

# Report on the Industrial Economics Status

in Q3/2023  
and Outlook for Q4/2023



## Table of contents

	Page
<b>Executive Summary</b>	3
<b>Part 1</b> Thailand Economic and Industrial Overview for Q3/2023	5
<b>Part 2</b> Thai Industrial Economic Sectors in Q3/2023 and Outlook for Q4/2023	14
2.1 Iron and Steel Industry	15
2.2 Electrical appliance Industry	16
2.3 Electronics Industry	17
2.4 Automotive and Part Industry	18
2.5 Motorcycle and Part Industry	19
2.6 Chemical Industry	20
2.7 Plastics Industry	21
2.8 Petrochemical Industry	22
2.9 Pulp, Paper and Print Media Industry	23
2.10 Ceramic Industry	24
2.11 Cement Industry	25
2.12 Textile and Wearing Apparel Industry	26
2.13 Wood and Wooden Furniture Industry	27
2.14 Pharmaceutical Industry	28
2.15 Rubber and Rubber Product Industry	29
2.16 Footwear and Leather Product Industry	30
2.17 Gems and Jewelry Industry	31
2.18 Food Industry	32

## Executive Summary

### Summary of Thai Industrial Economic Status in Q3/2023

The industrial economic status in Q3/2023, when considered from the Manufacturing Production Index (MPI), reached 91.37, a contraction of 6.19 percent, compared to the same quarter last year. This was the fourth consecutive quarter of decline, in line with the global economic slowdown and increased financial risk factors, causing consumption and investment to decline. **Key industries that contracted in Q3/2023** included **electronic components and boards**, following the world economic climate that grew slowly, causing the demand for electronic components in the world market to slow. **Automobiles** contracted following the slowdown in the domestic automobile market due to weakening purchasing power and increased strictness in lending by financial institutions. **Computers and peripherals** contracted mainly from Hard Disk Drive products as major manufacturers reduced production plans in response to a continued slowdown in demand, with the impact of the global economic downturn and long-lasting and increasing geopolitical conflicts. **Industries that grew in Q3/2023** included **sugar**, as consumption demand continued to rise in both the domestic and export markets. **Plastics and synthetic rubber in primary forms** grew as the same period last year was a period of oversupply in the world market, causing Thai manufacturers to reduce production after exports decreased. In addition, this year, there were fewer production shutdowns than last year. **Other electronic and electric wires and cables** grew from orders from the Metropolitan Electricity Authority, Provincial Electricity Authority, and Electricity Generating Department, including the growth of projects from the public and private sectors.

### Key Industries Outlook for Q4/2023

↔ **Iron and Steel:** The MPI is expected to contract slightly from last year due to the downward trend of raw material prices in the world market, causing consumers to delay orders to monitor price trends, which may affect the demand for steel. However, if the construction of infrastructure and the government's industry support measures continue, it is expected to be a factor supporting the growth of the country's steel industry.

↓ **Electrical Appliances Industry:** The MPI is expected to contract by approximately 5.0 to 7.0 percent, and the value of exports by about 6.0 to 8.0 percent, due to the uncertainty of the global economic situation that continues to slow down, inflation, and production prices that have increased in line with inflation. These factors may cause production in the industry to slow down.

↔ **Electronics Industry:** The MPI is expected to contract by approximately 9.0 to 11.0 percent due to the burden of production costs on businesses and a shortage of raw materials used in the production of semiconductor chips and electronic components, which has prevented adequate production. However, electronic components are still necessary for the development of information technology systems and products for Information Technology (IT) infrastructure, resulting in continuous demand for electronic products in the global market. Meanwhile, the value of exports is forecasted to continue to grow by approximately 3.0 to 5.0 percent, as some essential products have gained a share of the world market and can still grow, such as solar cells following the trend of clean energy, environmental sustainability, and SDGs around the world. These factors also promote the increase in demand for integrated circuits in related industries such as the electric vehicle industry.

↔ Automobile: The production estimate for Q4/2023 is over 465,000 units, with approximately 45-50 percent allocated for domestic sales and 50-55 percent for export.

↓ Motorcycle: The production estimate for Q4/2023 is over 440,000 units, with approximately 80-85 percent allocated for domestic sales and 15-20 percent for export.

↔ Pulp, Paper, and Print Media: Paper and paper products used to produce packaging boxes are expected to grow following domestic consumption, and their use for packaging various products will grow in the entire supply chain. Pulp exports have continued to expand in China, which is a crucial export market, from the beginning of the year. Meanwhile, the book and publishing sector is expected to continue to slow down due to decreased demand from import markets such as Hong Kong and the US.

↔ Wood and Furniture: The production and sale volume of wooden furniture in the country is expected to decrease continuously based on data from the past year, which was at a high level, and the consistent demand from consumers in the country. Wood and wooden product exports are expected to grow, especially in the wood and wooden sheet products, in which demand is beginning to trend upward.

↔ Rubber and Rubber Products: The production volume of processed rubber products in primary forms (sheet rubber, block rubber, and concentrated latex) is forecasted to continue slowing down, following the decreasing demand for products in the international market. However, in terms of production volume, the production of automobile tires and rubber gloves is expected to increase. Automobile tires is expected to grow to meet overseas market demand and rubber glove production is expected to grow in order to meet domestic market demand.

↑ Gems and Jewelry: The industry is expected to expansion due to the travel trends during the year-end holiday season, both domestically and internationally, and demand for products as rewards and gifts, causing the increased purchasing demand for gems and jewelry. Additionally, the organization of the International Gem and Jewelry Festival in Chanthaburi Province in December 2023, featuring exhibitions, seminars to enhance business capabilities, and the sale of products from Thai and international entrepreneurs, is expected to drive the demand for these products further. However, it is crucial to monitor the global geopolitical situation in various regions, such as the ongoing conflict in Israel, the geopolitical tensions between Russia and Ukraine, and the strategic competition between China and the US. These factors may pose limitations on global economic growth in the near future, along with market fluctuations in the international financial sector due to the stringent monetary policies of major trading partners, especially the US and Europe. These factors could affect Thailand's production and exports in the remaining period of 2023.

↓ Food: The overall MPI of the industry is expected to continue to contract compared to the same quarter of the previous year due to the economic situation that persists to slow down. However, the export sector is likely to grow from the demand for products to prepare for the year-end holiday season. In addition, the Israeli-Palestinian conflict may cause food security concerns in the future.

## **Part 1** Thailand Economic and Industrial Overview for Q3/2023

## Thailand's Economic and Industrial Overview for Q3/2023

**Gross domestic product**  
increased by 1.5 percent (%YoY)



Source: Office of the National Economic and Social Development Council

**Industrial sector GDP**  
decreased by 4.0 percent (%YoY)



Source: Office of the National Economic and Social Development Council

The Gross Domestic Product (GDP) in Q3/2023 expanded by 1.5 percent, expanding at a slower rate than the previous quarter, which grew by 1.8 percent. The growth rate was also lower compared to the same period last year, which grew by 4.6 percent.

The GDP of the industrial sector in Q3/2023 contracted by 4.0 percent, a drop from the previous quarter, which decreased by 3.2 percent and 0.6 percent compared to the same period last year (2022).

### Key factors of GDP growth



Agricultural production increased by 0.9 percent.



Industrial production decreased by 4.0 percent.



The service sector increased by 3.9 percent.



Private consumption and expenditure increased by 8.1 percent.



Total investment increased by 1.5 percent.



Exports of goods and services increased by 0.2 percent.

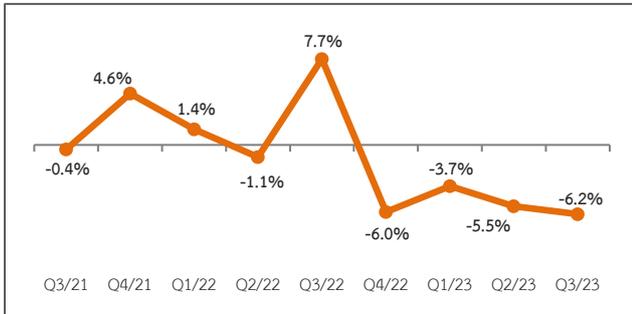
In Q3/2023, the agricultural sector expanded by 0.9 percent, while the industrial sector contracted by 4.0 percent. The service sector grew by 3.9 percent, private consumption and expenditure increased by 8.1 percent, overall investment expanded by 1.5 percent, and exports of goods and services expanded by 0.2 percent.

The GDP of the industrial sector in Q3/2023 decreased by 4.0 percent, a decrease in all production sectors. In particular, the export-oriented manufacturing sectors, such as the manufacture of computers and peripherals, electronic components and circuit boards, and automobiles, were affected by the economic slowdown of key trading partners.

## Key Industrial Index

### Manufacturing Production Index

*decreased by 6.2 percent (%YoY)*



Source: The Office of Industrial Economics

In Q3/2023, the Manufacturing Production Index (MPI) stood at 91.37 points, an increase of 1.28 percent from the previous quarter (90.21 points) but a decrease of 6.2 percent from the same quarter of 2022 (97.40 points).

Industries contributing to the decrease of the MPI from the previous quarter were the manufacture of sugar, automobiles, starch and starch products, and basic iron and steel, for example.

Industries contributing to the decrease of the MPI from the same quarter last year were the manufacture of electronic components and boards, automobiles, and computers and peripheral equipment, for example.

### Shipment Index

*decreased by 4.4 percent (%YoY)*



Source: The Office of Industrial Economics

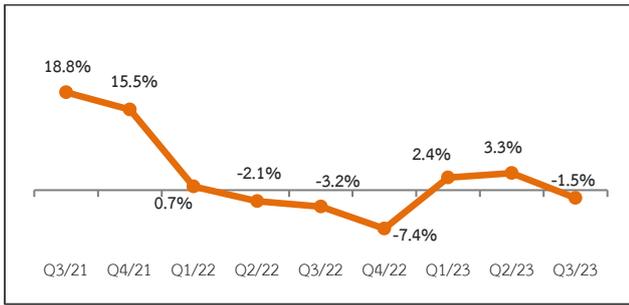
In Q3/2023, the Shipment Index stood at 93.86 points, an increase of 0.54 percent from the previous quarter (93.36 points) but a decrease of 5.9 percent from the same quarter of 2022 (99.69 points).

Industries contributing to the decrease in the Shipment Index from the previous quarter were the manufacture of automobiles, basic iron and steel, plastics and synthetic rubber in primary forms, for example.

Industries contributing to the decrease of the shipment index from the same quarter last year were the manufacture of electronic components and boards, computers and peripheral equipment, and air conditioners, for example.

### Finished Goods Inventory Index

decreased by 1.5 percent. (%YoY)



Source: The Office of Industrial Economics

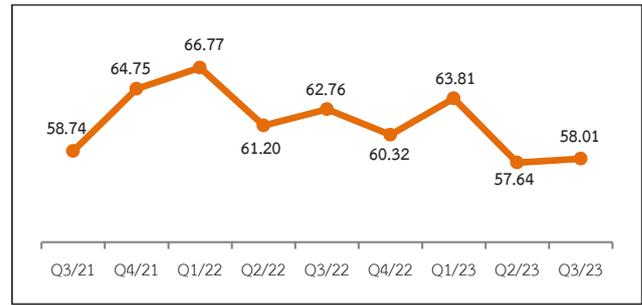
In Q3/2023, the finished goods inventory index stood at 135.97 points, a decrease of 1.13 percent from the previous quarter (137.53 points) and a decrease of 1.5 percent from the same quarter of 2022 (137.98 points).

Industries that contributing to the decrease of finished goods inventory index from the previous quarter were the manufacture of sugar, computers and peripheral equipment, and other rubber products, for example.

Industries contributing to the decrease of the finished goods inventory index from the same quarter last year (2022) were the manufacture of computers and peripheral equipment, other rubber products, and electronic components and boards, for example.

### Capacity Utilization Rate

stood at 58.01 percent.



Source: The Office of Industrial Economics

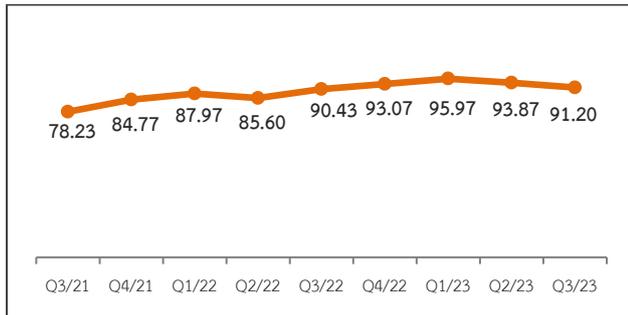
In Q3/2023, the capacity utilization rate stood at 58.01 percent, increasing from the previous quarter (57.68%) but decreasing from the same quarter of 2022 (62.76%).

Industries that contributed to the increase of capacity utilization rate from the previous quarter were the manufacture of automobiles, basic iron and steel, and starch and starch products, for example.

Industries that contributed to the decrease of capacity utilization rate from the same quarter last year were the manufacture of automobiles, electronic components and boards, and computers and peripheral equipment, for example.

## Industrial Sentiment Index

in Q3 stood at 91.20 points.



Source: The Federation of Thai Industries

In Q3/2023, the industry sentiment index was 91.20 points, decreasing from last quarter (93.87 points) but increasing from the same quarter last year (90.43 points). Meanwhile, the three-month forecast for the sentiment index was at 99.0 points, decreasing from the same quarter of 2022 (100.0 points).

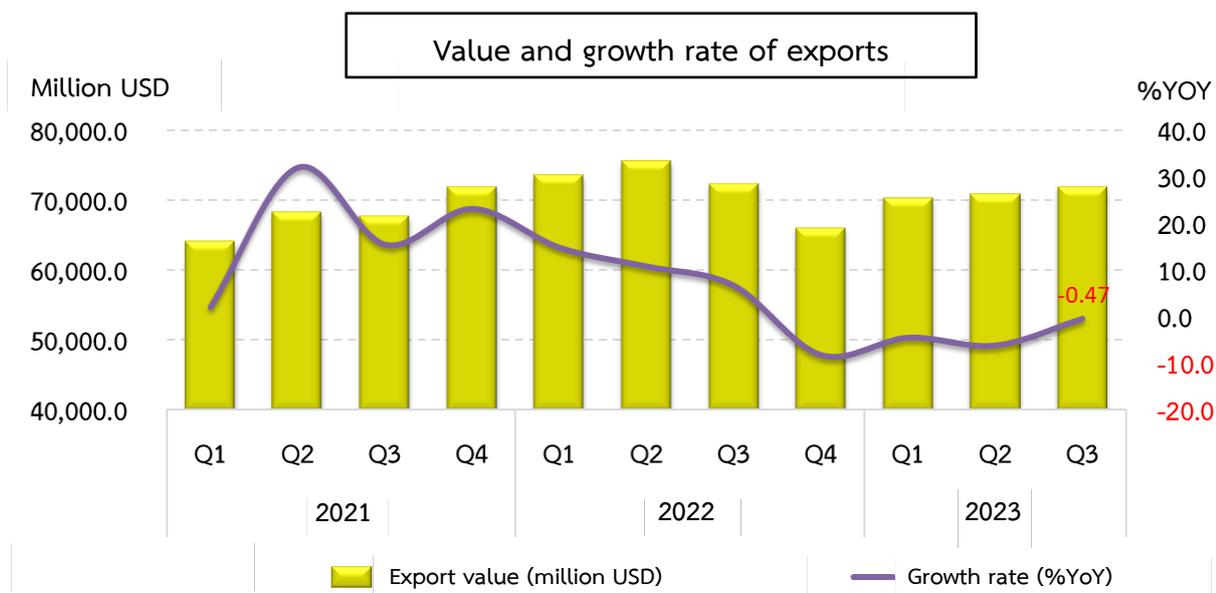
Factors affecting the decline in industrial confidence in Q3/2023 came from domestic risk factors from household debt problems and high living costs. As a result, purchasing power weakened. The Bank of Thailand's increase in the policy interest rate caused businesses to bear increased financial burdens. On external factors, the world economy continued to slow down, especially in trading partner countries. Exports showed signs of slowing down for ten consecutive months. However, supporting factors included the growth of the tourism sector, which helped boost domestic consumption and spending.

## Thailand's International Trade

" In Q3/2023, Thailand's International trade contracted by 5.87 percent compared to the same period last year (%YoY). This downturn can be attributed to the global economic slowdown, persistent geopolitical tensions, the impact of stringent monetary policies in various countries, and the slow recovery of the Chinese economy from real estate issues, all affecting Thailand's exports. Nevertheless, the country's economy may still expand, driven by the support from private consumption and the tourism sector."

Thailand's international trade in Q3/2023 reached a total value of 143,323.29 million USD, with exports valued at 71,899.08 million USD, decreasing by 0.47 percent (%YoY) compared to the same period last year, and imports valued at 71,424.22 million USD, decreasing by 10.74 percent (%YoY) compared to the same period last year. The trade balance in Q3/2023 was in a surplus balance of 474.86 million USD.

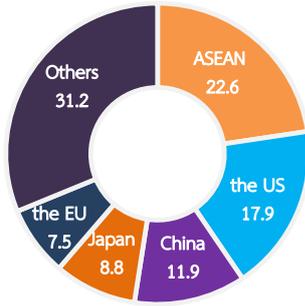
### Export Structure



Source: Ministry of Commerce

In Q3/2023, Thailand's exports were valued at 71,899.08 million USD, a decrease of 0.47 percent compared to the same period last year (%YoY). The main product categories that changed were agricultural products, with an export value of 6,740.96 million USD, an increase of 4.08 percent (%YoY); agro-industrial products, with an export value of 5,466.20 million USD, a decrease of 5.20 percent (%YoY); industrial goods, with an export value of 56,737.73 million USD, a decrease of 0.34 percent (%YoY); mineral and fuel products, with an export value of 2,954.19 million USD, a decrease of 3.68 percent (%YoY).

Export proportions (%)



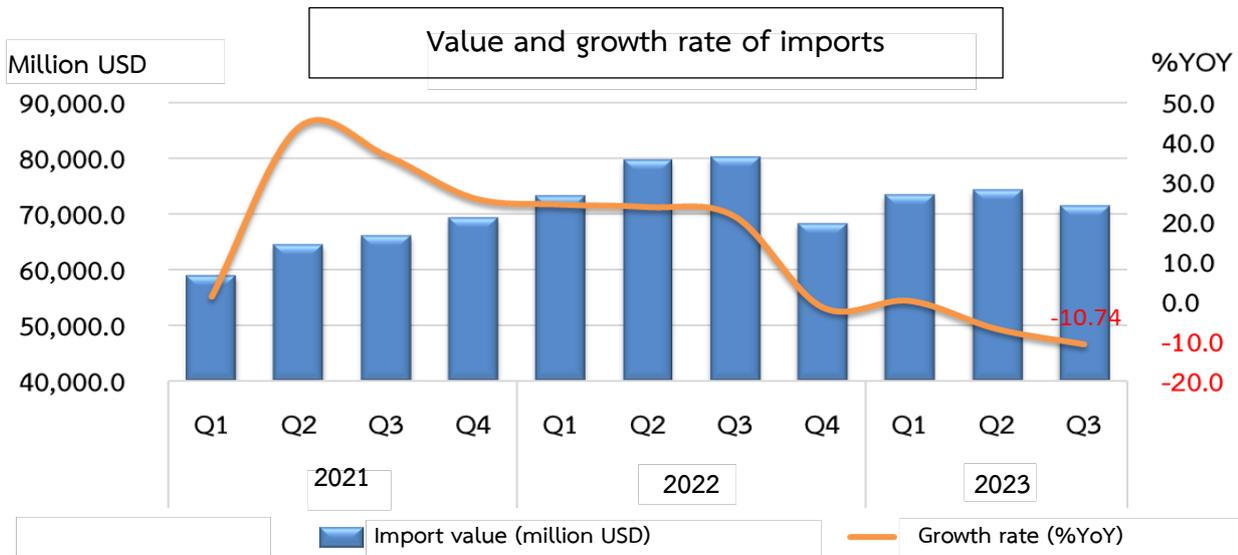
### Export Markets

In Q3/2023, Thailand's proportion of exports to five major trading partners, including ASEAN, the US, China, Japan, and the EU (27 countries), accounted for 68.77 percent of total exports. The remaining 31.23 percent of exports were destined for other markets as the following details:

Source: Ministry of Commerce

- The proportion of export value to ASEAN, the US, China, the EU (27 countries), and Japan were 22.63, 17.91, 11.92, 8.82, and 7.50 percent, respectively.
- Thailand's export value was 71,899.08 million USD, a decrease of 0.47 percent compared to the same period last year (%YoY). Among the major trading partners, exports to the EU experienced the most significant contraction (-22.51%), followed by ASEAN (-13.02%), however, exports decreased in China (4.83%), the US (3.48%), and Japan (2.75%) markets.

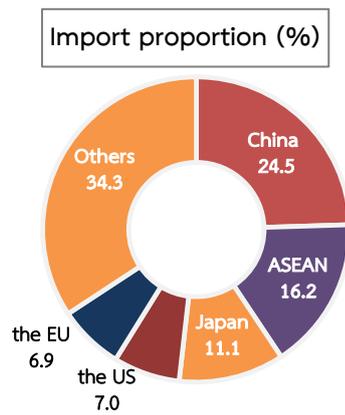
### Import Structure



Source: Ministry of Commerce

In Q3/2023, Thailand's goods imports were valued at 71,424.22 million USD, a decrease of 10.74 percent compared to the same period last year (%YoY). Changes in the import of key products were as follows: fuel products, with an import value of 12,653.16 million USD, a decrease of 25.16 percent (YoY). Capital goods reached an import value of 17,069.12 million USD, an increase of 3.16 percent (YoY). Raw materials and semi-finished goods reached an import value of 28,067.29 million USD, decreasing by 18.36 percent (YoY). Consumer goods reached an import value of 8,150.22 million USD, increasing by 1.20 percent (YoY). Vehicles and transport equipment reached an import value of 4,427.98 million USD, increasing by 39.69 percent (YoY). Lastly, weapons, military supplies, and other goods reached an import value of 1,056.45 million USD, increasing by 9.36 percent (YoY).

## Import markets



Source: Ministry of Commerce

In Q3/2023, Thailand's proportion of imports from five major trading partners, including China, ASEAN, Japan, the US, and the EU (27 countries), accounted for 65.75 percent of total imports, and imports from other markets account for 34.25 percent of total imports, with details as follows.

- Thailand's imports from China, ASEAN, Japan, the US, and the EU (27 countries) accounted for 24.51, 16.21, 11.08, 7.02, and 6.92 percent, respectively.
- Thailand's imports amounted to 71,424.22 million USD; a decline of 10.74 percent (%YoY) compared to the same period last year (%YoY). Imports from ASEAN decreased the most by 12.43 percent, followed by imports from Japan and China, which decreased by 12.26 and 4.39 percent, respectively. In contrast, imports from the EU (27 countries) expanded the most at 10.09 percent, followed by the US, which grew by 8.00 percent.

## Global Economy in Q3/2023

The world economy in Q3/2023 had relatively low growth compared to the previous quarter, a result of the slowdown in merchandise exports and industrial production, especially in major economies like China. This was due to the continuous downturn in domestic investment, especially in the real estate sector, including the internal demand of many countries, which began to slow down. Additionally, the economy was impacted by the implementation of strict monetary policy by central banks in major economies, which continually raised the policy interest rate, inflation rates in many countries that remained high, and geopolitical conflicts that were still protracted. However, there was support from the recovery of the service and tourism sectors.

### Summary of Key Economic Indicators in Q3/2023

Quarterly Growth (%YoY)

	GDP	Inflation	MPI	Export	Unemp. Rate	Policy Rate
the US	↑ 2.9	↑ 3.6	↓ -0.2	↓ -5.7	At 3.7	At 5.25-5.50
China	↑ 4.9	↑ 0.1	↑ 4.2	↓ -10.8	At 5.2	At 3.45
Japan	↑ 1.2	↑ 3.1	↓ -3.8	↓ -3.1	At 2.6	At -0.10
Malaysia	↑ 3.3	↑ 2.0	↓ -0.03	↓ -17.8	At 3.4	At 3.0
Vietnam	↑ 5.3	↑ 2.9	↑ 2.6	↓ -2.4	At 2.3	At 3.0
Thailand	↑ 1.5	↑ 0.5	↓ -6.1	↓ -3.1	At 1.1	At 2.5

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

In Q3/2023, crude oil prices in the world market decreased when compared to the same period last year due to (1) China's economic slowdown, which is the world's largest oil consumer. As a result, the demand for oil in the world market decreased. (2) Central banks in major economies maintained high policy interest rates, resulting in a slowdown in economic activity, and (3) the US commercial crude oil reserves increased.

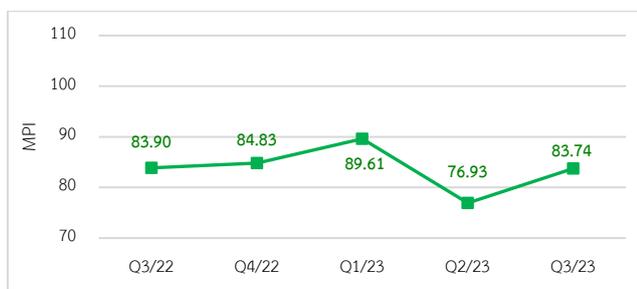
The world economy in 2024 is likely to grow at a slower rate than in 2023 as significant economies recover following domestic and international demand and inflation rates decrease from the implementation of strict monetary policy. However, increasing policy interest rates and continued geopolitical may affect the world economy, including the real estate market situation in China, and may cause the global economy not to recover as expected.

**Part 2** Thai Industrial Economic Sectors in Q3/2023 and the  
Outlook for Q4/2023

## Iron and Steel Industry

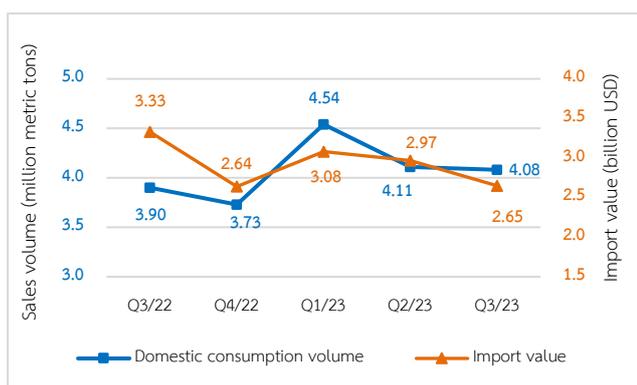
The iron and steel industry's MPI in Q3/2023 contracted slightly compared to the same quarter of 2022 from the reduced production of long products such as wire rods, wires, and high tensile wires. However, the production of flat products increased from hot-rolled coils and galvanized sheets.

### Manufacturing Production Index (MPI)



Source: The Office of Industrial Economics

### Domestic consumption and import value



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

**Production:** In Q3/2023, the industrial production index was 83.7 points, a decrease of 0.2 percent (%YoY) from the same quarter last year but an increase of 8.9 percent (%QoQ) compared to the previous quarter. The production of long products, compared to the same quarter last year, decreased by 0.8 percent. The product with the highest decreased production was wire rods (-27.5%), followed by wires (-3.69%) and high tensile wires (-1.2%). The production of flat products also increased by 1.9 percent, with the highest increase in hot-rolled coils (15.0%), followed by galvanized sheets (1.9%).

**Domestic consumption:** In Q3/2023, domestic consumption in Thailand reached 4.1 million metric tons, an increase of 4.4 percent (%YoY) from the same quarter last year and a decrease of 0.9 percent (%QoQ) compared to the previous quarter. Consumption of long products, compared to the same quarter last year, increased by 10.0 percent with the highest consumption in rebars and structural steel sections (26.0%) and wire rods (3.0%). Furthermore, the consumption of flat products increased by 1.2 percent mainly from the consumption of galvanized sheets (27.5%), followed by hot-rolled steel sheets (2.4%).

**Imports:** In Q3/2023 were valued at 2.7 billion USD, a decrease of 20.7 percent (%YoY) from the same quarter last year and a decrease of 11.0 percent (%QoQ) from the previous quarter. Imports of long products, compared to the same quarter last year, decreased by 15.2 percent, with the highest contraction in structural stainless-steel sections (-65.2%) (key sources of imports being China, Japan, and Malaysia). This was followed by stainless steel wire rods (-48.9%) and seamless steel pipe (-30.7%). Imports of flat products also decreased by 22.6 percent. Long product experiencing the highest decrease in imports was hot-rolled stainless steel sheets (-54.0%) (key sources of imports being South Korea, Indonesia, China and Japan). This was followed by hot-rolled alloy steel plates (-48.9%) and chromium-coated sheet (-46.0%).

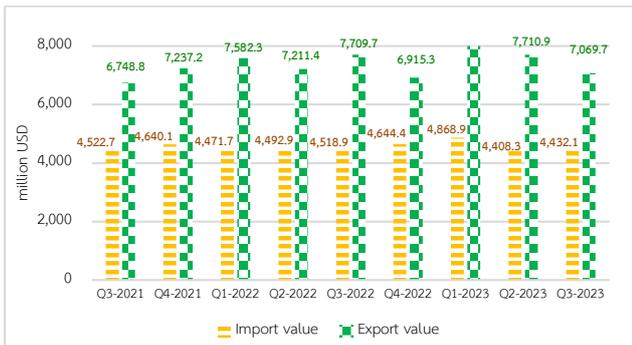
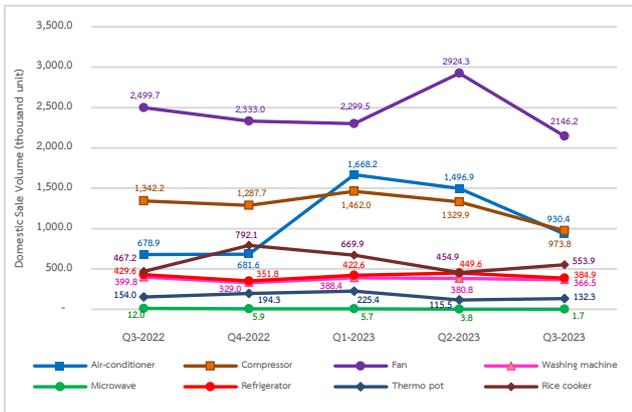
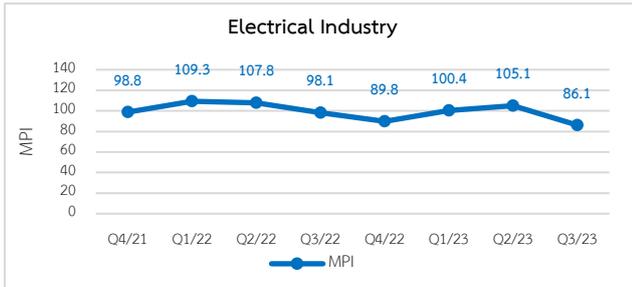
### Iron and Steel Industry Outlook for Q4/2023

*In Q4/2023, the iron and steel industry is expected to contract slightly compared to the same period last year as the prices of raw materials in the world market decrease. This has led consumers to delay orders to observe price trends, potentially impacting the demand for steel. However, the accelerated construction activities in the governmental, enterprise, and private sectors, following the recovery of the tourism sector, are anticipated to be supporting factors for the growth of the domestic steel industry.*

## Electrical appliance Industry

The production of the electrical appliances industry in Q3/2023 decreased by 12.3 percent compared to the same quarter last year, as the demand in the world market fell and the world economy has yet to recover. Products that saw a decrease in production included compressors, electric transformers, electric motors, air conditioners, thermo pots, microwave ovens, household fans, and refrigerators. In addition, exports to the US, Europe, Japan, China, and ASEAN markets decreased.

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



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

**Production of electrical appliances:** In Q3/2023, the MPI stood at 86.1 points, a decrease of 18.1 percent from the previous quarter (%QoQ) and a decrease of 12.3 percent compared to the same quarter last year (%YoY). Products with a decrease in production included compressors (-37.3%), transformers (-31.4%), electric motors (-27.0%), air conditioners (-15.3%), thermo pots (-13.7%), microwave ovens (-5.0%), household fans (-1.1%), and refrigerators (-0.9%). The decrease was due to a decline in global market demand, and the world economy has not yet fully recovered. On the other hand, there was an increase in the production of power lines (28.7%), washing machines (27.1%), cables (8.6%) and rice cookers (7.8%).

**Domestic sales:** In Q3/2023, the products that decreased in sales compared to the same quarter last year were compressors (-33.4%), refrigerators (-16.5%), thermo pots (-15.6%), microwave ovens (-11.9%), fans (-6.7%), and washing machines (-5.6%). On the other hand, products that increased in sales were air conditioners (20.3%) and rice cookers (14.9%).

**Imports of electrical appliances:** In Q3/2023, imports of electrical appliances were valued at 4,432.1 million USD, an increase of 0.5 percent compared to the previous quarter (%QoQ) but a decrease of 1.9 percent compared to the same quarter of the previous year (%YoY). Main products that experienced a decrease in imports were washing machines (-43.5%), microwave ovens (-13.2%), fans (-10.5%), and electrical motors (-8.7%).

**Exports of electrical appliances:** In Q3/2023, exports of electrical appliances were valued at 7,069.7 million USD, a decrease of 8.3 percent compared to the previous quarter (%QoQ) and a decrease of 8.3 percent from the same quarter last year (%YoY). Exports to the US, Europe, Japan, China and ASEAN markets dropped by 64.5, 29.4, 29.3, 28.8, and 27.6 percent, respectively. Among products that experienced a decrease in exports were microwave ovens (-34.7%), air conditioners (-33.1%), electrical motors (-12.7%), and fan (-8.1%).

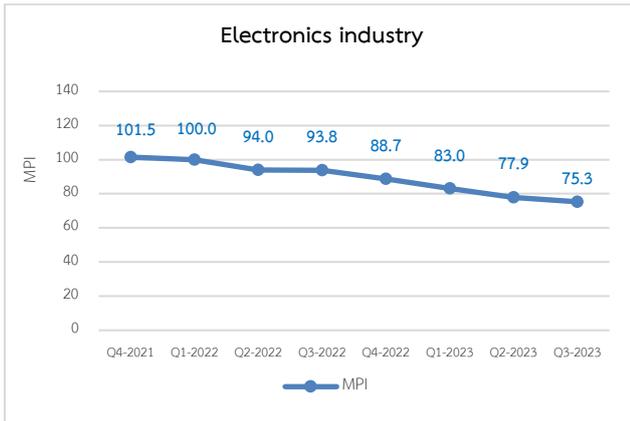
### Electrical Appliance Industry Outlook for Q4/2023

In Q4/2023, the electrical appliances industry is expected to contract in MPI by approximately 5.0 to 7.0 percent and the export value by about 6.0 to 8.0 percent due to uncertainty of the global economy, which continues to slow down. Furthermore, inflation and increased production prices line up with inflation and may cause production in the industry to slow down.

## Electronics Industry

The production in the electronics industry in Q3/2023 decreased by 19.8 percent compared to the same quarter last year due to higher production costs and insufficient raw materials to meet the global market's demands. Products that saw a decrease in production included semiconductor device transistors, printers, printed circuits (PCBA), HDDs, integrated circuits (ICs), and circuit boards (PWBs). However, the export value of integrated circuits increased in the Japanese market.

### MPI, Import and Export Value of Electronics



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

*The electronics production* in Q3/2023 reached an MPI of 75.3 points, a decrease of 3.3 percent compared to the previous quarter (%QoQ) and a decrease of 19.8 percent compared to the same period last year (%YoY). Among electronic products that decreased in production were semiconductor devices (transistor) (-37.1%), printers (-34.8%), Printed Circuit Board Assembly (PCBAs) (-23.5%), Hard Disk Drives (HDDs) (-18.8%), Integrated Circuits (ICs) (-17.0%), and Printed Wired Boards (PWBs) (-1.5%). The primary reason for this decline is attributed to the rising production costs and insufficient raw materials to meet global market demand.

*Imports of electronics products* in Q3/2023 were valued at 11,421.2 million USD, an increase of 5.7 percent (%QoQ) from the previous quarter but a decrease of 4.2 percent (%YoY) compared to the same quarter last year. Key products decreasing in import were Printed Circuit Board Assembly (-17.7%), Integrated Circuits (-11.3%) and printers (-8.4%).

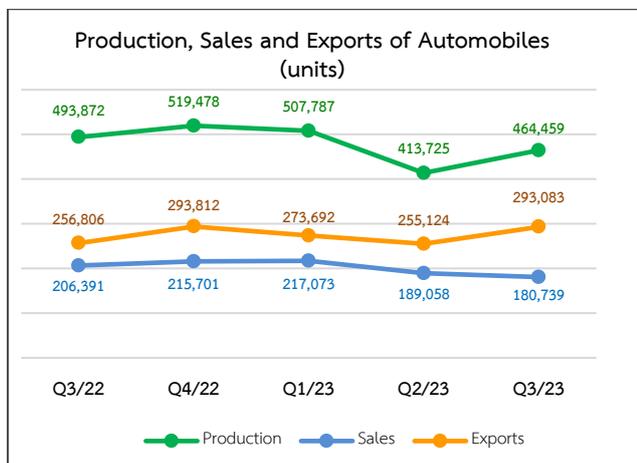
*Exports of electronics products* in Q3/2023 were valued at 12,027.3 million USD, an increase of 10.6 percent from the previous quarter (%QoQ) and an increase of 2.9 percent (%YoY) from the same quarter last year. In particular, exports to Japan grew by 33.6 percent, driven by increased exports of key products, especially Integrated Circuits (ICs), which increased by 15.4 percent.

### Electronics Industry Outlook for Q4/2023

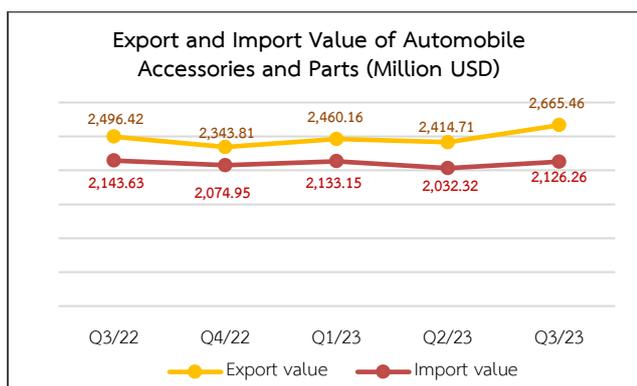
In Q4/2023, the electronics industry is expected to contract in MPI by approximately 9.0 to 11.0 percent due to the burden of production costs by entrepreneurs. In addition, a shortage of raw materials for the production of semiconductor chips and electronic components may prevent adequate production. However, electronic components are still necessary for the development of information technology systems and products for IT infrastructure, resulting in continuous demand for electronic products in the world market. Meanwhile, the value of exports will continue to grow by approximately 3.0 to 5.0 percent as some essential products gain a share of the world market and continue to grow, such as solar cells, from the trend of using clean energy, environmental sustainability, and SDGs around the world. This will also increase the demand for integrated circuits in related industries, such as the electric vehicle industry.

## Automotive and Part Industry

The automobile production volume in Q3/2023 expanded compared to the previous year's period. However, the domestic market experienced a slowdown due to the strict approval process for financial institution loans, coupled with an increase in interest rates. As for exports, there was an expansion in the export market for all types of vehicles.



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



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

### Automotive Industry Outlook for Q4/2023

According to the Office of Industrial Economics (OIE) estimates, in Q4/2023, over 465,000 units of automobiles will be manufactured. Of those, 45-50 percent will be for domestic sales, and 50 - 55 percent will be manufactured for exports.

### Automotive Production

In Q3/2023, automotive production increased by 12.6 percent (%QoQ) from Q2/2023 to 464,459 units but decreased by 3.25 percent (%YoY) from the same quarter last year. The production proportion consisted of passenger cars (34%), 1-ton pickup trucks and derivatives (63%), and other commercial vehicles (3%).

### Domestic Sales of Automobiles

In Q3/2023, domestic sales decreased by 4.40 percent (%QoQ) from Q2/2023 to 180,739 units and decreased by 12.43 percent (%YoY) from the same quarter last year.

### Automotive Exports

In Q3/2023, automobile exports increased by 14.88 percent (%QoQ) from Q2/2023 to 293,083 units and increased by 14.13 percent (%YoY) from the same quarter last year. The export proportion consisted of passenger cars (31%), 1-ton pickup trucks (58%), and PPVs (11%).

### Export Value of Automotive Parts and Accessories

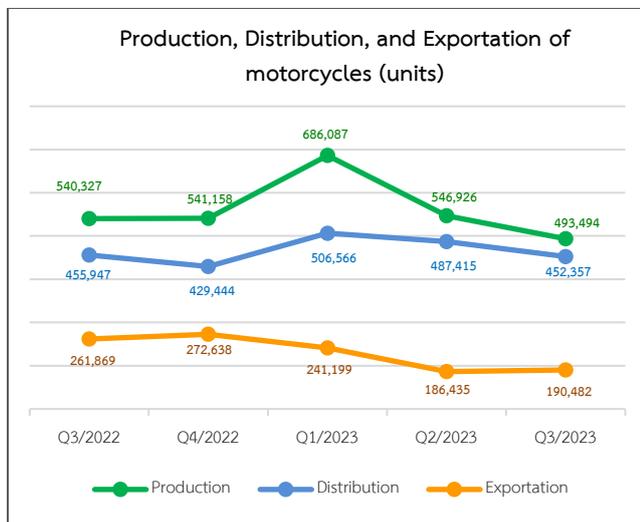
In Q3/2023, exports value increased by 10.39 percent (%QoQ) from Q2/2023 to 2,665.46 million USD and increased by 6.77 percent (%YoY) from the same quarter last year. Key export markets for automotive parts and accessories were the US, Japan, and Malaysia.

### Import Value of Automotive Parts and Accessories

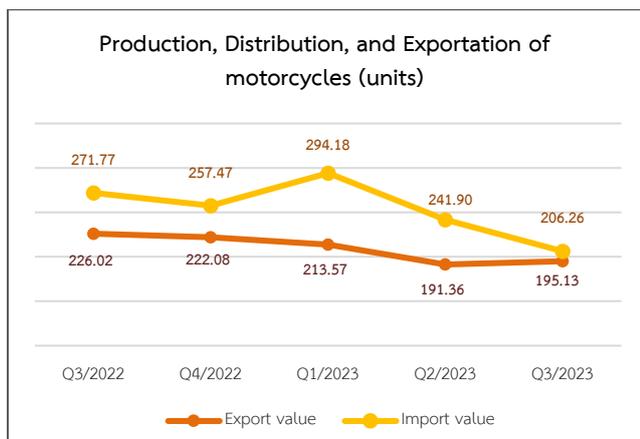
In Q3/2023, imports increased by 4.62 percent (%QoQ) from Q2/2023 to 2,126.26 million USD but decreased by 0.81 percent (%YoY) from the same quarter last year. Key import markets for automotive parts and accessories were Japan, China, and the US.

## Motorcycle and Part Industry

The production volume of motorcycles in Q3/2023 slowed down compared to the same period last year, from a slowdown in the domestic market and export markets, following the domestic economy and the economy of trading partners.



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



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

**Motorcycle Production:** In Q3/2023, motorcycle production decreased by 9.77 percent (%QoQ) from Q2/2023 to 493,494 units and decreased by 8.67 percent (%YoY) from the same quarter last year.

### Domestic Sales of Motorcycles

In Q3/2023, domestic sales decreased by 7.19 percent (%QoQ) from Q2/2023 to 452,357 units and decreased by 0.79 percent (%YoY) from the same quarter last year.

**Motorcycle Exports:** In Q3/2023, motorcycle exports amounted to 190,482 units an increase of 2.17 percent (%QoQ) from Q2/2023 but a decrease of 27.26 percent (%YoY) compared to the same quarter last year. Among these, exports as completely built units (CBU) accounted for 85,450 units, while exports as completely knocked-down units (CKD) amounted to 105,032 sets.

**Export Value of Motorcycle Parts:** In Q3/2023, exports were valued at 195.13 million USD, an increase of 1.97 percent (%QoQ) from Q2/2023 but a decrease of 13.67 percent (%YoY) from the same quarter last year. Key export markets for motorcycle parts included Japan, Cambodia, and Brazil.

### Import Value of Motorcycles Parts and Accessories

In Q3/2023, imports of motorcycle parts and accessories were valued at 206.26 million USD, a decrease of 14.73 percent (%QoQ) from Q2/2023 and a decrease of 24.11 percent (%YoY) from the same quarter last year. Key import markets for motorcycle parts and accessories were the US, Japan, and China.

## Motorcycle Industry Outlook for Q4/2023

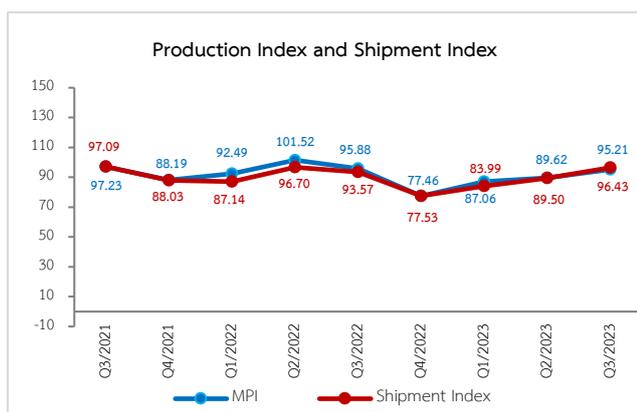
According to estimates from the Office of Industrial Economics (OIE), in Q4/2023, the production of motorcycles is projected to exceed 440,000 units. Among these, 80-85 percent are anticipated for domestic sales, while 15-20 percent are expected to be allocated for exports.

## Chemical Industry

In Q3/2023, the chemical industry experienced a contraction in both export and import values compared to the same quarter last year. This decline is attributed to the volatile crude oil prices, the global economic downturn, the increased cost of raw materials, and the rise in prices of consumer goods worldwide, which affected the inflation rates. Exports of oil-related products, including plastic pellets and chemicals, to key markets such as China, Japan, and Vietnam decreased.

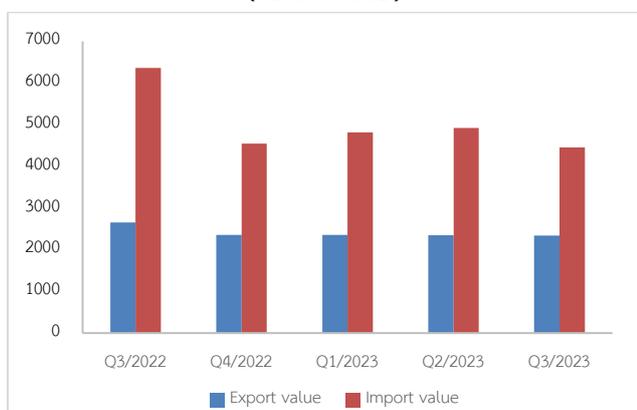
### Marketing and sales

MPI and Shipment Index



Source: The Office of Industrial Economics

Export and import value of chemicals products (Million USD)



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

**Manufacturing Production Index:** In Q3/2023, the MPI increased by 6.24 percent compared to the previous quarter (%QoQ) but decreased by 0.70 percent compared to the same quarter last year (%YoY). Among products that decreased in MPI were talcum powder, ethanol, and washing powder, for example.

**Shipment Index:** In Q3/2023, the shipment index increased by 7.74 percent from previous quarter (%QoQ) and increased by 3.06 percent compared to the same quarter last year (%YoY). Among products that increased in shipment index were talcum powder, ethanol, and hydrochloric acid, for example.

**Exports of chemicals:** In Q3/2023, exports were valued at 2,339.63 million USD, a decrease of 0.20 percent compared to the previous quarter (%QoQ) and a decrease of 11.90 percent compared to the same quarter last year (%YoY). Key products contributing to the decrease of export value were chemical fertilizers, organic chemicals, and inorganic chemicals, for example.

**Import of chemicals:** In Q3/2023, imports were valued at 4,452.80 million USD, a decrease of 9.52 percent compared to the previous quarter (%QoQ) and a decrease of 29.99 percent from the same quarter last year (%YoY). Key products contributing to the decrease of import value were inorganic chemicals, surfactants, and miscellaneous chemicals, for example.

### Chemical Industry Outlook for Q4/2023

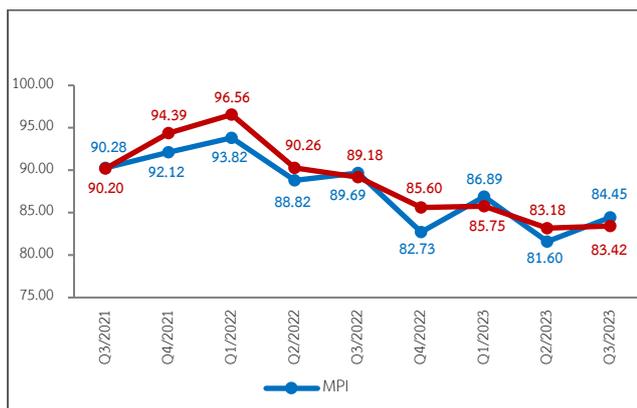
In Q4/2023, the production in the chemicals industry is expected to decrease compared to the same quarter last year as domestic consumption decreases and because of the global economic recession. Chemical exports are predicted to shrink compared to the same quarter the previous year from the demand for downstream products affected by the sluggish economic conditions, inflation rates, and increased interest rates.

## Plastics Industry

In Q3/2023, the production of the plastics industry decreased from the same quarter last year, as the selling price increased from higher raw material costs. In addition, trading was limited, with buyers delaying purchases of exports and imports shrinking as rising crude oil prices affected the production costs of related plastic products. This caused the production of some types of plastic to slow down, and buyers slowed down to monitor prices.

### Production and Sales

MPI and Shipment Index

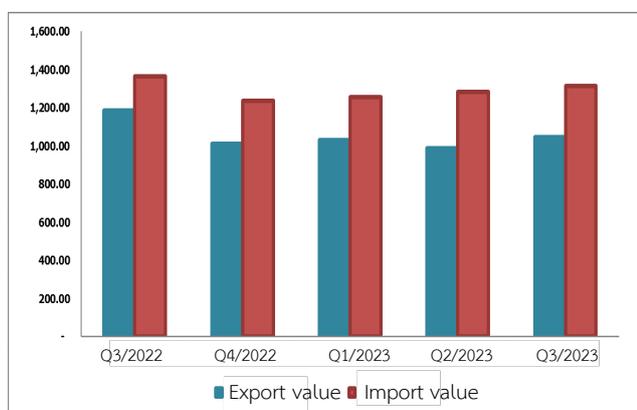


Source: The Office of Industrial Economics

**Manufacturing Production Index:** In Q3/2023, the MPI increased by 3.05 percent compared to the last quarter (%QoQ) and decreased by 5.84 percent compared to the same quarter last year (%YoY). Products with the most decrease in MPI included plastic bags, plastic sacks, and other plastic packaging.

**Shipment Index:** In Q3/2023, the shipment index decreased by 0.29 percent compared to the previous quarter (%QoQ) and decreased by 6.46 percent compared to the same quarter of the previous year (%YoY). Products with the most decrease in shipment index included plastic bags, plastic sacks, and other plastic packaging.

Export and Import Volume (metric tons)



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

**Export Value:** In Q3/2023, the value of exports amounted to 1,144.12 million USD, an increase of 16.16 percent compared to the previous quarter (%QoQ) but a decrease of 3.50 percent compared to the same quarter last year (%YoY). The product category with the most decrease in export was household articles.

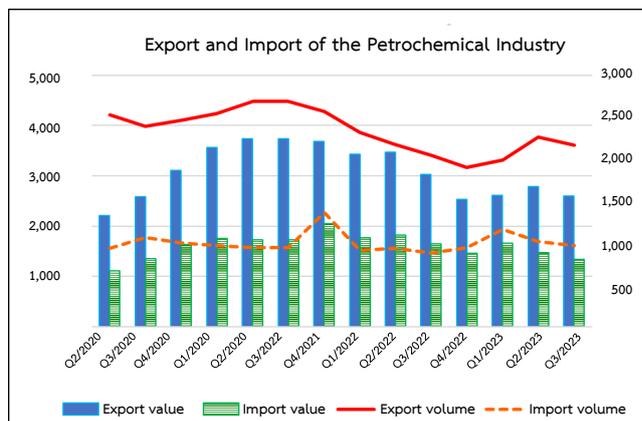
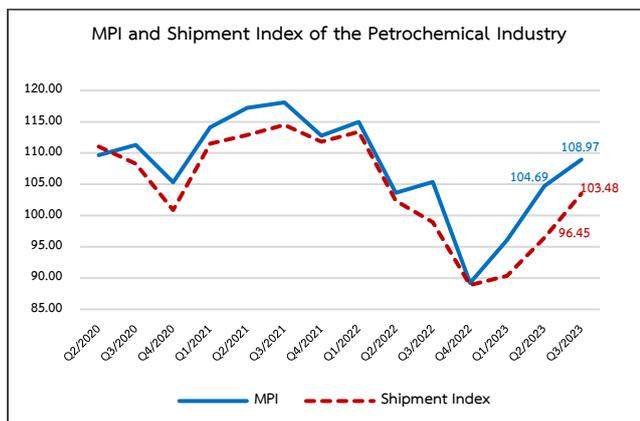
**Import Value:** In Q3/2023, the value of imports increased by 1.51 percent compared to the previous quarter (%QoQ) but decreased by 4.47 percent compared to the same quarter last year (%YoY). The product category with the most decrease in imports was sanitary wares.

### Plastics Industry Outlook for Q4/2023

In Q4/2023, production is expected to slow down from the fluctuation of crude oil prices in the world market, which affected the cost of raw materials. As a result, the production of related plastic products will decrease following consumer demand. Exports are expected to shrink due to sluggish downstream product demand, coupled with most buyers choosing to wait and monitor prices due to rising raw material costs.

## Petrochemical Industry

In Q3/2023, the MPI of the petrochemical Industry increased by 3.41 percent from the same quarter last year. Product shipments also increased by 4.65 percent (%YoY). Nonetheless, imports and exports decreased by 18.82 percent and 13.94 percent (%YoY), following the rising oil prices that impacted trade and transportation globally. This was coupled with the strengthening of the US currency and global inflation, resulting in the decreased exports of petrochemical in this quarter.



**Manufacturing Production Index (MPI):** In Q3/2023, the MPI of the petrochemical industry was at 108.97 points, an increase of 3.41 percent from the same quarter last year. Among the basic and downstream petrochemicals that contributed to the rise of MPI in this quarter were ethylene, PP and PE resins. The increase was partly due to the resuming of production after maintenance shutdowns of basic petrochemical production plants and the production delay due to inventory depletion.

**Shipment index:** In Q3/2023, the shipment index was at 103.48 points, an increase of 4.65 percent from the same quarter last year. Among the basic and downstream petrochemicals that contributed to the rise of the shipment index in this quarter were ethylene, ethylene, PP and PE resins.

**Exports of petrochemicals:** In Q3/2023, exports were valued at 2,601.31 million USD, a decrease from the same quarter of the previous year by 13.94 percent, with petrochemical exports to major countries, such as China, Vietnam, and Japan. Among the basic and downstream petrochemicals that contributed to the decreased exports in this quarter were PP and PE resins, ethylene, and toluene.

**Imports of petrochemicals:** In Q3/2023, imports reached 1,336.34 million USD, decreasing from the same quarter of the previous year by 18.82 percent, with imports of petrochemicals from major countries such as Japan, China, and the US. Products contributing to a decrease in imports of basic and downstream petrochemicals were Propylene, Ethylene Glycol, PS resin, and PET resin. The decreased imports were partly due to the increase of domestic plastic recycling after the approval.

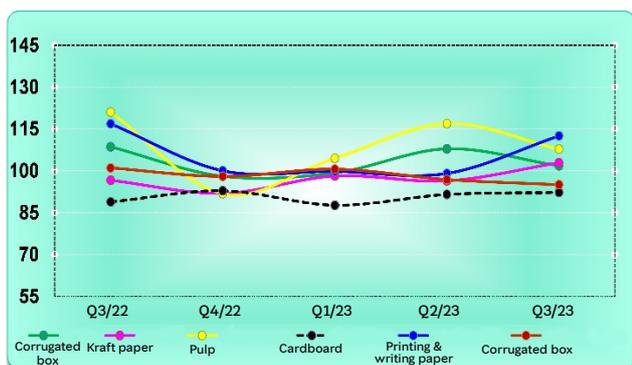
### Petrochemical Industry Outlook for Q4/2023

In Q4/2023, the overall petrochemicals industry is expected to contract due to the global inflation situation affected by the protracted Russian-Ukrainian conflict that causes world energy prices to increase, coupled with the slowdown of the economy in many countries. Additionally, the announcement of figures on the US economic situation must be monitored, together with the opening of China, which will affect economic trends globally. Compared to Q3/2022, the petrochemical industry this quarter is projected to decline. Production, shipment, and export of products will contract from a slowdown in orders due to price drops following a decrease in demand.

## Pulp, Paper, and Print Media Industry

The MPI of the pulp, paper, and print media industry in Q3/2023 is expected to contract by 0.19 percent from the last quarter (%QoQ) and by 2.88 percent from the same quarter the previous year (%YoY). Overall exports are expected to decrease by 0.34 percent (%QoQ) but increase by 4.94 percent (%YoY). Overall, comparing (%QoQ) and (%YoY), the import value decreased by 7.03 percent and 16.10 percent, respectively. Q4 expects to see positive numbers following domestic spending. Market stimulation in various sectors is anticipated at the end of the year

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

**Production:** In Q3/2023, the overall production of paper and paper products experienced a decrease both compared to the previous quarter (%QoQ) and the same quarter last year (%YoY). The production index declined by 0.19 percent and 2.88 percent, respectively, particularly in the pulp, cardboard, corrugated cardboard, and cardboard boxes. However, there was an expansion in the production of Kraft paper and printing and writing paper, an increase of 6.50 percent and 3.82 percent, respectively, compared to the same quarter last year. The production grew continuously in both the domestic and export markets, with main orders coming from China and ASEAN countries.

**Exports:** In Q3/2023, the total value of pulp and paper product exports amounted to 653.05 million USD, increasing (+4.94%) compared to the previous quarter (%QoQ). This increase was observed in pulp (+3.47%), paper and paper products (+5.65%), and books and printed materials (+4.40%). Nevertheless, compared to the same quarter last year (%YoY), the export value decreased (-0.34%) from the paper and paper products (-3.59%), with key export markets including Vietnam, India, and Indonesia. Exports of books and printed materials also fell (-11.99%), with key export markets including Hong Kong, Myanmar, and the US. However, exports of pulp increased (+8.66%), of which more than 96.00 percent was exported to China.

**Imports:** Imports of pulp and paper products in Q3/2023 reached 798.73 million USD, a decrease compared to last quarter (%QoQ) and the same quarter the previous year (%YoY) by 7.037 percent and 16.10 percent, respectively. The contraction was due to the decrease in domestic purchasing power from the economic situation and the rising costs of various products. In addition, domestic production decreased. As a result, imports were reduced, especially pulp and reusable paper or cardboard. Meanwhile, imports of sanitary paper (toilet), paper packaging, and paper products increased.

### Pulp, Paper, and Print Media Industry Outlook for Q4/2023

In Q4/2023, the production of paper and paper products utilized for packaging boxes is anticipated to grow parallel to the increasing domestic consumption. The applications for packaging across various products will expand throughout the supply chain. Regarding pulp exports to China, the primary export market, there has been consistent growth since the beginning of the year. However, the book and publications segment is expected to slow down due to reduced demand from import markets like Hong Kong and the US.

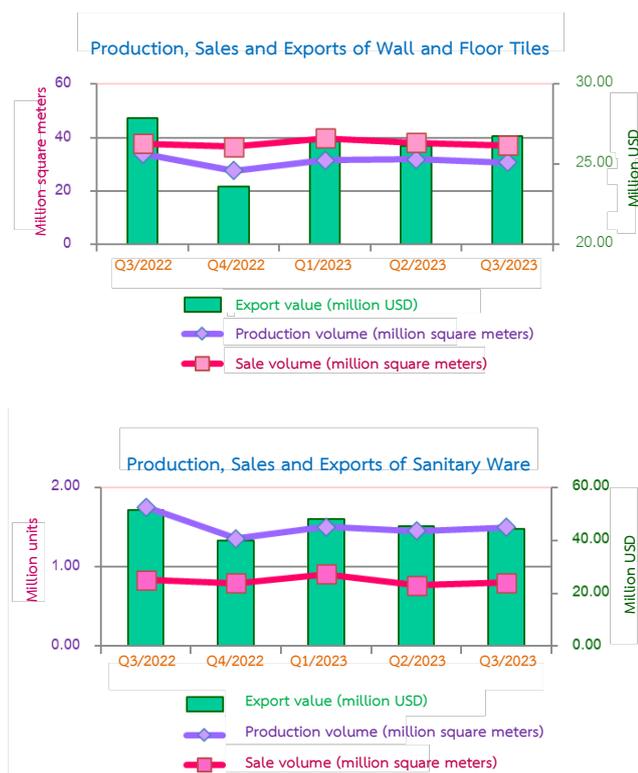
### Government Policies Related to the Pulp, Paper, and Print Media Industry

The Thai Industrial Standards Institute (TISI) of the Ministry of Industry has approved to control the safety of food contact paper for cooking with heat as a controlled product effective in 2024. The move is to enhance public safety in accordance with the Ministry of Industry's policy. This includes paper that comes into contact with food while used for cooking with heat, such as tea bags, coffee filters, and baking paper in the oven. It is a material that has become increasingly popular among consumers. Therefore, it is necessary to issue such standards to prevent heavy metal substances from contaminating food that may be harmful to consumers' health.

## Ceramic Industry

The production, sales, and exports of floor tiles, wall tiles, and sanitary ware in Q3/2023 contracted from the slowdown of the domestic economy, which was affected by rising raw material costs. Meanwhile, orders decreased from significant trading partners, especially the US, China, and Japan. For Q4/2023, it is expected that production, sales, and exports will be stable due to the uncertainty of the economy.

### Production, Sales, and Export of Ceramics



Source: 1. Domestic Production and Sales: Division of Information and Industrial Economic Indices, Office of Industrial Economics  
 2. Export Value: Information and Technology Communication Center, Office of the Permanent Secretary, Ministry of Commerce



**Production:** In Q3/2023, the production of floor and wall tiles reached a volume of 30.74 million square meters, a contraction of 9.30 percent (%YoY). Sanitary ware reached a production volume of 1.49 million pieces, a decrease of 14.63 percent (%YoY) due to the slowdown in the domestic market affected by the cost of living, rising interest rates, and decreased orders from export markets.

**Sales:** In Q3/2023, floor and wall tiles sales reached 37.20 million square meters, contracting by 1.50 percent (%YoY). Sanitary ware reached a sales volume of 0.80 million pieces, a contraction of 4.18 percent (%YoY) compared to the same period last year. The decrease was due to the decline in the purchasing power of consumers following the economic situation, which has been affected by many factors, such as the increase in prices of products, especially construction material and labor costs, including the market strategy adjustment of the private sector.

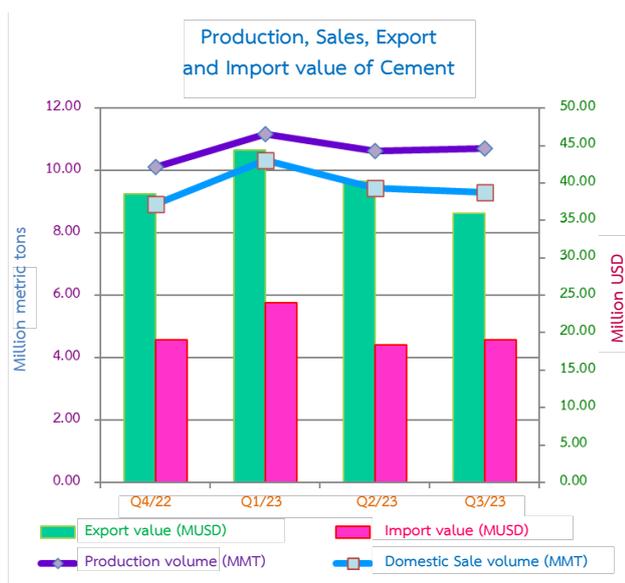
**Exports:** In Q3/2023, the export value of floor and wall tiles amounted to 26.74 million USD, a decrease of 4.16 percent (%YoY). Sanitary ware was valued at 44.27 million USD, a decrease of 13.84 percent (%YoY) as a result of the uncertainty of the world economy and decreased orders from main markets such as the US, China, Japan, the Philippines, Malaysia, and CLMV countries.

### Ceramic Industry Outlook for Q4/2023

The production and domestic sale of ceramics in Q4/2023 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 US, 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 Q3/2023, the cement industry increased production compared to the same quarter last year to support advanced orders from the acceleration of construction at the end of the year. Domestic sales and exports decreased in line with the economic slowdown, and flooding in many areas caused construction to be slower than planned. Imports grew from Laos PDR, and the Netherlands.



Source: 1. Domestic Production and Sales: Division of Industrial Economics Information and Indices, Office of Industrial Economics  
 2. Export-Import Value: Information and Technology Communication Center, Office of the Permanent Secretary of Commerce

**Cement production** (excluding clinker) in Q3/2023 reached 10.72 million tons, an increase compared to the same quarter last year by 3.07 percent (%YoY) to support advanced orders from the acceleration of large construction projects at the end of the year.

**Domestic sales of cement** (excluding clinker) in Q3/2023 was 9.32 million tons, a slight decrease compared to the same quarter of the previous year by 0.13 percent (%YoY) due to the economic slowdown and flooding in many areas, causing almost all types of construction to be slower than planned.

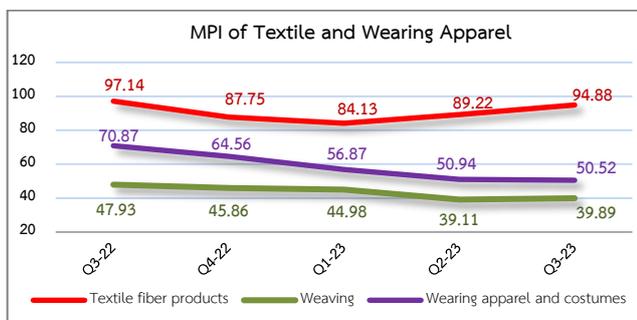
**Cement exports and imports** (excluding clinker): In Q3/2023, exports were valued at 35.96 million USD, a decrease of 11.11 percent compared to the same quarter last year. This decline was attributed to reduced demand from key markets, including Vietnam, Bangladesh, Cambodia, and the Philippines. Imports of cement (excluding clinker) in Q3/2023 were valued at 19.07 million USD, an increase of 17.76 percent compared to the same quarter last year. The increase was from imports of low-cost cement from Lao PDR and high-quality cement from the Netherlands.

### Cement Industry Outlook for Q4/2023

In Q4/2023, the production and sales of the cement industry (excluding clinker) are expected to grow slightly compared to the same quarter last year, in line with domestic demand caused by the expansion of the construction sector in both infrastructure and real estate projects, especially large construction projects linked to the Eastern Economic Corridor (EEC) and residential projects along the electric train and new transportation routes. In addition, the government's economic stimulus measures will also be a factor that builds investor confidence. Exports are likely to remain stable according to the economic conditions of crucial trading partner countries, especially in the CLMV countries. Imports are likely to grow due to the demand for special quality cement from the Netherlands.

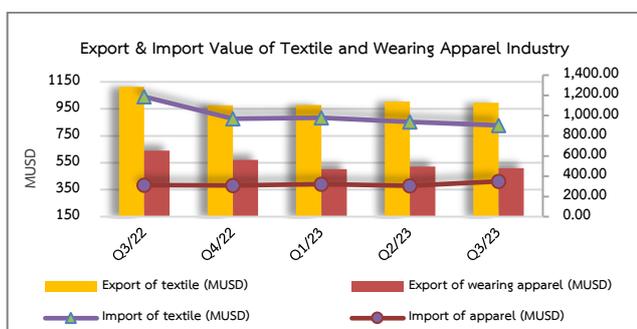
## Textile and Wearing Apparel Industry

In Q3/2023, the MPI of textile and wearing apparel industry contracted compared to the same period last year. The contraction was throughout the supply chain, a result of decreased orders from trading partners. Compared to the previous quarter, the MPI of textile fibers grew in man-made fiber production (polyester fiber and other fibers such as rayon fibers), as they are fibers with unique properties that are flexible, easy to wash, dry quickly, and prevent bacteria. They are also used as raw materials for producing automotive components and other types of technical textiles.



### Production

The MPI of textile fibers decreased by 2.33 percent (%YoY) from the preparation and spinning of both natural and man-made textile fibers. At the same time, the man-made fibers grew by 18.68 percent from polyester fibers production of and other artificial fibers. Weaving decreased by 16.77 percent (%YoY), while clothing and apparel decreased by 28.71 percent (%YoY) from the production of clothing and clothing made from knitted fabrics. The contraction is a result of fewer orders from trading partners in key markets. As a result, business operators reduced the production of raw materials from upstream to downstream products. Compared to Q2/2023 (%QoQ), the MPI of textile fibers grew by 6.34 percent in man-made fibers (polyester fiber and other fibers such as rayon fibers) from increased orders in both domestic and overseas markets to be used as raw materials for producing eco-friendly products, following consumers trends which have become environmentally focused. The fiber has unique properties. It is flexible, does not wrinkle easily, does not require ironing, is easy to wash, dries quickly, and prevents bacteria. It is also used as an essential raw material in the production of automotive components and other types of technical textiles, in line with the changing needs of the global market.



### Domestic Sales

Textile fibers decreased by 8.12 percent (%YoY) from cotton yarn. Yarn from artificial fibers decreased by 16.79 percent (%YoY) from woven fabrics (cotton), woven fabrics (synthetic fiber), and towels. Clothing and apparel contracted by 10.19 percent (%YoY) from increased inflation, affecting sales, profits, and costs. Business operators reduced purchases of raw materials and production capacity. The economic sensitivity further led to a slowdown in consumer demand, prompting more cautious about spending.

### Exports-Import

**Exports:** The overall exports of textiles and wearing apparel contracted across the supply chain, reaching a total value of 1,504.64 million USD, a decline of 14.23 percent (%YoY). Considering product groups, exports of textiles were valued at 995.64 million USD, a contraction of 10.58 percent. Similarly, exports of apparel were valued at 509.01 million USD, a contraction of 20.56 percent. The contraction was due to reduced orders from major trading partners such as Belgium, Germany, and Italy, including the ongoing global economic slowdown caused by the implementation of monetary policies in many countries to control inflation, which impacted consumers' purchasing power and economic activities.

**Imports:** Overall, textiles and garments had a value of 1,253.22 million USD, a contraction of 16.40 percent (%YoY). Textiles had an import value of 903.65 million USD, a contraction of 23.84 percent in the thread fiber and fabric segments. Finished apparel had an import value of 349.57 million USD, a growth of 11.85 percent (%YoY) as a large number of cheap to moderately priced products were imported from China for sale by online merchandisers. Consumers have changed their behavior and adjusted to the economic slowdown by reducing the purchase of luxury items to reduce day-to-day expenses. However, consideration should be given to the standards of products imported from China, which may affect the health of consumers.

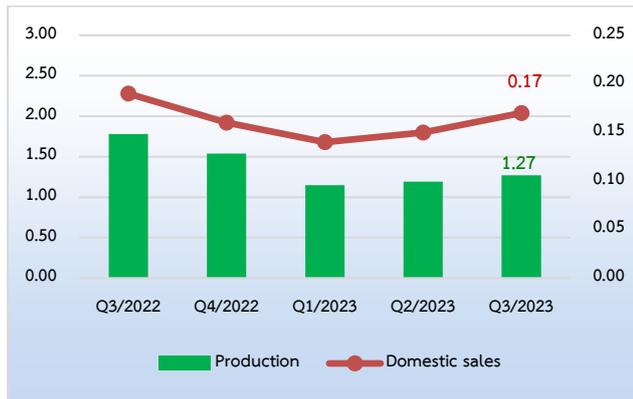
### Textile and Wearing Apparel Industry Outlook for Q4/2023

The textile and garments industry is expected to slow down in production with the global economic situation. However, the production of textile fibers, especially artificial fibers, is likely to grow slightly to support the production of textiles with unique properties. There are new technologies and innovations as the industrial structure of the world market changes. In addition, factors that need to be monitored include inflation in many countries around the world, including global geopolitical conflict situations in various regions, such as the situation in Israel and Gaza that may impact energy prices, causing prices to increase. Furthermore, the protracted war between Russia and Ukraine and the strategic competition between China and the US may affect the global supply chain and international trade as a pressure factor that causes the global economy to slow down. In addition, the fluctuation of energy costs and raising the minimum wage may affect production costs and Thailand's competitiveness.

## Wood and Wooden Furniture Industry

Compared to the same quarter of the previous year, the production of wooden furniture in Q3/2023 decreased due to a drop in both domestic and international orders. Meanwhile, the overall value of exports of wood and wood sheet products increased from the increasing demand for wooden products and wood and wood sheet products by important trading partner countries.

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



Source: The Office of Industrial Economics

*Production of wooden furniture* in Q3/2023 reached 1.27 million pieces, an increase of 6.72 percent from last quarter but a decrease of 28.65 percent from the same quarter last year. The decrease was due to a decline in both domestic and international orders.

*Domestic sales of wooden furniture* in Q3/2023 reached 0.17 million pieces, an increase of 13.33 percent from the previous quarter but a decrease of 10.53 percent compared to the same quarter last year. The decrease was due to the recent increase in the cost of living; consumers have become more cautious in spending on products that can be delayed purchases.

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



Source: Office of the Permanent Secretary, Ministry of Commerce

*Exports value of wood and wooden products* in Q3/2023 reached a total value of 1,086.08 million USD, an increase of 2.14 percent from last quarter and 6.86 percent compared to the same quarter last year. In Q3/2023, exports of furniture and parts; wood products; wood and wooden boards; valued at 257.73, 46.29, and 782.6 million USD, respectively. When compared to the same quarter last year, the export value of furniture and parts decreased by 13.73 percent; however, exports of wood products; wood and wooden boards increased by 10.72 and 15.72 percent, respectively. Overall, the export value of wood and wooden products increased for the first time in five quarters. This was a result of the growing demand for wood products and wood and wooden boards from key trading partners, especially the increased demand for processed wood in the China market.

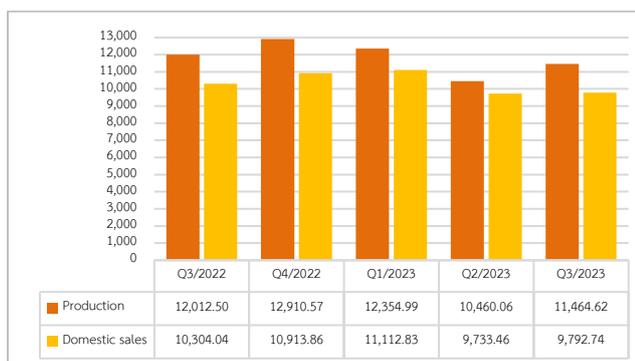
### Wood and Wooden Furniture Industry Outlook for Q4/2023

In Q4/2023, the production and domestic sales of wooden furniture are expected to continue to slow down from last year's high figure base and stable domestic consumer demand. Exports of wood and wooden products are expected to return to growth, especially products in the wood and wooden products groups, as demand increases.

## Pharmaceutical Industry

In Q3/2023, it was anticipated that there would be a decline in the production volume of pharmaceuticals. Concurrently, domestic sales of pharmaceuticals were projected to stabilize when compared to the same quarter year. This was in line with volumes and the demand for medications used in treating various illnesses. Export figures showed a slight decrease, influenced in part by the gradual easing of the COVID-19 situation and reduced demand from key trading partners.

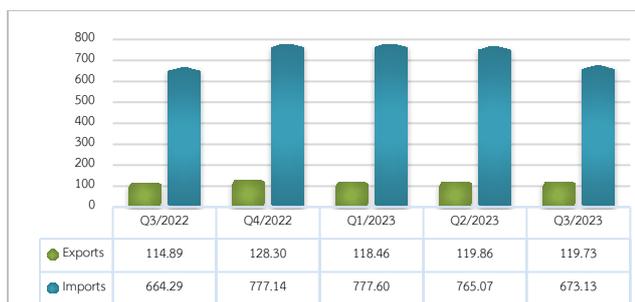
### Domestic Production and Sales (metric tons)



Source: The Office of Industrial Economics

Note: The survey data framework has been updated from 2022

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



Source: Ministry of Commerce with the cooperation of the Customs Department

Note: Import-Export database adjustment using HS3001, 3002, 3003, and 3004

### Pharmaceutical Industry Outlook for Q4/2023

In Q4/2023, the production and domestic sales volume of pharmaceuticals is expected to contract compared to the same quarter of the previous year, following the slowing trend of orders and demand for medicines to treat diseases as the epidemic in the rainy season eases. Exports are expected to grow as there is still demand from key markets such as the US, India, and Japan.

### Government Policies Relevant to the Pharmaceuticals Industry

The Ministry of Public Health is in the process of driving the 30 Baht PLUS policy, raising the level of Thai public health to add value to economic development in both the medical industry and health tourism. It aims to provide health services so that people have good health in all areas through the use of technology and increase the efficiency of service systems, such as one ID card that can be used for treatment anywhere. Other initiatives also include smart hospitals and telemedicine systems to increase coverage of fundamental healthcare at home and in the community. It aims to develop an appointment system for receiving medicines in service units in the area and a remote pharmacy service (Telepharmacy) to give people access to necessary medications that are reasonable, fast, and close to home. Efforts look to develop an online queue system or a medicine-arranging robot on the medicine system database platform, create a seamless patient and medicines referral system, create knowledge about medicines among the people, and develop research on drugs or herbs to replace the use of modern medicine. This will help reduce the import of drugs from abroad and increase the country's ability to compete and promote economic development.

**Pharmaceutical production** in Q3/2023 amounted to 11,464.62 metric tons, a decrease of 4.56 percent compared to the same quarter last year. This reduction is attributed to a contraction in the production of liquid, powder, injection, and tablet medicines, with decreases of 9.09, 8.10, 3.32, and 1.05 percent, respectively, due to decreased orders from pharmacies and hospitals.

**Pharmaceutical sales** in Q3/2023 amounted to 9,792.74 metric tons, a slight increase of 0.64 percent compared to the same quarter of the previous year. This increase is due to the expansion in the sales of capsule and tablet medicines, with increases of 14.47 and 5.06 percent, respectively. Meanwhile, the distribution of injection, powder, cream, and liquid medicines decreased by 15.91, 14.58, 3.46, and 0.62 percent, respectively. The decrease was aligned with the demand for medicines for disease treatment.

**Exports of pharmaceuticals** in Q3/2023 amounted to 119.73 million USD, a decrease of 4.21 percent compared to the same quarter last year. This decrease is driven by the growing demand in key markets such as India, Japan, and Singapore.

**Pharmaceutical imports** in Q3/2023 were valued at 673.13 million USD, an increase of 1.33 percent compared to the same quarter last year as the domestic demand for pharmaceuticals increased. The growth was from increased pharmaceutical imports from European countries such as the UK, Switzerland, and Singapore.

## Rubber and Rubber Product Industry

In Q3/2023, the production of upstream processed rubber decreased in volume due to reduced demand from the world market. Meanwhile, tire production declined due to the slowdown in the domestic market. The production of rubber gloves increased due to the demand for medical rubber gloves in the country, which grew from the past period.

### Production Volume of Processed Rubber in Primary Forms, Automotive Tires, and Rubber Gloves

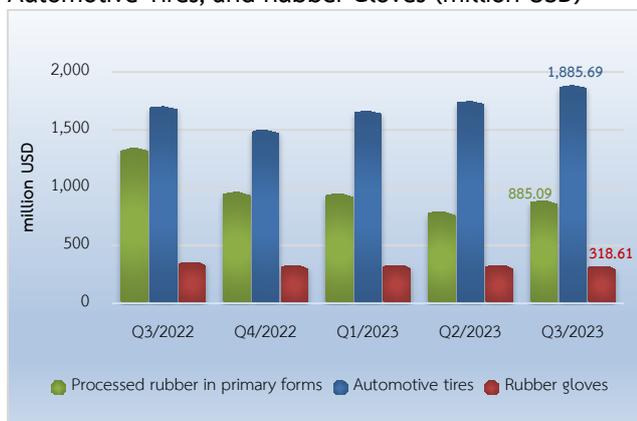


Source: The Office of Industrial Economics

*Production of processed rubber in primary forms, automotive tires, and rubber gloves* in Q3/2023 amounted to 0.41 million metric tons, 17.36 million pieces, and 7,379.03 million pieces, respectively. Compared to the same quarter last year, the production of processed rubber in primary forms decreased by 15.73 percent, mainly due to a decline in sheet rubber, block rubber, and concentrated latex production. The production of automotive tires decreased by 0.48 percent due to the reduced production of tires for pickups, trucks, buses, and tractors. Nevertheless, the production of rubber gloves increased by 14.41 percent, mainly from the increase in domestic demand.

*Sales of processed rubber in primary forms, automotive tires, and rubber gloves* in Q3/2023 reached 0.13 million metric tons, 6.18 million tires, and 706.70 million pieces, respectively. Compared to the same quarter of the previous year, the sales of processed rubber in primary forms increased in volume by 20.27 percent from the growth of demand in the downstream industry. The sales of automotive tires decreased by 44.23 percent, in line with the slowdown of the Replacement Equipment Manufacturing (REM) market. On the other hand, the domestic sales of rubber gloves increased by 20.03 percent due to the growing demand for medical rubber gloves.

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



Source: Ministry of Commerce

*Exports of processed rubber in primary forms, automotive tires, and rubber gloves* in Q3/2023 were valued at 885.09, 1,885.69, and 318.61 million USD, respectively. Compared to the same quarter last year, the export of processed rubber in primary forms and rubber gloves decreased by 32.27 and 10.17 percent, respectively, as demand for these products in the global market dropped. However, exports of automotive tires increased by 10.77 percent from the increased exports to the US market.

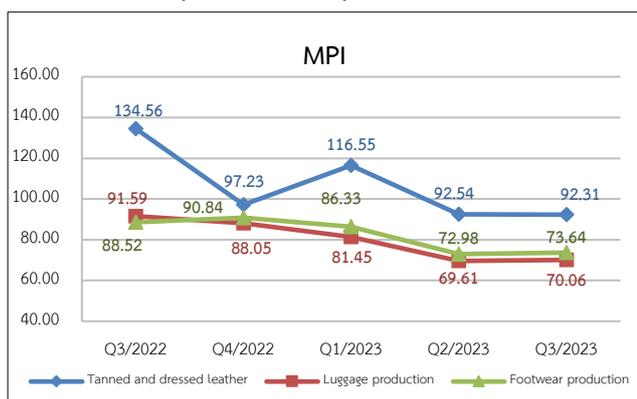
### Rubber and Rubber Products Industry Outlook for Q4/2023

In Q4/2023, the production of upstream processed rubber (rubber sheets, rubber blocks, and latex) is expected to slow due to the continuous decrease in demand from international markets. However, the production volume of tires and rubber gloves is anticipated to grow. The production of automobile tires is expected to expand to meet the needs of the international market, and rubber gloves are predicted to increase, mainly to satisfy the needs of the domestic market.

## Footwear and Leather Product Industry

In Q3/2023, tanning and leather finishing, shoe production, and luggage production decreased compared to the same quarter last year due to reduced exports. The contraction was due to the global economic situation that slowed down. As a result, consumers were more cautious with their spending. Factors that need to be monitored include the geopolitical conflicts in various regions around the world, putting pressure on production costs and increasing product prices, rising interest rates, and high inflation, which affect the purchasing power of consumers and the global economy, which may influence the Thai production and export sectors in the next period.

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



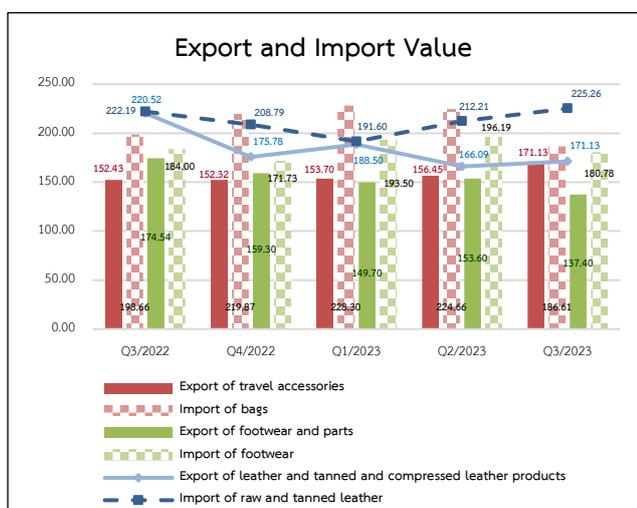
### Production

In Q3/2023, the MPI of tanned and dressed tanned leather and the manufacturing of shoes decreased by 31.40 percent due to decreased overseas demand. The same is true for the production of luggage and footwear, which fell by 23.51 and 16.81 percent, respectively, from fewer orders from trading partners due to the slowing global economy. As a result, consumers were more careful with their spending.

### Exports-Imports

**Exports** in Q3/2023, when compared to the same quarter last year (%YoY), the value of exports of leather, tanned leather, and pressed leather products decreased by 22.40 percent as a result of reduced demand in key export markets, including China, the US, and Japan. Travel products increased by 22.43 percent, with key export markets being the US, Singapore, and France. Footwear and parts decreased by 21.28 percent, with key export markets being China, Myanmar, and Denmark.

**Imports** in Q3/2023, compared to the same quarter last year (%YoY), the value of imports of raw and tanned leather and bags increased by 1.38 percent and 4.41 percent, respectively, from imports to support the APLE ASEAN leather goods and fashion exhibition in October 2023. The overall value of footwear imports decreased by 32.91 percent due to high inflation and interest rates, causing consumer behavior to change. As a result, consumers reduced their purchasing of imported sports shoes.



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

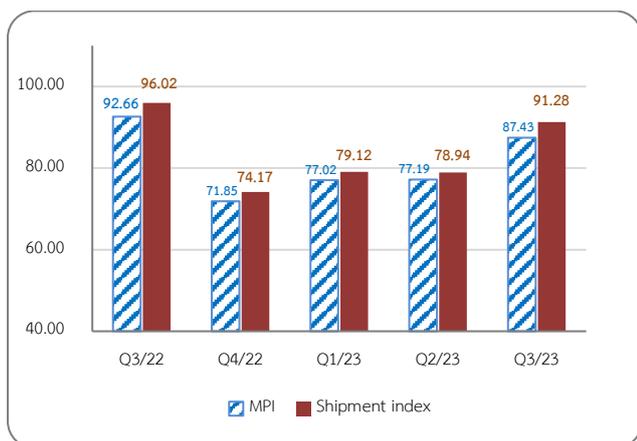
### Footwear and Leather Production Industry Outlook for Q4/2023

In Q4/2023, the production of leather and footwear, in comparison to last year, is expected to grow slightly in the production of tanned and finished leather bags footwear, from exports to key trading partner countries and increased domestic sales to support domestic and international tourism during the year-end festivities. In addition, the APLE ASEAN Asian leather goods and fashion exhibition in October 2023 will stimulate increased demand for products. However, factors that need to be monitored include geopolitical conflicts, such as the Russia-Ukraine conflict, tensions between the US and China, and the conflict in Israel, which has put pressure on production costs, affecting product prices. In addition, rising interest rates and higher inflation may influence the purchasing power of consumers, and the global economic climate may impact Thailand's production and export sectors in the next period.

## Gems and Jewelry Industry

Overall production and sales of gems and jewelry in Q3/2023 decreased compared to the same quarter last year due to the slowdown in demand from trading partners such as the US and Europe due to strict monetary policy implementation and rising energy prices. These factors affected consumer spending. In addition, factors that must be monitored include the global geopolitical conflicts in various regions and the fluctuations in the international financial market from the implementation of strict monetary policies of key trading partners, especially the US and Europe, which may affect Thai production and exports for the remainder of 2023.

### Production, Sales, and Exports



#### Production

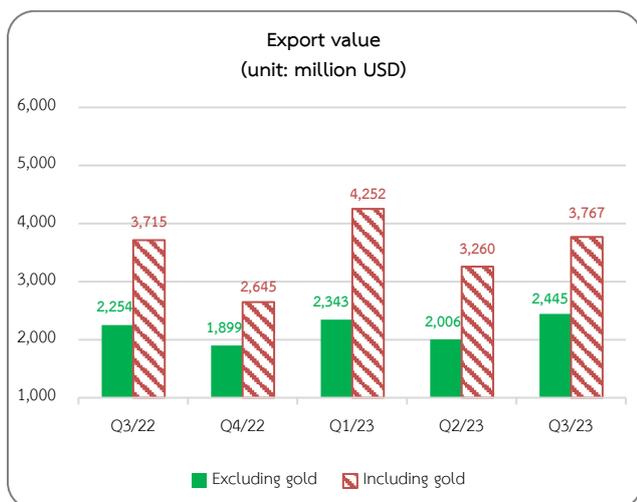
In Q3/2023, the overall production of gems and jewelry decreased by 5.65 percent compared to the same quarter last year (%YoY). The contraction was across all products. The production of diamonds, genuine jewelry, and artificial jewelry decreased by 30.46 percent, 5.76 percent, and 1.04 percent, respectively, due to the slowdown in demand from trading partners such as the US and Europe due to strict monetary policy implementation and rising energy prices. Production also reduced as there was still inventory to support orders in the next period.

#### Sales

In Q3/2023, sales of gems and jewelry, when compared to the same quarter last year (%YoY), decreased by 4.94 percent compared to the same quarter last year (%YoY). The contraction was across all products. The sales of diamonds, genuine jewellery, and artificial jewellery decreased by 22.78 percent, 4.79 percent, and 2.88 percent, respectively, due to pressure from the economic slowdown. As a result, consumers were more careful with their spending.

#### Exports

In Q3/2023, gem and jewelry exports compared to last year's quarter (%YoY) reached a total export value of 2,445.04 million USD, an increase of 8.50 percent. This increase was primarily driven by export value of color stones, genuine jewellery, and imitation jewellery, which grew by 55.92, 5.59, and 10.77 percent, respectively. However, exports of diamonds experienced declines of 17.81 percent. Considering the overall gem and jewelry exports, the total value amounted to 3,799.82 million USD, an increase of 1.38 percent, particularly in Hong Kong, India, and the UK markets. As for gold, the export value of unwrought gold amounted to 1,321.78 million USD, a decrease of 9.58 percent in exports to Singapore, Malaysia, and Taiwan.



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

2. Export and import value — Ministry of Commerce

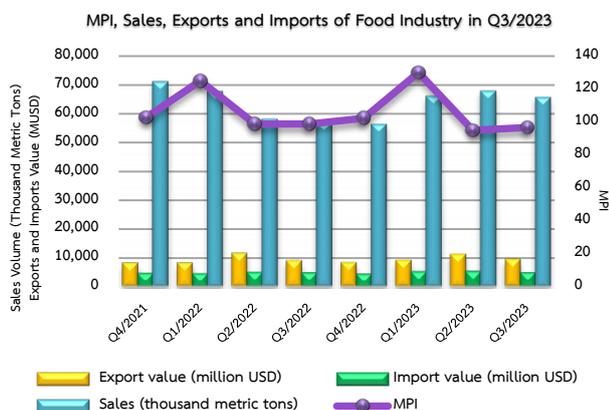
### Gems and Jewelry Industry Outlook for Q4/2023

Overall production and export of gems and jewelry in Q4/2023 are expected to grow slightly from tourism during the year-end tourism festivities, both domestically and abroad, and the need to purchase products as rewards and gifts made consumers have more purchasing power for gems and jewelry. In addition, the Chanthaburi International Gem and Jewelry Festival will be hosted in December 2023, which is an exhibition of knowledge about gems and jewelry. The event includes seminars to increase the potential of entrepreneurs and product sales from Thai and foreign business operators, which will be a factor in driving increased demand for products. However, it is still necessary to monitor the global geopolitical conflicts in various regions, such as the situation in Israel, the prolongation of the Russian-Ukrainian tension, and strategic competition between China and the US. This may limit the growth of the world economy in the next period. Furthermore, the volatility of the global financial market from strict monetary policy implementation of major trading partners, especially the US and Europe, may affect Thai production and exports during the rest of 2023.

## Food Industry

The MPI of the food industry in Q3/2023 decelerated compared to the same period last year due to the slowdown in production due to slowing global market demand. Furthermore, natural disasters affected agricultural raw materials. However, the export sector grew, especially in sugars and processed fruit and vegetables. In addition, domestic consumption demand and the tourism sector are likely to improve.

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



Source: The MPI and Sales volume collected from the Office of Industrial Economics.  
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 Q3/2023, the Manufacturing Production Index (MPI) for the food industry was at 96.7, reflecting a 6.0 percent decrease compared to the same quarter last year. The production of food products experienced a slowdown, particularly in fisheries products (-10.9%), driven by a decline in canned tuna (-24.5%) due to reduced consumption demand in both domestic and international markets. Additionally, palm oil decreased in the MPI by 7.7 percent, influenced by a decline in crude palm oil (-9.4%) and refined palm oil (-5.9%). The decrease was a result of the reduction in oil prices from previous high prices, leading to increased consumption demand. Livestock decelerated in MPI by 1.4%, primarily due to a contraction in seasoned cooked chicken meat (-14.7%). The decrease was due to a slowdown in consumer purchasing power, resulting in a reduction in consumption demand. Beverages also dropped by 1.0 percent from rice whisky and energy drinks.

However, certain products saw growth in the MPI, including sugar, which increased by 36.5 percent, driven by white sugar and pure white sugar growing by 48.6 and 32.5 percent, respectively. This growth was due to increased consumption demand in both domestic and international markets. Processed fruits and vegetables increased by 1.8 percent, with significant growth in key products like canned sweet corn (93.1%) due to increased consumption demand in both domestic and foreign markets. Cassava grew by 1.5 percent, supported by key products such as cassava starch, which expanded by 1.9% in response to heightened production to meet consumption demand.

**Domestic sales:** In Q3/2023, sales volume amounted to 65,790.48 thousand metric tons, an increase of 3.9 percent (%YoY) compared to the same quarter last year. Among the products that showed an increase in domestic consumption were canned sweet corn, which increased by 31.8 percent, followed by fruit juice, rice whisky, and white sugar, which increased by 11.9, 11.5, and 6.4 percent, respectively.

**Exports:** In Q3/2023, exports were valued at 9,350.82 million USD, a growth of 4.2 percent (%YoY) compared to the same quarter last year. Rice increased due to concerns about food security. Fruits and vegetables grew from the demand for consumption in foreign markets, the main market being China, and sugar grew, with the main markets being the Philippines, Indonesia, and South Korea.

**Imports:** In Q3/2023, imports were valued at 4,748.5 million USD, a decrease of 0.3 percent (%YoY) compared to the same quarter last year. Despite this decrease, certain products experienced an increase in imports, particularly grains and oilseed meals, seeing an increase in support for the animal feed industry.

### Food Industry Outlook for Q4/2023

The overall MPI is expected to contract compared to the same quarter last year due to the economic situation that continues to slow down. However, the export sector is likely to grow from the demand for products to prepare for year-end festivities, including the Israeli-Palestinian unrest that may affect food security concerns in the future.

Persons who are responsible for the preparation of the report:

Title	Coordination Division	Telephone number
<ul style="list-style-type: none"> <li>● <b>Thailand Economic and Industrial Overview for Q3/2023 and Outlook for Q4/2023</b></li> </ul>	Division of Industrial Economic Research	0-2430-6806
<ul style="list-style-type: none"> <li>● <b>Sectoral Industry</b> <ul style="list-style-type: none"> <li>● Iron and Steel Industry</li> <li>● Electrical Appliance Industry</li> <li>● Electronics Industry</li> <li>● Automotive and Parts Industry</li> <li>● Motorcycle and Parts Industry</li> <li>● Chemical Industry</li> <li>● Plastics Industry</li> <li>● Petrochemical Industry</li> <li>● Pulp, Paper and Print Media Industry</li> <li>● Ceramics Industry</li> <li>● Cement Industry</li> <li>● Textile and wearing apparel Industry</li> <li>● Wood and Wooden Furniture Industry</li> <li>● Pharmaceutical Industry</li> <li>● Rubber and Rubber Products Industry</li> <li>● Footwear and Leather Products Industry</li> <li>● Gems and Jewelry Industry</li> <li>● Food Industry</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Division of Industrial Policy by Sector 1</li> <li>● Division of Industrial Policy by Sector 2</li> </ul>	<ul style="list-style-type: none"> <li>● 0-2430-6804</li> <li>● 0-2430-6805</li> </ul>