

# Report on the Industrial Economics Status

Year 2023 and outlook for 2024



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# Executive Summary

## Summary of the Thai Industrial Economic Status for 2023 and Outlook for 2024

The industrial economy status in 2023, when considered from the Manufacturing Production Index (MPI), is expected to decrease by 4.8 percent compared to last year, in line with the slowdown of the world economy, geopolitical tensions that affect the wider supply chain, high energy prices and interest rates, and decreased consumption and investment. **Key industries that slowed down in 2023** were **computers and peripherals**, where production decreased mainly in Hard Disk Drives and printers as manufacturers reduced production plans due to continued slowdown in demand from the impact of the world economy. Printers decreased from last year as the products were ordered to be produced instead of the branch in Vietnam, which was unable to produce at the time. **Furniture production** decreased, mainly from wooden and metal furniture, due to the global economic slowdown. As a result, many companies received fewer orders. **Upstream iron and steel production** decreased mainly from hot rolled steel sheets, cold rolled steel, and structural steel, with customers reducing orders to observe steel price trends and importing more products from abroad. **Industries that grew in 2023** were **automobiles**, where production increased from compact cars and medium-sized passenger cars, in line with the expanding export market. Gasohol and jet fuel grew, mainly as a result of increased domestic travel activities. **Sugar** increased from white sugar and refined white sugar, in line with the continuously growing consumption in both domestic and export markets.

## Outlook for 2024

The Manufacturing Production Index (MPI) for 2024 is expected to grow 2.0 to 3.0 percent. **The supporting factors** are: (1) Thailand's international trade with its main trading partners is likely to gradually recover. (2) Major economies are delaying raising interest rates. (3) The tourism and service sector will continue to grow. (4) Private investments are expected to grow continuously. (5) Continuous push of government measures to stimulate the economy and alleviate living costs. **Factors to monitor** include the long-term global economic slowdown and geopolitical tensions, which may have a wide impact on the supply chain. In addition, production costs, living expenses, and business and household debt are high due to energy prices. High-interest rates may be a factor in putting pressure on the production sector and consumer purchasing power. In addition, currency fluctuations and the El Niño phenomenon are still an issue that needs to be monitored continuously.

 **Iron and Steel:** In 2024, the iron and steel industry expects that production will decrease by 3.7 percent compared to the previous year from increased imports of cheap steel from abroad, which will affect the amount of domestic steel production. Steel consumption in 2024 is expected to reach 16.8 million tons, a growth of 0.6 percent compared to the previous year, from the growth of private investment. Important issues worth monitoring include the world economic and trade situation and the implementation of China's steel industry policy, which is the world's largest producer, consumer, and exporter of steel, as it will impact the domestic production volume of steel products.

↓ Electrical Appliances Industry: In 2024, the electrical appliances industry is expected to shrink by approximately 1.0 to 3.0 percent compared to the previous year, as production costs or raw material prices remain uncertain and the global economic trend may slow down. Meanwhile, exports are expected to grow by approximately 2.0 to 8.0 percent compared to the previous year, from the demand for electrical products and services that are expected to continue growing in developing countries such as India and Vietnam, as consumers and businesses in the region look to develop the technological infrastructure in the country and provide more amenities for citizens or consumers.


↑ Electronics Industry: In 2024, the electronics industry is expected to increase in production and exports by approximately 1.0 to 5.0 percent compared to the previous year. The growth comes from the growing demand for electronic products for infrastructure in developing countries and the development of IoT information technology. However, consumer demand for electronic products may decrease from technology with greater capacity and the durability of equipment such as computers and peripherals, coupled with geopolitical uncertainties such as the Ukraine-Russia war and the trade war between the USA and China, which may create obstacles to industrial development or affect Thai entrepreneurs. Therefore, the situation must continue to be monitored.


↑ Automobile: The Office of Industrial Economics estimates that approximately 1,900,000 units will be produced, an increase of 2.70 percent from last year. The expected output comprises approximately 40 to 45 percent of production for domestic sales and 55 to 60 percent for exports.


↔ Motorcycle: The Office of Industrial Economics estimates that approximately 2,200,000 units will be produced. The expected output comprises 85 to 90 percent of production for domestic sales and 10 to 15 percent for exports.

↑ Pulp, Paper, and Print Media: The trend in 2024 is expected to be a good opportunity for the pulp, paper, and paper packaging industry. In 2023, the industry faced various situations, including production, exports, imports, export markets, and paper prices, which were volatile, and domestic demand, which had not fully recovered yet. However, the export sector is expected to grow from pulp, paper, and products from key importing countries like China. The paper and product group is expected to expand in ASEAN. However, entrepreneurs will still have to monitor the various factors, including the ongoing war and the competition between China and the USA, which may cause the cost of packaging raw materials to increase.

↑ Textiles and Wearing Apparel: Production is expected to grow slightly from the government's economic stimulus measures and policies to ease the burden of expenses on the people both in the short and long term. Exports and domestic sales are expected to grow slightly from the recovery of the tourism sector, together with the government's economic stimulus measures. As a result, domestic consumption will increase. Additionally, exports of textile fibers, fabrics, and garments are expected to continue growing. However, factors to be monitored include geopolitical conflicts, continuous increases in policy interest rates of major economies, the global economic slowdown, inflation in many countries, and energy shortages in Europe. These factors may be pressing factors that cause the economy of trading partners to slow down. Furthermore, an increase in electricity prices and labor wages will affect the production costs of the textile and clothing industry.

 Pharmaceuticals: In 2024, production and domestic sales of pharmaceuticals are expected to shrink by 0.25 to 0.50 percent compared to the previous year. The contraction is a result of trends in the capacity of the public health system to deal with epidemics or emerging diseases more efficiently. Furthermore, medical and public health technology has advanced rapidly. Meanwhile, pharmaceutical exports and imports in 2024 are expected to grow by 0.25 to 1.50 percent, in line with the growing pharmaceutical demand in important markets in both Asia and Europe and the rising domestic demand for pharmaceuticals.

 Rubber and Rubber Products: Rubber and rubber products in 2024 are expected to grow in the production of processed rubber products in primary forms, automobile tires, and rubber gloves. The production of upstream processed rubber and rubber gloves will grow mainly from production to meet the needs of the domestic market. Meanwhile, tire production will expand from demand for tires in important markets such as the USA, South Korea, and Australia.

 Food: The overall MPI of the food industry in 2024 is expected to grow from the domestic tourism sector that continues to expand and from government policies that have issued measures to stimulate the economy. Products that are expected to grow in 2024 include chilled and frozen fruits, which remain popular in China for consumption. In addition, Thailand is exempt from import taxes on such products. Chilled and frozen chicken has had continuous improvement due to the expansion in new markets, including the EU, which has a higher consumption demand for chicken. Although sugar production is expected to decrease from last year, there is a trend of higher prices. Although the overall industry is growing, the global economic recession still needs to be monitored, especially Thailand's main trading partners, and unstable weather conditions that may affect crops, including raw material and energy costs, continue to fluctuate.

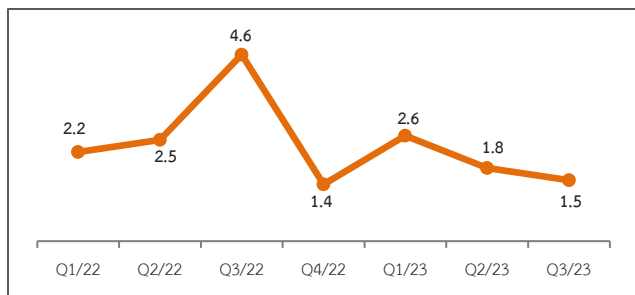
Part 1 Thailand's Economic and Industrial Overview in 2023  
and Outlook for 2024

# Thailand's Economic and Industrial Overview in 2023 and Outlook for 2024

## GDP

in the first three quarters increased by 2.0 percent

(%YoY)



Source: Office of the National Economic and Social Development Council (NESDC)

The Gross Domestic Product (GDP) for the first quarter of 2023 expanded by 2.0 percent compared to the first three quarters of 2022, which grew by 3.0 percent.

### Key factors affecting GDP



Agricultural production increased by 3.0 percent.



Service sector increased by 4.4 percent.



Private consumption and expenditure increased by 7.3 percent.



Total investment increased by 1.7 percent.



Industrial production increased by 3.4 percent.



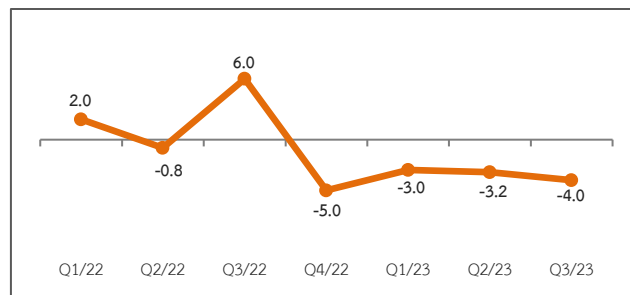
Exports of goods and services increased by 1.0 percent.

During the first three quarters of 2023, the production of the agricultural sector expanded by 3.0 percent, the services sector expanded by 4.4 percent, private consumption expenditure expanded by 7.3 percent, total investment expanded by 1.7 percent, the production in the industrial sector contracted by 3.4 percent, and exports of goods and services expanded by 1.0 percent.

## GDP of the Industrial sector

in the first three quarters increased by 3.4 percent

(%YoY)



Source: Office of the National Economic and Social Development Council (NESDC)

Industrial growth in the first three quarters of 2023 contracted from the same period last year due to the world economic situation that continues to slow down and the country's high household debt. Industrial products that were contracted included the production of computers and electronic components.

The industrial GDP in the first three quarters of 2023 contracted by 3.4 percent from the same period last year, which grew by 2.3 percent. The contraction was mainly due to the production of electronic components, including orders from trading partners, which slowed down.

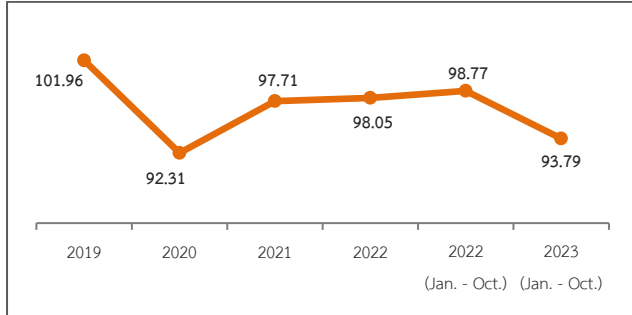
In 2024, the Office of the National Economic and Social Development Council (NESDC) expects that the Thai GDP will grow in the range of 2.7 to 3.7 percent, with supporting factors from (1) Export growth. (2) Growth of consumption and investment in the private sector. (3) Continuous recovery of the tourism sector.

## Key Industrial Index

### Manufacturing Production Index

during January - October 2023 increased by 5.0 percent

(%YoY)

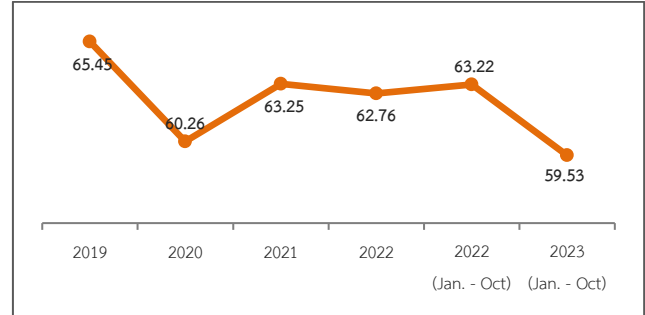


Source: The Office of Industrial Economics

### Shipment Index

during January - October 2023 increased by 59.53 percent

(%YoY)



Source: The Office of Industrial Economics

During the first ten months (January - October), the Manufacturing Production Index (MPI) stood at 93.79 points, a decrease of 5.0 percent from the same quarter of 2022 (98.77 points).

Industries contributing to the decrease of the MPI from the same period of 2022 were the manufacture of computers and peripheral equipment, furniture, and electronic components and boards, for example.

The Manufacturing Production Index in 2024 is expected to improve from 2023 as economic activities return to normal and production operates at full efficiency, coupled with domestic consumption and household debt improving.

During the first ten months (January - October) of 2023, the shipping index was at 59.53, shrinking from the same period of 2022 (63.22) by 4.8 percent.

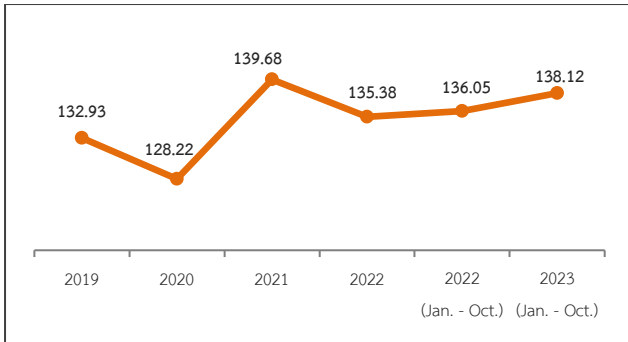
Industries contributing to the decrease in the shipping index compared to the same period in 2022 include the manufacture of computers and peripherals; electronic components and circuit boards; and other rubber products.

Regarding the outlook for 2024, it is expected that the shipping index will align with the industrial production index mentioned above.



### Finished Goods Inventory Index

during January - October 2023 decreased by 1.5 percent (%YoY)



Source: The Office of Industrial Economics

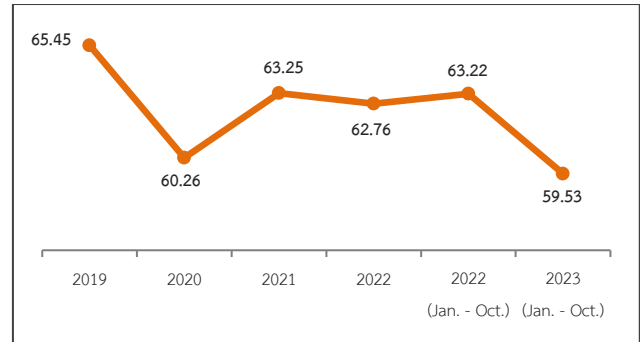
During the first ten months (January - October) of 2023, the finished goods inventory index stood at 138.12, expanding from the same period of 2022 (136.05) by 1.5 percent.

Industries contributing to the increase in the finished goods inventory index compared to the same period in 2022 included the manufacture of automobiles, non-alcoholic drinks, mineral waters and other bottled waters, and palm oil.

The Finished Goods Inventory Index in 2024 is forecasted to decrease from 2023 to production to deliver to customers according to orders for both domestic consumption and exports abroad.

### Capacity Utilization Rate

stood at 59.53 percent.



Source: The Office of Industrial Economics

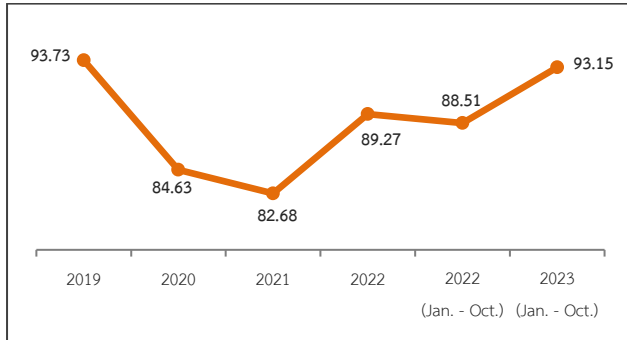
During the first ten months (January - October) of 2023, the capacity utilization rate was at 59.53 percent, decreasing from the same period of 2022 (63.22 percent).

Industries contributing to the decrease in capacity utilization rates compared to the same period in 2022 included the manufacture of electronic components and boards, computers and peripherals, and furniture, for example.

As for the outlook for 2024, it is expected that the capacity utilization rate will improve as production and services return to normal.

## Industrial Sentiment Index

during January – October stood at 93.15 points.



Source: The Federation of Thai Industries

During January to October (first ten months) of 2023, the average index had a value of 93.15, increasing from the same period of 2022 (88.51). The 3-month forward forecast was at 101.35, increasing from the same period in 2022 (98.20).

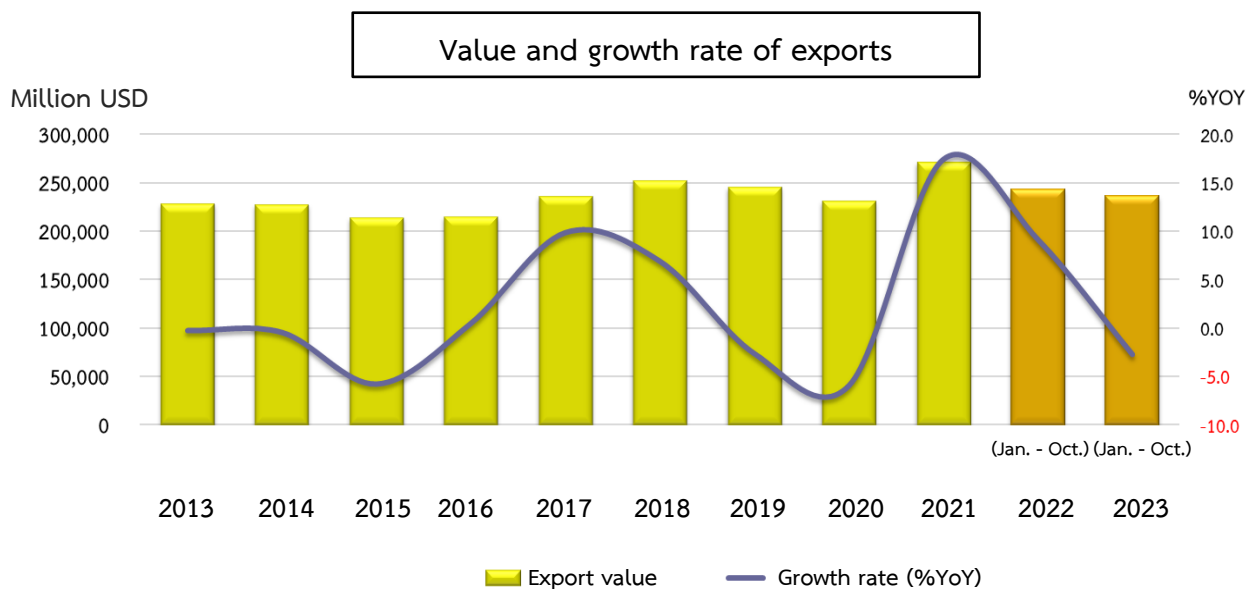
In 2024, the Industrial Sentiment Index is expected to improve from economic activities returning to normal, continued recovery of domestic demand, and the recovery of tourism. However, business operators are still concerned about the minimum wage increase in 2024, which will result in increased production costs.

## Thailand's International Trade

"Thailand's international trade in 2023 (January-October) decreased by 3.68 percent compared to the same period last year (%YoY) due to the global economic slowdown, prolonged geopolitical conflicts, and the implementation of strict monetary policies in many countries. However, despite these challenges, the economies of trading partners are expected to continue expanding, supported by private consumption and the tourism sector."

Thailand's international trade in 2023 (January-October) reached a total value of 479,961.39 million USD, comprising an export value of 236,648.20 million USD, a contraction of 2.72 percent compared to the same period last year (%YoY) and an import value of 243,313.20 million USD contracting by 4.59 percent compared to the same period last year (%YoY). The trade balance in 2023 resulted in a deficit of 6,665.00 million USD.

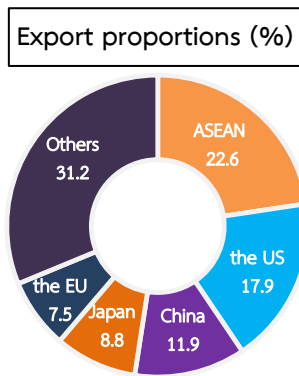
### Export Structure



Source: Ministry of Commerce

Thai merchandise exports in 2023 totaled 236,648.20 million USD, a decrease of 2.72 percent compared to the same period last year (%YoY). The main product categories experienced varied changes: Agricultural products saw an export value of 22,769.65 million USD, with a slight expansion of 0.22 percent (%YoY), while agro-industrial products contracted by 2.45 percent (%YoY), reaching an export value of 19,011.82 million USD. Industrial products reached an export value of 185,320.36 million USD, a decrease of 2.82 percent (%YoY). Furthermore, exports of mineral and fuel products decreased by 7.69 percent (%YoY), with an export value of 7,821.78 million USD.

## Export Markets

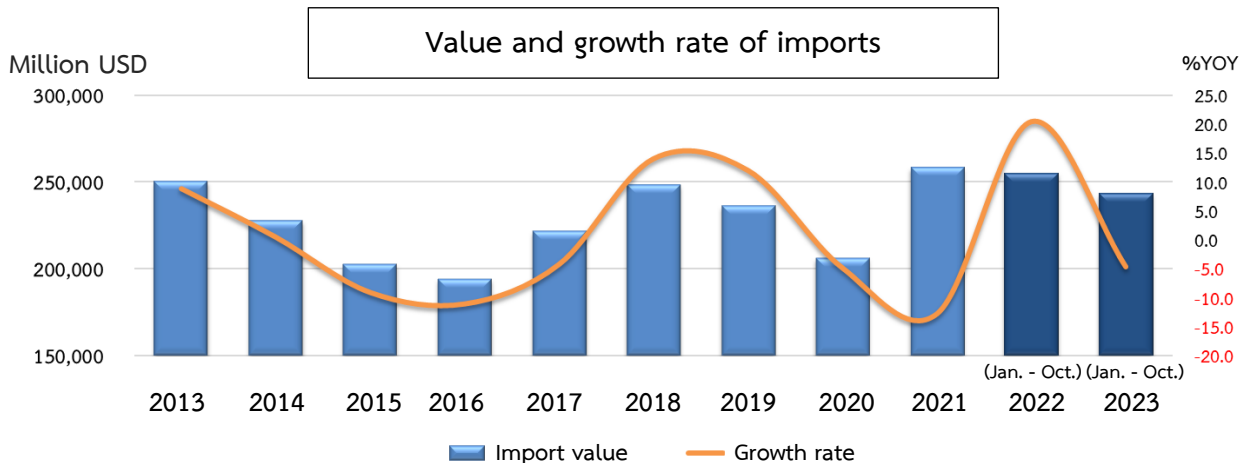


In 2023, Thailand's proportion of exports to five major trading partners, including ASEAN, the USA, China, Japan, and the EU (27 countries), accounted for 69.14 percent of total exports. The remaining 30.86 percent of exports were destined for other markets as the following details:

Source: Ministry of Commerce

- The proportion of export value to ASEAN, the USA, China, Japan, and the EU (27 countries) were 23.50, 16.90, 12.23, 8.80, and 7.71 percent, respectively.
- Thailand's exports amounted to 236,648.20 million USD, contracting by 2.72 percent compared to the same period last year (%YoY). Among major trading partners, the EU (27 countries) experienced the highest contraction at 18.45 percent, followed by ASEAN at 9.48 percent, China at 0.69 percent, and Japan at 0.08 percent. The only country to witness export growth was the USA, with an expansion of 0.15 percent.

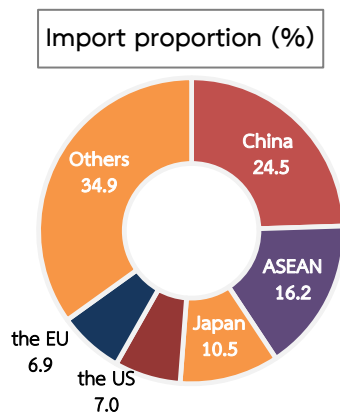
## Import Structure



Source: Ministry of Commerce

The import of Thai merchandise in 2023 amounted to 243,313.20 million USD, a decrease of 4.59 percent compared to the same period last year (%YoY). The main product categories experienced the following changes: Fuel products reached an import value of 45,511.52 million USD, declining by 10.50 percent (%YoY). Capital goods reached an import value of 57,325.54 million USD, expanding by 2.53 percent (%YoY). Raw materials and semi-finished products reached an import value of 95,984.43 million USD, contracting by 10.90 percent (%YoY). Consumer products reached an import value of 27,590.76 million USD, growing by 1.47 percent (%YoY). Import of vehicles and transportation equipment reached 13,386.87 million USD, an increase of 32.16 percent (%YoY). Additionally, weapons, consumables, and other goods had an import value of 3,513.83 million USD, expanding by 9.33 percent (%YoY).

## Import markets



Source: Ministry of Commerce

In 2023, Thailand's proportion of imports from five major trading partners, including China, ASEAN, Japan, the USA, and the EU (27 countries), accounted for 65.05 percent of total imports, and imports from other markets account for 31.55 percent of total imports, with details as follows.

- Thailand's imports from China, ASEAN, Japan, the USA, and the EU (27 countries) accounted for 24.12, 16.97, 10.34, 6.74, and 6.89 percent, respectively.
- Thailand's imports amounted to 243,313.20 million USD; a decline of 4.59 percent (%YoY) compared to the same period last year (%YoY). Imports from ASEAN decreased the most by 6.75 percent, followed by imports from China, which decreased by 1.22 percent, respectively. In contrast, imports from the EU (27 countries) expanded the most at 9.94 percent, followed by the USA and Japan, which grew by 9.69 and 0.76 percent, respectively.

## The Global Economy in 2023

The global economy in 2023 continued to slow down, reflected by the slowdown in the manufacturing sector around the world (especially in developed countries), as demand for various goods began to decline. The tight monetary policy put pressure on both service and manufacturing economies. Inflation rates were higher than the target range of various central banks, affecting spending by both citizens and businesses. Furthermore, energy prices and agricultural products remained volatile due to the uncertainty of geopolitical issues and the El Niño phenomenon that may continue to be prolonged.

### Summary of Key Economic Indicators in 2023

(%YoY)

	GDP (JAN-SEP)	Inflation (OCT)	MPI (JAN-SEP)	Export (JAN-SEP)	Unemp.Rate (OCT)	Policy Rate (OCT)
the USA	↑ 2.5	↑ 3.1	↑ 0.3	↓ -2.6	At 3.7	At 5.25-5.50
China	↑ 5.3	↓ -0.5	↑ 4.2	↓ -5.8	At 5.0	At 3.45
Japan	↑ 2.1	↑ 3.3	↓ -1.3	↓ -5.3	At 2.6	At -0.10
Malaysia	↑ 3.9	↑ 1.8	↑ 0.9	↓ -13.3	At 3.4	At 3.0
Vietnam	↑ 4.3	↑ 3.5	↑ 0.4	↓ -9.3	At 2.3	At 4.5
Thailand	↑ 1.9	↑ 0.6	↓ -3.1	↓ -3.9	At 1.0	At 2.5

Source: ceicdata, <https://www.nesdc.go.th>, and <https://tradingeconomics.com>

The world's energy situation is still amidst volatility as the economy recovers after COVID-19 subsidies, resulting in increased energy demand. Meanwhile, geopolitical conflicts have led to energy crises in many countries. In addition, the world's major economies are faced with continuously increasing interest rates to stem inflation. The world economic situation will need to be continuously monitored.

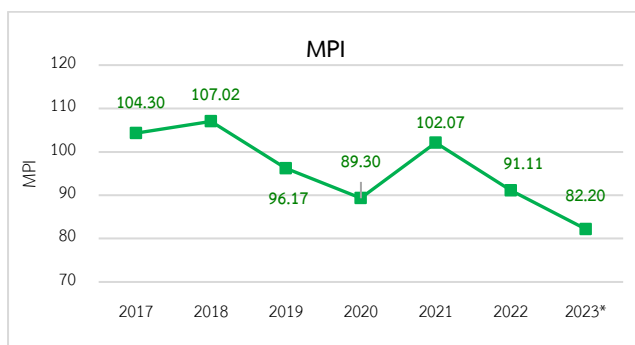
The global economy in 2024 is likely to slow down due to increasing economic uncertainty from the intensifying crisis in China's real estate market, China's economy that is experiencing deflation, tight financial conditions affecting demand in the USA and Europe, and post-COVID economic recovery being slower than expected. In addition, climate change from the El Niño phenomenon may prolong, and increased geopolitical tensions and inflation rates, which are still high, are likely to decline slowly. Meanwhile, global interest rates will remain high as the central bank must control inflation to stay within its target. These are all factors to watch out for that will affect the global economy in the future.

Part 2 Thailand's Industrial Economic by Sector in 2023  
and the Outlook for 2024

## Iron and Steel Industry

In 2023\*, the MPI of the Iron and Steel Industry decreased compared to 2022. There was a decline in both long and flat product groups. Within the long product group, products such as round bars, hot-rolled structural steel, wire rods, and steel wire experienced a decrease. Similarly, within the flat product group, products such as hot-rolled sheets, cold-rolled sheets, and galvanized sheets also witnessed a decline.

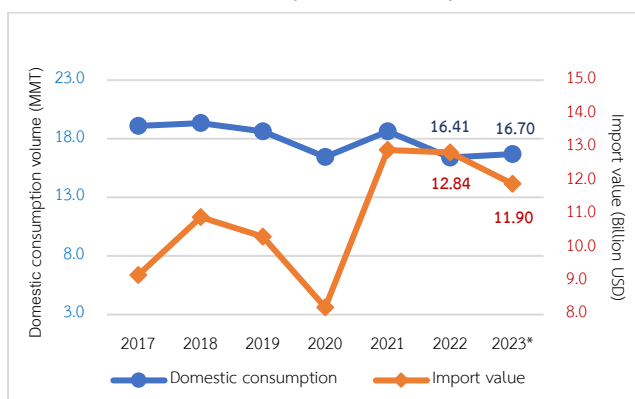
### Manufacturing Production Index (MPI)



Source: The Office of Industrial Economics

\* Estimate figures in 2023 by the Office of Industrial Economics

### Domestic consumption and import value



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

\* Estimate figures in 2023 by the Office of Industrial Economics / Iron and Steel Institute of Thailand

**The Industrial Production Index** for 2023\* is anticipated to decline compared to the previous year. The index stood at 82.2, a decrease of 9.7 percent (%YoY). This decline affected both long and flat products. Within the long steel group, products such as round bars, hot-rolled structural steel, wire rods, and steel wire experienced reductions. Similarly, flat products, including hot-rolled sheets, cold-rolled sheets, and galvanized sheets decreased. This decrease in production can be attributed to the importation of cheaper steel from abroad.

**Domestic consumption** in 2023\* is projected to reach 16.7 million metric tons, increasing by 1.9 percent (%YoY). This growth occurs in both long and flat products, with all types of long products experiencing increased consumption. Similarly, there has been an uptick in the consumption of flat products, particularly galvanized sheets and other types of coated steel sheets used in downstream industries such as construction and electrical appliances.

**Imports** in 2023\* are expected to reach a value of 11.9 billion USD, declining by 7.3 percent (%YoY). This decline occurs in both long and flat products. Long products such as rebars, wire rods, and wires used in downstream industries such as construction have seen a reduction in import value. Meanwhile, flat products, including hot-rolled sheets, cold-rolled sheets, and various types of coated sheets, also witnessed a decrease in import value, all of which are utilized in continuous industries.

### Outlook for Iron and Steel Industry in 2024

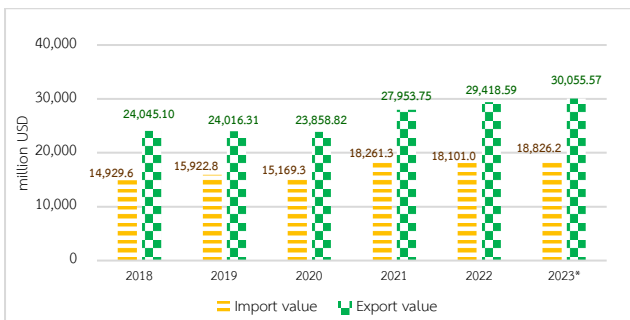
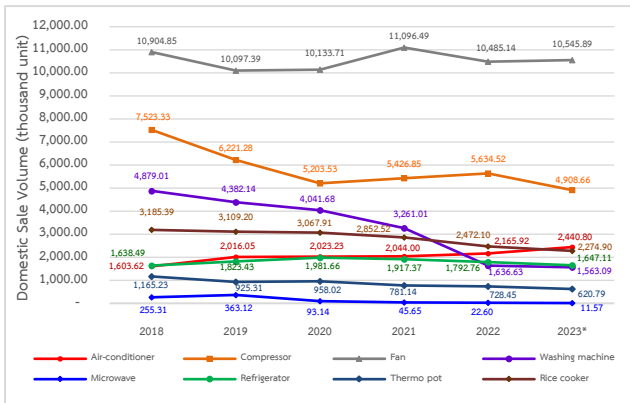
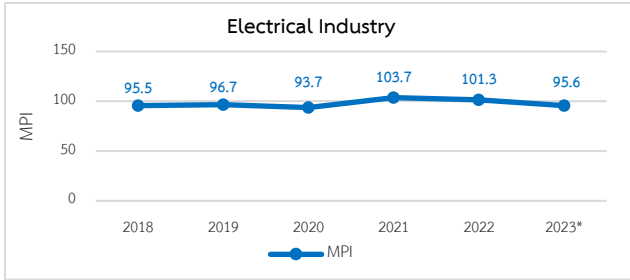
In 2024, the steel industry is expected to see a decrease in production by 3.7 percent compared to the previous year. This is because imports of cheap steel from abroad are forecasted to increase, which will affect the volume of domestic steel production. Steel consumption in 2024 is expected to reach 16.8 million tons, growing by 0.6 percent compared to the previous year, from the growth of private investment. There are important issues worth following, such as the global economic and trade situation and the implementation of China's steel industry policy. China is the world's largest producer, consumer, and exporter of steel, and such policies will affect the production volume of steel products in the country.



# Electrical appliance Industry

The production of electrical appliances in 2023\* shrank by 5.6 percent compared to 2022 from electric motor products, thermo pots, compressors, microwave ovens, refrigerators, rice cookers, fans, and electrical transformers, which decreased. The decrease is due to the continuous increase in production costs. In addition, demand in the world market decreased, and the world economy has not yet recovered. However, exports of washing machines and electric transformers increased following the needs of the industrial production chain.

## 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  
 \* The data in year 2023 and 2024 was estimated by the Office of Industrial Economics and the Electrical and Electronics Institute

**Production of electrical appliances** in 2023\* contracted compared to the previous year, with the MPI at 95.6, shrinking 5.6 percent (%YoY). Production costs continued to increase, which was coupled with decreased demand in the global market and the world economy that has not yet recovered. Electrical appliances that decreased included electric motors, thermo pots, compressors, microwave ovens, refrigerators, rice cookers, fans, and electrical transformers, which decreased by 28.0 percent, 21.4 percent, 19.2 percent, 10.5 percent, 10.0 percent, 9.0 percent, 6.6 percent, and 6.0 percent, respectively. This was due to a decrease in domestic sales and orders from abroad. Meanwhile, products that increased included electrical wires, washing machines, cables, and air conditioners, which increased by 14.4 percent, 11.7 percent, 10.8 percent, and 0.1 percent, respectively, due to an increase in orders from abroad.

**Domestic sales** in 2023\* experienced a decrease compared to the previous year for various products, including microwave ovens, electric kettles, compressors, refrigerators, rice cookers, and washing machines, with contractions of 23.7, 16.1, 14.9, 9.7, 8.5, and 3.8%, respectively. Conversely, air conditioners and fans saw an increase of 8.1 and 2.8%, respectively.

**Imports of electrical appliances** in 2023\* amounted to 18,826.2 million USD, an increase of 4.0% compared to the previous year. This increase was from the importation of products such as electrical transformers, air conditioners, microwave ovens, and refrigerators.

**Exports of electrical appliances** in 2023\* valued at 30,055.6 million USD, a growth from the previous year of 2.2 percent (%YoY) from exports of washing machines and electrical transformers, following demand from the world market. Washing machine parts and components from Thailand are particularly important to the production chain in industries such as Argentina and Vietnam, allowing entrepreneurs to export more.

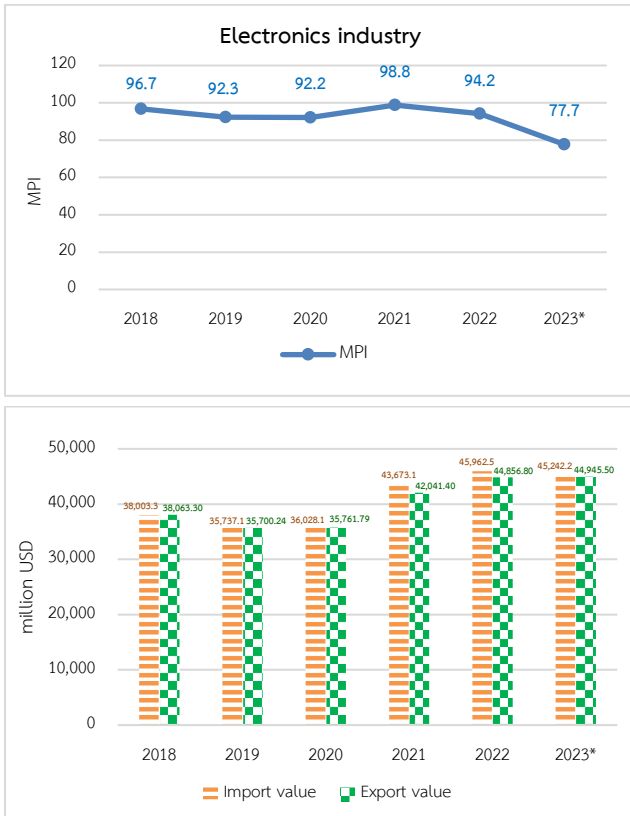
## Outlook for Electrical Appliance Industry in 2024

In 2024, production in the electrical appliances industry is expected to shrink by approximately 1.0 to 3.0 percent compared to the previous year. This is because production costs or raw material prices are still uncertain, and the global economic situation may slow down. Meanwhile, exports are expected to expand by approximately 2.0 to 8.0 percent compared to the previous year from the demand for electrical products and services, which are expected to continue growing in developing countries such as India and Vietnam as consumers and businesses in the region look to develop the technological infrastructure in the country and provide more amenities for citizens or consumers.

## Electronics Industry

Production of electronics in 2023\* shrank by 17.5 percent compared to 2022, with a decrease in printers, HDDs, semiconductor device transistors, PWBs, PCBAs, and ICs as a result of a shortage of raw materials for production and higher production costs. Meanwhile, the exports of computer products and integrated circuits increased due to the demand for technological development in IT infrastructure and innovative equipment, which created a continuous demand for electronic components.

### MPI, Import and Export Value of Electronics



Source: Information on production: The Office of Industrial Economics  
 Information on import-export: Electrical and Electronics Institute  
 \* Estimate figures in 2023\* and 2024\* by the Office of Industrial Economics / Electrical and Electronics Institute.

**The production of electronic products** in 2023\* reach the MPI of 77.7, a decrease of 17.5 percent (%YoY) compared to the previous year (%YoY). Electronic products that decreased in MPI were printers, hard disk drives (HDDs), semiconductor devices (transistors), Printed Wiring Boards (PWB), Printed Circuit Board Assemblies (PCBA), and Integrated Circuits (IC) which decreased by 25.9, 25.5, 25.3, 16.5, 13.8, and 11.8 percent, respectively, compared to the previous year. This decline can be attributed to shortages of raw materials for electronic product manufacturing and increased production costs.

**Exports of electronics** in 2023\* valued at 44,945.5 million USD, a slight growth from the previous year by 0.2 percent (%YoY) from exports of computer products and integrated circuits due to the need for technology development, IT infrastructure, and innovative equipment, creating a continuous demand for electronic components in the global market.

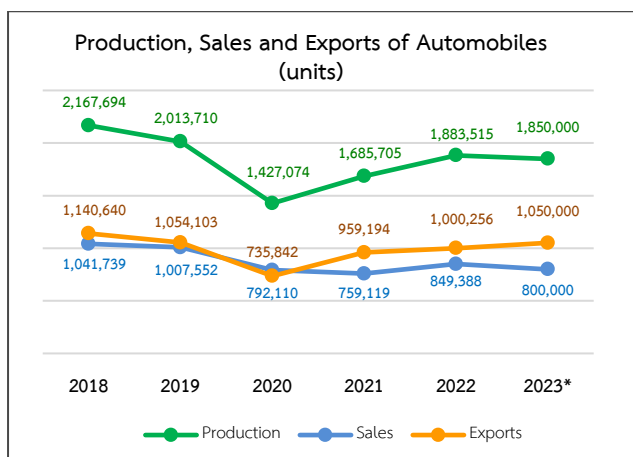
**Imports of electronics** in 2023\* valued at 45,242.2 million USD, a decrease of 1.6 percent compared to the previous year (%YoY). This decline can be attributed to reduced imports of printed circuit products, printers, copiers, and their components, as well as integrated circuits.

### Outlook for Electronics Industry in 2024

In 2024, the production and exports of the electronics industry are expected to increase by approximately 1.0 to 5.0 percent compared to the previous year. This is because the demand for electronic products in developing countries will continue to grow for infrastructure and the development of IoT information technology. Consumer demand for electronic products may decrease from technology with greater capacity and the durability of equipment such as computers and components, coupled with geopolitical uncertainties such as the Ukraine-Russia war and the trade war between the USA and China, which may create obstacles to industrial development or affect Thai entrepreneurs. Therefore, the situation will need to be monitored.

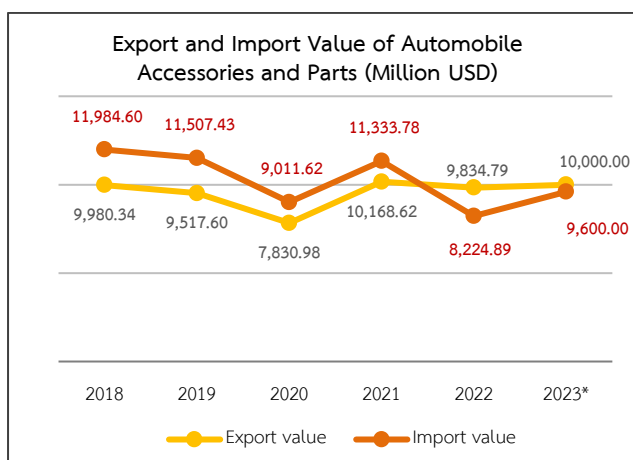
## Automotive and Part Industry

In 2023, the automobile industry expects the production volume to decrease compared to the same period last year from a decrease in the domestic market. This is due to the strictness of lending by financial institutions and household debt that remains high. However, the export markets are expected to grow from the economic growth in Thailand's important trading partner countries, which show good growth potential.



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

*The production of automobiles* in 2023\* is expected to reach 1,850,000 units, a decrease of 1.78 percent compared to the same period the previous year, which saw production totaling 1,883,515 units. This decline is due to reductions in the production of passenger cars by 35 percent, one-ton pickup trucks and derivatives by 63 percent, and commercial vehicles by 2 percent.

*Domestic sales of automobiles* in 2023\* are estimated to reach 800,000 units, a decrease of 5.81 percent compared to the same period the previous year, which saw sales totaling 849,388 units. This decline is due to a reduction in passenger car sales by 51 percent; one-ton pickup truck and derivatives by 43 percent; and commercial vehicle sales by 6 percent.

*The export value of automobiles* in 2023\* are expected to reach 1,050,000 units (CBU), an increase of 4.97 percent compared to the same period the previous year, which saw exports totaling 1,000,256 units.

*The export value of automotive parts and accessories* in 2023\* is expected to be 10,000 million USD, an increase of 1.68 percent compared to the same period the previous year, which saw exports valued at 9,834.79 million USD. Key export markets for automobile components and equipment are the USA, Japan, and Malaysia.

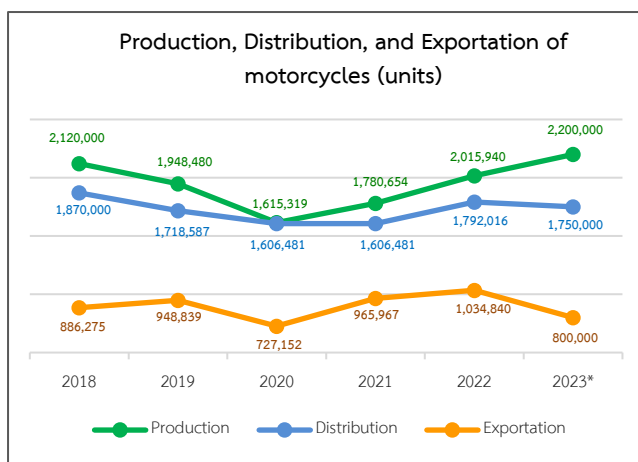
*The import value of automotive parts and accessories* in 2023\* is expected to be 9,600 million USD, an increase of 16.72 percent compared to the same period the previous year, which saw imports valued at 8,224.89 million USD. Key import markets for automobile components and equipment are Japan, China, and the USA.

### Outlook for Automotive Industry in 2024

The Office of Industrial Economics (OIE) estimates that approximately 1,900,000 units of automobiles will be manufactured, an increase of 2.70 percent from the same period last year. These units are divided into approximately 40-45 percent for domestic sales and approximately 55-60 percent for export.

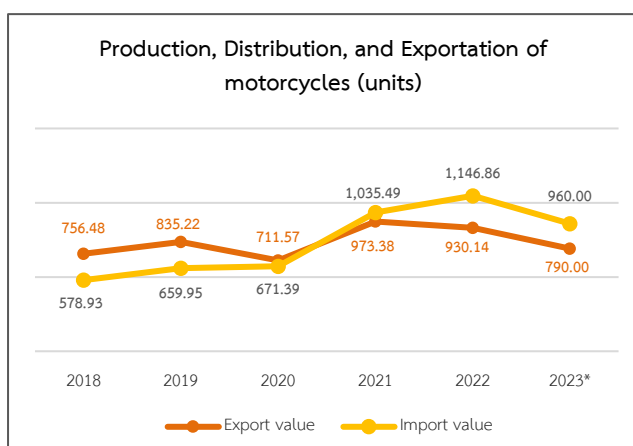
## Motorcycle and Part Industry

The motorcycle industry in 2023 is expected to grow in motorcycle production compared to the same period last year. However, the demand of the domestic and export markets may decrease from the El Niño effect in Oceania, which may affect the agricultural sector and farmers' incomes. This is coupled with the trend of household debt remaining high, which may affect the strictness of bank lending, the direction of loan interests, and consumer spending.



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

*The production of motorcycle* in 2023\* is expected to reach 2,200,000 units, an increase of 9.13 percent from the same period last year, which saw production totaling 2,015,940 units.

*Domestic sales of motorcycles* in 2023\* are estimated to reach 1,750,000 units, a decrease of 2.34 percent compared to the same period the previous year, which saw sales totaling 1,792,016 units.

*Motorcycle exports (both CBU and CKD) in 2023\** are projected to reach 800,000 units, with 450,000 units exported as CBU and 350,000 units as CKD, a decrease of 22.69 percent compared to the same period the previous year, which saw total exports amounting to 1,034,840 units, comprising 424,002 units exported as CBU and 610,838 units exported as CKD.

*The export value of motorcycle parts and accessories* in 2023\* is expected to be 790 million USD, a decrease of 15.07 percent compared to the same period the previous year, which saw exports valued at 930.14 million USD. Key export markets for motorcycle parts and accessories are Japan, Cambodia, and Brazil.

*The import value of motorcycle parts and accessories* in 2023\* is expected to be 960 million USD, a decrease of 16.29 percent compared to the same period the previous year, which saw imports valued at 1,146.86 million USD. Key import markets for automobile components and equipment are the USA, Japan, and China.

### Outlook for Motorcycle Industry in 2024

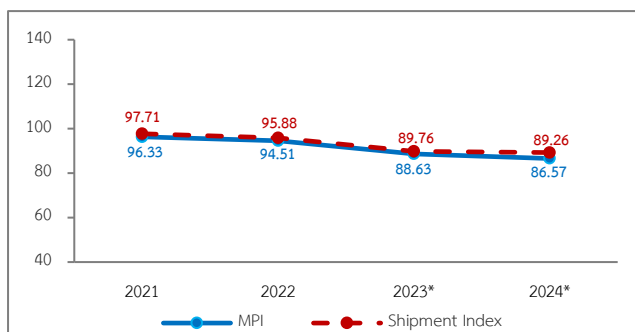
The Office of Industrial Economics (OIE) estimates that the motorcycle industry in 2024 is expected to maintain steady production, with an estimated output of approximately 2,200,000 motorcycles. Out of this anticipated production volume, approximately 85-90 percent will be allocated for domestic sales, while the remaining 10-15 percent will be designated for export.

## Chemical Industry

The chemicals industry in 2023 saw some operators delay production to observe the costs following crude oil prices were likely to increase. The production of some types of products were produced according to consumer needs only. Exports of certain chemical products continued to grow compared to last year due to demand from key markets.

### Production and sales

MPI and Shipment Index

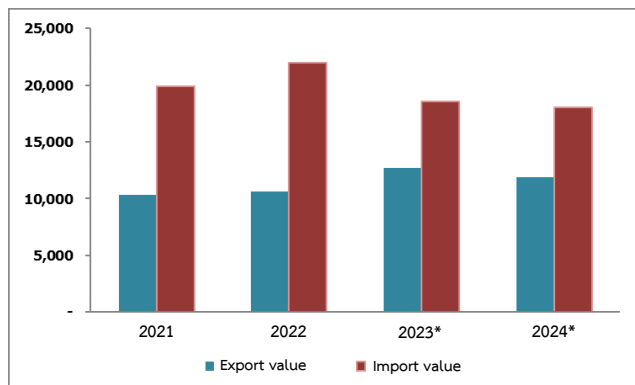


Source: The Office of Industrial Economics, 2024\* is the forecasted figures.

*The Manufacturing Production Index* for 2023 reached 88.63 and is expected to contract by 6.22 percent compared to 2022. Products that cause the MPI to decrease included chemical fertilizers, hydrochloric acid, and shampoo which contracted by 9.70, 9.59, 8.94 percent, respectively.

*The Shipment Index* for 2023 reached 89.76 and is expected to contract by 6.38 percent compared to 2022. Products that cause the shipping index to shrink included talcum, cleaning liquid, and hydrochloric acid which contracted by 23.69, 16.80, and 13.09 percent, respectively.

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, 2024\* is the forecasted figures

*Exports of chemicals* in 2023 are expected to have a value of 12,697.40 million USD, a growth of 19.54 percent compared to 2022. Products with expanded export value included cosmetics, surfactants, and paint which grew by 40.88, 24.20, and 22.33 percent, respectively.

*Imports of chemicals* in 2023 are expected to have a value of 18,585.40 million USD, a decrease of 15.49 percent compared to 2022. Products with decreased export value included chemical fertilizers, organic chemicals, and miscellaneous chemicals, which dropped by 23.22, 18.82, and 17.55 percent, respectively.

### Outlook for Chemical Industry in 2024

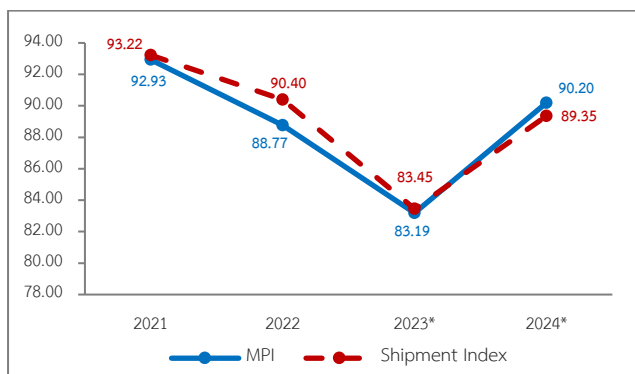
The chemical industry in 2024 depends on the crude oil price situation, which is likely to increase. As a result, the export of oil-related products such as plastic pellets and chemicals will see increased cost of raw materials in production. Entrepreneurs will slow down production to watch production cost trends. However, the tourism situation, which is likely to improve, must continue to be monitored. Various tourism promotion policies from the government may result in the growth of related chemical products.

## Plastics Industry

The overall plastics industry in 2023 saw global oil prices fluctuate and energy prices increase. The cost of raw materials used to produce products increased. Plastic pellets, the main raw material used in the production process, caused the price to increase. Some businesses adjusted their selling prices to meet the rising costs, and some delayed production to wait and observe the price situation. Imports of plastic products continued to grow compared to the same period last year.

### Production and Sales

MPI and Shipment Index

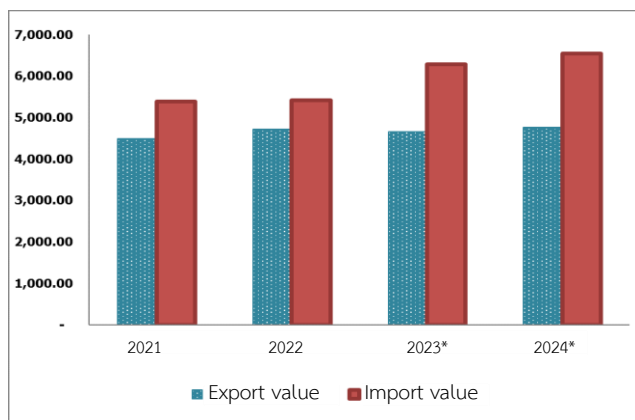


Source: The Office of Industrial Economics  
2023\* and 2024\* are the forecasted figures.

*The Manufacturing Production Index* for 2023 reached 83.19 and is expected to contract by 6.28 percent compared to 2022. Products that cause the MPI to decrease included other plastic packaging, plastic sacks, and plastic bags which contracted by 12.11, 12.04, and 10.03 percent, respectively.

*The Shipment Index* for 2023 reached 83.45 and is expected to contract by 7.69 percent compared to 2022. Products that cause the shipping index to shrink included plastic sacks, other plastic packaging, and plastic bags which contracted by 13.72, 13.63, and 11.33 percent, respectively.

Export and Import Volume (metric tons)



Source: Information and Technology Communication Center, Office of the Permanent Secretary, Ministry of Commerce in collaboration with Customs Department  
2023\* and 2024\* are the forecasted figures

*Exports of plastic products* in 2023 are expected to reach a value of 4,660.08 million USD, a decrease of 1.12 percent compared to 2022. Products that decreased in export value included articles for the conveyance or packing of goods (HS 3923) (-14.71%), other plates, sheets, film, foil and strip, of plastics, non-cellular (HS 3920) (-11.84%), and household articles (HS 3924) (-7.15%).

*Imports of plastic products* in 2023 are expected to reach a value of 6,290.47 million USD, an increase of 16.16 percent compared to 2022. Products that increased export value included other plates, sheets film, foil and strip, of plastics (HS 3921) (1.72%) and other articles of plastics (1.96%).

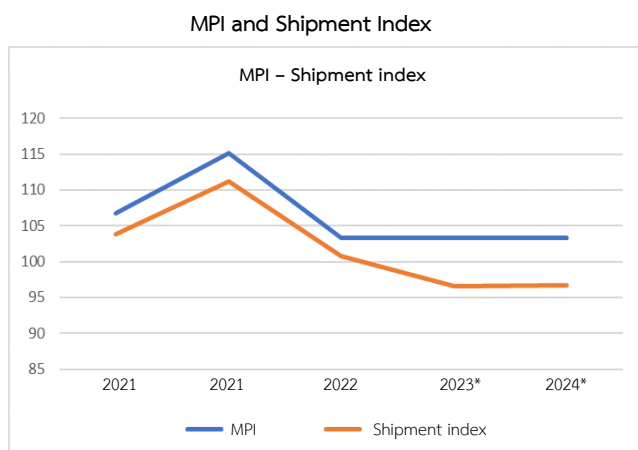
### Outlook for Plastics Industry in 2024

In 2024, the MPI of the plastics industry is forecasted to shrink from some types of plastic products from measures to reduce or phase out the use of certain types of plastics. This caused businesses to adjust and turn to producing other products or using more alternative biological raw materials. However, tourism has begun to come back to life, resulting in an improvement in economic activities within the country. Imports and exports from key markets are expected to expand further.

## Petrochemical Industry

The overall petrochemical industry in 2023 expects that the MPI will decrease by 0.01 percent compared to 2022. Exports are expected to shrink by 15.33 percent. Imports are expected to contract by 11.57 percent due to the global economy slowing down from the conflict between Russia and Ukraine that has impacted oil prices, inflation caused by product prices adjusting to production costs, and rising inflation has caused pressure to adjust interest rates to rising interest rates in the USA, causing a slowdown in investment and consumption.

### Production and Distribution



Source: The Office of Industrial Economics, 2023\* and 2024\* are the forecasted figures.

### Production and Sales

*The Manufacturing Production Index* for 2023 is expected to contract by 0.01 percent compared to 2022. Basic and downstream petrochemicals that cause the MPI to decrease include Propylene and Polyethylene, which decreased by 9.83 and 7.04 percent, respectively.

*The Shipment index* for 2023 is expected to contract by 4.18 percent compared to 2022. Almost all products, especially basic and downstream petrochemical products that cause the shipment index to shrink the most are ethylene and polyethylene, which decreased by 10.99 and 6.94 percent, respectively.

*Exports of petrochemicals* in 2023 are expected to be 10,630.88 million USD, a decrease of 15.33 percent compared to 2022. Basic and downstream petrochemical products with decreased export value include ethylene and PP resin, which decreased by 64.30 and 16.83 percent, respectively.

*Imports of petrochemicals* in 2023 are expected to be 7,165.68 million USD, a decrease of 11.57 percent compared to 2022. Basic and downstream petrochemical products with decreased import value include vinyl chloride and PE resin, which decreased by 45.23 and 20.31 percent, respectively.

### Export - Import value (MUSD)



Source: Information and Technology Communication Center, Office of the Permanent Secretary, Ministry of Commerce in collaboration with Customs Department  
2023\* and 2024\* are the forecasted figures

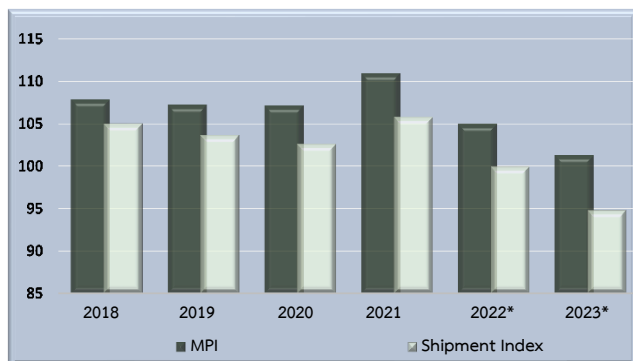
### Outlook for Petrochemical Industry in 2024

In 2024, the petrochemical industry is expected to shrink by 2 to 5 percent. Exports of petrochemical products are expected to contract by 5 to 10 percent compared to 2023. The petrochemical industry in 2024 is expected to shrink from the decelerated economic situation due to the effects of inflation as a result of increased oil and food prices in the world market. In addition, investment is expected to slow down due to rising interest rates. Additionally, the Baht is still weak compared to previous years due to the sluggish market and the increasing trend of environmental conservation. As a result, demand for petrochemical products will slow down, affecting production and exports.

## Pulp, Paper, and Print Media Industry

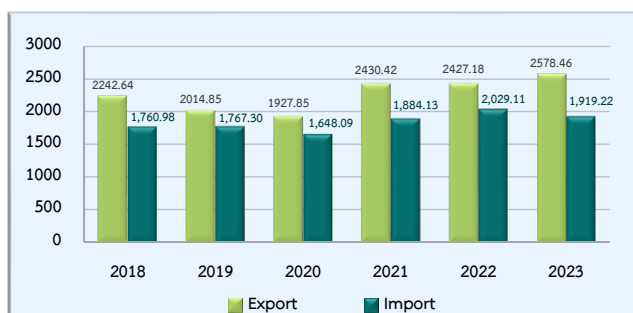
In 2023, the MPI of the pulp, paper, and print media industry in the pulp and paper products sector shrank in line with the Shipping Index. The contraction was due to decreased orders from key trading partners. In 2024, the industry expects to see positive trends that will be beneficial to the pulp, paper, and paper packaging industry, which is a supporting industry for other industries. The industry is forecasted to grow along with related industries, such as the food industry, the medical device industry, and online trading.

MPI in Pulp, Paper and Print Media 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 2023, the production and sales of paper pulp, paper, and paper products decreased compared to the previous year by 3.50 percent and 5.14 percent, respectively. However, production of pulp and printing and writing paper grew, especially in the pulp sector, where over 95 percent of production was for orders from China. For paper products, most orders were from Vietnam and Indonesia. For other paper products, every product slowed, especially from the domestic market.

**Exports:** Exports of pulp and paper products in 2023 had a total export value of 2,578.46 million USD, a growth of 6.23 percent compared to the previous year. The growth was from the expansion of pulp, which grew as high as 28.98 percent from exports to China. Meanwhile, paper and paper products, books, and publications slowed by 1.34 percent and 3.44 percent, respectively, decreasing orders from trading partner markets in ASEAN and Hong Kong.

**Imports:** Imports of pulp and paper products in 2023 had a total value of 3,329.05 million USD, a decrease of 4.67 percent compared to the previous year. The contraction was from pulp, paper and paper products, and print media, except for imports of toilet paper, which increased by 29.78 percent. This was due to import prices being lower than those produced domestically. As a result, distributors shifted toward importing instead of producing domestically.

### Outlook for Pulp, Paper, and Print Media Industry in 2024

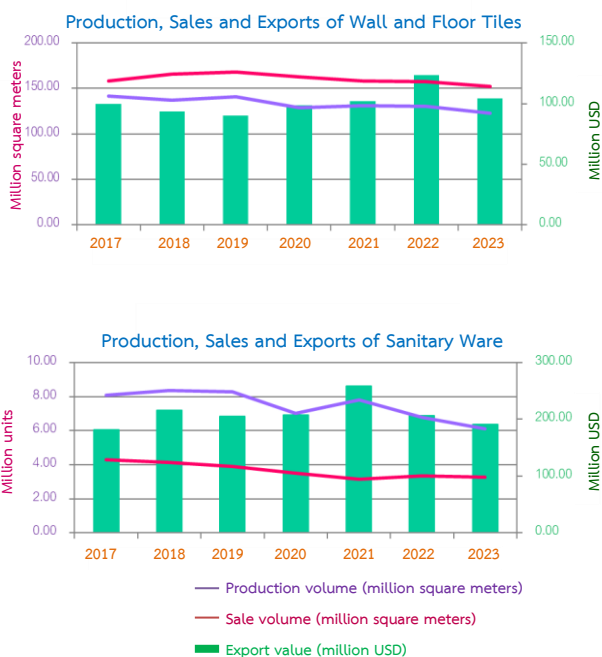
Outlook for 2024, the production of paper and paper products utilized for packaging boxes is expected to be a good opportunity for the pulp, paper, and paper packaging industry. In 2023, various aspects, including production, exports, imports, export markets, and paper prices, were volatile. In addition, domestic demand did not fully recover. However, the export sector is expected to return to growth from the pulp and products from key importing countries like China that continue to import. Paper and products are forecasted to grow in ASEAN. However, businesses still have to monitor various factors, including the ongoing war and the competition between China and the USA. These factors will result in increased costs of packaging raw materials.



## Ceramic Industry

The production, domestic sales, and exports of floor tiles, wall tiles, and sanitary ware in 2023 shrank from the previous year due to the slowdown of the domestic market and decreased orders from trading partners in the CLMV countries. In 2024, the ceramics industry is expected to see stable production and sales following the domestic economy, which is affected by many factors.

### 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

**The production** of floor and wall tiles in 2023 amounted to 122.78 million square meters, decreasing by 5.56 percent compared to the previous year (%YoY). Meanwhile, sanitary ware production reached 6.11 million pieces, declining by 10.09 percent (%YoY) due to domestic market slowdown and reduced orders from exports.

**Sales** of floor and wall tiles in 2023 totaled 152.15 million square meters, decreasing by 3.19 percent (%YoY) compared to the previous year. Additionally, sanitary ware sales amounted to 3.27 million pieces, declining by 2.08 percent (%YoY). The decrease was attributed to reduced consumer purchasing power affected by economic conditions impacted by rising consumer and energy costs, along with increased living expenses.

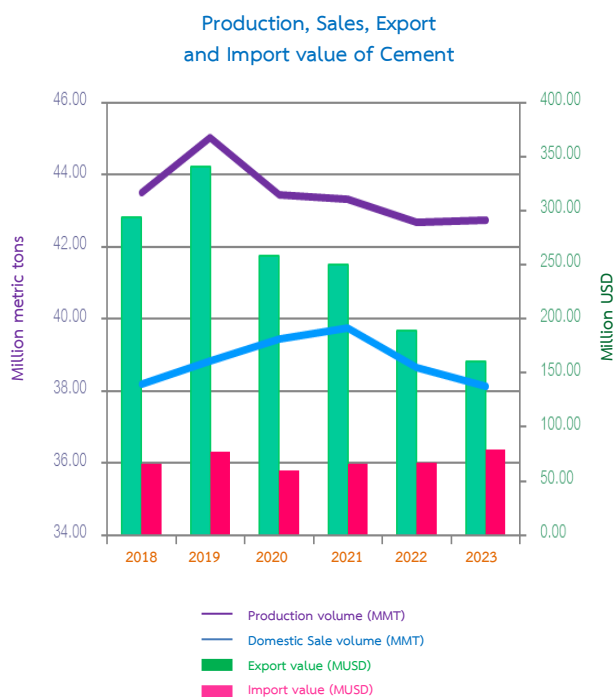
**Exports** of floor and wall tiles in 2023 were valued at 104.15 million USD, declining by 15.63 percent (%YoY) compared to the previous year, due to decreased demand and orders from trading partners in the CLMV countries. Meanwhile, sanitary ware exports were valued at 191.43 million USD, dropping by 7.21 percent (%YoY) due to declines in the CLMV countries and the USA.

### Outlook for Ceramic Industry in 2024

The production and domestic sale of ceramics in 2024 are expected to stabilize following the domestic economy, which is affected by many factors such as the price increase of all types of products, private sector market competition, and increases in loan interest rates. Exports are likely to remain stable due to the uncertainty of the world economy and imports of cheaper products from China. The main markets for exports include the USA, China, Japan, the Philippines, Malaysia, and CLMV countries. There are also essential factors that must be closely monitored, namely the price of energy, raw materials, inflation, the impact of increasing interest rates, and raised costs of living that may affect production and domestic sales.

## Cement Industry

In 2023, the production volume in the cement industry increased slightly from the previous year from advanced orders. The sales volume shrank due to the rising cost of living. As a result, consumers' purchasing power decreased. Exports slowed down in line with the global economic situation. Imports grew from the demand for high-quality cement from the Netherlands.



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 2023 reached a production volume of 42.74 million metric tons, a slight growth from the previous year by 0.13 percent (%YoY) from advance orders to support the expansion of government projects and real estate construction projects. Additionally, cement prices in 2024 may increase following the price of production factors such as energy and raw materials.

**Domestic sales of cement** (excluding clinker) in 2023 reached 38.12 million metric tons, a 1.39 percent (%YoY) decrease from the previous year due to the rising cost of living from many factors, such as energy prices and rising interest rates. As a result, consumers' purchasing power decreased.

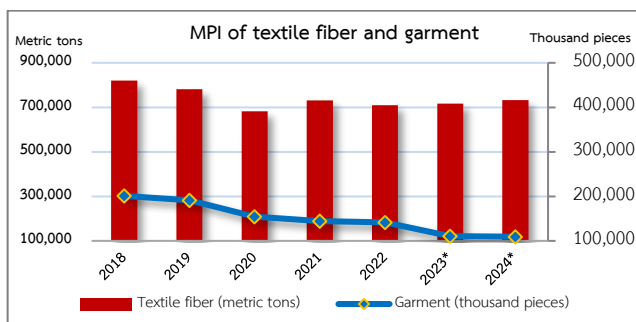
**Cement exports and imports** (excluding clinker in 2023) reached an export value of 160.93 million USD, a contraction from the previous year by 14.92 percent (%YoY) as key export markets were continuously affected by the global economic slowdown, such as Vietnam, Bangladesh, Cambodia, and the Philippines. Imports were valued at 79.37 million USD, an increase from last year by 18.49 percent (%YoY) following domestic demand. Most of the imports were high-quality cement from the Netherlands.

### Outlook for Cement Industry in 2024

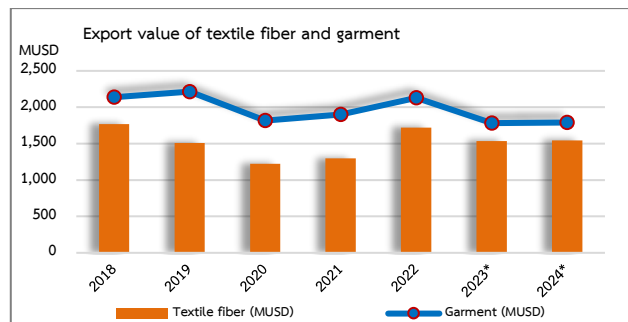
In 2024, the cement industry (excluding clinker) expects to see cement production (excluding clinker) grow from investment in large government projects, especially projects related to the Eastern Economic Corridors (EEC), including projects to expand road transport routes and rail systems throughout the country. In addition, private housing construction is likely to recover in line with gradual economic improvement. Export to key export markets is expected to grow again, especially to countries in the CLMV group, as the governments of the said countries are developing large infrastructure construction projects in the country.

## Textile and Wearing Apparel Industry

In 2023, the production of artificial fibers is expected to grow. Domestic sales are expected to grow from ready-made clothing, with supporting factors from the recovery of the tourism sector together with the government's economic stimulus measures. As a result, domestic consumption will continue to increase. Exports and domestic sales are forecasted to improve from the economic recovery of key trading partners, including the USA, China, Japan, and Belgium.



Source: The Office of Industrial Economics, Ministry of Commerce  
/ 2023-2024 are forecasted figures



**Production:** In 2023, textile fibers are expected to grow by 0.92 percent (%YoY) in the artificial fiber group from increased orders both domestically and abroad, from markets such as the USA and China, for use as raw materials in the production of a variety of products. Additionally, the products have special features that meet the needs of the global market.

Meanwhile, fabrics and ready-made clothing decreased by 17.30 percent and 21.80 percent (%YoY) from lower domestic consumption and fewer orders from trading partners due to the slowdown in the global economy, which caused the clothing industry to become sluggish.

**Domestic Sales:** In 2023, textile fibers were expected to shrink by 6.91 percent (%YoY) and fabrics by 26.90 percent as a result of reducing the purchase of raw materials and production capacity, including consumer demand that slowed down.

Meanwhile, garments grew by 0.78 percent (%YoY), supported by the recovery of the tourism sector together with the government's economic stimulus measures. As a result, domestic consumption has increased during the first and second quarters of 2023.

**Exports:** Overall, textile and clothing exports in 2023 contracted throughout the supply chain. The export value is estimated at 6,067.36 million USD, shrinking 11.48 percent (%YoY). Considered by product, textile fibers are expected to value at 1,536.94 million USD, shrinking 10.56 percent from important trading partners, including the USA and Indonesia. Garments are valued at 1,782.31 million USD, a decrease of 16.26 percent from fewer orders from important trading partners. In addition, the world economy slowed down, affecting the purchasing power and economic activities of consumers around the world. However, it is expected that exports and domestic sales will improve as the government has measures to stimulate spending and the recovery of the tourism sector.

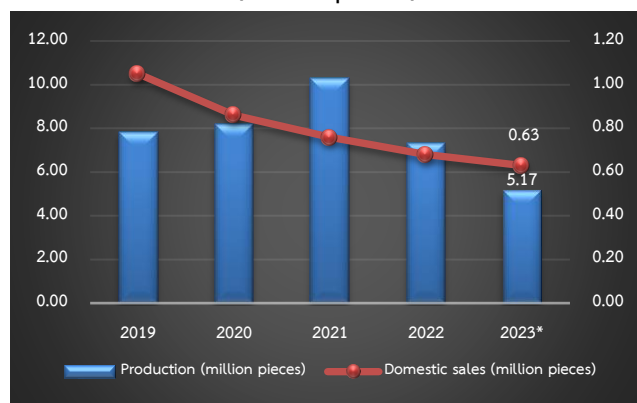
### Textile and Wearing Apparel Industry Outlook for 2024

Production is expected to grow slightly from the government's economic stimulus measures and policies to ease the burden of expenses on the people both in the short and long term. Exports and domestic sales are projected to grow slightly from the recovery of the tourism sector, together with the government's economic stimulus measures. As a result, domestic consumption increased. Furthermore, exports of textile fibers, fabrics, and garments are expected to continue growing. However, factors that need to be monitored include geopolitical conflicts, continuous increases in policy interest rates of major economies, the global economic slowdown, inflation issues in many countries, and energy shortages in Europe. This may be a pressing factor that causes the economy of trading partners to slow down. Furthermore, increased electricity prices and labor wages will affect the production costs of the textile and clothing industry as well.

## Wood and Wooden Furniture Industry

Compared to the previous year, it is expected that in 2023, the production and domestic sales of wooden furniture will decrease by 29.56 percent and 7.50 percent, respectively. The contraction is a result of the recent increase in the cost of living, which has resulted in a decrease in consumers' ability to spend. The export value of wood and wood products is expected to increase by 2.90 percent, mainly from increased demand for wood and wood panel products.

### Domestic Production and Sales of Wooden Furniture (million pieces)



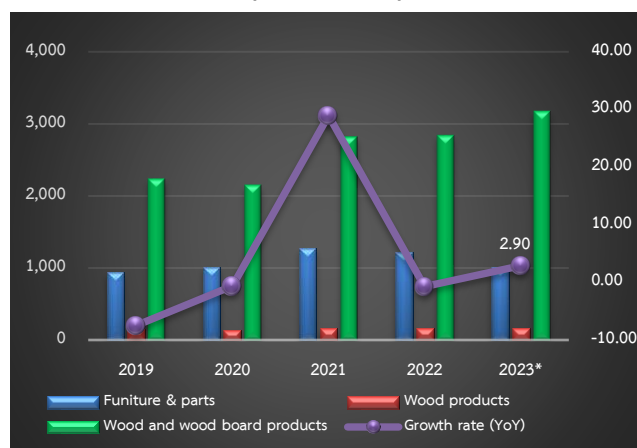
Source: The Office of Industrial Economics Note: \* estimated value

*Production of wooden furniture* in 2023 is expected to reach 5.17 million units, a decrease of 29.56 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 2023 are expected to reach 0.63 million units, a decrease of 7.50 percent compared to the previous year. This is due to the recent increase in the cost of living, which has resulted in a decrease in consumers' ability to spend.

*Exports value of wood and wooden products* in 2023 are expected to reach a value of 4,339.82 million USD, up 2.90 percent compared to the previous year. The export value of wood and wooden sheet products is expected to reach 3,166.08 million USD, an increase of 11.63 percent compared to the previous year. Wood products are expected to have an export value of 161.21 million USD, a growth of 2.60 percent. In comparison, furniture and parts are expected to see an overall export value of 1,012.54 million USD, a decrease of 17.30 percent. Overall, the value of exports of wood and wood products is forecasted to increase mainly from increased demand for products in the wood and wood sheet products group, especially the demand for processed wood in the Chinese market. China is an important export market for such products.

### Export Value of Wood and Wooden Products (million USD)



Source: Ministry of Commerce Note: \* estimated value

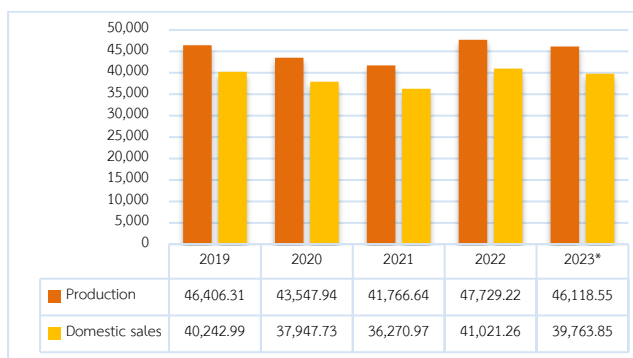
### Wood and Wooden Furniture Industry Outlook for 2024

Domestic wooden furniture production in 2024 is expected to increase to meet the needs of both domestic and international markets. As for the volume of wooden furniture sold in the country, it is expected that there will be an increasing trend from the government's issuance of economic stimulus measures such as the digital wallet measure, measures to suspend farmers' debts and to reduce energy costs. Such measures will help boost consumers' purchasing power. The export value of wood and wood products is likely to increase, mainly from products in the wood and wood sheet group. The import of wood and wood sheets is expected to increase due to the increased demand for raw materials for use in the production process.

## Pharmaceutical Industry

In 2023, the production and domestic sales of pharmaceuticals are expected to contract compared to last year by 3.37 percent and 3.07 percent, respectively. The contraction is in line with the trend of pharmaceutical demand both within the country and in the international market that slowed down, partly due to the COVID-19 outbreak that reduced in severity to become an endemic disease.

### Domestic Production and Sales (metric tons)



Source: The Office of Industrial Economics

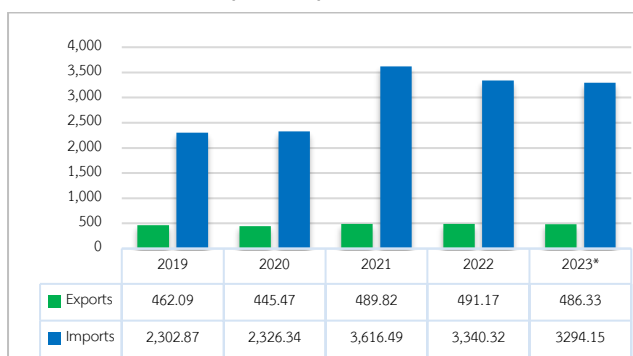
Note: \*Estimated by the Office of Industrial Economics

The survey data framework has been updated from 2023

*The pharmaceutical production* in 2023 is estimated to reach 46,118.55 metric tons, a decrease of 3.37 percent compared to the previous year. This decline is attributed to the reduced production of tablets, creams, and liquids, aligning with the trend of decreasing orders and demand for pharmaceuticals used to treat both communicable diseases and chronic non-communicable diseases (NCDs), which are experiencing slower growth.

*Pharmaceutical sales* in 2023 are estimated to amount to 39,763.85 tons, a decrease of 3.07 percent compared to the previous year. This decrease is primarily due to reduced sales of tablets, powders, creams, and liquids, in line with the trend of declining domestic demand for medicines.

### Pharmaceutical Import-Export Value (Million USD)



Source: Ministry of Commerce in collaboration with Customs Department

Note: \*Estimated by the Office of Industrial Economics

The survey data framework has been updated from 2023.

*Pharmaceutical exports* in 2023 are estimated to be valued at 486.33 million US dollars, showing a decrease of 0.99 percent compared to the previous year. This decline follows the shrinking demand observed in key markets in Asia and Europe.

*Pharmaceutical imports* in 2023 are estimated to be valued at 3,294.15 million US dollars, a decrease of 1.38 percent compared to the previous year. This decline is in line with the downward trend in the domestic demand for medicines, primarily due to a contraction in pharmaceutical imports from Asian countries such as China and India.

### Pharmaceutical Industry Outlook for 2024

Production and domestic sales in 2024 are expected to shrink by 0.25 to 0.50 percent compared to the previous year. This is a result of trends in the capacity of the public health system to deal with outbreaks or emerging diseases more efficiently. Furthermore, medical and public health technology is rapidly advancing. Pharmaceutical exports and imports in 2024 are expected to grow by 0.25 to 1.50 percent, in line with the trend of growing pharmaceutical demand in important markets in Asia and Europe and increasing demand for medicines in the country.

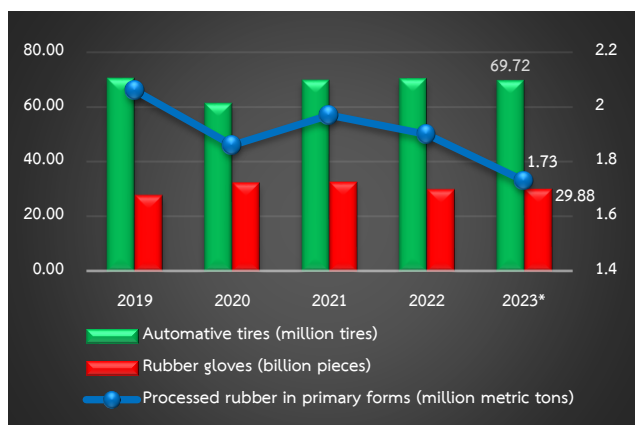
### Government Policies Relevant to the Pharmaceuticals Industry

The Food and Drug Administration has prepared a (draft) action plan for the development of Thailand's pharmaceutical system (2023-2027). It is in the process of being presented to the Cabinet for consideration and approval. It has reviewed and set the direction for developing the pharmaceutical system over the next five years to focus on creating stability in medicines, both in terms of production for self-reliance and management to meet the needs of the country.

## Rubber and Rubber Product Industry

In 2023, the production volume of processed rubber in primary forms and automobile tires was expected to decrease compared to last year by 8.76 percent and 0.85 percent, respectively. The reduction in processed rubber in primary forms can be attributed to decreased demand in the international market. Similarly, the decrease in automobile tires resulted from a slowdown in the domestic REM (Replacement Equipment Manufacturer) market. However, the production volume of rubber gloves increases by 0.52 percent, driven by expanding domestic demand for medical rubber gloves.

**Production Volume of Processed Rubber in Primary Forms, Automobile Tires, and Rubber Gloves**  
(million metric tons /million Tires/billion pieces)

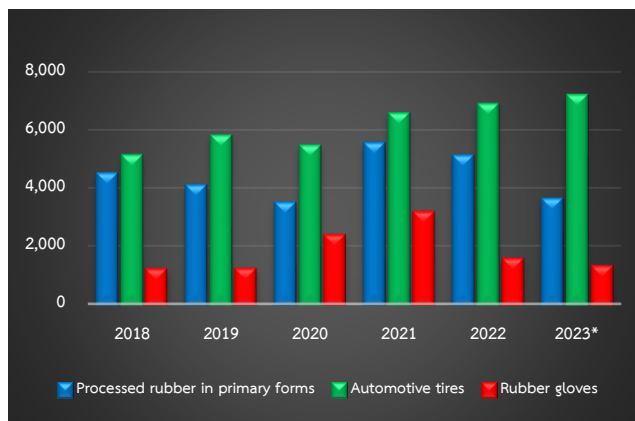


Source: The Office of Industrial Economics, Note: \* Estimated figures

*The production of processed rubber in primary forms, automobile tires, and rubber gloves in 2023 is expected to reach 1.73 million metric tons, 69.72 million tires, and 29,875 million pieces, respectively. Compared to the previous year, the production of processed rubber in primary forms decreased by 8.76 percent due to reduced production of rubber sheets, rubber blocks, and concentrated latex. Automobile tire production saw a decrease of 0.85 percent, owing to reduced production of pickup truck tires, truck and bus tires, and tractor tires. However, rubber glove production increased by 0.52 percent to meet domestic market demand primarily.*

*Sales of processed rubber in primary forms, automobile tires, and rubber gloves in 2023 are expected to be 0.50 million metric tons, 33.80 million pieces, and 2,743.81 million pieces, respectively. Sales of processed rubber in primary forms increased by 8.31 percent due to rising demand for rubber sheets and concentrated latex in downstream industries. However, sales of automobile tires decreased by 23.65 percent due to a slowdown in the REM (Replacement Equipment Manufacturer) market. On the other hand, sales of rubber gloves surged by 15.65 percent due to increased demand for medical rubber gloves.*

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



Source: Ministry of Commerce, Note: \* Estimated figures

*Exports of processed rubber in primary forms, automobile tires, and rubber gloves in 2023 are expected to be valued at 3,602.34, 7,175.21, and 1,284.24 million USD, respectively. Compared to the previous year, exports of processed rubber in primary forms and rubber gloves decreased by 29.21 percent and 16.80 percent, respectively, due to a slowdown in key export markets. Conversely, exports of automobile tires increased by 4.52 percent, mainly driven by heightened demand in the USA.*

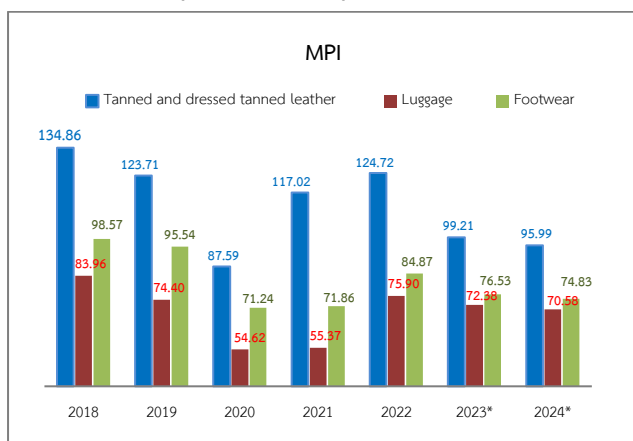
### Outlook for Rubber and Rubber Products Industry in 2024

In 2024, it is anticipated that the production volume of processed rubber in primary forms, automobile tires, and rubber gloves will increase for all three products. The production of processed rubber in primary forms and rubber gloves will primarily expand to meet domestic market needs. Meanwhile, tire production will grow due to increased demand for tires in key markets such as the USA, South Korea, and Australia.

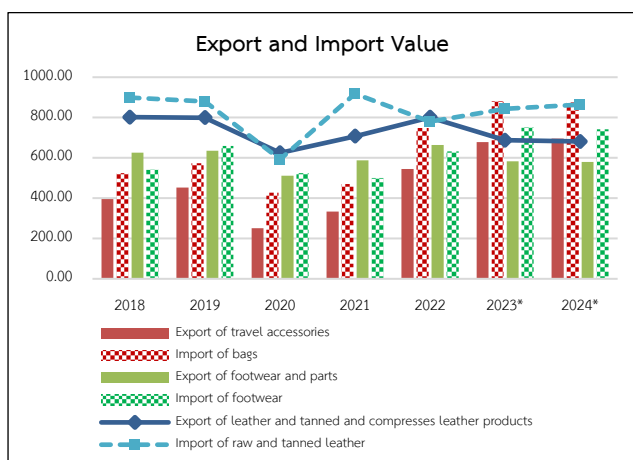
## Footwear and Leather Product Industry

In 2023, the footwear and leather products industry was expected to see a slight contraction in the production of tanned and finished leather, bags, and shoes compared to last year. The contraction is a result of economic growth facing many constraints. The main factor is the value of exports throughout the year, which is likely to be negative following the contraction of global industrial production. However, exports and domestic sales are expected to improve from economic stimulus measures and the recovery of the tourism sector.

### Production, Exports, and Imports (MUSD)



**Production** of tanned and finished leather in 2023 compared to last year expects to see tanned leather contract in MPI by 20.46 percent, travel bag products by 4.63 percent, and footwear by 9.82 percent. The contraction is in line with the fewer orders from trading partner countries due to the economic slowdown and pressure on consumer spending. Part of this comes from the trend towards saving the world, where consumers have switched to more environmentally friendly products and artificial leather materials such as mushroom-based leather and vegan leather.



**Exports-Imports** in 2023 were expected to reach a total value of approximately 1,948.02 million USD, a contraction of 3.04 percent (%YoY). Considered by product, leather, leather products, pressed leather, footwear, and parts shrank by 14.12 percent and 12.20 percent, respectively, as a result of inflation in many countries, which affected people's purchasing power. Meanwhile, travel bags grew by 24.42 percent from the recovery of the tourism sector in important export markets including the USA and China.

**Imports** in 2023 were expected to reach a total value of approximately 2,126.18 million USD, an increase of 12.59 percent compared to the previous year. The growth is a result of increased imports of bags and footwear by 51.39 percent and 22.31 percent, respectively, due to tourism for both Thais and foreigners picking up and government spending stimulus measures resulting in people spending more.

Source: 1. MPI – The Office of Industrial Economics  
 2. Export & Import Value – Ministry of Commerce  
 \* including handbags and similar products, saddles, and harnesses

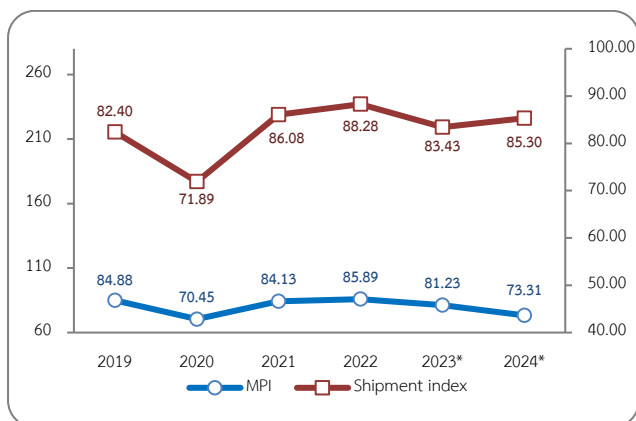
### Outlook for Footwear and Leather Production in 2024

Footwear and leather production in 2024 is expected to shrink slightly from the production of tanned and finished leather, travel bags, and footwear. The contraction is due to the global economic situation that has slowed down and as business operators switch to using more imported raw materials. Domestic sales and exports of travel bags and handbags are expected to grow slightly from government measures to stimulate spending and from the recovery of the tourism sector. The value of imports is expected to increase from the increasing demand for raw materials for use in the production process.

## Gems and Jewelry Industry

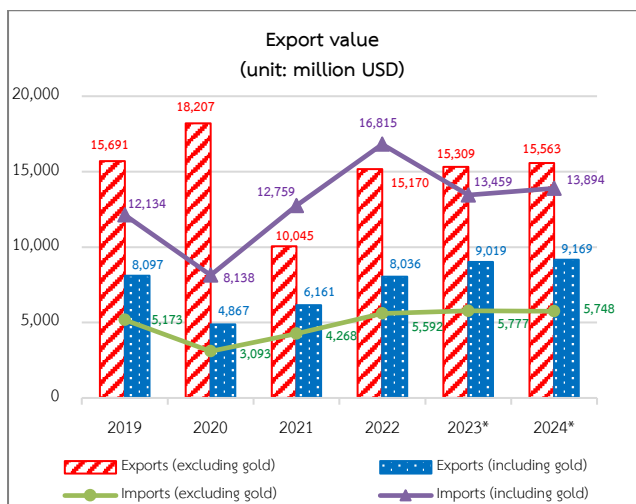
In 2023, the overall production of gems and jewelry decreased across all product groups. The contraction is due to a slowdown in domestic demand due to concerns over economic uncertainty and the high cost of living. This affected the purchasing power of consumers, which remained weak. In addition, the domestic tourism sector continued to recover, but spending per person remained limited. Export (excluding gold) grew in key markets such as Switzerland, Hong Kong, Japan, Italy, and China from the gradually recovering demand. Furthermore, the new generation of consumers turned to gems and accessories made from raw materials that are not very expensive and can be worn in everyday life.

Production, Sales, and Exports



**Production:** Overall gem and jewelry production in 2023 is expected to decrease by 5.43 percent from the production of polished diamonds, genuine jewelry, and artificial jewelry, decreasing by 8.13 percent, 4.30 percent, and 11.68 percent, respectively. The contraction is due to a slowdown in domestic demand from concerns about economic uncertainty and the high cost of living. These factors affected the purchasing power of consumers, which remained weak. In addition, the domestic tourism sector continued to recover, but spending per person was limited. Most of the production was mainly for exports.

**Exports – Imports:** Exports of gems and jewelry (excluding gold) in 2023 are expected to reach a value of 9,018.69 million USD, an increase of 12.22 percent from the export of gemstones and genuine jewelry, which increased by 81.21 percent and 12.79 percent. Exports of diamonds and artificial jewelry decreased by 23.19 percent and 4.09 percent, as the new generation of consumers has switched preferences to gems and jewelry made from inexpensive raw materials that can be worn in everyday life. Considering exports as a whole, it is expected that the total value will be 15,308.58 million USD, an increase of 1.34 percent. The growth comes from increased exports to trading partners, including Switzerland, Hong Kong, Japan, Italy, and China. Exports of unwrought gold are expected to reach a value of 6,289.89 million USD, a decrease of 11.04 percent. Important export markets include Switzerland, Singapore, Hong Kong, Cambodia, and India. The value of unwrought gold exports is expected to increase by 109.28 percent.



Source: 1. MPI and Shipment Index — the Office of Industrial Economics  
2. Export and import value — Ministry of Commerce  
\* Estimated by the Office of Industrial Economics

Imports of gems and jewelry (excluding gold) in 2023 are expected to value 5,776.91 million USD, an increase of 3.31 percent from the import of gems, genuine jewelry, and artificial jewelry, increasing by 52.41 percent, 34.23 percent, and 15.13 percent, respectively. Diamond imports decreased by 19.39 percent. Overall, gem and jewelry imports are expected to have a value of 13,458.78 million USD, a decrease of 19.96 percent.

### Outlook for Gems and Jewelry Industry in 2024

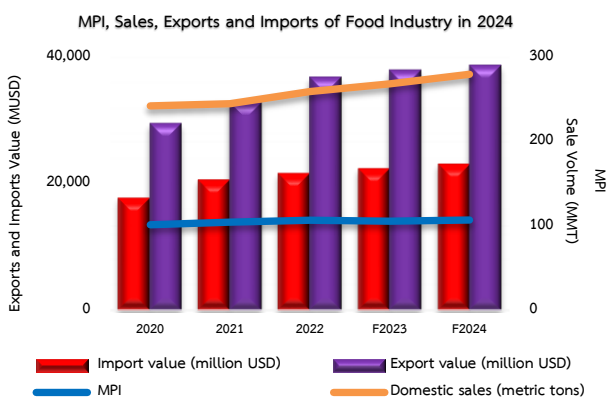
Overall gem and jewelry production in 2024 is expected to slow down due to decreasing domestic demand for products caused by economic uncertainty and fluctuating energy prices, which affect production costs and cause product prices to increase. As a result, consumers delay spending. Exports of gems and jewelry (excluding gold) are expected to increase slightly in value from gradually recovering demand, and guidelines for opening new markets and maintaining existing markets are to be used as a direction for expanding the market appropriately. This has led to a better recovery in exports. However, there are risks from strict monetary policy implementation in many countries. The Chinese economy may recover more slowly and be more fragile than expected. This is coupled with geopolitical issues, in particular, the Israeli-Hamas war, which has escalated and lasted longer, including tensions between China, Taiwan, and the USA that may intensify and impact Thailand's manufacturing and export sectors.



## Food Industry

The MPI of the overall food industry in 2023 slowed down slightly compared to the previous year, from the world economy that slowed down due to energy prices, inflation rates, and the unrest situation in many countries that remain uncertain. However, the tourism sector had a positive trend, and the value of exports grew. Trading partner countries still needed to import products for food security. As for the food industry outlook in 2024, there is still a trend for growth, but the slow recovery of the world economy will need to be monitored.

### MPI, Sales, Exports, and Imports of industrial products



Source: 1) The data on MP are provided by the Office of Industrial Economics.  
2) The data on import and export values are provided by the Ministry of Commerce, categorized by the Office of Industrial Economics.

The MPI of the food industry in 2023 stood at 105.8, decreasing by 1.0 percent (%YoY) from the previous year, with a high base resulting from the gradual easing of restrictions. This year, the world economy slowed down due to many factors, including energy prices, inflation rates, and ongoing geopolitical uncertainties. However, despite these challenges, there were food products that experienced significant expansion in production, including fresh, chilled, and frozen fruits, sugar, refined palm oil, and beverages that continued to grow.

### Outlook for Food Industry in 2024

In 2024, the MPI of the overall food industry is expected to grow from the domestic tourism sector, which continues to expand well, coupled with government policies that have issued measures to stimulate the economy. Product groups expected to grow well in 2024 include chilled and frozen fruits, which are still popular in China for consumption because Thailand is exempt from import taxes on such products. Chilled and frozen chicken is also expected to grow, as it has seen a continuous improvement trend from the expansion to new markets, including the EU market, which had trended towards increased demand for chicken consumption. Although sugar production is forecasted to decrease from last year, there is a direction of higher prices. Overall, there is growth, but factors that need to be monitored include the global economic recession, especially in Thailand's main trading partners. Unstable weather conditions must also be monitored, as they may affect crops, including raw material and energy costs that are still fluctuating.

**Domestic sales** in 2023 reached 268.8 million tons, a growth of 3.6 percent (%YoY) from key products, including 1) White sugar and refined sugar to support the growth of the food and beverage industry. 2) Refined palm oil as the price decreased from last year, causing the demand for domestic consumption to increase, and 3) Carbonated drinks, as manufacturers launched carbonated beverage products that are healthy alternatives, in line with the changing market popularity, making them more suitable to meet the needs of a variety of consumer groups.

**Exports** in 2023 were valued at 37,967.5 million USD, a growth of 3.1 percent (%YoY) from the export of key products, including 1) Rice, as many countries needed to import rice for food security. 2) Chilled and frozen chicken, due to increased consumption demand and the fact that Thailand has expanded exports to new markets. 3) Sugar, as Thailand has benefited from India, a major sugar exporter who suspended exports, and 4) Chilled and frozen fruits and vegetables due to the increasing consumption demand of main trading partners like China.

**Imports** in 2023 were valued at 19,116.3 million USD, a growth of 3.5 percent (%YoY) from the following key products: 1) Cereals, to be used as raw materials for production in the health food industry. 2) Oilseed meal is to be used as raw materials in the animal food industry, and 3) Products from flour are to support the expansion of the instant noodles and bakery industry.

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• Chemical Industry	Division of Industrial Policy by Sector 1	0-2430-6804
• Plastics Industry	Division of Industrial Policy by Sector 1	0-2430-6804
• Petrochemical Industry	Division of Industrial Policy by Sector 1	0-2430-6804
• Pulp, Paper and Print Media Industry	Division of Industrial Policy by Sector 2	0-2430-6805
• Ceramics Industry	Division of Industrial Policy by Sector 2	0-2430-6805
• Cement Industry	Division of Industrial Policy by Sector 2	0-2430-6805
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• Footwear and Leather Products Industry	Division of Industrial Policy by Sector 2	0-2430-6805
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