



NESDC ECONOMIC REPORT

Thai Economic Performance in Q3 and Outlook for 2021 - 2022

Macroeconomic Strategy and Planning Division

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The Thai Economy in the third quarter of 2021 contracted by 0.3 percent (%YoY) compared with a 7.6-percent growth in the previous quarter. After seasonally adjusted, the economy decreased by 1.1 percent from the second quarter (%QoQ sa). In the first 9 months of 2021, the Thai economy expanded by 1.3 percent.



On expenditure side: private consumption and public investment showed contractions, while export of goods, private investment and government expenditure continued to grow.



On production side: the manufacturing sector, the accommodation and food service activities, the construction sector, and the transportation and storage sector contracted. Meanwhile, wholesale and retail trade sector and agricultural sector accelerated.

The Thai economy in 2021 is projected to increase by 1.2 percent, a gradual recovery from a 6.1-percent decrease in 2020. Headline inflation is estimated to be 1.2 percent and the current account is projected to record a deficit of 2.5 percent of GDP.

The Thai economy in 2022 is anticipated to grow in the range of 3.5 - 4.5 percent, mainly supported by: (i) the recovery in domestic demand and manufacturing production, following improving COVID-19 pandemic situation; (ii) the regaining of tourism growth following the easing of international travel policy; (iii) the favourable expansion of export of goods; (iv) the support from government expenditure; and (v) the low growth base of the previous year. Export value of goods in US dollar terms is anticipated to expand by 4.9 percent. Meanwhile, private consumption expenditure and private investment are expected to increase by 4.3 percent and 4.2 percent, respectively. Headline inflation is estimated to be in the range of 0.9 - 1.9 percent and the current account is projected to record a surplus of 1.0 percent of GDP.

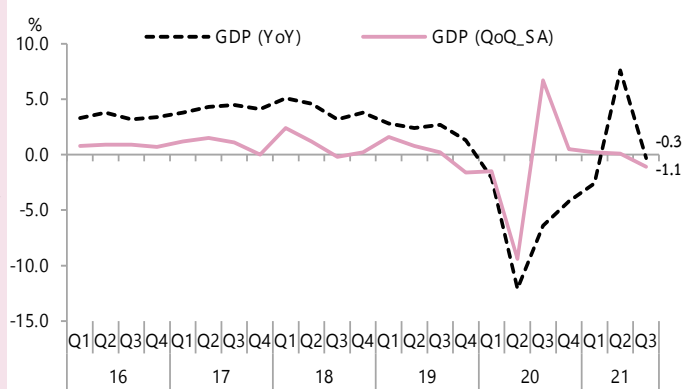
Economic Projection of 2021 - 2022

(%YoY)	2019	2020		Projection	
	Year	Q3	Q4	2021	2022
GDP (CVM)	-6.1	7.6	-0.3	1.2	3.5 - 4.5
Investment ^{1/}	-4.8	7.6	-0.4	4.4	4.3
Private	-8.4	9.2	2.6	4.3	4.2
Public	5.7	4.1	-6.0	4.8	4.6
Private Consumption	-1.0	4.8	-3.2	1.2	4.3
Government Consumption	0.9	1.0	2.5	2.3	0.3
Export of Goods ^{2/}	-6.5	36.2	15.7	16.8	4.9
Volume ^{2/}	-5.8	30.9	12.2	13.3	4.4
Import of Goods ^{2/}	-13.8	41.8	31.8	23.2	5.7
Volume ^{2/}	-10.5	32.0	27.9	18.2	4.7
Current Account to GDP (%)	4.0	-3.5	-3.6	-2.5	1.0
Inflation	-0.8	2.4	0.7	1.2	0.9 - 1.9

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

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

Thai economy in Q3/2021



Source: NESDC

The economic management for the Year 2022 needs to prioritize on following issues: **(1) Containing the domestic outbreak and preventing resurgences** by (i) strictly implementing the disease preventing and controlling measures; (ii) expediting vaccine distribution; (iii) monitoring and controlling high risk activities; and (iv) preparing for unexpected resurgences; **(2) Assisting affected business and economic sectors** that are constrained from recovering, by (i) following up the implemented monetary and fiscal measures to efficiently reach the target group together with considering additional measures for those who are unable to access to existing measures; (ii) considering additional labor measures targeted to recovering constrained sectors, and (iii) actively promoting government policies to encourage household and businesses sectors to fully engage; **(3) Maintaining growth momentum from household expenditure and domestic tourism**, by: (i) closely monitoring and evaluating the ongoing measures, along with attentively adjusting the existing measures to be more efficient and on-target reach. (ii) resolving high household debt; and (iii) strengthening agricultural income; **(4) Encouraging export of goods**, by: (i) boosting exports to major markets and expanding new markets for potential products; (ii) enhancing the quality of agricultural, food, and manufacturing products; (iii) reducing difficulty and limitation regarding transportation and logistics system; (iv) utilizing benefits from Regional Comprehensive Economic Partnership (RCEP) and expediting the ongoing Free Trade Agreement (FTA) negotiations; and (v) cushioning the effects of exchange rate fluctuations and rising input costs; **(5) Stimulating private investment** by: (i) restoring investors' confidence through the effective prevention and control measures for containing the outbreak; (ii) speeding up projects already approved and obtained investment promotion certificates during 2018 - 2020 to start their actual investments; (iii) solving difficulties and obstacles hindering investors and entrepreneurs from investing and conducting businesses, including labor shortages in manufacturing sector; (iv) implementing proactive investment promotions and facilitating investors in target industries; (v) encouraging investments in Eastern Economic Corridor (EEC) and other special economic zones; (vi) stimulating investment in the key economic zones and major transport infrastructure projects; and (vii) developing high-skilled labors to brace the growth of technology-and-innovation-intensive industries; **(6) Maintaining growth momentum from government expenditure and public investment**; and **(7) Scrutinizing both global economic volatility** that might exacerbate domestic economic stability and maintaining favorable domestic political conditions.

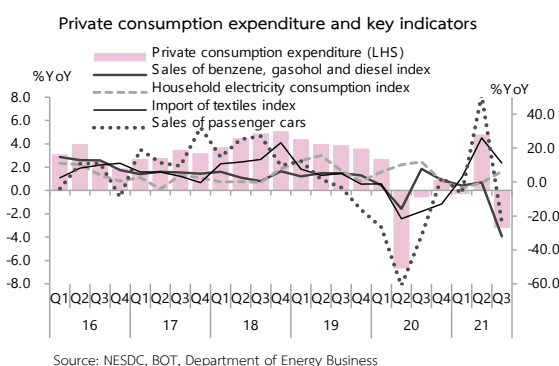
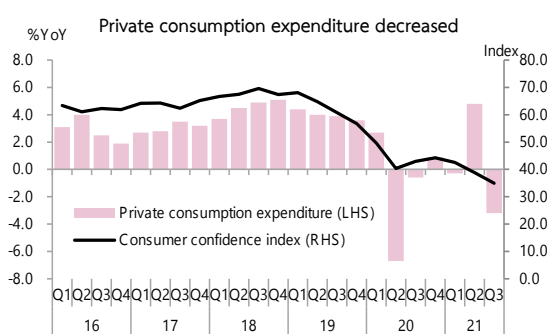
1. The Thai Economy in Q3/2021

Expenditure Side:

Private consumption expenditures decreased by 3.2 percent, compared with a 4.8-percent growth in the previous quarter due to the new wave of COVID-19 outbreak causing people being aware of their spending, while the government essentially adjusted measures to control the spread of COVID-19, which led to the decline in economic activity and domestic spending. **The expenditure on durable goods** decreased by 14.1 percent, compared with a 13.3-percent growth in the previous quarter, following a 21.8-percent decline in purchase of vehicles. **The expenditure in services** decreased by 4.9 percent, compared with a 9.1-percent growth in the previous quarter, following a decrease in spending on restaurants, hotels & audio-visual, and photographic & information processing equipment which decreased by 16.0 percent, and 11.2 percent, respectively. **The expenditure in semi-durable goods** continually decreased by 8.3 percent from a 7.3-percent decrease in the previous quarter, following a decrease in spending on furnishings, household equipment and routine maintenance, and clothing and footwear decreasing by 6.6 percent and 9.0 percent, respectively. Meanwhile, **the expenditure in non-durable goods** increased by 1.3 percent, decelerating from a 2.3-percent growth in the previous quarter. In details, the operation of personal transport equipment decreased by 15.6 percent while food and non-alcoholic beverages grew by 2.7 percent. The decline of private consumption in this quarter was mainly due to the severe spread of the COVID-19 pandemic which led the government to elevate the public health prevention measures and announced the additional maximum controlled areas from 10 provinces on July 12th, to 13 provinces on July 18th, and to 29 provinces on August 3rd, 2021. Consequently, the consumer confidence index towards the economic situation dropped from 38.8 in the previous quarter to 34.9 in this quarter.

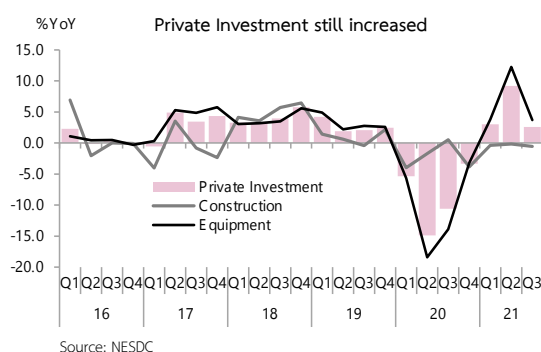
In the third quarter of 2021, private consumption expenditures declined while private investment and export of goods continually increased.

Private consumption decreased by 3.2 percent, compared with a 4.8-percent growth in the previous quarter due to a severe spread of the COVID-19 pandemic.

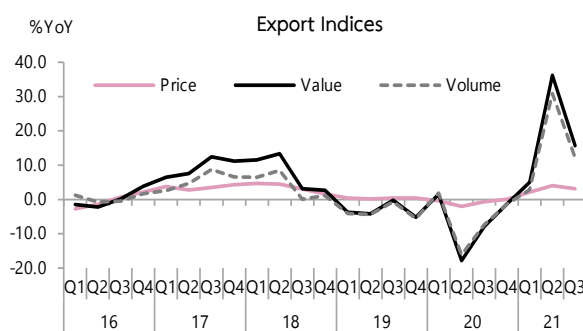


Private investment grew by 2.6 percent, decelerating from a 9.2-percent growth in the previous quarter. This was due to a slowdown in the investment in machinery and equipment, and a continuous decline in investment in construction. **The investment in machinery and equipment** grew by 3.7 percent, compared with a 12.2-percent growth in the previous quarter. This was in line with the expansion of imports of capital goods and domestic machinery sales which were at 21.9 percent and 12.7 percent, compared to an expansion of 24.5 percent and 44.2 percent in the previous quarter, respectively. However, the newly registered motor vehicles for investment declined by 12.1 percent, compared with a 20.3-percent growth in the previous quarter. **The investment in construction** declined by 0.5 percent, continually declined from a 0.1-percent drop in the previous quarter. This was in accordance to a decline in the number of constructions permitted areas, and the domestic construction material sales index which decreased by 5.5 percent and 9.8 percent, respectively, continually declined from 9.4-percent and 3.6-percent decrease in the previous quarter. This was mainly caused by the closure of construction site in late July 2021 from the COVID-19 outbreak intensify. As a result, the Business Sentiment Index dropped from 45.2 in the previous quarter to 41.3 in this quarter.

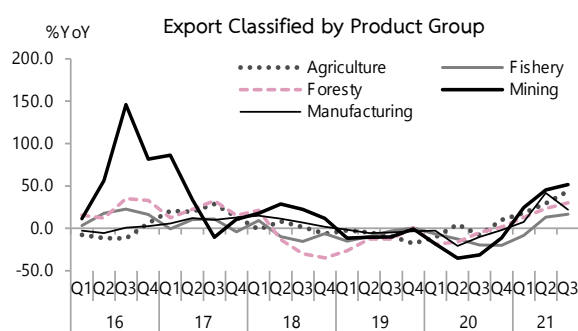
Private investment grew by 2.6 percent, compared with a 9.2-percent growth in the previous quarter, following a slowdown in investment in the machinery and equipment. Meanwhile, the investment in construction continued to decline.



Exports in US dollar terms continually increased following the economic growth and global trade volume. Export value in the third quarter of 2021 was recorded at 67.2 billion US dollar, increasing by 15.7 percent, compared with a 36.2-percent growth in the previous quarter. The exports volume index expanded by 12.2 percent, compared with a 30.9 -percent increase in the previous quarter. Exports volume of agricultural, fishery, and manufacturing products increased by 42.9 percent, 14.3 percent, and 18.0 percent, respectively. The exports price expanded by 3.1 percent, compared with a 4.0-percent growth in the previous quarter. Export price of agricultural, fishery, and manufacturing rose by 0.7 percent, 2.2 percent, and 3.5 percent, respectively. Excluding unwrought gold, export value expanded by 24.2 percent compared with a 45.2 -percent increase in the previous quarter. **In Baht terms**, export value was recorded at 2,214 billion Baht, expanded by 21.6 percent compared with a 33.6-percent growth in the previous quarter.



Source: Bank of Thailand



Source: Bank of Thailand

Export value of agricultural commodities increased by 43.9 percent, accelerating from a 29.3-percent growth in the previous quarter. The export quantity rose by 42.9 percent following the increase in export volume of rubber, tapioca, and rice. Exports price expanded by 0.7 percent in line with the growth in export price of rubber, tapioca, and sugar. **Export value of manufacturing products** rose by 22.1 percent compared with a 41.8-percent increase in the previous quarter mainly due to the growth of demand in key trading partners. **Export value of fishery products** continually increased for the second quarters, by 16.9 percent as a result of the growth in exports volume and price. **Exports value of other products** declined by 74.7 percent due to the contraction in exports of non-monetary gold which was recorded at 75.8 percent.

Export items with increased value included machinery & equipment (16.4 percent), passenger car (8.7 percent), vehicle parts & accessories (25.3 percent), parts of electrical appliances (18.3 percent), computer parts & accessories (26.1 percent), chemicals (52.5 percent), rubber products (10.4 percent), animal food (19.6 percent), fruits (71.4 percent), rubber (99.5 percent), tapioca (59.8 percent), rice (16.5 percent), and crustaceans (25.0 percent). On the other hand, **export items with decreased value** included beverages (5.2 percent), fish canned, prepared, or preserved (24.7 percent), and sugar (2.4 percent).

Export value in US dollar terms continually increased by 15.7 percent due to the economic growth in key trading partners.

Export value excluding unwrought gold expanded by 24.2 percent.

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

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 two quarters consecutively.

Export Value of Major Product in US Dollar Term

%YoY	2020					2021			Share Q3/20 (%)
	Year	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Agriculture	-1.2	-10.4	4.6	-7.8	10.2	18.3	29.3	43.9	6.5
Rice	-11.3	-24.9	0.7	-17.9	-0.9	-22.0	-38.8	16.5	1.3
Rubber	-14.9	-2.7	-41.0	-35.5	25.4	38.1	97.3	99.5	1.1
Tapioca	5.3	-18.3	0.3	28.2	30.3	72.5	48.2	59.8	0.8
Fruits	11.8	-20.8	47.4	-3.3	11.0	16.8	52.3	71.4	1.8
Manufacturing	-8.7	-2.7	-20.5	-10.0	-1.8	7.6	41.8	22.1	83.4
Food	-6.2	3.3	-4.6	-8.7	-13.6	-6.6	4.6	2.7	7.0
Sugar	-36.2	20.2	-27.8	-49.1	-67.3	-47.7	-21.7	-2.4	0.8
Fish, canned, prepared, or preserved	5.5	-3.4	17.9	10.2	-2.3	-2.4	-26.3	-24.7	1.4
Fruits & vegetables, canned, prepared, or preserved	4.1	12.5	5.0	7.2	-6.0	-4.0	0.3	15.2	0.6
Beverages	-3.7	5.7	-11.0	0.3	-8.8	-0.4	17.8	-5.2	1.1
Rubber products	23.4	7.3	23.4	34.2	29.7	52.8	40.0	10.4	2.7
Animal food	18.7	10.3	24.0	18.0	22.5	27.7	21.2	19.6	0.8
Electronics	1.3	5.2	-6.7	1.5	4.9	10.7	32.6	21.0	15.4
- Computer	0.6	11.0	5.8	-14.4	2.6	2.5	24.2	89.0	0.2
- Computer parts & accessories	-2.4	15.0	-9.1	-1.8	-11.4	-5.0	37.6	26.1	5.8
- Integrated circuits & parts	-5.7	-6.3	-5.1	-9.7	-1.9	13.9	22.7	19.2	3.0
Electrical appliances	-0.2	5.9	-18.8	4.0	9.5	11.1	44.6	8.6	5.7
- Air conditioning machines	-3.4	14.8	-28.8	-7.2	11.2	9.5	52.6	9.3	1.7
- Refrigerators	7.1	1.1	-12.8	21.9	18.4	19.3	51.0	-6.0	0.9
- Parts of electrical appliances	2.8	12.7	-5.0	4.7	-0.5	5.7	24.6	18.3	1.9
Metal & steel	-5.4	1.1	-20.0	-9.2	7.1	22.4	64.0	56.8	4.4
Automotive	-17.6	-4.7	-47.7	-19.0	0.9	21.2	111.8	20.8	13.4
- Passenger car	-18.1	-7.3	-44.6	-22.2	1.6	13.2	89.1	8.7	3.7
- Pick up and trucks	-31.9	-21.2	-66.4	-28.5	-10.1	44.8	190.5	18.7	2.4
- Vehicle parts & accessories	-13.6	0.7	-45.0	-16.0	6.1	17.7	102.2	25.3	6.3
Machinery & equipment	-8.0	-8.5	-23.4	-9.0	9.3	17.3	41.0	16.4	8.2
Chemicals	-10.9	-14.8	-20.4	-6.7	-0.7	16.6	68.1	52.5	2.9
Petro-chemical products	-10.4	-10.7	-18.9	-11.7	0.5	23.8	41.9	38.6	5.0
Petroleum products	-26.8	-4.5	-42.9	-32.6	-27.6	-6.0	94.5	101.5	2.1
Toiletries and cosmetics	-13.1	-0.5	-26.3	-14.3	-8.5	-4.5	5.3	-2.4	1.3
Fishery	-15.2	-6.7	-12.7	-19.7	-19.8	-8.3	13.4	16.9	0.7
Crustaceans	-21.6	-13.8	-15.3	-27.0	-26.8	-3.2	16.0	25.0	0.3
Fish	-3.0	2.3	9.4	-11.0	-10.8	-9.5	-2.1	10.5	0.2
Other Exports	58.7	212.1	68.5	27.3	-38.0	-86.3	-65.6	-74.7	8.5
Non-monetary gold (excl. articles of goldsmiths)	62.3	223.0	73.3	28.8	-37.5	-88.3	-67.3	-75.8	8.4
Total Exports (Customs basis)	-5.9	1.2	-15.2	-7.7	-2.0	2.1	31.8	15.3	100.0
Exports, f.o.b. (BOP basis)	-6.5	1.5	-17.8	-7.9	-1.4	5.0	36.2	15.7	99.1
Export Value (exclude gold)	-8.9	-3.1	-21.4	-10.3	-0.8	11.5	45.2	24.2	90.7

Source: Bank of Thailand

Export markets: Exports to the main markets mostly continued to increase. Exports to China expanded by 32.2 percent mainly due to the increase in exports of fresh, frozen and dried fruits, polymers of ethylene, and automatic data processing machines and parts. Exports to the US rose by 19.6 percent, following the growth in exports of rubber products, motor cars, parts and accessories, and electronic integrated circuits. Exports to Japan grew by 15.3 percent, mainly due to the increase in exports of chemical products and electronic integrated circuits. Exports to EU (27), excluding the UK, expanded by 16.4 percent following the growth in exports of motor cars, parts and accessories, rubber products, and air conditioning machine and parts. Exports to ASEAN (5) grew by 26.5 percent, mainly due to the growth in exports to Malaysia and the Philippines. Exports to CLMV increased by 8.1 percent (exports to Cambodia, Myanmar, and Laos rose by 34.1 percent, 13.5 percent, and 13.5 percent, respectively, while exports to Vietnam declined by 7.9 percent). In addition, exports to the Middle East (15) increased by 22.7 percent supporting by the growth in exports of motor cars, parts and accessories, as well as rubber products. However, exports to Australia decreased for the first time in four quarters by 12.6 percent, supported by the reduction in exports of motor cars, parts and accessories, and air conditioning machine and parts.

Exports to the key markets mostly accelerated.

Export Value to Key Markets in US Dollar Term

%YOY	2020					2021		Share Q3/20 (%)
	Year	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Total Exports (Mil US\$) (Customs basis)	231,634	62,826	51,716	58,680	58,412	64,148	68,187	67,663
(%YoY)	-5.9	1.2	-15.2	-7.7	-2.0	2.1	31.8	15.3
United States	9.7	-2.5	8.9	17.8	16.2	12.4	30.4	19.6
Japan	-7.0	-5.7	-13.5	-13.0	4.2	6.4	20.0	15.3
EU (27) excluding UK	-10.5	-1.9	-28.1	-10.5	-1.8	10.3	49.8	16.4
United Kingdom	-19.7	-7.8	-41.6	-19.3	-9.9	-9.2	65.5	0.2
China	2.2	-0.1	12.1	-0.04	-2.6	19.7	29.2	32.2
ASEAN (9)	-11.8	4.2	-22.4	-15.0	-13.7	-5.5	33.4	18.3
- ASEAN (5)*	-12.2	5.3	-19.7	-19.2	-15.0	-10.2	27.0	26.5
- CLMV**	-11.1	2.8	-25.9	-9.2	-12.0	0.6	42.3	8.1
Middle East (15)	-13.0	3.0	-19.7	-23.3	-13.0	-4.7	37.7	22.7
Australia	-3.9	-2.3	-15.9	-8.8	14.8	19.8	27.7	-12.6
Hong Kong	-3.6	12.3	-8.6	-13.9	-2.0	-19.3	16.2	7.8
India	-25.0	-11.0	-67.2	-21.3	9.0	7.6	181.5	64.9
South Korea	-10.1	-4.5	-25.3	-7.1	-0.7	19.0	55.9	51.3
Taiwan	-5.4	13.5	-11.8	-14.4	-5.7	9.8	35.5	27.2

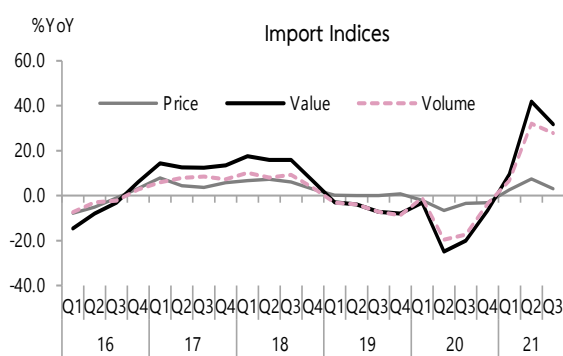
Note: * ASEAN (5) consist of Brunei, Indonesia, Malaysia, Philippines, and Singapore

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

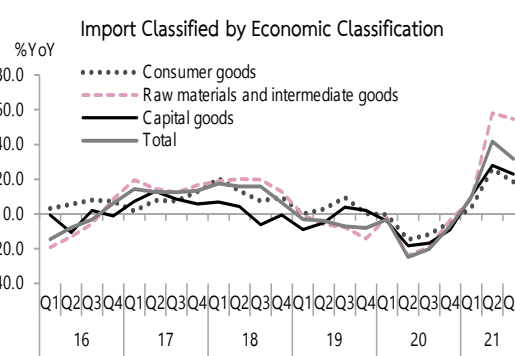
Source: Bank of Thailand

Import value in US dollar terms was recorded at 57,985 billion US dollar, increased by 31.8 percent, compared with a 41.8-percent increase in the previous quarter. Import quantity rose by 27.9 percent, compared with a 31.9-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 30.8 percent, 20.8 percent, and 14.1 percent, respectively. Import price rose by 3.0 percent, compared with a 7.4-percent increase in the previous quarter, associated with the increase in import price of raw materials and intermediate goods which rose by 18.3 percent, compared with a 20.8-percent expand in the previous quarter following the increase in prices of commodities in the world market such as crude oil and metal materials. Import values excluding unwrought gold expanded by 31.1 percent. **In Baht terms**, the import value stood at 1,909 billion Baht, increased by 38.5 percent compared with a 39.1-percent increase in the previous quarter.

Import value in US dollar terms continually increased by 31.8 percent from a 41.8-percent expand in the previous quarter.



Source: Bank of Thailand



Source: Bank of Thailand

By categories, import value of raw materials and intermediate goods, capital goods, consumer goods, and other imports increased. **Import value of raw materials and intermediate goods** expanded by 54.6 percent compared with a 58.0-percent growth in the previous quarter. Import quantity and import price which rose by 30.8 percent and 18.3 percent, respectively. **Import value of capital goods** rose by 23.0 percent comparing with a 28.0-percent growth in the previous quarter. Import quantity and import price expanded by 20.8 percent and 1.8 percent, respectively. **Import value of consumer goods** increased by 18.5 percent comparing with a 26.0-percent growth in the previous quarter. Import quantity and import price increased by 14.1 percent and 3.9 percent, respectively. **Import value of other goods** rose by 36.9 percent comparing with a 76.0-percent increase in the previous quarter due to the expansion in imports of the non-monetary gold (excluding articles of golds) and automotive respectively.

Import Value of Major Product in US Dollar Term

%YoY	2020					2021			Share Q3/20 (%)
	Year	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Consumer goods	-7.9	-0.4	-14.7	-11.7	-4.6	3.4	26.0	18.5	12.4
Food, beverage & dairy products	4.0	11.1	-0.3	1.4	4.0	1.0	9.8	7.8	3.1
Animal & fishery products	-6.9	-11.3	-22.2	-5.5	13.8	11.9	32.9	3.7	1.9
Medicinal and pharmaceutical products	-0.5	0.7	8.9	-1.1	-10.1	3.7	21.5	89.2	1.4
Jewellery (excl. pearls & precious stones)	-36.9	-4.1	-61.2	-60.0	-13.1	-22.7	143.7	41.3	0.4
Raw materials and intermediate goods	-12.3	-2.1	-23.9	-19.1	-3.4	8.4	58.0	54.6	55.2
Parts of electronics and electrical appliances	1.6	1.4	-3.2	-0.03	8.1	13.8	28.1	26.4	15.8
- Integrated circuits & parts	8.3	2.7	5.6	7.6	17.1	17.2	26.4	26.1	6.6
Materials of base metal	-16.6	-6.4	-27.1	-27.2	-4.3	26.4	83.5	89.3	8.0
Crude oil	-23.9	3.0	-52.9	-35.5	-7.4	-13.4	136.2	78.1	7.4
Chemicals	-4.9	-3.7	-10.4	-13.8	10.0	18.8	55.0	71.2	5.9
Agricultural and agro-manufacturing products	-2.0	3.5	-6.0	-4.6	-1.1	4.1	47.7	49.7	4.3
Capital goods	-12.0	-4.0	-18.3	-16.8	-8.9	10.1	28.0	23.0	24.3
Other machinery and mechanical appliances & parts	-11.7	0.8	-21.0	-18.7	-7.7	1.1	32.3	27.5	9.2
Telecommunications equipment	-4.6	-12.3	-1.4	7.4	-9.2	40.4	6.6	8.0	4.0
Transformers, generators, motors and accumulators	-4.7	-4.4	-12.9	-13.9	13.0	19.6	30.5	29.9	2.0
Measuring, checking and precision instruments	-16.6	-13.9	-31.2	-25.1	5.7	10.9	40.3	30.5	1.5
Computer	-1.6	-14.1	8.1	-1.6	-0.6	44.9	15.2	54.9	1.3
Other Imports	-21.5	-6.4	-45.9	-35.7	-3.3	18.0	76.0	36.9	8.1
Automotive	-22.8	-5.4	-39.3	-37.4	-10.0	9.4	78.5	49.7	4.1
- Vehicle parts	-20.8	-5.7	-39.7	-37.0	0.7	14.1	81.2	61.8	3.2
Non-monetary gold (excl. articles of goldsmiths)	-33.3	17.5	-76.1	-60.8	-4.1	135.5	156.6	66.9	1.6
Total Imports (Customs basis)	-12.7	-2.9	-23.7	-19.4	-4.9	9.4	47.9	41.0	100.0
Imports, f.o.b. (BOP basis)	-13.8	-3.1	-24.9	-20.1	-6.7	9.5	41.8	31.8	91.1
Import Value (exclude gold)	-13.1	-3.7	-23.0	-18.6	-6.8	5.1	40.5	31.1	89.5

Source: Bank of Thailand

Import Volume Indices by Economic Classification

Volume indices %YoY	2020					2021		
	Year	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Consumer goods	-9.2	-1.9	-15.6	-12.7	-6.3	0.5	21.0	14.1
Raw materials and intermediate goods	-7.0	2.0	-14.2	-14.9	-0.4	-0.5	30.3	30.8
Capital goods	-13.1	-5.7	-19.4	-17.5	-9.8	8.5	25.8	20.8
Total Imports	-10.5	-1.0	-19.6	-17.3	-3.6	6.7	31.9	27.9

Source: Bank of Thailand

Import Price Indices by Economic Classification

Price indices %YoY	2020					2021		
	Year	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Consumer goods	1.3	1.5	1.0	1.1	1.7	2.9	4.1	3.9
Raw materials and intermediate goods	-5.8	-4.0	-11.3	-4.9	-3.0	9.0	20.8	18.3
Capital goods	1.2	1.7	1.3	0.9	1.0	1.5	1.8	1.8
Total Imports	-3.8	-2.1	-6.6	-3.4	-3.2	2.6	7.4	3.0

Source: Bank of Thailand

Term of trade increased as export price expanded by 3.1 percent faster than the growth of import price by 3.0 percent. Thus, the term of trade increased from 109.7 in the same quarter last year and 108.4 in the previous quarter to 109.8 in the third quarter of 2021.

Trade balance recorded a surplus of 9.3 billion US dollar lower than a surplus of 9.7 billion US dollar in the previous quarter and a surplus of 14.1 billion US dollar in the same quarter last year.

In Baht terms, trade balance recorded a surplus of 304.7 billion Baht, slightly higher than a surplus of 304.6 billion Baht in the previous quarter but lower than a surplus of 442.2 billion Baht in the same period last year.

Term of trade slightly increased.

Trade surplus was at 9.3 billion US dollar, lower than that of the previous quarter and the same period last year.

%YoY	Term of trade							
	2020					2021		
	Year	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Term of trade*	110.2	109.1	111.9	109.7	110.0	108.6	108.4	109.8
%YOY	3.2	1.8	4.9	2.8	3.3	-0.5	-3.1	0.1

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

Source: Bank of Thailand

Production Side:

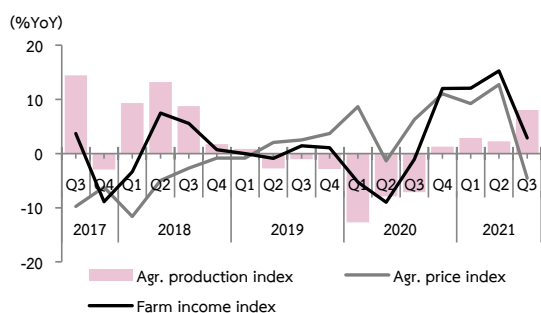
Agricultural sector continued to increase for the four-consecutive quarter by 4.3 percent, accelerated from 1.9 percent in the previous quarter. The expansion mainly supported by the favorable weather conditions and the sufficient water levels in comparison with the last year. This was associated with an 8.1-percent expansion of **Agricultural Production Index**. Major agricultural products with positive growth included: (i) **fruits** (37.8 percent), particularly longan, owing to improvement in crop yields and favorable weather conditions, (ii) **paddy** (12.1 percent), due to weather condition was favorable and sufficient water for cultivation, (iii) **rubber** (4.4 percent), due to the price incentive which caused farmers to take good care of the rubber trees, (iv) **cassava** (11.9 percent), due to the higher price inducing farmers to expand planting areas, and (v) **maize** (11.9 percent), due to the price incentive along with efficient preventive measures for pest and diseases control. On the other hand, major agricultural products with production contraction included **white shrimp** (-6.7 percent), etc. Meanwhile, **Agricultural Price Index** decreased for the first time in five quarters with a 4.5-percent contraction, following a decrease in price of key agricultural products such as **paddy** (-27.1 percent) caused by the higher supply as a result of the favorable weather conditions and sufficient water levels, **fruits** (-20.2 percent), particularly durians, owing to the higher supply combined with the drop in foreign market demand, along with logistics challenges, and stringent quality control, **swine** (-9.6 percent), this was associated with the decline in domestic and foreign demands causing by COVID-19 pandemic, **white shrimp** (-9.2 percent), as a result of COVID-19 which constrained the domestic demand, and **poultry** (-1.8 percent). This was due to the fact that some poultry meat products were oversized and failed to comply with the food standards causing prices to be lower than usual. Furthermore, due to COVID-19 infections in the chicken slaughterhouse, resulting poultry exports obstacles. However, major agricultural price index with positive growth, included **oil palm** (84.7 percent), **rubber** (13.7 percent), **sugarcane** (30.3 percent), **cassava** (19.1 percent), and **maize** (4.4 percent), etc. Rising in agricultural production index thus led to overall increase for the fourth consecutive quarter in **Farm Income Index** by 2.9 percent.

Manufacturing, accommodation and food service activities, construction, transportation and storage, and electricity, gas, steam, and air conditioning supply sectors dropped. Meanwhile, wholesale and retail trade; repair of motor vehicles and motorcycles sector slowed down from the previous quarter. Agricultural sector expanded at an accelerating rate.

Agricultural sector continued to increase for four consecutive quarters by 4.3 percent, following the favorable weather conditions and sufficient water levels comparing with the last year. Meanwhile, agricultural price index decreased.

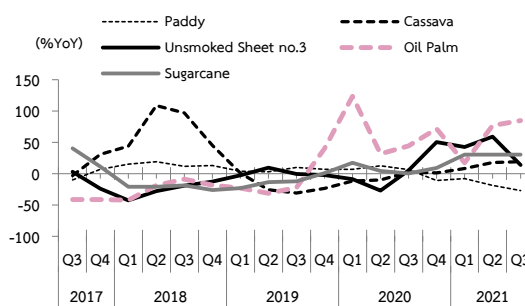
Rising in agricultural production index thus led to overall increase for the fourth consecutive quarter in Farm Income Index by 2.9 percent.

Farm Income Index increased by 2.9 percent due to the increase of agricultural production index



Source: Office of Agricultural Economics

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



Source: Office of Agricultural Economics

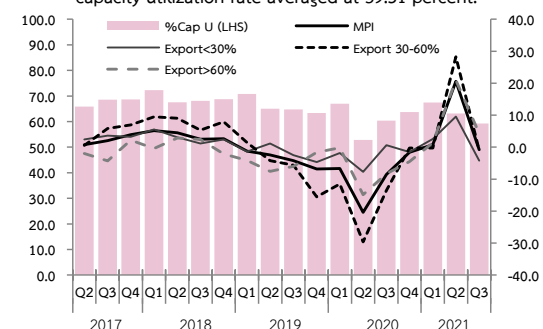
Manufacturing sector decreased for the first time in three quarters by 1.4 percent, compared with a 16.9-percent growth in the previous quarter, owing to the decline in the Manufacturing industries with 30 - 60 percent export share to total production and the Manufacturing industries for domestic-oriented industries which affected by the decline in domestic demand, together with the COVID-19 outbreak in production sites, and constraints in global supply chain. This was in line with a 0.8-percent contraction in the Manufacturing Production Index which was the first decline in three quarters. **Manufacturing Production Index of the industries (with 30 - 60 percent export share to total production)** dropped by 1.0 percent, compared with a 28.3-percent expansion in the previous quarter. The contraction was attributed to; manufacture of refined petroleum products (-5.9 percent),

motorcycles (-39.4 percent), and domestic appliances (-17.8 percent). In contrast, manufacture of sugar grew by 61.2 percent and manufacture of motor vehicles grew by 2.4 percent. **Manufacturing Production Index of the domestic-oriented industries (with export share of less than 30 percent to total production)** declined for the first decline in three quarters by 4.2 percent, compared with a 9.6-percent growth in the previous quarter, following the contraction in manufacture of malt liquors and malt (-23.9 percent), soft drinks; production of mineral waters and other bottled waters (-10.3 percent), and articles of concrete, cement and plaster (-10.0 percent). However, manufacture of basic iron and steel expanded by 8.5 percent. Meanwhile, **Manufacturing Production Index of the export-oriented industries (with export share of more than 60 percent to total production)** continued to expand for three consecutive quarters by 4.3 percent. The expansion was supported by manufacture of electronic components and boards (14.1 percent), other general-purpose machinery (8.9 percent), and other rubber products (13.9 percent). However, manufacture of computers and peripheral equipment decreased by 11.2 percent. **The average capacity utilization rate** for the quarter stood at 59.31 percent, lower than 62.73 percent in the previous quarter and also less than 60.41 percent in the same period last year. In details, 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 (99.10 percent), macaroni, noodles, couscous, and similar farinaceous products (83.87 percent), pulp, paper, and paperboard (83.86 percent), and parts and accessories for motor vehicles (82.10 percent), respectively.

Manufacturing production index with negative growth included computers and peripheral equipment (-11.2 percent), refined petroleum products (-5.9 percent), motorcycles (-39.4 percent), domestic appliances (-17.8 percent), malt liquors and malt (-23.9 percent), soft drinks; production of mineral waters and other bottled waters (-10.3 percent), wire products, chain, springs and screw (-0.1 percent), articles of concrete, cement and plaster (10.0 percent), weaving of textiles (-15.3 percent), and other fabricated metal products (-10.7 percent), etc.

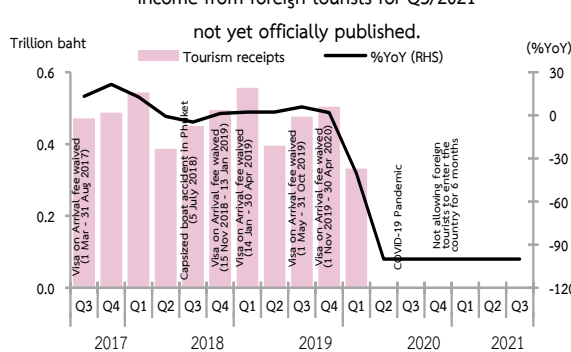
Manufacturing production index with positive growth included sugar (61.2 percent), electronic components and boards (14.1 percent), motor vehicles (2.4 percent), other general-purpose machinery (8.9 percent), basic iron and steel (8.5 percent), other rubber products (13.9 percent), tobacco products (18.5 percent), engines and turbines, (except aircraft, vehicle and cycle engines) (23.6 percent), other porcelain and ceramic products (17.2 percent), and plastics and synthetic rubber in primary forms (6.7 percent), etc.

Manufacturing Production Index decreased by 0.8 percent and the capacity utilization rate averaged at 59.31 percent. (%YoY)



Source : Office of Industrial Economics

Income from foreign tourists for Q3/2021



Source: Ministry of Tourism and Sports

Accommodation and food service activities sector contracted by 18.7 percent, compared with a 14.6-percent expansion in the previous quarter. This was in accordance with a decrease in domestic tourism and household spending. In the third quarter of 2021, **Thai tourism receipts stood at 0.010 trillion Baht** which dropped by 91.5 percent, compared with an 86.0-percent increase in the previous quarter, as a result of the third wave of COVID-19 outbreak and the COVID-19 containment measures of the government throughout this quarter. **The number of foreign tourists stood at 45,398 persons** (included the tourists from the Thailand Privilege Card), rose from 20,275 persons of the previous quarter. The number was primarily supported by Thailand's reopening policy, namely, Phuket Sandbox programme. **The average occupancy rate stood at 5.46 percent**, decreased from 8.24 percent in the previous quarter, and the rate was also lower than 26.69 percent in the same period last year.

Manufacturing sector decreased for the first time in three quarters by 1.4 percent, following the COVID-19 outbreak in production sites. The industries with 30 - 60 percent export and the domestic-oriented industries contracted while the export-oriented industries continued to expand for the third consecutive quarter.

The average capacity utilization rate was at 59.31 percent, lower than 62.73 percent in the previous quarter and also less than 60.41 percent in the same period last year.

Accommodation and food service activities sector contracted by 18.7 percent as a result of the third wave of COVID-19 outbreak which negatively impacted domestic tourism.

Average occupancy rate was at 5.46 percent, decreased from 8.24 percent in the previous quarter, and the rate was also lower than 26.69 percent in the same period last year.

Wholesale and retail trade sector, and repair of motor sector grew by 3.3 percent, slowing down from 5.5 percent in the previous quarter. This was in tandem with a decline in the domestic demand which was affected by the COVID-19 pandemic, together with the slowdown of Wholesale and Retail Sales, and Repair of Motor Vehicles Composite Index. Retail Sales Index (except motor vehicles and motorcycles) expanded by 0.3 percent, decelerating from a 17.5-percent growth in the previous quarter. This was primarily contributed to a 4.9-percent drop in retail sale of food, beverages, and tobacco, and a 0.4-percent decline in retail sale of other goods. On the other hand, retail sale of other household equipment increased by 8.2 percent. Wholesale and Retail Sales, and Repair of Motor Vehicles Index decreased by 24.2 percent, compared with a 57.9-percent growth in the previous quarter, mainly attributed to a 26.5-percent drop in sale of motor vehicles and a 34.9-percent decline in sale maintenance and repair of motorcycles and related parts and accessories. In contrast, maintenance and repair of motor vehicles rose by 3.1 percent. Wholesales Index (except motor vehicles and motorcycles) dropped by 2.9 percent, compared with a 9.8-percent growth in the previous quarter, mainly driven by 6.9 percent decrease in other specialized wholesale (i.e. wholesale of liquid fuels, and bricks, stone, cement, sand and concrete products), and a 10.6-percent decline in wholesale of food, beverages and tobacco. On the one hand, non-specialized wholesale trade increased by 11.3 percent.

Transportation and storage sector dropped by 0.9 percent, compared with a 11.2 percent increase in the previous quarter, following the contraction of land and tubes transport services which was impacted by COVID-19 outbreak. Meanwhile, water transport services and air transport services expanded in tandem with the expansion of exports and the recovery of international travel. The decline in transportation and storage sector was correlated with contraction of Transportation Services Composite Index of 3.2 percent, compared with a 20.9 percent growth in the previous quarter. This was attributed to (i) a 12.9-percent decrease in Land and Tube Transport Services Index, causing by the decline in the uses of diesel and gasoline which resulted from the decrease in land freight services and rail-based public transport services activities, (ii) a 14.0-percent increase in Water Transport Services Index which continually expanded for three consecutive quarters, following the expansion of TEUs volume index and high export growth, and (iii) a 2.3-percent increase in Air Transport Services Index, compared with a 121.8-percent surge in the previous quarter. This was mainly due to the rise of air freight volume index. Besides, warehousing and support activities for transportation grew by 8.7 percent, compared with a 10.0-percent increase in the previous quarter. Likewise, postal and courier activities continued to increase by 23.2 percent, as a result of the continuous expansion of entrepreneur revenue.

Electricity, gas, steam, and air conditioning supply sectors declined by 2.6 percent, compared with a 0.8-percent increase in the previous quarter. This was in accordance with production activities in both manufacturing and service sectors that were at a lower level than the same period last year. In this quarter, the total electricity and natural gas production index decreased by 0.6 percent. This was mainly attributed to (i) the power generation index decreased by 0.3 percent, compared with a 5.8-percent growth in the previous quarter, following an 11.5-percent decline in electricity consumption in the business sector. Additionally, the electricity consumption in the industrial sector slowed down from the previous quarter owing to the fact that some industrial production activities were suspended as a result of COVID-19 infection among their employees. Meanwhile, household electricity consumption expanded for the first time in three quarters due to higher degree of COVID-19 containment and restrictions including work from home policy and a slight increase of average temperature compared with the previous quarter. And (ii) the natural gas production index fell by 6.0 percent, compared with a 10.9-percent growth in the previous quarter, associated with the decline in natural gas volume delivered to the gas separation plants and the natural gas demand for power generations which decelerated from the previous quarter.

Construction sector decreased by 4.1 percent, compared with a 3.9-percent increase in the previous quarter. This was in line with a decline in public construction and private construction, due to the closure of worker camps during the COVID-19 outbreak. In this quarter, **Public construction** declined by 6.2 percent, compared with a 7.0-percent expansion in the previous quarter. (Government construction decreased by 9.5 percent, compared with a 9.7-percent expansion in the previous quarter, whereas state enterprise construction increased by 2.4 percent, accelerating from a 1.2-percent expansion in the previous quarter). **Private construction** continued to decline for four consecutive quarters by 0.5 percent, as a result of the continued decrease in construction of residential buildings as well as the slowdown of construction in the service and transportation category and other construction from the previous quarter. Meanwhile, construction of non-residential buildings (such as commercial buildings and factory buildings) rebounded to a strong growth. **Construction Material Price Index (CMI)** continued to rise by 8.4 percent for four consecutive quarters owing to an increase in the iron products (36.9 percent), electrical and plumbing (4.1 percent), and concrete ingredient (3.4 percent).

Wholesale and retail trade; repair of motor vehicles and motorcycles sector grew by 3.3 percent, slowed down from the previous quarter, following a decline in the domestic demand which was affected by the COVID-19 outbreak.

Transportation and storage sector declined by 0.9 percent, following the contraction of land and tubes transport services due to the COVID-19 outbreak.

Electricity, gas, steam, and air conditioning supply sectors declined by 2.6 percent, in tandem with the contraction of power generation index and natural gas production index.

The construction sector declined for the first time in three quarters by 4.1 percent, following a contraction in public construction especially government construction. This was due to the closure of worker camps during the COVID-19 pandemic.

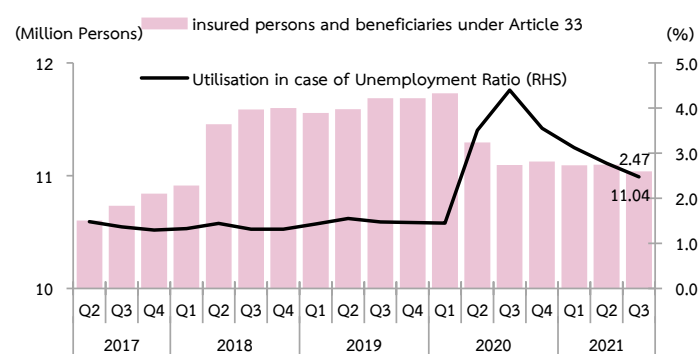
Labor in social security system: the total number of insured persons in social security system continued to increase for two consecutive quarters. The unemployment rate among insured persons under article 33 was lower than the previous quarter and also less than the same period last year.

In the third quarter of 2021, the total number of social security beneficiaries increased by 43.9 percent, recording the second consecutive quarter. In details, the number of voluntarily insured persons under article 40 grew by 204.0 percent, and voluntarily insured persons under article 39 increased by 11.9 percent. The expansion was partly caused by aid measures targeting registered self-employed people under article 39 (former company employees under article 33 of social security system) and under article 40 (person who was never participated in social security system under article 33) by supporting a compensation 5,000 Baht each. However, the number of compulsory insured person under article 33 fell by 0.5 percent, improving from a 1.7-percent decrease in the previous quarter, indicated that the situation of terminating workers or layoffs by employers partially continued to exist. This improvement was partly owing to the fact that insured persons under article 33 received unemployment compensation up to 50 percent of the daily wages, and obtained additional benefits of 2,500 Baht, but in total, the package would not exceed 10,000 Baht per person. Moreover, firms received a subsidy of 3,000 baht per an employed worker, maximum of 200 employees. As a result, **the unemployment rate among insured person under article 33 stood at 2.5 percent in this quarter, lower than 2.8 percent in the previous quarter, and also less than 4.4 percent in the same period last year.** The average number of unemployed was at 2.73 hundred thousand people compared with 4.88 hundred thousand people in the same quarter last year.

The total number of insured persons in social security system continued to increase for the second quarter by 43.9 percent, due to government support measures targeting registered workers and businesses which encouraged more applications for entering to social security system.

As a result, the unemployment rate among insured person under article 33 was at 2.5 percent in this quarter, lower than the previous quarter and the same period last year.

There are 11.0 million insured persons and beneficiaries under Article 33 and 2.5 percent of them are receiving unemployment benefits



Source: The Social Security Office ,Ministry of labour

Number of social security beneficiaries

Registered Applicants (Thousand persons)	2020					2021		
	Year	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Insured Persons (article 33)	11,124	11,730	11,296	11,094	11,124	11,091	11,098	11,037
Insured Persons (article 39)	1,800	1,665	1,738	1,757	1,800	1,850	1,897	1,956
Insured Persons (article 40)	3,509	3,343	3,374	3,438	3,509	3,576	3,612	10,449
Total Insured Persons	16,433	16,739	16,407	16,288	16,433	16,516	16,607	23,442
Utilisation in case of Unemployment	395	170	396	488	395	346	308	273
Utilisation in case of Unemployment Ratio (%)	3.6	1.5	3.5	4.4	3.6	3.1	2.8	2.5

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

Note:

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

Insured Persons (article 39) are individuals who resigned from private enterprises (previously insured persons under article 33) but wants to maintain social security rights. Therefore, they voluntarily applied for social security rights under article 39

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

Fiscal Conditions:

On the revenue side, in the fourth quarter of the fiscal year 2021 (July – September 2021), the net government revenue collection stood at 624.6 billion Baht, decreased by 10.6 percent compared with the same quarter last year due to **(i) a 2.5-percent decrease in revenue collection of the Revenue Department** where the collection of corporate income tax and personal income tax decreased by 14.0 percent, and 7.6 percent, respectively, as a result of the new wave of COVID-19 pandemic which caused a decline in economic activity, as well as a reduction of the e-withholding tax rate from 3.0 percent to 2.0 percent, effective from October 1st, 2020, to December 31st, 2022; **(ii) a 26.2-percent decrease in revenue collection of the Excise Department** due to an extension of the deadline for filing and payments of excise tax on oil and oil products, and excise tax on beer in FY2020, resulting in an acceleration of excise tax revenue collection in the same quarter last year. In details, excise tax on oil and oil products decreased by 32.4 percent due to an extension of the deadline for tax filing and payments for 3 months (1st April - 30st June 2020). As manufacturers were required to file a tax return and proceed payments within the 15th of the following month after the month where oil and oil products were taken out from the factory or the bonded warehouse, so the revenue collection period in FY2020 was expanded by 21 days, allowing a higher excise tax revenue in July 2020 compared with the collection in July 2021. The excise tax on beer decreased by 37.1 percent due to an extension of the deadline for tax filing and payments for 3 months (1st April - 30st June 2020), particularly for entrepreneurs whose products were manufactured from factories installing the measurement and telecommunication system of the Excise Department. The eligible manufacturers were required to file tax return and proceed payments within the 15th July 2020. As a result, the revenue collection from excise tax on beer in July 2020 was higher than expectation. In addition to deadline extensions, the implementation of measures to prevent the spread of COVID-19 in highly strict controlled areas (dark-red zone provinces) caused the manufacturers to reduce their production capacity in order to meet consumption capacity. **(iii) a 44.3-percent decrease in revenue submission from other Government Agencies**, following a decrease in revenue collected from premium fees in the distribution of government bonds, and revenue collected from petroleum concession. However, a revenue collection of the Customs Department increased by 15.7 percent, continuing from 25.6 percent in the previous quarter.

For the fiscal year 2021, the net government revenue collection stood at 2,369.9 billion Baht, decreased by 0.7 percent from the same period last year, and was 307.1 billion Baht (11.5 percent) lower than estimation in the 2021 Annual Budget Bill, mainly due to the contraction of economic activities as affected by the COVID-19, and the implementation of various fiscal and tax measures in order to stimulate the economy during the pandemic. Overall, the revenue collection of the Revenue Department, the Excise Department, the Customs Department, other Government Agencies, and the Treasury Department were lower than the estimation, meanwhile the revenue remittance of State-owned Enterprises was 0.2 percent higher than the estimation in the 2021 Annual Budget Bill.

On the expenditure side, the total budget disbursement in the fourth quarter of FY2021 was at 1,096.1 billion Baht¹, increased by 27.4 percent from the same quarter of FY2021 in which current expenditure disbursements rose by 43.8 percent, and capital expenditure disbursement decreased by 9.2 percent. Classified by sources of funds, the government disbursements were as follows:

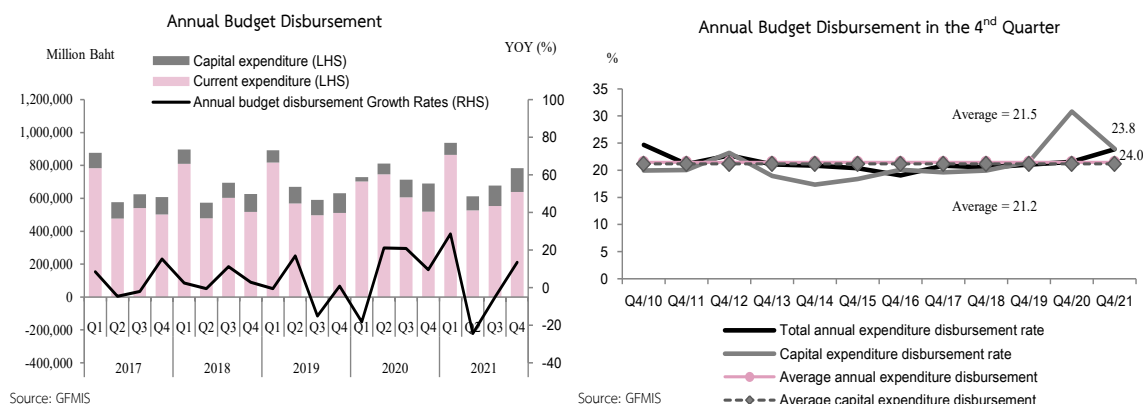
(i) the 2021 annual budget disbursement stood at 783.6 billion Baht, increased from the same quarter last year by 13.5 percent. The disbursement rate was at 23.8 percent, greater than the rate of 21.6 percent in the same quarter last year. The current expenditure disbursement amounted to 638.7 billion Baht, rose by 23.0 percent from the same quarter in FY2020. The disbursement rate was at 23.8 percent, higher than 19.6 percent in the same quarter last year. The capital expenditure disbursement marked at 144.9 billion Baht, decreased from the same quarter last year by 15.3 percent. The disbursement was at 24.0 percent, lower than 30.8 percent in the same quarter last year;

In Q4/FY2021, the net government revenue collection decreased by 10.6 percent due to a decrease in revenue collection from personal income tax, corporate income tax, excise tax on oil and oil products, as well as a decrease in revenue submission from other government agencies. Meanwhile, revenue collection of the Custom Department increased.

For FY2021, the net government revenue collection was 11.5 percent lower than the revenue estimation stated in the Annual Budget Bill 2021, and decrease by 0.7 percent from the same period last year.

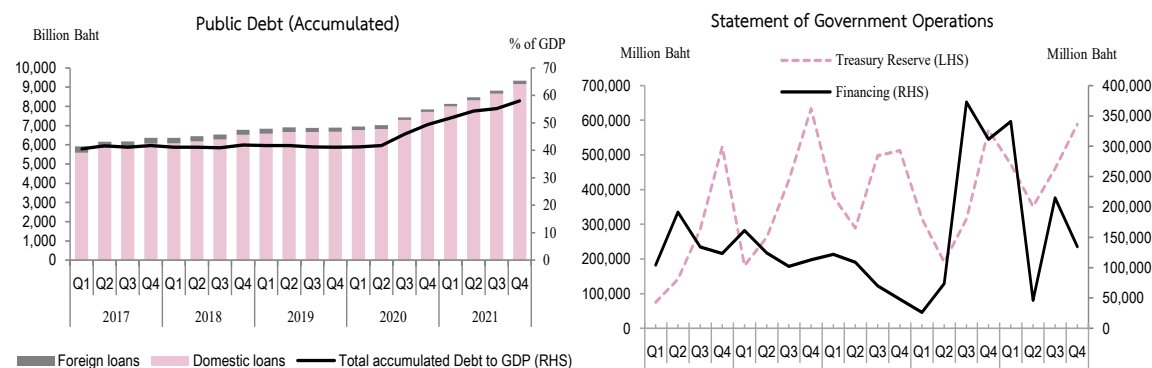
In Q4/FY2021, the total budget disbursement increased by 27.4 percent as a result of an expansion in a disbursement of the 2021 annual budget, the state-owned enterprises capital expenditure, and the 1.5-trillion Baht COVID-19 loan. Meanwhile, the disbursement of the carry-over budget and declined.

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 1-trillion-Baht COVID-19 loan and the 500-billion-Baht COVID-19 loan.



(ii) the carry-over budget disbursement stood at 35.8 billion Baht, decreased from the same quarter of FY2020 by 26.5 percent, the disbursement rate was at 16.6 percent, lower than 18.5 percent in the same quarter last year; (iii) state-owned enterprises capital expenditure budget (excluding PTT) was disbursed for 61.6 billion Baht², increased from the same quarter last year by 1.0 percent as a result of the investment plan revision of the State Railway of Thailand (SRT), the Metropolitan Waterworks Authority (MWA), and the Mass Rapid Transport Authority of Thailand (MRTA); (iv) the COVID-19 loans B.E. 2563 – 2564 (1.5-trillion-Baht) was disbursed for 219.7 billion Baht, including 210.7 billion Baht in current expenditure and 9.0 billion Baht in capital expenditure, and accounted for 95.9 percent and 4.1 percent, respectively, of the total disbursement from the COVID-19 loans in this quarter.

For the fiscal year 2021, the total budget disbursement was at 4,120.6 billion Baht, increased by 12.1 percent increase from the previous fiscal year, consisting of (i) a disbursement of the 2021 annual budget for 3,012.1 billion Baht (the disbursement rate was 91.7 percent, lower than 92.0 percent in the last fiscal year), disbursements of the current expenditure and capital expenditure were at 2,583.8 billion Baht, and 428.3 billion Baht, respectively; (ii) a disbursement of the carry-over budget for 196.5 billion Baht, equivalent to 91.1 percent of the total carry-over budget; (iii) a disbursement of the state-owned enterprises capital expenditure budget (excluding PTT) for 249.4 billion Baht³; and (iv) a disbursement of 1.5-trillion-Baht COVID-19 loans for 679.5 billion Baht, including 669.1 billion Baht in current expenditure and 10.4 billion Baht in capital expenditure, accounted for 98.5 percent and 1.5 percent of the total disbursement from the COVID-19 loans in this fiscal year.



Public Debt: at the end of September 2021, public debt was accumulated at 9.3 trillion Baht, equivalent to 58.0 percent of GDP, remained under the fiscal disciplinary framework. The total public debt comprised 9.2 trillion Baht of domestic loans (56.9 percent of GDP) and 168.4 billion Baht of foreign loans (1.0 percent of GDP).

The distribution of public debt was detailed as follows: (i) 8.2 trillion Baht in Government Debt, (ii) 845.6 billion Baht in SOEs (non-financial institute) debt, (iii) 281.0 billion Baht in SOEs (financial institute) debt, and (iv) 7.2 billion Baht in debt of other government agencies, which were accounted to 87.9 percent, 9.1 percent, 3.0 percent, and 0.1 percent of the accumulated public debt, respectively.

In Q4/FY2021, the disbursement rate of annual budget was at 23.8 percent, where the rate of current and capital expenditure disbursement stood at 23.8 percent and 24.0 percent, respectively.

For the fiscal year 2021, the overall annual budget disbursing rate was at 91.7 percent as the disbursement rate of current and capital expenditure were at 96.4 percent and 70.9 percent, respectively.

At the end of September 2021, the public debt was equivalent to 58.0 percent of GDP, remained under the fiscal disciplinary framework where public debt ceiling is 70 percent of GDP.

² The number was included the 4,664.2 million Baht of the capital spending allocated from the annual budget.

³ The number was included the 16,917.7 million Baht of the capital spending allocated from the annual budget.

Fiscal Balance: in the fourth quarter of fiscal year 2021, the budgetary balance recorded a deficit of 125.7 billion Baht whereas non-budgetary balance recorded a surplus of 119.5 billion Baht. In the meantime, the government conducted a cash balance management through the borrowing of 134.6 billion Baht. Therefore, the cash balance after debt financing recorded a net surplus of 128.4 billion Baht. In addition, the treasury reserve at the end of the third quarter of fiscal year 2021 stood at 460.4 billion Baht, thus the fiscal balance at the end of September 2021 equaled to 588.7 billion Baht.

For the fiscal year 2021, the budgetary balance recorded a deficit of 767.2 billion Baht while the non-budgetary balance recorded a surplus of 47.4 billion Baht. The government conducted a cash balance management through a total borrowing of 736.4 billion Baht. As a result, the cash balance after debt financing recorded a net surplus of 16.6 billion Baht for this fiscal year.

Financial Conditions:

In the third quarter of 2021, the policy interest rate remained unchanged at 0.50 percent per annum. In both meeting on 4th August and 29th September 2021, the Monetary Policy Committee (MPC) decided to maintain the policy rate at 0.50 percent per annum. The committee assessed that the Thai economy in the period ahead would be supported by progress on the distribution of COVID-19 vaccines. Thus, the COVID-19 containment measures of the government would gradually relax as well as supporting the recovery of economic activities. Besides, the policy coordination among government agencies would be significant to support the economic recovery. The Committee also viewed that financial measures would be more effective than a further decreasing in the policy rate. Likewise, major economies and other regional economies continued to keep their policy rates unchanged in this quarter. Specifically, Federal Reserve (Fed), European Central Bank (ECB), the central bank of Japan and England maintained the policy rate at a range of a 0.00 - 0.25 percent, 0.00 percent, -0.10 percent, and 0.10 percent respectively. Meanwhile, the central bank of Russia and South Korea increased the policy rate by 125 basis points and 25 basis points respectively.

In October 2021, the Bank of Thailand (BOT) temporarily eased the loan-to-value (LTV) ratio for mortgage lending and related lending to revive the property sector and economy. Meanwhile, the central bank of Russia and New Zealand rose their policy rate by 75 basis points and 25 basis points respectively.

At the end of September 2021, the fiscal balance stood at 588.7 billion Baht.

Majority of central banks and the BOT maintained the policy rates. However, the central bank of Russia and South Korea increased the policy rate by 125 basis points and 25 basis points respectively.

Policy Interest Rate

(%) At the end of period	2020					2021						
	Year	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Jul.	Aug.	Sep.	Oct.
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	0.10	0.10	0.10	0.10	0.10	0.10	0.10
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	0.25	0.25	0.25	0.25	0.25	0.25	0.50
Russia	4.25	6.00	4.50	4.25	4.25	4.50	5.50	6.75	6.50	6.50	6.75	7.50
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	0.50	0.50	0.75	0.50	0.75	0.75	0.75
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

Large-sized commercial banks increased both lending and deposit rates. Medium-sized commercial banks rose their lending rates whereas they decreased the deposit rates. Meanwhile, specialized financial institutions (SFIs) maintained lending rates while deposit rates were decreased. In the third quarter of 2021, large-sized commercial banks increased their both deposit and lending rates. As a consequence, the average interest rate on Minimum Loan Rate (MLR) increased from 5.36 per year to 5.49 per year and the average 12-month fixed deposit rates increased from 0.42 per year to 0.45 per year. Medium-sized commercial banks increased the average MLR from 6.13 per year to 6.60 per year, whereas

Most of commercial banks increased their deposit rates. Meanwhile, the SFIs kept the lending rates unchanged.

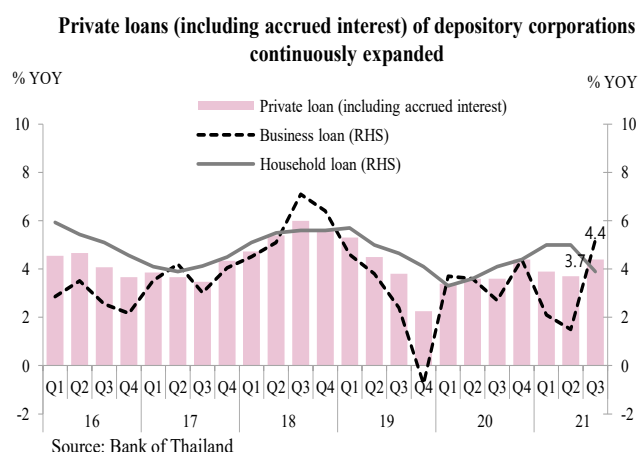
the average deposit rate was decreased from 0.55 per year to 0.50 per year. In addition, SFIs kept the average MLR unchanged at 6.1 per year while they lowered the deposit rate from 0.96 per year to 0.93 per year. The average real deposit and MLR rates rose following the increase in interest rates of large-sized commercial banks.

Additionally, the merger between TMB Bank (TMB) and Thanachart Bank (TBANK) to TMB Thanachart Bank (TTB) was completed in the third quarter of 2021. Therefore, TTB becomes the country's sixth-largest lender. In details, TTB is designated as one of domestic systemically important banks (D-SIBs) by the BOT. Previously, the existing 5 D-SIBs consisted of Bangkok Bank (BBL), Krung Thai Bank (KTB), Bank of Ayudhya (BAY), Kasikorn Bank (KBANK), and Siam Commercial Bank (SCB).

In October 2021, commercial banks and the SFIs maintained both deposit and lending rates, compared to the previous month.

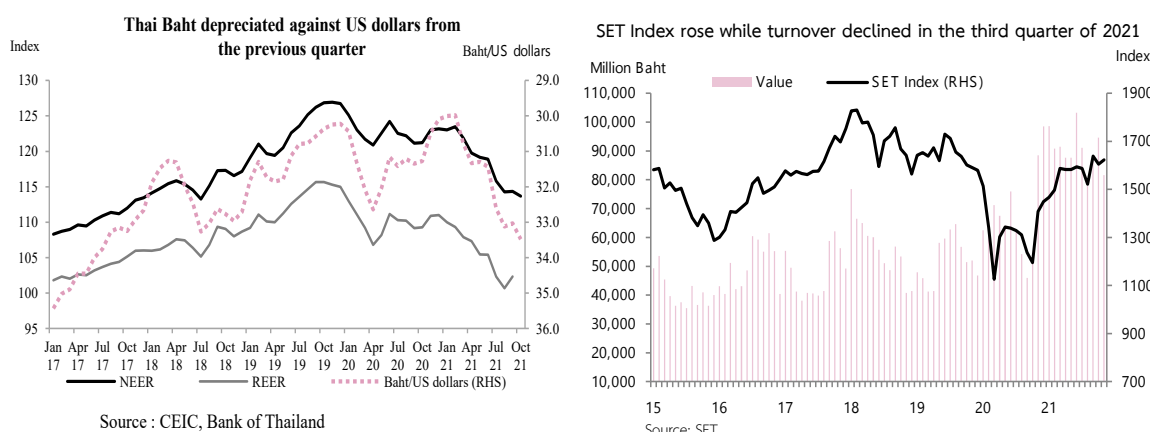
Private business loans outstanding continuously expanded. At the end of the third quarter of 2021, private loans of depository corporations grew by 4.4 percent, accelerating from 3.7 percent in the previous quarter. Business loans expanded by 5.2 percent, accelerating from 1.5 percent in the previous quarter. This was mainly due to soft loan facility for businesses (totaling 250 billion Baht) to support high-potential SMEs affected by the pandemic. On 25 October 2021, the soft loan was approved by 119 billion Baht which accounted for 47.7 percent of total credit line. Household loans expanded by 3.9 percent, decelerating from 5.0 percent in the previous quarter. **Specialized financial institutions (SFIs)** expanded by 3.7 percent, decelerating from 4.6 percent in the previous quarter. This was mainly due to household loans of specialized financial institutions expanded 3.9 percent, decelerating from 5.0 percent in the previous quarter. This was mainly caused by the slowdown of household loans which expanded by 3.9 percent, compared to 5.0 percent in the previous quarter. On the other hand, business loan expanded by 4.5 percent, accelerating from 0.2 percent in the previous quarter. Meanwhile, commercial bank loans expanded by 4.9 percent, accelerating from 3.8 percent in the previous quarter following the acceleration of business loans which expanded by 5.3 percent, comparing with 1.6 percent in the previous quarter. Household loans grew by 4.5 percent, slowing down from 6.1 percent in the previous quarter. Major lending sectors with expansion consisted of public administration and defence; compulsory social security (59.2 percent), construction (9.6 percent), wholesale and retail trade; repair of motor vehicles and motorcycles (6.9 percent), manufacturing (4.7 percent), accommodation and food service activities (4.5 percent) and electricity, gas, steam and air conditioning supply (1.7 percent). Major lending sectors with contraction included information and communication (-7.7 percent) and real estate activities (-7.3 percent). **The commercial bank loan for consumption** grew at a slower pace by 4.2 percent, compared to 5.7 percent in the previous quarter. This was mainly due to the slowdown of housing and personal consumption loans, along with the decline of leasing and hire purchase financing for cars and motorcycle. In particular, **loans for small and medium-sized businesses** (excluding financial and insurance activities) indicated that outstanding loans declined by 0.6 percent. Major lending sectors with contraction consisted of real estate activities and electricity, gas, steam and air conditioning supply while major lending sectors with expansion consist of manufacturing, construction, and accommodation and food service activities.

Private loans of depository institutions expanded at an accelerated pace, following an expansion in business loans. Meanwhile, the SFIs expanded at a slower pace as household loans slowed down.



Thai Bath against US dollar depreciated from the previous quarter. In the third quarter of 2021, an average exchange rate was at 32.92 Baht per US dollar, depreciating by 4.99 percent from previous quarter, in tandem with a recent recorded of Thailand's current account deficit, net outflow of foreign investors in term of both bonds and portfolio investment, and the appreciation of US dollar. During the third quarter of 2021, an average US dollar index stood at 92.76, increasing from 91.01 percent in previous quarter. The movement of Thai Bath reflected the high volatility throughout the third quarter. At the first half of quarter, Thai Bath against US dollar depreciated, due to (i) the COVID-19 Delta variant pandemic intensified within country and several countries around the world, which dominated the investor to hold US dollar as safe-haven asset, and (ii) concerns over the Fed's signals of QE tapering. However, Thai Bath against US dollar appreciated at the end of the quarter following the depreciation of US dollar, together with the relaxation of the COVID-19 restrictions. The devaluation of Thai Bath was correlated with other Asian currencies such as Philippine Peso, South Korea Won, Malaysian Ringgit, Singapore dollar, Japanese Yen, Indian Rupee, Hong Kong dollar, and Chinese Yuan. On the one hand, Taiwanese dollar, and Indonesian Rupiah appreciated from the previous quarter. When comparing with trading partner/competitors, Thai Bath depreciated, reflecting by a decrease in average of Nominal Effective Exchange Rate (NEER) by 3.75 percent from previous quarter (an average of 114.81).

In October 2021, the monthly average of Thai Baht was at 33.48 Baht per US dollar, depreciating by 1.37 percent from the previous month. The depreciation was mainly caused by upward of US treasury yield curve, tighter monetary policy in major economies, and defaults from Chinese property developers. As a result of the relaxation of containment measures and the re-opening of the country, Thai Bath appreciated at the end of month.



SET index increased from the previous quarter. SET index fluctuated throughout the third quarter of 2021. At the beginning of the quarter, SET index continued to decline as a result of investor concern over the new wave of the COVID-19 Delta variant pandemic intensified within country. As a consequence, the government heightened the COVID-19 control measures. Besides, investor worried that the Fed might begin the quantitative easing (QE) tapering early than expected as well as the China Evergrande liquidity crisis. However, SET index gradually increased in line with the better COVID-19 outbreak situations as the number of newly vaccinated substantially increased and the growth momentum of exports following the recovery of the world economy. Altogether, SET index at the end of the third quarter of 2021 closed at 1,606 points, increased by 1.13 percent from the previous quarter. Thus, proprietary trading kept their net buy position, while foreign investors remained as a net sell position for three consecutive quarters. Industrial groups with positive growth index were manufacturing (3.9 percent), technology (3.2 percent), and financials (2.2 percent). Meanwhile, industrial groups with negative growth index were consumer products (-12.9 percent), agro and food industry (-2.4 percent), and property and construction (-1.5 percent). Major Asian market indices with positive growth were Indonesia (5.0 percent), and Malaysia (0.3 percent). On the one hand, major Asian market indices with contraction including Hong Kong (-14.8 percent), South Korea (-6.9 percent), Singapore (-1.4 percent), and China (-0.7 percent).

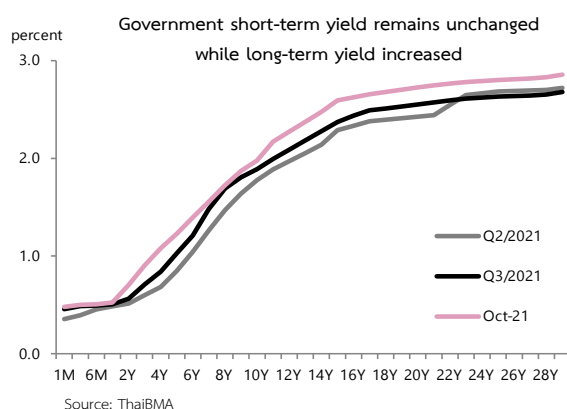
In October 2021, SET index rose by 1.1 percent to 1,623 points from the end of September. This was mainly supported by the number of newly infected continued to decline which let to easing investor concerns over the COVID-19 outbreak as well as the relaxation of COVID-19 control measures. As a result, foreign investors and proprietary trading registered a net buy, while local institutions and local investors were a net sell position at the Stock Exchange of Thailand (SET).

Thai Bath against US dollar depreciated compared to the previous quarter, in line with current account deficit and the appreciation of US Dollar compared with other major currencies.

SET Index rose from the previous quarter following the COVID-19 situation improves along with vaccine distribution progress. The was in line with easing of the COVID-19 restrictions as well as the continuous expansion of exports.

Both short-term and long-term government bond yield shifted upward. In the third quarter of 2021, the movement of short-term government bond yield was similar to the previous quarter, in tandem with the direction of monetary policy of the Bank of Thailand (BOT). Long-term government bond yield rose following the increase of long-term U.S. treasury bond yields, especially after the Federal Reserve (Fed) started to signal the tapering of its quantitative easing (QE) programme amidst the US economic recovery. Considering that, together with the increase in amount of government bonds under Thailand's long-term government bond issuance plan for the fiscal year 2022 as well as raising the public debt ceiling to 70 percent of gross domestic product (GDP) from 60 percent. At the end of the third quarter, 1-year government bond yield was at 0.51 percent compared to 0.48 percent at the end of the previous quarter. In addition, 10-year government bond yield recorded at 1.89 percent compared to 1.78 percent at the end of the previous quarter. The foreign investors registered a net sell with 7.7 billion Baht, as opposed to a net buy with 72.8 billion Baht in the previous quarter. Total new registered corporate bond was at 469.3 billion Baht, principally attributed to property development, energy and utilities, and finance and securities.

In October 2021, short-term government bond yield remained at a similar level in the previous quarter. Meanwhile, long-term government bond yield shifted upward as a result of the raise of US government bond yields which partly affected by the US inflation concerns. Thus, 1-year and 10-year government bonds yields stayed at 0.52 percent and 1.98 percent respectively. In details, foreign investors recorded as a net buy 8.9 billion Baht compared to a net sell 45.2 billion Baht in the previous month.



Capital and financial account recorded a net outflow of 0.81 billion US dollars in the second quarter of 2021 which continued from 5.14 billion US dollars outflow in the previous quarter. This was mainly caused by a net outflow of Thai investor particularly in term of portfolio and direct investments. However, there were continuous inflow of investment in term of direct and debt securities investments of foreign investors, along with other terms of investment including loans, commercial loans, deposits, and etc.

Short-term government bond yield stayed at a similar level, while long-term government bond yield shifted upward.

Capital and financial account recorded a net outflow as a result of a net outflow of Thai investor.

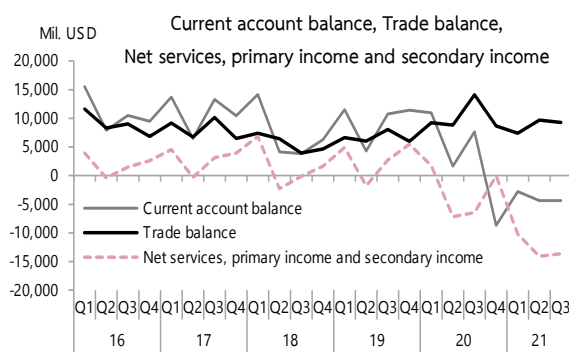
	Capital Flow								
(Billion USD)	2019	2020					2021		
	Year	Year	Q1	Q2	Q3	Q4	H1	Q1	Q2
- Direct Investment	-5.6	-23.9	-2.7	-5.7	-3.4	-12.2	-0.3	1.1	-1.4
Thai investor	-10.4	-19.0	-5.3	-5.4	-3.7	-4.6	-6.1	-3.3	-2.9
Foreign investor	4.8	-4.9	2.7	-0.3	0.3	-7.5	5.9	4.4	1.5
- Portfolio Investments	-8.8	-12.2	-8.5	2.8	-2.5	-3.9	-12.7	-9.7	-3.0
Thai investor	-7.9	-4.1	-1.2	4.2	-1.8	-5.3	-13.7	-10.1	-3.6
Foreign investor	-1.0	-8.1	-7.3	-1.5	-0.8	1.4	1.1	0.4	0.7
Others	-1.3	24.0	1.6	8.9	-0.4	14.0	7.0	3.5	3.5
Capital and financial account	-15.7	-12.0	-9.6	6.0	-6.3	-2.0	-6.0	-5.1	-0.8

Source: BOT

Current account registered a deficit of 4.3 billion US dollar (143.3 billion Baht) compared to a 7.7 billion US dollar (239.8 billion Baht) surplus in the same quarter last year, and a 4.4 billion US dollar (137.2 billion Baht) deficit in the previous quarter. This was a result of a deficit in services, and primary and secondary income of 13.6 billion US dollar (compared with a 6.5 billion US dollar deficit in the same period last year). Trade balance recorded a surplus of 9.3 billion US dollar (lower than a 14.1 billion US dollar 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.

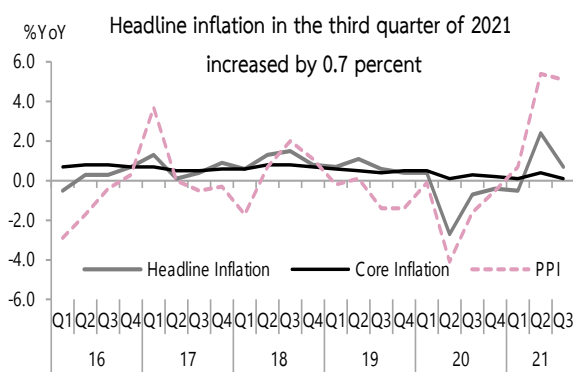
International reserve at the end of September 2021 stood at 244.7 billion US dollar, decreased from 251.1 billion US dollar at the end of September 2020. However, **in Baht terms**, international reserve at the end of September 2021 stood at 8,293.6 billion Baht, higher than 7,949.3 billion Baht at the end of September 2020.



Source: Bank of Thailand

Headline inflation: In the third quarter of 2021, headline inflation was averaged at 0.7 percent, comparing with a 2.4-percent headline inflation recorded in the previous quarter.

Food-and-beverage price index decreased by 1.0 percent comparing with a 0.3-percent increase in the previous quarter. This was partly due to a decrease in price of rice, flour & cereal price; vegetables and fruits price; and meats poultry and fish price, which contracted by 6.8 percent, 5.2 percent, and 0.9 percent, respectively. **Non-food and beverage** price index increased at a slower pace by 1.9 percent compared with a 3.7-percent increase in the previous quarter, following the decelerating of energy price index which increased by 10.6 percent compared with a 22.5-percent decrease in the previous quarter, as well as a drop of housing & furnishing which decreased by 4.0 percent, following the government measures to reduce electricity and water bills. Core inflation was averaged at 0.1 percent⁴.



Source: Ministry of Commerce

Producer Price Index (PPI): In the third quarter of 2021, Producer Price Index increased by 5.1 percent compared with a 5.4-percent rise in the previous quarter, following the increase in price of manufactured products and mining products. **The price of manufactured products** rose by 5.7 percent compared with a 5.4-percent increase in the previous quarter, associated with an increase in price of petroleum products, and chemicals & chemical products which grew by 53.5 percent and 16.0 percent, respectively. **The price of mining products** increased by 16.8 percent compared with a 4.0-percent increase in the previous quarter, following the increase in price of petroleum & natural gas which rose by 22.3 percent comparing with a 5.2-percent increase in the previous quarter. **The price of agricultural & fishery products** decreased by 3.0 percent compared with a 6.0-percent increase in the previous quarter, partly due to a decrease in demand of the market while the quantity of produces was greater than in the previous year⁵.

International reserve at the end of September 2021 stood at 244.7 billion US dollar.

Headline inflation increased by 0.7 percent compared with a 2.4-percent headline inflation recorded in the previous quarter.

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

Producer Price Index (PPI) increased by 5.1 percent compared with a 5.4-percent increase in the previous quarter.

⁴ In Oct 2021, Headline inflation was 2.4 percent, Core inflation was 0.2 percent.

⁵ In Oct 2021, Producer Price Index (PPI) rose by 6.9 percent.

2. Crude Oil price in Q3 of 2021

The crude oil price in the global market increased comparing to the same period last year and expanded from the second quarter of 2021. In the third quarter of 2021, the average crude oil price in four major markets (WTI, Brent, Dubai, and Oman) stood at 71.9 US dollar per barrel, expanding by 69.1 percent from 42.5 US dollar per barrel recorded at the same period last year. Also, crude oil price increased by 6.2 percent from average at 67.7 US dollar per barrel recorded at in the previous quarter.

Key reasons leading to an increase in the global crude oil price in this quarter were (i) effects from the natural disaster that forced oil drilling companies to halt the production, (ii) a decrease of the U.S. commercial crude oil inventories in the third quarter of 2021 (averaged at 431 million barrels, decreased by 16.0 percent compared with the same period last year), and (iii) a production plan of the OPEC Plus to maintain a gradual increase in oil output as some member countries were still experiencing obstruction from the spread of COVID-19.

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	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
	Year	39.6	43.4	42.4	41.8	42.0	-30.4	-32.2	-33.0	-34.2	-32.3
2021	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
	Jul.	72.6	74.3	73.0	73.1	73.3	78.4	71.9	67.9	68.9	71.8
	Aug.	67.6	70.5	69.7	69.8	69.4	59.4	56.4	57.9	58.5	58.0
	Sep.	71.4	74.9	72.8	72.9	73.0	80.7	79.5	75.6	76.7	78.2
	9M	65.0	67.9	66.5	66.2	66.4	68.7	58.7	59.5	61.9	61.1
	Oct.	81.1	83.7	81.7	81.7	82.0	105.3	101.8	100.5	100.7	101.9
	10M	66.5	69.4	68.0	67.6	67.9	72.2	62.7	63.3	65.6	64.9

Source: Thailoil Plc and EPPO.

3. The World Economy in Q3 of 2021

The world economy in the third quarter of 2021 continued to expand under the uneven recovery path between major industrialized economies and emerging and developing economies, particularly the ASEAN. The advanced economies, such as the US, the Eurozone, the UK, and the NIEs continued the growth momentum from the previous quarter following the progress in vaccine distribution which brought the relaxation in lockdown measures and travel restrictions, as well as additional supports from governments' massive economic measures. Nonetheless, some economies experienced slowdowns, mainly due to the severe resurgence of COVID-19, coupled with supply chain disruption as well as the effect from the high growth base on the latter half of 2020. Meanwhile, the Chinese economy faced a slowdown owing to highly regulated credit control and default debt reorganization in the real estate sector. Emerging and developing economies in Asia also experienced a new wave of intensifying outbreaks caused by the new variant of virus while the full vaccination rate remained low. Thus, the governments had to re-enforce strict containment measures, notably in ASEAN economies such as Malaysia, Indonesia and Vietnam which had led to stagnated recoveries in domestic demand and service sector, and hence, some ASEAN economies showed contraction during the third quarter.

Amid the recoveries in major industrial countries and increasing commodity and energy prices in the global market, inflation of those economies had surpassed the monetary policy target rate in many countries. Therefore, major central banks, such as the Federal Reserve and the European Central Bank (ECB), had signaled tightening expansionary monetary policy, while the Bank of Canada reduced its bond purchases. Meanwhile, some central banks, including that of South Korea, Brazil, and Mexico, increased their policy interest rates in order to mitigate the risks from accelerated inflationary pressure.

The US economy expanded by 4.9 percent (Advance Estimation), decelerating from a 12.2-percent increase in the last quarter. After seasonal adjustment, the economy rose by 2.0 (%QoQ saar.), slowing down from 6.7 percent in the previous quarter. The continual expansion was supported mainly by the recovery of manufacturing and service sectors, reflected by an increase in manufacturing and service PMI from 52.4 and 53.2 in the third quarter of the last year to 61.7 and 56.6 in the same quarter of this year, respectively. This was also consistent with the swelling of household expenditure. However, the economic recovery experienced some slowdowns due to limitations from the global supply disruption⁶ and the fading-out of fiscal stimulus⁷ especially of those to support household purchasing power which observed in decline in the federal government spending. Meanwhile, the inflation pressures continually increased as the demand for goods and services rose. In the third quarter, the inflation rate (Core PCE Price Index) was an average of 3.6 percent, accelerating from an average of 3.4 percent in the previous quarter, and was the highest level since the second quarter of 1991. The escalating inflationary pressure was partly due to the tightness of labor market led to wage increasing. The unemployment rate fell to 5.1 percent in this quarter, compared to 8.8 percent in the same period of the last year, nonetheless it was still considered high compared with a pre-pandemic level at 3.7 percent in 2019. Therefore, the Federal Reserve's Monetary Policy Committee (FOMC) decided to keep the policy rate on hold at 0.00 – 0.25 percent during the meeting on 21st – 22nd September 2021, but the committee sent a signal to begin easing the monetary policy in the next meeting on November and expected to withdraw the quantitative easing entirely by the first half of 2022⁸.

The Eurozone economy grew by 3.7 percent, decelerating from a 14.2-percent growth in the previous quarter, partly due to high growth base in all member economies. Nevertheless, after seasonal adjustment, the Eurozone economy expanded by 2.2 percent, continuing from a 2.1-percent increase in the previous quarter (%QoQ swda). The recovery was contributed mainly by domestic demand, exhibited by continual growth of retail sales and the 13-quarter high of consumer confidence. In addition, manufacturing and services sectors continued to recover, reflecting by the manufacturing and service PMI registering at 60.9 and 58.4, respectively, which are higher than their respective levels of 52.4 and 51.1 in the same quarter last year. The inflation rate increased to a 39-quarter high at 2.8 percent. For key economic policies, the European Commission has disbursed funds under the Recovery and Resilience Facility for 16 countries, totaling 51.5 billion Euros, which were part of the part of the 672.5 billion Euros loans and grants under the Next Generation EU Recovery and Resilience Facility. Moreover, the ECB meeting on

The US economy grew by 4.9 percent, decelerating from the previous quarter. This was mainly due to the supply chain disruptions and escalating inflationary pressure. Meanwhile, the labor market has not yet fully recovered.

The Eurozone economy grew by 3.7 percent, decelerating from 14.2 percent in the preceding quarter. However, it grew at a seasonally-adjusted growth rate of 2.2 percent continuing from a 2.1 percent in the last quarter, driven by pick up of domestic demand.

⁶ The retail sale values of automobiles and computers slowed down. Meanwhile, for vehicles and components, grew only by 8.3 percent in August – the slowest growth in the eight months.

⁷ The stimulus check was given to people between March 2020 and April 2021.

⁸ FOMC unanimously agreed on maintaining an accommodative stance until the targets of full employment and long-term inflation (2.0 percent) are achieved.

September 9th, 2021, agreed to hold the policy rates at a low level of 0.0 percent as well as to maintain other accommodative measures to support the economic recovery.⁹

The Japanese economy grew by 1.4 percent, decelerating from 7.6 percent in the previous quarter due to a new wave of COVID-19 pandemic, which led to the strict lockdown measure and the state of emergency extension in the prefectures with high infectious rate including Tokyo until September 30th, 2021. Meanwhile, the vaccination rate was still low so that the Japanese government had sped up the vaccine distribution in the third quarter.¹⁰ Furthermore, the new round of pandemic and following lockdown measure dampened domestic demand, reflected by the 0.3-percent retail index contraction, following by a decline in consumer confidence index to 37.9 and service PMI to 46.0 which remained below 50 for 8 consecutive quarters. Despite a weakened domestic demand, the economic growth was notably driven by strong manufacturing and exporting sectors in which that the export values grew by 25.4 percent, and the manufacturing PMI increased to 52.4 in the third quarter, compared with 46.7 in the same period of the previous year. For economic policies, the Japanese government implemented a fiscal support package to mitigate the impact for the business especially service sector such as tourism and food and beverage businesses. Also, Japanese cabinet approved the minimum-wage act to increase the minimum wage by 28 yen. For monetary policy, the Bank of Japan (BOJ) on October 27th – 28th, 2021, decided to maintain its 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.

The Japanese economy grew by 1.4 percent, decelerating from 7.6 percent in the previous quarter as domestic demand has been dampened by new wave of pandemic which led to tightened lockdown measure.

The Chinese economy expanded by 4.9 percent, decelerating from 7.9 percent in the previous quarter, which was in line with deceleration of key indicators in manufacturing and export sectors. Essentially, the Caixin manufacturing PMI was 49.8, the first time in 6 quarters to be lower than 50. Similarly, exports values grew by 23.9 percent, decelerating from 30.4 percent in the last quarter. This slowdown was mainly due to the supply disruption particularly the temporary closures of large cargo ports causing delays in logistics and thus increasing freight costs. Furthermore, the shortages of semiconductors, shipping containers as well as supply of electricity, all amplified the supply constraint causing factories to lower their capacity utilization during the third quarter. Besides, the economic deceleration was also resulted from the economic restructuring reform towards more sustainable and fair competition¹¹, particularly, through tightening loan condition to calm down the overheated market and resolve the overdue payments in real estate sector. Nonetheless, the People Bank of China (PBOC) continued to adopt dovish monetary policies as to further support economic expansion. As of July 14th, 2021, the PBOC decided to lower the reserve requirement ratio (RRR) to 8.9 percent from 9.4 percent in the prior month as to continually support economic recovery. Furthermore, as of September 30th, 2021, the PBOC decided to extend economic measures for small businesses until the end of this year¹², for example liquidity injection and delay of loan payment for SMEs.

The Chinese economy grew 7.9 percent, decelerating from the prior quarter due to the implementation of economic restructuring reform and constraints in supply chain.

The Newly Industrialized Economies (NIEs) recovered thanks to the continual expansion in exports and manufacturing sectors driven by the recovery of the world economy. Although, the growth rates were lower than the previous quarter due to the higher growth base from last year. Hence, **the Singapore's economy** expanded by 6.5 percent, decelerating from 15.2 percent in the previous quarter. After seasonal adjustment, the Singapore's economy expanded by 0.8 percent, comparing with a 1.4-percent contraction in the previous quarter. This rebound was mainly due to the expansion of the manufacturing sector especially, chemical, electronics, and precision engineering industries, as well as construction sector. Similarly, the manufacturing PMI rose to 54.2, the highest level in 12 quarters. **The South Korea's economy** grew by 4.0 percent, decelerating from 6.0 percent in the previous quarter. Meanwhile, the economy expanded by 0.3 percent in

The NIEs economies continually increased from a low growth base in the previous year, following the expansion in exports and manufacturing due to the recovery of the world economy.

⁹ Key measures include: (i) maintaining asset purchases under Pandemic Emergency Purchase Programme (PEPP) with the total envelope of 1.85 trillion Euros; (ii) continuing monthly bond purchases under the Asset Purchase Programme (APP) with 20 billion euros envelope with reinvesting principals until ECB increases policy interests; and (iii) continued liquidity support through the third series of targeted longer-term refinancing operations (TLTRO III).

¹⁰ Japan's first dose and second dose vaccination rate on July 1st, 2021, is 26.8 percent and 14.6 percent respectively, before improving to 70.7 percent and 60.0 percent on September 30th, 2021.

¹¹ Major policies consisting of (1) clean energy policy with the target of achieving carbon neutral by 2060, causing the electricity generated by coal power plant to decline as well as leading to a shortage of electricity during the third quarter, while some of the factories have to reduce their productions, (2) solving financial stability problem as well as controlling banks' lending decision, especially for real estate sector, leading to liquidity problem in some of the real estate firms, which are likely to overdue their loan repayment, particularly China Evergrande Group, the second largest real estate firm in China. This problem not only cases a decline in fixed asset investment, it would also affect investor confidence, and (3) promoting anti-monopoly as well as joint contribution and shared benefits, especially in education, online game as well as any other online sale platform.

¹² Important measures include (1) support the growth of loans granted to micro and small businesses (MSBs) and self-employed businesses by raising the target for large banks' lending growth to MSBs from 30 percent to 40 percent as well as fully utilize the RMB300 billion new quota of central bank lending for MSBs, (2) delay of loan payments, with the deadline extended to the end of 2021, and eased loan size restrictions for online loans, (3) tolerance for higher NPLs and reduced NPL provision coverage requirements and (4) support bond issuance by financial institutions to finance SME lending.

the seasonal adjusted basis, comparing with 0.8 percent in the previous quarter, following the continuous recovery of exports, particularly, semiconductor and petrochemical products. Moreover, the Bank of Korea (BOK) at the meeting on August 26th, 2021, decided to increase the policy rate by 0.50 percent to 0.75 percent per annum, the first-time hike in 3 years, to lessen demand-pull inflationary pressure and financial risks. **The Hong Kong's economy** expanded by 5.4 percent, decelerating from 7.6 percent in the previous quarter, grew by 0.1 percent after seasonal adjustment, recovering from a 0.9-percent contraction in the previous quarter. The growth was mainly due to the improvement in export and manufacturing sector, exhibited by the manufacturing PMI that rose to 52.1, the highest level in 12 quarters. Whereas, the **Taiwan's economy** expanded by 3.8 percent, accelerating from a 7.4-percent in the previous quarter. For seasonal adjustment, the economy grew by 0.6 percent, recovering from the 1.1-percent decrease in last quarter, owing to an expansion in both exports and total investment which expanded by 14.1 percent and 28.0 percent, respectively. The total investment growth reached the highest level in 44 quarters.

The ASEAN economies experienced a number of headwinds threatening to slow the recovery due to the resurgence of COVID-19, owing to the new strain virus. Henceforth, the governments had to reimplement the strict containment measures amid the low full vaccination rate. Consequently, the domestic spending and service sectors were severely affected, and some production bases were temporary suspended the operations which dampened the manufacturing and export sectors. Overall, **the economies of Indonesia and the Philippines** grew by 3.5 percent and 7.1 percent, decelerating from a 7.1-percent and 12.0-percent expansions in the previous quarter, respectively. Meanwhile, **the Malaysia's and the Vietnam's economies** shrunk by 4.5 percent and 6.2 percent, compared with an increase of 16.1 percent and 6.6 percent in the previous quarter. This was the first ever economic contraction of Vietnam since the record begin. This contraction was mainly due to the extensive lockdown of Vietnam's factories and special economic zones to control the outbreak. Thus, many ASEAN countries were continually enacting fiscal policies¹³ to alleviate the detrimental economic impacts in tandem with maintaining historically low policy rates¹⁴.

The ASEAN economies were affected by the domestic outbreaks causing the deceleration of domestic demand. The manufacturing and export were also affected by lockdown measures.

GDP and Export growths in several key economies

(%YoY)	GDP				Export Value						
	2019	2020	2021		2019	2020		2021			
	Year	Year	Q2	Q3	Year	Year	Q2	Q3	Jul.	Aug.	Sep.
USA	2.3	-3.4	12.2	4.9	-1.5	-13.5	51.0	23.7	28.1	25.9	17.3
Euro Area	1.6	-6.4	14.2	3.7	-2.5	-7.1	46.7		14.7	17.6	
UK	1.7	-9.7	23.6	6.6	0.9	-13.5	21.7	12.9	17.3	9.4	12.2
Australia	1.9	-2.5	9.7		5.3	-7.4	47.6	50.3	54.1	57.3	39.7
Japan	0.0	-4.6	7.6	1.4	-4.4	-9.1	42.5	20.4	32.6	21.8	8.3
China	6.0	2.3	7.9	4.9	-0.1	4.0	30.4	23.9	18.9	25.1	27.5
India	4.8	-7.0	20.1		-0.2	-14.8	86.1	38.6	49.6	46.4	22.6
South Korea	2.2	-0.9	6.0	4.0	-10.4	-5.5	42.1	26.5	29.7	34.7	16.9
Taiwan	3.0	3.1	7.4	3.8	-1.5	4.9	37.4	30.1	34.7	26.9	29.2
Hong Kong	-1.7	-6.1	7.6	5.4	-4.1	-0.5	26.9	22.4	26.6	25.4	16.0
Singapore	1.3	-5.4	15.2	6.5	-5.2	-4.1	33.5	19.3	19.0	18.6	20.3
Indonesia	5.0	-2.1	7.1	3.5	-6.8	-2.7	55.9	50.9	41.6	64.1	47.6
Malaysia	4.4	-5.6	16.1	-4.5	-3.4	-2.3	50.6	15.9	6.5	17.4	24.1
Philippines	6.1	-9.6	12.0	7.1	2.3	-8.1	36.6	12.7	13.8	18.9	6.3
Vietnam	7.2	2.9	6.6	-6.2	8.4	6.9	34.7	2.9	11.9	-1.7	-0.5

Source: CEIC , Collected by NESDC

¹³ The Malaysian government approved the 150-billion-ringgit PEMULIT project in late June, which will be effective for the rest of the year. This project is considered as an extension of the previous PEMERKASA Plus program. It contains the measures regarding granting money to low-income households, supporting newly graduate unemployed students, manipulating prices of foods and energy, providing a discount on the electrical bill, subsidizing wages, etc. Similarly, the Philippine government enacted the 400-billion-peso Bayanihan III law in late June, which will also be effective for the rest of the year. This law is also about granting money to affected households, subsidizing on wages, assisting unemployed workers, supporting the agricultural and fishery sector, etc.

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 will continue the growth from the second half of 2021, following the notable recoveries of major economies led by the US, the Eurozone, the UK, Australia and the NIEs. This is mainly due to the relaxation of control measures, progress in vaccine distribution, and the invention of antiviral drugs which have boosted overall confidence and thus will continue to drive domestic demand and economic activities to return to pre-pandemic levels. However, the advanced economies are expecting some slowdowns following the high growth base from 2021 and the curtailment of fiscal support by the end of 2021. There are also limitations from the resurgence of Covid-19 outbreak from the new variants that can derail the recovery of domestic demand and service sector. Meanwhile, the Chinese economy tends to decelerate due to the economic structural reform policies toward sustainability and economic stability. Also, the impact from supply chain disruption due to port closures and the shortage of major raw materials is likely to be persistent, expectedly until the first half of 2022. Meanwhile, emerging economies and developing economies, particularly the ASEAN, are expected to perform strong growths in 2022, following the favourable recovery of major trading partners which will boost export-oriented economies and their manufacturing sectors. Additionally, the domestic demand is likely to rebound following more easing of outbreak control and international travel restrictions after the vital progress on vaccine distribution.

Key assumptions for the baseline projection include: (i) there will be no severe resurgence and prolonged infections as well as the virus variants do not decrease the effectiveness of vaccine that can lead to higher number of severe infections and deaths and will not thus lead to higher degree of containment and restrictions which eventually derails economic activity; (ii) the monetary policy will be able to effectively handle with the rising inflationary pressure in major economies and hence the policy would remain favourable for economic expansion. Likewise, the variation in the bond market will not heap more pressure on the central banks to raise the policy rates; and (iii) China's structural reforms and economic stability will not notably weaken its economic growth and will not create volatility in financial and capital markets. **Under this baseline scenario, the global economy and trade volume in 2022 are projected to expand by 4.8 percent and 6.5 percent, respectively, decelerating from the 5.6-percent and 8.0-percent growths in 2021.** Prospects on key economies are as follows:

The US economy is projected to expand by 5.0 percent, compared with 5.8 percent in 2020, due to the recovery of domestic demand after easing containment measures. In addition, it is expected that the progress of vaccine distribution and the invention of effective antiviral medicines will be able to reduce the morbidity and mortality despite any further mutated strains and will buttress confidence. Additionally, the household income and domestic spending will be supported by the recovery of labour market as indicated by the nonfarm payroll in October 2021 with 148-million positions – a significant improvement from 2020 – and close to the pre-pandemic level at 151-million positions in October 2019. Moreover, the Infrastructure Investment and Jobs act. (worth 0.55 trillion US dollar) and Build Back Better scheme¹⁵ (worth 1.75 trillion US dollars) will ameliorate the economy through government spending. However, the trajectory of the US economy is anticipated to slow down from the elevated base in 2021. Meanwhile, the inflationary pressure is expected to lessen in the second half of 2022 due to the resolving of temporary factors, especially, commodity prices due to the supply constraint, together with the Fed's QE tapering by subsequently reducing scale of its monthly bond purchasing program in the latest meeting of 2nd – 3rd November 2021¹⁶.

The Eurozone economy is expected to expand by 4.2 percent in 2022, compared with 4.9 percent in 2021. It tends to be supported primarily by the rebound of manufacturing following global economic recovery and lower tariffs on steel and aluminium between the European Union and the US. Simultaneously, both domestic demand and services sectors incline to resume their growth as several countries have relaxed their containment measures since mid-2021 and allowed international travel within the 19 EU members regarding the satisfactory vaccination rate.¹⁷ In addition, the regaining of economic momentum is also buttressed by the major European Union fiscal policy¹⁸ totaling 1.361 trillion US dollars, or about 10.5 percent of GDP. However, the economic outlook tends to decelerate following the slow recovering trend of domestic demand due to the new wave of the outbreak in many EU members and the monetary policy direction in slowing down the pace of net asset purchases amid rising inflationary pressure¹⁹.

¹⁵ The Build Back Better will be sent to the house of representatives for consideration between 15 – 19 November 2021.

¹⁶ According to the FOMC meeting on 2-3 November 2021, the committee resolved to ease the policy direction. Although the policy interest rate (Federal Funds Rate) was maintained at 0 – 0.25 percent, there was a reduction in the amount of US government bonds and real estate mortgage-backed securities (MBS) purchased per month by 10 billion US dollars and 5 billion, respectively, starting in late November 2021. As a result, the Fed will purchase the US government bonds and securities with real estate loans Insurance of not less than 70 billion US dollars and 35 billion US dollars this November, respectively. Nevertheless, the FOMC will consider adjusting the asset purchase limit each month as appropriate.

¹⁷ As of November 2nd, 2021, COVID-19 vaccination has covered 69.8 percent of the Eurozone population.

¹⁸ 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 5.3 billion Euros spanning over 2021 – 2027; and (iv) the 94.3 billion Euros in financial support for 19 member states under the European instrument for temporary Support to mitigate Unemployment Risks in an Emergency (SURE).

¹⁹ During the ECB's latest meeting on October 28th, 2021, it was agreed that: (i) policy rates are to be maintained at the low level until inflation is sustainably at the target of 2.0 percent, although the target is allowed to be briefly exceeded; (ii) asset purchases under Pandemic Emergency Purchase Programme (PEPP) with the total envelope of 1.85 trillion Euros is to be maintained until March 2022 or until the ECB has considered that the COVID-19 crisis has subsided; (iii) monthly bond purchases under the Asset Purchase Programme (APP) with 20 billion euros envelope are to be continued with reinvesting principals until ECB increases policy interests; and (iv) the third series of targeted longer-term refinancing operations (TLTRO III) is to be continued.

The Japanese economy is expected to expand 3.0 percent in 2022, comparing with 2.8 percent in 2021. The main supporting factor is a recovery in global economy which will support exports and manufacturing sectors. Recent October data also revealed that the manufacturing PMI reached 53.2, the 7-month high and increasing from an average of 45.9 in Q3. Meanwhile, the Japanese government started to relieve the lockdown measure since the COVID-19 spread has been curbed down and the vaccination rate has improved drastically.²⁰ Hence, by the end of September 2021, the government lifted the state of emergency which was declared since April 30th, 2021. Moreover, inbound travel restriction has been relaxed for specific groups of travellers including students, researchers, and investors since November 8th, 2021. This circumstance has induced the domestic demand especially service sector, reflected by the service PMI of 50.7 in October 2022 which exceeded 50 for the first time in 20 months. In addition, the economy will be supported by the government expenditure under a record-high fiscal budget framework for FY2022 of 111.66 trillion yen, increasing from FY2021's budget by 4.7 percent. At the same time, the Bank of Japan (BOJ) will continue its expansionary monetary policy to liquidate the economy.²¹

The Chinese economy is expected to grow by 5.5 percent in 2022, slowing from 8.5 percent in the year 2021, in line with a decline in supports from fiscal spending. Besides, the economic slowdown will be in line with the economic restructuring reform policy towards more sustainability and fairness under the China's 14th National Economic and Social Development Plan where businesses as well as financial sectors must adapt under the new regulations, especially strict loan condition to real estate sector. Furthermore, this regulatory risk would cause uncertainties for the business sector and could affect private investment. At the same time, the supply chain disruption caused by closure of shipping ports and shortages of raw material and parts, especially semi-conductor, tends to prolong during the first half of the year, which would constrain recovery in industrial production, particularly in automobile industry. Nonetheless, the Chinese economy in 2022 will be supported by recovery in global economy. Together with lessening trade tension with the US, the manufacturing and export sectors are likely to expand at a satisfactory rate. Moreover, domestic demand is expected to grow continuously in line with easing containment measures.

The Newly Industrialized Economies (NIEs) tend to recover led by the expansion of manufacturing production and export sectors due to the recovery of world economy and merchandise trade. Similarly, domestic demand tends to expand due to the improving pandemic situation. In addition, the recovering momentum will be attributed to the notable fiscal stimulus measures, including Hong Kong's economic stimulus measures (worth of 15.5 billion US dollars), Taiwan's domestic demand stimulus measures (5.8 billion US dollars), and Singapore's affected labour and businesses support measures (1.1 billion US dollars).²² The economies of South Korea, Hong Kong, Taiwan, and Singapore are expected to expand by 3.2 percent, 3.2 percent, 3.3 percent, and 4.5 percent in 2022 compared with a 4.1-percent, 6.4-percent, 6.0-percent, and 6.6-percent, in 2021, respectively.

The ASEAN economies are likely to improve as the pandemic situation abates in tandem with an increasing vaccination rate, and thus the governments can allow more relaxed containment measures. In addition, the manufacturing production and exports are projected to expand following the world economy and global trade. Meanwhile, the domestic demand is expected to recover continually because of the support from the government's additional fiscal measures²³ accompanied by the continued accommodative monetary policy. Thus, overall, the economies of Indonesia, Malaysia, the Philippines, and Vietnam will grow by 5.5 percent, 5.8 percent, 6.5 percent, and 6.7 percent, accelerating from 3.8 percent, 4.5 percent, 4.2 percent, and 2.8 percent, respectively.

²⁰ Japan's second dose vaccination rates on November 7th, 2021, were at 74.7 percent, rising from 60.1 percent at the end of September, 2021.

²¹ In the latest meeting on October 27th – 28th, 2021, 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, BOJ still mitigate the COVID-19 economic impact through financial aid.

²² Hong Kong's key economic stimulus measures would be continued until next year. as consumption voucher scheme value 5,000 HK dollars, measures to promote domestic spending and stimulate domestic demand through Quintuple Stimulus Vouchers of Taiwan, and Singapore's key economic stimulus measures including subsidies through measures to support employment increased by 60 percent for the affected sectors due to restriction measures, such as restaurants and beverages including the Jobs Growth Incentive (JGI) scheme to support the employment of local workers.

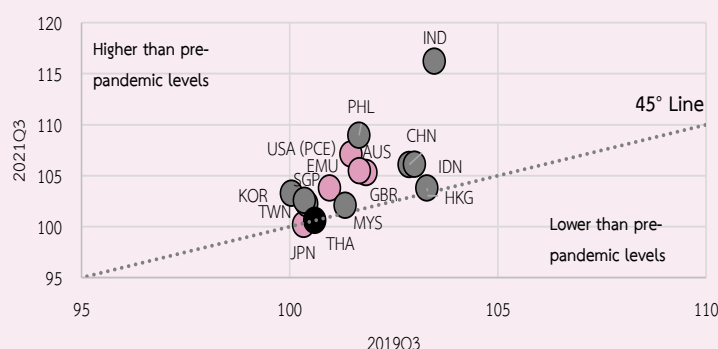
²³ The Malaysian government has allocated a budget of approximately 80 billion US dollars to stimulate economic recovery in 2022, in aspects of providing financial assistance to those affected, investing in additional infrastructure and economic stimulus measures, etc. Meanwhile, the Indonesian government approved the 2022 budget of 180 billion US dollars allocated to the health expenditures to deal with the COVID-19 situation (18 billion US dollars), the development of government welfare (30 billion US dollars), and infrastructure (27 billion US dollars).

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 tends to undermine vaccines' effectiveness and thus lead to reimplementing of strict containment and prolonged international travel restrictions. In addition, delays in vaccine distribution in emerging and developing economies may result in persisted outbreak and increasing number of deaths, and potentially slow down the economic and merchandise trade recoveries to the normal level; **(2) risks from faster-than-expected inflationary pressures** that could lead to a shift in direction on monetary policy and tighter financial conditions, particularly from (i) rising commodity and energy prices in global markets, coupled with increasing international freight costs, and (ii) the rise in wage due to labour shortage. Therefore, if the surge in inflation persisted, the key central banks could reduce the scale of monetary easing and raise the policy interest rate faster than anticipated. This circumstance could diminish debt paying capability and thus accelerate default risk, specifically in emerging markets and developing economies with a large percentage of debt in foreign currency; **(3) the lingering supply chain disruption**, which will undermine the economic recovery and heap more pressure on inflation, due to: (i) the outbreak situation in several countries that affected industrial areas and has resulted in the closure of factories and production base, especially those producing raw materials and capital goods; (ii) the shortage of semiconductors which is likely to restrict the manufacturing production in key supply chains such as automobiles, computers, electronic components, motorcycles and household appliances (iii) the shutdowns of Chinese ports due to the pandemic and problem in container management that have caused shipping delays and continued to increase freight rates; (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 emerging economies in Asia that highly-connected to the Chinese economy. However, in the base case, China's economic reform is expected to be a gradual transitory with limited impact, while the shortage of electricity will be temporary; **(5) the fluctuations in the global financial system**, and the volatility of international capital flow under the highly uncertain outbreak situation which may result in exchange rate fluctuation, the policy direction of major economies, particularly under less fiscal space amidst the high public debt in major economies, and the default debt of Chinese real estate companies, which could lead to greater volatility in asset prices; and **(6) the international conflicts**, including geopolitical conflicts that cause domestic unrest, such as the conflict in Afghanistan, the conflicts in the Middle East which could impact oil price levels, as well as the conflicts between trade and technology, particularly the US-China tension that could put pressure on international trade and investment.

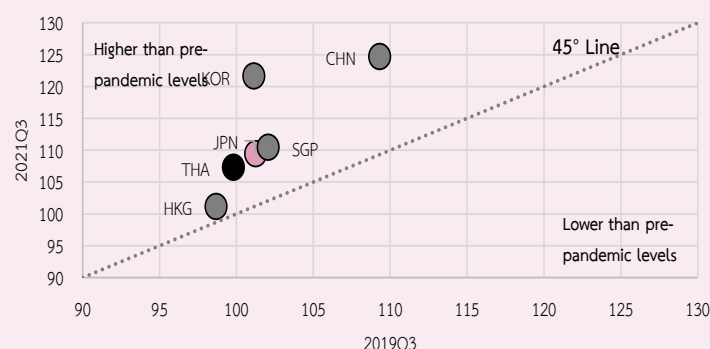
Heightened inflationary pressure amidst uneven global economic recovery

In 2021, the global economy tends to show a strong recovery path, led by major industrial economies following relaxation of containment measure and the favorable progress of vaccine distribution. However, inflationary pressures intensify globally as domestic demand regained along with the persistence of supply shocks including global logistics disruptions, material shortages, and sharply increased in oil prices. Consequently, recent inflation rates in several economies have exceeded their policy target rates. The component of core inflation shows that the housing prices and second-handed vehicles significantly rose and tend to cause permanent inflationary pressure as illustrated in the figures below. Hence, major central banks are likely to earlier-than-expected normalize the stance of monetary policy to tamp down on rising inflation. At the same time, the economic recovery paths are uneven and varies among countries. The scatter plots illustrate the levels of key indicators between the third quarter of 2019 as proxy for the pre-pandemic condition and the third quarter of 2021 to compare the current economic situation to the pre-pandemic level. While many developed countries have experienced higher levels of manufacturing and retail sales activities compared to before the pandemic, several emerging markets and developing economies are still performing below the pre-pandemic levels. If the central banks decide to tighten their policies to cope with inflationary pressures before the economy could achieve full recovery, the financial conditions could tighten, resulting in less ability to repay debt and thus could undermine overall economic.

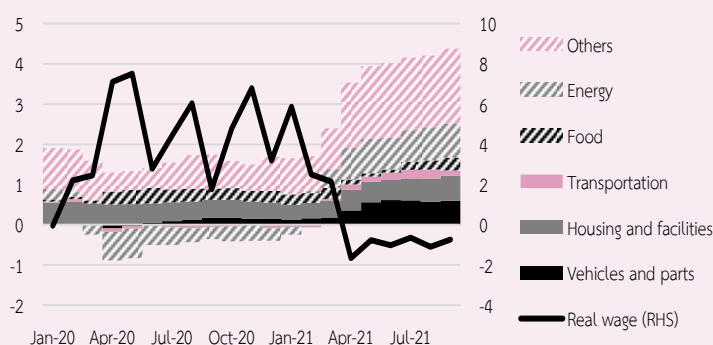
Consumer Price Index (2018Q3 = 100)



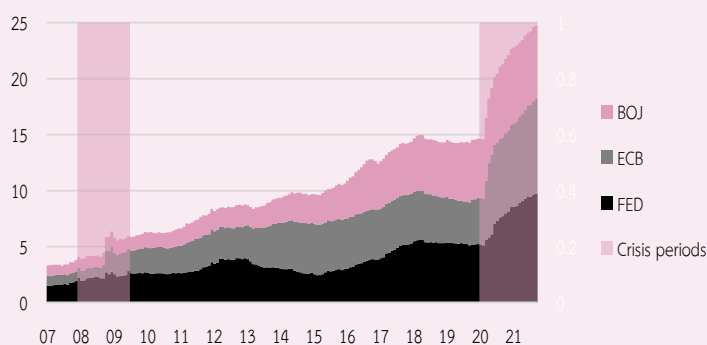
House Price Index (2018 = 100)



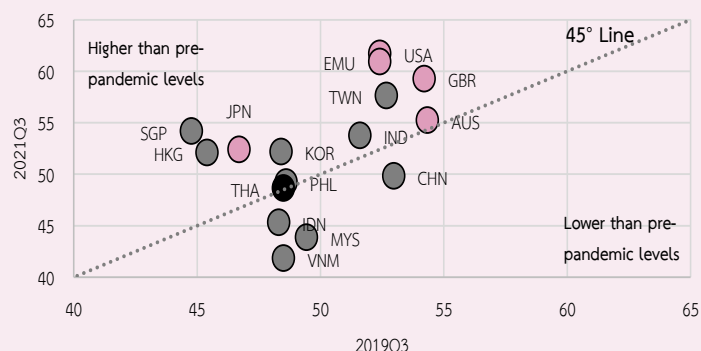
US Personal Consumption Expenditure (PCE) inflation (%CTG)



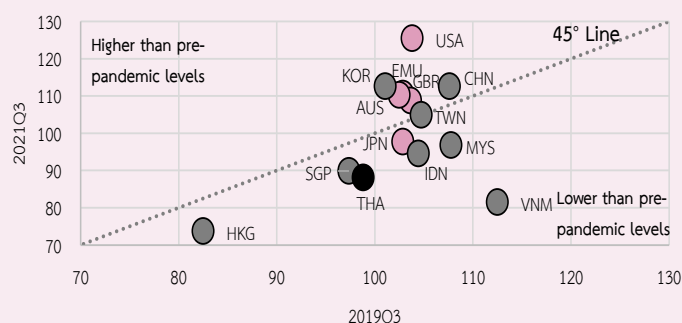
Asset of key central banks (Trillion US dollars)



PMI Manufacturing



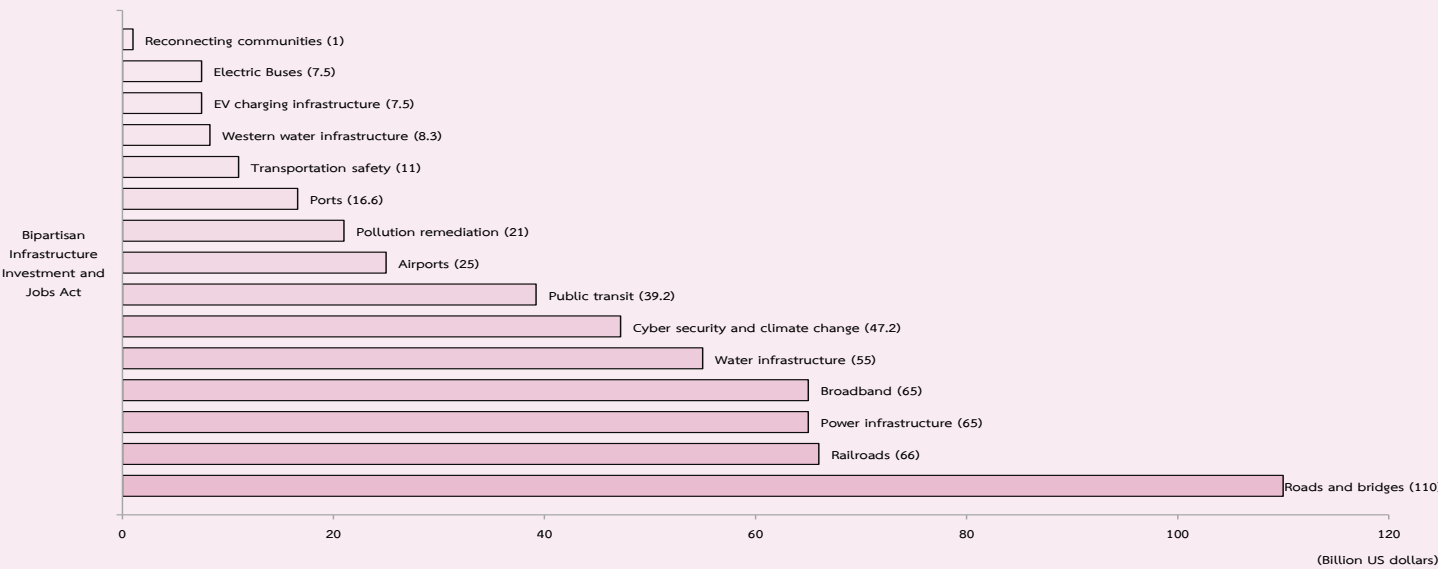
Retail Sales Value Index (2019Q3 = 100)



Source: CEIC and FRED

Key Infrastructure Investment and Economic Plans of the United States

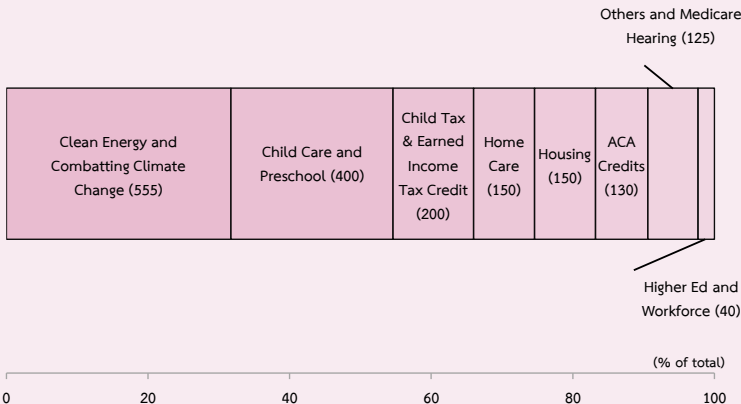
President Joe Biden of the US signed the bipartisan infrastructure framework into law under the Infrastructure Investment and Jobs Act (IIJA) on November 15th, 2022. The legislation will deliver 550 billion US dollar of investment, when combined with the previously authorized funding, the infrastructure investment will worth over 1.2 trillion US dollar disbursed over 10 years from 2022 to 2031. The bill will focus on massive infrastructure investment and preparation for climate change. The key elements¹ of the policy are as follows:



Source: US Bureau of Economic Analysis and the White House, compiled by the NESDC

The estimation from the Moody’s Analytics² illustrates that the American Rescue Plan and the IIJA will increase the US GDP by an average of 2 percent per annum during 2022 - 2031 and will generate around 1.54 million jobs per year. Meanwhile, the Congressional Budget Office³ estimates that the level of real GDP would increase by 0.05 - 0.11 percent per annum over a 30-year horizon or by the end of 2051. Additionally, its economic benefit from economic activities and employment will increase tax revenue and thus not cause a federal budget deficit. Nonetheless, there is also a possibility of future tax change, particularly increasing income tax on high-income groups and capital gains tax.

In addition, the social infrastructure bill (Build Back Better Framework) is currently under discussion, totaling 1.75 trillion US dollars or accounting for 9.5 percent of GDP, which is expected to be voted by The House of Representatives on November 15th – 19th, 2021. The plan will emphasize on improving social welfare, particularly for public health, education, and housing, along with investing in clean energy and addressing climate change. The key elements of the policy are as follows:



¹ White House (2021). Summary of The Bipartisan Infrastructure Deal. Website <https://www.whitehouse.gov/briefing-room/statements-releases/2021/11/06/fact-sheet-the-bipartisan-infrastructure-deal/>

² Moody’s (2021). Macroeconomic Consequences of the Infrastructure Investment and Jobs Act & Build Back Better Framework. Website <https://www.moodyanalytics.com/-/media/article/2021/macro-economic-consequences-of-the-infrastructure-investment-and-jobs-act-and-build-back-better-framework.pdf>

³ Congressional Budget Office (2021). Effects of Physical Infrastructure Spending on the Economy and the Budget Under Two Illustrative Scenarios. Website <https://www.cbo.gov/publication/57327>

5. Thai Economic Outlook for 2021

The Thai economy in 2021 is projected to expand by 1.2 percent, increasing from a 6.1-percent contraction in 2020. Headline inflation is expected to be at 1.2 percent and the current account is projected to record a deficit of 2.5 percent, compared with a surplus of 4.0 percent of last year.

In the November 15th, 2021 press release, the NESDC forecasted that the Thai economy is expected to expand by 1.2 percent, which is the upper bound of the range of 0.7 – 1.2 percent in the previous projection, released on August 16th, 2021, together with the revision in key growth components to be consistent with changing conditions and revised assumptions as follows.

- 1) **The revision in tourism receipts and numbers of foreign tourism assumption in 2021 results from earlier-than-expected implementation of reopening-up the country for international traveling** allowing fully-vaccinated foreign tourists from 63 eligible countries to enter Thailand without quarantine and can travel domestically under the Department of Disease Control's guidelines, starting from November 1st, 2021. Tourists are expected to arrive more than anticipation in last two months. Hence, the total number of inbound tourists and the revenue from foreign tourists in 2021 are expected to be at 200 thousand tourists and 130 billion baht, revised upwardly from 150 thousand tourists and 120 billion baht in the previous projection assumption. Consequently, the export volume of goods and services is anticipated to increase by 10.0 percent, revised from 9.6 percent in the previous forecast.
- 2) **The revision in private consumption** to be consistent with the reopening the country for tourism and better-than-expected figure in third quarter, supported by: (1) easing of containment measures in several areas; (2) the continual economic policy packages for mitigating impact and increasing purchasing power measures including particularly the "Half-half" scheme phase 3, the additional cash transfer for welfare-card holders scheme and the unemployed compensation for insured labor under the social security act section 33, 39, and 40, as well as the copayment to support and maintain employment for SMEs scheme; and (3) the relaxation for inbound traveling in the last quarter of 2021. All the conditions are expected to boost the private consumption in 2021 to grow by 1.2 percent, comparing with 1.1 percent in the previous forecast.

6. Thai Economic Outlook for 2022

The Thai economy in 2022 tends to grow more-pronouncedly from the low base in 2021, supported mainly by the domestic demand resumption after improved outbreak situation and progress in vaccine distribution. In addition, the key supporting factors include the tourism recovery due to easing of international travel restriction, and exports and manufacturing expansion following the world economy and trade recovery. Moreover, the economy will be driven by government spending from both the annual budget and the loan decrees. However, key risks and limitations which could undermine the baseline growth consist of: (i) the uncertainty of COVID-19 outbreaks amidst virus mutations; (ii) weak financial conditions of the households and business sectors; (iii) possibility of prolonged disruptions in global supply chain and logistics undermining exports and manufacturing; and (iv) volatilities in the global economic and financial landscape amidst the heightened inflation pressure.

Supporting factors for the economic growth:

- 1) **The continued improvement of domestic demand**, contributed by better domestic outbreak situation as well as a surge in vaccine distribution across the country, reflected by a decline in number of new cases and new deaths per day, which resulted in continual relaxation of restriction and containment measures²⁴, causing economic activities and domestic spending to return to normal operations continuing from the last quarter of 2021. Moreover, there have been more resilient in term of households' and businesses' behavior to adapt and to counter the new normal pattern as a result of the pandemic. The domestic demand will also be supported by government economic packages to increase purchasing power and stimulate the economy. Meanwhile, private investment tends to expand in line with a growth in manufacturing and exporting sectors.
- 2) **The recovery of tourism sector**, driven by the easing of the containment measures and the reopening of the international travel since November 1st, 2021. Under this new guideline, fully-vaccinated tourists from 63 eligible countries can arrive in Thailand without quarantine, only RT-PCR is required (Test and Go). Furthermore, there also introduced the tourism sandbox areas (Blue-zone areas) which are pilot areas that can lift the restriction measure to attract both domestic and foreign travelers.²⁵ Furthermore, the pandemic situation in major countries of tourist origin has improved and thus many countries started to relax the international travel restriction. Therefore, numbers of inbound tourists in Thailand is expected to increase considerably especially in the second half of 2022. This is also consistent with UNWTO estimation that global tourism arrivals will increase by 60 percent in 2022.

²⁴ The Centre for COVID-19 Situation Administration (CCSA) announced on November 13th, 2021, that only six provinces are still under maximum restriction, accounting for 3.8 percent of GDP, compared with announcement date August 3rd, 2021, that 29 provinces are under maximum restriction, accounting for 77.6 percent of GDP

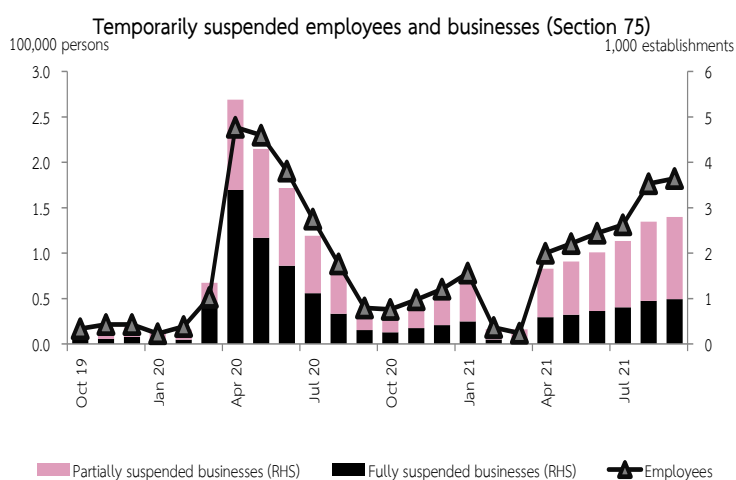
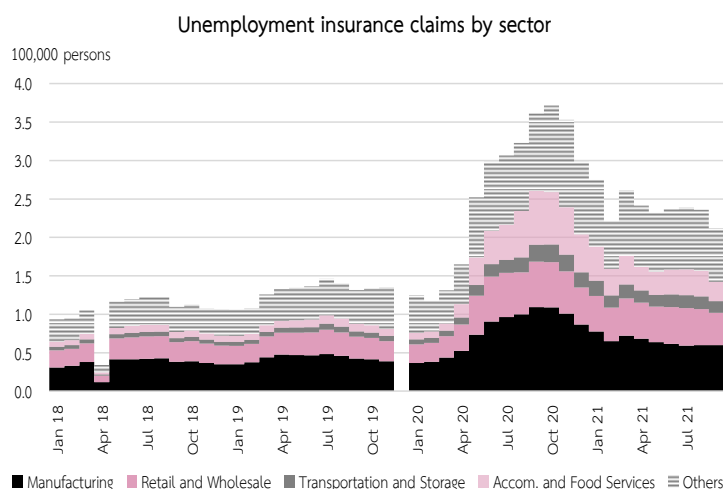
²⁵ Sandbox area guideline will be conducted in three phases; (1) From November 1st-30th, 2021, 17 provinces as followed, Bangkok, Krabi, Chonburi (Pattaya, Bang Lamung, Na Chom Thian, Bang Sare), Chiang Mai (Muang, Mae Rim, Mae Taeng, Doi Tao), Trad (Koh Chang) Buriram (Muang), Prachuap Kirikhan (Hua Hin, Nong Kae), Phang-nga, Petchaburi (Cha-am), Phuket, Ranong (Ko Phayam), Rayong (Ko Samet), Loei (Chiang Kan), Samut Prakan (Suvarnabhumi Airport) Surat Thani (Ko Samui, Ko Pa-ngan, Ko Tao), Nong Kai (Muang, Sangkhom, Sri Chiang Mai, Tha Bo), and Udon Thani (Muang, Ban Dung, Kumphawapi, Na Yung, Nong Han, Prachaksinlapakhom), considered by foreign tourism income accounting for 15 percent of total tourism income. (2) From December 1st – 31st, 2021, additional 20 provinces under the condition that income from tourists accounts for 15 percent of total tourism income and there must be cultural products and border with other countries (3) From January 1st, 2022, provinces under the condition of economic sandbox with border with other countries

- 3) **The continual recovery of the world economy and global trade volume**, led by the continual expansion in major industrial economies especially the US, the Eurozone, Japan, and China. The global recovery will be supported by more eased pandemic situation and the vaccination progress which will bolster expansion of manufacturing and service sectors, as well as domestic demand in each country. In addition, contribution from exports will drive world trade volume and will therefore boost the export-dependent economies namely the NIEs and the ASEAN to grow satisfactorily. Key export goods that tend to expand from increasing demand include work-from-home-related electronic appliances and equipment, vehicles and parts, 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 subsequently increase export opportunities in a wider array of goods.
- 4) **The support from government spending both from the annual budget, state-owned enterprise, and the loan decree**, which will support government consumption and public investment despite previous year's high growth base: (i) the FY2022 annual budget disbursement rate in the baseline assumption is expected to be at 93.4 percent of the overall budget framework, including the current budget and the capital budget at 98.0 percent and 75.0 percent disbursement rate to total budget, respectively. Consequently, it is expected that the FY2022 annual government budget should be disbursed around 2.782 trillion baht. Besides, the FY2022 carry-over budget disbursement rate is anticipated to be at 82.9 percent, accounting for approximately 196.7 billion baht; (ii) the disbursement by state-owned enterprises' capital budget in FY2022, especially investments in key infrastructure investment projects, is anticipated to have a disbursement rate of 70.0 from the total budget of 468.8 billion baht (including SOEs which are listed companies), 8.3 percent growth from 432.9 billion baht; (iii) the disbursement under the 1 trillion loan decree is expected to be disbursed around 131.1 billion Baht within FY2022 (13.1 percent of total budget), resulting in full disbursement from the budget within the second quarter of FY2022; and (iv) the disbursement under the additional 500 billion baht loan decree is expected to be disbursed around 390.2 billion baht within FY2022 (78.0 percent of total budget).
- 5) **The unusually low growth base of the economy in 2020 and 2021** due to the COVID-19 outbreak. In fact, the Thai economy in 2020 decreased by 6.1 percent which was the first recession in 11 years, before rebounding by 1.2 percent in 2021. The domestic demand rebound, however, has been restricted by the COVID-19 resurgence. Given such conditions, the Thai economy in 2022 should regain its growth momentum from domestic demand and goods exports recovery.

Risks and limitations to economic growth:

- 1) **The uncertainty of the COVID-19 pandemic amid the viral mutations**, which appears to be easily transmissible and possibly reduce the effectiveness of vaccines to preventing the infection, which could be the risk of the new outbreak and could thus lead to the reintroduction of stringent control measures and also restrict the international travel, particularly in the major tourist origin countries for Thailand. In addition, the delay of vaccine distributions, especially in developing countries and low-income countries would discourage tourism confidence and considerably slow down the recoveries of domestic demand and the whole economy. Moreover, the domestic pandemic situation in Thailand remains highly uncertain due to the risk of the virus mutation which are needed to be closely monitored, especially after the relaxations of containment measures and tourism reopening. At the same time, the vaccine, medicines, medical supplies, and other healthcare equipment have to be well prepared and effectively distributed in order to cope with any unexpected pandemic which could thus control the number of severe disease or death rate to remain under the public health capacity.
- 2) **Weakened financial conditions of the households and business sectors**, especially through rising household and business debt burden, compared with pre-pandemic levels. Household debt to GDP in the second quarter of 2021 was 89.3 percent, compared with 78.4 percent in the same period last year, while the non-performing loans (NPLs) and special mentioned loans (SMLs) to total SMEs loans in the second quarter stood at very high rates of 7.3 percent and 12.4 percent, compared with 4.5 percent and 3.2 percent in the same quarter of the last year, respectively. High levels of debt burden in the private sector would aggravate both recoveries in domestic demand and the ability to repay debt in the following periods. Moreover, the recovery path will be further restricted by the not-fully recovered labor market, reflecting in the number unemployed receiving unemployment insurance benefits from the social security fund of 273,157 persons in the third quarter of 2021, slightly lowered from 307,883 persons in the last quarter but remained much higher than 172,412 persons in the same quarter of last year.
- 3) **The growth momentum from export and manufacturing sectors could be exacerbated** by prolonged constraints in global supply chain and international logistics, as well as a shortage of migrant workers as follows: **(1) the global supply chain disruption** caused by a shortage in shipping containers and ports closure in China, together with a shortage in semiconductors, have intensified transportation and production costs. If these bottlenecks could not be resolved until the beginning of 2022, the global supply chain would be further constrained and, consequently, would aggravate recovery in the Thai exports sector; and **(2) the shortage of migrant 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 2,374,501 workers in September 2021, lowered than 2,424,490 workers and 3,090,825 workers in the same months of 2020 and 2019, respectively. The decline of foreign workers reflected the shortage trend due to the fact that many foreign workers returned to their home countries during the pandemic and they have not yet been allowed to come back to work in Thailand. If, however, the shortage problem is pursued, the foreign labor dependent sectors would be affected significantly, particularly agricultural and food industries, garment industries as well as the service sector.

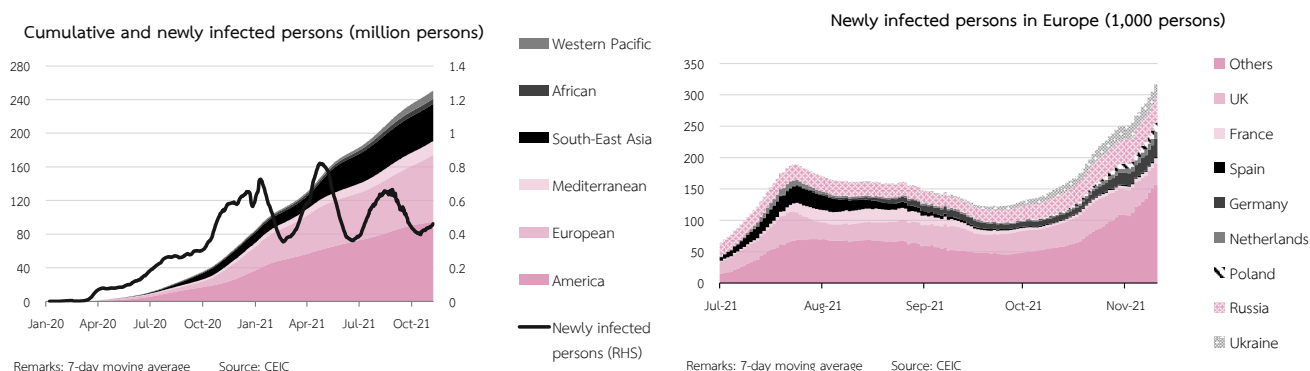
- 4) **The volatility and uncertainty of the world economy and financial market which may affect the economic growth and economic stability** that need to be closely monitored and assessed are as follows: (i) the uncertainty of the COVID-19 pandemic amid the viral mutations, which appears to be easily transmissible and tend to affect the effectiveness of current vaccines; (ii) an increasing trend of the inflation rate, the change in the monetary policy directions, and the effect on the bond market of the major economies; (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 business regulatory reform and the default on debt of real estate companies in China that could slow down the economic growth and cause a volatility of asset price; (iv) the policy direction of major economies, specifically the US and China, including 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 China and Taiwan, the unrest in Afghanistan, the conflict within the Middle East which may affect energy prices volatility, and the conflict between Australia and Asia-Pacific countries due to the new Australian submarines.



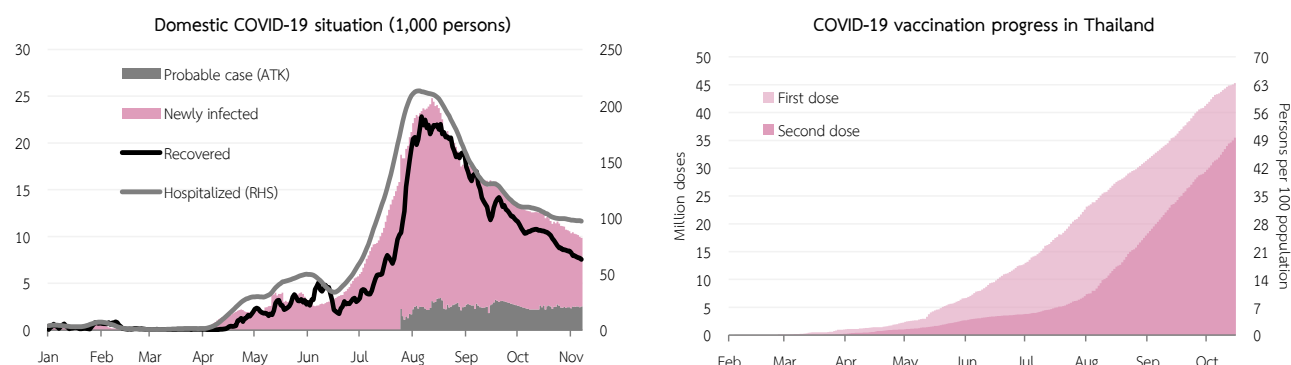
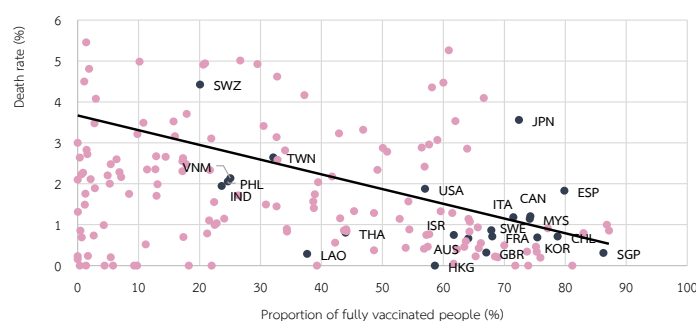
Recent pandemic situation and progress of the vaccine distribution

Domestic pandemic situation has continually improved as the number of a 7-day average new infections was 7,719 cases per day on November 10th, 2021, declining from 21,784 cases per day on August 10th, 2021. This was consistent with the number of COVID-19 patients in hospital was 97,307 persons on November 10th, 2021, significantly decreasing from its peak at 212,893 persons on August 17th, 2021. Moreover, more vaccine has been distributed throughout the entire country, showing by the number of fully vaccinated people at 35,505,934 persons or about 49.29 percent of population, of which are people under health condition and elderlies at 59.2 percent and 56.5 percent of total population in each group, respectively. Thus, the progress has decreased the number of severe symptoms and deaths, reflected by the number of new deaths was at 62 persons on November 10th, 2021, declining from a peak at 312 persons on August 18th, 2021. Meanwhile, **the global pandemic situation has been relieved** as the number of a 7-day average new infections was 449,022 cases per day on November 10th, 2021, dropping from the highest number of 817,495 new cases on April 26th, 2021. Nevertheless, the recent situation is likely to be worsen in Europe. The number of new infected cases of 333,543 persons on November 5th, 2021, was the highest figure since January 7th, 2021. The countries with the most infections are Germany, United Kingdom, Russia, Ukraine, and Poland.

Despite the pandemic in Europe, risk from serious breakout has become less significant thanks to high vaccination rate since it prevents patients from severe illness and death. In addition to vaccination, there is an advancement in developing new COVID-19 drug and medication, especially Merck's Molnupiravir which has an impressive clinical result. Moreover, Merck also allowed the production in developing and low-income countries to manufacture without additional royalty fees. Besides, Pfizer's Paxlovid which has a well-performed preliminary result by reducing the risk of severe hospitalization and deaths. This advancement of medical development from private sector would play a significant role in mitigating the pandemic, leading to government lifting the containment measures and international travel restrictions.



The percentage of fully vaccinated people and death rate (October 2021)
The scatter plot shows that countries with a higher proportion of fully vaccinated people tend to have a lower death rate.



Key assumptions for 2021 - 2022 economic projection:

	World Economic Projection				
	Actual Data		Projection		
	2019	2020	2021		2022
			Aug 16, 2021	Nov 15, 2021	Nov 15, 2021
World Economic Growth (%) ¹	3.0	-3.2	6.0	5.6	4.8
USA	2.2	-3.5	7.0	5.8	5.0
EU	1.3	-6.7	4.7	4.9	4.2
Japan	0.3	-4.8	2.8	2.8	3.0
China	6.0	2.3	8.7	8.5	5.5
World Trade Volume (%)	0.9	-9.6	8.5	8.0	6.5
Exchange Rate (Baht/US dollar)	31.0	31.3	31.3 – 32.3	31.9	32.0 – 33.0
Dubai Crude Oil (US Dollar/Barrel)	63.3	42.1	62.0 – 72.0	70.0	67.0 – 77.0
Export Price (US Dollar) (%)	0.3	-0.7	2.5 – 3.5	3.5	0.0 – 1.0
Import Price (US Dollar) (%)	0.2	-3.4	4.0 – 5.0	5.0	0.5 – 1.5
Income from Tourism (Trillion baht)	1.88	0.43	0.12	0.13	0.44

Note: ¹ World economic calculated by trade weight of key economic partners in 2019 (15 economies)

Source: NESDC

- 1) The assumption for the pandemic and vaccines** are as follows: (i) the domestic outbreak in 2022 will be contained within the capacity of the public healthcare. The number of severe infections and deaths are expected to decrease significantly that allows the government to continuously relax the control measures. Thus, economic activities can resume to the normal level; (ii) there will be no new wave of outbreaks from viral mutations that will worsen the situation to be more severe than at the present, both abroad and domestic and thus will not lead to more stringent containment measure and international travel restriction; (iii) more vaccine has been continually distributed throughout the country and covered population at sufficient rate that can lessen the risk of severe hospitalization and death; and (iv) the mutation of the virus will not significantly deteriorate vaccine effectiveness, and the vaccines still can significantly reduce morbidity and mortality rate.
- 2) The world economy and global trade volume in 2022 are expected to expand by 4.8 and 6.5 percent**, continuing from 5.6 and 8.0 percent in 2021, respectively. The growth momentum in advanced economies, such as the US, the Eurozone, the UK, and Australia, is expected to expand favourably, following the relaxation of containment measures, progress on vaccine distribution, and the development of antiviral medicines which further strengthen economic confidence. With the additional support from massive fiscal stimulus, domestic demand and economic activities tend to return to normal levels gradually. Furthermore, the emerging economies and ASEAN countries are expected to show accelerated growths in 2022, resulting from the strong rebound in exports and manufacturing production as well as recovering domestic demand due to better pandemic situation and progress on vaccination distribution.
- 3) The average value of Thai Baht in 2022 is expected to be in the range of 32.0 – 33.0 baht per US dollar, depreciating from 31.9 baht per US dollar in 2021**, following the trend of rising US government bond yields and the monetary policy direction adjustment of the Federal Reserve.
- 4) The average Dubai crude oil price in 2022 is expected to be within the range of 67.0 - 77.0 US dollars per barrel**, increasing from an average 70.0 US dollars per barrel in 2020. The major upside risks to the oil price are: (i) the better-than-expected recovery of the world economy after the containment measure and international travel ban lifting, as the US Energy Information Administration (EIA) forecasted in October 2021 that global oil demand in 2022 will be 101.4 million barrels per day, increasing from 95.9 million barrels per day from 2021; (ii) the remaining low level of US crude oil inventories, which EIA has expected that it will be at 1,267 million barrels in 2022, unchanged from 1,268 million barrels in 2021. Nevertheless, the oil price is also subject to downward pressures due to following factors: (i) highly uncertain situation of the outbreak; (ii) increasing in the number of oil rigs in the US and Canada, along with an increasing capacity of OPEC+; and (iii) slower-than-expected growth and debt default in Chinese real estate that could lead to a decline in oil demand.
- 5) The export and import prices in terms of US dollars in 2022 are expected to rise by 0.0 - 1.0 percent and 0.5 - 1.5 percent, respectively, which are decelerations when compared with 3.5 percent and 5.0 percent in 2021, respectively.** This is in line with the oil price assumption and the growth projections of the world economy and global trade volume. In addition, freight rates for international travels are expected to gradually decline following the improvement of global supply chain and 2021's high growth base.
- 6) The revenue from foreign tourists in 2022 is expected to be 0.44 trillion baht, with the total number of foreign tourists of 5 million tourists, increasing from 0.13 trillion baht and 0.2 million tourists in 2021**, under the baseline assumption that the major countries of tourist origin will continue to relax their international travel regulations. Similarly, it is also expected that the containment measures and inbound travel restriction in Thailand will continually relax and there is no further resurgence of COVID-19 which could lead to re-introduction of tighter containment measures.
- 7) The budget disbursement** are as follows: (i) the FY2022 annual budget disbursement rate of 93.4 percent of overall budget (compared with a 91.5 percent in FY2021), where the current and capital budgets are expected to be disbursed by 98.0 percent (similar to 98.0 percent in 2021) and 75.0 percent (compared with 65.0 percent), respectively; (ii) the carry-over budget disbursement of 82.9 percent, compared with a 85.0 disbursement rate in 2021; (iii) state-owned enterprises' capital budget disbursement of 70.0 percent of the total budget. (iv) The budget under the 1 trillion baht loan decree is expected to be disbursed around 131.1 billion baht (accounted for 13.1 percent of total budget). Thus, the budget will be completely disbursed by the end of FY2022; and (iv) the disbursement under the 500 billion baht loan decree is expected to be disbursed by around 390 billion baht within FY2022 (78 percent of the total budget). When combined with the already disbursed budget of 110 billion baht during FY2021, the budget under the additional loan decree is expected to be fully disbursed by the end of FY2022.

First dose vaccination coverage by province as of 11 November 2021

	Vaccination coverage of population			
	Less than < 40% (3 provinces)	40% - 49% (35 provinces)	50% - 69% (30 provinces)	From 70% upwards (9 provinces)
Vicinity provinces			Nakhon Pathom, Nonthaburi	Pathum Thani, Samut Sakhon
Southern region (4 provinces)		Narathiwat, Pattani	Yala	Songkhla
Blue zone (17 provinces)		Nong Khai	Prachuap Khiri Khan, Phetchaburi, Rayong, Trat, Loei, Udon Thani, Buriram	Chiang Mai, Bangkok, Samut Prakan, Chonburi, Phuket
Other provinces	Nakhon Phanom, Bueng Kan, Nong Bua Lamphu	Nan, Phrae, Mae Hong Son, Lampang, Tak, Phitsanulok, Phetchabun, Sukhothai, Kamphaeng Phet, Chai Nat, Phichit, Uthai Thani, Nakhon Nayok, Lopburi, Ang Thong, Ratchaburi, Samut Songkhram, Suphan Buri, Sa Kaeo, Kalasin, Khon Kaen, Maha Sarakham, Sakon Nakhon, Roi Et, Chaiyaphum, Surin, Mukdahan, Yasothorn, Sisaket, Amnat Charoen, Ubon Ratchathani, Chumphon	Chiang Rai, Phayao, Lamphun, Uttaradit, Nakhon Sawan, Phra Nakhon Si Ayutthaya, Saraburi, Sing Buri, Kanchanaburi, Chanthaburi, Prachinburi, Nakhon Ratchasima, Nakhon Si Thammarat, Trang, Phatthalung, Satun	Chachoengsao

Source: The Center for COVID-19 Situation Administration (CCSA) as of 12 November 2021

The Thai economic outlook 2022

In the November 15th, 2021, press release, the NESDC forecasted that the Thai economy in 2022 will expand within the range of 3.5 – 4.5 percent (with the midpoint of 4.0 percent), compared with a 1.2-percent increase in 2021. Headline inflation is estimated to lie within the range of 0.9 – 1.9 percent, compared with 1.2 percent in the previous year. The current account is anticipated to record a surplus of 1.0 percent of GDP, compared with a 2.5-percent deficit in 2021.

Key components of Economic growth;

- 1) Total consumption: (1) Private consumption expenditure** is expected to increase by 4.3 percent, accelerating from 1.2 percent in 2021, owing to the lockdown measures relaxation since the last quarter of 2021, along with the more-eased COVID-19 pandemic condition and increasing vaccination rates across the country; and **(2) Government consumption expenditure** is projected to expand by 0.3 percent, decelerating from a 2.3-percent growth in 2021. This is in line with the assumption of the FY2022 current budget disbursement which is expected to be lower than that of FY2021. Nonetheless, the government consumption expenditure in 2022 will be supported by the budget disbursement under the remaining 1-trillion Baht loan decree and the additional 500-billion loan decree.
- 2) Total investment** is expected to register a 4.3-percent growth in 2022, compared with 4.4 percent in 2021: **(1) Private investment** is estimated to increase by 4.2 percent, a continual growth from 4.3 percent in 2021. This is due mainly to recoveries in manufacturing and export sectors as a result of the expansion of the world economy and merchandize trade; and **(2) Public investment** is expected to grow by 4.6 percent, compared with a 4.8-percent increase in the previous year. This was in accordance with the increase in the FY2022's capital budget framework compared with that of FY2021 as well as the increased state-owned enterprises investment budget framework (including listed SOEs) in FY2022 with amount of 468,833 million baht.
- 3) Export value of goods in US dollar terms** is anticipated to increase by 4.9 percent, slowing from a high growth of 16.8 percent in 2021. The export volume is forecasted to grow by 4.4 percent. The export price is expected to increase by 0.0 – 1.0 percent. The export of services is expected to improve due to an easing of international travel restrictions and the improving COVID-19 pandemic situation in both Thailand and tourists' origin countries. In the baseline scenario, revenues from foreign tourists in 2022 is projected to be 0.44 trillion baht, compared with 0.13 trillion baht in 2021, an increase of 238.0 percent. Thus, in 2022, the export quantity of goods and services is estimated to increase by 9.0 percent, compared with 10.0 percent in 2021.
- 4) The import value of goods in US dollar terms** is expected to expand by 5.7 percent, compared with 23.2 percent in 2021. The import volume is expected to grow by 4.7 percent, compared with 18.2 percent in the previous year. This was mainly supported by the expansions in domestic demand and exports. However, the import of capital goods, raw materials, and intermediate goods tend to slow down due to the high base in 2021. In terms of the import price, it is projected to increase by 0.5 - 1.5 percent, compared with 5.0 percent in 2021, in line with the lower oil price trend expected in 2022. Similarly, the import of services is expected to slow down from high base of the last year. Overall, **the imports of goods and services in 2022** is projected to grow by 4.3 percent, compared with 17.4 percent in 2021.
- 5) Trade balance** is estimated to register a surplus of 35.7 billion US dollars, close to 35.9 billion US dollars in the previous year. Combining with the service account deficit, the current account is expected to register a surplus of 5.4 billion US dollar, accounting for 1.0 percent of GDP, compared with a deficit of 12.7 billion US dollar or 2.5 percent of the GDP in 2021.
- 6) Economic stability:** the average headline inflation rate in 2022 is expected to be in the range of 0.9 - 1.9 percent, increasing from 1.2 percent in 2021, in tandem with the recovering domestic demand.

7. Economic Management for the Year 2022

The Thai economy in 2022 tends to recover from the low growth base in 2021, following the subsided outbreak situation and progress on the vaccine distribution, which will support the domestic demand recovery. In addition, the economy tends to be supported from the regaining services growth due to the ease of international travel restrictions. Nevertheless, there remain the limitations and risks to the economic recovery path, especially the uncertainties of COVID-19 situation under the virus mutations, households' and businesses' financial constraints, the prolonged supply disruptions resulting in slower paces of export and manufacturing sectors, and global economic and financial fluctuations amidst intensifying inflation. Given such trends, the economic management during the year 2022 particularly need to focus on the following key measures:

- 1) **Containing the domestic outbreak** and preventing resurgences, by: (i) **strictly implementing disease prevention and control measures** upon different severity 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); (ii) **expediting the distribution of vaccine as well as the preparation of drugs, medical supplies, and equipment requisition**, to cope with any unexpected future resurgence; (iii) **monitoring and controlling high-risk activities for COVID-19 exposure as well as suppressing illegal immigration**; and (iv) **preparing plans and operations to cope with unexpected outbreak**.
- 2) **Assisting affected business and sectors that are constrained from recovering** particularly from supply disruptions and rising input costs, especially the SMEs which are experiencing liquidity and debt difficulties, by prioritizing: (i) **following up the implemented monetary and fiscal measures**, to efficiently reach the target groups, together with introducing additional liquidity support measure to assist those inaccessible to fund such as adjusting loan conditions, accelerating financial institutions to fasten and widen their schemes to support the targeted groups, and considering additional credit line through the Specialized Financial Institutions (SFIs) for assisting SMEs in order to restart their businesses; (ii) **considering additional measures to support the labor** by focusing on upskilling and reskilling schemes, to support those in need of job transition, as well as labors in SMEs and start-ups to prevent lay-offs; and (iii) **actively promoting government policies** to encourage household and businesses sectors to fully engage.
- 3) **Maintaining momentum from household expenditure and domestic tourism**, in order to keep the local economic activities, 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) **resolving household debt**, not to be constraint to the economic recovery, by introducing long-term debt restructuring programs for affected borrowers by customizing the program to match with each group based on their expected income and financial situation, along with reducing interest rate payment and providing incentive for debt consolidation, together with additional measures to lessen such as education debt, leases, and consumer debts; and (iii) **strengthening agricultural income**, especially those affected by decreasing prices.
- 4) **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 as well as expanding new markets for potential products; (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); and (v) cushioning the effects of exchange rate fluctuations and rising input costs.
- 5) **Stimulating private investment** with emphasis on: (i) restoring investors' confidence through effective prevention and control measures for the outbreak; (ii) speeding up projects already approved and obtained investment promotion certificates during 2018 – 2020 to start their actual investments, especially those in the targeted industries; (iii) solving difficulties and obstacles hindering investors and entrepreneurs from investing and conducting businesses, including labor shortages in manufacturing sector; (iv) implementing proactive investment promotions and facilitating investors in targeted industries to invest in Thailand; (v) stimulating investments in Eastern Economic Corridor (EEC), other initialized special economic zones, as well as the 4 regional economic corridors; (vi) stimulating investment in the key economic areas and transport infrastructure to be in accordance with the prospected plan; and (vii) developing high-skilled labors to brace the growth of technology-and-innovation-intensive industries.
- 6) **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; and (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, in order to enhance the living standard and economic opportunity in suburban and regional areas. In addition, the improvement of the key energy infrastructures should also be prioritized, especially investment in the smart grid and clean energy security.
- 7) **Scrutinizing the volatilities from global economy** that might affect the economic stability, as well as **preserving domestic political environment** not to become an additional downside risk to the economy and overall confidence.

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

Measures	Details
1. Measures to remedy households	
Household Consumption Supporting	<ul style="list-style-type: none"> • Topping up the monthly allowance for social welfare card holder and those in need of special help by 200 Baht per person per month (Jul – Dec 21) and an additional with 300 Baht per person per month for 2 months (Nov – Dec 21) • “Kon-La-Kreung” or “Half-Half co-payment” scheme, a half price subsidy for purchase at eligible stores, with a total cap at 150 Baht per person per day or 4,500 Baht per person during the program (Jul – Dec 21) • “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)
Soft loans by Specialized Financial Institutions (SFIs) and Bank of Thailand (BOT)	<ul style="list-style-type: none"> • Credit for personal expenses for freelancer and employees (totaling 20,000 million baht) (GSB) • Loans for SMEs, self-employed business as well as low income individuals (totaling 10,000 million baht) (GSB) • Emergency Credit for small farmers (totaling 20,000 million baht) (Bank for Agriculture and Agricultural Cooperatives: BAAC) • Soft Loans for low-income earners through The Government Pawnshop (totaling 2,000 million baht) (GSB) • Thai fight COVID-19 credit for wage earners, freelancers, small farmers, and farm workers (totaling 20,000 million baht) (BAAC) and (totaling 10,000 million baht) (GSB) • Extending temporary interest payment suspension by SFIs until 31st Dec 2021
Tax measures	<ul style="list-style-type: none"> • Extension of personal income tax filing deadline through online system. (For the tax year 2020 can be filed by June 30th, 2021, extending from April 8th, 2021) • 90 percent reduction in the Land and Building Tax for the 2021 tax year, estimated forgone revenue 35,545 million Baht. • Reduction in fees for the registration of a sale and mortgage of real estate (until Dec 21) • Extension of Land and Building Tax collection period for the year 2021 to August 2021 • Extension of deadlines for filing returns and paying taxes to individuals liable to personal income tax • Extension of Jet fuel levy cuts • VAT exemption for the importation of medicines, medical supplies, medical tools to use against COVID-19 • The adjustable-rate exemption for the government construction, which has delivered the final installment of 0 percent
2. Measures to support the tourism sector	
We Travel Together	The government subsidizes 40 percent for hotel accommodation per night, up to 15 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 October 8 th , 2021 - January 31 th , 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 8 th , 2021 - January 31 th , 2021
Phuket Sandbox and Targeted Areas	Open for fully vaccinated foreign visitors to travel in Thailand, starting from Phuket Sandbox on July 1 st , 2021, which will be extended to further targeted areas, such as Samui island, Phangan island, and Tao Island in Surat Thani (Samui Plus), starting on July 15 th , 2021
Measures to reopen for foreign tourists	Open for vaccinated foreign visitors from 63 eligible countries 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 coming into 17 blue zone sandbox destinations, starting on November 1 st , 2021

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	<ul style="list-style-type: none"> • Debt restructuring through Asset Warehousing with Buy-Back options (totaling 100 billion baht) under the 2020 Soft Loan Emergency Decree • BOT's policies for affected borrowers such as relief extension and encouraging financial services to step in • Reduction of interest rates and Financial Institutions Development Fund (FIDF) fee as well as the adjustment of default interest calculations for debt repayment • Measures to support and mitigate debt for borrowers with multi-creditors (DR BIZ program) by the Bank of Thailand • 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) • Postponing principal and interest payments to SMEs and retail lender for 2 months • Utilizing Criteria for Classification and Flexible bank reserves • Measures to support small business debtors with debt consolidation
Measures to support financial liquidity	<ul style="list-style-type: none"> • 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) • 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)
Measures to support financial liquidity (credit guarantee)	<ul style="list-style-type: none"> • 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) (the budget of 19,462 million baht) • Loan Guarantee scheme under the 2020 Soft Loan Emergency Decree
Long term Resident Visa	<ul style="list-style-type: none"> • 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
4. Measures to support affected workers	
Increasing unemployment benefits	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Employment support from public and private sectors for the newly graduated, a 50 percent wage subsidy. (the budget of 19,462 million Baht) (Oct 20 - Dec 21) • Soft loans to encourage employment (totaling 30,000 million baht)
Entrepreneurs and the section 33 remedy scheme in control measure in maximum controlled and restricted area	<ul style="list-style-type: none"> • 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, 21 - June 30th, 21) • Compensation support to the section 39 and 40 of 5,000 Baht per person
Measures to maintain employment for SMEs	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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

Projection for 2021 - 2022^{1/}

	Actual Data		Projection		
	2019	2020	2021		2022
			Aug 16, 2021	Nov 15, 2021	Nov 15, 2021
GDP (at current prices: Bil. Bht)	16,898.1	15,698.3	16,169.2	16,200.6	17,026.9
GDP per capita (Bht per year)	243,787.1	225,845.7	232,024.0	232,474.5	243,761.4
GDP (at current prices: Bil. USD)	544.1	501.6	508.5	507.9	523.9
GDP per capita (USD per year)	7,850.4	7,216.6	7,296.4	7,287.6	7,500.4
GDP Growth (CVM, %)	2.3	-6.1	0.7 - 1.2	1.2	3.5 - 4.5
Investment (CVM, %) ^{2/}	2.0	-4.8	5.4	4.4	4.3
Private (CVM, %)	2.7	-8.4	4.7	4.3	4.2
Public (CVM, %)	0.1	5.7	8.7	4.8	4.6
Private Consumption (CVM, %)	4.0	-1.0	1.1	1.2	4.3
Government Consumption (CVM, %)	1.7	0.9	4.3	2.3	0.3
Export volume of goods & services (%)	-3.0	-19.4	9.6	10.0	9.0
Export value of goods (Bil. USD)	242.7	227.0	263.7	265.2	278.1
Growth rate (%) ^{3/}	-3.3	-6.5	16.3	16.8	4.9
Growth rate (Volume, %) ^{3/}	-3.7	-5.8	13.3	13.3	4.4
Import volume of goods & services (%)	-5.2	-13.3	15.8	17.4	4.3
Import value of goods (Bil. USD)	216.0	186.1	224.5	229.3	242.4
Growth rate (%) ^{3/}	-5.6	-13.8	20.1	23.2	5.7
Growth rate (Volume, %) ^{3/}	-5.8	-10.5	15.6	18.2	4.7
Trade balance (Bil. USD)	26.7	40.9	39.2	35.9	35.7
Current account balance (Bil. USD)	38.0	20.3	-10.3	-12.7	5.4
Current account to GDP (%)	7.0	4.0	-2.0	-2.5	1.0
Inflation (%)					
CPI	0.7	-0.8	1.0 - 1.5	1.2	0.9 - 1.9
GDP Deflator	0.9	-1.1	1.8 - 2.3	2.0	0.6 - 1.6

Source: Office of the National Economic and Social Development Council, 15th November 2021

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

^{2/} Investment means Gross Fixed Capital Formation

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