domestic sales and exports.

Production, Exports, and Imports (MUSD)



Source: 1. MPI – The Office of Industrial Economics

2. Export & Import Value – Ministry of Commerce

* including handbags and similar products, saddles, and harnesses

Production

The MPI of tanning and dressing of leather in 2022 was expected to increase by 11.61 percent compared to the previous year. The production of bags was expected to grow by 34.20 percent, and footwear by 14.81 percent, from increasing demand, both domestically and internationally, as the government had measures to stimulate spending and foreign countries relaxed COVID-19 control measures.

Exports-Imports

Exports in 2022 were projected to reach around 2,018.82 million USD, an increase of 23.89 percent compared to the previous year. The increase was driven by the value of leather, tanned, and bonded leather products; travel accessories; and footwear and parts exports, which grew by 15.99 percent, 58.07 percent, and 13.95 percent, respectively. The relaxation of COVID-19 measures in many countries and the reopening of their economies also contributed to this growth. However, the uncertainty of energy prices and the impact of the Russian-Ukrainian conflict and global inflation on global transportation systems may lead to fluctuations in product prices.

Imports in 2022 were expected to reach approximately 2,126.18 million USD, an increase of 12.59 percent compared to the previous year. This was a result of the imports of bags and footwear, which increased by 51.39 percent and 22.31 percent, respectively, due to the start of tourism for both Thai and foreign tourists and government spending stimulus measures which resulted in more people spending.

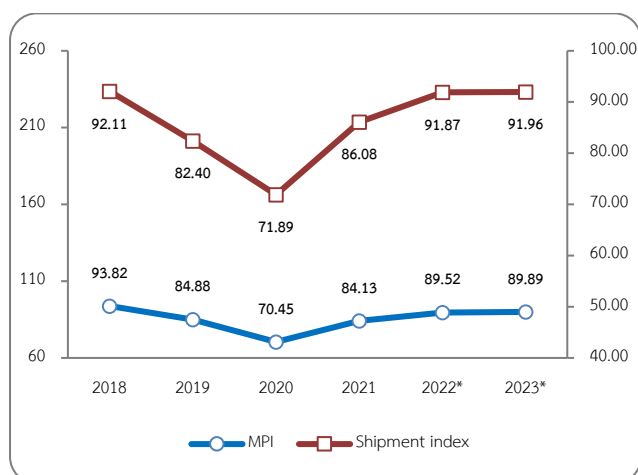
Footwear and Leather Production Industry Outlook for 2023

"For the production of footwear and leather products in 2023, it is expected that the production of tanned leather and dressing of leather, and the manufacture of footwear, will decrease slightly while the production of bags will increase slightly. Domestic sales are expected to improve in all products. Exports are expected to begin to recover as many countries ease COVID-19 measures and begin to open up the country. In addition, the government has measures to stimulate spending, including stimulating tourism from foreigners. However, factors that must be monitored include the protracted geopolitical conflict, which may impact fluctuating energy prices, and the inflation, which may impact the global economy."

Gems and Jewelry Industry

In 2022, the overall production of gems and jewelry increased from the production of genuine and artificial jewelry due to increased exports and domestic consumption after the relaxation of COVID-19 control measures in many countries. This resulted in improved consumption activities. Exports (excluding gold) continued to grow in key markets such as Switzerland, Singapore, and the US.

Production, Sales, and Exports



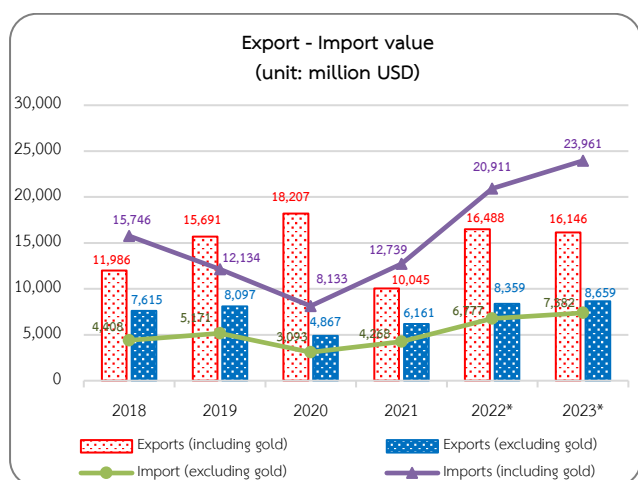
Production

The overall production of gems and jewelry in 2022 was expected to increase by 6.40 percent. The production of genuine and artificial jewelry was expected to increase by 5.54 percent and 14.46 percent from production for export to foreign markets. This was coupled with increasing domestic consumption after many countries' relaxation of COVID-19 control measures. In addition, there has been an increase in the number of tourists resulting in better consumption activities. The production of polished diamonds decreased by 8.93 percent.

Exports - Imports

In 2022, the exports of gems and jewellery (excluding gold) were expected to reach a total value of 8,358.94 million USD, an increase of 35.67 percent, from the export of diamonds, gemstones, genuine jewellery, and artificial jewellery, which increased by 46.14 percent, 77.01 percent, 25.27 percent, and 27.43 percent, respectively. Major markets included Switzerland, Singapore, and the US. Considering overall exports, the total value was expected to be 16,487.55 million USD, an increase of 64.13 percent from the value of unwrought gold exports, which grew by 109.28 percent

In 2022, the imports of gems and jewellery (excluding gold) were expected to reach a total value of 6,777.43 million USD, an increase of 58.79 percent from the import of diamonds, gems, genuine jewellery, and artificial jewellery, by 85.57 percent, 113.75 percent, 62.30 percent, and 72.51 percent, respectively. The growth was in key markets, including Switzerland, Hong Kong, and India. Overall imports were valued at 20,910.92 million USD, an increase of 58.79 percent.



Source: 1. MPI and Shipment Index — the Office of Industrial Economics

2. Export and import value — Ministry of Commerce

Note: * Estimated by the Office of Industrial Economics

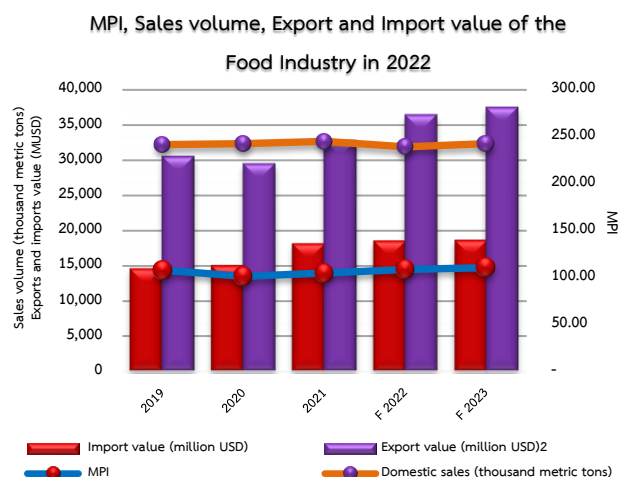
Gems and Jewelry Industry Outlook for 2023

"The overall production of gems and jewelry in 2023 is expected to slightly improve, from exports to foreign markets and increased domestic consumption after the relaxation of COVID-19 control measures in many countries. The increased number of tourists resulted in better consumption. The exports of gems and jewelry (excluding gold) are expected to increase in value following orders from major trading partners and the depreciation of the Baht. However, the risk from the tight monetary policy of major trading partners and global geopolitical conflicts in different regions may contribute to the global economic slowdown, including the spread of COVID-19 that is still increasing in the number of infected people."

Food Industry

The MPI and exports of the food industry in 2022 grew compared to the previous year, from the gradual recovery of the global economy after the relaxation of COVID-19 control measures and the demand for goods of various countries for food security amid the Russian-Ukrainian conflicts.

MPI, Sales, Exports, and Imports of industrial products



Source: (1) The MPI collected from the Office of Industrial Economics.
(2) Export-import value compiled from the Ministry of Commerce by the grouping of the Office of Industrial Economics

The MPI of the food industry in 2022 reached 108.7 points, an increase of 3.8 percent from the COVID-19 control measures. As a result, the economy gradually recovered. The full opening of the country has resulted in more tourists and increased consumption. Orders from both domestic and foreign countries increased in line with economic growth. The food products that saw good growth in MPI were chilled and frozen chicken, palm oil, tapioca starch, and sugar.

Food Industry Outlook for 2023

"In 2023, the overall MPI of the food industry is expected to grow as Thailand welcomes tourists, together with the relaxation of various measures in the country. Product groups expected to grow well in 2023 include chilled and frozen fruits that are still popular in China, and there are products in which Thailand is exempt from import duties. Tapioca products such as tapioca starch to replace corn starch which is still high in price. Chilled and frozen chicken with continuous growth from new market expansions and sugar with higher prices. Processed foods and animal feeds are also expected to grow as Thailand can expand new markets to Middle East countries. However, although the overall industry is forecasted to grow, there are still factors to monitor, such as the global economic recession, especially among Thailand's main trading partners. This may affect some agricultural products that grew well in the past year. Other factors include raw materials and energy costs that are still fluctuating. As a result, the cost of production factors such as chemical fertilizers may increase."

Domestic food sales in 2022 reached 239.2 million metric tons, a decrease of 1.4 percent (%YoY) from the following important products: 1) frozen shrimp due to rising raw material prices; 2) rice whiskeys, as consumers, reduced unnecessary expenses due to inflation; and 3) ready-to-drink milk due to reduced output.

Exports in 2022 were valued at 36,489.1 million USD, an increase of 13.8 percent (%YoY). This growth was primarily driven by major exports, namely: 1) cassava products, as China, the largest export market, has a significant demand for the ethanol industry and food; 2) chilled and frozen chicken, as the Chinese market unlocked imports of chicken and Thailand looked for new export markets; 3) pet food, owing to the increasing pet raising trends worldwide; and 4) vegetable and animal fats and oils, due to the relaxation of COVID-19 measures, leading to an increase in orders and exports of crude palm oil. Additionally, there was a large amount of palm production in the market this year.

Imports in 2022 were valued at 18,607.1 million USD, an increase of 2.2 percent (%YoY) from 1) fats and vegetable oils from higher consumer demand following economic growth; 2) oilseed meals to support the expansion of the animal feed industry; 3) Fisheries such as fresh, chilled, and frozen tuna, as needed for canned tuna reserves for food security; and 4) flour products to support the expansion of the instant noodles and baked goods industry.

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• Wood and Wooden Furniture Industry	Division of Industrial Policy by Sector 2	0-2430-6805
• Pharmaceutical Industry	Division of Industrial Policy by Sector 2	0-2430-6805
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