

NESDC ECONOMIC REPORT

Thai Economic Performance in Q4 and 2022 and Outlook for 2023

Macroeconomic Strategy and Planning Division

Press Release 9.30 a.m. Feb 17, 2023

The Thai Economy in the fourth quarter of 2022 expanded by 1.4 percent (%YoY), decelerating from a growth of 4.6 percent in the previous quarter. After seasonally adjusted, the economy decreased by 1.5 percent from the third quarter (%QoQ sa).

On expenditure side: Export of services accelerated while private consumption and public investment showed favorable expansions. Public investment returned to a positive growth; nonetheless, export of goods and government expenditure contracted.

On the production side: Agricultural sector and construction sector returned to expansion. Accommodation and food service activities sector, wholesale and retail trade; repair of motor vehicles and motorcycles sector, transportation and storage sector continued to grow in line with a recovery of tourism sector. Nevertheless, the manufacturing sector declined.

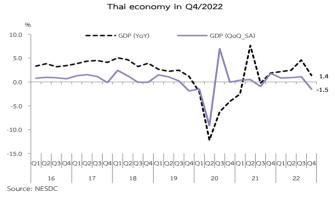
The Thai economy in 2022 grew by 2.6 percent, accelerating from 1.5 percent in 2021. The growth was driven mainly by the tourism recovery and continual improvement of domestic demand in both private consumption and investment. The headline inflation was at 6.1 percent and the current account registered a deficit of 3.4 percent of GDP.

The Thai economy in 2023 is projected to expand in the range of 2.7 - 3.7 percent, mainly supported by (i) the recovery of tourism sector, (ii) the expansion in both private and public investments, (iii) the continual expansion of private consumption, and (iv) the favorable growth of the agricultural sector. Private consumption expenditure, private and public investments are expected to increase by 3.2 percent, 2.1 percent and 2.7 percent, respectively. Export value of goods in US dollar terms is anticipated to decline by 1.6 percent. Headline inflation is estimated to be in the range of 2.5 - 3.5 percent and the current account is projected to record a surplus of 1.5 percent of GDP.

Econom	ic Projecti	on for 20)23		
(%YoY)	2021		2022		2023 (f)
(%101)	Year	Year	Q3	Q4	Year
GDP (CVM)	1.5	2.6	4.6	1.4	2.7-3.7
Investment ^{1/}	3.1	2.3	5.5	3.9	2.2
Private	3.0	5.1	11.2	4.5	2.1
Public	3.4	-4.9	-6.8	1.5	2.7
Private Consumption	0.6	6.3	9.1	5.7	3.2
Government Consumption	3.7	0.0	-1.5	-8.0	-1.5
Export of Goods ^{2/}	19.2	5.5	6.7	-7.5	-1.6
Volume ^{2/}	15.5	1.3	2.1	-10.3	-0.6
Import of Goods ^{2/}	27.7	15.3	23.2	-0.3	-2.1
Volume ^{2/}	17.9	2.0	8.0	-9.2	0.4
Current Account to GDP (%)	-2.1	-3.4	-6.4	1.0	1.5
Inflation	1.2	6.1	7.3	5.8	2.5 - 3.5

Note: ^{1/}Investment means Gross Fixed Capital Formation

^{2/} based on the Bank of Thailand's data



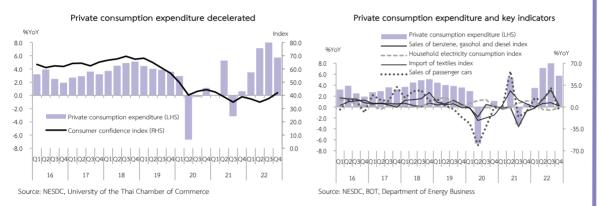
The economic management for the year 2023 needs to be prioritized on following issues: (1) Closely monitoring and resolving retail debts, of both households and small and medium enterprises (SMEs). (2) Sustaining agricultural production and farmers' income, by preparing policy to support agricultural products, strengthening the agricultural supply chain, restructuring the agricultural sector, and promoting sustainable and organic farming. (3) Maintaining growth momentum from export sector, by: (i) facilitating export procedure and lowering related costs; (ii) boosting exports to major markets with strong economic recovery coupled with expanding to new potential markets with high purchasing power; (iii) monitoring the global trade situation and condition; (iv) improving quality of agricultural, food, and manufacturing products to achieve international requirement and standard, along with restructuring the manufacturing sector; (v) utilizing benefits from the Regional Comprehensive Economic Partnership (RCEP), together with expediting the ongoing Free Trade Agreement negotiations; and (vi) encouraging the business sector to appropriately manage risk of exchange rate fluctuation. (4) Catalyzing the recovery in tourism and related service sector, by: (i) solving difficulties and assisting the tourism sector to be ready for the resuming of foreign tourists along with facilitating liquidity for business sector; (ii) promoting the development of high-quality and sustainable tourism; (iii) supporting the tourism promotion events; and (iv) promoting domestic tourism. (5) Stimulating private investment, by: (i) speeding up projects already approved and obtained investment promotion certificates in 2020 - 2022 to start their actual investments, especially those in the targeted industries; (ii) solving difficulties and obstacles hindering investors and entrepreneurs from investing and conducting businesses, including labor shortages in manufacturing sector; (iii) implementing proactive investment promotions and facilitating investors in targeted industries; (iv) stimulating investments in the Eastern Economic Corridor (EEC) and other special economic zones; (v) supporting investment in the key economic areas and transport infrastructure to be in accordance with the prospected plan; and (vi) enhancing high-skilled labors to brace the growth of technology-and innovation-intensive industries. (6) Driving growth in public expenditure and investment, along with increasing fiscal space in order to sufficiently cushion possible risks and uncertainties over the medium term as well as to lift up economic potential growth. (7) Monitoring, scrutinizing, and preparing for the volatilities from global economy and financial market condition. (8) Maintaining the domestic economic and political climate.

1. The Thai Economy in Q4/2022

Expenditure Side:

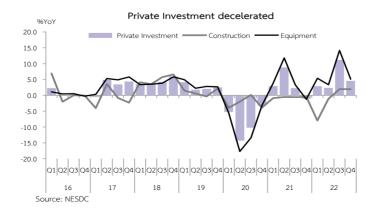
Private consumption expenditures expanded at a favorable rate by 5.7 percent, though decelerating from a high growth rate of 9.1 percent in the previous quarter, following a decrease of the expenditures in durable goods and a deceleration of semi-durable goods. However, the expenditure in services and non-durable goods still favorably grew. The expenditure on durable goods decreased by 0.8 percent, compared with a 17.7-percent growth in the previous quarter, following the purchase of vehicles declining by 2.6 percent, after an acceleration of expenditures with a high growth rate of 33.2 percent in the previous quarter. The expenditure in semi-durable goods expanded by 1.6 percent, decelerating from a 3.6-percent growth in the previous quarter, following a deceleration of spending on furnishings, household equipment & routine maintenance of the house, and clothing & footwear. Meanwhile, the expenditure in services expanded at a high rate of 10.5 percent, continuing from 16.0 percent in the previous quarter, following an expansion of restaurants & hotels in line with a recovery of tourism sector. And the expenditure in non-durable goods expanded by 3.7 percent, accelerating from 3.2 percent in the previous quarter, following an acceleration of spending on food and non-alcoholic. The consumer confidence index towards the economic situation increased to 42.0 from 37.6 in the previous quarter, highest level in seven quarters. This was due to the continuing recovery in the tourism sector, and the mitigation of COVID-19 situation.

In 2022, private consumption expenditures grew by 6.3 percent, improving from a 0.6 percent growth in 2021.



Private investment expanded by 4.5 percent, decelerating from a high growth rate of 11.2 percent in the previous quarter, following a deceleration of **the investment in machinery and equipment** which expanded by 5.1 percent, compared with a 14.2-percent growth in the previous quarter. This was in line with the expansion of the domestic machinery sales at 4.0 percent, decelerating from 17.6 percent in the previous quarter. Meanwhile, **the investment in construction** grew by 1.9 percent, compared with a 2.0-percent growth in the previous quarter. This was in line with a deceleration in the permitted construction area, and the domestic construction material sales index which grew by only 1.9 percent and 5.5 percent, compared with 3.5 percent and 11.1 percent in the previous quarter, respectively. The deceleration of private investment was also consistent with the Business Sentiment Index (BSI) standing at 48.5 in this quarter, decreasing from 49.5 in the previous quarter, following the manufacturing confidence deteriorated. On the contrary, the non-manufacturing sector's BSI improved.

In 2022, private investment grew by 5.1 percent, improving from a 3.0-percent growth in 2021. In details, the investment in machinery and equipment grew by 6.7 percent, compared with a 4.0-percent growth, while the investment in construction decreased by 1.2 percent, compared with a 0.6-percent drop in 2021.



In the fourth quarter of 2022, private consumption expenditures and private investment decelerated, while export of goods declined.

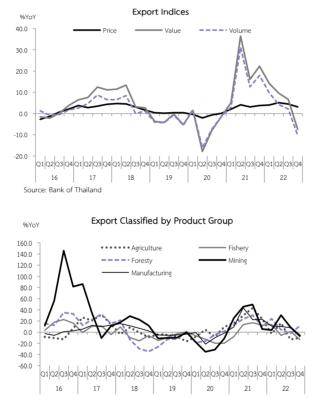
Private consumption expenditures expanded at a favorable rate of 5.7 percent, though decelerating from a high growth rate of 9.1 percent in the previous quarter, following a decline in the expenditures in durable goods. However, the expenditure in services and nondurable goods still favorably grew.

Private investment expanded by 4.5 percent, decelerating from 11.2 percent in the previous quarter, following the deceleration of investment in the machinery and equipment.

NESDC

Exports in US dollar terms declined for the first time in eight quarters mainly due to the economic slowdown in trading partners. Export value in the fourth quarter of 2022 was recorded at 65.8 billion US dollars, decreasing by 7.5 percent, compared with a 6.7-percent growth in the previous quarter. The **export volume index** fell by 10.3 percent, compared with a 2.1-percent increase in the previous quarter. Export volume of manufacturing, agricultural and fishery products declined by 11.1 percent, 13.1 percent and 16.9 percent, respectively. **The export price** increased by 3.1 percent, a slowdown from a 4.4-percent rise in the previous quarter. Export price of manufacturing, agricultural and fishery products rose by 3.1 percent, 3.6 percent and 4.1 percent, respectively. Excluding unwrought gold, export value decreased by 7.3 percent, compared with a 6.4-percent increase in the previous quarter. **In Baht terms**, export value was recorded at 2,394 billion Baht, growing by 0.8 percent, decelerating from an 18.1-percent increase in the previous quarter.

In 2022, export value was recorded at 285.4 billion US dollars, grew by 5.5 percent, compared with a 19.2-percent increase in 2021. Export volume and price rose by 1.3 percent and 4.2 percent, respectively. In Baht terms, export value was recorded at 9,997 billion Baht, expanding by 15.4 percent, compared with a 22.1-percent growth in 2021.



Source: Bank of Thailand

Export value of agricultural commodities has decreased for the second consecutive quarter by 10.0 percent. The export volume fell by 13.1 percent following a decrease in export volume of rice and rubber. Meanwhile, export price grew by 3.6 percent due to the growth in export price of rice and sugar. **Export value of manufacturing products** declined by 8.3 percent, compared with a 7.9-percent increase in the previous quarter. **Export value of fishery products** reduced by 13.5 percent as a result of a decrease in export volume by 16.9 percent while export price rose by 4.1 percent. **Export value of other products** fell by 19.7 percent.

Export items with decreased value included machinery & equipment (decreased by 1.7 percent), chemicals & petrochemical products (decreased by 23.7 percent), vehicle parts & accessories (decreased by 8.4 percent), passenger car (decreased by 1.5 percent), pick up and trucks (decreased by 9.4 percent), computer parts & accessories (decreased by 31.2 percent), air conditioning machines (decreased by 1.6 percent), medicinal and surgical equipment (decreased by 2.9 percent), animal food (decreased by 4.4 percent), rice (decreased by 2.2 percent), rubber (decreased by 36.9 percent), and crustaceans (decreased by 16.8 percent). On the other hand, **export items with increased value** included parts of electrical appliances (31.3 percent), integrated circuits & parts (0.5 percent), rubber products (0.2 percent), fish canned prepared or preserved (6.2 percent), and beverages (2.2 percent).

Export value of agricultural commodities declined according to a reduction in exports of rice, rubber, and sugar.

Export value of manufacturing products fell due to a decrease in exports of manufacturing products such as machinery & equipment, chemicals & petrochemical products, and vehicle part & accessories.

Export value in US dollar terms decreased for the first time in eight quarters by 7.5 percent, following the economic slowdown in trading partners.

Export value excluding unwrought gold fell by 7.3 percent.

Export Value	e of M	ajor P	roduc	t in U	S Dol	lar Te	rm				
			2021					2022) -		Share
%ҮоҮ	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Q4/22 (%)
Agriculture	28.1	15.7	29.8	43.1	24.0	-1.7	-3.0	16.2	-13.2	-10.0	6.3
Rice	-7.2	-17.9	-38.8	14.8	19.3	14.7	17.1	46.6	12.4	-2.2	1.8
Rubber	58.6	38.2	97.4	99.5	31.4	-7.7	6.2	3.0	0.2	-36.9	1.5
Durian	68.3	-16.0	74.4	91.0	84.1	-7.7	-48.3	9.8	-53.0	96.4	0.6
Other fruits	27.2	45.3	-2.7	49.5	22.3	-13.5	-13.4	45.4	-39.4	-26.0	0.7
Manufacturing	23.5	9.2	43.7	22.4	22.9	4.8	10.6	10.2	7.9	-8.3	90.7
Food	7.4	-1.9	5.9	5.7	20.5	20.6	28.2	32.2	26.1	-1.6	7.7
Sugar	-8.9	-47.3	-21.2	-1.2	95.2	92.0	181.8	116.8	121.4	-8.3	0.8
Fish, canned, prepared, or preserved	-14.7	-2.4	-26.3	-24.7	-2.3	13.9	3.3	20.9	28.0	6.2	1.2
Tapioca & cassava starch	44.0	63.3	25.8	50.7	36.6	6.5	5.8	18.9	7.5	-3.2	0.7
Fruits & vegetables, canned, prepared, or preserved	8.3	-4.3	0.2	14.8	20.0	10.8	9.4	30.2	20.5	-13.7	0.5
Beverages	3.6	-0.4	17.5	-5.3	2.9	5.2	4.6	0.5	14.5	2.2	1.0
Rubber products	19.1	52.4	40.1	10.4	-15.1	-12.6	-25.0	-13.1	-8.0	0.2	2.5
Animal food	23.5	27.4	-	19.6	-	-	26.3	21.6	22.0	-4.4	1.0
Electronics	18.9	8.3	30.3		18.2	3.8	17.0	2.5	5.1	-7.2	12.6
- Computer	47.1	2.2	24.0		71.2	0.6		-18.0	10.2	-31.5	0.3
- Computer parts & accessories	20.9	-5.0	37.1						-13.2		4.4
- Integrated circuits & parts		13.9	24.2	19.2	18.7	9.4	17.7	9.4	11.6	0.5	3.5
Electrical appliances		14.1	44.3		12.0	2.8	7.5	-0.9	7.4	-2.8	9.6
- Air conditioning machines	22.5	9.5	52.5	9.3	25.8	2.0 8.8	5.6	1.0	38.7	-1.6	2.1
- Refrigerators	13.3	9.5 19.3	50.9	-6.0	-0.2	-7.1	5.0 6.8	-3.3	-1.4	-30.7	0.6
 Parts of electrical appliances 	11.4	7.0	27.7	-0.0 8.8	-0.2 4.5	13.3	0.0 4.9	- <u>J</u> .J 3.8	-1.4 13.6	31.3	2.9
Metal & steel	46.5	-	64.6	57.7	43.6	3.9	4.9 19.5	21.2	-3.4	-17.8	2.9 5.2
				20.8			-5.8	-3.7	-5.4 8.4	-17.0	5.2 16.1
Automotive		-				-			-		-
- Passenger car	6.7						-50.3		-7.2	-1.5	3.1
- Pick up and trucks	60.0			18.7				-9.5	12.8	-9.4	3.2
- Vehicle parts & accessories			102.0		8.4	-0.2	3.5	1.8	2.3	-8.4	6.6
Machinery & equipment			41.2		10.3	5.2	5.7	6.9	10.3	-1.7	8.7
Chemicals & Petro-chemical Products			51.3			-3.2	18.6	4.8	-8.8	-23.7	7.8
Petroleum products				101.5			23.2	62.9	10.3	-25.6	3.1
Medicinal and surgical equipment and supplies		13.8		6.6	8.9	4.5	3.5	8.0	9.9	-2.9	0.8
Toiletries and cosmetics	2.4	-4.7	5.1	-1.9	12.2	6.7	8.3	14.3	9.0	-4.0	1.1
Furniture and parts		21.3		6.9	12.4	0.4	17.9	5.7	0.9	-20.2	0.6
Fishery	8.8	-8.1		16.9		-2.1	13.9	-5.8	1.1	-13.5	0.6
Crustaceans	15.8	-3.2		25.0		-7.7	8.1	-12.0	-4.3	-16.8	0.3
Fish	-0.3	-9.4	-2.1	10.5	1.0	0.1	14.7	-4.1	6.5	-14.3	0.2
Other Exports				-74.5			557.7	7.9	24.1	-19.7	1.3
Non-monetary gold (excl. articles of goldsmiths)	-70.7			-75.8		-	681.8	-0.8	23.7	-22.9	1.2
Total Exports (Customs basis)	17.4	2.1	31.9	15.4	23.1	5.5	14.7	10.7	6.6	-8.5	100.0
Exports, f.o.b. (BOP basis)	19.2	5.1	36.5	16.1	22.3	5.5	14.2	9.6	6.7	-7.5	100.0
Export Value (exclude gold)	24.9	11.6	45.5	24.6	21.8	4.4	9.4	9.8	6.4	-7.3	98.9
Source: Bank of Thailand											

Source: Bank of Thailand

Export markets: Exports to the main markets decreased whereas exports to the Middle East (15) and United Kingdom expanded. Exports to the US declined by 1.3 percent, primarily attributed to the decrease in exports of automatic data processing machines, rubber products and motor cars, and parts and accessories. Exports to China fell for the third consecutive quarters by 13.4 percent mainly due to a reduction in exports of polymers of ethylene, tapioca products, and automatic data processing machines. the exports to China fell for three quarters consecutively. Exports to Japan dropped for the second consecutive quarters by 7.1 percent, following a decrease in exports of motor cars, parts and accessories, prepared poultry, and chemical products. Exports to ASEAN (5) reduced by 17.6 percent, as a result of a reduction in exports to Malaysia, Indonesia and Singapore. Exports to CLMV declined by 0.9 percent, in line with a decrease in exports to Vietnam, Cambodia, and Myanmar. Exports to EU (27) decreased by 4.8 percent, due to a decline in exports of automatic data processing machines, rubber product and motor cars, parts and accessories. Exports to India fell by 6.1 percent, in line with a decrease in exports of polymers of ethylene, chemical products, and iron steel and products. Exports to Australia declined by 2.9 percent, resulted by a reduction in exports of rubber product, polymer of ethylene, and machinery & parts. Exports to Hong Kong declined for third consecutive quarter by 24.7 percent, in line with a decrease in exports of automatic data processing machines, electronics integrated circuits and semi-conductor devices, transistors and diodes. However, exports to the Middle East (15) increased by 9.1 percent, supporting by the growth in exports of motor cars and parts, rice, and prepared or preserved fish and crustaceans. Exports to the United Kingdom rose by 16.5 percent, in line with an increase in exports of prepared poultry, motor cars, parts and accessories, and machinery & parts.

Exports to the main markets declined whereas exports to Middle East and United Kingdom increased.

		Export '	Value t	o Key N	arkets	in US Do	llar Tern	n			
%YOY			2021					2022			Share
%°101	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Q4/22 (%)
Total Exports (Mil US\$) (Customs basis)	272,006	64,118	68,237	67,733	71,918	287,068	73,559	75,528	72,181	65,799	100.0
(%YoY)	17.4	2.1	31.9	15.4	23.1	5.5	14.7	10.7	6.6	-8.5	
United States	21.9	13.1	30.4	19.6	25.2	13.4	23.1	17.8	15.8	-1.3	16.9
Japan	9.6	5.9	20.0	15.2	-0.2	-1.3	1.2	0.9	-0.2	-7.1	8.9
EU (27) Excluding UK	22.8	10.8	49.9	16.3	21.3	5.2	5.6	5.7	15.0	-4.8	8.2
United Kingdom	13.0	-9.3	65.6	0.3	14.5	15.6	18.1	-2.1	33.3	16.5	1.6
China	25.0	19.7	29.5	32.2	17.8	-7.7	4.1	-1.9	-18.1	-13.4	11.8
ASEAN (9)	17.5	-5.9	33.3	18.6	30.0	10.3	16.8	19.0	19.2	-10.9	24.2
- ASEAN (5)*	19.9	-10.8	27.0	27.1	44.1	9.5	27.0	23.1	11.9	-17.6	13.3
- CLMV**	14.5	0.6	42.1	7.9	13.6	11.5	4.9	14.0	30.1	-0.9	10.9
Middle East (15)	20.5	-5.1	37.8	22.0	36.4	21.0	16.5	29.1	31.9	9.1	4.2
Australia	11.5	19.7	27.7	-12.6	16.9	1.8	-2.3	-3.4	17.8	-2.9	4.3
Hong Kong	2.7	-19.3	15.7	7.8	9.1	-13.0	5.0	-7.2	-22.6	-24.7	3.4
India	56.0	7.4	181.1	65.3	50.6	22.5	33.1	60.3	13.6	-6.1	3.6
South Korea	38.8	17.5	56.0	51.2	33.1	8.4	23.2	14.0	7.8	-10.3	2.0
Taiwan	23.1	9.8	35.5	27.0	21.2	0.8	9.7	8.1	-2.6	-11.3	1.6

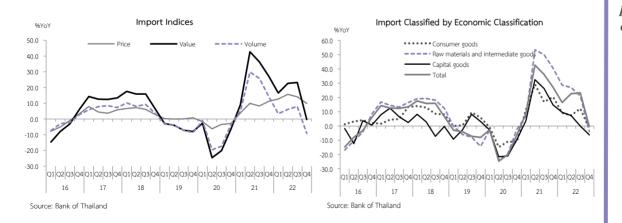
ASEAN (5) consist of Brunei, Indonesia, Malaysia, Philippines, and Singapore Note:

** CLMV consist of Cambodia, Laos, Myanmar, and Vietnam

Source: Bank of Thailand

Import value in US dollar terms was recorded at 62.8 billion US dollars or a 0.3-percent decline, the first time in the past eight quarters compared with a 23.2-percent improvement in the previous quarter, associated with a decrease of industrial production and export. Import volume diminished by 9.2 percent, compared with an 8.0-percent increase in the pervious quarter, while import price increased by 9.8 percent compared with a 14.0-percent rise in the previous quarter. Import values excluding the non-monetary gold (except for articles of golds) declined by 1.0 percent, compared with an 18.1-percent increase in the previous quarter. In Thai Baht terms, the import value stood at 2,286 billion Baht, increasing by 8.6 percent.

In 2022, import value stood at 274.6 billion US dollars, increasing by 15.3 percent, compared with a 27.7percent growth in 2022. The import volume and price expanded by 2.0 percent and 13.0 percent, respectively. In Thai Bath terms, import value was recorded at 9,630 billion Baht, rising by 26.2 percent, compared with a 30.8-percent expansion in 2022.



By categories, almost all of the import value categories decreased. Import value of consumer goods decreased by 2.0 percent, compared with a 12.2-percent growth in the previous quarter. Import volume decreased by 5.7 percent, compared with a 6.5-percent growth in the previous quarter, while import price increased by 4.0 percent. Import value of raw materials and intermediate goods contracted by 3.9 percent, compared with a 21.0-percent increase in the previous quarter. Import volume diminished by 11.0 percent, compared with a 5.5-percent increase in the previous quarter, and import price rose by 8.0 percent. Import value of capital goods contracted by 6.2 percent, compared with a 0.03-percent growth in the previous quarter. Import volume decreased by 7.3 percent while import price expanded by 1.1 percent. Import value of other goods expanded by 16.2 percent compared with a 140.2-percent increase in the previous quarter, followed by an increase in imports of non-monetary gold.

Import value in US dollar terms, decreased for the first time in the past eight quarters by 0.3 percent, compared with a 23.2-percent expansion in the previous quarter. This was associated with a decrease in industrial production and export.

Import Value of Major Product in US Dollar Term

	value	. 01 101		ouuci		Dollar					
%YoY			2021					2022			Share
,0101	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Q4/22 (%)
Consumer goods	19.2	11.5	29.2	16.9	20.3	6.4	9.2	7.5	12.2	-2.0	13.1
Food, beverage & dairy products	5.7	1.0	9.9	7.8	4.6	14.7	13.8	16.3	17.7	11.3	2.8
Cellular phone	39.0	85.5	14.3	3.6	51.5	-9.8	-12.3	8.1	35.4	-39.1	1.5
Animal & fishery products	24.0	13.1	47.3	21.7	16.8	5.9	9.3	-5.2	14.3	6.9	1.4
Medicinal and pharmaceutical products	46.9	3.6	21.4	89.2	79.6	-6.9	52.9	10.3	-39.4	-21.9	1.3
Raw materials and intermediate goods	36.2	7.1	53.4	50.0	40.5	17.5	28.6	27.0	21.0	-3.9	64.5
- Excl. Fuel	33.5	16.2	47.3	47.9	25.9	5.8	16.7	11.5	4.4	-8.3	45.5
Parts of electronics and electrical appliances	20.4	13.9	23.8	24.9	19.1	8.9	20.4	14.9	7.7	-5.3	15.2
Crude oil	45.7	-23.3	110.2	62.9	96.8	59.1	71.0	97.9	72.6	11.7	12.0
Chemicals & petro-chemical products	39.1	18.4	46.4	60.6	34.4	6.7	19.0	14.3	5.6	-10.9	9.2
Materials of base metal	60.9	26.5	83.7	89.3	53.5	-0.4	19.0	13.4	-8.6	-22.7	8.0
Agricultural and agro-manufacturing products	23.3	4.7	41.1	38.9	10.6	5.8	9.8	1.3	9.3	3.5	4.3
Capital goods	18.4	3.6	32.5	26.3	14.8	2.4	9.6	7.3	0.03	-6.2	17.7
Other machinery and mechanical appliances & parts	16.4	0.4	32.2	27.6	10.3	1.9	9.0	2.7	-0.8	-3.1	7.7
Transformers, generators, motors and accumulators	20.9	19.6	30.9	29.8	6.9	7.0	8.5	9.9	7.3	2.6	1.9
Measuring, checking and precision instruments	16.8	10.6	40.4	30.5	-4.9	0.7	-3.8	1.2	2.1	3.6	1.3
Other Imports	19.7	24.7	74.7	23.4	-10.7	22.8	-42.1	51.9	140.2	16.2	4.8
Non-monetary gold (excl. articles of goldsmiths)	68.6	135.5	156.6	67.2	-6.7	32.0	-54.1	103.6	245.8	23.4	3.5
Other imports, n.i.e.	-27.5	-61.3	27.5	-7.9	-18.3	2.3	14.4	-8.2	3.7	0.8	1.3
Total Imports (Customs basis)	29.5	8.2	46.4	39.4	29.5	13.6	17.0	21.8	20.2	-3.3	100.0
Imports, f.o.b. (BOP basis)	27.7	9.0	42.7	36.2	27.1	15.3	16.5	22.7	23.2	-0.3	91.4
Import Value (exclude gold)	26.5	4.7	41.4	35.7	28.6	14.6	22.0	21.0	18.1	-1.0	87.9
Source: Bank of Thailand											

Source: Bank of Thailand

Import Volume Indices by Economic Classification

Volume indices			2021					2022		
volume indices	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4
Consumer goods	14.8	8.3	24.0	12.6	15.2	1.5	4.5	1.7	6.5	-5.7
Raw materials and intermediate goods	16.1	-1.7	26.9	26.8	15.9	2.2	8.4	6.3	5.5	-11.0
Capital goods	16.2	2.1	30.3	24.0	11.8	-0.4	6.1	3.3	-3.0	-7.3
Total Imports	17.9	4.9	29.8	25.8	14.2	2.0	3.4	6.1	8.0	-9.2

Source: Bank of Thailand

Impor	t Price lı	ndices	by Eco	nomic (Classific	ation				
Price indices			2021					2022		
%YoY	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4
Consumer goods	3.8	2.9	4.1	3.9	4.4	4.9	4.4	5.7	5.4	4.0
Raw materials and intermediate goods	17.3	9.0	20.9	18.3	21.2	15.0	18.6	19.4	14.7	8.0
Capital goods	1.9	1.5	1.7	1.8	2.7	2.9	3.3	3.8	3.2	1.1
Total Imports	8.3	3.9	9.9	8.3	11.3	13.0	12.7	15.7	14.0	9.8

Source: Bank of Thailand

Term of trade decreased as import price expanded by 9.8 percent, faster than the growth of export price which grew by 3.1 percent. Thus, the term of trade this quarter stood at 96.1, decreasing from 102.3 in the same quarter last year, yet still increasing from 95.7 in the previous quarter.

In 2022, term of trade was recorded at 96.5 decrease from 104.7 in 2021 as import price increased at a faster pace of 13.0 percent compared with the growth of export price which expanded by 4.2 percent.

Trade balance in the fourth quarter of 2022 recorded a surplus of 3.0 billion US dollars, from a deficit of 1.9 billion US dollars in the previous quarter, but lower than a surplus of 8.1 billion US dollars in the same quarter of last year. **In Baht terms**, trade balance recorded a surplus of 108.8 billion Baht, compared with a deficit of 65.4 billion Baht in the previous quarter, but lower than a surplus of 270.5 billion Baht in the same period of the previous year.

In 2022, trade balance recorded a surplus of 10.8 billion US dollars (367.6 billion Baht), lower than a surplus of 32.4 billion US dollars (1,034.6 billion Baht) in 2021.

				Term of	f trade					
%YoY			2021					2022		
%101	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4
Term of trade*	104.7	106.8	105.5	104.5	102.3	96.5	98.5	95.9	95.7	96.1
%YOY	-4.7	-1.8	-5.3	-4.8	-6.8	-7.8	-7.8	-9.1	-8.4	-6.1

Note : *Term of trade : TOT represents the ratio between a country's export prices and its import prices. When Term of trade improves, it refers to a country that gains benefit from international trade due to export prices higher than import prices. Source: Bank of Thailand

Term of trade declined.

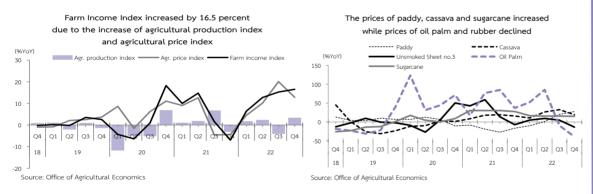
NESDC

Trade surplus was at 3.0 billion US dollars or 108.8 billion Baht.

Production Side:

Agriculture, forestry, and fishing sector expanded by 3.6 percent, rebounded from a 2.2-percent contraction in the previous quarter. The expansion was supported by favorable weather conditions and sufficient water supply. This was in line with a growth of Agricultural Production Index of 3.4 percent, compared to a 4.1-percent decrease in the previous quarter. Major agricultural products with production expansion included: (i) fruits (37.5 percent), especially durian (136.4 percent) owing to price incentive and favorable weather conditions, (ii) oil palm (20.9 percent) following an increase in crop yields as a result of favorable weather condition along with sufficient water for cultivation, (iii) sugarcane (29.5 percent) due to the price incentive which enhanced farmers to expend planting areas. In addition, the Cane and Sugar Board of Thailand had set the sugar cane-crushing season earlier than the previous year, (iv) white shrimp (11.4 percent) due to the global demand upsurge, particularly China and Japan, and (v) poultry (1.1 percent) owing to an increase in global demand, particularly Japan and the UK. On the other hand, major agricultural products with production contraction included swine (-3.0 percent), rubber (-0.8 percent), paddy (-0.7 percent), and egg (-3.0 percent), etc. Agricultural Price Index continued to rise for the fourth consecutive quarter by 12.8 percent, following an increase of main agricultural products such as fruits (38.4 percent), especially durian (51.5 percent), owing to the global demands upsurge, particularly China and the US, paddy (27.6 percent) owing to the global and domestic demands upsurge along with the decline of rice production which threatened by floods in many provinces in the Northeast, swine (42.4 percent) following the decline in live pig production as a result of the higher production costs such as pallet, animal feeds, swine disease control and prevention, and transportation, together with an increase in domestic demand, **poultry** (25.6 percent) owing the contraction in poultry production due to rising production costs and higher poultry consumption in both the global and domestic levels, and cassava (19.0 percent) following to the global and domestic demands upsurge. In contrast, major agricultural price index with the contraction included oil palm (-39.2 percent), rubber (-13.7 percent), and white shrimp (-2.5 percent), etc. Rising in both agricultural production index and agricultural price index thus led to Farm Income Index growing for the fourth consecutive quarter by 16.5 percent.

In 2022, agriculture, forestry, and fishing sector rose by 2.5 percent, improved from a 2.3-percent growth in 2021. In details, Agricultural Production Indexes expanded by 1.2 percent and Agricultural Price Indexes increased by 11.6 percent. Therefore, Farm Income Index rose by 13.0 percent.



Manufacturing sector decreased by 4.9 percent compared to a 6.0-percent growth in the previous quarter, following the decline in both production of the export-oriented industries (with export share more than 60 percent of total production) as well as production of the domestic-oriented industries (with export share less than 30 percent of total production). This was in line with a 5.8percent contraction in the Manufacturing Production Index (MPI) compared to an 8.0-percent growth in the previous quarter. Manufacturing Production Index of the industries of the export-oriented industries (with export share more than 60 percent of total production) decreased by 13.5 percent, compared to a 1.1 percent increase in the previous quarter. The contraction was correlated with the first decline of goods exports in 8 quarters. The key production contraction included manufacture of computers and peripheral equipment (-42.5 percent), manufacture of furniture (-38.5 percent) following a drop in furniture orders from abroad which was partly from that China, the largest furniture producing country in the world, started to produce and export more furniture. The manufacture of jewellry and related articles decreased by 26.4 percent due to a slowdown in spending on luxury goods which affected by the economic slowdown in major trading partners. On the other hand, manufacture of electronic components and boards continued to increase for the 9th quarter, rising by 3.4 percent, particularly in integrated circuits which used as a raw material in production with basic technologies. Manufacturing Production Index of the domestic-oriented industries (with export share less than 30 percent of total production) decreased by 5.1 percent, compared with a 4.5-percent increase in the previous quarter. The key production contraction included manufacture of refined petroleum products (-8.7 percent) due to temporary shutdowns of crude oil refineries from some producers, manufacture of plastics and synthetic rubber in primary forms (-19.6 percent) due to weakened foreign demand together with some producers which temporarily closed their factories for maintenance. Manufacture of basic iron and steel also decreased by 10.5 percent following the reduction in steel production capacity as the operators needed to

Agriculture, forestry, and fishing and construction sector rebounded while accommodation and food service activities, wholesale and retail trade; repair of motor vehicles and motorcycles. transportation and storage and electricity, gas, steam and air conditioning supply sector slightly increased. Nonetheless. manufacturing sector decreased.

Agriculture, forestry, and fishing sector rebounded by 3.6 percent following the increase in major agricultural production. The expansion was supported by favorable weather conditions and sufficient water supply. Besides, the increase in price key agricultural products, thus led to Farm Income Index growing for the fourth consecutive quarter.

Manufacturing sector contracted by 4.9 percent following the decline in production of the export-oriented industries (with export share more than 60 percent of total production) and production of the domestic-oriented industries (export less than 30 percent of total production).

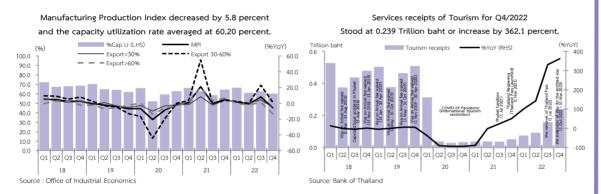
The average capacity utilization rate was at 60.20 percent, lower than 62.61 percent in the previous quarter and 64.51 percent in the same quarter last year.

balance the domestic steel stocks for remaining period of the year. However, manufacture palm oil continued to increase for the second quarter, rising by 30.6 percent. **Manufacturing Production Index**, with export between 30 percent to 60 percent of total production increased by 1.0 percent, decelerating from a 22.9-percent growth in the previous quarter. The slowdown was mainly attributed to manufacture of motor vehicles (8.5 percent) following a slowdown in foreign demand, and manufacture of sugar (5.3 percent) due to a slowdown in the amount of sugarcane output entering sugar mills along with the beginning of cane crushing in the 2022/23 production year. Besides, manufacture of prepared animal feeds increased by 3.9 percent, decelerating from a 9.9-percent growth in the previous quarter, following a decline in foreign demand from countries such as the US and Japan. Meanwhile, manufacture of plastics articles for the packaging of goods declined by 14.2 percent. The average capacity utilization rate in this quarter was at 60.20 percent, lower than 62.61 percent in the previous quarter and 64.51 percent in the same quarter last year. In details, among 30 key industries, there was only one industry with capacity utilization above 80 percent, namely, manufacture of motor vehicles (81.90 percent).

Manufacturing production index with negative growth included computers and peripheral equipment (-42.5 percent), refined petroleum products (-8.7 percent), plastics and synthetic rubber in primary forms (-19.6 percent), furniture (-38.5 percent), basic iron and steel (-10.5 percent), jewellery and related articles (-26.4 percent), fertilizers and nitrogen compounds (-45.8 percent), domestic appliances (-23.5 percent), plastics articles for the packaging of goods (-14.2 percent), and other rubber products (-7.5 percent), etc.

Manufacturing production index with positive growth included motor vehicles (8.5 percent), palm oil (30.6 percent), articles of concrete, cement and plaster (6.1 percent), electronic components and boards (3.4 percent), tobacco products (36.5 percent), malt liquors and malt (13.0 percent), sugar (5.3 percent), basic pharmaceutical products and pharmaceutical preparations (9.1 percent), prepared animal feeds (3.9 percent), and motorcycles (7.6 percent), etc.

In 2022, manufacturing sector increased by 0.4 percent, slowing down from a 4.7-percent growth in 2021. Additionally, Manufacturing Production Index (MPI) increased by 0.6 percent, and the average capacity utilization rate was at 62.61 percent.



Accommodation and food service activities sector continued to increase for the fourth consecutive quarter by 30.6 percent following higher-than-expected foreign tourist arrivals and continued expansion of domestic tourism. In the fourth quarter of 2022, the number of foreign tourists stood at 5.465 million people (shared of 55.66 percent of pre-COVID-19 outbreak period). The number was supported by stronger-than-expected recovery of international tourism as tourism demand kept improving globally in tandem with the increase of international flights capacity. International tourism receipts¹ stood at **0.239 trillion Baht** which rose for six consecutive quarters by 362.1 percent. Top international travelers in this quarter mainly came from East Asia (2.961 million persons, shared of 54.18 percent), Europe (1.341 million persons, shared of 24.53 percent), and South Asia (0.499 million persons, shared of 9.14 percent). Thai tourism receipts² stood at 0.186 trillion Baht which rose for four consecutive quarters by 122.3 percent due to the pandemic gradually subsided along with the continual stimulus packages to boost domestic tourism such as "We Travel Together Phase 4 Extension". The top three most visited provinces (excluding Bangkok) by Thai tourists consisted of Chonburi (4.091 million persons, shared of 7.01 percent), Kanchanaburi (3.142 million persons, shared of 5.38 percent), and Prachuap Khiri-khan (2.871 million persons, shared of 4.92 percent). The continual increase in both international and domestic tourism receipts resulting in the total amount of tourism revenue³ in this quarter stood at 0.425 trillion Baht which rose by 213.9 percent. The average occupancy rate was at 62.64 percent, increased from 49.96 percent in the previous quarter and higher than 26.25 percent in the same period last year.

In 2022, accommodation and food service activities sector increased by 39.3 percent, improving from a 15.0-percent contraction in 2021. The number of foreign tourists was recorded at 11.153 million people, increased by 2,506.6 percent. The total amount of tourism revenue stood at 1.207 trillion Baht, increased by 217.0 percent, and the average occupancy rate was at 47.93 percent, higher than 14.03 percent in 2021.

Accommodation and food service activities sector continued with high levels of growth for the fourth consecutive quarter by 30.6 percent as the continued increase in both foreign tourist arrivals and domestic tourism. The total amount of tourism revenue in this quarter stood at 0.425 trillion Baht which rose by 213.9 percent.

¹ International tourism receipts refer to Service receipt of Tourism from the balance of payment table. (source: Bank of Thailand)

- ² Thai tourism receipts refer to Domestic Tourism Statistic. (source: Ministry of Tourism & Sports)
- ³ The total amount of tourism revenue refers to an aggregation of the international tourism receipts and Thai tourism receipts.

Wholesale and retail trade; repair of motor vehicles and motorcycles sector increased by 3.1 percent, compared to a 3.5-percent growth in the previous quarter, following the continued recovery in tourism-related services along with the improvement of household expenditure. This was associated with the increase of Wholesale and Retail Sales, and Repair of Motor Vehicles Composite Index. In details, (i) Retail Sales Index (except motor vehicles and motorcycles) increased by 1.3 percent as a result of the increase in other types of retail stores such as jewellery retail stores, (ii) Wholesale Index (except motor vehicles and motorcycles) increased by 0.2 percent mainly due to an expansion in other types of goods wholesale such as liquid fuel wholesale, and (iii) Wholesale and Retail Sales, and Repair of Motor Vehicles Index increased by 0.7 percent as a consequence of the expansion in sales of parts and accessories for motor vehicles combined with sales of maintenance and repair of motorcycles, parts, and related accessories. Meanwhile, sales of motor vehicles declined as reflected in the drop in selling volumes of both passenger car and commercial vehicles.

In 2022, wholesale and retail trade; repair of motor vehicles and motorcycles sector improved as reflected in an expansion of 3.1 percent, compared to a 1.7-percent growth in 2021.

Transportation and storage sector continued to increase by 9.8 percent, compared to a 10.1-percent growth in the previous quarter, following the high levels of expansion in air transport and the continual expansion of land transport and transport via pipelines. The expansion in transportation and storage sector was in accordance with an increase in Transportation Services Composite Index. This was attributed to (i) a 179.4-percent increase in Air Transport Services Index, owing to the acceleration in air passenger and merchandise transport, (ii) a 7.7-percent increase in Land Transport and Transport via Pipelines Services Index, due to the expansion in number of electric train line passengers, and (iii) a 0.1-percent increase in Water Transport Services Index, decelerated from a 0.5-percent growth in the previous quarter, as a result of the slowdown of TEUs Volume Index and Thai international freight volume (water transport) index. Besides, warehousing and support activities for transportation rose by 3.0 percent, compared to a 4.7-percent growth in the previous quarter. Likewise, postal and courier activities increased by 4.0 percent, accelerated from a 3.4-percent growth in the previous quarter in line with the expansion of entrepreneur revenue.

In 2022, transportation and storage sector expanded by 7.1 percent, improved from a 2.8-percent contraction in 2021. Transport services increased by 7.5 percent. In addition, warehousing and support activities for transportation rose by 5.3 percent and postal and courier activities expanded by 3.8 percent.

Electricity, gas, steam and air conditioning supply sector increased by 0.1 percent, decelerating from a 4.4-percent growth in the previous quarter, following a slowdown of power generation activities together with the contraction of natural gas production activities. This was in line with the slowdown in electricity, gas and air conditioning production index. This was mainly attributed to (i) the power generation index rose by 0.5 percent, decelerating from 4.8 percent in the previous quarter, following a weakened demand in electricity consumption of business sectors, while the demand for household and the industrial sectors decreased. Besides, the average temperature across the country was lower than the previous quarter and the same quarter in 2021, and (ii) the natural gas production index continued to fall for the sixth consecutive quarter by 5.1 percent compared to a 3.5-percent contraction in the previous quarter, in line with the decrease in the production of liquefied petroleum gas and the use of natural gas for vehicles.

In 2022, electricity, gas, steam and air conditioning supply sector increased by 1.9 percent, compared to a 0.3-percent growth in 2021.

Construction sector rebounded from a 2.6 percent contraction in the prior quarter to 2.6 percent growth, following the back of public construction and the ongoing growth of private construction. Meanwhile, the Construction Material Price Index (CMI) kept rising. In this quarter, public construction rose by 3.3 percent comparted to a 5.7-percent decline the previous quarter, the first time in six quarters and the first time in four quarters that government construction increased by 0.1 percent, recovered from a 9.8-percent contraction in the preceding quarter. Meanwhile, state enterprise construction continued to increase for the third consecutive quarter by 11.5 percent, accelerated from a 4.0 -percent growth in the previous quarter). Private construction continued to rise for the second consecutive quarter by 1.9 percent, comparing with a 2.0-percent growth in the previous quarter. The expansion was driven by residential construction (such as condominiums and detached houses) and non-residential construction (such as condominiums and detached houses) and non-residential price index (CMI) continued with expansion of 3.5 percent, the ninth consecutive quarter. This was in line with the rise in price index of concrete products (16.6 percent), tiles and sanitary ware (16.2 percent), and plastic products (12.7 percent).

In 2022, construction sector decreased by 2.7 percent, compared to a 2.2-percent growth in 2021. Public construction fell by 3.4 percent (government construction dropped by 6.6 percent, while state-owned enterprise construction expanded by 3.5 percent), and private construction decreased by 1.2 percent.

Wholesale and retail trade; repair of motor vehicles and motorcycles sector continued to increase for the 7th consecutive quarter by 3.1 percent, as the continued recovery in tourism demand as well as higher household purchasing power.

Transportation and storage sector continued to increase for the fifth consecutive quarter by 9.8 percent, following the high levels of expansion in air transport and the continual expansion of land transport and transport via pipelines.

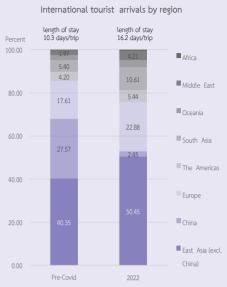
Electricity, gas, steam and air conditioning supply sectors increased by 0.1 percent, slowed down from a 4.4 percent growth in the previous quarter, following a deceleration of the power generation activities while the natural gas production activities continued to decrease for the sixth consecutive quarter.

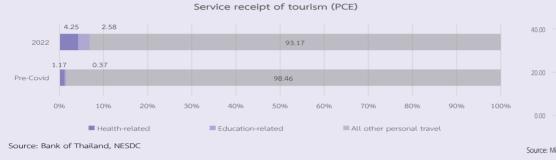
Construction sector expanded for the first time in six quarters at 2.6 percent. Public construction rebounded for the first time in six quarters by 3.3 percent. Besides, private construction continued to expand for the second quarter by 1.9 percent. **Construction Material Price Index (CMI)** continued to rise for the ninth consecutive quarter.

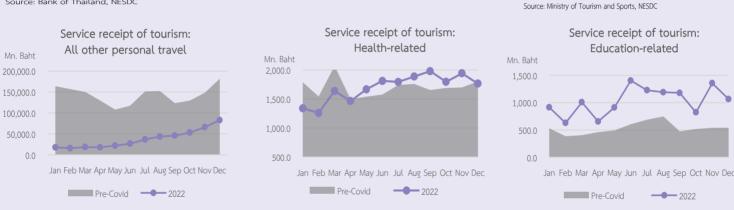
NESDC

Situations and foreign tourist behaviors after the COVID-19 outbreak.

In 2022, the majority of foreign tourist represented high purchasing power and a long length of stay. Most of them were short-haul tourists from East Asia such as Malaysia and Singapore, along with South Asia such as India (the share of foreign tourist volume doubled from pre-COVID levels). The average expenditure¹ of foreign tourists in 2022 was at 68,202 Baht/person/trip, higher than the pre-COVID period² of 26,990.7 Baht/person/trip. Besides, the average length of stay¹ was at 16.2 days/trip, longer than 10.3 days/trip in the pre-COVID period.







Source: Bank of Thailand, NESDC

The data from the service receipt of tourism³ revealed that the service receipt of tourism in all other personal travel category⁴ recovered, in line with the number of foreign tourist arrivals. Meanwhile, the service receipt of tourism in health-related and education-related category expanded with an exceeded the pre-COVID level. The increase in those categories conformed with foreign tourists' main purposes of traveling to Thailand in the post-COVID period which is healthcare and medical treatment, followed by leisure, shopping, and visiting relatives and friends. In 2022, the average of the service receipt of tourism in all other personal travel category stood at 37,166.4 million Baht (one-third of the pre-COVID level), in tandem with the number of foreign tourists (11.15 million persons; one-third of the pre-COVID level). The average of the service receipt of tourism in health-related category was at 1,695.6 million Baht and the average of the education-related category was at 1,030.8 million Baht which continually increased and exceeded the pre-COVID level.

Most foreign tourists (shared of 84.3 percent) self-managed travel plans, increased by 64.3 percent from in the pre-COVID level as the variety of platforms, applications and other online sources are more accessible. As a result, tourists are able to limit their expenditure and length of stay according to individual convenience. This conformed with considerable popularity in the uses of digital approach by foreign tourists, including social media (shared of 53.0 percent) and traveling websites (shared of 25.0 percent). Looking back to the pre-COVID period, the main sources were traveling websites (shared of 32.5 percent) and recommendations from relatives and friends (shared of 13.2 percent).

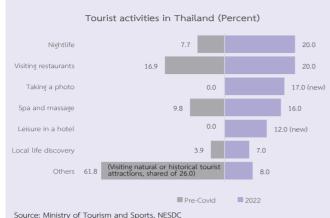
¹ The attitudes, satisfactions and behaviors of Thai and foreign tourists traveling in Thailand Survey Project (2017-2022) by Ministry of Tourism and Sports. the expenditure and length of stay include those trips during quarantine measures or travel restrictions following the UNWTO guidance

² Pre-Covid refers to the average of 2017-2019

³ International tourism receipts refer to Service receipt of Tourism from the balance of payment table. (source: Bank of Thailand)

⁴ The structure of all other personal travel category refers to the survey of the Ministry of Tourism and Sports in 2019 which consists of Shopping (shared of 29.62 percent), Accommodation (shared of 26.99 percent), Food & Beverage (shared of 20.48 percent), Local Transport (shared of 8.70 percent), Entertainment (shared of 8.66 percent), Sight-seeing (shared of 3.96 percent), and Miscellaneous (shared of 1.58 percent).

Situations and foreign tourist behaviors after the COVID-19 outbreak. (continued)



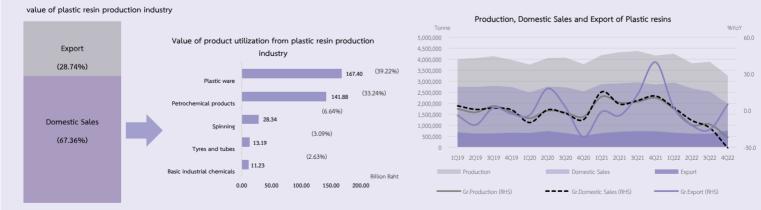
Furthermore, the survey of the Ministry of tourism and sports in 2022¹ indicated that **foreign tourists tended to customize their activities to fulfil personal satisfaction and acquire new experiences.** Therefore, tourists prefer nightlife activities, visiting popular restaurants, taking a photo, and leisure in a hotel rather than visiting natural or historical tourist attractions as in the pre-COVID period. Besides, the world context after the COVID-19 outbreak reflected that foreign tourists concentrate on convenience, sanitation, environmental-friendly products, and availability of online services and e-payment.

Accordingly, the public and private sectors will need to pay greater attention, especially a strategic approach, to promote tourism services and related businesses in the context of post-pandemic travel. The essentials

included (i) **high-quality tourism promotion** such as health and medical tourism which highly contributes to tourism receipt, also sustainable tourism which emphasizes environmental-friendly products and services as well as smart tourism which mainly utilize technology, data and electronic transaction to develop a business to meet each target group's preference; (ii) **combining both social media marketing** and social listening tools to create appropriate promotion plan; (iii) **maintaining standard and brand and image on tourism** along with quality of goods and services as they directly influence on social media which is the main sources of information; and (iv) **developing inclusive infrastructure,** including public transport, life and property safety, and 24-hour assistance for tourists. Talking into consideration, the new kind of tourism behaviors are essential because tourists concerned about time and place limitless as well as intended to alter easily according to social media trends.

Plastics industry and related industries

The plastics industry is considered as an essential industry in Thailand, accounting for 7.39 percent of industrial production. Besides, this will help to support by adding value for the petroleum and petrochemical industries, especially downstream products. Manufacturing plastic products involves receiving raw materials as downstream products from the petrochemical industry to produce the various finished and semi-finished goods through Thai plastics converters industry, such as plastic packaging, electrical and electronic manufacturing, and construction equipment parts. In 2022, the plastic resin production industry¹ had a total output of 15.22 million tons, valued at 633.64 billion Baht (3.65 percent of Thai GDP). This output was divided into a domestic sales value of 67.36 percent and an export value of 28.74 percent.



Source: Office of the National Economic and Social Development Council and The Office of Industrial Economics Compiled by Office of the National Economic and Social Development

Taking into consideration of the Input-Output Table of Thailand in 2015, it indicated that the top five productions with the highest utilization value of plastic resin, the plastic ware production is the biggest consumer at 167.40 billion Baht (39.22 percent), followed by petrochemical products at 141.88 billion Baht (33.24 percent), spinning at 28.34 billion Baht (6.64 percent), tires and tubes at 13.19 billion Baht (3.09 percent), and basic industrial chemicals at 11.23 billion Baht (2.63 percent), respectively. Moreover, the production of aforementioned resin can be used as a production factor in downstream industries, the top five industries with the highest production value consisting of packaging, electric and electronics, construction, automotive, and houseware, respectively.

¹7 types: Toluene, Propylene, Polypropylene (PP), Polyethylene (PE), Polyethylene Terethylate (PET), Ethylene, and Benzene

Plastics industry and related industries (continued)

However, when considering the expansion direction of plastic resins industry, it represented that in the fourth quarter of 2022, 3.25 million tons were produced, which continued to decline for a 3^{rd} consecutive quarter by 21.9 percent. Similarly, the domestic sales volume was at 1.97 million tons, a 3^{rd} consecutive quarter of contraction with 30.7 percent, in line with the domestic economic slowdown. In addition, the energy price, which is the main production cost of plastic resins, experienced high volatile movements. Meanwhile, the export volume of plastic resins was at 0.76 million tons, showing a 5.3 percent increase after declining for 2 consecutive quarters as a result of the global economic slowdown (especially China). In details, Thailand's top three major trading partners included China (29.36 percent), India (10.89 percent), and Indonesia (9.54 percent).

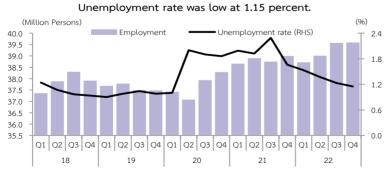
In the period ahead, it is important to concentrate on improving the quality of products in the plastic industry that gives greater added -value. This includes primary plastic products (plastic resins), semi-finished plastic products, and finished plastic products, to develop higher-quality by responding to a wider range of consumer needs align with future trends, such as production of specialized products with high properties (e.g., electric vehicle parts, medical parts and devices) and production of bioplastics. This can be achieved by supporting research, developing technology, and sharing knowledge, to increase production efficiency and improve product quality in the plastic industry, as well as promoting investment for entrepreneurs in the Thai plastic industry to produce high-quality products. Altogether, these would help to drive up competitiveness and lead to sustainable growth of the Thai plastic industry.

Employment continued to increase for the tenth consecutive quarter following an increase in non-agricultural sector whereas agricultural sector continued to decline for the third quarter. The unemployment rate was lower than the previous quarter and the same quarter last year. In the fourth quarter of 2022, the employment continued to expand by 1.5 percent, comparing with a 2.1-percent increase in the previous quarter. Non-agricultural employment (shared 69.15 percent) increased for the third quarter by 3.9 percent following the increase of employment in the sectors of manufacturing, accommodation and food services activities, and wholesale and retail trade; repair of motor vehicles and motorcycles. On the other hand, agricultural employment (30.85 percent share) continued to decline for the third quarter by 3.4 percent. This was partly due to the return of employment in manufacturing and services sectors in tandem with the contraction in production of some key agricultural products such as rubber, paddy and swine, etc. The unemployment rate stood at 1.15 percent, lower than 1.23 percent in the previous quarter and 1.66 percent in the same quarter last year. The average number of unemployed was at 4.62 hundred thousand people, lower than 4.91 hundred thousand people in the previous quarter and 6.61 hundred thousand people in the same quarter of the previous year.

In 2022, the average number of unemployed was at 5.27 hundred thousand people which accounted for 1.32 percent of the average unemployment rate.

Employment continued to increase for the tenth quarter in line with an increase in nonagricultural sector while agricultural sector continued to decline for the third quarter.

The unemployment rate was 1.15 percent, lower than 1.23 percent in the previous quarter and 1.66 percent in the same quarter last year.



Employment decreased by 1.5 percent following a increasing in non-agricultural sector employment

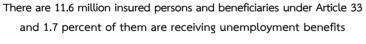
Source: National Statistical Office

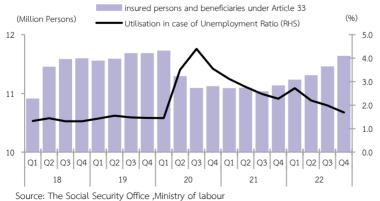
NESDC

E	mploye	d Pers	ons by	' Indus	try						
	Share			2021					2022		
%YOY	Q4/22	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4
Employed	100.00	3.0	3.3	4.9	2.2	1.9	1.0	0.1	0.3	2.1	1.5
- Agricultural	30.85	2.2	3.4	2.7	1.2	1.7	-1.2	2.4	-1.2	-2.4	-3.4
- Non-Agricultural	69.15	3.4	3.3	5.9	2.7	1.9	2.0	-0.8	0.9	4.3	3.9
Manufacturing	16.11	3.6	2.0	2.2	6.9	3.4	1.4	-1.6	1.5	1.4	4.4
Construction	5.44	2.4	7.9	8.7	-4.1	-3.3	-3.5	-4.2	-8.5	0.4	-1.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	16.98	3.2	2.6	2.1	3.7	4.4	4.2	2.0	8.3	4.5	2.0
Accommodation and food service activities	7.46	0.5	3.3	9.3	-5.8	-4.4	0.8	-4.4	-6.1	8.3	6.6
Total labor force (Million persons)		39.81	39.87	39.89	39.73	39.76	39.90	39.62	39.76	40.09	40.14
Employed (Million persons)		38.82	38.66	38.90	38.75	39.00	39.22	38.72	39.01	39.57	39.59
Unemployment (Million persons)		0.78	0.79	0.76	0.91	0.66	0.53	0.61	0.55	0.49	0.46
Unemployment Rate (%)		1.96	1.99	1.92	2.29	1.66	1.32	1.53	1.37	1.23	1.15

Source : National Statistical Office (NSO) Revised 2021

Labor in the Social Security System: The total number of insured persons in social security system continued to increase for the seventh consecutive quarter. The unemployment rate among insured persons under article 33 was lower than the previous quarter and the same quarter of the previous year. In the fourth quarter of 2022, the total number of social security beneficiaries continued to increase for the seventh consecutive quarter by 2.8 percent. This was mainly attributed to (i) a continued increase of compulsory insured person under article 33 by 4.5 percent, accelerating from 3.9 percent in the previous quarter. This was in line with the increase of insurers in the industrial and service sectors (such as manufacturing, accommodation and food service activities and wholesale and retail trade; repair of motor vehicles and motorcycles sector), and (ii) an increase of voluntary insured persons under article 40 by 2.0 percent, comparing with a 3.9-percent increase in the previous quarter. Meanwhile, voluntarily insured persons under article 39 continued to decrease for the fourth consecutive quarter by 3.1 percent. The unemployment rate among insured person under article 33 in the quarter was at 1.7 percent, lower than 2.0 percent in the previous quarter and 2.3 percent in the same quarter last year. The average number of unemployed was at 1.97 hundred thousand people, lower than 2.28 thousand people in the previous quarter and 2.53 hundred thousand people in the same quarter last year.





The total number of insured persons in the social security system continued to increase for the seventh quarter by 2.8 percent, due to the increase of insured persons under article 33 and insured persons under article 40. Meanwhile, insured persons under article 39 continued to decline.

The unemployment rate among insured person under article 33 in this quarter was at 1.7 percent, lower than 2.0 percent in the previous quarter and 2.3 percent in the same quarter last year.

Num	ber of :	social s	ecurity	benefi	ciaries					
Registered Applicants (Thousand			2021					2022		
Registered Applicants (mousand	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4
Insured Persons (article 33) ^{1/}	11,137	11,091	11,098	11,037	11,137	11,638	11,234	11,313	11,462	11,638
Insured Persons (article 39) $^{2/}$	1,939	1,850	1,897	1,956	1,939	1,880	1,920	1,902	1,899	1,880
Insured Persons (article 40) ^{3/}	10,665	3,576	3,612	10,449	10,665	10,881	10,767	10,812	10,855	10,881
Total Insured Persons	23,741	16,516	16,607	23,442	23,741	24,399	23,920	24,027	24,216	24,399
Utilisation in case of Unemployment	253	346	308	273	253	197	306	245	228	197
Utilisation in case of Unemployment Ratio (%)	2.27	3.12	2.77	2.47	2.27	1.69	2.72	2.17	1.99	1.69

Source : Social Security Office (SSO) , Ministry of labour

Note: ^{1/}Insured Persons (article 33) are employees of private enterprises that employ at least 1 employee. Those Insured Persons must be over 15 years of age, but under 60 years of age

³⁷ Insured Persons (article 40) are neither persons who are currently employed by private enterprises (article 33) nor has never applied to be an insured person under article 39. Insured persons under article 40 must be an self-employed person or informal workers age who must be over 15 years of age, but under 60 years of age.

Fiscal Conditions:

On the revenue side, in the first quarter of the fiscal year 2023 (October – December 2022), the net government revenue collection stood at 633,139.7 million Baht, increased by 13.3 percent compared with the same quarter last year due to (i) **an 8.5-percent increase in revenue collection of the Revenue Department** following a rise of corporate income tax collection by 19.3 percent , **(ii) other government agencies** as a remittance of capital or excess profit of working capital, revenue submission from the company's 1800 MHz mobile phone concession of National Telecom Public Company Limited and revenue from auction of the FM radio frequency licenses, and **(iii) a 24.8-percent increase in revenue submission** from the previous fiscal year together with revenue from the retrospective payment of the Customs Department according to the judgment in case of importing auto parts. On the other hand, **revenue collection of the Excise Department decreased by 13.1 percent** compared with the same quarter last year due to the government measure to reduce the excise tax on diesel by 5 Baht per liter, running from 21st September - 20th November 2022 and from 21st November 2022 - 20th January 2023 to alleviate the household economic burden.

However, excluding the extra revenue submission of other government agencies and the Customs Department, the net government revenue collection in the first quarter of the fiscal year 2023 increased by 7.3 percent from the same quarter last year, and was 7.2 percent higher than the revenue estimation stated in the 2023 budget bill.

On the expenditure side, the total budget disbursement in the first quarter of the fiscal year 2023 was at 1,142.1 billion Baht⁴, decreasing by 11.8 percent from the same quarter last year. This was mainly caused by reductions on the Emergency Decree Authorising the Ministry of Finance to Raise Loans to Solve Problems, to Remedy and Restore the Economy and Society as Affected by the Coronavirus Disease Pandemic, B.E.2563 – 2564 (2020 - 2021), the government disbursements were as follows:

(i) The 2023 annual budget disbursement stood at 982.2 billion Baht, decreasing from the same quarter last year by 0.1 percent. The disbursement rate was at 30.8 percent. The current expenditure disbursement amounted to 858.7 billion Baht, decreasing by 3.1 percent from the same quarter last year. This was mainly due to disbursements in the budget of other expenditures decreased. The disbursement rate was at 34.1 percent, lower than 35.0 percent in the same quarter last year. Meanwhile, the capital expenditure disbursement was marked at 123.4 billion Baht, increasing from the same quarter last year by 27.4 percent according to the disbursement in the subsidies. The disbursement rate was at 18.6, higher than 17.2 percent in the same quarter last year. (ii) the carry-over budget disbursement stood at 58.9 billion Baht, decreasing from the same quarter last year by 22.0 percent, and the disbursement rate was at 30.9 percent. (iii) state-owned enterprises capital expenditure budget (excluding PTT) was disbursed for 56.2 billion Baht⁵, increasing from the same quarter last year by $\overline{4.9}$ percent. This was mainly due to a rise in a capital expenditure disbursement of the Metropolitan Electricity Authority (MEA), the Metropolitan Waterworks Authority (MWA), the Airports of Thailand PLC. (AOT), the Dhanarak Asset Development Company Limited (DAD), and the Mass Rapid Transit Authority of Thailand (MRTA). The top 5 highest disbursements of state-owned enterprises consisted of the Provincial Electricity Authority (PEA), the Electricity Generating Authority of Thailand (EGAT), the Metropolitan Electricity Authority (MEA), the State Railway of Thailand (SRT) and the National Telecom Public Company Limited (NT Plc.), respectively. (iv) the COVID-19 loans B.E. 2563 - 2564 (1.5-trillion-Baht) was disbursed for 51.4 billion Baht.

The total budget disbursement in Q1/2023 decreased by 11.8 percent as a result of budget disbursement reductions from the COVID-19 loans.

In Q1/FY2023, the 2023 annual budget disbursement rate was at 30.8 percent in which the rate of current and capital expenditure disbursement stood at 34.1 and 18.6 percent, respectively.

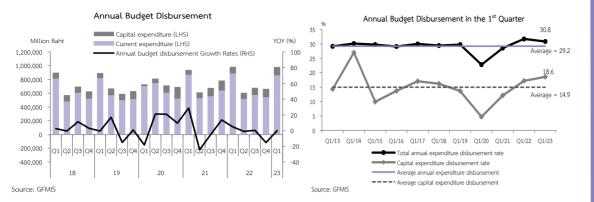
⁴ The total budget disbursement includes the disbursement of (i) the grand total of annual budget, (ii) the carry-over budget, (iii) the State-owned enterprises' capital expenditure budget allocated by the State Enterprise Policy Office (excluding PTT) and the State-owned enterprise's capital expenditure allocated from the annual budget and the carry-over budget, and (iv) the COVID-19 loans (1.5-trillion-Baht).

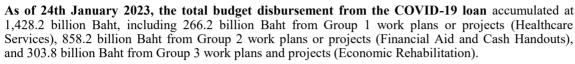
⁵ The number was included the 6.6 billion Baht of the capital spending allocated from the annual budget.

²⁷Insured Persons (article 39) are individuals who resigned from private enterprises (previously insured persons under article 33) but wants to maintain social security rights. Therefore, they voluntarily applied for social security rights under article 39 ³⁷Insured Persons (article 40) are neither persons who are currently employed by private enterprises (article 33) nor has

In Q1/FY2023, the net government revenue collection increased by 13.3 percent following an increase in corporate income tax collection, extra revenue submission of other government agencies, and overlap revenue submission of the state-owned enterprises.

NESDC





Total budget disbursement from the COVID-19 loan (1.5 trillion Baht)

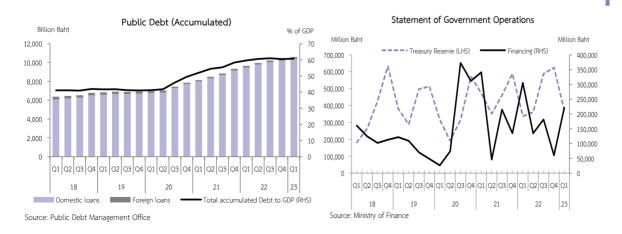
					(Unit: million Baht)
Workplans/Projects	Total Budget	Actual Budget	Amount Budget	Disbursed as %	Budget Balance
workplans/Projects	TOTAL DUUYEL	Allocation	Disbursed	of Allocation	buuget batance
Group 1 Workplans/Projects – Healthcare Services	283,994.2	283,495.1	266,174.7	93.9	499.0
Group 2 Workplans/Projects – Financial Aid and Cash Handouts	864,497.3	864,494.9	858,200.3	99.3	2.4
Group 3 Workplans/Projects – Economic Rehabilitation	351,508.5	334,178.6	303,848.6	90.9	17,329.9
Total	1,500,000.0	1,482,168.6	1,428,223.6	96.4	17,831.4

Source: Public Debt Management Office (24th January 2023)

Public Debt: at the end of December 2022, public debt was accumulated at 10.6 trillion Baht, equivalent to 60.7 percent of GDP, and remained under the fiscal disciplinary framework. The total public debt comprised 10.4 trillion Baht of domestic loans (98.3 percent of public debt), and 179.1 billion Baht of foreign loans (1.7 percent of public debt).

Fiscal Balance: in the first quarter of fiscal year 2023, the budgetary balance recorded a deficit of 408.4 billion Baht combined with a deficit of 64.6 billion Baht on the non-budgetary balance. In addition, the government conducted a cash balance management through the borrowing of 221.1 billion Baht. Therefore, the cash balance after debt financing recorded a net deficit of 251.9 billion Baht. Altogether, the treasury reserve at the end of the fourth quarter of the fiscal year 2022 stood at 624.0 billion Baht, thus the fiscal balance at the end of December 2022 equaled to 372.1 billion Baht.

At the end of December 2022, the government fiscal statement remained at a strong level where the fiscal balance stood at 372.1 billion Baht.



The BOT raised its

policy rate by 0.25

basis points to 1.25

percent.

Financial Conditions:

In the fourth quarter of 2022, the policy interest rate stood at 1.25 percent per annum increased from 1.00 percent in the previous quarter. In meeting on 30th November 2022, the Monetary Policy Committee (MPC) decided unanimously to increase the policy rate by 25 basis points. Therefore, the policy rate increased from 1.00 percent per annum to 1.25 percent per annum. The MPC assessed that the Thai economy had continued to gain traction. The economic growth will be supported by tourism recovery and private consumption, which would alleviate the impact of the global recession. However, the MPC remains the need to monitors the downside risks from high uncertainty about global economic outlook together with the traction of tourism recovery. Headline inflation is expected to ease from 6.3 percent to 3.0 percent, and possibly drop to 2.1 percent, respectively. Nevertheless, headline inflation in 2023 might be elevated because of a potential risk related to costs pass-through and energy price uncertainty. The monetary policy stance of Thailand was in line with continuation of monetary policy tightening by major central banks and some Asian central banks. These included, for example, the Federal Reserve (Fed), the European Central Bank (ECB), and the Bank of England increased their policy rates consistently in the same pace by 125 basis points. In addition, the central banks in India, Canada, South Korea, Australia, and New Zealand raised the policy rate by 35 basis points, 100 basis points, 75 basis points, 75 basis points, and 125 basis points, respectively. Meanwhile, the central bank of Japan, China, and Russia maintained their policy rate at -0.10 percent, 3.65 percent, and 7.50 percent, respectively.

In 2022, the Monetary Policy Committee (MPC) decided to increase the policy rate three times by 25 basis points each in August, September and November. As a result, the policy rate stood at 1.25 percent compared to 0.50 percent at the end of 2021.

In January 2023, the Bank of Thailand hiked the policy rate by 25 basis points, in line with the central banks of Canada and South Korea which raised their policy rate by 100 basis points and 75 basis points, respectively.

Recently in February 2023, the Fed, the ECB, and the Bank of England increased their policy rates by 25 basis points, 50 basis points, and 50 basis points, respectively.

(%)	2020			2021						20	22				20)23
(70)	Year	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Oct.	Nov.	Dec.	Jan.	Feb.
USA	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	4.25-4.50	0.25-0.50	1.50-1.75	3.00-3.25	4.25-4.50	3.00-3.25	3.75-4.00	4.25-4.50	4.25-4.50	4.50-4.75
EU	0.00	0.00	0.00	0.00	0.00	0.00	2.50	0.00	0.00	1.25	2.50	2.00	2.00	2.50	2.50	3.00
England	0.10	0.25	0.10	0.10	0.10	0.25	3.50	0.75	1.25	2.25	3.50	2.25	3.00	3.50	3.50	4.00
India	4.00	4.00	4.00	4.00	4.00	4.00	6.25	4.00	4.90	5.90	6.25	5.90	5.90	6.25	6.25	6.25
Canada	0.25	0.25	0.25	0.25	0.25	0.25	4.25	0.50	1.50	3.25	4.25	3.75	3.75	4.25	4.50	4.50
Korea, South	0.50	1.00	0.50	0.50	0.75	1.00	3.25	1.25	1.75	2.50	3.25	3.00	3.25	3.25	3.50	3.50
Australia	0.10	0.10	0.10	0.10	0.10	0.10	5.50	0.10	0.85	2.35	3.10	2.60	2.85	3.10	3.10	3.10
Indonesia	3.75	3.50	3.50	3.50	3.50	3.50	1.25	3.50	3.50	4.25	5.50	4.75	5.25	5.50	5.75	5.75
Thailand	0.50	0.50	0.50	0.50	0.50	0.50	6.00	0.50	0.50	1.00	1.25	1.00	1.25	1.25	1.50	1.50
Philippines	2.50	2.50	2.50	2.50	2.50	2.50	2.75	2.50	3.00	4.25	6.00	4.75	5.50	6.00	6.00	6.00
Malaysia	1.75	1.75	1.75	1.75	1.75	1.75	4.50	1.75	2.00	2.50	2.75	2.50	2.75	2.75	2.75	2.75
Vietnam	2.50	2.50	2.50	2.50	2.50	2.50	4.25	2.50	2.50	3.50	4.50	4.50	4.50	4.50	4.50	4.50
New Zealand	0.25	0.75	0.25	0.25	0.25	0.75	4.25	1.00	2.00	3.00	4.25	3.50	4.25	4.25	4.25	4.25
Brazil	2.00	9.25	2.75	4.25	6.25	9.25	13.75	11.75	13.25	13.75	13.75	13.75	13.75	13.75	13.75	13.75
Japan	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
China	3.85	3.80	3.85	3.85	3.85	3.80	3.65	3.70	3.70	3.65	3.65	3.65	3.65	3.65	3.65	3.65
Russia	4.25	8.50	4.50	5.50	6.75	8.50	7.50	20.00	9.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50

Source: Collected by NESDC

Macroeconomic Strategy and Planning Division

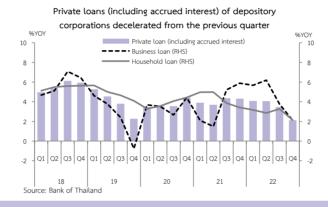
Commercial banks raised their deposit and lending rates following the monetary policy stance of the BOT. Meanwhile, specialized financial institutions (SFIs) kept the lending rate unchanged whereas the deposit rate was raised. In the fourth quarter of 2022, large-sized and medium-sized commercial banks raised their 12-Month fixed deposit rates from 0.50 and 0.68 percent per year to 0.98 and 0.88 percent per year, respectively. Likewise, they both increased their Minimum Loan Rates (MLR) from 5.55 and 6.49 percent per year to 6.00 and 6.84 percent per year, respectively. These were in line with the BOT's monetary policy direction. Additionally, SFIs raised the 12-Month fixed deposit rates from 0.77 percent per year to 0.88 percent per year whereas the lending rates was maintained as the same level at 5.59 percent per year. However, the average real deposit rates and MLR stood as the low level due to persistently high domestic inflation.

In January 2023, large-sized and medium-sized commercial banks continued to increase their deposit and lending rates. Thus, the deposits rates were at 1.05 and 0.91 percent per year, respectively. The lending rates, similarly, were raised to 6.49 and 7.19 percent per year, respectively.

Private loans outstanding of depository corporations slowed down from the previous quarter. At the end of the fourth quarter of 2022, private loans outstanding of depository institutions expanded by 2.12 percent, compared with a 3.46 percent expansion in the previous quarter. There was a slowdown in both business loan and household loan, which decelerated from 3.78 percent and 3.28 percent to 2.09 percent and 2.13 percent, respectively. This was partly due to businesses wanting to lock-in their financing costs before further rising of interest rates in the last quarter as well as an expiring of the government's soft loan program during the COVID-19 pandemic.

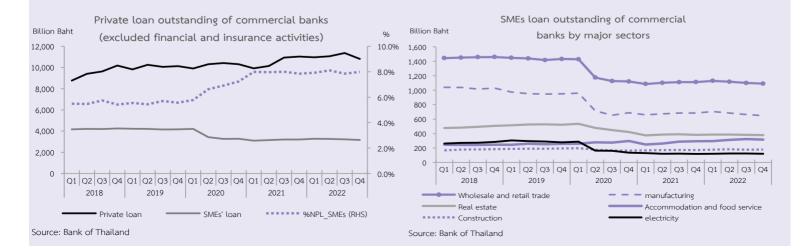
Commercial banks raised their deposit and lending rates following the continuation of the BOT's tightening monetary policy. **Private loans outstanding of commercial banks at the end of the fourth quarter of 2022** grew by 1.43 percent, compared to a 3.56percent expansion in the previous quarter. This was from a slowdown in both business loan and household loan. Additionally, a growth of business loan was at 1.71 percent, decelerated from 3.73 percent in the past quarter mainly due to a slowdown of loan from major sectors, which were (i) manufacturing loan, especially in loan for manufacture of food products, loan for manufacture of rubber and plastics products, and loan for manufacture of coke and refined petroleum products. This was consistence with a decrease of Manufacturing Production Index (MPI) in those activities, and (ii) loan for wholesale and retail trade; repair of motor vehicles and motorcycles, especially retail-trade loan (excluded motor vehicles and motorcycles), which decelerated since the second quarter of 2022. Likewise, household loan dropped from a 3.38-percent growth in the previous quarter to 1.14 percent in this quarter following a slowdown in other personal consumption loan (especially in non-collateral loan) combined with hire purchase loan. In contrast, there was a high expansion of housing loan as reflected in signaling of consumers' confidence recovery.

Private loans outstanding of SFIs at the end of the fourth quarter of 2022 grew by 3.52 percent, comparing with a 4.56 percent expansion in the previous quarter. This was mainly due to a deceleration of Public Service Account Loan. Meanwhile, business loan accelerated by 6.22 percent, continued from a 4.51-percent growth in previous quarter. Besides, an expansion of household loan was at 3.29 percent, which was similar to 3.32 percent growth in the preceding quarter.



Business Loan of Banking System for Small and Medium Enterprises (SMEs) have yet to fully recover.

Private loan outstanding of commercial banks had dropped continually during the outbreak of COVID-19, especially SMEs loans (excluded financial and insurance activities), which contracted by 26.43 percent, from the outstanding of 4.21 trillion Baht in the first quarter of 2020 to 3.10 trillion Baht in the first quarter of 2021. This was in tandem with the increase in SMEs' non-performing loan (NPLs) from 5.78 percent to 7.98 percent of total SMEs' loan. However, the loans from commercial banks recovered since the end of 2021 when the COVID-19 situation improved. As their outstanding loans (Excluded financial and insurance activities) were recorded at 10.08 trillion Baht or equivalent to 8.97 percent growth. In contrast, SMEs loan had a limited recovery which was reflected in only 2.2-percent expansion of their loan in the fourth quarter of 2022 compared to the first quarter of 2021. This was partially due to the remaining risks and uncertainties that commercial banks needed to closely monitored, especially those manufacturer exporters who were directly affected from the global economic slowdown, combined with the NPLs of SMEs loan remained high. Additionally, the SMEs loan in several major sectors had not yet returned to pre-COVID levels, as follows; (i) loan for wholesale and retail trade; repair of motor vehicles and motorcycles, (ii) loan for manufacturing, (iii) loan for real estate activities, and (IV) loan for electricity, gas, steam and air conditioning supply. Meanwhile, loan for accommodation and food service activities picked up in line with the recovery in Thailand's tourism sector



NESDC

Thai Baht against US dollar appreciated from the previous quarter. In the fourth quarter of 2022, an average exchange rate was at 36.33 Baht per US dollar, appreciating by 0.25 percent from the previous quarter. The movement of Thai Baht was in response to a weak of US dollar against other currencies. The average US dollar index stood at 108.16, decreasing from 108.26 in the previous quarter. The main factors of the US dollar's devaluation was caused by lower pace of interest-rate hikes from the Federal Reserve (Fed) and easing of the US inflationary pressure, which stimulated the investors to take on more risks (risk-on sentiment), especially an allocation of their portfolio investment in emerging market. Furthermore, ongoing of Thai economic recovery after the relief of COVID-19 and the China's announcement of the plan to relax travel restrictions had also contributed to the Thai Baht's appreciation. When comparing with trading partner/competitors, Thai Baht appreciated, reflecting by an increase in average of Nominal Effective Exchange Rate (NEER) by 1.95 percent from the previous quarter (an average of 115.76).

The appreciation of Thai Baht was correlated with other regional currencies such as Singapore dollar and Hong Kong dollar. In contrast, the Indonesian Rupiah, Chinese Yuan, Taiwanese dollar, Indian Rupees, Japanese Yen, Malaysian Ringgit, Philippine Peso, Vietnamese Dong and South Korea Won depreciated from the previous quarter.

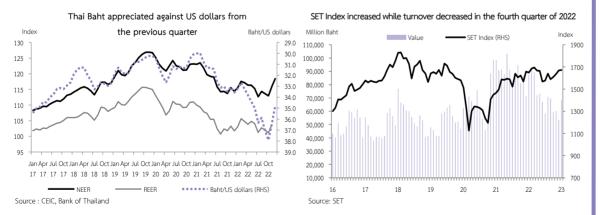
In 2022, Thai Baht moved within a range of 32.14 - 38.34 Baht per US dollar, (an average of 35.07 Baht per US dollar), depreciating by 9.58 percent from the 2021 average rate. The depreciation was mainly caused by the strong demand for US dollar, particularly after the Fed's more aggressive rate hike in response to rising inflation as well as the geopolitical conflict between Russia and Ukraine.

In January 2023, the monthly average of Thai Baht was at 33.23 Baht per US dollar, appreciated by 4.49 percent from the previous month, which was 34.79 Baht per US dollar in response to the Fed slowing down the pace of its rate hikes.

SET Index increased from the previous quarter. This was mainly driven by (i) continued recovery in economic condition and tourism sector, (ii) the China announcement of plans to relax its international travel restrictions sooner than expected, (iii) investor took on more risks (risk-on sentiment) therefore resulted in the capital inflows in Thai equity market and foreign investors with the net buy position of 52.5 billion Baht, compared to 37.6 billion Baht in the previous quarter, and (iv) the Fed slowed down its policy rate hike as inflation started to subside. Altogether, SET index at the end of the fourth quarter of 2022 closed at 1,668.7 points, increased by 5.0 percent from the previous quarter. Industrial groups with positive growth were technology (8.2 percent), property and construction (6.8 percent), and services (6.7 percent). The movement of SET index was correlated with other regional stock markets as the majority of Asian stock markets increased such as Philippines (14.4 percent), Malaysia (7.2 percent), Taiwan (5.3 percent), South Korea (3.8 percent), and China (1.8 percent). Meanwhile, other regional stock markets with contraction was Vietnam (11.0 percent) and Indonesia (2.7 percent).

Overall in 2022, SET index increased by 11.1 points compared to the end of 2021, which was equivalent to a 0.7 percent growth from 2021.

In January 2023, SET index increased by 0.2 percent to 1,671.5 points from the end of December 2022. This was mainly supported by the Chinese government relaxing zero-COVID policies and the Fed continued to slow down the pace of its rate hike.



Government bond yields shifted downward. In the fourth quarter of 2022, both short-term and longterm government bond yields decreased, in tandem with an increase in clean price index, following the net foreign inflow in Thai bond market after the US's inflation reached peak and would gradually fall, along with investors' forecast that the Fed might slow down the pace of its rate hikes. At the end of the fourth quarter of 2022, 2-year government bond yield was at 1.63 percent, decreasing from 1.88 percent at the end of the previous quarter. Likewise, 10-year government bond yield dropped to 2.64 percent, compared to 3.21 percent at the end of the previous quarter. For net trading position, foreign investors registered a net buy of 79.2 billion Baht, compared to a net sell with 27.3 billion Baht in the previous quarter. Total new registered corporate bond was at 488.7 billion Baht, mainly attributed to finance and securities, property development, energy, and banking. Thai Baht against US dollar appreciated compared to the previous quarter in tandem with the US dollar's weakness due to market expectations that the Fed might slow down the pace of its rate hike.

SET Index rose from the preceding quarter following the

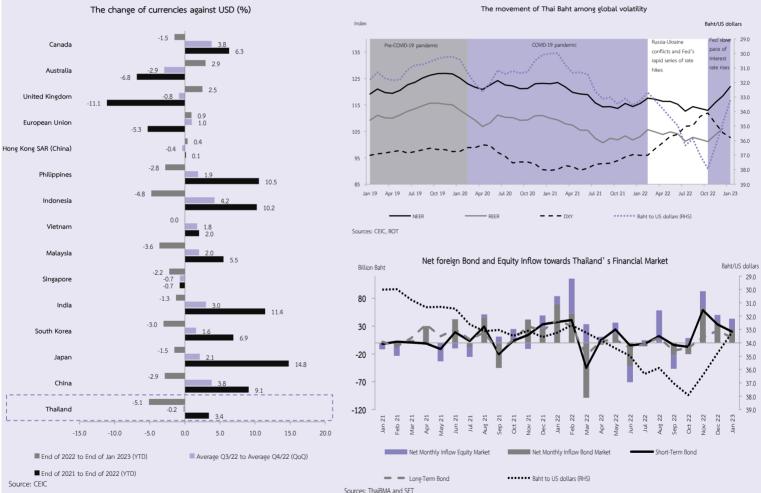
continued recovery in the tourism and foreign's capital inflow in Thai equity market.

Government bond yields decreased in both short-term and long-term.

The appreciation of Thai Baht

In 2022, the average of Thai Baht against US dollar stood at 35.07 Baht per US dollar, depreciated from 31.99 Baht per US dollar in 2021. The movement of Thai Baht was in response to the Fed's more aggressive policy rate hikes since March 2022 to mounting inflationary pressure. However, the appreciation of Thai Baht in the fourth quarter of 2022 was driven by (i) the relief of COVID-19, (ii) the rebound of economic activities, and (iii) the signals of Fed's lower pace of its rate hikes after inflation started to subside in the US. These factors also prompted the investors to open more risk (risk-on sentiment) as well as the capital inflow towards emerging market including Thailand. Eventually, in the fourth quarter of 2022, foreign investors registered as a net buy of 131,668 million Baht in Thai securities (the bond and equity markets), compared to 10,310 million Baht in the previous quarter.

In addition, during the first two months of 2023, the Thai Baht was strengthened continuously due to the Thai economic recovery and ongoing of net capital inflow into Thai securities market. Besides, China's announcement of the plan to relax travel restrictions also contributed to the Baht's appreciation. Therefore, the Thai Baht at the end of January 2023 appreciated by 5.1 percent from the end of 2022. Furthermore, Thai Baht also appreciated in comparison to other currencies of trading partner/competitors, reflecting by an increase in average of the Nominal Effective Exchange Rate (NEER), as the Thai economy is expected to continue recovering and return to pre-COVID levels around the end of 2022 on the return of tourism sector.



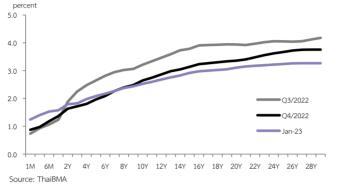
Note: Negative signs mean appreciation against USD and Positive signs mean depreciation against USD.

Macroeconomic Strategy and Planning Division

Overall in 2022, government bond yield rose in both short-term and long-term. In details, 2-year government bond yield was at 1.63 percent compared to a 0.66 percent at the end of 2021. Similarly, 10-year government bond yield recorded at 2.64 percent compared to a 1.90 percent at the end of 2021. Thus, the clean price index dropped by 7.0 percent.

In January 2023, short-term government bond yield rose from the previous month, in tandem with the monetary policy tightening of the BOT. Meanwhile, long-term government bond yields declined in line with the decrease of the US government bond yields. As a consequence, 2-year and 10-year government bond yields stood at 1.79 percent and 2.52 percent respectively. In details, foreign investors recorded as a net buy of 25.0 billion Baht, continuing from a net buy of 37.5 billion Baht in the previous month.

Both government short-term and long-term yields decreased



Capital and financial account recorded a net outflow of 3.5 billion US dollars in the third quarter of 2022 which continued from 0.2 billion US dollars outflow in the previous quarter. This was mainly caused by a net outflow of Thai investors in term of direct investment combined with granting credit abroad of Thai commercial banks. However, there was a net inflow in term of direct investment of foreign investors.

				Capita	al Flow								
			2020					2021				2022	
(Billion USD)	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Q1	Q2	Q3
- Direct Investment	-23.8	-2.7	-5.7	-3.4	-12.2	-4.5	2.3	-1.4	-1.4	-4.0	2.0	-0.4	-0.4
Thai investor	-19.0	-5.3	-5.3	-3.7	-4.6	-19.2	-3.5	-3.0	-4.6	-8.0	-3.7	-1.2	-2.2
Foreign investor	-4.8	2.7	-0.3	0.3	-7.5	14.6	5.8	1.6	3.2	4.0	5.7	0.9	1.9
- Portfolio Investments	-12.1	-8.5	2.8	-2.5	-3.9	-11.9	-10.0	-3.7	0.0	1.9	2.6	1.9	-0.8
Thai investor	-4.1	-1.2	4.2	-1.8	-5.3	-16.8	-10.5	-3.7	-0.2	-2.5	-1.3	1.0	-0.3
Foreign investor	-8.1	-7.3	-1.5	-0.7	1.4	4.9	0.4	-0.1	0.2	4.4	3.9	0.9	-0.4
Others	24.0	1.6	8.9	-0.4	14.0	10.4	1.0	2.5	4.0	2.9	-0.9	-1.7	-2.4
Capital and financial account	-12.0	-9.6	6.0	-6.3	-2.0	-6.0	-6.7	-2.7	2.6	0.8	3.7	-0.2	-3.5

Source: BOT

Current account in fourth quarter of 2022 registered a surplus of 1.2 billion US dollars (43.5 billion Baht), compared to a 1.7 billion US dollars deficit (56.4 billion Baht) in the same quarter last year, and a 7.7 billion US dollars deficit (277.7 billion Baht) in the previous quarter. This was a result of a surplus of 3.0 billion US dollars in trade balance recorded, lower than an 8.1 billion US dollars surplus in the same quarter last year. Meanwhile, services, and primary and secondary income registered a deficit of 1.8 billion US dollars, lower than a 9.8 billion US dollars deficit in the same period last year and recorded a deficit for eleven quarters consecutively.

In 2022, current account registered a deficit of 16.9 billion US dollars (591.8 billion Baht), compared to a 10.6 billion US dollars deficit (342.7 billion Baht) in 2021.

Capital and financial account continued to record a net outflow from the previous quarter, following an outflow in term of direct investment of Thai investor.

Current account recorded a surplus for the first time in eight quarters.

NESDC

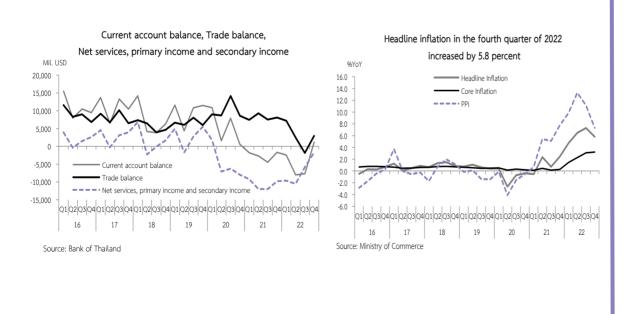
International reserve at the end of December 2022 stood at 216.6 billion US dollars, decreasing from 246.0 billion US dollars at the end of December 2021. In Baht terms, international reserve at the end of December 2022 stood at 7,483.6 billion Baht, lower than 8,212.1 billion Baht at the end of December 2021.

Headline inflation: In the fourth quarter of 2022, headline inflation was averaged at 5.8 percent, compared with a 7.3-percent headline inflation recorded in the previous quarter. **Food-and-beverage** price index increased by 8.9 percent, compared with a 9.1-percent increase in the previous quarter. Following an increase in price of meats, poultry & fish, and eggs and dairy products, which expanded by 23.2 percent, 14.4 percent, and 10.0 percent, respectively. **Non-food and beverage** price index increased by 3.7 percent, slower than a 6.1-percent increase in the previous quarter, followed by a decelerating in price of electricity, fuel, water supply, and vehicle & vehicle operation which increased by 13.2 percent, respectively. Core inflation was averaged at 3.2 percent, compared with a 3.1-percent in the previous quarter.

In 2022, headline inflation was averaged at 6.1 percent and core inflation was averaged at 2.5 percent.

Producer Price Index (PPI): In the fourth quarter of 2022, Producer Price Index increased by 7.3 percent, compared with a 11.1-percent rise in the previous quarter. **The price of agricultural & fishery products** increased by 6.3 percent, compared with a 11.2-percent increase in the previous quarter, associated with a delay in price of agricultural products and fisheries product which grew by 6.7 percent and 3.8 percent compared with increasing in the previous quarter by 11.9-percent and 6.7-percent, respectively. **The price of mining products** increased by 58.2 percent compared with an increase by 64.2 percent in previous quarter, followed by increasing in price of petroleum & natural gas which rose by 71.8 percent, compared with an 81.2-percent increase in the previous quarter. **The price of manufactured products** expanded by 5.3 percent, slower than a 9.1-percent increase in the previous quarter following deceleration of petroleum products price, which grew by 29.7 percent compared with a 59.4-percent increase in the previous quarter.

In 2022, PPI was averaged at 10.4 percent.



 $^{6}\,$ In January 2023, headline and core inflation was at 5.0 percent and 3.0 percent, respectively.

⁷ In January 2023, Producer Price Index (PPI) rose by 2.4 percent.

International reserve at the end of December 2022 stood at 216.6 billion US dollars.

Headline inflation was averaged at 5.8 percent slower than a 7.3-percent in the previous quarter, associated with the increase with a slower pace in Non-food and beverage.

Producer Price Index (PPI) increased by 7.3 percent compared with a 11.1- percent increase in the previous quarter.

2. Crude oil price in Q4 of 2022

The crude oil price in the global market declined from the previous quarter, however the price higher than the same period last year. In the fourth quarter of 2022, the average crude oil price in four major markets (WTI, Brent, Dubai, and Oman) stood at 85.1 US dollars per barrel, decreased by 11.8 percent from the 96.5 US dollars per barrel on average recorded in the previous quarter. However, the price rose by 8.6 percent from 78.4 US dollars per barrel recorded in the same period of the previous year.

Key reasons leading to an increase in the global crude oil price in this quarter were (i) the easing of China's COVID-19 measures supporting demand in world oil market; China is one of the world largest oil consumer, (ii) the depreciation of US dollar resulting crude oil futures contract traded in US dollars cheaper and attracting investors holding other currencies and (iii) the production plan of the OPEC+ resolving to reduce production by 2 million barrels per day during November – December 2022, increasing the pressure on crude oil supply in the world market.

In 2022, the average crude oil price in four major markets stood at 96.5 US dollars per barrel, rose by 38.9 percent from 69.4 US dollars per barrel recorded in the same period last year.

Crude oil price												
Year			US	D per Barı	rel	(%YoY)						
rear		OMAN	DUBAI	BRENT	WTI	Average	OMAN	DUBAI	BRENT	WTI	Average	
2020	Year	39.6	43.4	42.4	41.9	42.0	-30.4	-32.2	-33.0	-34.2	-32.3	
	Year	68.1	70.9	69.5	69.3	69.4	72.1	63.4	63.8	65.5	65.4	
	Q1	58.0	61.2	60.3	59.0	59.6	25.6	20.1	18.7	19.0	20.0	
2021	Q2	66.5	69.4	67.5	67.5	67.7	135.9	107.0	118.3	119.3	119.5	
	Q3	70.5	73.2	71.8	71.9	71.9	72.5	69.0	67.0	67.8	69.1	
	Q4	77.1	79.7	78.4	78.5	78.4	80.8	76.6	75.6	75.7	77.2	
	Year	94.2	98.8	96.2	96.5	96.5	38.4	39.4	38.4	39.4	38.9	
	Q1	94.7	97.9	96.1	96.4	96.2	63.3	59.8	59.4	63.3	61.3	
	Q2	109.0	112.3	108.5	105.4	108.8	63.9	61.9	60.7	56.2	60.6	
2022	Q3	91.4	97.5	96.5	100.7	96.5	29.6	33.2	34.3	40.0	34.3	
2022	Q4	82.6	88.6	84.7	84.7	85.1	7.1	11.1	8.0	8.0	8.6	
	Oct.	87.1	93.7	90.9	90.9	90.6	7.4	11.9	11.3	11.3	10.5	
	Nov.	84.4	90.9	86.1	86.1	86.8	7.3	12.4	6.9	6.6	8.3	
	Dec.	76.1	80.9	76.8	77.0	77.7	6.3	8.2	5.3	5.6	6.3	
2023	Jan.	78.2	83.9	80.6	80.7	80.9	-5.4	-1.5	-3.3	-3.2	-3.3	

Source: Thaioil Plc and EPPO.

The crude oil price in the global market decreased from the previous quarter, however the price higher than the same period last year.

3. The World Economy in Q4 of 2022

The world economy in the fourth quarter of 2022 demonstrated a decelerated growth, following the slowdown in major economies, particularly in the US and the Eurozone. This was mainly due to a sluggish domestic demand following the policy rates' hike to mitigate the inflationary pressures. In addition, most major and developing economies experienced a downturn in manufacturing production, reflected by the manufacturing Purchasing Managers' Index (PMI) dropping to below 50 for the first time in several quarters⁸. At the same time, the Chinese economy grew at the lowest level in 46 years due to the resurgence of COVID-19 after the easing of containment measures⁹. The softened growth of advanced and Chinese economies has caused a decrease in export activities of many countries in Asia for the first time in several quarters, especially the Newly Industrialized Countries (NIEs) and ASEAN countries¹⁰.

Amid above-target inflation, most central banks decided to continue raising their policy rates in the fourth quarter. Nonetheless, the inflation rates in many countries, namely the Eurozone, the UK, and Australia, continued to accelerate in line with rising energy and food prices¹¹. On the contrary, the inflation rate in the US has passed the peak and started to decelerate to reach the lowest level in four quarters. As a result, the US Federal Reserve began to slow down the pace of interest rate hike.

The US economy expanded by 1.0 percent (Advanced Estimate), decelerating from a 1.9-percent increase in the last quarter, continually slowing down for four consecutive quarters. After seasonal adjustment, the US economy expanded by 2.9 percent, slowing from a 3.2-percent growth in the third quarter (%QoQ saar.). This was due to a stagnant domestic demand from both private consumption and private investment, especially in residential investment that continually declined for five consecutive quarters, mainly affected by higher interest rate. However, the labor market remained strong as the unemployment rate stood at 3.6 percent, lowest rate in 12 quarters. Meanwhile, the inflation rate (PCE Price Index) was at 5.5 percent, lowest rate in 5 quarters, decelerating from 6.3 percent in the previous quarter driven mainly by declining energy and food prices. Nonetheless, the Core PCE Price Index, especially in services, continued to increase. Therefore, the Federal Reserve's Monetary Policy Committee (FOMC) decided to hike its policy rate by 0.75 percent during the meeting on 1st - 2nd November 2022. However, as inflationary pressure tended to slow down, the FOMC began to scale back the pace of interest rate hike. In the meeting on 13th - 14th December 2022, the committee decided to hike its benchmark rate by 0.5 percent, after a fourth consecutive 0.75-percent increase, to the range of 4.25 - 4.50 percent, the highest rate since December 2007. Overall, the US economy in 2022 expanded by 2.1 percent, slowing down from a 5.9-percent increase in 2021.

The Eurozone economy grew by 1.9 percent, decelerating from 2.3 percent in the previous quarter, the lowest rate in seven quarters following the slowdown in major member economies¹². This was attributable to the slowdown in domestic demand and manufacturing sector which had been affected by the energy crisis due to the Russia and Ukraine conflicts as well as the rising policy rates. Subsequently, the manufacturing and service PMI in the last quarter declined to 46.8 and 49.0 from 48.8 and 49.9 in the previous quarter, respectively, which were lower than 50 for the second consecutive quarter. Likewise, the Consumer Confidence Index remained consistently low at 95.9, close to the record low in the previous quarter of 95.3, and significantly decreased from 101.0 in the same period last year. The average headline inflation rate stood at 10.0 percent, accelerating from 9.3 percent in the previous quarter. At the same time, the core inflation rate continued to accelerate to 5.1 percent, registered a record high. Against high inflationary pressure, the European Central Bank (ECB) monetary policy committee continued to raise its benchmark rates and continually scaled down liquidity support measures¹³. At the same time, the EU continued to implement fiscal stimulus measures to alleviate impact from rising energy price and policy rate. Overall, in 2022, the Eurozone economy expanded by 3.5 percent, decelerating from 5.3 percent in the previous year.

⁸ The Manufacturing PMIs of the US, Japan, Malaysia and Vietnam fell below 50 for the first time in 10 quarters, 8 quarters, 5 quarters and 5 quarters, respectively.

⁹ Excluding the year 2020 with the spread of COVID-19, the economy grew only 2.2 percent.

¹⁰ The value of the export of goods in the last quarter of 2022 of South Korea, Taiwan and Singapore dropped for the first time in 9 quarters, 10 quarters and 8 quarters, respectively. Likewise, Vietnam's goods exports in the fourth quarter fell for the first time in 10 quarters.

¹¹ Such as, the inflation rate of the Eurozone was at 10.0 percent, a historical high. The inflation in the UK and Australia were at 10.7 percent and 7.8 percent, the highest rates in 163 and 131 quarters, respectively.

¹² The economies of Germany, France, Italy, and Spain expanded by 1.1 percent, 0.5 percent, 1.7 percent and 2.7 percent, decelerating from 1.4 percent, 1.0 percent, 2.7 percent, and 4.8 percent in the last quarter respectively.

¹³ The ECB, during the October 27th and December 15th, 2022 meetings, decided to raise its policy rates by 0.75 percent and 0.50 percent, respectively. This led to increases in refinancing operations rate, marginal lending facility rate and deposit facility rate to 2.50 percent, 2.75 percent, and 2.00 percent respectively. Moreover, the ECB decided to continue reinvesting maturing securities under the Asset Purchase Programme (APP) and the Pandemic Emergency Purchase Programme (PEPP) where the operation of the PEPP would be until at least the end of 2024. However, those under the APP will end in February 2023 and assets under the APP will be reduced in the following subsequent periods. As for the targeted longer-term refinancing operations (TLTRO III), the total loan issued was 2.1 trillion Euro, as at October 2023 However, the ECB decided to allow borrowers to repay debt before the deadline where there are already 1.2 trillion Euro debt waiting to be paid back by the end of June 2023. Besides, the ECB will continue to use the Transmission Protection Instrument (TPI) to cushion the impacts from raising interest rate by purchasing government bonds from members which experienced financial market volatility.

The Japanese economy grew by 0.6 percent, compared to 1.5 percent in the previous quarter. The slowdown was due to decline in manufacturing and export sectors which were affected by the global economic slowdown. Manufacturing PMI was at 49.5, down from 51.5 in the previous quarter, the first drop below 50 in seven quarters, while the merchandise exports continued to decline by 4.6 percent, the third consecutive quarterly contraction. With continuous rise in merchandise import, the trade balance remained deficit. However, the growth was supported by the recovery of domestic demand and the tourism sector after relaxation of domestic restriction measure and began to allow foreign tourists to enter the country since October 2022^{14} . This was coupled with a robust recovery in the labor market¹⁵. As a result of economic slowdown, the Bank of Japan (BOJ) still continued to implement an expansionary monetary policy despite other major central banks' interest rate hikes, resulting in the gradual yen depreciation which has affected the cost of imports and thus raised the inflation rate to 3.8 percent, the highest level in 31 years. Consequently, the monetary policy committee of BOJ on December 19th - 20th, 2022, decided to expand the 10-year government bond interest rate range from \pm 0.25 percent to \pm 0.5 percent according to measures to control government bond yields at 0 percent (Yield Curve Control). Although the BOJ maintained its ultra-low policy rate at (-0.1) percent, the relaxation of Yield Curve Control band resulted in the yen's appreciation in the last quarter of 2022¹⁶. Overall, the Japanese economy grew by 1.1 percent in 2022, compared to 2.1 percent in the previous year.

The Chinese economy expanded by 2.9 percent, decelerating from 3.9 percent in the previous quarter. The slowdown was mainly contributed by decelerating in domestic demand, due to the resurgence of Covid-19 with record-high newly infected cases. This pandemic shattered economic activity and domestic spending, hence the value of retail sales decreased by 2.7 percent, falling from a 3.5 -percent growth in the previous quarter. Likewise, the service PMI decreased to 47.7 from 53.3 in the last quarter, as well as the consumer confidence index plunged to a historical low of 86.9. At the same time, the manufacturing and export sectors were still affected by the US policy restriction on semiconductor related industry. Henceforth, manufacturing PMI in the fourth quarter was at 49.2 and export value declined by 6.9 percent, decelerating from 10.0 percent in the prior quarter. In addition, China's private investment continued to suffer from liquidity problem in the real estate sector, thus the investment in real estate continually shrunk by 10.0 percent, which had been declining for three consecutive quarters. Amidst the economic slowdown and low inflation rate, the People's Bank of China (PBOC) decided to continue its expansionary monetary stance¹⁷ as well as maintained fiscal stimulus measures to support the real estate sector by easing financial restriction. Overall, the Chinese economy in 2022 expanded by 3.0 percent, compared to 8.4 percent in 2021.

The Newly industrialized economies (NIEs) decelerated following a slowdown in manufacturing production and exports of goods in line with economic slowdown of key trading partners. Singapore and South Korea's economies in the fourth quarter expanded by 2.1 percent and 1.4 percent, respectively, decelerating from 4.0 percent and 3.1 percent in the previous quarter. Taiwan's economy fell by 0.9 percent, from a 4.0-percent growth in the previous quarter, the first contraction in 27 quarters. Whereas, Hong Kong's economy declined by 4.2 percent, continuing from a 4.6-percent drop in the previous quarter, marking the fourth consecutive negative growth. Overall, Singapore, South Korea and Taiwan's economies in 2022 grew by 3.6 percent, 2.6 percent and 2.4 percent, respectively, compared with 8.9 percent, 4.1 percent and 6.5 percent in 2021, respectively. Meanwhile, Hong Kong's economy declined by 3.5 percent, compared with a 6.4-percent growth in the previous year.

The ASEAN economies decelerated following the decline in exports. This was in line with the economic slowdown of key trading partners. The economies of Indonesia, the Philippines, Malaysia, and Vietnam grew by 5.0 percent, 7.2 percent, 7.0 percent and 5.9 percent, decelerating from 5.7 percent, 7.6 percent, 14.2 percent and 13.7 percent in the previous quarter, respectively. Meanwhile, inflation rates in most countries continued to accelerate¹⁸. As a result, the central banks of ASEAN countries continued to pursue their contractionary monetary policies¹⁹. In 2022, the economies of Indonesia, the Philippines, Malaysia, and Vietnam grew by 5.3 percent, 7.6 percent, 8.7 percent and 8.0 percent, up from 3.7 percent. 5.7 percent, 3.1 percent and 2.6 percent in 2021, respectively.

¹⁴ After the reopening measure in October 2022, the number of foreign tourists arrivals in Japan in the last quarter of 2022 totaled 2,803,146 persons or 73 percent of the total number of 3,831,900 foreign visitors to Japan throughout the year.

¹⁵ Japan's unemployment rate in the fourth quarter was at 2.4 percent, down from 2.6 percent in the previous quarter. Throughout 2022, Japan's unemployment rate was 2.6 percent, down from 2.8 percent in 2021.

¹⁶ The average exchange rate in December 2022 was 135 yen per US dollar, appreciating from 147 yen per US dollar and 142 yen per US dollar in October and November 2022, respectively.

¹⁷ The People's Bank of China (PBOC) decided to lower the Required Reserve Ratio (RRR) from 8.1 percent to 7.8 percent on December 5th, 2022, and maintained the one-year Loan Prime Rate (LPR) at 3.65 percent.

¹⁸ Indonesia's inflation rate in the fourth quarter of 2022 was 5.5 percent, the highest rate in eight years, while the inflation rate in the Philippines was 7.9 percent, the highest rate in four years. In the meantime, Vietnam's inflation was 4.4 percent, the highest rate in nine years. Nevertheless, Malaysia's inflation rate was 3.9 percent, declining from 4.5 percent in the preceding quarter.

¹⁹ Bank Indonesia announced an increase in the policy rate on December 22nd, 2022, from 5.25 percent to 5.5 percent while the Central Bank of the Philippines increased the policy rate on December 15th, 2022 from 5.0 percent to 5.5 percent. Meanwhile, the Malaysian Central Bank decided to raise the benchmark rate on November 3rd, 2022 from 2.5 percent to 2.75 percent. Lastly, the State Bank of Vietnam also hiked its policy rate in October 2022 from 5.0 percent to 6.0 percent.

Real GDP Growth, and Exports of Goods Growth of Rey Economies																	
	GDP					Exports of Goods (USD)											
(%YoY)	2019	2020	2021			202	22			2019	2020	2021			2022		
	Year	Year	Year	Q1	Q2	Q3	Q4	Year		Year	Year	Year	Q1	Q2	Q3	Q4	Year
US	2.3	-2.8	5.9	3.7	1.8	1.9	1.0	2.1		-1.5	-13.5	23.3	18.8	23.1	23.7	9.0	18.4
Eurozone	1.6	-6.1	5.3	5.5	4.3	2.3	1.9	3.5		-2.5	-7.2	18.1	9.1	6.2	2.5	2.4	5.0
United Kingdom	1.6	-11.0	7.6	10.5	3.9	1.9	0.4	4.0		-0.7	-11.3	13.6	14.1	8.6	19.6	4.0	11.2
Australia	1.9	-1.9	5.2	2.7	3.4	5.8				5.3	-7.3	37.2	23.2	26.7	14.7	15.2	19.8
Japan	-0.4	-4.3	2.1	0.5	1.7	1.5	0.6	1.1		-4.4	-9.1	17.9	4.4	-2.3	-2.0	-4.6	-1.2
China	6.0	2.2	8.4	4.8	0.4	3.9	2.9	3.0		-0.1	4.0	29.7	15.6	12.8	10.0	-6.9	7.0
India	4.5	-6.6	8.3	4.1	13.5	6.3				-0.2	-14.7	43.0	29.3	26.6	7.9	-2.1	14.6
South Korea	2.2	-0.7	4.1	3.0	2.9	3.1	1.4	2.6		-10.4	-5.5	25.7	18.4	13.0	5.8	-10.0	6.1
Taiwan	3.1	3.4	6.5	3.9	3.0	4.0	-0.9	2.4		-1.5	4.9	29.3	23.5	15.4	3.4	-8.6	7.4
Hong Kong	-1.7	-6.5	6.4	-3.9	-1.2	-4.6	-4.2	-3.5		-4.1	-0.5	26.0	2.8	-3.3	-11.6	-22.0	-9.3
Singapore	1.3	-3.9	8.9	4.0	4.5	4.0	2.1	3.6		-5.2	-4.1	22.1	17.1	20.8	19.5	-4.4	12.7
Indonesia	5.0	-2.1	3.7	5.0	5.5	5.7	5.0	5.3		-6.8	-2.7	41.9	35.1	39.0	27.3	8.0	26.1
Malaysia	4.4	-5.5	3.1	5.0	8.9	14.2	7.0	8.7		-3.4	-2.3	27.5	18.3	23.3	29.4	2.4	17.7
Philippines	6.1	-9.5	5.7	8.2	7.5	7.6	7.2	7.6		2.3	-8.1	14.5	9.9	4.4	0.6	8.0	5.6
Vietnam	7.4	2.9	2.6	5.1	7.8	13.7	5.9	8.0		8.4	6.9	18.9	14.4	21.3	15.8	-7.1	10.3
Thailand	2.1	-6.1	1.5	2.2	2.5	4.6	1.4	2.6		-3.3	-6.5	19.2	14.2	9.6	6.7	-7.5	5.5

Real GDP Growth, and Exports of Goods Growth of Key Economies

Source: CEIC, compiled by Office of the National Economic and Social Development Council

4. The World Economic Outlook for 2023

The world economy in 2023 is expected to grow at a slower pace compared to 2022, following the slowdowns in major economies as well as in emerging and developing economies. This is mainly due to the continuous hikes of policy interest rates which hinder domestic demand. In addition, the prolonged conflicts between Russia and Ukraine poses significant uncertainty to economic prospects, particularly the European region which has experienced with risks on energy security. Besides, most NIEs and ASEAN economies are projected to decelerate in accordance with the slowdown in world economic growth and global trade volume. Some countries especially those with high external debts would face with economic instability risks. Nonetheless, the global economy will be supported by diminished inflationary pressure led by dropping energy prices and alleviated global supply constraint which tends to lead major central banks slowing its pace of monetary policy tightening. Moreover, the labor market remains robust, reflecting in the low unemployment rates. In addition, there will also be a support from the recovery in the tourism sector after the gradual relaxing of international travel restriction, particularly China which tends to show a stronger recovery owing to the faster-than-expected reopen its border.

Notwithstanding, key underlying assumptions for this baseline projection include: (i) an increasing policy interest rate from major central banks will not lead to a severe and lasting economic recession and also will not cause volatility in the global financial market that intensify global financial crisis, particularly volatilities in emerging and low-income countries which could impact overall global economy; (ii) the geopolitical conflict will not escalate to more intensified warfare and more widespread sanctions that will widely deteriorate the global economy; (iii) the debt problem in real estate sector and rising household debt in China will not notably weaken its economic recovery than estimated, and will not lead to volatility in global financial markets; and (iv) the ongoing COVID-19 outbreak will not lead to reimplementation of stringent containment measures and restrictions which could affect overall economic activities. Under this baseline scenario, the global economy and trade volume in 2023 are projected to expand by 2.6 percent and 2.0 percent, unchanged from the previous estimation, but decelerating from the 3.2 percent and 5.4 percent growths in 2022, respectively. Prospects on key economies are as follows:

The US economy is expected to expand by 0.7 percent in 2023, equal to the previous projection, slowing down from a 2.1-percent in 2022. This is due to a slowdown in domestic demand as the US Federal Reserve continually hikes its benchmark rate²⁰, especially residential investment that continually declined, reflecting in decreases in number of new houses, home sales and housing loans.

²⁰ According to the FOMC meeting on 31st January - 1st February 2023, the committee decided to raise the policy rate (Federal funds rate) by 0.25 percent, to a range of 4.50 - 4.75 percent, the highest level since September 2007, and the 8th consecutive interest rate hike. However, the policy rate increases at a slow pace from a 0.5 percent point rate hike at its December 2022 meeting and fourth 0.75 percentage point increase at June to November 2022 meetings as inflationary pressure shows signs of diminish.

In addition, the support from government spending is facing some limitation due to rising debt ceiling²¹. However, the US economy tends to be supported by lowering inflationary pressures which will lead the Federal Reserve to continue a less aggressive monetary policy tightening stance. The headline inflation rate was at an average of 6.4 percent in January 2023, slightly lower than an average of 6.5 in the previous month, which was its fifth consecutive month of decline. Accordingly, the consumer confidence index in January rose to 64.9 points, highest level in nine months, and the labor market remains strong, as the unemployment rate in January 2023 was the lowest rate in 53 years, at 3.4 percent. The economic recovery will also be supported by the pickup in manufacturing and service sectors, reflected by manufacturing and service PMIs in January 2023 rising to 46.9 and 48.0 from 46.2 and 44.7 in the previous month, respectively. Meanwhile, inflationary pressure is expected to subside continually owing to slowing domestic demand and falling energy prices. Hence, in the baseline scenario, the Fed will continue to soften its rate hike in the first half of the year and then remain unchanged till the end of 2023^{22} .

The Eurozone economy is expected to expand by 0.3 percent, the same as previous estimation, and significantly slowing down from a 3.5-percent growth in 2022. This follows the deceleration in manufacturing sector and domestic demand, owing to protracted conflicts between Russia and Ukraine, which causes the continued series of sanctions^{2 3} and risks of regional energy security. Thus, those economies highly dependent on energy imports from Russia will face with some risk of economic recession, especially if they are unable to reallocate their energy supply and restructure their energy market in appropriate timing. In addition, domestic demand will be undermined by continuous policy rate hikes by the ECB to mitigate inflationary pressures²⁴. At the same time, economic sentiment declines continuously as reflected by the Consumer Confidence Index and Business Confidence Index in January 2023 at (-20.9) and 0.69, declining from (-10.9) and 1.81 in the same month of last year, respectively. Meanwhile, many countries tend to remain under risks of public debt crises, amid rising policy rates^{2 5}. Nonetheless, the massive EU medium-term fiscal measures continue to significantly support the economy²⁶.

The Japanese economy is expected to grow by 1.5 percent in 2023, compared with 1.1 percent in 2022, a downward revision from the previous forecast. The economy will be mainly supported by the pent-up demand after the relieved restriction measure as well as lifting of international travel ban. This is coupled with investment promotion to restructure the economy along with government spending expansion²⁷. However, the Japanese economy will face with significant risks from the global economic slowdown and the Yen depreciation tendency amid policy interest rate hikes by major economies' central banks. This will increase the cost of imports, which will put more pressure on inflation and also cause the trade balance to further deficit. Under this upward inflationary pressure, the Bank of Japan began to slow down its expansionary monetary policy by expanding the range of the long-term interest rate for purchasing the 10-year government bonds. Meanwhile, it is expected that the BOJ will not raise interest rates in order to achieve the inflation target and wage increase.

The Chinese economy is expected to grow by 4.7 percent in 2023, accelerating from 3.0 percent in 2022 and an upward revision from 4.2 percent in the last projection. The economic recovery is supported by the easing of epidemic containment measures since November 2022 and earlier-than-expected relaxation of international travel restrictions from January 8th, 2023. As a result, the domestic economic activities tend to recover steadily as reflected by the manufacturing and service PMIs increased to 49.2 and 52.9 in January 2023, accelerating from 49.0 and 48.0 in the previous month, respectively. Likewise, the domestic spending is likely to improve after the relaxation of strict measures and also support from continued accommodative monetary policy aiming to provide sufficient liquidity for the economy, as well as the special credit facility for private sectors²⁸. Moreover, the government has implemented sizable fiscal stimulus measures particularly investment in high-tech industries and infrastructure investment projects. However, the Chinese economy is still subject to risks from possible recurring COVID-19 outbreaks after more relaxation of containment, together with the prolonged liquidity problem in real estate sector. Moreover, the export and manufacturing sectors are likely to be severely impacted by the US policy, especially those under the US's CHIPS and Science Act.

²¹ The US public debt ceiling currently sets at 31.381 trillion USD. According to the U.S. Department of the Treasury, the public debt is projected to reach its limit on January 19th, 2023, and the federal government will face challenges in public policy implementation and the government has to inevitably reduce public spending and additional borrowing except for sector specific or exceptional emergency, which can be borrowed until at least early June 2023. If the government and Congress fail to agree on raising the debt ceiling, there will be a risk of a temporary government shutdown as happened in 2018 along with US government debt default.

²⁵ Especially Greece, Italy, Portugal, Spain, and France with the public debt to GDP at the third quarter of 2022 of 178.2 percent, 147.3 percent, 120.1 percent, 115.6 percent, and 113.4 percent, respectively.

²² In the baseline scenario, a Fed policy rate will be in a range of 5.00 - 5.25 percent at end of 2023.

²³ The EU has implemented a series of sanctions on Russia. Recently, the EU and G7+ had set the import price ceiling for petroleum products from Russia, which was effective on February 5th,2023.

²⁴ In January 2023, the headline inflation rate (HICP flash estimate) was at 8.5 percent, decelerating from 9.2 percent in the prior month but much higher than the target rate. Also, the core inflation rate still remained at a high level of 5.2 percent, same as in the last period. Thus, the ECB, at the meeting on February 2nd, 2023, raised its benchmark rates by 0.50 percent, such that interest rates on refinancing operations, the marginal lending facility and deposits facility will increase from 2.50 percent, 2.75 percent and 2.00 percent to 3.00 percent, 3.25 percent and 2.50 percent, respectively. This was the fifth consecutive hike and was the highest level since the 2013 financial crisis. Besides, the ECB also continued to downsize its balance sheet, thus it will not reinvest all of the principal payments from maturing securities under the Asset Purchase Programme (APP) from March - June 2023. Thus the assets held by the ECB will decrease by around 15 billion Euros per month on average until the end of the second quarter and then the ECB will readjust its withdrawal pace appropriately.

²⁶ According to the EU's long-term budget for 2021 - 2027 with a budget of 1.21 trillion euros, with additional budget from the Next Generation EU of 0.81 trillion Euros as well as from various temporary frameworks for economic recovery stimulus measures. Thus, the total budget for the stimulus package is worth 2.02 trillion Euros, which is the largest stimulus package ever financed in Europe.

²⁷ The Japanese government announced the budget framework for FY2023 at 114.4 trillion yen, increasing from FY2022 by 6.3 percent, which is the highest record.

²⁸ The People's Bank of China (PBOC) announced its continuity of expansionary monetary policy in a targeted and efficient manner to galvanize economic recovery in 2023, and focusing on the financial support to micro and small enterprises (MSEs) that carry out projects aligned with government policies such as technological innovation development, greenhouse gas reduction project, and the promotion of renewable energy to promote structural transition towards green development in order to achieve carbon neutrality by 2060.

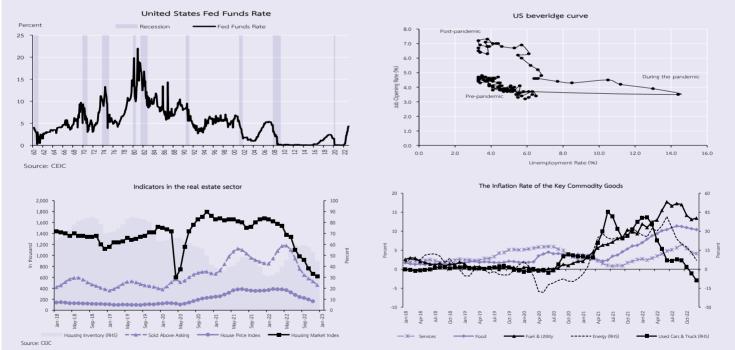
The Newly Industrialized Economies (NIEs) continued to expand but at a decelerated rate following the slowdowns in manufacturing and export production. This is in line with a downward trend of global economy amid the continuously rising policy rates²⁹ to mitigate inflationary pressure. Thus, the economies of South Korea, Taiwan and Singapore are projected to grow by 2.1, 2.5 and 2.1 percent, continuing from 2.6, 2.4 and 3.8 percent in 2022, respectively, and remaining the same as the previous estimations. Meanwhile, the Hong Kong's economy is expected to increase by 3.0 percent, recovering from a 3.5-percent contraction in 2022, and an equivalent to the previous assumption. The growth will be supported mainly by the easing of domestic containment measures and the relaxation of travel restrictions in China.

The ASEAN economy tends to slow down in line with the economies of major trading partners, coupled with softening domestic demand due to inflationary pressures and continual policy interest rate hikes³⁰. Notwithstanding, the economies will be supported by the ease of international travel restriction, in particular, after the China's border reopening. Thus, in 2023, the economies of Indonesia, Malaysia, the Philippines, and Vietnam are expected to expand by 4.5 percent, 4.2 percent, 4.5 percent and 5.2 percent, decelerating from 5.3 percent, 8.7 percent, 7.6 percent and 8.0 percent in 2022, respectively, remaining the same as in the previous projection.

US Inflation Outlook and Direction of US Monetary Policy

The US Federal Reserve has slowed the pace of rate hikes since November 2022 after inflationary pressure is declining from a peak of 9.1 percent in June 2022, reflected by the headline inflation rate standing at an average of 6.4 percent in January 2023 from 7.1 percent in the fourth quarter of 2022. This diminishing inflationary pressure is due to the declining prices of energy, food, used cars, services, and utilities. However, the labor market remains tight compared with pre-pandemic levels. The unemployment rate in January 2023 stood at 3.4 percent, the lowest level since May 1969, and the number of non-farm workers is still at high level. Nevertheless, vacancy rates are still higher than the pre-pandemic level. These factors will intensify wage pressure and price of services, which thus contributes to demand pull inflation. Thus, the Federal Reserve would inevitably continue to increase the benchmark rate to curb such inflation.

Meanwhile, raising interest rates to bring inflationary pressure down may tighten financial conditions and directly affect the economy, especially in commercial real estate sectors. Recently, the housing market index has fallen to its lowest level since 2012 similar to the home sales and house prices which continually decline. Further interest rate hikes, therefore, may lead to a slowdown in domestic demand and economic activities. Likewise, keeping benchmark rates at high levels over time to diminish inflationary pressure to achieve the Fed's target may increase recession risk, especially in the second half of 2023.

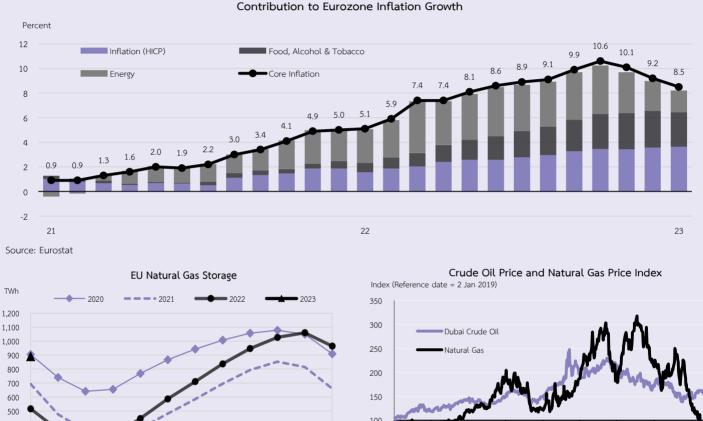


²⁹ The Bank of Korea raised its policy rate from 3.25 percent to 3.50 percent, accounting for the tenth hike since August 2021. The Bank of South Korea, at its December 2022 meeting, raised its policy rate from 1.625 percent to 1.75 percent. The Hong Kong Monetary Authority raised the policy rate from 4.75 percent to 5.0 percent, the highest level since January 2008.

³⁰ The Bank Indonesia announced an increase in the policy interest rate on January 19th, 2023 from 5.5 percent to 5.75 percent. Nevertheless, both Bank Indonesia and Central Bank of Malaysia maintained their policy rates at 2.75 percent and 5.75 percent in the meetings on January 19th and February 16th, 2023, respectively. However, the Central Bank of the Philippines still continued to raise interest rates from 5.5 percent to 6.0 percent at its meeting on February 16th, 2023.

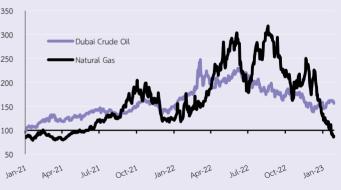
Eurozone Inflation Trend

Eurozone inflation rate in January 2023 was 8.5 percent, decelerating from 9.2 percent in December 2022, and was the lowest rate in 8 months, following slowdown in energy and natural gas prices. Nevertheless, the prolonged conflict between Russia and Ukraine could still pose a high threat to energy security and, subsequently, put a pressure on inflation to countries in the region. Especially, high energy import dependent countries would have higher inflationary pressure than the others, where the main pass through mechanism is from the electricity price. In 2022, Eurozone could be able to import natural gas from other sources to compensate the reduction of Russian imported. Thus, the amount of natural gas was enough to use during the mild winter. However, the reallocation of natural gas resources to prepare for the 2023 winter would be a vital factor for the inflation outlook and Eurozone economy in the next period.



Source: CEIC





Source: Eurostat

 USA The Inflation use electric ve Measures to a 	
Medicaid Mor Eurozone	 The Inflation Reduction Act 2022, worth 430 billion US dollars, includes tax incentives namely Tax Credit aiming to soften inflationary pressure and long term preparing for climate change. The policy are including incentivizing households to use electric vehicles, solar panel, energy-saving appliances and equipment along with emphasizing the industrial sector to use clean energy technologies. Measures to a 8.7-percent increase in Social Security Benefits for pensioners to cope with high inflation. Each pensioner receives more than 140 US dollars increase in monthly pension, effective from January 2023. Measures to increase the minimum wage in 23 states in the range between 0.23 -1.50 USD per hour, effective from January 2023, in line with US economy recovery and the rising cost of living Larona pender in spending base for low-income people covering food and beverage expenses in addition to medical expenses Medicaid Money has expanded its spending base for low-income people covering food and beverage expenses in addition to medical expenses
The EU has set consisting of t helping recover t technology, as w	The EU has set up long-term economic and social recovery and stimulus budget, which will transform the EU towards a modern and more sustainable Europe. The total budget is 2.018 trillion Euros, the highest budget in history, consisting of the 2021-2027 long-term budget framework, which consists of 1.211 trillion Euros and the projects under the Next Generation EU worth of 806.9 billion Euros. The budget primarily focusing on helping recover the economic and social impact of the COVID-19 pandemic in the short run and restructuring the economy in the long run through Multi-annual Financial Framework (MFF), such as supporting usage of innovation and digital technology, as well as encouraging investments in various areas, such as innovation development, digital transformation, infrastructure, natural resource sustainable, and agricultural development.
Japan Comprehensive of 71.6 trillion-yer • Measure to co structure with cushion the im cushion the im recovery, and (sectors that are sectors that are • New form of C	 Japan Comprehensive economic measure to cope with higher cost of living and support economic recovery was approved by the Japanese cabinet on October 28, 2022, totaling 39.0 trillion yen. It is estimated that these measures can generate income of 71.6 tillion-yen, accounting for 4.6 percent of GDP and can help support the cost of living by not less than 1.2 percent (reduce expenses by 45,000 yen per household). The important measures are as follows: Measure to counter rising cost of living and wage under 12.2 trillion yen consists of (1) The support toward household and entrepreneur who faces the difficulties due to a rising price of energy and fresh food (2) The conversion toward economic structure with a resilience under the crisis of energy and food e.g. LPG price stability measure, monetary support for renovate residence toward energy efficient appliance, or encouraging of domestic fertilizer usage, etc. and (3) A SMEs support to cushion the impact of rising wage. Measure to recover and build income resilience in the area or region affected by Yen depreciation under 4.8 trillion yen consists of (1) A stimulus and recovery package in post-pandemic demand e, supporting rourism and region economic recovery and (2) Reforming an economic structure under the circumstance of Yen depreciation under 4.8 trillion yen consists of (1) A stimulus and recovery package in post-pandemic demand e, supporting rourism and region economic sectors that are better off with Yen depreciation, and encouraging export sector and FDI such as cooperating in semiconductor technology with the US or supporting rourism manufacturing sectors that are better off with Yen depreciation, and encouraging the supply chain domestic resholm. Measure to covery package in post-pandemic demand e, supporting manufacturing sectors, investing in semiconductor technology with the US or supporting for supporting manufacturing ectors, investing in high potential sectors, as well as promoting social inclusion and
China Measures to 31 st 2023, the and small bus structure meg of lending rest date the buye	 China China China Measures to alleviate the cost of living including the Consumption Vouchers, especially issued by local governments, to stimulate domestic consumption, the deferral of social insurance premium payments until December, 31⁴ 2023, the financial subsidy to employers for recruiting employers with monthly sales of less than RMB 100,000 from Januay,1⁴ 2023 to December, 31³ 2023, the deferral of social insurance of an principal and Interest by micro and same subsidy to employers for recruiting employers with monthly sales of less than RMB 100,000 from Januay,1⁴ 2023 to December, 31³ 2023, the deferred repayment of loan principal and Interest by micro and smull businesses including VAT exemption for small-scale taxpayers with monthly sales of less than RMB 100,000 from Januay,1⁴ 2023 to December, 31³ 2023, the deferred repayment of loan principal and Interest by micro and smull businesses (MSB) RMB 38 rullion. Measures to support businesses including the reduction of the interest Janue, 30^m 2023, such deferred loans accure interest as normal and are exempt from penalty interest, and the issuance of Special-Purpose Bonds for infrastructure meagonjects up to RMB 38 rullion. Measures to support real estate sector including the reduction of the interest rates on personal housing provident fund loans for first-time home buyer but the minimum interest rate for second-home buyer remains unchanged, the easing of lending restrictions for real estate development and extending loan repayment for a year, setting city-specific down payment ratios or minimum mortgage rate to stimulate housing demand, extending mortgage repayments to accommondate the buyers affected by the COVID-19.
Singapore Cost of Living su ure to support ge a payment of up pore Dollar each students; and (ii) / South Korea	Singapore Cost of Living support measure , the Singaporean government announced the Household Support Package (HSP) in April and June (1.5 billion Singapore Dollar) and October (1.5 billion Singapore Dollar) 2022, with the following key measures: (i) Measure to support general household and publics, such as the U-SAVE program for low- to middle-income households by providing a reimbursement for household utility bills. (GST Youcher-Cash Special Payment for low- to middle-income households by receiving a special payment of up to 300 Singapore Dollar, GST Youcher-Cash Special Payment for low- to middle-income households by receiving a special payment of up to 300 Singapore Dollar, Public Transport Voucher-Cash Special Payment for low- to middle-income households by receiving a special payment of up to 300 Singapore Dollar, GST Voucher-Cash Special Payment for low- to middle-income households by receiving a special payment of up to 300 Singapore Dollar, GST voucher-Cash Special Payment for low- to middle-income households by receiving a special payment of up to 300 Singapore Dollar, GST voucher-Cash Special Payment for low- to middle-income households by receiving a special payment of up to 300 Singapore Dollar, GST voucher-Cash Special Payment for low- to middle-income households by receiving a special payment of up to 300 Singapore Dollar, GST voucher-Cash Special Payment for low- to middle-income households by receiving a special payment of up to 300 Singapore Dollar, GST voucher-Cash Special Payment for low- to middle-income households by receiving a special payment of up to 300 Singapore bollar, GST voucher-Cash Special Payment for low- to middle-income households by receiving a special payment of up to 300 Singapore Dollar, GST voucher-Cash Special Payment for low- to middle-income households by receiving a special payment of up to 300 Singapore to the secondary and pre-university attents to support businesses, including Progressive Wage Credit Scheme (PWCS), gant for local SMEs in the food services, foo
 Measures to skimchi and goo Measure to refuel subsidies l Measure to si maximum loar 	 Measures to stabilize food prices, including value added tax (NAT) exemptions for food items whose prices have recently kept increasing such as pork, cooking oil, and coffee bean, and VAT exemptions for simple processed foods such as kinetia and gochujang (red chili paste) and by offering additional discount coupons for agricultural, livestock and fishery products Measure to reduce living expenses, including freezing interest rates on student loans, extending a 30 percent special consumption tax reduction for passenger cars to the end of 2022, providing fuel subsidies beginning from June, provide the subsidies beginning from June, provide the subsidies beginning from June, provide the subsidies taxes for single-home owners, extending exemption fuel for domestic flights and giving vouchers to about 1.18 million low-income households. Measure to support the housing market, namely lowering real estate taxes for single-home owners, extending exemption from heavy acquisition taxes on real estate for temporary second-home owners from 1 to 2 years, increasing the maximum loan to value ratio (LTV) for first-time home buyers and introducing 50-year mortgages for young people and newlywed couples
Hong Kong Consumption deduction for deduction for tepayment pe repayment pe tepayment pe tepa	 Hong Kong Hong Kong Consumption Vorchers to support the consumption of Hong Kong resident through electronic wallet worth 10,000 Hong Kong Dollar for Hong Kong's permanent resident and new arrival aged 18 or above, as well as the tax electronic mode deconcinent of admicent personal loan guarantee scheme for individuals, along with extending the application period to the end of April 2022, increasing the maximum loan amount, extending the maximum repayment period to 10 percent personal loan guarantee scheme for individuals, along with extending the application period to the end of April 2022, increasing the maximum loan amount, extending the maximum repayment period to 10 percent personal assessment for the year of assessment 2021/22 by 100 percent with a ceiling of 10,000 Hong Kong Dollar, ganting electricity account, providing an extra half-month allowance of standard CSSA payments, Old Age Living Allowance, on Disability Allowance, paying examination fees for school candidates sitting for the 2023 HDSE Examination, strengthening support for elearning of students from grassroots families through the 2 billion Hong Kong Dollar in the Quality Education Fund, and creating 30,000 thre-limited Jobs through the 6.6 billion Hong Kong Dollar earmarked in Anti-epidemic Fund Taima Tai

Economic Outlook

NESDC

5. Thai Economic Outlook for 2023

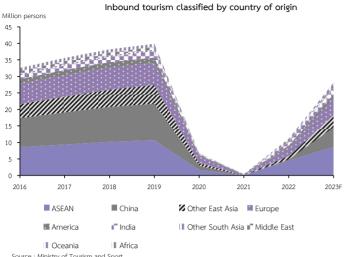
The Thai economy in 2023 tends to improve continually from 2022, mainly supported by the prominent recovery of the tourism sector, especially after China's reopening, the expansion of domestic consumption and investment, notably the rebound of public investment, and the favorable condition of agricultural production. However, the economic growth could be experienced with some downside risks and limitations, including the global economic slowdown and volatility in financial market amid rising policy rates from major central banks, the uncertainty of geopolitical conflicts, weakening financial conditions of households and businesses regarding higher debt burden under upward interest rate tendency, lower support from government expenditure and the uncertain economic and political condition after the general election that may cause the Thai economy to grow lower than expected.

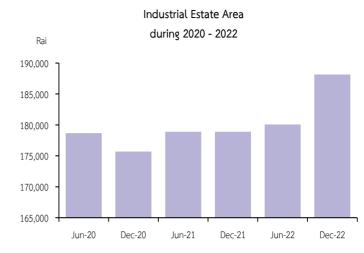
Key components of Economic growth;

- 1) The recovery of the tourism sector due to a continuously increasing number of tourists. Main supporting factors are (1) the continual relaxation of international travel restrictions of both Thailand and the tourists' origin countries, especially China's reopening³¹ which will thus lead to a significant increase of Chinese tourists especially in the latter half of the year³². Moreover, tourists from other countries such as Russia, Japan, and South Korea are also expected to increase; (2) an increasing trend of international flights as observed by total number of international flights connect with Thailand in January 2023 reaching 26,402 flights, compared to only 8,376 flights in January 2022, in line with the projection of the United Nations World Tourism Organization (UNWTO) that the number of global tourists in 2023 will be approximately 1 billion persons, increasing by 71 percent compared to the previous year; and (3) government tourism promotion measures particularly under the We Travel Together Project Phase 5, implemented from March 7th, 2023 to April 30th, 2023, which will help stimulate tourism sector by inducing Thais to travel domestically, especially during the second quarter of the year.
- 2) A continual expansion of investment in both private and public; Private investment in 2023 tends to expand continuously, indicated by the investment promotion figure. The amount of applications for investment promotion in 2022 reached the historic high of 664 billion Baht investment value, and increasing by 38.8 percent from last year, while the total application projects was 2,119 projects, expanding by 41.4 percent from last year. Furthermore, the amount of applications for investment promotion that have been approved and issued certificates was 619 billion Baht and 489 billion Baht, representing an increase of 20.8 percent and 20.3 percent compared to the previous year, respectively. Investment in 2023 is expected to expand continually under the new fiveyear investment promotion strategy (2023 - 2027). In addition, the private investment is also likely to be supported by the progress of public-private partnership (PPP) projects, as well as the relocation of production bases by large foreign firms investing in many key industries, such as electric vehicles and electronic parts. In terms of public investment in 2023, it is likely to expand according to the FY2023's capital budget framework, with total 664 billion Baht, compared to 564 billion Baht in the FY2022, increasing by 17.8 percent. Furthermore, there will be supporting factors from continual progress of the state-owned enterprises investment in major infrastructure investment projects, particularly, Bangkok - Nong Khai High-speed train system development (Phase I: Bangkok - Nakhon Ratchasima), Tao Poon - Rat Burana MRT Purple line Railway, the Provincial Electricity Authority's Transmission Line Development Phase II, Rama III - Dao Kanong - Western Bangkok Outer Ring Expressway, and Thailand Cultural Center - Bank Khun Non MRT Orange line Railway, and Railway development Ban Pai - Mahasarakham - Roi Et -Mukdahan - Nakhonphanom.
- **3)** The continued expansion of domestic consumption, due to the resumption of both economic activities and private spending after the Covid-19 situation has subsided. Meanwhile, the consumer confidence index increased to 51.7 in January 2023, the highest level in 26 months. Domestic consumption will also be supported by the recovery in the tourism sector and favorable farmer's income. In addition, the labor market has recovered to a pre-epidemic level, reflecting from the unemployment rate in the fourth quarter of 2022 of 1.18 percent, the lowest rate in 11 quarters, compared to 1.22 percent and 0.99 percent in the same quarter of the last year and the year 2019, respectively.
- 4) A favorable condition of the agricultural sector following the expected expansion of agricultural products, supported by the favorable weather conditions and sufficient water levels. According to the data on January 31st, 2022, the amount of usable water in major dams in the area of Chao Phraya River basin (Bhumibol Dam, Sirikit Dam, Kwae Noi Bumrung Dan Dam, and Pasak Jolasid Dam) was at 29,970 million cubic metres, higher than those in the same period of last year by 10.5 percent, the highest level in 16 years, which will significantly attribute to the expansion of agricultural production in crop year 2023/2024.

³¹ The Chinese government announced plans to relax border restrictions and allow outbound traveling from January 8th, 2023, and allow Chinese tourists to travel with group arrangements to 20 countries from February 6th, 2023. Those countries include 7 countries in Southeast Asia including Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore and Thailand, and other 13 destinations are Argentina, Cuba, Egypt, Fiji, Hungary, Kenya, Maldives, New Zealand, Russia, Sri Lanka, South Africa, Switzerland. and United Arab Emirates

³² The number of Chinese tourists in January 2023 is 91,080 persons, compared with only 3,110 persons in January 2022.

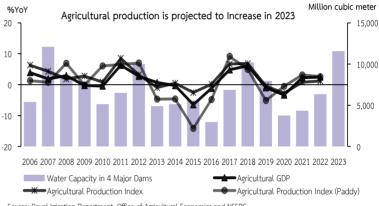




Source : Ministry of Tourism and Sport



Source: Industrial Estate Authority of Thailand



Source: Royal Irrigation Department, Office of Agricultural Economics and NESDC

NESDC

China's re-opening: Substantial Rebound in Domestic Growth and Chinese tourists arrived to Thailand

16 Oct - 22 Oct 2022

The 20th National Congress of the Communist Party of China,

where President Xi Jinping seaured an unprecedented third term as the CCP general secretary at the congress, reaffirmed China's Source: National Congress of the Communist Party of China adherence to Zero-Covid policy.

26 Nov 2022

Chinese people protested against ZeroCovid policy, following the frustration over the implementation of prevention and control measures, strict government lockdown policies, and the death of 10 people in an apartment fire in the western dity of Urumdi.

1 Jan 2023

for Chinese tourists, including the cancellation of the COVID-19 Thailand has adjusted travel restrictions and entry requirements vaccination verification, Thailand Pass Registration, the mandatory mask and hotel quarantine policies, and also TM 6 immigration form.

11 Jan 2023

China suspends issuing short-term visas for South Koreans and Japanese in retaliation against Covid-19 discriminatory entry

Source: Ministry of Foreign Affairs of the People's Republic of China restrictions on Chinese travellers.

Chinese tourists rose to 91,080 people in Jan 2023, ranked as the 5th, with 3,110 people in Jan 2022 and 1,069,787 people in Jan 2019 compare

6 Feb 2023

China resumes overseas group tours, the Chinese authorities companies to resume outbound group tours to 20 countries, have issued a notice allowing travel agencies and online travel including Thailand.

18 Feb 2023

China resumes issuing short-term visas for South Koreans

and Ministry of Culture and Tourism of the People's Republic of China

11 Nov 2022

of COVID-19 including shortened quarantine periods for international arrivals and close contacts of confirmed cases from 7 days to 5 days and 3 more days Chinese covernment announced 20 measures for prevention and control of health monitoring at home, and also canceled the circuit breaker

mechanism for inbound flights. Source: National Health Commission of the People's Republic of China

7 Dec 2022

also the cancellation of COMD testing and health code requirements for Chinese government announces 10 measures for prevention and control of COVID-19 including the relaxation of Zero-Covid policy, asymptomatic carriers and mild COVID-19 patients are allowed to quarantine at home, and entering public places.

8 Jan 2023

China has reopened its borders and resumed issuing visas for Chinese mainland residents to travel overseas, as well as ended quarantine for inbound travellers who came to china for the purposes of business or Source: National Immigration Administration work, study, or family reunion.

29 Jan 2023

China resumes issuing ordinary visas for Japanese, ending its nearly three-week suspension in response to COMD-19 entry restrictions for tounists amiving from China.

10 Feb 2023

9 Wuhan International Airport announces an increase in international improvements the airport construction routes and airline

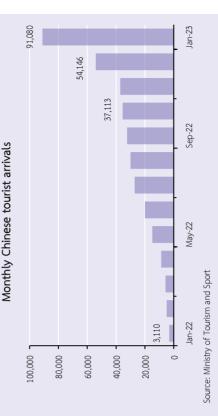
ď measures, especially tourists from Thailand, Japan, South Korea, Dubai, souce: National Health Commission of the People's Republic of China Embassy of the People's Republic of China in the Republic of Korea, Civil Avlation Administration of China accommodate the surge of foreign tourists after the relaxation USA and Europe.

Since late 2022, the Chinese government has been steadily easing containment measures, resulting in a substantial recovery in domestic economic activity. Furthermore, the Chinese government announced the uo February 6th, 2023, and thus it is expected that Chinese tourists to border reopening and allowed international travel on January 8th, 2023, and travel arrangements for group tour to travel to 20 countries Thailand will increase significantly.

Omicron BA.2 Domestic Flight in China







NESDC

Maintaining Growth Momentum from Public Investment

Public investment is expected to be an essential driver for Thailand's economic growth in 2023. Maintaining adequate level of the momentum, it is important to closely monitor several factors, including the disbursement of the government's capital budget, the effective implementation and disbursement of capital budget in top investment projects by state-owned enterprises, and the promotion of Public-Private Partnership (PPP) initiatives. Taking into consideration those key areas, one can ensure that public investment will continue to be key economic driver throughout the year, in which the total public investment budget for the FY2023 is amounted to 1,252 billion Baht, increasing by 4.2 percent from the FY2022.

		Value (million Baht)	_			
	2021	2022	2023	2021	2022	2023
Total state investment budget	1,214,954.6	1,201,329.4	1,252,029.6	-2.9	-1.1	4.2
1. Capital expenditure budget in annual budget	604,308.2	564,318.5	664,191.5	8.9	-6.6	17.7
2. Capital expenditure budget in carry-over budget	177,709.3	168,177.9	144,487.1	-11.7	-5.4	-14.1
3. State-owned enterprise's investment budget	432,937.0	468,833.0	443,351.0	-12.5	8.3	-5.4

Source: GFMIS (as of January 28, 2023), NESDC

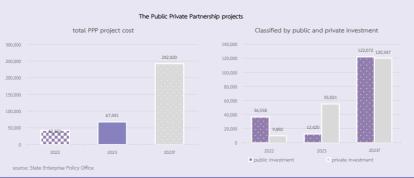
For FY2023, state-owned enterprises are anticipated to allocate a total investment budget of 443.35 billion Baht. Among the 65 significant projects earmarked for disbursement, the top 10 are expected to receive the highest allocation, with an estimated disbursement of 83.95 billion Baht, accounting for 59.5 percent of the total disbursement. Top 10 projects included investments in transport sector (5 projects), energy sector (3 projects), commerce and services sector (1 project), and public utility sector (1 project). As of the first quarter of FY2023, the disbursement of the top 10 projects amounted to 12.96 billion Baht, which indicated 15.4 percent of the total budget.

Therefore, it is essential that the government should prioritize the disbursement of the projects that have already been committed as well as accelerate the investment projects that have been approved for expenditure in order to meet the target.

Top 10 of	Top 10 of state-owned enterprises significant investment projects of 2023										
Project	SOEs	Sector	Operational approval limit	Estimated Disbursement of Investment Budget	Disbursement Q1-2023	%Disbursement rate Q1-2023					
The first phase of the Thai-Sino high-speed rail linking Bangkok and Nong Khai (Bangkok-Nakhon Ratchasima section)	SRT	transport sector	143,280.94	18,138.21	9,217.24	50.8					
The MRT purple line project: Tao Pun - Rat Burana	MRT	transport sector	91,974.00	10,646.56	1,145.19	10.8					
Transmission system and distribution system development project, phase 2	PEA	energy sector	28,585.93	10,552.04	n/a	-					
The expressway linking Rama III Road-Dao Khanong and the western Outer Ring Road	EXAT	transport sector	20,767.34	8,608.31	1,518.19	17.6					
Railway construction project: Ban Phai - Maha Sarakham - Roi Et - Mukdahan - Nakhon Phanom	SRT	transport sector	61,273.31	7,498.62	11.52	0.2					
The government complex: Zone C area	DAD	commerce and services sector	17,343.86	6,129.02	n/a	-					
The twelfth power distribution system improvement and expansion plan, Year 2017 - 2021	MEA	energy sector	15,493.84	5,863.73	n/a	-					
Railway construction project: Den Chai - Chiang Rai - Chiang Khong	SRT	transport sector	76,368.66	5,752.88	199.00	3.5					
The 9 th waterworks improvement master plan	MWA	public utility sector	28,142.50	5,459.68	866.38	15.9					
Mae Moh power plant units 8-9 replacement project	EGAT	energy sector	42,557.14	5,296.06	n/a	-					

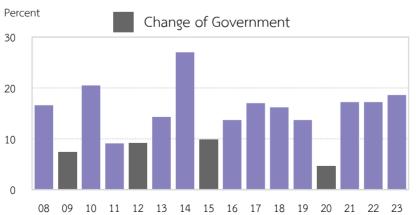
source: NESDC

In FY2022, the Public-Private Partnership Policy Committee approved six projects, amounting to 46.45 billion Baht, of which the government agency invested approximately 42.35 billion Baht. Besides, there were three projects approved worth of 67.44 billion Baht for FY2023, of which the government agency invested approximately 12.42 billion Baht. Furthermore, there are four additional PPP projects that will be proposed for approval by the Committee with a total project cost of 242.42 billion Baht and public funding of approximately 122.072 billion Baht. These projects include (i) the MRT Purple Line Project from Tao Pun to Rat Burana (Kanchanapisek Road), (ii) Transmission Line Route on the Diversion Route Lower Yaum Reservoir-Bhumibol Reservoir in Tak-Maehongson, (iii) the Truck Terminal Surat Thani, and (iv) Extension of the Uttraphimuk Elevated Tollway, Rangsit-Bang Pa-in Intercity Motorway.

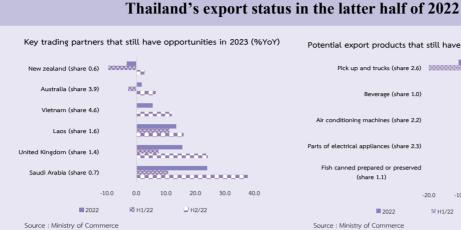


Risk and limitations to economic growth;

- 1) Global economic slowdown and volatilities in the global financial market as a result of some key risks that need to be closely monitored and assessed including: (i) the continuation of policy rate hikes, implemented by major central banks in order to alleviate inflationary pressure, which has led to tightening financial market and also higher borrowing cost. Moreover, it would undermine domestic demand and thus cause an economic recession, particularly under the remaining high level of inflation. At the same time, the divergence of monetary policy direction could introduce fluctuations in global financial market which could severely affect countries with weak economic stability, especially those countries with high proportion of external debt; (ii) Prolonged geopolitical conflicts, which could affect international investment and overall global economic recovery, particularly (a) the uncertainty of the war between Russia and Ukraine which could escalate the ongoing military warfare and a new series of sanctions. This could affect countries especially those in Europe that will not be able to secure alternative sources of energy, as well as affect the food security in countries with low-income or heavily dependent on imports, and (b) the tension between the US and China, which might lead to implementation of trade and investment protection measures, and thus worsen the global supply chain disruption; (iii) A fragile recovery of China's economy due to the high level of debt in real estate sector and the delay in economic structure reform which has made the investment growth to remain low. Moreover, there is also risk of severe resurgence of COVID-19 amid the low numbers of vaccine booster coverage that could lead to reimplementation of stringent containment measure; and (iv) the uncertainty of the US' debt ceiling that could post some limitation on federal government spending and curtail US economic and financial stability.
- 2) Remaining high levels of household and corporate debts amidst rising interest rates, where the ratio of Non-Performing Loans (NPLs) and Special Mention Loans (SMLs) to total loans of small and medium enterprises (SMEs) remained high at 7.4 percent and 12.0 percent in the third quarter of 2022, close to 7.6 percent and 11.7 percent in the previous quarter. However, the ratio was still above pre-pandemic levels at 4.8 percent and 3.2 percent in the same quarter of 2019, respectively. Similarly, the ratio of household debt to GDP in the third quarter of 2022 stood at 86.8 percent, slightly decreasing from 88.1 percent in the prior quarter, though remaining high compared to the pre-pandemic level at 78.8 percent in the same quarter of 2019. Thus, the high debt burden in business and household sectors might constrain the recovery of both domestic demand and debt servicing ability amid the rising interest rates, especially SMEs and low-income households as well as those debtors who have been under the debt moratorium measure, which will be ended soon, and also vulnerable debtors of specialized financial institutions (SFIs) and non-banks.
- **3)** Declining contribution from government spending due to (i) the lower current budget framework under annual government budget FY2023 of 2.520 trillion Baht or a 0.6-percent decrease from FY2022. Moreover, in the first quarter of FY2023, the current budget was disbursed by 858.711 billion Baht, representing a disbursement rate of 34.1 percent of total budget, and decreasing by 3.1 percent from the same period of the last fiscal year, and (ii) the end of economic measures under the Covid-19 emergency loan decrees, totaling 1.5 trillion Baht, as well as the measures to supporting cost of living during the high inflation period.
- 4) Political and economic condition after the general election. Although, under the baseline scenario, the general election and the forming of the new government are expected to proceed accordingly, while the budgeting process for the FY2024 will be completed approximately 2 4 months after the end of the FY2023. There remain some possibilities that political climate and policy direction after the election might affect consumer and investor sentiments, tourism sector's confidence, budgeting process for the FY2024 and the approved new investment projects to be delayed longer than expected.



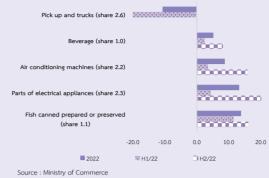
The Capital Budget Disbursement Rate in the First Quarter of FY



Total export 19.2 5.5 11.9 -0.6 100.0 Exports to expanding key markets Teleprinters, telephone sets and parts 53.2 225.7 170.3 270.8 6.2 23.7 39.9 22.8 55.7 Other electrical equipment and parts 3.6 Iron, steel and their products 37.6 7.3 6.9 7.7 3.2 Semi-conductor devices. 0.3 37.7 -7.1 92.5 3.1 transistors and diodes Electrical transformers and parts 28.6 44 5 21.2 66.9 28 Plastic products 13.5 17.4 16.7 18.1 1.8 22.8 100.0 6.0 Air conditioning machine and parts 29.7 -9.9 28.0 5.9 46.1 8.1 -8.6 32.1 3.8 Motorcycles, parts and accessories 58.2 21.7 49.4 2.8 Electrical transformers and parts -3.1 2.7 Other electrical equipment and parts 5.4 7.1 -10.7 28.4 14.5 Prepared poultry 61.6 42.7 81.7 1.6 Export to ASEAN(9) Motor cars, parts and accessories 44 0 11.6 0.4 231 10.8 -2.1 7.5 3.2 12.7 2.2 Beverages Rubber products 22.5 2.2 -5.8 12.5 2.1 Air conditioning machine and parts 6.8 4.9 -13 14.8 1.8 Motor cars, parts and accessories 40.8 -36 -134 74 48.8 Air conditioning machine and parts 13.8 0.5 -15.0 11.8 6.2 Prepared or preserved fish, crustaceans -7.6 26.5 19.5 33.7 2.6 Automatic data processing 127 -41 -107 24 1.6 machines and parts Animal food 28.1 22.0 173 26.9 14 Motorcycles, parts and accessories 84.8 75.9 37.9 110.1 1.1 Washing machines and parts -18.8 12.0 10.9 13.6 0.9 Air conditioning machine and parts 29.4 3.6 -14.8 22.8 3.1 Semi-conductor devices, -21.0 636.5 -224 2354 1 17 transistors and diodes 5/1 2 522 Other electrical equipment and parts 231 891 13

Source : Ministry of Commerce

Potential export products that still have opportunities in 2023 (%YoY)



Among the global economic slowdown, especially under the direction of increasing interest rate in major economies and geopolitical uncertainties, at the end of 2022, the international trade of many countries was affected, including Thailand. According to the data, Thailand's export in the last quarter of 2022 decreased by 7.5 percent, resulting in Thailand's export in 2022 expanding by 5.5 percent which is lower than many economic agencies' forecast. In the meantime, in 2023, the global economic situation, which is still expected to decelerate from 2022 as a result of restrictions and risk factors, is likely to affect Thailand's export in 2023

By considering the momentum of the export growth in the latter half of 2023 which recorded a higher growth rate than the whole year in terms of export of products and the destinations of exports, the products that are expected to continue to expand until 2023 are fish canned prepared or preserved, beverage, air conditioning machines, parts of electrical appliances, and pick up and trucks, which has 9.2 percent of export share in 2022. Also, the export destinations that have potential growth are Saudi Arabia, United Kingdom, Laos, Vietnam, Australia, and New Zealand, which has a proportion of exports in 2022 at 12.8 percent.

In details, there are some products being able to continue expanding in various trading partners as following:

- 1. The US for example, teleprinter and telephone, other electrical equipment, and semiconductor devices and diodes, accounting for 20.7 percent of exports to the US.
- 2. EU (27) for example, air conditioning machine, motorcycles and parts, and electrical transformers, accounting for 16.8 percent of exports to EU.
- 3. ASEAN (9) for example, motor cars and parts, beverage, and rubber product, accounting for 16.9 percent of exports to ASEAN.

	Th	ailand	l's exp	port s	tatus i	n t
YoY%	2021		2022		Share (%)	4
	Year	Year	H1	H2	2022	
Exports to exp	-	-	s 7.6	24.2	100.0	
Exports to United Kingdom Prepared poultry	13.0 -9.5	15.6 48.6	28.5	71.5	100.0	
Motor cars, parts and accessories	-17.9	35.0	-36.4	175.0	5.7	
Machinery and parts	20.4	19.9	-4.5	43.3	3.0	5
Air conditioning machine and parts	46.3	4.5	-3.5	14.5	3.0	
Electronic integrated circuits	-8.7	-23.0	-42.3	13.4	2.4	
Plastic products	-7.6	6.7	-0.3	14.1	1.9	
Electrical transformers and parts Boards, panels of electric control	43.0 13.2	373.2 33.9	90.9 24.1	850.6 44.0	1.7 1.6	
Iron, steel and their products	32.1	-0.4	-7.9	8.2	1.5	6
Teleprinters, telephone sets and parts	79.5	167.9	105.6	238.7	1.3	
Lenses	35.1	19.5	11.6	27.7	1.2	
					41.3	
Exports to the Middle East(15)	20.5	21.0	22.7	19.4	100.0	7
Motor cars, parts and accessories	25.9	22.5	16.2	28.7	30.5	'
Precious stones and jewellery	6.3 6.6	55.1 30.4	47.2 19.7	62.1 46.8	4.7 4.4	
Air conditioning machine and parts Teleprinters, telephone sets and parts	0.0 133.7	48.3	20.3	46.8 65.7	4.4 2.6	
Iron, steel and their products	6.4	5.6	-3.0	14.1	1.1	
Other electrical equipment and parts	10.9	10.9	5.6	16.9	1.0	
Beauty or make up preparations	-8.3	35.2	25.7	43.5	0.9	8
and soap						
Paper	17.3	49.0	21.4	78.3	0.8 46.0	
Export to deci	reasing Ke	v market	5		40.0	
Exports to China	25.0	-7.7	0.7	-15.9	100.0	
Rubber products	-0.2	20.7	13.2	28.9	9.9	9
Electronic integrated circuits	2.4	3.9	1.2	6.3	2.2	
Motorcycles, parts and accessories	26.5	5.3	-17.0	28.3	1.5	
Chilled or frozen poultry cuts	-6.8	15.0	-29.3	60.5	1.1	
Boards, panels of electric control	-20.3	0.4	-12.1	13.8	1.0 15.7	1
Examples of reducing products					13.1	
Chemical products	44.9	-27.1	-25.2	-29.0	5.0	
Motor cars, parts and accessories	-2.0	-67.7	-62.9	-72.7	1.3	
Exports to Japan	9.6	-1.3	1.1	-3.7	100.0	
Prepared poultry	-4.0	7.4	0.2	15.8	5.9	Ι.
Other electrical equipment and parts	7.5	13.2	5.0	22.2	3.3	1
Chilled or frozen poultry cuts	5.9	20.5	5.3	38.3	1.7	
Examples of reducing products					10.9	
Motor cars, parts and accessories	4.8	-18.4	-26.4	-8.7	7.5	
Chemical products	56.0	-5.8	13.5	-21.5	4.2	
Exports to Hong Kong	2.7	-13.0	-1.9	-23.6	100.0	0
Precious stones and jewellery	-26.1	22.0	18.5	25.8	16.0	
Electrical apparatus for switching	18.3	-1.7	-32.2	24.3	1.7	fa
or protecting circuits						g
Electrical transformers and parts Electrical capacitors	0.6 27.4	25.3 12.3	12.6 3.6	38.9 21.1	1.2 0.7	a
	21.4	12.3	5.0	21.1	19.6	
Examples of reducing products						n
Automatic data processing	21.1	20.0	265	40.7	20.2	p
machines and parts	21.1	-39.0	-26.5	-49.7	20.3	tł
Electronic integrated circuits	29.3	-14.5	-6.2	-22.6	19.9	
Exports to South Africa	41.6	-6.8	0.6	-13.4	100.0	re
Prepared or preserved fish, crustaceans	13.7	20.4	8.7	34.6	2.8	c
Polymers of ethylene Aluminium products	80.8 -17.6	4.1 112.3	-1.1 77.0	10.6 147.2	2.4 1.6	e
Tapioca products	-17.0	38.7	22.8	58.2	0.7	
Automatic data processing						
machines and parts	6.7	13.7	12.5	14.9	0.7	
					8.2	
Examples of reducing products						
Spark-ignition reciprocating	61.3	-24.8	-16.7	-31.8	15.2	
internal combustion piston Rice	10.0	-8.8	-9.0	-8.6	11.4	
Source : Ministry of Commerce	10.0	0.0	7.0	0.0	11.4	J

Thailand's export status in the latter half of 2022

- Australia for example, motor cars and parts, air conditioning machine, Prepared or preserved fish and crustaceans, and animal food, accounting for 62.6 percent of exports to Australia.
- India for example, air conditioning machine, semi-conductor devices and diodes, and other electrical equipment and parts, accounting for 6.1 percent of exports to India.
- 6. United Kingdom for example, prepared poultry, motor cars and parts, machinery and parts, and air conditioning machine, accounting for 41.3 percent of exports to UK.
- 7. The Middle East (15) -for example, motor cars and parts, precious stone and jewelry, air conditioning machine, and teleprints, telephone and parts, accounting for 46.0 percent of exports to the Middle east.
- 8. China for example, rubber products, electrical integrated circuits, and motorcycles and parts, accounting for 15.7 percent of exports to China.
- 9. Japan for example, prepared poultry, other electrical equipment, and frozen poultry cuts, accounting for 10.9 percent of exports to Japan.
- 10. Hong Kong for example, precious stone and jewelry, electrical apparatus for protecting circuits, and electrical transformers, accounting for 19.6 percent of exports to Hong Kong.
- 11. South Africa for example, prepared or preserved fish and crustaceans, polymers of ethylene, and aluminum products, accounting for 8.2 percent of exports to South Africa.

In order to promote exports in 2023, it is necessary to focus on exporting to main and new potential markets having favorable growth rate, along with driving important export guidance or measurements such as taking advantage of trade agreements, accelerating in preparations for negotiating with new partners, studying customers' behavior to set up plans for penetrating the target market seeking opportunities, enhancing the competitiveness by focusing on product development reaching qualities and standards required by the import countries, and last but not least, eliminating trade barriers, especially in terms of cross-border trade.

Source : Ministry of Commerce

Key assumptions for 2023 economic projection:

World Economic Projection and Other Key Assumptions

		Actual Data		Projections			
	2020	2021	2022	20	023		
	2020	2021	2022	Nov 21, 2022	Feb 17, 2023		
World Economic Growth (%) ^{1/}	-2.9	5.5	3.2	2.6	2.6		
US	-2.8	5.9	2.1	0.7	0.7		
Eurozone	-6.1	5.3	3.5	0.3	0.3		
Japan	-4.3	2.1	1.1	2.0	1.5		
China	2.2	8.4	3.0	4.2	4.7		
Global Trade Volume (%)	-7.8	10.4	5.4	2.0	2.0		
Exchange Rate (Baht/US Dollar)	31.3	32.0	35.1	35.5 - 36.5	32.2 - 33.2		
Dubai Crude Oil (US Dollar/Barrel)	42.4	69.5	96.2	85.0 - 95.0	80.0 - 90.0		
Export Price (US Dollar) (%)	-0.7	3.3	4.2	(-0.5) - 0.5	(-1.5) - (-0.5)		
Import Price (US Dollar) (%)	-3.6	8.3	13.0	(-1.5) - (-0.5)	(-3.0) - (-2.0)		
Income from Tourism (Trillion Baht) ^{2/}	0.42	0.15	0.58	1.20	1.31		
Number of foreign tourists (Million persons)	6.7	0.4	11.2	23.5	28.0		

Source: NESDC as of 17th February 2023

Notes: ^{1/} World economic growth is a trade-weighted average of key economic partners in 2019 (15 economies)

^{2/} based on the Bank of Thailand's balance of payment data and forecasted by the NESDC

- 1) The world economy and global trade volume in 2023 are projected to grow by 2.6 percent and 2.0 percent, decelerating from 3.2 percent and 5.4 percent in 2022, and remaining unchanged from the previous estimation. The slowdown is mainly due to the continual policy rate hikes made by major central banks. Meanwhile, the prolonged conflict between Russia and Ukraine also hinders economic activities in several countries, particularly the Eurozone. Besides, most NIEs and ASEAN economies are projected to decelerate in accordance with declining trend of exports. Under the current projection, there are some adjustments in regard to the assumption on the growth of key economies, which are (i) the downward revision of Japanese economic growth following the global slowdown and the depreciation of Japanese Yen which will further intensify inflationary pressure and dampen trade deficit, and (ii) the upward adjustment of Chinese economic growth after more easing containment measure and earlier-than-expected reopening.
- 2) The average value of Thai Baht in 2023 is expected to be within the range of 32.2 33.2 Baht per US dollars, appreciating from an average of 35.1 Baht per US dollars in 2022 and from 35.5 36.5 Baht per US dollars in the previous estimation. The adjustment is due to the appreciation trend of Thai Baht since the fourth quarter of 2022 with average of 36.3 Baht per US dollars, appreciating from an average of 36.4 Baht per US dollars in the third quarter of 2022, and continued to appreciate with an average of 33.2 Baht per US dollars in January 2023 and an average of 33.5 Baht per US dollars during 1st 16th February 2023. This is in accordance with the less aggressive interest rate hike from the US Fed due to more ease inflationary pressure. Moreover, the current account is expected to improve and return to record a surplus thanks to an increase in foreign tourism receipts, particularly after the resuming of Chinese tourists after the earlier-than-expected reopening. There will also be a trend of capital inflows into emerging economies including Thailand as a result of risk-on environment.
- 3) The average Dubai crude oil price in 2023 is expected to be within the range of 80.0 90.0 US dollars per barrel, decreasing from an average of 96.2 US dollars per barrel in 2022 and revising downward from the previous projection of 85.0 95.0 US dollars per barrel, in line with the faster-than-expected of oil price reduction from an average of 96.8 dollars per barrel in the third quarter to an average of 84.6 dollars per barrel in the last quarter of 2022. This downward trend was mainly due to the slowdown of the global economy after the continual policy rate hikes by major central banks, especially the US Fed, and the fragile Chinese economic outlook due to a rising number of COVID-19 infected cases. Recently, an average Dubai crude oil price was 81.2 US dollars per barrel during January 1st February 16th, 2023. Nonetheless, there are some factors that prevent crude oil price to rapidly decline, particularly, the OPEC+'s plan to cut production capacity, the oil demand from Chinese economic recovery after borders opening, and a depreciation trend of US dollar.
- 4) Export and import prices in terms of US dollars in 2023 are expected to decrease in the range of (-1.5) (-0.5) percent and (-3.0) (-2.0) percent, notably decelerating from 4.2 percent and 13.0 percent in 2022 and downward revised from the previous estimation of (-0.5) 0.5 percent and (-1.5) (-0.5) percent, respectively. This is in line with the lower global oil price assumption, together with the deceleration of international freight cost.
- 5) The revenue from foreign tourists in 2023 is expected to be 1.31 trillion Baht, with the total number of foreign tourists of 28.0 million tourists³³, increasing from 0.58 trillion Baht and 11.2 million tourists in 2022, and an upward revision from the previous projection of 1.20 trillion Baht and 23.5 million tourists. The revision follows the higher-than-expected number of foreign tourists with 5.5 million persons in the last quarter of 2023 which thus led to a total 11.2 million persons throughout the year, higher

³³ According to the preliminary statistics from the Ministry of Tourism and Sport, an accumulative figure of tourism arrival in January 2023 is 2,088,832 persons. The top-five countries of origin are Malaysia (12.3 percent of total arrivals), Russia (9.7 percent), South Korea (8.1 percent), India (4.7 percent), and China (4.5 percent). This represents a significant improve of the number of both Russian and Chinese tourists.

than the previous assumption at 10.2 million persons. Furthermore, China's earlier-than-expected reopening policy will result in an escalation of Chinese tourists especially in the latter half of 2023, coupled with tourists from other countries, e.g. Russia, South Korea, India, which have been observed increasing trend since January 2023.

6) The budget disbursements are as follows: (i) The FY2023 annual budget disbursement rate of 93.0 percent of overall budget, equal to the previous projection, compared with 94.6 percent in the FY2022. The current budget is expected to be disbursed by 98.0 percent, compared with 99.2 percent in the FY2022. The capital budget is expected to be disbursed by 75.0 percent, compared with 73.7 percent in the FY2022; (ii) The carry-over budget disbursement rate of 86.2 percent, the same level as in the previous estimation, compared with 90.1 percent in the FY2022. The current budget is expected to be disbursed by 90.0 percent, compared with 93.1 percent in the FY2022. The capital budget is expected to be disbursed by 90.0 percent, compared with 93.1 percent in the FY2022. The capital budget is expected to be disbursed by 85.0 percent, compared with 88.8 percent in the FY2022; and (iii) State-owned enterprises' capital budget disbursement of 70.0 percent of total budget, equal to the previous assumption, and approximately at 345 billion Baht in total.

The Thai Economic Outlook for 2023

The Thai economy in 2023 is projected to expand by 2.7 - 3.7 percent (with a midpoint of 3.2 percent), accelerating from a 2.6-percent growth in 2022. Headline inflation is expected to be within a range of 2.5 - 3.5 percent and the current account is projected to record a surplus of 1.5 percent of GDP, recovered from a deficit of 3.4 percent in 2022.

In the press release dated on February 17^{th} , 2023, the NESDC estimated that the Thai economy in 2023 is expected to expand by 2.7 - 3.7 percent, with the midpoint forecast of 3.2 percent, a downward revision from 3.0 - 4.0 percent in the previous projection released on November 21^{st} , 2022. However, the corresponding revisions in key growth components to be consistent with changing conditions and revised assumptions are as follows:

- 1) A downward revision of export and import value, due to a downward revision of export and import price corresponding to crude oil price assumption. This also included a downward revision of export and import volume to be in line with a lower-than-expected trend of export and import volume index in the fourth quarter of 2022. In the fourth quarter of 2022, export and import volume shrunk by 10.3 percent and 9.2 percent, respectively.
- 2) A revision of government budget disbursement and public investment projection to be consistent with mid-year reallocation of FY2023 annual budget framework that decreases the current budget framework to 2,520,809 million Baht from 2,535,682 million Baht in FY2022 or a 0.6-percent decline, and increases the capital budget in FY2023 to 664,192 million Baht from 564,319 million Baht in FY2022 or a 17.8-percent increase. Consequently, the government consumption expenditure in 2023 is expected to decline by 1.5 percent while the public investment is expected to grow by 2.7 percent, compared to a 0.1-percent contraction and a 2.4-percent increase, respectively.
- 3) An upward revision of foreign tourist receipts assumption to 1.31 trillion baht, compared with 1.20 trillion baht in the previous forecast, an increase from 0.58 trillion baht in 2022. Similarly, the number of foreign tourists is expected to be at 28.0 million persons, revised from 23.5 million persons in the previous projection and increased from 11.2 million persons in 2022. This is attributed to a higher-than-expected inbound foreign tourists in the last quarter of 2022 and earlier-than-expected China reopening. Thus, the number of Chinese tourists is expected to increase rapidly in the latter half of 2023. This resulted in service exports along with tourism-related sectors growing higher than expected.

Key growth components include as follows:

- 1) Total consumption: (1) Private consumption expenditure is expected to increase by 3.2 percent, continuing from a 6.3-percent growth in 2022 owing to the expansion of income base from the tourism and agricultural sectors, together with the continual recovery in labor market, and (2) Government consumption expenditure is projected to decline by 1.5 percent, compared with a 0.04-percent decrease in 2022 and a downward revision from a 0.1-percent reduction in the previous estimation. This was in accordance with a lower current budget framework in the FY2023 compared with that of FY2022, as well as the end of the economic measures under the 1.5 trillion Baht loan decrees.
- 2) Total investment is expected to increase by 2.2 percent, compared with 2.3 percent in 2022. (1) Private investment is estimated to increase 2.1 percent, compared with a 5.1-percent growth in 2022, and a downward revision from a 2.6-percent growth in previous estimation. This was in accordance with the decline in the export sector. (2) Public investment is expected to grow by 2.7 percent, recovering from a 4.9-percent decrease in the previous year, and an upward revision from a 2.4-percent growth in previous estimation. This was in accordance with an increase in the FY2023's capital budget framework of 664.67 billion Baht, increasing by 17.8 percent from 564.31 billion Baht in FY2022.
- 3) Export value of goods in US dollar term is anticipated to decrease by 1.6 percent, compared with a 5.5-percent growth in 2022, and a downward revision from a 1.0-percent growth in previous estimation. The revision is due to the downwardly revised assumptions on export prices and the export volume projection. Nonetheless, the export services are expected to notably increase as the number and revenues from international tourists have rebounded faster than the previous projection owing to China's reopening that came sooner than expected. In the baseline assumption, the revenues from inbound tourists in 2023 is expected to be at 1.31 trillion Baht, compared with 0.58 trillion Baht in 2022. Thus, in 2023, the export quantity of goods and services is estimated to increase by 7.4 percent, compared with a 6.8-percent growth in 2022 and a downward revision from a 8.5-percent expansion in previous estimation.
- 4) Import value of goods in US dollar term is expected to contract by 2.1 percent, compared with a 15.3-percent growth in 2022, and downwardly revised from a 1.6-percent expansion in the previous estimation. The adjustment is according to a downward revision on the import prices and the import volume projection. The import volume is expected to expand by 0.4 percent, down from 2.6 percent in the previous estimation, and in line with a slower pace of export of goods and private investment. Meanwhile, the import of services is expected to continually improve following increasing numbers of outbound travelers. Consequently, in

2023, the import quantity of goods and services is estimated to increase by 2.6 percent, downwardly revised from 3.6 percent in the previous projection and compared with 4.1 percent in 2022.

- 5) Trade balance is estimated to register a surplus of 12.1 billion US dollars, compared with a surplus of 10.8 billion US dollars in 2022 and 17.7 billion US dollars in the previous projection. This is following the projection revision of export value that is downwardly revised more than that of import value. Meanwhile, service account is anticipated to register a surplus due to the expected increasing number of inbound tourists. Consequently, the current account is expected to register a surplus of 8.6 billion US dollars (1.5 percent of GDP), recovered from a deficit of 16.9 billion US dollars (3.4 percent of GDP) in 2022 and compared with a surplus of 5.6 billion US dollars (1.1 percent of GDP) in the previous estimation.
- 6) Economic stability: headline inflation is expected to be in the range of 2.5 3.5 percent same as previous projection and a deceleration from 6.1 percent in 2022. This is in line with the lower crude oil price assumption.

7. Economic Management for the Year 2023

The Thai economy in 2023 is likely to improve from 2022, mainly supported by the recovery of the tourism sector, particularly after the reopening of China, which would support the expansion of domestic demand. Furthermore, the economy will still be driven by the expansion of agricultural production. However, the recovery of the Thai economy is likely to face limitations and risks from volatility and a slowdown in the global economy. This could affect the export and manufacturing sectors. In addition, weak financial balance sheet of household and business sectors are likely to constrain the recovery of domestic demand, especially during the rising interest rates. There is also a risk from an epidemic of COVID-19 new variants as well as the political situation after the general election. This may cause the Thai economy to grow slower than expected from the baseline scenario. Under such conditions, economic management for 2023 should therefore prioritize on the following issues;

- 1) Closely monitoring and resolving retail debts, of both households and small and medium enterprises (SMEs), especially in the sector facing the limitation in recovery. The objective should prioritize on reducing existing debt burden, debt restructuring, and managing informal debt, in order to enhance borrowers' capability to pay back and to relieve constraints on domestic demand recovery and economic growth.
- 2) Supporting agricultural production and farmers' income, by preparing policy to support agricultural products during the cultivation season 2023/24 which is likely to have a high output yield, along with strengthening the agricultural supply chain and restructuring the sector by developing technology and production innovation, as well as promoting the sustainable and organic farming which relies on domestic raw material.
- 3) Maintaining momentum from export sector, by emphasizing on: (i) boosting exports to major markets with strong economic recovery coupled with expanding to new markets for high purchasing power markets e.g. Middle East, South Asia, or ASEAN, as well as solving the cross border trade complication to facilitate the economic integration with CLMV; (ii) enhancing the competitiveness by improving quality of agricultural, food, and manufacturing products to achieve international requirement and standard, along with restructuring the manufacturing sector; (iii) utilizing benefits from the Regional Comprehensive Economic Partnership (RCEP), along with expediting the ongoing Free Trade Agreement negotiations and endeavoring for future negotiations with new potential trading partners; (iv) encouraging the business sector to appropriately manage risk of exchange rate fluctuation; and (v) facilitating export and lowering related costs.
- 4) Catalyzing the recovery in tourism and related service sector, by prioritizing: (i) preparing and assisting the tourism sector to be ready for the resuming of foreign tourists such as inbound flight availability, sufficient labor supply for tourism and related service sectors, along with facilitating liquidity for business sector to be able to resume business, especially retail entrepreneur; (ii) promoting the development of high-quality tourism, and enhancing potential, to achieve sustainable tourism. In particular, the emphasis should be placed on enhancing facilities and infrastructure, improving area and environmental management, and ensuring safety of tourists; (iii) continually supporting the tourism promoting events to attract long-term residents with high potential and high purchasing power; and (iv) promoting domestic tourism particularly to attract Thai tourists who generally prefer traveling abroad to travel domestically instead.
- 5) Stimulating private investment, by: (i) speeding up projects already approved and obtained investment promotion certificates in 2020 2022 to start their actual investments, especially those in the targeted industries; (ii) solving difficulties and obstacles hindering investors and entrepreneurs from investing and conducting businesses, including labor shortages in manufacturing sector; (iii) implementing proactive investment promotions and facilitating investors in targeted industries to invest in Thailand as well as new investors with high potential; (iv) stimulating investments in the Eastern Economic Corridor (EEC), other special economic zones, as well as the regional economic corridors; (v) supporting investment in the key economic areas and transport infrastructure to be in accordance with the prospected plan; and (vi) enhancing high-skilled labors to brace the growth of technology-and-innovation-intensive industries, particularly the new targeted industries.
- 6) Maintaining growth momentum from public expenditure, by: (i) expediting the FY2023's annual budget disbursement rate to be at least 93 percent of the total budget, state-owned enterprises' capital budget disbursement rate to be at least 70 percent of the total budget, as well as preparing the FY2023's budget in advance in order to disburse without delay; (ii) accelerating large-scale public infrastructure projects, in both economic zone development and transportation infrastructure, especially key investment projects that already approved; and (iii) prioritizing fiscal consolidation by focusing on increasing the efficiency of revenue collection and expenditure in order to maintain fiscal position to support economic recovery amid domestic and external uncertainties.
- 7) Monitoring, scrutinizing, and preparing for the volatilities from global economy and financial condition.
- 8) Maintaining the domestic economic and political climate during the general election.

Economic Projection for 2023									
		Actual Data	1	Projections for 2023					
	2020	2021	2022	Nov 21, 2022	Feb 17, 2023				
GDP (at current prices: Bil. Baht)	15,661.1	16,166.6	17,367.3	18,781.1	18,444.1				
GDP per capita (Baht per year)	225,311.4	231,986.1	248,635.3	268,144.2	263,332.9				
GDP (at current prices: Bil. USD)	500.5	505.5	495.2	521.7	562.3				
GDP per capita (USD per year)	7,200.7	7,254.1	7,089.7	7,448.4	8,028.4				
GDP Growth (CVM, %)	-6.1	1.5	2.6	3.0 - 4.0	2.7 - 3.7				
Investment (CVM, %) ^{2/}	-4.8	3.1	2.3	2.5	2.2				
Private (CVM, %)	-8.1	3.0	5.1	2.6	2.1				
Public (CVM, %)	5.1	3.4	-4.9	2.4	2.7				
Private Consumption (CVM, %)	-0.8	0.6	6.3	3.0	3.2				
Government Consumption (CVM, %)	1.4	3.7	-0.0	-0.1	-1.5				
Export volume of goods & services (%)	-19.7	11.1	6.8	8.5	7.4				
Export value of goods (Bil. USD) $^{3/}$	227.0	270.6	285.4	293.8	280.9				
Growth rate (%) ^{3/}	-6.5	19.2	5.5	1.0	-1.6				
Growth rate (Volume, %) ^{3/}	-5.8	15.5	1.3	1.0	-0.6				
Import volume of goods & services (%)	-13.9	17.8	4.1	3.6	2.6				
Import value of goods (Bil. USD) $^{3/}$	186.6	238.2	274.6	276.1	268.8				
Growth rate (%) ^{3/}	-13.6	27.7	15.3	1.6	-2.1				
Growth rate (Volume, %) ^{3/}	-10.5	17.9	2.0	2.6	0.4				
Trade balance (Bil. USD)	40.4	32.4	10.8	17.7	12.1				
Current account balance (Bil. USD)	20.9	-10.6	-16.9	5.6	8.6				
Current account to GDP (%)	4.2	-2.1	-3.4	1.1	1.5				
Inflation (%)									
CPI	-0.8	1.2	6.1	2.5 - 3.5	2.5 - 3.5				
GDP Deflator	-1.3	1.7	4.7	2.5 - 3.5	2.5 - 3.5				

Economic Projection for $2023^{1/}$

Source: Office of the National Economic and Social Development Council, 17th February 2023

Note: ^{1/} Data was calculated based on new National Accounts Office's Series, published on www.nesdc.go.th

^{2/} Investment means Gross Fixed Capital Formation

^{3/} Export and import base on the Bank of Thailand's data.



www.nesdc.go.th