NESDC ECONOMIC REPORT

Thai Economic Performance in Q4 and 2021 and Outlook for 2022

Macroeconomic Strategy and Planning Division

Press Release 8.30 a.m. February 21, 2022

The Thai economy in the fourth quarter of 2021 expanded by 1.9 percent (%YoY), recovering from a contraction of 0.2 percent in the previous quarter. After seasonally adjusted, the Thai economy increased by 1.8 percent from the third quarter (%QoQ sa).

On expenditure side: export of goods and services and government expenditure accelerated. Private consumption and public investment returned to expansions, while private investment decreased.

On the production side: the manufacturing sector, the transportation and storage sector, and the electricity, gas, stream, and air conditioning supply sector returned to expand, while the wholesale and retail trade sector continued to grow. On the contrary, the agricultural sector decelerated, while the accommodation and food services sector and construction sector decreased.

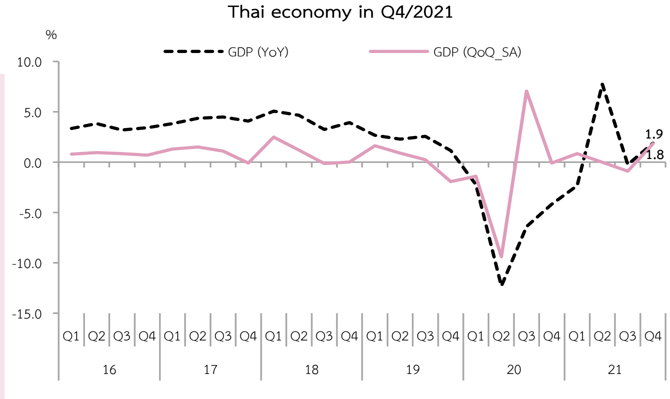
In 2021, the Thai economy expanded by 1.6 percent, recovering from a 6.2-percent contraction in 2020. Export of goods, private consumption, and investments expanded by 18.8 percent, 0.3 percent, and 3.4 percent, respectively. The headline inflation was at 1.2 percent and the current account registered a deficit of 2.2 percent of GDP.

Economic Projection of 2022

(%YoY)	2020	2021			Projection
	Year	Year	Q3	Q4	2022
GDP (CVM)	-6.2	1.6	-0.2	1.9	3.5 - 4.5
Investment[1/]	-4.8	3.4	-0.4	-0.2	4.0
Private	-8.2	3.2	2.6	-0.9	3.8
Public	5.1	3.8	-6.2	1.7	4.6
Private Consumption	-1.0	0.3	-3.2	0.3	4.5
Government Consumption	1.4	3.2	1.5	8.1	-0.2
Export of Goods[2/]	-6.5	18.8	15.7	21.3	4.9
Volume[2/]	-5.8	15.0	12.2	16.8	3.9
Import of Goods[2/]	-13.8	23.4	31.8	20.6	5.9
Volume[2/]	-10.5	18.3	27.9	14.0	4.4
Current Account to GDP (%)	4.2	-2.2	-4.3	-1.6	1.5
Inflation	-0.8	1.2	0.7	2.4	1.5 - 2.5

Note: [1/] Investment means Gross Fixed Capital Formation
[2/] based on the Bank of Thailand's data

Thai economy in Q4/2021



Source: NESDC

The Thai economy in 2022 is projected to expand in the range of 3.5 – 4.5 percent, mainly supported by; (i) the regaining in domestic demand; (ii) the recovery of domestic tourism; (iii) the continual expansion of export of goods; and (iv) the support from public investment. Export value of goods in US dollar terms is anticipated to expand by 4.9 percent. Meanwhile, private consumption and private investment are expected to increase by 4.5 percent and 3.8 percent, respectively. Public investment is projected to increase by 4.6 percent. Headline inflation is estimated to be in the range of 1.5 - 2.5 percent and the current account is projected to record a surplus of 1.5 percent of GDP.

The economic management for the year 2022 needs to prioritize on following issues: **(1) Containing the domestic outbreak and preventing resurgences; (2) Assisting affected business and sectors that are experiencing difficulty to recovery,** by: (i) closely evaluating the ongoing monetary and fiscal measures to efficiently reach the target groups, together with introducing additional liquidity support measure to assist those inaccessible to fund and not-yet-recovered sectors: (ii) resolving labor shortages along with considering additional measures to support the labor: and (iii) expediting business debt restructuring; **(3) Maintaining momentum from domestic expenditure,** by: (i) monitoring and evaluating the ongoing measures to be more efficient and well targeted: (ii) accommodating the market mechanism to alleviate and resolve the effects of increasing prices on production cost and cost of living , together with to assist the sectors affected by decreasing agricultural product prices: and (iii) prioritizing disbursements from the FY2022 and FY2023 budgets for projects aiming to create additional local jobs to support those relocating to their hometowns; **(4) Resolving household debt burden,** by prioritizing long-term debt restructuring programs along with providing incentives for debt consolidation and reduce major debt burdens; **(5) Encouraging export of goods,** by: (i) boosting exports to major markets coupled with expanding new markets for potential products and supporting border trade; (ii) enhancing the quality of export products: (iii) reducing difficulty and limitation regarding transportation and logistics system: (iv) utilizing benefits from Regional Comprehensive Economic Partnership (RCEP), along with expediting the ongoing Free Trade Agreement (FTA) negotiations: and (v) cushioning the effects of exchange rate fluctuations and rising input costs; **(6) Stimulating private investment** with emphasis on: (i) speeding up projects already approved and obtained investment promotion certificates to start their actual investments: (ii) solving difficulties and obstacles hindering investors and entrepreneurs from investing and conducting businesses: (iii) implementing proactive investment promotions: (iv) stimulating investments in Eastern Economic Corridor (EEC), other initialized special economic zones, as well as the regional economic corridors: (v) stimulating investment in the key economic areas and transport infrastructure: and (vi) developing high-skilled labors to brace the growth of targeted industries; **(7) Maintaining growth momentum from government expenditure and investments; (8) Monitoring, scrutinizing, and preparing for the volatilities from global economy;** and **(9) Focusing on the economic restructuring policy** aiming in particular at enhancing competitiveness, improving income distribution, and moving towards a low-carbon society.

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1. The Thai Economy in Q4/2021

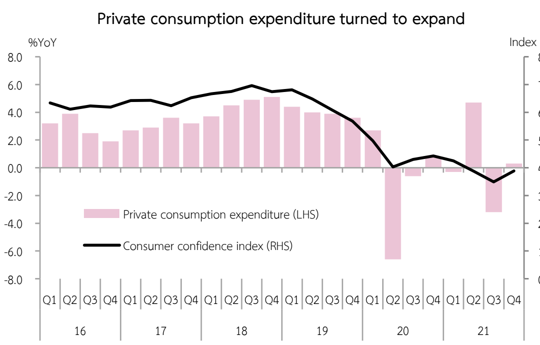
Expenditure Side:

In the fourth quarter of 2021, private consumption expenditures turned to expand while private investment decreased. Simultaneously, the export of goods accelerated.

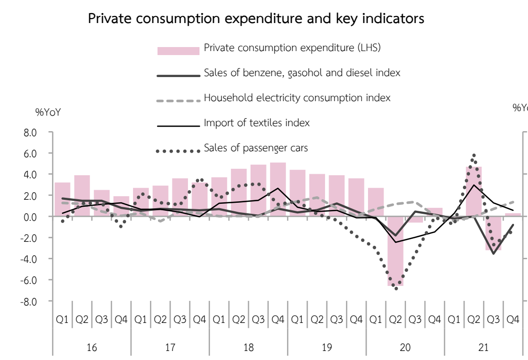
Private consumption turned to expand by 0.3 percent, improving from a 3.2- percent drop in the previous quarter.

Private consumption expenditures increased by 0.3 percent, compared with a 3.2-percent drop in the previous quarter, mainly due to an improving COVID-19 situation where the rate of daily new infections steadily declined, easing of the COVID-19 control measures, as well as the government's consumption stimulus measures. **The expenditure in non-durable goods** grew by 3.7 percent, accelerating from a 1.3-percent growth in the previous quarter. This was in line with the continual expansion of spending on food and non-alcoholic beverages by 3.3 percent. **The expenditure in services** decreased by 1.7 percent, improving from a 5.4-percent drop in the previous quarter. The spending in the health and housing (including water, electricity, and gas & other fuels) grew by 16.4 percent and 4.2 percent, respectively. However, spending in restaurants & hotels, and recreation & culture decreased by 0.2 percent and 2.0 percent, respectively. **The expenditure in semi-durable goods** declined by 0.8 percent, an improving from a 6.5-percent drop in the previous quarter, in accordance with a positive growth of spending on furnishings (including household equipment and routine maintenance) and clothing & footwear which grew by 1.6 percent and 0.9 percent, respectively. **The expenditure on durable goods** decreased by 5.3 percent, compared to a 13.9-percent drop in the previous quarter, due to the 8.2-percent contraction on purchase of vehicles, compared with a 21.3-percent drop in the previous quarter. The improvement in private consumption expenditures in this quarter was in line with an increase in the consumer confidence index towards the economic situation which improved from 34.9 in the previous quarter to 38.9.

In 2021, private consumption expenditure increased by 0.3 percent, compared with a 1.0-percent drop in 2020.



Source: NESDC, University of the Thai Chamber of Commerce

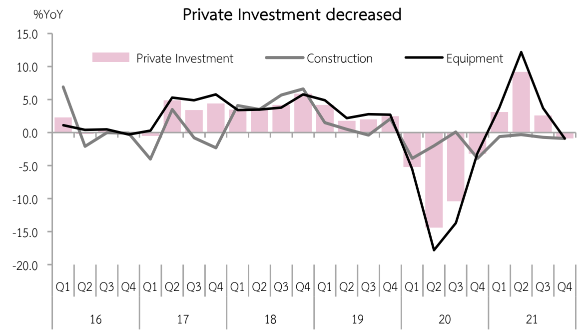


Source: NESDC, BOT, Department of Energy Business

Private investment declined by 0.9 percent compared with a 2.6-percent growth in the previous quarter, following the decline in investment in the machinery & equipment, and investment in construction.

Private investment declined by 0.9 percent compared with a 2.6- percent growth in the previous quarter, in accordance with the decline in the investment in machinery and equipment while the investment in construction continually decreased. **The investment in machinery and equipment** decreased by 0.9 percent compared with a 3.7-percent growth in the previous quarter. This was in line with a drop in newly registered motor vehicles for investment, together with a slowdown in the imports of capital goods, and domestic machinery sales, which grew at a slower pace by 9.7 percent and 11.7 percent, compared with a growth of 22.0 percent and 16.1 percent in the previous quarter, respectively. Meanwhile, **the investment in construction** decreased by 0.9 percent, continuing from a 0.7-percent drop in the previous quarter. This was partly due to the slower drive from the construction of public infrastructure. The Business Sentiment Index rose to 48.1 from 41.3 in the previous quarter.

In 2021, private investment grew by 3.2 percent, improving from an 8.2-percent drop in 2020. In details, the investment in machinery and equipment grew by 4.2 percent compared with a 9.7-percent drop. The investment in construction declined by 0.6 percent, compared with a 2.3-percent drop in 2020.



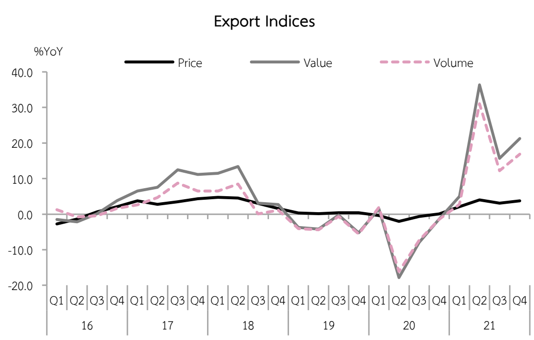
Source: NESDC

Exports in US dollar terms continually increased following the recovery of economy and global trade volume. Export value in the fourth quarter of 2021 was recorded at 70.5 billion US dollars, increasing by 21.3 percent, higher than a 15.7-percent growth in the previous quarter. The exports volume index expanded by 16.8 percent, accelerating from a 12.2-percent increase in the previous quarter. Exports volume of agricultural and fishery products increased by 23.9 percent and 9.5 percent, respectively. Also, exports volume of manufacturing products continually increased by 16.9 percent. The exports price increased by 3.8 percent compared with a 3.1-percent rise in the previous quarter. Export price of fishery and manufacturing rose by 2.4 percent, and 4.2 percent, respectively, while the agricultural price decreased by 0.8 percent. Excluding unwrought gold, export value expanded by 20.8 percent compared with a 24.2-percent increase in the previous quarter. **In Baht terms,** export value was recorded at 2,355 billion Baht, expanded by 32.2 percent, accelerating from a 21.6-percent growth in the previous quarter.

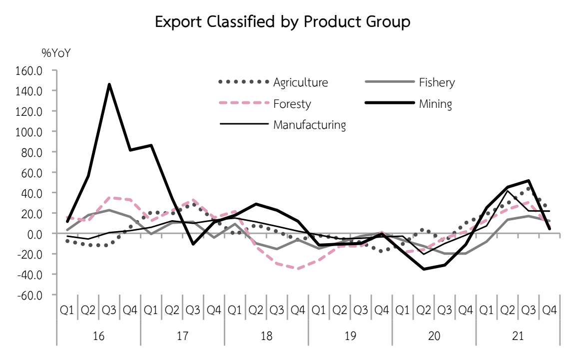
Export value in US dollar terms increased by 21.3 percent as a result of economic recovery in key trading partners.

Export value excluding unwrought gold expanded by 20.8 percent.

In 2021, export in US dollar terms recorded at 269.6 billion US dollars, increasing by 18.8 percent, the highest growth rate in 11 years. The export volume index and export price rose by 15.0 percent and 3.3 percent, respectively. **In Baht terms,** export value recorded at 8,633 billion Baht, expanding by 21.6 percent compared with a 5.8-percent drop in 2020.



Source: Bank of Thailand



Source: Bank of Thailand

Export value of agricultural commodities increased by 22.9 percent, decelerating from a 43.9-percent growth in the previous quarter. The export quantity rose by 23.9 percent following the increase in export volume of rice, rubber, tapioca, and sugar. Exports price fell by 0.8 percent in line with the reduction in export price of rice and tapioca. **Export value of manufacturing products** rose by 21.8 percent, continued from a 22.1-percent increase in the previous quarter and mainly due to the growth of demand in key trading partners. **Export value of fishery products** continually increased for the third quarters, by 12.1 percent as a result of the growth in exports volume and price. **Exports value of other products** expanded by 60.2 percent due to the increase in exports of non-monetary gold which was recorded at 67.9 percent.

Export items with increased value included machinery & equipment (7.1 percent), passenger car (25.7 percent), vehicle parts & accessories (8.3 percent), air condition machines (25.8 percent), computer parts & accessories (28.7 percent), chemicals (51.7 percent), animal food (25.8 percent), rice (13.2 percent), rubber (31.4 percent), tapioca 56.2 percent), sugar (85.2 percent), and crustaceans (21.6 percent). On the other hand, **export items with decreased value** included rubber products (-15.1 percent), fish canned, prepared, or preserved (-2.4 percent), and microwave ovens and other ovens (-0.2 percent).

Export value of agricultural commodities continually increased following the growth in exports of rice, rubber, tapioca, and sugar.

Export value of manufacturing products expanded as a result of the growth of demand in key trading partners.

Export value of fishery products increased for three quarters consecutively.

Export Value of Major Product in US Dollar Term

%YoY	2020					2021					Share
	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Q4/21 (%)
Agriculture	**-1.2**	**-10.4**	**4.6**	**-7.8**	**10.2**	**28.6**	**18.9**	**29.4**	**43.9**	**22.9**	**7.0**
Rice	-11.3	-24.9	0.7	-17.9	-0.9	-8.9	-19.4	-38.8	16.5	13.2	1.6
Rubber	-14.9	-2.7	-41.0	-35.5	25.4	58.6	38.1	97.4	99.5	31.4	2.1
Tapioca	5.3	-18.3	0.3	28.2	30.3	59.8	72.5	49.3	59.8	56.2	1.0
Fruits	11.8	-20.8	47.4	-3.3	11.0	49.5	16.9	52.3	71.4	33.5	1.1
Manufacturing	**-8.7**	**-2.7**	**-20.5**	**-10.0**	**-1.8**	**22.2**	**7.4**	**41.7**	**22.1**	**21.8**	**90.0**
Food	-6.2	3.3	-4.6	-8.7	-13.6	4.5	-6.6	4.7	2.7	18.0	6.4
Sugar	-36.2	20.2	-27.8	-49.1	-67.3	-10.7	-47.7	-21.2	-2.4	85.2	0.8
Fish, canned, prepared, or preserved	5.5	-3.4	17.9	10.2	-2.3	-14.7	-2.4	-26.3	-24.7	-2.4	1.0
Fruits & vegetables, canned, prepared, or preserved	4.1	12.5	5.0	7.2	-6.0	8.6	-4.1	0.2	15.2	20.7	0.5
Beverages	-3.7	5.7	-11.0	0.3	-8.8	3.6	-0.4	17.8	-5.2	2.8	0.9
Rubber products	23.4	7.3	23.4	34.2	29.7	19.1	52.4	40.0	10.4	-15.1	2.3
Animal food	18.7	10.3	24.0	18.0	22.5	23.5	27.4	21.2	19.6	25.8	0.9
Electronics	1.3	5.2	-6.7	1.5	4.9	19.8	10.7	32.4	21.0	16.6	15.9
- Computer	0.6	11.0	5.8	-14.4	2.6	47.2	2.5	24.2	89.0	71.1	0.4
- Computer parts & accessories	-2.4	15.0	-9.1	-1.8	-11.4	20.9	-5.0	37.1	26.1	28.7	5.9
- Integrated circuits & parts	-5.7	-6.3	-5.1	-9.7	-1.9	18.6	13.9	22.7	19.2	18.7	3.3
Electrical appliances	-0.2	5.9	-18.8	4.0	9.5	18.3	11.1	44.6	8.6	13.7	5.6
- Air conditioning machines	-3.4	14.8	-28.8	-7.2	11.2	22.5	9.4	52.5	9.3	25.8	2.0
- Microwave ovens and other ovens	15.0	-6.6	6.7	31.9	30.2	43.4	19.5	86.5	45.7	27.2	0.3
- Refrigerators	7.1	1.1	-12.8	21.9	18.4	13.3	19.3	50.9	-6.0	-0.2	0.8
- Parts of electrical appliances	2.8	12.7	-5.0	4.7	-0.5	16.8	5.7	24.6	18.3	19.6	1.9
Metal & steel	-5.4	1.1	-20.0	-9.2	7.1	45.5	22.7	64.0	56.8	43.1	5.8
Automotive	-17.6	-4.7	-47.7	-19.0	0.9	35.2	21.0	111.9	20.8	21.8	15.2
- Passenger car	-18.1	-7.3	-44.6	-22.2	1.6	27.9	13.2	89.4	8.7	25.7	4.3
- Pick up and trucks	-31.9	-21.2	-66.4	-28.5	-10.1	58.1	44.8	190.6	18.7	55.4	3.1
- Vehicle parts & accessories	-13.6	0.7	-45.0	-16.0	6.1	30.0	17.3	102.0	25.3	8.3	6.7
Machinery & equipment	-8.0	-8.5	-23.4	-9.0	9.3	18.9	16.6	41.2	16.4	7.1	8.1
Chemicals	-10.9	-14.8	-20.4	-6.7	-0.7	46.3	16.4	67.9	52.5	51.7	3.7
Petro-chemical products	-10.4	-10.7	-18.9	-11.7	0.5	32.0	23.8	41.9	38.6	24.9	5.6
Petroleum products	-26.8	-4.5	-42.9	-32.6	-27.6	64.0	-6.0	92.7	101.5	101.7	3.8
Toiletries and cosmetics	-13.1	-0.5	-26.3	-14.3	-8.5	2.3	-4.5	5.2	-2.4	12.0	1.1
Fishery	**-15.2**	**-6.7**	**-12.7**	**-19.7**	**-19.8**	**8.8**	**-8.2**	**13.4**	**16.9**	**12.1**	**0.7**
Crustaceans	-21.6	-13.8	-15.3	-27.0	-26.8	15.7	-3.2	16.1	25.0	21.6	0.4
Fish	-3.0	2.3	9.4	-11.0	-10.8	-0.3	-9.5	-2.1	10.5	0.9	0.2
Other Exports	**58.7**	**212.1**	**68.5**	**27.3**	**-38.0**	**-69.0**	**-86.3**	**-65.5**	**-74.7**	**60.2**	**1.5**
Non-monetary gold (excl. articles of goldsmiths)	62.3	223.0	73.3	28.8	-37.5	-70.7	-88.3	-67.3	-75.8	67.9	1.4
Total Exports (Customs basis)	**-5.9**	**1.2**	**-15.2**	**-7.7**	**-2.0**	**17.1**	**1.9**	**31.8**	**15.3**	**22.1**	**100.0**
Exports, f.o.b. (BOP basis)	**-6.5**	**1.5**	**-17.8**	**-7.9**	**-1.4**	**18.8**	**5.0**	**36.4**	**15.7**	**21.3**	**98.9**
Export Value (exclude gold)	**-8.9**	**-3.1**	**-21.4**	**-10.3**	**-0.8**	**24.4**	**11.4**	**45.4**	**24.2**	**20.8**	**97.5**

Source: Bank of Thailand

Exports to the key markets mostly expanded.

Export markets: Exports to the main markets mostly expanded. Exports to the US expanded by 24.3 percent, following the growth in exports of automatic data processing machines and parts, rubber products, and motor cars, parts & accessories. Exports to China expanded by 17.3 percent mainly due to the increase in exports of polymers of ethylene, fresh, automatic data processing machines and parts, and frozen and dried fruits. Exports to EU (27) excluding the UK, increased by 20.8 percent following the acceleration in exports of automatic data processing machines and parts, air conditioning machine and parts, and motor cars, parts & accessories. Exports to ASEAN (5) grew by 42.9 percent, mainly due to the growth in exports to Malaysia, Singapore, Indonesia, and the Philippines. Exports to CLMV increased by 13.4 percent in line with an increase in exports to Vietnam, Cambodia, and Myanmar. Exports to Australia expanded by 14.6 percent as supported by the acceleration in exports of motor cars, parts & accessories, polymers of ethylene, and rubber product. In addition, exports to the Middle East (15) increased by 33.6 percent supporting by the growth in exports of motor cars, parts & accessories, as well as woods and wood products. However, exports to Japan slightly declined by 0.4 percent, mainly due to a contraction in exports of motor cars, parts & accessories, machinery and parts, and prepared poultry.

Export Value to Key Markets in US Dollar Term

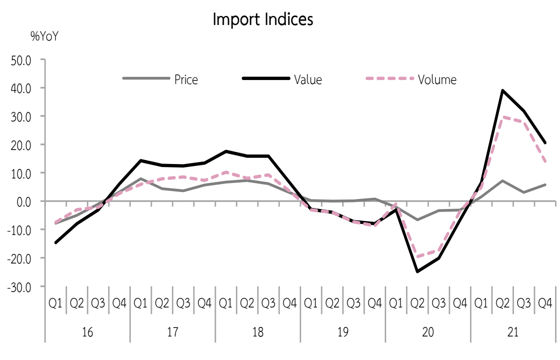
%YOY	2020					2021					Share
	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Q4/21 (%)
Total Exports (Mil US$)	231,634	62,826	51,716	58,680	58,412	271,174	64,035	68,159	67,663	71,317	100.0
(%YoY)	-5.9	1.2	-15.2	-7.7	-2.0	17.1	1.9	31.8	15.3	22.1	
United States	9.7	-2.5	8.9	17.8	16.2	21.5	12.3	30.4	19.6	24.3	15.7
Japan	-7.0	-5.7	-13.5	-13.0	4.2	9.5	5.9	20.0	15.3	-0.4	8.8
EU (27) excluding UK	-10.5	-1.9	-28.1	-10.5	-1.8	22.6	10.8	49.8	16.4	20.8	7.9
United Kingdom	-19.7	-7.8	-41.6	-19.3	-9.9	12.9	-9.3	65.5	0.2	14.3	1.3
China	2.2	-0.1	12.1	-0.04	-2.6	24.8	19.7	29.3	32.2	17.3	12.5
ASEAN (9)	-11.8	4.2	-22.4	-15.0	-13.7	17.2	-5.9	33.3	18.3	29.3	24.9
- ASEAN (5)*	-12.2	5.3	-19.7	-19.2	-15.0	19.4	-10.8	27.0	26.5	42.9	14.8
- CLMV**	-11.1	2.8	-25.9	-9.2	-12.0	14.4	0.6	42.1	8.1	13.4	10.1
Middle East (15)	-13.0	3.0	-19.7	-23.3	-13.0	19.8	-5.7	37.6	22.7	33.6	3.5
Australia	-3.9	-2.3	-15.9	-8.8	14.8	10.9	19.7	27.7	-12.6	14.6	4.0
Hong Kong	-3.6	12.3	-8.6	-13.9	-2.0	2.6	-19.4	15.7	7.8	9.2	4.1
India	-25.0	-11.0	-67.2	-21.3	9.0	55.1	7.5	181.3	64.9	47.5	3.4
South Korea	-10.1	-4.5	-25.3	-7.1	-0.7	38.5	17.5	56.0	51.3	32.0	2.0
Taiwan	-5.4	13.5	-11.8	-14.4	-5.7	22.7	9.8	35.4	27.2	19.6	1.7

Note: * ASEAN (5) consist of Brunei, Indonesia, Malaysia, Philippines, and Singapore
** CLMV consist of Cambodia, Laos, Myanmar, and Vietnam
Source: Bank of Thailand

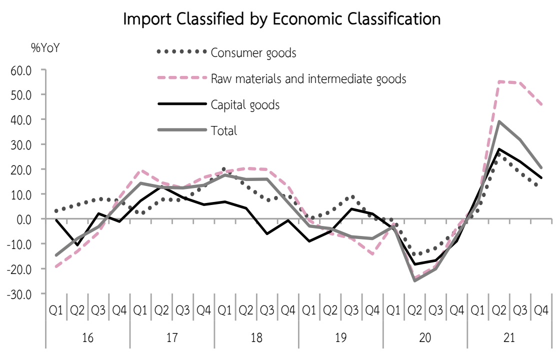
Import value in US dollar terms increased by 20.6 percent compared with a 31.8-percent expand in the previous quarter.

Import value in US dollar terms was recorded at 59.7 billion US dollars, increasing by 20.6 percent compared with a 31.8-percent increase in the previous quarter, corresponding to some industrial manufacturing sector that continues to expand, such as manufacture of electronic components and boards, automotive production, basic iron and steel production and manufacture of rubber and plastic products, etc. Import quantity rose by 14.0 percent compared with a 27.9-percent increase in the previous quarter, following an increase in import quantity of raw materials and intermediate goods, capital goods, and consumer goods which rose by 20.5 percent, 13.4 percent, and 7.5 percent, respectively. Import price rose by 5.7 percent, compared with a 3.0-percent increase in the previous quarter. The import price of raw materials and intermediate goods rose by 21.3 percent compared with an 18.3-percent expand in the previous quarter due to the continual increase in prices of commodities in the world market such as crude oil and metal materials. Import values excluding unwrought gold expanded by 21.8 percent. **In Thai Baht terms**, the import value stood at 1,992 billion Baht, increasing by 31.6 percent compared with a 38.5-percent increase in the previous quarter.

In 2021, the import value was recorded at 229.6 billion US dollars, increased by 23.4 percent. Import quantity and import price rose by 18.3 percent, and 4.3 percent, respectively. **In Thai Baht terms,** import value increased by 26.4 percent, compared with a 13.3-percent decrease in 2020.



Source: Bank of Thailand



Source: Bank of Thailand

By categories, the import value of raw materials and intermediate goods, capital goods, consumer goods increased while the other imports decreased. **Import value of raw materials and intermediate goods** expanded by 46.1 percent compared with a 54.6-percent growth in the previous quarter. Import quantity and import price which rose by 20.5 percent and 21.3 percent, respectively. **Import value of capital goods** rose by 16.4 percent comparing with a 23.0-percent growth in the previous quarter. Import quantity and import price expanded by 13.4 percent and 2.7 percent, respectively. **Import value of consumer goods** increased by 12.2 percent comparing with an 18.5-percent growth in the previous quarter. Import quantity and import price increased by 7.5 percent and 4.4 percent, respectively. **Import value of other goods** declined by 4.3 percent comparing with a 36.9-percent increase in the previous quarter due to a decrease in imports of the non-monetary gold (excluding articles of golds).

Import Value of Major Product in US Dollar Term

%YoY	2020					2021					Share
	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Q4/21 (%)
Consumer goods	**-7.9**	**-0.4**	**-14.7**	**-11.7**	**-4.6**	**14.6**	**3.5**	**26.0**	**18.5**	**12.2**	**10.1**
Food, beverage & dairy products	4.0	11.1	-0.3	1.4	4.0	5.7	1.0	9.9	7.8	4.7	2.4
Animal & fishery products	-6.9	-11.3	-22.2	-5.5	13.8	9.2	12.3	33.0	3.7	-7.3	1.5
Medicinal and pharmaceutical products	-0.5	0.7	8.9	-1.1	-10.1	46.9	3.6	21.5	89.2	79.6	1.6
Jewellery (excl. pearls & precious stones)	-36.9	-4.1	-61.2	-60.0	-13.1	22.3	-22.6	143.7	41.3	14.7	0.4
Raw materials and intermediate goods	**-12.3**	**-2.1**	**-23.9**	**-19.1**	**-3.4**	**38.8**	**6.4**	**55.1**	**54.6**	**46.1**	**59.7**
Parts of electronics and electrical appliances	1.6	1.4	-3.2	-0.03	8.1	22.6	13.8	28.1	26.4	22.1	13.9
Materials of base metal	-16.6	-6.4	-27.1	-27.2	-4.3	60.7	26.5	83.6	89.3	53.1	9.9
Crude oil	-23.9	3.0	-52.9	-35.5	-7.4	49.7	-23.3	110.2	78.1	99.2	10.5
Chemicals	-4.9	-3.7	-10.4	-13.8	10.0	46.1	18.7	54.0	71.2	43.8	6.6
Agricultural and agro-manufacturing products	-2.0	3.5	-6.0	-4.6	-1.1	29.2	4.1	47.7	49.7	18.6	3.6
Capital goods	**-12.0**	**-4.0**	**-18.3**	**-16.8**	**-8.9**	**18.9**	**9.8**	**27.9**	**23.0**	**16.4**	**22.1**
Other machinery and mechanical appliances & parts	-11.7	0.8	-21.0	-18.7	-7.7	16.5	0.5	32.3	27.5	10.4	7.7
Telecommunications equipment	-4.6	-12.3	-1.4	7.4	-9.2	19.7	40.4	6.6	8.0	24.2	4.2
Transformers, generators, motors and accumulators	-4.7	-4.4	-12.9	-13.9	13.0	20.8	19.6	30.5	29.9	6.9	1.8
Measuring, checking and precision instruments	-16.6	-13.9	-31.2	-25.1	5.7	16.9	11.0	40.3	30.5	-5.0	1.3
Computer	-1.6	-14.1	8.1	-1.6	-0.6	44.5	44.9	15.2	54.9	63.7	1.3
Other Imports	**-21.5**	**-6.4**	**-45.9**	**-35.7**	**-3.3**	**23.9**	**18.0**	**76.0**	**36.9**	**-4.3**	**8.1**
Automotive	-22.8	-5.4	-39.3	-37.4	-10.0	28.7	9.4	78.4	49.7	2.7	4.0
- Vehicle parts	-20.8	-5.7	-39.7	-37.0	0.7	33.0	14.1	81.2	61.8	1.8	3.1
Non-monetary gold (excl. articles of goldsmiths)	-33.3	17.5	-76.1	-60.8	-4.1	68.5	135.5	156.6	66.9	-6.7	2.7
Total Imports (Customs basis)	**-12.7**	**-2.9**	**-23.7**	**-19.4**	**-4.9**	**29.8**	**8.2**	**46.3**	**41.0**	**29.4**	**100.0**
Imports, f.o.b. (BOP basis)	**-13.8**	**-3.1**	**-24.9**	**-20.1**	**-6.7**	**23.4**	**6.5**	**39.0**	**31.8**	**20.6**	**84.0**
Import Value (exclude gold)	**-13.1**	**-3.7**	**-23.0**	**-18.6**	**-6.8**	**22.1**	**2.0**	**37.7**	**31.1**	**21.8**	**81.3**

Source: Bank of Thailand

Import Volume Indices by Economic Classification

Volume indices %YoY	2020					2021				
	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4
Consumer goods	-9.2	-1.9	-15.6	-12.7	-6.3	10.4	0.5	21.0	14.1	7.5
Raw materials and intermediate goods	-7.0	2.0	-14.2	-14.9	-0.4	18.3	-2.4	28.4	30.7	20.5
Capital goods	-13.1	-5.7	-19.4	-17.5	-9.8	16.6	8.2	25.7	20.8	13.4
Total Imports	**-10.5**	**-1.0**	**-19.6**	**-17.3**	**-3.6**	**18.3**	**4.9**	**29.7**	**27.9**	**14.0**

Source: Bank of Thailand

Import Price Indices by Economic Classification

Price indices %YoY	2020					2021				
	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4
Consumer goods	1.3	1.5	1.0	1.1	1.7	3.8	2.9	4.1	3.9	4.4
Raw materials and intermediate goods	-5.8	-4.0	-11.3	-4.9	-3.0	17.3	9.0	20.9	18.3	21.3
Capital goods	1.2	1.7	1.3	0.9	1.0	1.9	1.5	1.8	1.8	2.7
Total Imports	**-3.8**	**-2.1**	**-6.6**	**-3.4**	**-3.2**	**4.3**	**1.5**	**7.1**	**3.0**	**5.7**

Source: Bank of Thailand

Term of trade decreased.

Term of trade decreased as import price expanded by 5.7 percent, faster than the 3.8 percent growth of export price. Thus, the term of trade decreased from 110.0 in the same quarter last year and 109.8 in the previous quarter to 107.9 in the fourth quarter of 2021.

In 2021, Term of trade recorded at 109.0, decreasing from 110.2 in 2020, as import price rose by 4.3 percent, faster than the 3.3 percent increase in export price.

Trade surplus was at 10.9 billion US dollars, higher than that of the previous quarter and the same period last year.

Trade balance recorded a surplus of 10.9 billion US dollars, higher than a surplus of 9.3 billion US dollars in the previous quarter and a surplus of 8.7 billion US dollars in the same quarter last year. **In Baht terms**, trade balance recorded a surplus of 362.7 billion Baht, higher than a surplus of 304.7 billion Baht in the previous quarter and a surplus of 266.9 billion Baht in the same period last year.

In 2021, Trade balance recorded a surplus of 40.0 billion US dollars lower than a surplus of 40.9 billion US dollars in 2020. **In Baht terms,** trade balance recorded a surplus of 1,279.8 billion Baht lower than a surplus of 1,281.3 billion Baht in 2020.

Term of trade

%YoY	2020					2021				
	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4
Term of trade*	110.2	109.1	111.9	109.7	110.0	109.0	109.8	108.6	109.8	107.9
%YOY	3.2	1.8	4.9	2.8	3.3	-1.0	0.6	-2.9	0.1	-1.9

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

Production Side:

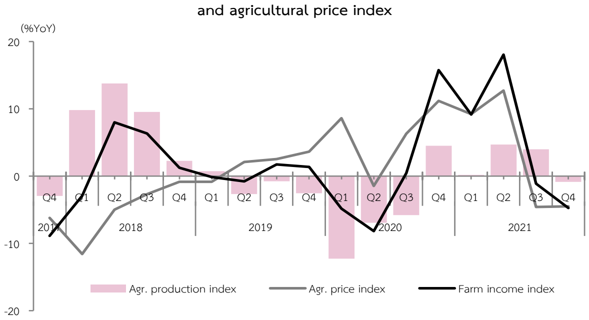
Production side improved from the previous quarter, following manufacturing, transportation and storage, and electricity and gas, sectors rebounded. Wholesale and retail trade sector continued to expand. Agricultural sector slowed down. Meanwhile, accommodation and food service activities, and construction sectors declined.

Agriculture, forestry, and fishing sector increased by 0.7 percent, slowing down from a 2.2-percent growth in the previous quarter, following a decline in livestock, fisheries, and paddy production. Meanwhile, major crops continued to expand. Major agricultural products with positive growth included: (i) **sugarcane** (99.5 percent), following increases in both planting areas and crop yields as a result of favorable weather conditions. In addition, the Cane and Sugar Board of Thailand had set the sugar cane-crushing season earlier than the previous year, (ii) **oil palm** (26.8 percent), due to the price incentive which caused farmers to expand planting areas, and (iii) **fruits** (3.8 percent), particularly mango, owing to favorable weather conditions. On the other hand, major agricultural products with production contraction included: (i) **swine** (-22.7 percent), due to the reduction of swineherds, along with the higher cost of raising pigs such as feeder pigs; animal feeds, swine disease control and prevention (e.g., African Swine Fever: ASF, and Porcine Reproductive and Respiratory Syndrome: PRRS); and transportation, (ii) **white shrimp** (-18.7 percent), due to shrimp farming dropped in response to the higher costs of production such as feed price and transportation cost, and (iii) **paddy** (-2.5 percent), owing to the decline of rice production which threatened by floods in many provinces in the Northeast. **Agricultural Price Index** continued to decline for two consecutive quarters by 4.5 percent, following a decrease in price of key agricultural products such as **paddy** (-16.6 percent) caused by a high wave of competition in global market and domestic stock remained at high level, **fruits** (-24.9 percent), especially durians, owing to weak global demand, particularly China, **rubber** (-7.2 percent), due to the excess supply combined with a decrease in world demand, and **swine** (-2.3 percent), this was associated with lower swine consumption causing by ongoing of the COVID-19 prevention measures both in Thailand and its partner economies. However, major agricultural price index with positive growth, included **sugarcane** (27.4 percent), **oil palm** (37.0 percent), **cassava** (15.9 percent), **poultry** (6.6 percent), and **maize** (13.5 percent), etc. Declining in both agricultural production index and agricultural price index thus led to the decrease for two consecutive quarters of **Farm Income Index** by 4.7 percent.

Agricultural sector expanded by 0.7 percent, slowed down from the previous quarter, due to the decrease in livestock, and fisheries production. Meanwhile, major crops continued to increase for five consecutive quarters. Agricultural price index decreased, thus led to the decline for two consecutive quarters in Farm Income Index.

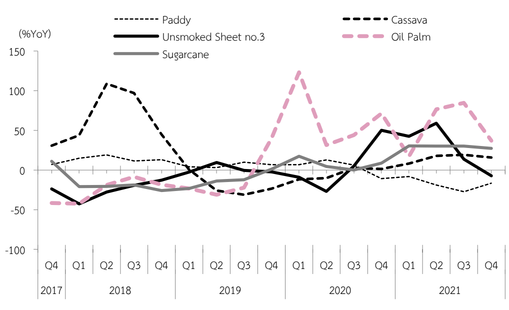
In 2021, agriculture, forestry, and fishing sector rose by 1.4 percent, improved from a 3.5-percent contraction in 2020. In details, agricultural production index grew by 1.4 percent and agricultural price index increased by 3.0 percent. Therefore, farm income index rose by 3.2 percent.

Farm Income Index decreased by 4.7 percent due to the decrease of agricultural production index and agricultural price index



Source: Office of Agricultural Economics

The prices of oil palm, sugarcane, and cassava increased while prices of paddy rubber, declined.



Source: Office of Agricultural Economics

Manufacturing sector increased by 3.8 percent, rebounding from a 0.9-percent decline in the previous quarter, following the high export growth and domestic demand pickup. This was in line with a 4.9-percent increase in the Manufacturing Production Index (MPI), improving from a 0.2-percent drop in the previous quarter. **Manufacturing Production Index of the industries (with 30 - 60 percent export share to total production)** expanded by 4.5 percent, improving from a 0.6-percent contraction in the previous quarter. The expansion was supported by manufacture of refined petroleum products (8.6 percent), motor vehicles (4.4 percent), and sugar (14.6 percent). However, manufacture of motorcycles and manufacture of domestic appliances decreased by 15.4 percent and 12.3 percent, respectively. **Manufacturing Production Index of the industries of the export-oriented industries (with export share of more than 60 percent to total production)** continued to expand for four consecutive quarters by 8.1 percent, accelerating from a 6.1-percent growth in the previous quarter, due to the acceleration in manufacture of electronic components and boards (15.8 percent), jewellery and related articles (31.0 percent), and furniture (27.5 percent). On the one hand, manufacture of computers and peripheral equipment and production of canned fish decreased by 10.1 percent and 9.8 percent, respectively. **Manufacturing Production Index of the domestic-oriented industries (with export share of less than 30 percent to total production)**, increased by 3.1 percent, rebounding from a 4.3-percent decline in the previous quarter. The expansion was supported by manufacture of fertilizers and nitrogen compounds grew (98.7 percent), palm oil (34.5 percent), basic pharmaceutical products and pharmaceutical preparations (25.5 percent). Nevertheless, manufacture of tobacco products and manufacture of basic chemicals declined by 42.8 percent and 9.9 percent, respectively. **The average capacity utilization rate** stood at 65.43 percent for this quarter, higher than 59.34 percent in the previous quarter and 63.77 percent in the same period last year. Overall 30 major industries, there were 4 industries having capacity utilization rate above 80 percent, namely, manufacture of plastics and synthetic rubber in primary forms (94.42 percent), slaughtering and packing of poultry (85.67 percent), refined petroleum products (83.06 percent), and motor vehicles (81.47 percent), respectively.

Manufacturing sector increased by 3.8 percent in tandem with the favorable growth of exports and the improvement of household expenditure.

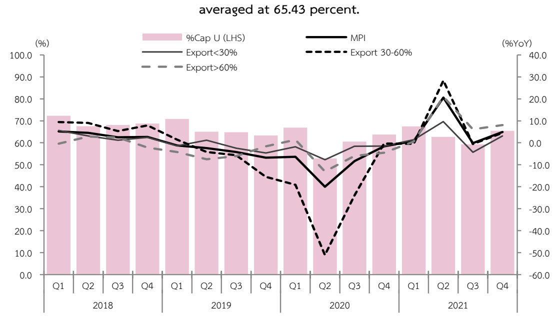
The average capacity utilization rate stood at 65.43 percent, higher than 59.34 percent in the previous quarter and also more than 63.77 percent in the same period last year.

Manufacturing production index with positive growth included electronic components and boards (15.8 percent), refined petroleum products (8.6 percent), fertilizers and nitrogen compounds (98.7 percent), motor vehicles (4.4 percent), jewellery and related articles (31.0 percent), furniture (27.5 percent), palm oil (34.5 percent), other rubber products (8.8 percent), sugar (14.6 percent), and basic pharmaceutical products and pharmaceutical preparations (25.5 percent), etc.

Manufacturing production index with negative growth included computers and peripheral equipment (-10.1 percent), tobacco products (-42.8 percent), motorcycles (-15.4 percent), domestic appliances (-12.3 percent), weaving of textiles (-10.2 percent), canned fish (-9.8 percent), pails, cans, drums and similar containers of metal (-11.3 percent), cement, lime and plaster (-10.1 percent), basic chemicals (-9.9 percent), and parts and accessories for motor vehicles (-11.0 percent), etc.

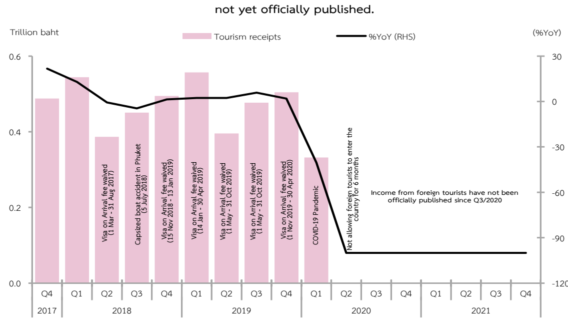
In 2021, manufacturing sector increased by 4.9 percent, improving from a 5.6-percent contraction in 2020. Besides, Manufacturing Production Index increased by 5.9 percent and the average capacity utilization rate stood at 63.73 percent.

Manufacturing Production Index increased by 4.9 percent and the capacity utilization rate averaged at 65.43 percent.



Source : Office of Industrial Economics

Income from foreign tourists for Q4/2021 not yet officially published.



Source: Ministry of Tourism and Sports

Accommodation and food service activities sector declined by 4.9 percent, improving from a 19.0-percent contraction in the previous quarter. This was in line with an improvement in domestic tourism and the increase in international tourist arrivals. In the fourth quarter of 2021, **Thai tourism receipts** stood at 0.084 trillion Baht which dropped by 47.3 percent, but improving from a 91.5-percent contraction in the previous quarter, due to the domestic COVID-19 outbreak improvement, the relaxation of COVID-19 containment measures, the rising of vaccination rates, and the government tourism stimulus measure. The top three most visited provinces by Thai tourists consisted of Bangkok (4.08 million visitors or with the share of 12.83 percent), Chonburi (2.19 million visitors or 6.88 percent), and Kanchanaburi (2.11 million visitors or 6.63 percent). **The number of foreign tourists stood at 342,024 persons**, increasing from the previous quarter. The increasing number was supported by the Test & Go programme for international travelers, an effective vaccination program, and the easing of international travel restrictions in several countries. Additionally, top international travelers coming from Europe (213,859 visitors or 62.53 percent), East Asia (51,873 visitors or 15.17 percent), and America (33,732 visitors or 9.86 percent). **The average occupancy rate** was at 26.25 percent, increasing from 5.46 percent in the previous quarter, however, the figure was still lower than 32.49 percent in the same period last year.

Accommodation and food service activities sector declined by 4.9 percent which improved from the contraction in the previous quarter. This was caused by an improved domestic tourism and rising in number of foreign tourists.

Average occupancy rate was at 26.25 percent, higher than 5.46 percent in the previous quarter. However, the rate was below the same period last year.

In 2021, accommodation and food service activities sector declined by 14.4 percent, improving from a 37.5-percent contraction in 2020. Accommodation declined by 30.9 percent, improving from a 50.7-percent contraction in 2020. Likewise, food and beverage service activities decreased by 8.3 percent, improving from a 27.1-percent drop in 2020.

Wholesale and retail trade; repair of motor vehicles and motorcycles sector grew by 2.9 percent, continuing from a 2.7-percent growth in the previous quarter, owing to the recovery of household expenditure, together with the expansion in agriculture, forestry, and fishing; and manufacturing sectors. This was associated with the increase of Wholesale and Retail Sales, and Repair of Motor Vehicles Composite Index. **Retail Sales Index (except motor vehicles and motorcycles)** increased by 13.8 percent, accelerating from a 2.0-percent expansion in the previous quarter. **Wholesales Index (except motor vehicles and motorcycles) rose by 2.7 percent**, improved from a 5.2-percent drop in the previous quarter. Meanwhile, **Wholesale and Retail Sales, and Repair of Motor Vehicles Index declined by 10.5 percent,** compared with a 3.2-percent contraction in the previous quarter.

Wholesale and retail trade; repair of motor vehicles and motorcycles sector continued to increase for three consecutive quarters by 2.9 percent, in tandem with the recovery of economic activities in household and main production sectors.

In 2021, wholesale and retail trade; repair of motor vehicles and motorcycles sector increased by 1.7 percent, improving from a 3.2-percent contraction in 2020.

Transportation and storage sector rose by 3.2 percent, rebounding from a 1.4-percent decline in the previous quarter, following the acceleration of air transport and the continued expansion of water transport. Meanwhile, land transport and transport via pipelines dropped. The expansion in transportation and storage sector was in accordance with a 3.6-percent increase in Transportation Services Composite Index which improved from a 3.2-percent drop in the previous quarter. This was attributed to (i) a 20.6-percent increase in Air Transport Services Index, owing to the rise in both air cargo activities index and aircraft movement volume; (ii) a 5.5-percent increase in Water Transport Services Index which continually expanded for four consecutive quarters, following the expansion of TEUs Volume Index and high export growth; and (iii) a 0.8-percent decrease in Land Transport and Transport via Pipelines Services Index, in line with the decline in passengers of urban rail transit system, gasoline consumption, number of public buses, and natural gas consumption for vehicles. Besides, warehousing and support activities for transportation rose for three consecutive quarters by 7.5 percent. Likewise, postal and courier activities continued to increase by 14.8 percent as a result of the expansion of entrepreneur revenue.

Transportation and storage sector rebounded by 3.2 percent in accordance with tourism recovery, strong exports, and industrial production.

In 2021, transportation and storage sector contracted by 2.9 percent, improving from a 22.9-percent decline in 2020. This was attributed to (i) a 5.1-percent decrease in land transport and transport via pipelines, (ii) a 0.3-percent decrease in water transport, and (iii) a 28.8-percent decrease in air transport. Meanwhile, warehousing and support activities for transportation grew by 1.8 percent. Likewise, postal and courier activities increased by 20.2 percent.

Electricity, gas, stream and air conditioning supply sectors increased by 2.1 percent, rebounding from a 2.4-percent drop in the previous quarter. This was in line with the expansion in manufacturing sectors and household spending, which led to the acceleration in power generation activities. In contrast, the gas separation plant activities continued to decline for two consecutive quarters. The expansion was supported by (i) electric power generation, transmission and distribution increased for three consecutive quarters by 7.2 percent, compared with a 1.3-percent in the previous quarter, owing to the increase in electricity consumption in all sectors, especially household and industrial sectors, and (ii) manufacture of gas decreased for two consecutive quarters by 2.2 percent, but improved from a 4.2-percent decline in previous quarter. This was associated with to the rise in natural gas demand for transportation sector.

Electricity, gas, stream and air conditioning supply sectors rebounded, in line with the increase in electric power generation activities. Meanwhile, manufacture of gas; distribution of gaseous fuels through mains decreased

In 2021, **electricity, gas, stream and air conditioning supply sectors** decreased by 2.5 percent, improving from an 8.0-percent decline in 2020. Electric power generation activity dropped by 2.4 percent. Similarly, manufacture of gas; distribution of gaseous fuels through mains contracted by 4.0 percent.

Construction sector decreased by 0.9 percent, improving from a 4.2-percent decrease in the previous quarter, following a decline in private construction. Meanwhile, government construction rebounded. In this quarter, **public construction** declined by 0.7 percent, improving from a 6.3-percent contraction in the previous quarter. (Government construction increased by 6.1 percent, improving from a 10.2-percent decrease in the previous quarter while state enterprise construction decreased by 14.8 percent). **Private construction** continued to decline for five consecutive quarters by 0.9 percent, as a result of a decline in other construction. Meanwhile, construction of residential buildings and non-residential buildings continued to expand from the previous quarter. **Construction Material Price Index (CMI)** continued to rise by 9.8 percent for five consecutive quarters owing to an increase in the iron products (35.5 percent), concrete ingredient (5.6 percent), and electrical and plumbing (3.9 percent).

Construction sector continued to decline for two consecutive quarters. Private construction decreased by 0.9 percent while government construction rebounded by 6.1 percent. Construction Material Price Index (CMI) continued to rise for five consecutive quarters.

In 2021, construction sector expanded by 2.7 percent, accelerating from a 1.3-percent growth in 2020. Public construction increased by 4.7 percent (government construction expanded by 7.0 percent while state enterprise construction declined by 0.1 percent). In contrast, private construction dropped by 0.6 percent.

Employment decreased following the decline in employment in non-agricultural sector whereas employment in the agricultural sector continued to increase. The unemployment rate decreased from the previous quarter and was lower than the same quarter last year. In the fourth quarter of 2021, employment declined by 1.0 percent, continued from a 0.6-percent contraction in the previous quarter. **Non-agricultural employment** (shared 66.76 percent) continued to decrease for two consecutive quarters by 2.1 percent, mainly due to a decline in the employment in construction and accommodation and food service activities sectors. However, employment in wholesale and retail trade; repair of motor vehicles and motorcycles sector continued to grow for two consecutive quarters by 0.7 percent. On the one hand, **agricultural employment** (share 33.24 percent) increased for five consecutive quarters by 1.3 percent, in tandem with the increase in production of several key agricultural products such as sugarcane, oil palm and fruit, etc. **The unemployment rate** was at 1.64 percent, lower than 2.25 percent in the previous quarter, and also lower than the unemployment rate (1.86 percent) in the same quarter last year. **The average number of unemployed** was at 632,000 people, compared with 727,000 people in the same quarter last year.

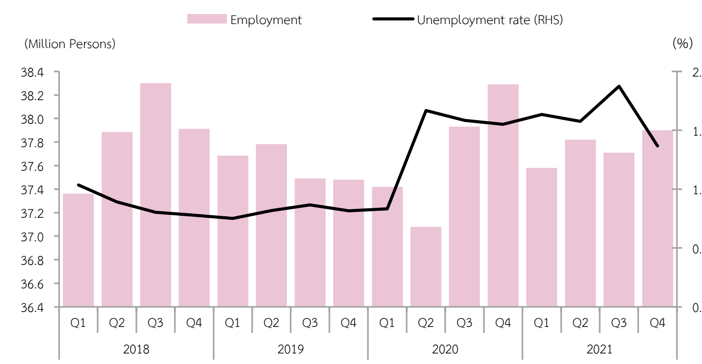
In 2021, average unemployment rate stood at 1.93 percent, compared with 1.69 percent in 2020.

Employment continued to decrease for two consecutive quarter, as a result of a contraction in non-agriculture employment while agriculture employment expanded for five consecutive quarters.

The unemployment rate was at 1.64 percent, lower than 2.25 percent in the previous quarter, and also below the unemployment rate at 1.86 percent in the same period last year.

Employment decreased by 1.0 percent following a decreasing in non-agricultural sector employment

Unemployment rate was low at 1.64 percent.



Source: National Statistical Office

Employed Persons by Industry

%YOY	Share Q4/21	2020 Year	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Year	2021 Q1	2021 Q2	2021 Q3	2021 Q4
Employed	100.00	0.2	-0.7	-1.9	1.2	2.2	0.2	0.4	2.0	-0.6	-1.0
- Agricultural	33.24	-0.2	-3.7	-0.3	-0.1	3.0	1.8	2.8	2.4	1.0	1.3
- Non-Agricultural	66.76	0.4	0.5	-2.5	1.8	1.9	-0.6	-0.6	1.8	-1.3	-2.1
Manufacturing	15.40	-2.3	-1.4	-4.4	-1.4	-1.8	-0.9	-2.2	-2.2	2.1	-1.2
Construction	5.53	1.9	-0.2	-6.3	6.6	9.1	-1.1	4.5	5.1	-7.3	-6.9
Wholesale and retail trade; repair of motor vehicles and motorcycles	16.77	0.5	-1.1	-1.0	4.6	-0.4	-0.4	-1.0	-1.4	0.2	0.7
Accommodation and food service activities	7.05	0.9	3.7	-2.8	-0.4	3.1	-3.1	-0.1	5.4	-9.3	-7.9
Total labor force (Million persons)		38.6	38.2	38.2	38.7	39.1	38.7	38.7	38.8	38.6	38.6
employed (Million persons)		37.7	37.4	37.1	37.9	38.3	37.8	37.6	37.8	37.7	37.9
Unemployment (Million persons)		0.65	0.39	0.75	0.74	0.73	0.75	0.76	0.73	0.87	0.63
Unemployment Rate (%)		1.69	1.03	1.95	1.90	1.86	1.93	1.96	1.89	2.25	1.64

Note : Year 2021 calculated by NESDC

Source : National Statistical Office (NSO)

Fiscal Conditions:

On the revenue side, in the first quarter of the fiscal year 2022 (October – December 2021), the net government revenue collection stood at 557.2 billion Baht, increasing by 5.6 percent compared with the same quarter last year due to: **(i) a 16.3-percent increase in revenue collection of the Revenue Department** following a rise of VAT on imports and domestic consumption, Corporate Income Tax, and Personal Income Tax collection; **(ii) a 4.9-percent increase in revenue collection of the Customs Department** due to expansion in import duties; and **(iii) a 58.0-percent increase in revenue submission of the State-owned Enterprises** following an increase in revenue submission of the Government Lottery Office (GLO), as well as the semi-annual revenue submission of SOEs with an improved performance in the first half of the fiscal year 2021 including the PTT Public Company Limited (PTT), the Metropolitan Electricity Authority (MEA), and the Government Savings Bank (GSB).

In Q1/FY2022, the net government revenue collection increased by 5.6 percent compared with the same quarter last year, and was 5.6 percent greater than the estimation stated in the Budget Bill.

However, revenue collection of the Excise Department and Other Government Agencies dropped by 7.4 percent and 19.6 percent, respectively, compared with the same quarter last year. In detail, a revenue collection of the Excise Department decreased mainly due to a drop in: **(i) excise tax on tobacco** because domestic manufactures accelerated their tax payments in order to expand production capacity and quickly transport goods into the market within September 2021, prior to the implementation of the new tobacco tax structure effective on October 1st, 2021; **(ii) excise tax on oil and oil products** as a result of declining oil consumption and oil imports following increase in the global crude oil price; **(iii) excise tax on cars** due to the COVID-19 pandemic impacts on overall consumer confidence and urged financial institutions to apply more prudent criteria in issuing credits; and **(iv) excise tax on beer** as a result of government containment measures to control entertainment venues in order to prevent a new surge of COVID-19 infections in October 2021, together with high tax revenue base in the same period last year. Meanwhile, a revenue collection of Other Government Agencies decreased as a result of high revenue base in the same quarter last year where there was a left-over budget remittance from the Legal Execution Department, and the additional income from radiocommunication (5G) license fees in December 2020.

In the first quarter of fiscal year 2022, the net government revenue collection was 29.7 billion Baht (5.6 percent) higher than the estimation stated in the Budget Bill. In detail, revenue collection of the Revenue Department and the Customs Department were 49.7 billion Baht (13.7 percent) and 0.3 billion Baht (1.2 percent) greater than the estimation, respectively. Meanwhile, revenue submission from the State-owned Enterprises was 6.4 billion Baht (15.1 percent) higher than the estimation, where the top five SOEs with the highest revenue submission were PTT Public Company Limited (PTT), the Government Lottery Office (GLO), the Electricity Generating Authority (EGA), the Government Savings Bank (GSB), and the Metropolitan Electricity Authority (MEA). On the other hand, revenue collection of the Excise Department was 9.4 billion Baht (6.6 percent) lower than the estimation due to the delay of tax structure reform which had to be postponed in order to alleviate the burden for entrepreneurs and consumers affected by the COVID-19 pandemic. Likewise, revenue collection of Other Government Agencies was 5.4 billion Baht (16.5 percent) lower than the estimation as most agencies reduced penalties and service fees in order to alleviate burdens for entrepreneurs and consumers during the COVID-19 pandemic.

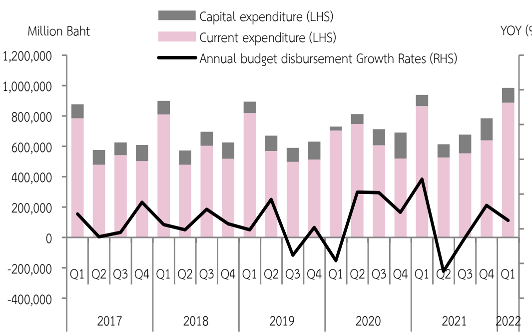
On the expenditure side, the total budget disbursement in the first quarter of fiscal year 2022 was at 1,295.0 billion Baht[1], increasing by 11.4 percent from the same quarter last year in which current expenditure disbursements stood at 1,097.4 billion Baht (rose by 16.3 percent), and capital expenditure disbursement stood at 197.7 billion Baht (decreased by 9.9 percent). Classified by sources of funds, the government disbursements were as follows:

In Q1/FY2022, the total budget disbursement increased by 11.4 percent following an expansion in a disbursement of the 2022 annual budget and the 1.5-trillion Baht COVID-19 loan. Meanwhile, the disbursement of the carry-over budget and the state-owned enterprises capital expenditure declined.

(i) the 2022 annual budget disbursement stood at 983.5 billion Baht, increasing from the same quarter last year by 4.8 percent. The disbursement rate was at 31.7 percent, greater than 28.6 percent in the same quarter last year. **The current expenditure disbursement amounted to 886.6 billion Baht**, increasing by 2.5 percent from the same quarter last year mainly as a result of a disbursement from the Other Expenditure category. The disbursement rate was at 35.5 percent, higher than 32.3 percent in the same quarter last year. Meanwhile, **the capital expenditure disbursement marked at 96.9 billion Baht**, increasing from the same quarter last year by 32.4 percent, mainly as a result of a disbursement from Land and Construction category, and Other Expenditure category. The disbursement was at 16.0 percent, higher than 12.1 percent in the same quarter last year;

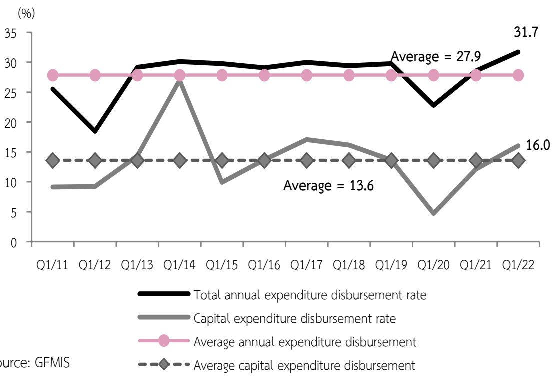
[1] The total budget disbursement includes the disbursement of (i) the grand total of annual budget, (ii) the carry-over budget, (iii) the State-owned enterprises' capital expenditure budget allocated by the State Enterprise Policy Office (excluding PTT) and the State-owned enterprise's capital expenditure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

Annual Budget Disbursement



Source: GFMIS

Annual Budget Disbursement in the 1st Quarter



Source: GFMIS

In Q1/FY2022, the 2022 annual budget disbursement increased by 4.8 percent. The total disbursement rate was at 31.7 percent, whereas the rate of current and capital expenditure disbursement stood at 35.5 percent and 16.0 percent, respectively.

(ii) the carry-over budget disbursement stood at 75.5 billion Baht, decreasing from the same quarter last year by 5.5 percent, the disbursement rate was at 31.8 percent, lower than 37.0 percent in the same quarter last year; **(iii) state-owned enterprises capital expenditure budget** (excluding PTT) was disbursed for 53.6 billion Baht,[2] decreasing from the same quarter last year by 38.3 percent, mainly due to a drop in capital expenditure disbursement of the Airports of Thailand Public Company Limited (AOT), the State Railway of Thailand (SRT), the National Telecom Public Company Limited (NT), the Mass Rapid Transit Authority of Thailand (MRT), and the Metropolitan Electricity Authority (MEA); **(iv) the COVID-19 loans B.E. 2563 - 2564 (1.5-trillion-Baht)** was disbursed for 190.5 billion Baht, including 183.4 billion Baht in current expenditure and 7.1 billion Baht in capital expenditure, and accounted for 96.3 percent and 3.7 percent of the total disbursement from the COVID-19 loans in this quarter.

Public Debt: at the end of December 2021, public debt was accumulated at 9.6 trillion Baht, equivalent to 59.6 percent of GDP, and remained under the fiscal disciplinary framework. The total public debt comprised 9.5 trillion Baht of domestic loans (58.5 percent of GDP), and 180.7 billion Baht of foreign loans (1.1 percent of GDP).

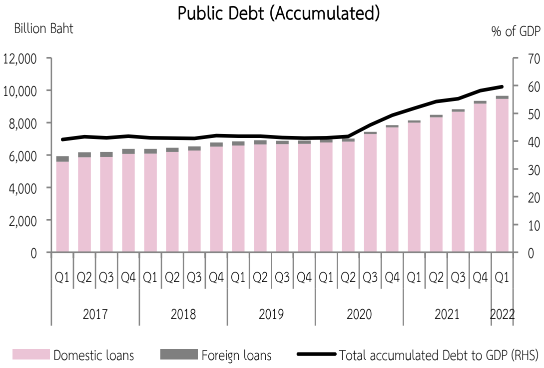
At the end of December 2021, the public debt was equivalent to 59.6 percent of GDP, remained under the fiscal disciplinary framework where public debt ceiling is 70 percent of GDP.

The distribution of public debt can be classified as follows: (i) 8.5 trillion Baht in Government Debt, (ii) 844.1 billion Baht in SOEs (non-financial institute) debt, (iii) 257.0 billion Baht in SOEs (financial institute) debt, and (iv) 7.1 billion Baht in debt of other government agencies, which were accounted to 88.5 percent, 8.8 percent, 2.7 percent, and 0.1 percent of the accumulated public debt, respectively.

Fiscal Balance: in the first quarter of fiscal year 2022, the budgetary balance and the non-budgetary balance recorded a deficit of 528.0 billion Baht, and 28.6 billion Baht, respectively. In the meantime, the government conducted a cash balance management through the borrowing of 305.0 billion Baht. Therefore, the cash balance after debt financing recorded a net deficit of 251.6 billion Baht. In addition, the treasury reserve at the end of the fourth quarter of fiscal year 2021 stood at 588.7 billion Baht, thus the fiscal balance at the end of December 2021 equals to 337.2 billion Baht.

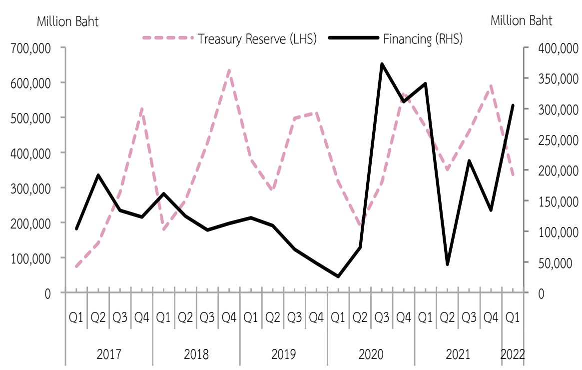
At the end of December 2021, the government's fiscal statement remained at a strong level where the fiscal balance stood at 337.2 billion Baht.

Public Debt (Accumulated)



Source: Public Debt Management Office

Statement of Government Operations



Source: Ministry of Finance

[2] The number was included the 8.2 billion Baht of the capital spending allocated from the annual budget.

Financial Conditions:

Majority of central banks and the BOT maintained their policy rates. In contrast, the central bank of England, Russia, New Zealand, and South Korea increased the policy rate by 15 basis points, 175 basis points, 50 basis points, and 25 basis points respectively.

In the fourth quarter of 2021, the policy interest rate remained unchanged at 0.50 percent per annum. In both meeting on 10th November and 22nd December 2021, the Monetary Policy Committee (MPC) decided to maintain the policy rate at 0.50 percent per annum. The MPC assessed that the Thai economy would continue to recover. Headline inflation rose temporarily as a result of higher energy prices. Besides, the COVID-19 outbreak especially the Omicron variant would be a major risk to the Thai economic outlook. However, the labor market recovery is needed a close monitoring, especially with respects to employment and income which were still below pre-pandemic levels. Moreover, credit risks remained a challenge to liquidity distribution, particularly on SMEs and households. The MPC also viewed that the continued accommodative monetary policy would help support overall economic growth. In addition, the policy coordination among government agencies would be significant to support the economic recovery as well as the ongoing financial and fiscal measures, with the focus on rebuilding and enhancing potential growth would play a crucial role in bolstering the robust recovery of income. Likewise, major economies and other regional economies continued to keep their policy rate unchanged in this quarter. Specifically, Federal Reserve (Fed), European Central Bank (ECB), the central bank of Japan maintained the policy rate at a range of a 0.00 - 0.25 percent, 0.00 percent, and -0.01 percent respectively. Meanwhile, the central bank of England, Russia, New Zealand, and South Korea increased the policy rate by 15 basis points, 175 basis points, 50 basis points, and 25 basis points respectively.

In 2021, the Monetary Policy Committee (MPC) maintained the policy rate at 0.50 percent per annum. This was in line with the direction of monetary policy in advanced economies and regional economies.

In January 2022, the central bank of South Korea rose the policy rate by 25 basis points.

Recently, in February 2022, the central bank of England and Russia increased their policy rate by 25 basis points and 100 basis points respectively. Meanwhile, the MPC decided to keep the policy rate unchanged in the meeting on 9th February 2022 at 0.50 percent per annum.

Policy Interest Rate

(%) At the end of period	2020					2021						
	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	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	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25
EU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
England	0.10	0.10	0.10	0.10	0.10	0.25	0.10	0.10	0.10	0.25	0.25	0.50
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
Canada	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Australia	0.10	0.25	0.25	0.25	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
New Zealand	0.25	0.25	0.25	0.25	0.25	0.75	0.25	0.25	0.25	0.75	0.75	0.75
Russia	4.25	6.00	4.50	4.25	4.25	8.50	4.50	5.50	6.75	8.50	8.50	8.50
China	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
Korea, South	0.50	0.75	0.50	0.50	0.50	1.00	0.50	0.50	0.75	1.00	1.25	1.25
India	4.00	4.40	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Indonesia	3.75	4.50	4.25	4.00	3.75	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Philippines	2.00	3.25	2.25	2.25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Malaysia	1.75	2.50	2.00	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Thailand	0.50	0.75	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50

Source: Collected by NESDC

Financial institutions kept their deposit and loan rates unchanged from the previous quarter.

Large-sized, medium-sized commercial banks and specialized financial institutions (SFIs) maintained their deposit interest rate and lending rates. In the fourth quarter of 2021, large-sized commercial banks kept their Minimum Loan Rate (MLR) and the average 12-Month fixed deposit rate unchanged at 5.49 percent per year and 0.45 percent per year, respectively. Likewise, medium-sized bank maintained MLR and the average deposit rate at 6.60 percent per year and 0.50 percent per year respectively. In addition, SFIs remained MLR and the average deposit rates at 6.13 percent per year and 0.93 percent per year respectively. The average real deposit rates stood similarly to the previous quarter, while the average MLR declined as a result of a rise in the inflation rate.

In 2021, average deposit and lending rates of large-sized decreased to 0.45 percent and 5.43 percent respectively. Additionally, SFIs lowered average deposit and lending rates to the level of 0.96 percent and 6.13 percent respectively.

Private loans continuously expanded in both commercial bank and specialized financial institutions, especially in business loans.

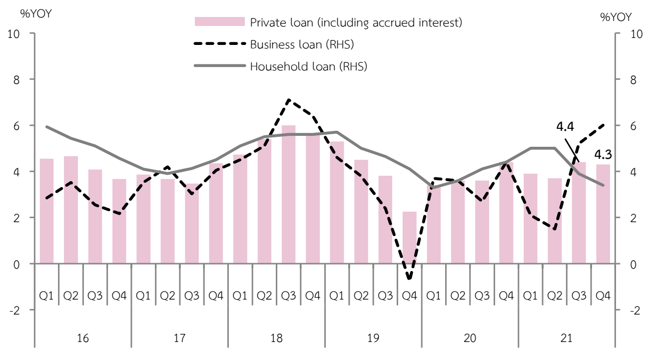
In January 2022, commercial banks and SFIs maintained their interest rates both deposits and lending rates, compared to the previous month.

Private business loans outstanding continuously expanded. At the end of the fourth quarter of 2021, private loans outstanding by depository institutions grew by 4.3 percent, slowing down from 4.4 percent in the previous quarter. Business loans expanded by 6.0 percent, accelerating from 5.2 percent in the previous quarter. This was mainly due to the recovery of economic activities after the ease of the COVID-19 outbreak, along with progressive soft loan facility for business (totaling 250 billion Bath) to support SMEs.

On 31th January 2022, the soft loan was approved by 148 billion Bath which approximately equal to 59.03 percent of total credit line. Besides, household loans expanded by 3.4 percent, decelerating from 3.9 percent in the previous quarter. **Specialized financial institutions (SFIs)** expanded by 3.4 percent, slowing down from 3.7 percent in the previous quarter. This was mainly attributed to the acceleration of business loan which expanded by 8.2 percent, comparing with 4.5 percent in the previous quarter. Besides, the slowdown of household loans which expanded by 3.1 percent, compared to 3.9 percent in the previous quarter. Meanwhile, **commercial bank loan** expanded by 4.9 percent, the same level as the previous quarter. In details, business loan expanded by 5.7 percent, accelerating from 5.3 percent in the previous quarter. Household loans expanded by 4.1 percent, slowing down from 4.5 percent in the previous quarter. Major lending sectors with expansion consisted of manufacturing (8.1 percent), wholesale and retail trade; repair of motor vehicles and motorcycles (8.1 percent), construction (7.0 percent), transportation and storage (6.8 percent), and financial and insurance activities (5.0 percent). Major lending sectors with contraction included information and communication (-5.5 percent) and real estate activities (-2.8 percent). **The commercial bank loan for consumption** grew at a slower pace by 4.0 percent, compared to 4.2 percent in the previous quarter. This was mainly due to the continuous slowdown of housing loans. In particular, **loans for small and medium-sized businesses** (excluding financial and insurance activities) indicated that outstanding loans declined by 2.0 percent. Major lending sectors with contraction consisted of electricity, gas, steam and air conditioning supply, real estate activities, and agriculture, forestry and fisheries. Meanwhile, major lending sectors with expansion consisted of construction ,and mining and quarrying.

In 2021, private credit outstanding of depository institutions at the end of the year increased by 4.3 percent, slowing down from a 4.4-percent at the end of 2020.

Private loans (including accrued interest) of depository corporations continuously expanded



Source: Bank of Thailand

Thai Baht against US dollar depreciated compared to the previous quarter following the appreciation of US dollar compared with other major currencies.

Thai Baht against US dollar depreciated from the previous quarter. In the fourth quarter of 2021, an average exchange rate was at 33.37 Baht per US dollar, depreciating 1.37 percent from the previous quarter, in tandem with to appreciation of US dollar. During the fourth quarter of 2021, an average US dollar index stood at 95.18, rising from 92.76 in the previous quarter. The movement of Thai Bath throughout the fourth quarter was considered highly volatile. In October, Thai Baht against US dollar depreciated due to concerns over the Federal Reserve (Fed) policy decision to curb down inflationary pressures. Thai Baht against US dollar appreciated later on, due to the easing of outbreak containment measures and Thailand's reopening to foreign tourists which will support to the Thai economic recovery. After domestic resurgence of the new COVID-19 Omicron variant in December which led to a negative sign for overall economy, Thai Baht against US dollar depreciated. The devaluation of Thai Bath was correlated with other Asian currencies such as Japanese Yen, South Korea Won, Indian Rupee, Philippine Peso, Singapore dollar and Hong Kong dollar. On the one hand, Chinese Yuan, Indonesian Rupiah, Malaysian Ringgit and Taiwanese dollar appreciated from previous quarter. When comparing with trading partner/competitors, Thai Bath depreciated, reflecting by a decrease in average of Nominal Effective Exchange Rate (NEER) by 0.23 percent from the previous quarter (an average of 114.55).

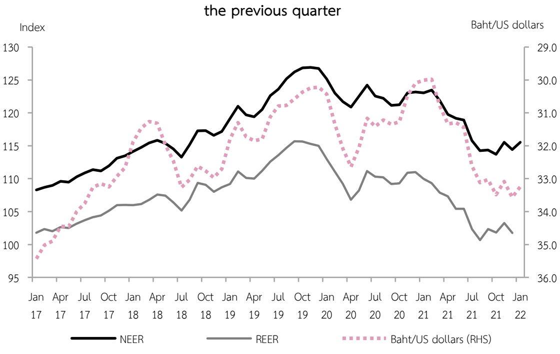
In 2021, Thai Baht moved within a range of 29.86 – 33.92 Baht per US dollar (an average of 32.00 Baht per US dollar), depreciating by 2.27 percent from the 2020 average rate. The depreciation was mainly caused by the ongoing COVID-19 pandemic, along with tightening monetary policy of the Fed.

In January 2022, the monthly average of Thai Baht was at 33.24 Baht per US dollar, appreciating by 0.95 percent from the previous month, in tandem with trading partner/competitors. The appreciation of Thai Baht was essentially supported by the less impacts from the Omicron variant outbreak compared to the Delta variant as well as the support from resuming "Test and Go" scheme for international tourist.

SET Index rose from the previous quarter following the improving COVID-19 situation, together with the higher COVID-19 vaccination rate and the favorable expansion of exports.

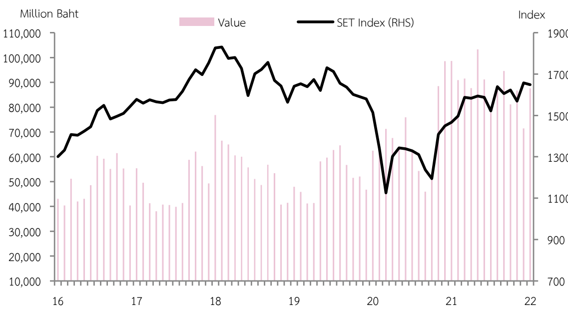
SET index increased from the previous quarter. In the fourth quarter of 2021, SET index fluctuated upwardly. At the beginning of the quarter, SET index continued to rise following the COVID-19 outbreak moderation within country along with easing of the COVID-19 control measures in most areas nationwide. On the one hand, SET index gradually declined as a result of the rising infections driven by the spread of the COVID-19 Omicron variant. As a consequence, several countries raised their COVID-19

Thai Baht depreciated against US dollars from the previous quarter



Source : CEIC, Bank of Thailand

SET Index increased in the fourth quarter of 2021 while turnover decreased



Source: SET

alert level and heightened restrictions. However, SET index surged later on after the Omicron variant appeared to be less severe than the Delta variant. Besides, together with high vaccination rate of over 70.0 percent of the Thai population, as well as strong export growths. Altogether, SET index at the end of the fourth quarter of 2021 closed at 1,657.6 points, increasing by 3.2 percent from the previous quarter. Thus, proprietary trading and foreign investors were the net buy position. Industrial groups with positive growth index were financials (10.4 percent), technology (10.1 percent), resources (3.1 percent), and property and construction (1.6 percent). Meanwhile, industrial groups with negative growth were agro and food industry (-1.8 percent), services (-1.0 percent), and consumer products (-0.8 percent). Major Asian market indices with positive growth were Indonesia (4.7 percent), Malaysia (1.9 percent), China (2.0percent), and Singapore (1.2 percent). On the other hand, major Asian market indices with contraction included South Korea (-3.0 percent) and Japan (-2.2 percent).

Overall in 2021, SET index approximately increased by 199.5 points compared to the end of 2020, which was equivalent to a 13.8-percent growth from 2020.

In January 2022, SET index declined by 0.5 percent to 1,648,8 points from the end of December 2021. This was resulted by concerns over the faster-than-expected monetary policy tightening by Federal Reserve (Fed).

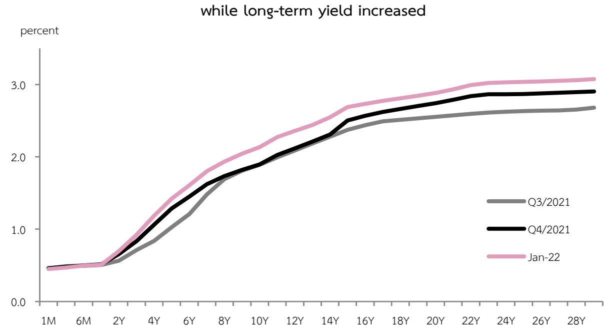
Short-term government bond yield was closely to the previous quarter, while long-term government bond yield shifted upward.

Both short-term and long-term government bond yield shifted upward. In the fourth quarter of 2021, short-term government bond yield moved similarly to the previous quarter, in line with the monetary policy direction of the Bank of Thailand (BOT). Long-term government bond yield increased following the upward movement of long-term US treasury bond yields, after the Federal Reserve (Fed) began its quantitative easing (QE) tapering program as well as rising inflationary pressure. Additionally, the upward trend contributed by concerns over the new Omicron variant spread which could potentially impact on the Thai economic recovery. At the end of the fourth quarter, 1-year government bond yield was at 0.51 percent, the same level as the end of the previous quarter. 10-year government bond yield was at 1.90 percent compared to 1.89 percent at the end of the previous quarter. The foreign investors registered a net buy with a 76.7 billion Baht, as opposed to a net sell with 7.7 billion Baht in the previous quarter. Total new registered corporate bond was at 357.3 billion Baht, principally attributed to finance and securities, property development, energy, and information and communication technology.

Overall in 2021, government bond yield rose in both short-term and long-term. In details, 1-year government bond yield was at 0.51 percent compared to a 0.36 percent at the end of 2020. Meanwhile, 10-year government bond yield recorded at 1.90 percent, compared to a 1.28 percent at the end of 2020. Thus, the clean price index dropped by 8.6 percent.

In January 2022, short-term government bond yield remained at a similar level in the previous quarter. Meanwhile, long-term government bond yield increased. Therefore, 1-year and 10-year government bonds yields stood at 0.51 percent and 2.13 percent respectively. In details, foreign investors recorded as a net buy 69.6 billion Baht, continuing from a net buy 26.0 billion Baht in the previous month.

Government short-term yield remains unchanged while long-term yield increased



Source: ThaiBMA

Capital and financial account recorded a net inflow of 2.20 billion US dollars in the third quarter of 2021, compared to 1.93 billion US dollars outflow in the previous quarter. This was mainly caused by a net inflow of foreign investors particularly in term of direct and portfolio investments, along with other terms of investment (including loans, commercial loans, deposits, and etc.). However, there were continuous outflow of Thai investor mainly in term of direct investment.

Capital and financial account recorded a net inflow as a result of a net inflow of foreign investors.

In the first nine months of 2021, capital and financial account registered a net outflow of 4.87 billion US dollars, which essentially caused by the outflow of Thai investors in term of direct and portfolio investments, together with foreign investors outflow in term of debt securities.

Capital Flow

(Billion USD)	2020					2021			
	Year	Q1	Q2	Q3	Q4	9M	Q1	Q2	Q3
- Direct Investment	-23.9	-2.7	-5.7	-3.4	-12.2	-1.8	1.1	-1.7	-1.2
Thai investor	-19.0	-5.3	-5.4	-3.7	-4.6	-10.3	-3.3	-3.1	-3.9
Foreign investor	-4.9	2.7	-0.3	0.3	-7.5	8.5	4.4	1.3	2.8
- Portfolio Investments	-12.2	-8.5	2.8	-2.5	-3.9	-13.3	-9.7	-3.8	0.2
Thai investor	-4.1	0.1	2.8	-1.8	-5.2	-13.9	-10.1	-3.7	-0.1
Foreign investor	-8.1	-7.3	-1.5	-0.8	1.4	0.6	0.4	-0.1	0.2
Others	24.0	1.6	8.9	-0.4	14.0	10.2	3.5	3.6	3.2
Capital and financial account	-12.0	-9.6	6.0	-6.3	-2.0	-4.9	-5.1	-1.9	2.2

Source: BOT

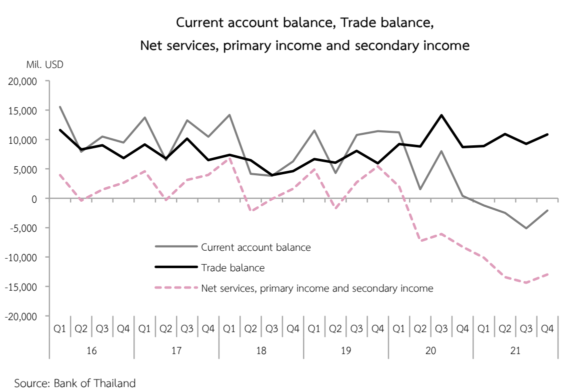
Current account registered a deficit of 2.1 billion US dollars (70.2 billion Baht) compared to a 0.4 billion US dollars (13.9 billion Baht) surplus in the same quarter last year, and a 5.1 billion US dollars (168.4 billion Baht) deficit in the previous quarter. This was a result of a deficit in services, and primary and secondary income of 13.0 billion US dollars (compared with an 8.3 billion US dollars deficit in the same period last year). However, trade balance recorded a surplus of 10.9 billion US dollars (higher than an 8.7 billion US dollars surplus in the same quarter last year).

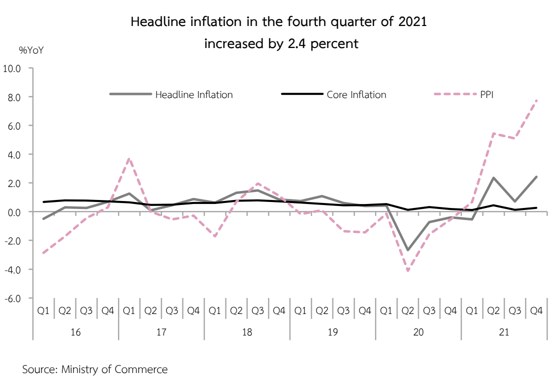
Current account recorded a deficit for the fourth quarters consecutively, compared with a surplus in the same period last year.

In 2021, current account registered a deficit of 10.9 billion US dollars (353.2 billion Baht), compared to a surplus of 21.2 billion US dollars (662.3 billion Baht) in 2020.

International reserve at the end of December 2021 stood at 246.0 billion US dollars, decreasing from 258.1 billion US dollars at the end of December 2020. However, **in Baht terms**, international reserve at the end of December 2021 stood at 8,212.1 billion Baht, higher than 7,747.6 billion Baht at the end of December 2020.

International reserve at the end of December 2021 stood at 246.0 billion US dollars.





Headline inflation: In the fourth quarter of 2021, headline inflation averaged at 2.4 percent, compared with a 0.7-percent in the previous quarter.

Headline inflation was averaged at 2.4 percent compared with a 0.7-percent headline inflation recorded in the previous quarter.

Food-and-beverage price index increased by 0.3 percent, compared with a 1.0-percent decrease in the previous quarter. This was partly due to increase in price of seasoning and condiments; vegetables and fruits price; meats; and eggs and dairy products price, by 5.9 percent, 3.5 percent, 0.6 percent, and 0.6 percent, respectively. **Non-food and beverage** price index increased by 3.8 percent compared with a 1.9-percent increase in the previous quarter, following the increasing in price of transport & communication by 10.7 percent, as well as a rise of energy price index by 20.5 percent compared with a 10.6-percent increase in the previous quarter. Core inflation averaged at 0.3 percent.[3]

The price index of food-and-beverage increased, and non-food-and-beverage increased at a higher pace following the price of energy index.

In 2021, the headline inflation was 1.2 percent and the core inflation was 0.2 percent, compared to a -0.8 percent and 0.3 percent, respectively, in 2020.

[3] In January 2022, Headline inflation was 3.2 percent, Core inflation was 0.5 percent

Producer Price Index (PPI): In the fourth quarter of 2021, Producer Price Index increased by 7.7 percent, compared with a 5.1-percent rise in the previous quarter, following the increase in price of manufactured products and mining products.

The price of manufactured products rose by 7.7 percent, compared with a 5.7-percent increase in the previous quarter, associated with an increase in price of petroleum products, and chemicals & chemical products which grew by 67.7 percent and 19.9 percent, respectively. **The price of mining products** increased by 41.9 percent compared with a 16.8-percent increase in the previous quarter, following the increase in price of petroleum & natural gas which rose by 57.1 percent comparing with a 22.3-percent increase in the previous quarter. **The price of agricultural & fishery products** decreased by 0.6 percent, compared with a 3.0-percent decrease in the previous quarter, partly due to the quantity of production higher released to the market while the demand dropped[4].

In 2021, producer price index increased by 4.7 percent, compared with 1.6-percent decline in 2020.

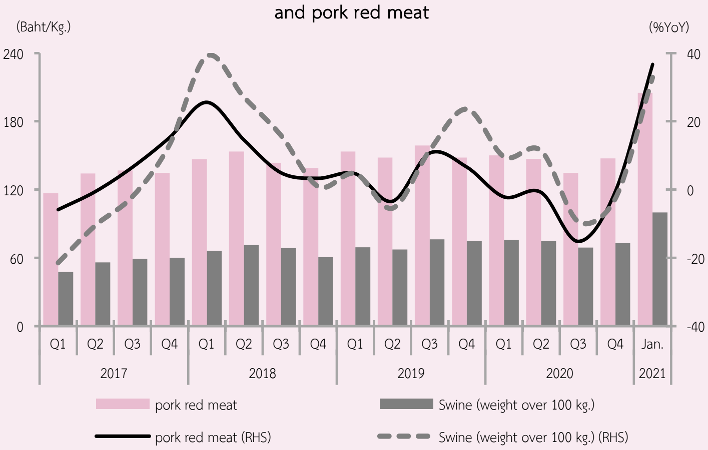
Producer Price Index (PPI) increased by 7.7 percent compared with a 5.1- percent increase in the previous quarter.

Domestic Swine Prices Performance in January and Outlook for 2022

In January 2022, swine price soared and was above the three-year historical average (2019 - 2021). The national average retail pork red meat (loin and tenderloin part) in January 2022 was at 193.36 Baht per kilogram, a 29.0-percent increase compared to the same period last year, and also higher than the average price of 142.82 Baht per kilogram. The soaring pork price was caused by a decline in domestic pork production due to the COVID-19 pandemic as well as the outbreaks of swine diseases; African Swine Fever (ASF) and Porcine Reproductive and Respiratory Syndrome (PRRS) in the last summer which led to a shortage in domestic supply. Besides, pig farmers were also affected by the higher cost of pork production such as fattening pig prices, pig feed prices (especially, maize and soybean meal), utility costs, and the costs of swine disease control and prevention. However, domestic consumption of pork red meat increased in accordance with a domestic demand and internal tourism recovery in Q4/2021.

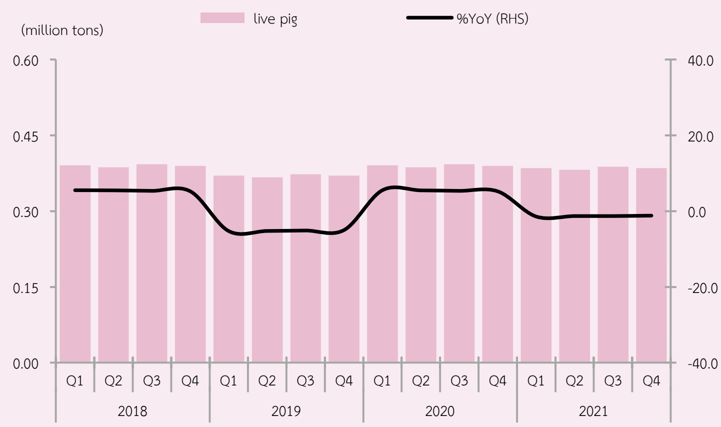
Government agencies such as the Ministry of Commerce, Ministry of Agriculture and Cooperatives, and other related agencies had urgently adapted problem-solving guidelines, for instance, inspecting the warehouse and asking the slaughterhouse to report their stock of slaughtered pork red meat to the authorities, launching a pork red meat selling project at a fixed price at selected outlets, and prohibiting the exports of live pig exports for three months (from 6th January to 5th April 2022), etc. The guideline was adapted not only to improve swine domestic supply but also to support pig feed prices, especially the maize imported from abroad. Moreover, the government introduced low-interest loan programme to help affected farmers which would provide by Bank for Agriculture and Agricultural Cooperatives (BAAC), along with driving pork prices down to its reasonable selling prices which correlated to actual costs. Domestic pork red meat prices are expected to begin to decline and normalize in the second half of 2022, after new batches of domestic live swine production entering to the market.

The prices of swine (weight over 100 kg.), and pork red meat



Source: Office of Agricultural Economics, Ministry of Commerce

Domestic live pig production



Source: Office of Agricultural Economics

4 In January 2022, Producer Price Index (PPI) rose by 8.7 percent.

2. Crude oil price in Q4 of 2021

The crude oil price in the global market was higher than the same period last year and the third quarter of 2021. In the fourth quarter of 2021, the average crude oil price in four major markets (WTI, Brent, Dubai, and Oman) stood at 78.4 US dollars per barrel, increasing by 77.2 percent from 44.3 US dollars per barrel recorded at the same period last year. Also, the price increased by 9.0 percent from the 71.9 US dollars per barrel on average recorded at in the previous quarter.

Key factors associated with upward pressure on the global crude oil price in this quarter were (i) the decision of OPEC Plus's production plan to gradually raise oil production, (ii) a decrease of the U.S. commercial crude oil inventories in the fourth quarter of 2021 (the U.S. commercial crude oil inventories in the fourth quarter was average of at 428 million barrels, decreasing by 13.0 percent compared with the same period last year), and (iii) the less concerns over the COVID-19 Omicron outbreak which tend to have smaller severity compared to the prior variants.

In 2021, the average crude oil price in the 4 major markets stood at 69.4 US dollars per barrel, an increase of 65.4 percent, higher than 42.0 US dollars per barrel in 2020.

The crude oil price in the global market continually increased comparing with the same period last year and also expanded from previous quarter.

Crude oil price

Year		USD per Barrel					(%YoY)				
		WTI	BRENT	DUBAI	OMAN	Average	WTI	BRENT	DUBAI	OMAN	Average
2018	Year	65.1	71.8	69.5	69.8	69.1	27.8	31.1	31.2	31.3	30.4
2019	Year	56.9	64.0	63.3	63.6	62.0	-12.6	-10.9	-9.0	-8.9	-10.3
2020	Year	39.6	43.4	42.4	41.8	42.0	-30.4	-32.2	-33.0	-34.2	-32.3
	Q1	46.2	51.0	50.8	49.6	49.7	-15.9	-20.1	-19.7	-21.7	-18.9
	Q2	28.2	33.5	30.9	30.8	30.9	-52.7	-50.8	-53.9	-54.3	-52.9
	Q3	40.9	43.3	43.0	42.9	42.5	-27.5	-30.1	-29.5	-30.3	-29.5
	Q4	42.6	45.1	44.6	44.7	44.3	-24.8	-27.5	-28.0	-28.4	-27.3
2021	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
	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
	Oct.	81.1	83.7	81.7	81.7	82.0	105.3	101.8	100.5	100.7	101.9
	Nov.	78.6	80.8	80.5	80.7	80.2	89.1	83.8	84.9	85.2	85.7
	Dec.	71.6	74.7	72.9	72.9	73.1	52.0	48.6	45.9	46.4	48.2
2022	Jan.	82.6	85.2	83.3	83.4	83.7	58.6	54.1	51.7	52.7	54.2

Source: Thaioil Plc and EPPO.

3. The World Economy in Q4 of 2021

The world economy in the fourth quarter of 2021 continued to expand from the previous quarter in both major industrial economies and emerging and developing economies. The growth was mainly contributed by domestic demand recovery due to continued easing of the restrictions and the progress of vaccination. In addition, the strong growth of export sector also provided additional support especially to those export-oriented economies. Nonetheless, many countries had experienced the outbreak from the new Omicron variant which is evidently more transmissible compared to the original virus and the Delta variant as reflected in the hike in daily new cases. Therefore, some countries had reimplemented control measure and international travel restrictions, namely Japan, the Netherlands, and Germany. Meanwhile, the Chinese economy slowed down as a result of decelerated domestic demand from zero-tolerance COVID-19 policy and the constraint from financial stress in real estate sector.

In light of economic recovery along with rising in commodity and energy prices in the global market, inflationary pressure notably accelerated and surpassed monetary target in many countries. In response, major central banks, such as the US Federal Reserve (Fed) and the European Central Bank (ECB), began to show signs of tightening monetary policy path while some central banks already increased policy interest rates to curb inflationary pressure[5]. On the contrary, the People's Bank of China (PBOC), cut its policy rates to expedite decelerated domestic economic activity.

The US economy expanded by 5.5 percent, accelerating from the last quarter due to increasing domestic demand while inflation surged to a 39-year high.

The US economy expanded by 5.5 percent (%YoY), improving from a 4.9-percent increase in the previous quarter. After seasonally adjusted, the US economy registered a growth of 6.9 percent, accelerating from a 2.3-percent rise in the last quarter (%QoQ saar). The improvement was supported by domestic private consumption and private investment, particularly non-residential investment. This was in line with an improvement of a service sector. Thus, the services Purchasing Managers’ Index (PMI) rose from 56.6 in the third quarter to 58.1 in this quarter. However, manufacturing PMI declined from 61.7 to 58.1 due to the prolonged supply chain disruption and the increasing of raw materials prices. In addition, the support from several government measures were starting tapered off namely the forgivable loans to businesses, the grants to state and local governments, and local government programs to support funding to household. Meanwhile, the fourth quarter headline inflation surged to 39-year high at 5.5 percent, which was exceed the Fed’s policy target rate at 2.0 percent. This was mainly due to the escalating energy and house prices, combined with the rising of wage[6] from the continually tight labor market[7]. The fourth-quarter unemployment rate was at 4.2 percent, further decreased from 5.1 percent in the previous quarter, and was registered as the sixth consecutive decline. Amidst the rising inflation pressure, the Federal Reserve’s Federal Open Market Committee (FOMC) unanimously decided to taper its asset purchasing programs for two consecutive meetings in November and December 2021. Hence, the program will eventually end by March 2022[8]. Meanwhile, the Fed also signaled for earlier and higher interest-rate hikes, compared with its tone on the September meeting[9]. Overall, the US economy in 2021 expanded by 5.7 percent, recovering from a drop of 3.4 percent in 2020.

The Eurozone economy expanded by 4.6 percent, accelerating from 3.9 percent in the last quarter contributed by the recovering domestic demand and the labor market.

The Eurozone economy grew by 4.6 percent (%YoY), accelerating from a 3.9-percent growth in the previous quarter, because of economic accelerations in key members such as Belgium, Spain, France, and Italy. However, after seasonally adjusted, the Eurozone economy slightly expanded by 0.3 percent, slowing from a growth of 2.3 percent in the previous quarter (%QoQ swda). The recovery was driven mainly by domestic demand, exhibited by the higher growth pace of retail sales, as well as the improvement in labor market, shown by the historical low unemployment rate. Notwithstanding, the Omicron variant outbreak

5 Bank of England raised its policy interest rate from 0.1 percent to 0.25 percent in December 2021, the first hike in three years. Bank of Korea increased its policy interest rate from 0.1 percent to 0.25 percent policy interest rate from 0.75 percent to 1.0 percent in November 2021, the consecutive increase in two quarters. Reserve Bank of New Zealand raised its policy interest rate from 0.5 percent to 0.75 percent in November 2021, a two consecutive hikes. Meanwhile, Central Bank of the Russian Federation increased its policy rate 6 times during 2021.

6 The Employment Cost Index in the fourth quarter increased by a record high of 4.0 percent, compared with a 3.7-percent in the previous quarter.

7 Several indicators exhibited the labor shortage in the US, particularly the number of people quitting their jobs in the fourth quarter hit a peak at 4.3 million people per month, rising from 4.2 million people per month in the previous quarter and 3.5 million people per month at the pre-pandemic level in 2019. Moreover, job vacancy also reached its peak at 10.9 million people per month, increasing from 10.8 million per month in the previous quarter and 7.2 million people per month at the pre-pandemic level in 2019.

8 The Fed decided to taper its bond-buying program in both government bond and mortgage-backed security from 80 thousand million US dollars and 40 thousand US dollars to 70 thousand million US dollars and 35 thousand million US dollars in November 2021, and to 60 thousand million US dollars and 30 thousand million US dollars in December 2021, respectively.

9 The FOMC’s dot plot from the December 2021 meeting showed higher trajectory of higher interest rate hike’s than the previous expected in September 2021. Meanwhile, most committees expected that the policy interest rate at the end of 2022 should be at 0.75 percent and 1.00 percent or a 0.75-percent increase compared to the current level.

during the fourth quarter led to reimplementation of stricter lockdown measures, weighing down the consumer confidence index to -6.7, a 3-quarter low. In addition, manufacturing and services sectors decelerated, reflected by the manufacturing and service PMIs registering at 58.2 and 54.5, respectively, which were the lowest levels in 4 quarters and 3 quarters, and also lower than their respective levels of 60.9 and 58.4 in the same quarter last year. The recovery of domestic spending and the global oil price surges drove headline inflation to an average of 4.6 percent, the highest rate since data collection began in 25 years and surpassed the ECB's monetary policy target. Such circumstances pressured the ECB on the December 16th meeting to cut back its asset purchasing program[10], even though the policy rate was held at 0.0 percent. For fiscal measures, progressions under the Next Generation EU Recovery and Resilience Facility 672.5 billion Euros loans and grants have progressed as follows: the European Commission has disbursed 2.8 billion Euros in pre-financing under the Recovery and Resilience Facility in this quarter, bringing the total disbursed funds in pre-financing to 54.3 billion Euros for 20 members. In addition, the commission has disbursed funds in grants to Spain for 10 billion Euros. Overall, the Eurozone economy in 2021 expanded by 5.4 percent, recovering from the previous year's 6.4-percent contraction.

The Japanese economy grew by 0.7 percent due to recovery in domestic demand after State of Emergency was lifted due to the improvement of pandemic situation.

The Japanese economy grew by 0.7 percent (%YoY), softening from 1.2 percent in the previous quarter. After seasonally adjusted, the Japanese economy grew 1.3 percent (%QoQ sa.), recovering from a 0.7-percent contract in the previous quarter. The main supporting factor was a recovery in domestic demand after the State of Emergency was lifted on September 30th, 2021. Consequently, retail trade increased by 1.4 percent, compared to a 0.6-percent shrink in the previous quarter, in line with rising consumer confidence index from 37.2 in the previous quarter to 39.1 in this quarter. Furthermore, the manufacturing PMI improved to 54.0, compared with 52.4 in the previous quarter. Besides, the headline inflation rate rose to 1.3 percent, accelerating from 0.4 percent in the previous quarter, nevertheless, still lower than a 2.0-percent target. As a result, monetary policy meeting of the Bank of Japan (BOJ) on December 16th - 17th, 2021, decided to maintain its negative policy rate at (-0.1) percent and continue purchasing a necessary amount of Japanese government bonds (JGBs) to hold the 10-year JGB yields at around 0.0 percent (Yield Curve Control measure) to further support the economic recovery. Overall, the Japanese economy grew by 1.7 percent in 2021, improving from a 4.5-percent decline in 2020, and is the first expansion in 3 years.

Chinese economy expanded by 4.0 percent, decelerating from the previous quarter, owing to the zero-tolerance COVID-19 policy, financial problem in real estate sector, prolonged global supply chain disruption, and shortage of electricity.

The Chinese economy expanded by 4.0 percent, decelerating from 4.9 percent in the previous quarter and registering the lowest growth in 6 quarters. The slowdown was contributed by the deceleration in domestic demand, due to the impact of zero-tolerance policy toward domestic COVID-19 cases[11]. Furthermore, export and investment also slowed down. The export values expanded by 22.7 percent, decelerating from 23.9 percent in the prior quarter, owing to supply chain disruption, particularly, as a result of a partial lockdown of Ningbo city where one of the Chinese largest ports is situated, as well as the shortage of semi-conductor. Additionally, the economic slowdown was also caused by the Chinese government economic reform towards more sustainable and fair competition[12], such as tightening loan conditions for commercial banks to temper overheated investment and resolve the problem of overdue debt repayment in real estate sector. Therefore, the investment in real estate sector declined by 7.7 percent, continuing from a 0.8-percent decline in the last quarter. Amidst the economic slowdown, the People's Bank of China (PBOC) decided to lower the Required Reserve Ratio (RRR) from 8.9 percent to 8.4 percent on December 7th, 2021, which was the second time in 2021, and decreased the short-term interest rate to support small businesses[13]. Moreover, the PBOC also cut the one-year Loan Prime Rate (LPR) from 3.85 percent to 3.80 on December 20th, 2021. Overall, the Chinese economy in 2021 expanded by 8.1 percent, comparing with 2.2 percent in 2020.

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[10] In is December 16th, 2021, meeting, the European Central Bank (ECB) decided to reduce amount of bond buying under its Pandemic Emergency Purchase Programme (PEPP), which will end at the end of March 2022, during the first quarter of 2022 to be lower than the preceding quarter. (Monthly bond purchases under PEPP totalled approximately 70 billion Euros during December 2021.) Nevertheless, the ECB upwardly adjusted the monthly pace of bond buying under the Asset Purchase Programme (APP) to be 40 billion Euros and 30 billion Euros during the second and third quarter of 2022, respectively, to buttress economic impacts from the fast-spreading Omicron variant, lockdowns, and supply disruptions. Bond purchases under the APP will return to its pace of 20 billion Euros per month after the third quarter. In all, net bond purchases during the first quarter of 2022 will be lower than the preceding quarter.

[11] During the fourth quarter of 2021, the strict lockdown measures was also implemented in Lanzhou and Heihe, cities of 4 million and 1.6 million populations, respectively.

[12] Major policies included (1) clean energy policy with the target of achieving carbon neutral by 2060, aiming to reduce the electricity generated by coal power plant which caused a shortage of electricity during the third quarter, hence several factories had to reduce their productions, (2) strengthening financial stability particularly commercial bank lending condition, especially for real estate sector, which effected liquidity and debt payment ability of some fragile real estate firms, particularly China Evergrande Group, the second largest real estate firm in China which led to a slowdown in fixed asset investment and lower investor confidence, and (3) reforming regulations toward anti-monopoly and fair competition, especially in educational, online game and e-commerce businesses.

[13] Reducing the three-month six-month and twelve-month re-lending rates from 1.95 percent, 2.15 percent, and 2.25 percent to 1.70 percent 1.90 percent, and 2.00 percent respectively.

The Newly Industrialized Economies (NIEs) recovered thanks to the continual expansion in manufacturing and exports sectors supported by the recovery of the world economy, together with the low growth base from last year. Hence, **the Singapore's economy** expanded by 6.1 percent, compared with a 7.5-percent in the previous quarter. This rebound was mainly due to the expansion of the manufacturing sector, especially chemical, electronics, and precision engineering industries. Moreover, the construction and the service sectors also expanded. After seasonally adjusted, the Singapore's economy expanded by 2.6 percent, compared with a 1.2-percent growth in the previous quarter. **The South Korea's economy** grew by 4.1 percent, compared with a 4.0-percent in the previous quarter, following the continued expansions of private consumption, government expenditure, and export of goods. Meanwhile, the economy expanded by 1.1 percent in the seasonal adjusted basis, compared with a 0.3-percent growth in the previous quarter, Moreover, the Bank of Korea (BOK) increased the policy rate from 0.75 percent to 1.00 percent, the second hike of the year during the meeting on November 25th, 2021. Besides, **the Hong Kong's economy** expanded by 4.8 percent, decelerating from 5.5 percent in the previous quarter, the economic growth was notably driven by domestic consumption and export sectors. After seasonally adjusted, the Hong Kong's economy expanded by 0.2 percent, compared with a 0.1-percent growth in the previous quarter. Whereas, **the Taiwan's economy** expanded by 4.9 percent, accelerating from a 3.7-percent in the previous quarter due to the expansion of private consumption. After seasonally adjusted, the Taiwan's economy grew by 2.7 percent, compared with a 0.3-percent in the last quarter. For the year 2021, the economies of Singapore, South Korea, and Hong Kong grew by 7.6 percent, 4.0 percent, and 6.4 percent, recovering from 4.1-percent, 0.9-percent, and 6.5-percent contractions in the previous year, respectively, Meanwhile, the Taiwan's economy grew by 6.3 percent, continuing from a 3.4-percent in 2021.

The NIEs economies continued to expand due to the expansions of domestic consumption and exports supporting by world economic recovery.

The ASEAN economies improved from the previous quarter. The economies of **the Philippines and Indonesia** grew by 7.7 percent and 5.0 percent, accelerating from 6.9-percent and 3.5-percent growths in the previous quarter, respectively. Meanwhile, the economies of **Malaysia and Vietnam** expanded by 3.6 percent and 5.2 percent, recovering from 4.5-percent and 6.0-percent contractions, respectively. The ASEAN economies were driven by an increase in domestic demand as the COVID-19 situation had improved. In addition, the recoveries were also supported by manufacturing production since many major production bases, such as the Vietnamese industrial zones in Bac Giang and Ho Chi Minh City and the Malaysian industrial parks in Selangor and Kuala Lumpur, could resume their fully operations which thus led to increases in manufacturing PMI in all ASEAN countries. Simultaneously, their exports also expanded favorably following the economic recovery of major trading partners. In terms of economic policy, several governments continually implemented economic measures, while all ASEAN central banks still hold their policy rates at the historical low levels[14]. Overall, the economies of Malaysia, Indonesia and the Philippines in 2021 grew by 3.1 percent, 3.7 percent and 5.6 percent, recovering from a 5.6-percent, 2.1 percent and 9.6-percent decrease in the last year, respectively. In contrast, the Vietnamese economy grew by 2.6 percent, decelerating from a 2.9-percent in the last year.

The ASEAN economies improved from the previous quarter, following the recovery of domestic demand and the improvement of the pandemic situation.

GDP and export growths in several key economies

(%YoY)	GDP					Export Value							
	2019	2020	2021			2019	2020	2021					
	Year	Year	Q3	Q4	Year	Year	Year	Q3	Q4	Oct	Nov	Dec	Year
USA	2.3	-3.4	4.9	5.5	5.7	-1.5	-13.5	23.8	23.1	24.6	24.0	20.6	23.3
Euro Area	1.6	-6.4	3.9	4.6	5.2	-2.5	-7.1	14.5	7.5	5.9	10.5	6.0	17.9
UK	1.7	-9.4	7.0	6.5	7.5	0.9	-12.9	11.6	7.5	11.6	7.1	4.1	9.5
Australia	1.9	-2.2	3.9			5.3	-7.4	47.6	25.5	31.6	32.4	14.9	36.9
Japan	-0.2	-4.5	1.2	0.7	1.7	-4.4	-9.1	20.4	6.4	1.8	10.4	7.2	17.9
China	6.0	2.2	4.9	4.0	8.1	-0.1	4.0	23.9	22.7	26.6	21.4	20.8	29.7
India	4.8	-7.0	8.4			-0.2	-14.8	38.6	39.0	43.4	34.4	38.9	42.6
South Korea	2.2	-0.9	4.0	4.1	4.0	-10.4	-5.5	26.5	24.5	24.2	31.9	18.3	25.7
Taiwan	3.1	3.4	3.7	4.9	6.3	-1.5	4.9	30.1	26.0	24.5	30.2	23.4	29.4
Hong Kong	-1.7	-6.5	5.5	4.8	6.4	-4.1	-0.5	22.4	23.2	20.9	24.4	24.1	26.0
Singapore	1.1	-4.1	7.5	6.1	7.6	-5.2	-4.1	19.2	25.9	22.5	30.1	25.1	22.1
Indonesia	5.0	-2.1	3.5	5.0	3.7	-6.8	-2.7	50.9	45.6	53.4	49.7	35.2	41.9
Malaysia	4.4	-5.6	-4.5	3.6	3.1	-3.4	-2.3	15.9	26.5	25.1	30.5	24.4	27.4
Philippines	6.1	-9.6	6.9	7.7	5.6	2.3	-8.1	12.8	5.2	2.0	6.6	7.1	14.5
Vietnam	7.2	2.9	-6.0	5.2	2.6	8.4	6.9	2.9	19.0	6.1	26.3	25.1	18.8

Source: CEIC, compiled by the NESDC

[14] The policy rates of Vietnam, Malaysia, Indonesia, and the Philippines remained at 2.50 percent, 1.75 percent, 3.50 percent, and 2.00 percent, respectively.

4. The World Economic Outlook for 2022

The world economy in 2022 is expected to show moderate growth following the slowdown of major economies due mainly to the fading of fiscal support, tightening monetary policy of major central banks in response to continuously rising inflationary pressure, and prolonged supply disruption in the global market. Also, the Chinese economy tends to decelerate as a result of the continuation of zero-tolerance COVID-19 policy and the protracted financial stress in the real estate sector. Meanwhile, the spread of new Omicron variant, known as comparably more transmissible and has become the dominant variant of the COVID-19 since late 2021 resulted in a record high number of newly infections in many countries during January and February of 2022, particularly in the US, the UK, France, South Korea, and Japan. Nonetheless, Omicron infection generally cause less severe disease than infection with prior variants as reflected in lower hospitalized and mortality rates. Moreover, many countries are making progress on vaccine distribution while general publics and business sector have better adapted to the pandemic. Most government have not yet reimposed stricter control measures like in previous outbreaks. Thus, the overall economic activities are expected to continue for the rest of the year.

Key assumptions for the baseline projection include: (i) the impact to economic activity from Omicron resurgence will be limited and there will be no severe resurgence from new variants which could reduce the vaccine efficacy and will lead to higher rate of severe infections and deaths and will not thus lead to higher degree of containment and restrictions on international travel; (ii) the monetary policy will be able to effectively curb down inflationary pressure in major economies and hence the policy would remain favorable for economic expansion. Likewise, the volatility in bond market will not heap more pressure on the central banks to raise the policy rates earlier and higher than expected; and (iii) China's structural reforms and economic stability will not notably weaken its economic growth greater than estimated and will not lead to volatility in financial and capital markets. **Under this baseline scenario, the global economy and trade volume in 2022 are projected to expand by 4.5 percent and 6.0 percent, respectively, decelerating from the 5.6-percent and 8.0-percent growths in 2021** and downwardly revised from 4.8 percent and 6.5 percent in the last projection, respectively. Prospects on key economies are as follows:

The US economy is expected to expand by 4.0 percent, decelerating from 5.7 percent in the last year, and is downwardly revised from 5.0 percent in the previous forecast. This downward adjustment is mainly due to the outbreak of Omicron variant and prolonged supply chain disruption, which have significant impact on both production and service sectors. Hence, the composite PMI in January 2022 was at 51.1, the lowest level in 18 months. Meanwhile, the inflationary pressure has rapidly risen. In January 2022, Consumer Price Index surge to 40 years high of 7.5 percent, and Producer Prices Index also grew by 9.7 percent, slightly lower a record high of 9.8 percent in the last month. Under this circumstance, the Federal Reserve decided to end its quantitative easing measures earlier than initial anticipation and the policy rate is expected to be increased in the March meeting[15]. In addition, the support from government expenditure is expected to be lower than earlier projection due to a delay in the investment projects under the Infrastructure Investment and Jobs Act (1.2 trillion US dollars) and the uncertainty of the Build Back Better Package (1.75 trillion US dollars). However, the household income and domestic demand tend to expand continually, owing to the recovery of the labor market. The unemployment rate in January dropped to 4.0 percent, compared with 6.4 percent in the same month of the last year, while the nonfarm payrolls were at 149.6 million, rising from 143.0 million in January 2020.

The Eurozone economy is expected to grow by 3.9 percent in 2022 following the growth of 5.2 percent in 2021. The projection was adjusted downward from 4.2 percent due to the spread of the Omicron variant as the number of newly infected rose to historical high in several countries and the number of newly deaths also increased notably. Therefore, several governments reimplemented short-term lockdown measures and international travel restrictions during January 2022, such as the Netherlands, Germany, and Austria. Consequently, the service PMI flunked to a 9-month low of 51.1 in January 2022. Additional important risk factors also include the Russia-Ukraine tension, which impacted regional economic confidence, also the EU-China trade dispute, which may further disrupt the EU's supply chain and exports performance. Nevertheless, economic activity and domestic demand among the Eurozone tend to continually recover as several countries have relaxed their containment measures and resumed intra-EU travel, as well as the satisfactory vaccination rate. Furthermore, the Eurozone economy will also be supported by the lower tariffs on steel and aluminum between the EU and the US as well as the prominent agreement on December 2nd, 2021, on service trade facilitation among the WTO members (Joint Initiative on Services Domestic Regulation) which will simplify and create transparencies in regulations regarding global services trade[16]. In addition, the regaining of economic momentum is also buttressed by the major European Union fiscal policy[17], as well as support from ongoing accommodative monetary policy since the ECB has keep its stance to hold it low benchmark rates for the rest of 2022.[18]

[15] In the base case scenario, the Fed is expected to hike its policy rate by 0.25 percent in March, and for the whole year of 2022, the rate is expected to be raised by 1.0 percent with at least four-time rises to govern inflationary pressure.

[16] This negotiation on services trade was the first success in 20 years of WTO and covers over 90 percent of global trade in services. The WTO members will make specific commitments by the end of 2022 to facilitate trade in services in their domestic markets, which is expected to lead to investments and preparations on the services sectors during the rest of 2022.

[17] Key fiscal policies are consisted of: (i) long-term expenditure budget of the EU 2021 – 2027 worth 1.2109 trillion Euros; (ii) the "Next Generation EU" economic recovery plan for 2021 – 2023 worth 0.8069 trillion Euros; (iii) EU4Health, which is the EU's response to the current COVID-19 crisis and future pandemic under the EU Health Programmes, worth 5.75 billion Euros spanning over 2021 – 2027; and (iv) the 94.4 billion Euros in financial support for 19 member states under the European instrument for temporary Support to mitigate Unemployment Risks in an Emergency (SURE).

[18] During the ECB's latest meeting on February 3rd, 2022, it was agreed that: (i) policy rates will be held at the low level until inflation is sustainably at the target of 2.0 percent, although the short term inflation is allowed to be briefly exceeded; (ii) asset purchases under Pandemic Emergency Purchase Programme (PEPP) will be gradually decrease and terminate at the end of March 2022; (iii) the monthly bond purchases under the Asset Purchase Programme (APP) will be maintained at a same pace as previously disclosed on the December 16th, 2021. The APP monthly pace during the second and third quarter of 2022 will be with 40 billion euros and 30 billion euros envelopes, respectively. It will be continued at the 20 billion euros per month with reinvesting principals until ECB increases policy rates; and (iv) the third series of targeted longer-term refinancing operations (TLTRO III) is to be continued.

The Japanese economy is expected to expand by 2.8 percent in 2022, compared with a 1.7-percent growth in 2021, a downward revision from 3.0 percent in the previous projection. This is mainly owing to a recovery in domestic demand, but service sector is still facing the limitation from Omicron variant which leads to an escalation in new cases to the record high. Consequently, the Japanese government declared the State of Emergency and suspend entry of all nonresidential foreigners in December 2021. This results in a dampen in service PMI from 51.6 in the last quarter of 2021 to 47.6 in January 2022. Nevertheless, a recovery of Japanese economy will be supported by improvements in export and manufacturing sector, reflected by manufacturing PMI in January 2022 increasing to 55.4, a 36-month high. Moreover, government expenditure under the FY2022 budget framework increased to 107.6 trillion yen or 4.5 percent from FY2021, along with 56-trillion-yen stimulus package[19] (which is account for 5.6 percent of GDP). Also, the BOJ is expected to continue its expansionary monetary policy to liquidate the economy[20].

Chinese economy is expected to grow by 5.0 percent in 2022, decelerating from 8.1 percent in 2021 and lower than the previous projection of 5.5 percent, as a result of dwindling domestic demand, causing by strict containment measures to maintain zero-tolerance COVID-19 policy[21]. Moreover, disrupt in real estate sector due to liquidity problem will discourage investment and business confidence. The economy is also affected by prolonged global supply chain disruption as well as shortage of production materials, especially semiconductor, and oversea freight delays. Nevertheless, the PBOC is expected to continue its expansionary monetary stances to accommodate liquidity for the economy[22]. Similarly, the economy will further support by continued fiscal stimulus measures[23] together with additional spending during the 2022 Winter Olympics in February and the Asian Games in September. In addition, Chinese production and export sectors would be boosted by recovery in global economy and the endorsement of the Regional Comprehensive Economic Partnership (RCEP) agreement, on January 1st, 2022.

The Newly Industrialized Economies (NIEs) tend to the continual expansion. The economies of South Korea, Hong Kong, Taiwan, and Singapore are expected to expand by 3.0 percent, 3.0 percent, 3.1 percent, and 4.2 percent, decelerated from 4.0-percent, 6.4-percent, 6.3-percent, and 7.6-percent growths in 2021, and downwardly revised from 3.2-percent, 3.2-percent, 3.3-percent, and 4.5-percent in the previous projection, respectively. This downward revision is mainly attributed to the uncertainty of Omicron variant outbreaks with, reflected by rapidly resurging of the number of newly inflections. However, the NIEs growth was notably driven by the recovery of manufacturing and exports, thanks to the recovery of the world economy and global trade, and additional support from the continually fiscal stimulus measures.[24]

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[19] On November 19th, 2021, the Cabinet of Japan decreed a "Economic Measures for Overcoming COVID-19 and Opening Up a New Era" under the 56-trillion-yen budget framework which is categorized into three main measures, (1) Preventing the spread of COVID-19 such as strengthening of the medical care provision system, promoting vaccination, or Support for the businesses and livelihoods of people like subsidize for business and household or measures against rising energy prices (2) Resuming socio-economic activities in the "coexisting with COVID-19" environment and preparing for the next crisis including resuming socio-economic activities with ensured safety and security such as utilization of vaccine and testing packages or resumption of socio-economic activities, and further strengthening of emergency response for infectious diseases such as domestic development of vaccines and therapeutic medicines, international cooperation for the containment of infectious diseases, or timely & proper implementation of reserve funds for countermeasures against COVID-19, and (3) Launching "New Form of Capitalism" to open up a future society which is categorized into two main strategy, growth strategy such as realizing a Science and Technology Nation, "Vision for Digital Garden City Nation" for revitalizing localities and connecting them to the world, or economic security, and distribution strategy which is a strong support for reinforcing distribution in both private and public sector such as promotion of wage increases, enhancement of various ways of working through work style reforms and support for diverse human resources, or raising incomes of those working for nursing, long-term care, child care, and early childhood education.

[20] In the latest meeting on January 17th-18th, 2022, the BOJ decided to keep its policy rate at (-0.1) percent and maintain the yield curve control measure at target of 10-year JGB yields at 0.0 percent. The BOJ also persistently continues with easing monetary stance by maintaining qualitative and quantitative easing (QQE), aiming to achieve the inflation target of 2 percent. Moreover, other financial supports will be continued to mitigate the economic impact of COVID-19

[21] Chinese government has locked down the Xi'an city, with a population of 13 million, during December 22nd, 2021- January 24th 2022.

[22] On January 2022, the PBOC cut its one-year loan prime rate (LPR) from 3.8 percent to 3.7 percent, after lowering it before in December 2021, and cut five-year LPR from 4.65 percent to 4.60 percent, which was the first time in 22 months. The PBOC also lowered one-year Medium-term Lending Facility (MLF), for the loans worth 700 billion Yuan, from 2.95 percent to 2.85 percent. In addition, the PBOC also has financial supports for micro and small businesses (MSBs). That is, from January – June 2022, local banks lending to MSBs would be able to get 1 percent of the outstanding loans to MSBs every quarter as to encourage banks to ease lending conditions for MSBs, and, from 2022, local banks lending to high risk MSBs could ask for support from the PBOC under the local and MSBs development project, which has quota of 400 billion Yuan.

[23] Major policies consisting of (1) giving more quota for local government to issue special-purpose bonds (SPBs) for accelerating investment project, especially those ongoing construction and other manga projects, and (2) continuing with the taxes and fees relief measures to support economic growth, especially for SMEs and micro businesses particularly in manufacturing industry.

[24] Hong Kong's key economic stimulus measures would be continued until 2022 as Hong Kong's economic stimulus measures (worth of 15.5 billion US dollars), such as consumption voucher scheme value 5,000 HK dollars, Taiwan's domestic demand stimulus measures (5.8 billion US dollars), such as measures to promote domestic spending and stimulate domestic demand through Quintuple Stimulus Vouchers of Taiwan, and Singapore's key economic stimulus measures, including Rental Support Scheme (0.9 billion US dollars) to support the leasing of commercial properties to small and Medium Enterprises (SMEs) and eligible Non-Profit Organizations (NPOs) with an annual revenue not exceeding 100 million US dollars, for the sectors affected by the measures to limit COVID-19 pandemic, including the Jobs Growth Incentive (JGI) scheme to support the employment of local workers.

The ASEAN economies are likely to exhibit a strong momentum driven by the recovery of domestic demand due to relaxation of the control measures and vaccination progress. Furthermore, the tourism sector is expected to regain since the international travel restriction was gradually lessened. Thus, for 2022, **the economies of Indonesia, Malaysia, the Philippines and Vietnam** are projected to expand by 5.3 percent, 5.7 percent, 6.4 percent and 6.6 percent, accelerating from 3.7 percent, 3.1 percent, 5.6 percent and 2.6 percent, and downwardly revised from 5.5 percent, 5.8 percent, 6.5 percent and 6.7 percent, respectively. The adjustment is due to the Omicron variant outbreak, which has increased the number of newly infections in Malaysia, Indonesia, and Vietnam. Moreover, the revision was also because of the prolong supply chain disruption, and the economic slowdown of major trading partners, especially the US and China.

Notwithstanding, there remains uncertainties that could derail the world economy and merchandise trade over 2022 from our baseline projection. The key limitations and risk factors needed to be consistently monitored include: **(1) the high uncertainty regarding COVID-19 pandemic**, particularly the virus mutation that may result in more intensified and longer-than-expected outbreak and thus lead to reimplementation of strict containment and international travel restrictions; **(2) risks from higher-than-expected inflationary pressures**, particularly from rising commodity and energy prices in global markets that could lead to a tighter- and faster-than expected monetary policy in major economies which could limit the growth of not-yet-fully recovered countries specifically emerging markets and developing economies with a large percentage of foreign currency debt; (**3) the lingering supply chain disruption** due to: (i) the problem in container management that have caused shipping delays and continued to increase oversea freight costs: (ii) the shortage of semiconductors which is likely to restrict the manufacturing production in major productions such as automobiles, computers, electronic components, motorcycles and household appliances; **(4) the risk of a slower-than-expected growth of the Chinese economy** which may weaken the recovery of the world economy and global trade volume, especially Asian economies that highly-connected to the Chinese economy; and **(5) the international conflicts**, including geopolitical conflicts, such as tension between Russia and Ukraine and the allies, the conflicts in the Middle East, specifically the US and Iran, and the United Arab Emirates with rebels in Yemen, which could impact oil price volatilities, as well as the conflicts between trade and technology, particularly the US-China tension that could put pressure on international trade and investment.

5. Thai Economic Outlook for 2022

The Thai economy in 2022 tends to recover continually from the low base in 2021, supported mainly by the domestic demand expansion. Despite the Omicron variant outbreak, it is expected that the impact of the resurgence on the healthcare system should be limited within the first quarter of 2022 and the government should be able to continue relaxing containment measures subsequently. In addition, key supporting factors include the tourism recovery due to easing of international travel restriction, and exports expansion following expansions of the world economy and trade volume. However, there are some constraints and risks which could undermine the 2022 baseline growth including the uncertainty of COVID-19 outbreaks amidst virus mutations, inflationary pressures from rising global oil and commodity prices, weak financial conditions of the households and business sectors, prolonged disruptions in global supply chain and logistics, and volatilities in the global economic and financial landscape amidst the heightened inflation pressure and geopolitical conflicts.

Supporting factors for the economic growth:

1) **The recovery of domestic demand** will be supported by the continual relaxation of containment measures[25] with limited impact of the Omicron variant outbreak on the national health services[26], along with the progress of vaccine distribution[27] and behavioral adaptation of individuals and business sector to COVID-19 restriction measures, economic activities and domestic consumption will continue to recover. Furthermore, the domestic demand will also be driven by increasing of households and businesses income bases due to expansions of exports and manufacturing sector, together with an improvement of labor market as reflected by a decline in unemployment rate from 2.3 percent in the fourth quarter of 2021 to 1.6 percent, the lowest rate since the first quarter of 2020. Additionally, the government policy has also played a crucial role to support domestic demand. Meanwhile, private investment is anticipated to grow due to the expansion of exports and the manufacturing sector, along with progresses in major infrastructure projects, especially investments under public-private partnerships, and the upward tendency of application and approval of investment promotion certificates during 2019 – 2021.

2) **The recovery of tourism sector** will be supported by the opening up for international traveling particularly under the Test & Go program that allows fully vaccinated travelers to enter Thailand without mandatory quarantine since November 1st, 2021, which thus led the number of inbound tourists to sharply increase to 321,752 people during November and December 2021. In the second phase of the Test & Go Program which began on February 1st, 2022,[28] there were 48,181 foreign tourists between February 1st - 9th, 2022. Cumulatively, the number of international tourists from January 1st to February 9th were 151,774 tourists, markedly increasing from 20,172 in the first quarter of 2021. Moreover, several governments of tourist origin countries have gradually eased their international travel restrictions thus the number of foreign visitors is likely to increase continually. This is consistent with the United Nation World Tourism Organization (UNWTO)'s projection that global tourism arrival will increase by 30 percent to 78 percent in 2022.

3) **The continual recovery of the world economy and global trade volume** was led by the continual expansion in major industrial economies following the vaccination progress and the more eased pandemic situation which will thus benefit the export-dependent economies, namely the NIEs and the ASEAN, to grow subsequently. Moreover, key export commodity tend to expand include work-from-home-related electronic appliances and equipment, vehicles and parts following the demand recovery, and petroleum products such as plastics and chemical products which should grow in line with higher oil prices. In addition, Thai exports will be able to reap up benefits from the ratification of Regional Comprehensive Economic Partnership (RCEP) effective since January 1st, 2022, which will increase export opportunities in a wider array of goods.

4) **The support from public investment both from the annual budget, state-owned enterprise, and the loan decree,** are as follows; (i) the FY2022 annual budget disbursement rate in the baseline assumption, the capital budget is expected to be at 75.0 percent disbursement rate to the total budget, Consequently, it is expected that the capital budget will be disbursed around 453.8 billion Baht, increasing by 6.0 percent from FY2021; (ii) the disbursement by state-owned enterprises' capital budget in FY2022, especially investment in key infrastructure investment projects, is anticipated to be 70.0 percent from the total budget of 468.8-billion-Baht, with 8.3 percent growth from FY2021; (iii) the disbursement under the 1 trillion loan decree is expected to be 130.7 billion Baht within FY2022 (13.07 percent of total budget), resulting in full disbursement from the budget within FY2022; and (iv) the disbursement under the additional 500 billion Baht loan decree is expected to be 390.2 billion Baht by FY2022 (78.0 percent of the total budget) and will be fully disbursed by the first quarter of FY2023.

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[25] The Centre for COVID-19 Situation Administration (CCSA) announced on January 20th, 2022, that there is no longer a highly restricted and contained area. Also, restricted area has been decreased from 69 provinces in an announcement on January 7th, 2022, to 44 provinces.

[26] According to Enhancing response to Omicron SARS-CoV-2 variant from World Health Organization (WHO) on January 21st, 2022, even though the infection rate of Omicron variant is higher than Delta variant, the severe hospitalization and death rate is still lower than its counterpart. On February 17th, 2022, the number of fatality ratio (new deaths per new cases) in Thailand is 0.13 percent, compared with 1.27 percent in September 2021.

[27] On February 17th, 2022, the percentage of fully vaccinated people in Thailand was at 71.0 percent of total population and the people who have a booster dose was at 26.8 percent.

[28] The first phase of Test & Go program was implemented from November 1st to December 21st, 2021, by allowing entry from 63 low-risk nations. In the second phase since February 1st, 2022, tourists from any country are allowed.

Risks and limitations to economic growth:

1) **The COVID-19 pandemic remains highly uncertain amid the viral mutations**, which appears to be highly transmissible[29] and possibly reduces the effectiveness of vaccines to preventing the infection. It is thus required all countries to distribute additional booster doses to reduce the rate of morbidity and mortality. Therefore, there remains risk to many countries that have low vaccination rate, especially developing and low-income countries. Besides, the pandemic situation in Thailand remains highly uncertain due to the Omicron spread, which is needed to be closely monitored, especially after the relaxations of containment measures and international tourism reopening. At the same time, it is necessary to prepare and distribute sufficient amounts of vaccine, medicines, medical supplies, and other healthcare equipment to control the current pandemic especially the number of severe and death rates to be maintained at a low level under the public healthcare capacity. In addition, the possibility of the new viral mutation that might evolve in the future have to be closely monitored.

2) **Heightened inflationary pressures following the rise of energy and commodity prices in the global market, may suppress domestic demand recovery.** Inflation during the first quarter of 2022 tends to be higher than the previous quarter, due to supply side constraints which drove prices in energy and raw food to accelerate. In addition, production cost has affected by the rising commodity prices and prolong supply disruption. Nevertheless, price transmissions from producer to consumer has been subtle during the recent periods. The Producer Price Index in January 2022 rose by 8.7 percent mainly due to increase in petroleum and natural gas (68.7 percent), and petroleum products (56.2 percent). On the other hand, the Consumer Price Index rose at a lower rate, by 3.2 percent during the same period, mainly contributed by increasing in energy (19.2 percent) and raw food (3.1 percent) prices. Nonetheless, the inflationary pressure especially in the second half of the year is likely to mitigate after the global energy price decline, in addition to the government measures to tamper pressure from rising of energy and commodity prices. However, the inflationary risk remains high uncertain and has to be closely monitored particularly due to the geopolitical conflict which will affect global energy prices to surge further as well as a longer-than-expected supply chain disruption. These states of uncertainty could raise the inflationary pressure and thus undermine consumption recovery.

3) **Weakened financial conditions of the households and business sectors,** especially through rising household and business debt burden, continue to be key limitation factor to domestic demand recovery amid fragile labor market conditions. Firstly, the household debt in the third quarter of 2021 was at 89.3 percent to GDP, compared with pre-crisis level of 78.8 percent in the same period of 2019. Meanwhile, the non-performing loans (NPLs) and special mention loans (SMLs) to total loans of SMEs in the third quarter of 2021 stood at 7.3 percent and 12.1 percent, significantly increasing from 4.8 percent and 3.2 percent in the same quarter of 2019, respectively. The high private debt burden would aggravate both recoveries in domestic demand and debt payment capacity, especially during the upward trend of interest rate. Moreover, the recovery path will be further restricted by the not-fully recovered labor market, reflected by the unemployment rate of 1.6 percent in the last quarter of 2021, although it declined from 2.3 percent in the prior quarter, but remained higher than 1.0 percent in the same quarter of 2019. In addition, unemployment remains high in the sectors that had a limitation to recover, for example accommodations and food services, and construction sectors. Furthermore, the number of underemployed worker and labors who work less than 20 hours per week remain high.

4) **The growth momentum from export and manufacturing sectors could be exacerbated** by prolonged impacts from global supply chain and international logistics disruptions, as well as a shortage of foreign workers. This can be explained in detail as follows: (1) the global supply chain disruption caused by mismanagement in shipping containers that has drove the oversea freight cost to remain high in the first two months of 2022, together with a shortage in semiconductors.; and (2) the shortage of foreign workers as shown in a report from the office of foreign worker management in the department of employment under the ministry of labor where a total number of permitted foreign workers in Thailand were 2,350,677 workers in December 2021, lowered than 2,512,328 workers and 3,005,376 workers in the same months of 2020 and 2019, respectively.

5) **The volatility and uncertainty of the world economy and financial market may affect Thai economic growth and stability** that need to be closely monitored and assessed as follows: (i) the uncertainty of the COVID-19 pandemic amid the viral mutations, which appears to be easily transmissible and tend to affect the effectiveness of current vaccines; (ii) increasing inflationary pressure in major countries to be persistently higher than the monetary policy target, such as the US, the UK, Australia, and South Korea, which will put higher pressure for major central banks to further tighten their monetary policies, while in contrast there remain not-fully-recovered economies who require further support from expansionary monetary policy. This policy divergence among different countries could induce volatility in financial, capital and exchange rate markets as well as lower the debt repayment ability of developing and low-income countries, particularly countries with high proportion of foreign debts; (iii) the fluctuations of global financial market and international capital flow due to the uncertainty of the pandemic situation amid the viral mutations that affect the volatility of exchange rate and capital flow, including Chinese economic regulatory reform and liquidity crunch of real estate companies that could slow down the economic growth and cause a volatility in asset prices; (iv) the policy direction of major economies, specifically the international trade policy of US and China, as well as the US, China, and Taiwan's positions on entering the Trans-Pacific Partnership's Comprehensive and Progressive Agreement (CPTPP); and (v) geopolitical conflicts such as the conflict between Russia, Ukraine and NATO, the conflicts within the Middle East which may cause the global economy and energy prices to be highly volatile.

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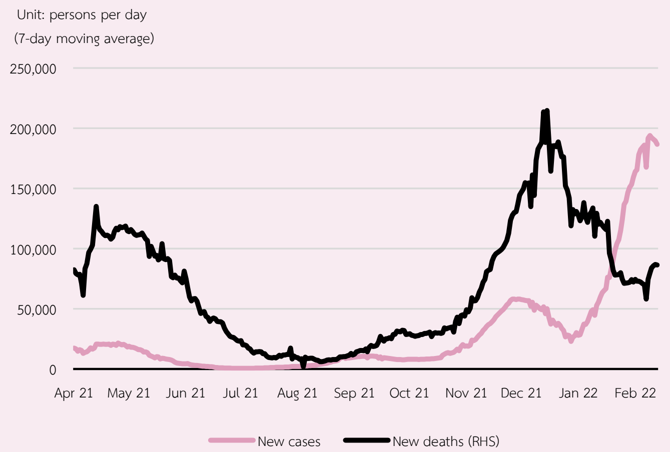
[29] According to the Ramathibodi Hospital's Centre for Medical Genomics, the Omicron variants BA1 and BA2 have reproduction rates of 8 - 15, compared with the Delta variant and the early strain at Wuhan which have an average of 6.5 - 8 and 2.5, respectively.

COVID-19 Pandemic Situation

According to WHO report, the Omicron variant has higher infection rate than any other variants, reflected by a new-high number of new cases in many countries. However, this variant appears to be less severe illness compared to previous variants, illustrated by lower rates of hospitalization and fatality. In January 2022, fatality rate (new deaths per new cases) is at 0.26 percent worldwide, compared with 2.13 percent in January 2021. In Thailand, fatality rate is at 0.13 percent, declining from 1.27 percent in September 2021.

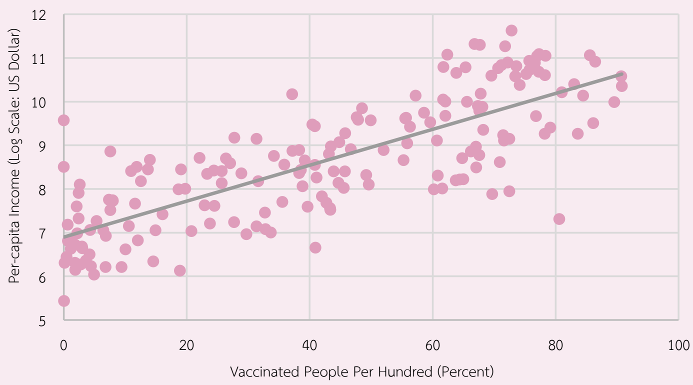
Nevertheless, there is a negative correlation between fatality rate and vaccination rate. In other words, country with lower vaccination rate has a higher risk to have higher fatality rate. Furthermore, it can be seen as a strongly positive correlation between per-capita income and vaccination rate. Therefore, this still pose a challenge for policymakers especially in low-income economies to acquire enough vaccine for the immunity and prevention of further pandemic. If there are still some countries left out with very low vaccination rate, there will remain an uncertainty in new variants of COVID-19 mutation in the future.

Germany



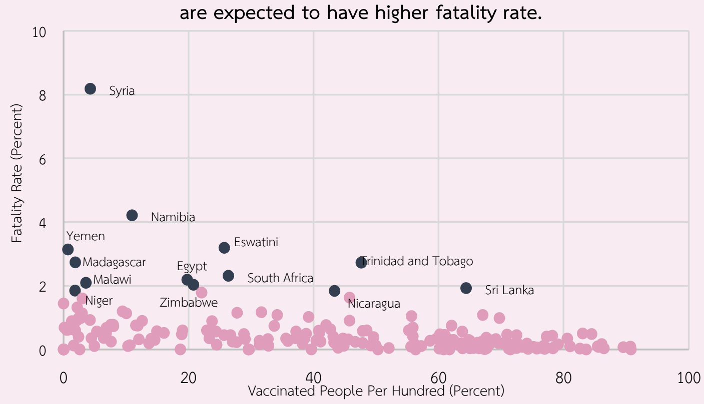
Yemen

The correlation between full vaccination rate and per-capita income (as of 2020) illustrates that higher income countries tend to have higher vaccination rate.



Source: Our World in Data and World Bank as of February 17th, 2022

The correlation between full vaccination rate (December 2021) and fatality rate (January 2022) shows that countries with lower vaccination rate are expected to have higher fatality rate.



Source: Our World in Data as of February 14th, 2022

An increase in freight rate and the supply disruption: The key concerns of production side and export sector in 2022

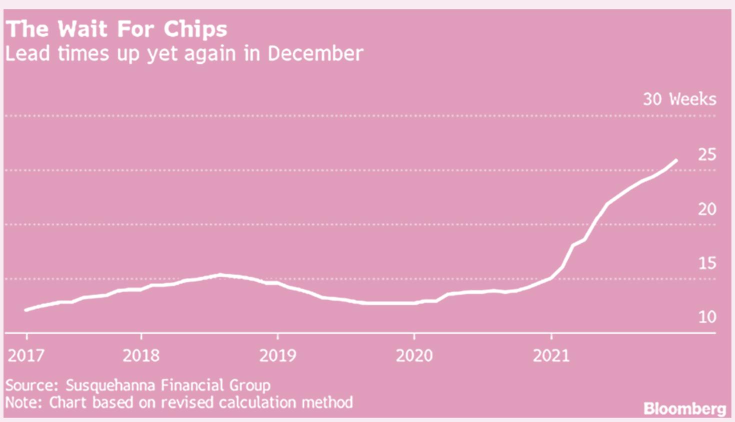
The Thai National Shippers' Council informed that the freight rate from Thailand to several key destinations continuously increased, for instance, during the first half of 2020 to the first week of February 2022, the freight rate to Shanghai increased from 200 USD to 900 USD (Size 20'), to Ho Chi Minh City increased from 250 USD to 550 USD, to Melbourne increased from 450 USD to 4,050 USD, respectively. The rise of freight rate was resulted from a high rise of demand for containers around the world while several ports still experiencing obstacles regarding container clearance and management. However, the sign of a slowdown in the rate to the US (West Coast) compared to the last quarter of 2021 was seen after The Port of Los Angeles and the Port of Long Beach announced a consideration of implementing the "Container Dwell Fee" (the charge starts from 100 USD per container and increasing in 100 USD increments per container per day until the container leaves the terminal) which was expected to take effect on 18th February 2022.[1/]

Average freight rate from Thailand to other main ports

Main port	2020		2021				2022	
Unit: USD/20'	H1	H2	Q1	Q2	Q3	Q4	Jan	The first week of Feb
Shanghai	200	212	350	400	512	742	863	900
Ho Chi Minh	250	139	220	280	350	419	550	550
Japan (Main Port)	300	313	450	435	500	531	650	650
Melbourne	450	950	1,496	1,750	2,681	3,435	3,990	4,050
Europe (Main Port)	796	1,177	3,873	4,912	7,010	7,531	8,200	8,200
US West Coast	1,489	2,927	3,185	4,420	9,191	10,595	10,000	10,000

Source: Thai National Shippers' Council

In addition, issues regarding the shortage of semiconductors, resulting from the rise of demand in several manufacturers related to electronic industries, are still on monitoring. The latest information, according to data retrieved in December 2021, indicated that the delivery time for chipsets rose to 25 weeks on average compared with 16 weeks delivery time recorded in August 2021. However, the major chipmaker countries have announced plans to start constructing 29 new semiconductor fabrication plants worth 1.4 trillion USD, and expecting to operate in 2023. As a result, the worldwide semiconductor shortage remains a key concern for the global manufacturing sector, including in Thailand, which has been closely monitored.



Source: Bloomberg

Number of Semiconductor factory in Main countries that are in the construction plans in late 2021 - 2022

Countries	Number of factories	Start construction	
		H2 of 2021	2022
China	8	5	3
Taiwan	8	6	2
United States	6	4	2
Europe/Middle East	3	2	1
South Korea	2	1	1
Japan	2	1	1
Total	**29**	**19**	**10**

Source: SEMI.org

Note: [1/]'Container Dwell Fee' on Hold Until Feb. 18 - Port of Long Beach (polb.com)

Key assumptions for 2022 economic projection:

World Economic Projection

	Actual Data			Projection for 2022	
	2019	2020	2021	Nov 15, 2021	Feb 21, 2022
World Economic Growth (%)[1]	2.8	-3.1	5.6	4.8	4.5
USA	2.3	-3.4	5.7	5.0	4.0
EU	1.6	-6.4	5.2	4.2	3.9
Japan	-0.2	-4.5	1.7	3.0	2.8
China	6.0	2.2	8.1	5.5	5.0
World Trade Volume (%)	0.9	-8.2	8.0	6.5	6.0
Exchange Rate (Baht/US Dollar)	31.0	31.3	32.0	32.0 – 33.0	32.2 – 33.2
Dubai Crude Oil (US Dollar/Barrel)	63.3	42.1	69.5	67.0 – 77.0	72.0 – 82.0
Export Price (US Dollar) (%)	0.3	-0.8	3.3	0.0 – 1.0	0.5 – 1.5
Import Price (US Dollar) (%)	0.3	-3.8	4.3	0.5 – 1.5	1.0 – 2.0
Income from Tourism (Trillion Baht)[2]	1.85	0.42	0.15	0.44	0.47

Note: [1] World economic calculated by trade weight 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
Source: NESDC as of 21 February 2022

1) **The assumption for the pandemic and vaccines** are as follows: (i) the outbreak of the Omicron variant will be limited and remain under the capacity of the public healthcare system in which that rates of severe infections and deaths are expected to be maintained despite high number of daily new cases. Therefore, the containment measures will not be stricter from the current period and is expected to be more relaxed after the first quarter; (ii) there will be no new emergence of new COVID-19 variants that will worsen the situation than at the present, in both Thailand and other countries, and will thus not lead to more stringent containment measure and uplifting higher level of international travel restrictions. In addition, it is assumed that Thailand will continue to allow foreign tourists to enter without mandatory quarantine, through the Test & Go scheme, for the rest of 2022; and (iii) the vaccine distribution, especially of the booster dose, will continue more broadly to cover the population at a sufficient rate such that the number of severe cases and deaths will remain low. In addition, it is assumed that the new viral mutations will not significantly deteriorate vaccine effectiveness in which that the vaccines still can effectively reduce severe morbidity and mortality rate.

2) **The world economy and the global trade volume in 2022 are expected to expand by 4.5 percent and 6.0 percent, respectively,** lower than the 5.6-percent and 8.0-percent growths in 2021, and downwardly revised from the growths of 4.8 percent and 6.5 percent in the previous projection. The adjustments are in accordance with the slower-than-expected growth of major countries, particularly the US and China. For the US economy, this downgrade growth is due to the fewer investment budget disbursement under the Build Back Better plan that is likely to be delay. In addition, the Federal Reserve appears to tighten the monetary policy and hence is likely to increase its policy interest rate earlier than previously estimated to cope with rising inflationary pressures and the persistent impact from supply chain disruption. Meanwhile, the Chinese economy growth tends to decelerate as a result of the continuation of zero-tolerance COVID-19 policy and the financial stress in the real estate sector.

3) **The average value of Thai Baht in 2022 is expected to be within the range of 32.2 - 33.2 Baht per US dollar, depreciating from 32.0 Baht per US dollar in 2021 and the range of 32.0 - 33.0 Baht per US dollar in the last projection.** The adjustment is in line with an average exchange rate between January 1st - February 17th, 2022, at 33.09 Baht per US dollar, that was more depreciated than previous forecast, following an increasing in US bond yield and an earlier-than-expected rise of the policy rate of the Federal Reserve. However, in the latter half of 2022, the Thai Baht is expected to be more stable owing to the return-to-surplus current account and overall economic recovery.

4) **The average Dubai crude oil price in 2022 is expected to be within the range of 72.0 - 82.0 US dollars per barrel, increasing from a 2021 average of 69.5 US dollars per barrel.** This is an upward revision from 67.0 - 77.0 US dollars per barrel, to be in line with the higher-than-expected actual prices of 85.9 US dollars per barrel averaging between January 1st - February 17th, 2022. The major upside risks to the oil price during 2022 are: (i) the intensified geopolitical conflicts between Russia and Ukraine as well as tension between UAE and the Houthi in Yemen; and (ii) the fundamental factors from the rising oil demand following global economic recovery, while production expansion remained under constraints. This follows the fact that the OPEC+ still maintained their output increase only by 400 thousand barrel per day, while the inventories of the US and other OECD countries tend to decline. Nevertheless, the oil price is also subject to downward pressures due to following factors: (i) increasing production capacity of the Northern American economies, as the number of oil rigs in the US, Canada, and the Gulf of Mexico continued to a 99-week high at 669 rigs at the end of the week of February 11th. In addition, the rest of the world's oil rig count was also the highest in 20 months; (ii) the slower-than-expected growth of the Chinese economy, and (iii) the possible agreement on the Iran Nuclear Deal, which will allow Iran to resume export their petroleum production.

5) **The export and import prices in terms of US Dollars in 2022 are expected to rise by 0.5 - 1.5 percent and 1.0 - 2.0 percent, respectively,** lower than 3.3 percent and 4.3 percent in 2021, respectively. However, these are upward adjustments from 0.0 - 1.0 percent and 0.5 - 1.5 percent, respectively, in the November estimation. This is in line with the oil price assumption adjustment and the prolonged supply chain disruption which has kept freight costs at high levels.

6) **The revenue from foreign tourists** in 2022 is expected to be 0.47 trillion Baht, with the total number of foreign tourists of 5.5 million tourists, increasing from 0.15 trillion Baht and 0.43 million tourists in 2021, and an upward revision from the previous projection of 0.44 trillion Baht and 5.0 million tourists. The revision follows the higher-than-expected number of foreign tourists after relaxing international travel restriction since 1st November which thus led to total 321,752 foreign tourists during November and December 2021 This resulted in 0.43 million tourists for 2021, higher than the previous assumption at 0.2 million people. The revision is also in line with the recurrent resumption of international travels under the Test & Go scheme since February 2022 for fully vaccinated tourists to enter country without mandatory quarantine. In addition, several tourist-origin countries including neighboring countries have continually relaxed their travel restrictions.

7) **The budget disbursement** is expected to be as follows: (i) The FY2022 annual budget disbursement rate of 93.5 percent of overall budget, equivalent to the previous projection. The current budget and capital budget are expected to be disbursed by 98.0 percent and 75.0 percent, respectively, equivalent to the previous estimation; (ii) The carry-over budget disbursement rate of 82.9, the same level as in the previous estimation: (iii) State-owned enterprises' capital budget disbursement of 70.0 percent, equal to the previous assumption, and approximately at 328 billion Baht in total; (iv) The budget under the 1 trillion Baht loan decree which was disbursed by 944.2 billion Baht as of February 1st, 2022, is thus expected to be fully disbursed by the end of FY2022; and (v) The budget under the 500 billion Baht loan decree which was disbursed by 276.97 billion Baht as of February 1st, 2022 is expected to be cumulatively disbursed by 390.2 billion Baht within FY2022 (78.0 percent of the total budget) and will be fully disbursed by the first quarter of FY2023.

The Thai economic outlook 2022

The Thai economy in 2022 is projected to expand by 3.5 - 4.5 percent (with a midpoint of 4.0 percent), accelerating from the 1.6-percent growth in 2021. Headline inflation is expected to be within 1.5 - 2.5 percent, compared with 1.2 percent in the previous year and the current account is projected to record a surplus of 1.5 percent of GDP, compared with a deficit of 2.2 percent in 2021.

In the February 21st, 2022, press release, the NESDC estimated that the Thai economy in 2022 is expected to expand by 3.5 - 4.5 percent, with the midpoint forecast of 4.0 percent, unchanged from the previous projection released on November 15th, 2021. However, the corresponding revisions in key growth components to be consistent with changing conditions and revised assumptions are as follows:

1) **The revision on the global economy and trade volume assumption** to be in tandem with the slower-than-expected growth projection of the major economies, especially in the US, Japan, and China. The world economy and global trade volume in 2022 are expected to expand by 4.5 percent and 6.0 percent, respectively, downward revisions from the 4.8-percent and 6.5-percent growths in the previous estimation. Therefore, it is expected that the decelerated global economy will weight on the growths of Thai exports, private investment, and manufacturing production.

2) **The revision of foreign tourist assumption** to be in line with more-than-expected actual number of foreign tourists coming to Thailand during November – December 2021 after the relaxation of international travel restriction. Since February 1st, 2022, the government has reimplemented the Test & Go program that allow fully vaccinated foreign visitors to enter the country without quarantine requirement. In addition, several countries, including major tourist origins, continuously ease their international travel restrictions. Similarly, other neighboring countries have begun to open their borders to foreign tourists, such as Indonesia, Vietnam and the Philippines. In this projection, the number of tourists in 2022 is expected to be at 5.5 million people which will thus generate the foreign tourism receipts to be 0.47 trillion Baht, upwardly revised from 5.0 million people and 0.44 trillion Baht in the previous projections, respectively. Therefore, in this projection, the contribution from export of services to overall economy will be greater than the previous forecast.

3) **The revision of government budget disbursement assumptions** to be in accordance with the budget framework under FY2023 as current budget framework is lower than expected compared with that of FY2022, as well as the component adjustment of the additional 500-billion loan decree budget to be consistent with the actual approved projects.

Key components of Economic growth;

1) **Total consumption: (1) Private consumption expenditure** is expected to increase by 4.5 percent, accelerating from a 0.3-percent growth in 2021 and an upward revision from 4.3-percent growth in the previous estimation. This was in line with the expected limited severity of recent Omicron COVID-19 variant outbreak which results in improving consumer confidence and regaining domestic expenditure; and **(2) Government consumption expenditure** is projected to decline by 0.2 percent, decreasing from a 3.2-percent growth in 2021 and a downward revision from 0.3-percent growth in previous estimation. This was in accordance with a lower current budget framework in the FY2023 compared with that of FY2022, as well as the component adjustment of the additional 500-billion loan decree budget to be consistent with the actual approved projects.

2) **Total investment** is expected to register a 4.0-percent growth in 2022, compared with an increase of 3.4 percent in 2021 **(1) Private investment** is estimated to increase by 3.8 percent, an acceleration from a 3.2-percent growth in 2021 but a downward revision from 4.2 percent in the previous estimation; and **(2) Public investment** is expected to grow by 4.6 percent, compared with a 3.8-percent increase in the previous year while maintaining the growth forecast as in the previous projection to be consistent with unchanged assumptions of FY2022's capital budget and SOEs budget disbursements.

3) **Export value of goods in US dollar term** is anticipated to increase by 4.9 percent, normalizing from an 18.8-percent expansion in 2021 and remaining unchanged from previous estimation due to the combination between downward revision of export volume and upward revision of export price. The export volume is forecasted to grow by 3.9 percent, downwardly revised from 4.4-percent growth in the previous projection to be consistent with the weaker prospects of the world economic and global trade growth assumptions. On the other hand, the export price is expected to increase by a range of 0.5 - 1.5 percent, an upward revision from 0.0 - 1.0 percent in the previous projection to be in line with the upward change in oil price assumption. Meanwhile, the export of services is projected to exhibit stronger growth than the previous estimation, following the recovery of tourism sector after easing international travel restrictions. Thus, in 2022, **the export quantity of goods and services** is estimated to increase by 8.9 percent, compared with a 10.4-percent growth in 2021 and a downward revision from 9.0-percent expansion in previous estimation

4) **Import value of goods in term of US dollar** is expected to increase by 5.9 percent, compared with 23.4 percent in 2021, an upward revision from 5.7 percent in the previous projection. This is mainly due to an upward revision of import price assumption from 0.5 - 1.5 percent in the previous estimation to 1.0 - 2.0 percent, in accordance with an increase in rising oil price and depreciation of Thai Baht. On the other hand, the import volume is anticipated to grow by 4.4 percent, a downward revision from 4.7 percent in the previous projection. This is consistent with a slowing trend of total investment and export of goods. Meanwhile, the export of services growth tends to decelerate from the high base last year. Overall, **the import quantity of goods and services** is anticipated to expand by 4.0 percent in 2022, decelerating from 17.9 percent in 2021 and a downward revision from 4.3 percent in the previous projection.

5) **Trade balance** is estimated to register a surplus of 39.7 billion US dollars in 2022, compared with a surplus of 40.0 billion US dollars in 2021. This is an upward revision from a surplus of 35.7 billion US dollars in the last projection. Meanwhile, the current account is expected to register a surplus of 7.7 billion US dollars or 1.5 percent of GDP, escalating from a deficit of 10.9 billion US dollars or 2.2 percent of GDP in 2021, and upwardly revised from a surplus of 5.4 billion US dollars or 1.0 percent of GDP in the previous anticipation.

6) **Economic stability**: the headline inflation is expected to be in range of 1.5 - 2.5 percent in 2022, rising from 1.2 percent in 2021, and upward revision from the range of 0.9 - 1.9 percent in the previous estimation due to an increase trend of oil and food prices.

6. Economic Management for the Year 2022

The economic management during the year 2022 particularly need to focus on the following key measures:

1) **Containing the domestic outbreak,** by: (i) expediting the distribution of vaccine; (ii) strictly implementing disease prevention and control measures upon different intensity in each area, by focusing on the execution of the surveillance system at an organization level (COVID-free setting) and at an individual level (Universal prevention); (iii) avoiding high-risk activities for COVID-19 exposure and preventing illegal cross border travelling; and (iv) preparing resources to be ready to cope with possible unexpected outbreaks during the rest of the year.

2) **Assisting affected business and sectors that are experiencing difficulty to recovery** particularly small business facing limited liquidity and high debt burden, by prioritizing: (i) closely evaluating the ongoing monetary and fiscal measures, to efficiently reach the target groups, together with introducing additional liquidity support to assist those with limited access to fund and not-yet-recovered sectors such as relaxing conditions for the soft loan facility for businesses, encouraging financial institutions to speedily provide liquidity support to targeted groups, and considering additional credit line through the Specialized Financial Institutions (SFIs) for assisting SMEs to continue their businesses; (ii) resolving labor shortages along with considering additional measures to support the labor by focusing on those in affected sectors and those requires job transition, including workers in SMEs and start-ups business to prevent lay-offs; (iii) expediting business debt restructuring; and (iv) actively promoting government policies to encourage household and businesses sectors to fully engage.

3) **Maintaining momentum from household expenditure and domestic tourism,** by focusing on: **(i) closely monitoring and evaluating the ongoing measures,** along with attentively adjusting existing measures to be more efficient and on-target reach as well as be ready for the impending risks; **(ii) accommodating the market mechanism** to alleviate and resolve the effects of increase prices on input costs and cost of living, including those affected by decreasing agricultural product prices; and **(iii) prioritizing disbursements from the 2022 and 2023 budgets for projects aimed to create additional local jobs,** especially for labors relocating to their hometowns to obtain their jobs during the early stages of economic recovery.

4) **Resolving household debt,** to minimize constraints to the growth of domestic demand, by prioritizing long-term debt restructuring programs for affected borrowers by customizing the program to match with each group based on their income conditions and financial situations, along with providing incentives for debt consolidation and implementing additional measures to lessen key debt burdens such as education, leases, and consumer debts.

5) **Stimulating export of goods,** along with maintaining employment in manufacturing sector, to support continual economic expansion, by emphasizing on: (i) boosting exports to major markets that show strong economic recovery coupled with expanding new markets for potential products as well as supporting cross border trade; (ii) developing the quality of agricultural, food, and manufacturing products to comply with importers' regulations; (iii) reducing difficulties and limitations regarding transportation and logistics system, especially transportation between ports and destination facilities to decrease time and costs; (iv) utilizing benefits from Regional Comprehensive Economic Partnership (RCEP), along with expediting the ongoing Free Trade Agreement (FTA) negotiations and preparing for future negotiations with new partners, as well as accelerating the consideration process regarding the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) with focusing on the benefits of the country; and (v) cushioning the effects of exchange rate fluctuations and rising input costs.

6) **Stimulating private investment** with emphasis on: (i) speeding up projects already approved and obtained investment promotion certificates during 2018 – 2021 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; (iv) stimulating investments in Eastern Economic Corridor (EEC), other special economic zones, as well as the regional economic corridors; (v) stimulating investment in the key economic areas and transport infrastructure to be in accordance with the prospected plan; and (vi) developing high-skilled labors to brace the growth of technology-and-innovation-intensive industries

7) **Maintaining growth momentum from government expenditure and investments,** by: (i) expediting the FY2022's annual budget disbursement rate to be at least 93.4 percent of the total budget, state-owned enterprises' capital budget disbursement rate to be at least 70.0 percent of the total budget, and accelerating the projects under the 1-trillion-Baht and the additional 500-billion-Baht loan decrees; (ii) accelerating large-scale government infrastructure projects, both economic zone development and transportation infrastructure, to be according as planned, especially double-track railways, Mass Rapid Transit (MRT), and SRT red line, and key energy investment projects; 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 uncertainty and volatility.

8) **Monitoring, scrutinizing, and preparing for the volatilities from global economy** that might exacerbate the economic stability amid the rising pressure on interest rates in the global financial market, as well as preserving domestic political environment not to become an additional downside risk to the economy and overall confidence.

9) **Focusing on the economic restructuring policy** aiming in particular at enhancing competitiveness, improving income distribution, and moving towards a low-carbon society.

Key economic measures to remedy and mitigate impacts from COVID-19 outbreak

Measures	Details
1. Measures to remedy households	
Household Consumption Supporting	• Adding up the monthly allowance for social welfare card holder and those in need of special help by 200 Baht per person per month for 3 months (Feb – Apr 22) • “Ying-Chai-Ying-Dai” to reinvigorate consumption, purchasing power, and support entrepreneurs with Value Added Tax (VAT) registration, with the form of electronic vouchers (e-Voucher) accumulate up to 7,000 Baht (Jul – Dec 21) • “Kon-La-Kreung” or “Half-Half co-payment” scheme phase 4th, a half price subsidy for purchase at eligible stores, with a total cap at 150 Baht per person per day or 3,600 Baht per person during the program (Feb – Apr 22) • “Shop-dee-mee-kuen”, tax deduction in the tax year 2022 for individual income tax payer who shopped (Maximum tax allowance of 30,000 Baht)
Soft loans by Specialized Financial Institutions (SFIs) and Bank of Thailand (BOT)	• Credit for personal expenses for freelancer and employees (totaling 25,000 million Baht) (GSB) • Thai fight COVID-19 credit to mitigate the impact of a new wave of COVID-19 pandemic (totaling 20,000 million Baht) (BAAC and GSB) • Credit for wage earners, freelancers, small farmers, and farm workers (totaling 20,000 million Baht) (BAAC) • Soft Loans for low-income earners through The Government Pawnshop (totaling 20,000 million Baht) (GSB) • New Year's Gift Project 2022 from SFIs, such as “Vi-Nai-Dee-Mee-Ngern” (GSB), “Cham-Ra-Dee-Mee-Keun” (BAAC), “Lot-Dok-Bia-Soo-Covid” (BAAC), and exemption of credit guarantee processing fees (TCG)
Tax measures	• Extension of deadlines for filing returns and paying taxes to individuals liable to personal income tax • Reduction in fees for the registration of a sale and mortgage of real estate by reducing the transfer fee from 2 percent to 0.01 percent, and the mortgage fee from 1 percent to 0.01 percent • Decrease excise tax on jet fuel • Import tax exemption for medicines, medical supplies, medical tools to use against COVID-19 • The penalty exemption for the government construction, which has delivered the final installment. • Exemption of license fees on businesses which sell liquor, tobacco, and cards
2. Measures to support the tourism sector	
We Travel Together	• The government subsidizes 40 percent for hotel accommodation per night, up to 10 nights per person for a total of 2 million rooms with e-voucher up to 600 Baht per room per night and airplane ticket cash back up to 3,000 Baht, starting on February 1st - May 31st, 2022
Tour Tiew Thai	• The government subsidizes 40 percent of tourist package costs up to 5,000 Baht per person for a total of 1 million persons, starting on October 8th, 2021 - April 30th, 2022
Measures to reopen for foreign tourists	• Open for vaccinated foreign visitors without quarantine under the public health prevention, the fully vaccinated foreign visitors, RT-PCR lab result test within 72 hours, and travel insurance are required for international travelers, starting on November 1st, 2021 for 63 low-risk countries, before expanding to foreigners from all countries on February 1st, 2022

Key economic measures to remedy and mitigate impacts from COVID-19 outbreak

Measures	Details
3. Measures to support businesses and SMEs	
Financial measures for SMEs	• Debt restructuring through Asset Warehousing with Buy-Back options under the 2020 Soft Loan Emergency Decree (totaling 100 billion Baht) • BOT's policies for affected borrowers include; – Providing financial institutions assistance to debtors by considering the appropriation of credit types and risk levels, such as (i) Debt restructuring, (ii) Providing working capital and additional liquidity, (iii) Consideration of postponed debt repayment, and (iv) Easing of other conditions as appropriate. – Additional measures to support small business debtors with debt consolidation – Utilizing Criteria for Classification and Flexible bank reserves – Measures to support and mitigate debt for borrowers with multi-creditors (DR BIZ program) by the Bank of Thailand – Postponing principal and interest payments to SMEs and retail lender for 2 months – Reduction of interest rates and Financial Institutions Development Fund (FIDF) fee as well as the adjustment of default interest calculations for debt repayment – The adjustment of default interest calculations for debt repayment • Support Small and Medium Enterprises' (SMEs) accessibility to public procurement • Setting the new standard for credit term in Thailand (Trade debtors must settle within 30 - 45 days) • Tax and fee measures to support debt restructuring with exemptions of Income tax, value-added tax (VAT), Specific Business Tax, and revenue stamp to debtors and creditors, as well as easing bad debt disposal from accounts receivable of creditors for debt restructuring of debtors under financial institutions, non-financial institution, and other creditors who have negotiated with financial institutions in accordance with the regulations announced by BOT
Measures to support financial liquidity	• Loans for businesses with Financial Rehabilitation measures (totaling 250,000 million Baht) under the 2020 Soft Loan Emergency Decree • Loan for small entrepreneurs (SMEs Bank) (totaling 10,000 million Baht) • Thai tourism recovery relief loan scheme by GSB (totaling 5,000 million Baht) • Loan for the local economy (SMEs Bank) (totaling 50,000 million Baht) • Land guarantee scheme for SMEs by GSB (totaling 10,000 million Baht) • Loan for entrepreneurs of food and beverage by GSB (totaling 2,000 million Baht) • EXIM Biz Transformation Loan (totaling 5,000 million Baht) • Loan for job creation, career creation by GSB (totaling 5,000 million Baht) • SMEs D Plus loans, SMEs D loans for investment and SMEs D loans to enhance liquidity (totaling 15,000 million Baht) (SMEs Bank)
Measures to support financial liquidity (credit guarantee)	• SMEs portfolio guarantee scheme: Thai fight COVID-19 (Under portfolio guarantee scheme phase 9 worth 150 billion Baht) (Thai Credit Guarantee Corporation: TCG) (the budget of 5,000 million Baht) • Micro portfolio guarantee scheme: Thai fight COVID-19 (Under portfolio guarantee scheme phase 4 worth 25 billion Baht) (TCG) • Loan Guarantee scheme under the 2020 Soft Loan Emergency Decree
Long term Resident Visa	• The scheme to attract foreigners for long-term stay in Thailand, targeted high potential and wealthy people, aiming to stimulate economy, investment, and employment by drawing 1 million long-term residents. This program is expected to increase 1 trillion Baht of domestic spending, boost domestic investment by 800 billion Baht, generate 270 billion Baht in tax revenue, as well as increase number of experts in various fields for industrial and business sectors.

Key economic measures to remedy and mitigate impacts from COVID-19 outbreak

Measures	Details
4. Measures to support affected workers	
Increasing unemployment benefits	• Increasing unemployment compensation for the insured workers under section 33, receiving compensation by 50 percent of their wage up to 90 days in case they are laid off or resigned
Measures to employment support	• Employment support from the public and private sectors for the newly graduated, a 50 percent wage subsidy. (Oct 2020 - Dec 2021) • Soft loans to encourage employment (totaling 30,000 million Baht)
Entrepreneurs and the section 33, 39, and 40 remedy schemes	• Compensation support to entrepreneurs of 3,000 Baht per person, up to 200 persons, and compensation support to section 33 of 2,500 Baht per person in 9 sectors. (March 22nd - June 30th, 2021) • Compensation support to insurers under section 39, and section 40 in 9 sectors in the maximum restriction areas, including; (1) Compensation support to section 39 in 13 dark-red zone provinces of 5,000 Baht per person for 2 months (2) Compensation support for insurers under section 40 as follow; (i) Compensation in 16 dark-red zone provinces of 5,000 Baht per person, (ii) Compensation in 13 dark-red zone provinces of 5,000 Baht per person for 2 months, and (iii) Compensation in 3 additional provinces of 5,000 Baht per person for 1 month (until October 31st, 2021) • Compensation support insurers under section 39 and section 40, who engaged in the entertainment business and self-employed persons that are still unable to work due to temporarily closure of businesses following government's order, by 5,000 Baht per person for 1 month, starting the first round of transfer on December 29th, 2021 and the next round on January 7th, 2022 until March 31st, 2022
Measures to maintain employment for SMEs	• measures to promote employment and maintain employment in the private sector, the government subsidize employer by 3,000 Baht per insured labor per month, which the maximum of 200 employees per employer for 3 months. (November 2021 – January 2022)
5. Measures to support education expenses	
Cost of education support scheme in COVID-19 outbreak	• Measure to discounting on education for students in an educational institution of 2,000 Baht per person
Cost of education support scheme for students in an educational institution	• The government supports to education expenses for educational institution of 100 places and measure to remedy tuition fee of 5,000 per person, include: (i) tuition fee reduction and (ii) support to tuition fee
6. Measures to support price levels	
Measures of agricultural insurance programs	• Rice Farmers Income Insurance, the crop year 2020/21 (totaling 50,600 million Baht), the crop year 2021/22 (totaling 89,000 million Baht), and the additional 1st round crop year 2021/22 (totaling 74,569 million Baht) • Maize Farmers Income Insurance, the crop year 2020/21 (totaling 1,913 million Baht), the crop year 2021/22 (totaling 1,863 million Baht), and Parallel Measures to Maize Farmers Income Insurance, the crop year 2021/22 in loan for collecting maize and creating value-added by farmers institutions crop year 2021/22 (totaling 1,030 million Baht) • Cassava Farmers Income Insurance, the crop year 2020/21 (totaling 9,789 million Baht), the crop year 2021/22 (totaling 6,811 million Baht), and Parallel Measures to Cassava Farmers Income Insurance as follow; Increasing the efficiency of cassava cultivation, the crop year 2021/22, and loan for collecting cassava and creating value-added by farmers institutions crop year 2021/22 (totaling 56.4 million Baht) • Oil Palm Farmers Income Insurance for the year 2021 (totaling 8,807 million Baht) • Rubber Farmer Income Insurance phase 1-3 (totaling 46,789 million Baht)
Fertilizer prices support scheme for farmers	• Distribution of fertilizer at a special price to farmers by amount of 143,233 tons (2,864,673 sacks) with a total discount value of 60 million Baht, starting on July 2021

Projection for 2022[1/]

	Actual Data			Projection	
	2019	**2020**	**2021**	**Nov 15, 2021**	**Feb 21, 2022**
GDP (at current prices: Bil. Baht)	16,892.4	15,636.9	16,179.8	17,026.9	17,102.1
GDP per capita (Baht per year)	243,705.2	224,962.4	232,176.0	243,761.4	244,838.2
GDP (at current prices: Bil. USD)	544.1	499.7	505.6	523.9	523.0
GDP per capita (USD per year)	7,849.6	7,189.6	7,255.5	7,500.4	7,487.4
GDP Growth (CVM, %)	2.2	-6.2	1.6	3.5 - 4.5	3.5 - 4.5
Investment (CVM, %)[2/]	2.0	-4.8	3.4	4.3	4.0
Private (CVM, %)	2.6	-8.2	3.2	4.2	3.8
Public (CVM, %)	0.1	5.1	3.8	4.6	4.6
Private Consumption (CVM, %)	4.0	-1.0	0.3	4.3	4.5
Government Consumption (CVM, %)	1.6	1.4	3.2	0.3	-0.2
Export volume of goods & services (%)	-3.0	-19.7	10.4	9.0	8.9
Export value of goods (Bil. USD)	242.7	227.0	269.59	278.1	282.9
Growth rate (%)[3/]	-3.3	-6.5	18.8	4.9	4.9
Growth rate (Volume, %)[3/]	-3.7	-5.8	15.0	4.4	3.9
Import volume of goods & services (%)	-5.2	-14.1	17.9	4.3	4.0
Import value of goods (Bil. USD)	216.0	186.1	229.6	242.4	243.2
Growth rate (%)[3/]	-5.6	-13.8	23.4	5.7	5.9
Growth rate (Volume, %)[3/]	-5.8	-10.5	18.3	4.7	4.4
Trade balance (Bil. USD)	26.7	40.9	40.0	35.7	39.7
Current account balance (Bil. USD)	38.0	21.2	-10.9	5.4	7.7
Current account to GDP (%)	7.0	4.2	-2.2	1.0	1.5
Inflation (%)					
CPI	0.7	-0.8	1.2	0.9 - 1.9	1.5 - 2.5
GDP Deflator	1.0	-1.3	1.9	0.6 - 1.6	1.2 - 2.2

Source: Office of the National Economic and Social Development Council, 21st February 2022

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 are based on the Bank of Thailand's data.