Developments in the Real Economy

I. Developments in the Real Economy

1. Overview

2021 marked the year when Taiwan recorded the fastest pace of economic growth since 2011, as robust growth in private investment and exports and a pickup in government spending helped the economy to expand by 6.45% from the 3.36% registered the year before. Meanwhile, Taiwan maintained a healthy balance of payments, including a continued current account surplus and a net asset increase in the financial account. The consumer price index (CPI) rose by 1.96%, the largest annual increase since 2009 owing to higher fuel and lubricant fees shored up by international crude oil price surges, rises in airfares and fruit and vegetable prices, and a lower base effect. The core CPI (excluding fruit, vegetables, and energy) showed a mild increase of 1.33%. The labor market was dampened by a surge in domestic COVID-19 infections around the middle of the year that hit services sector jobs with a tightening of containment measures. The unemployment rate went up to 3.95%, the highest since 2015, whereas non-farm monthly real earnings per worker still posted a 0.96% increase, taking it to a historical high of NT\$53,445.

Robust Economic Growth

In the first quarter of 2021, exports and private investment both gathered steam amid a global economic recovery and strong demand for emerging technology applications, while private consumption rebounded and government spending picked up steadily. Combined, they helped drive the economic growth rate towards an all-year high of 9.20%. In the following two quarters, despite the continued expansion in exports and private investment, a domestic COVID-19 flare-up in mid-May dragged private consumption into negative growth, thus slowing down the economic expansion to a pace of 4.37% for the third quarter. In the fourth quarter, though, private consumption was reinvigorated by the lifting of pandemic restrictions after the outbreak eased and also boosted by the government's consumption stimulus measures. The rebound, along with continued export and private investment growth, brought about a faster economic expansion at 4.86% year on year. For the year as a whole, Taiwan's economy posted an annual growth rate of 6.45%, significantly higher than the previous year's 3.36%.

Among the GDP expenditure components, domestic demand played the key role in driving economic growth in 2021. With a faster pickup in fixed capital formation – fueled by increases in tech giants' capital outlays and continued progress in infrastructure projects to facilitate green energy and 5G network development – and a mild expansion in government spending, domestic demand contributed 4.55 percentage points to the GDP growth, higher than the 0.68 percentage

point contribution the previous year. Regarding external demand, in addition to solid export growth, imports were also spurred markedly by derived demand from exports and investment as well as surging international raw material prices. On balance, the contribution from net foreign demand shrank to 1.90 percentage points from 2.67 percentage points the previous year.

The domestic investment rate (gross domestic investment to GDP) rose from 24.19% a year before to 26.85% in 2021, a record high unseen since 2001, thanks to a significant expansion in private investment. By contrast, a slump in private consumer spending amid domestic COVID-19 outbreaks led the national saving rate (gross national saving to gross national income) to rise from 38.39% a year ago to 42.22%. Overall, with national saving rising faster than domestic investment, the excess saving rate (the difference between saving and investment as a percentage of GDP) went up from 15.31% in 2020 to 16.19% in 2021.

Healthy BOP Surplus

In 2021, Taiwan continued to record a healthy balance of payments. The current account posted a surplus of US\$116,123 million, the financial account had a net asset increase of US\$104,604 million, and the Bank's reserve assets showed an increase of US\$20,993 million.

On the current account, goods imports and exports both registered strong growth, with exports increasing more than imports. This led the goods trade surplus to rise from the previous year's U\$\$75,028 million to U\$\$90,120 million, accounting for the largest contribution to the widening of the current account surplus. The services account surplus climbed to a historical high of U\$\$12,314 million from the previous year's U\$\$3,754 million, mainly bolstered by a surge in freight proceeds. The primary income surplus shrank from U\$\$19,328 million to U\$\$16,390 million, reflecting a decrease in banks' interest income and an increase in payments for nonresidents' portfolio investment income. The secondary income deficit narrowed from U\$\$3,154 million to U\$\$2,701 million. For the year of 2021, the ratio of current account surplus to nominal GDP rose from the 14.2% of the previous year to 15.0%.

On the financial account, portfolio investment recorded a net asset increase of US\$101,281 million. Among the components, residents' portfolio investment abroad increased by a net amount of US\$81,194 million, mainly because domestic insurers and banks stepped up holdings of foreign securities. Inward portfolio investment by nonresidents posted a net decrease of US\$20,087 million, mainly because foreign investors shed their local stock holdings. Direct investment registered a net increase of US\$4,703 million, of which direct investment abroad by residents declined to US\$10,108 million and nonresidents' inward direct investment also dropped to US\$5,405 million. In terms of other investment, it posted a net asset decrease of US\$1,094 million.

Rising Inflation

Internationally, global demand was boosted by economic reopening in many countries as the vaccination coverage increased, while raw material prices were pushed up by persisting supply chain bottlenecks. These external factors and a lower base effect combined to result in a 9.44% year-on-year rise in Taiwan's wholesale price index (WPI), the largest annual increase since 1981. Of the components, imported goods, domestic sales excluding imports, and exported goods recorded price rises of 10.53%, 12.24%, and 6.54%, respectively.

Meanwhile, the CPI annual growth rate reached 1.96%, a record high since 2009, mainly owing to supply-side factors such as price surges in fuel and lubricants, flight tickets, and fruit and vegetables, as well as a lower base effect. The core inflation was still mild, rising by 1.33% year on year.

Higher Unemployment Rate and Moderate Wage Growth

In the middle of May 2021, the domestic coronavirus flare-up triggered a level-3 alert with a tightening of containment measures. The labor market took a hit, with the unemployment rate rising from the 3.66% early in the year to 4.80% in June. As the outbreak came under control and the related restrictions were eased, the unemployment rate trended downwards and reached 3.64% in December, bringing the all-year average to 3.95%, albeit still the highest since 2015. The average labor force participation rate slid by 0.12 percentage points to 59.02%, declining for two years in a row.

The average number of employed persons decreased by 57 thousand, or 0.49%, to 11,447 thousand. The services sector suffered the greatest loss owing to the pandemic, losing 32 thousand persons in employment, or 0.47%, compared to the previous year. Employment of the industrial and agricultural sectors decreased by 17 thousand, or 0.43%, and by 6 thousand, or 1.13%, respectively.

In terms of wages, the average non-farm (industrial and services sectors) monthly earnings per employee increased by 2.94% year on year to NT\$55,754, where the industrial sector saw a 5.82% increase and the services sector only recorded a 0.95% rise. Adjusted for inflation, real monthly earnings still climbed to a historical high of NT\$53,445, up by 0.96% from a year ago. Meanwhile, as growth in production far exceeded growth in total working hours, labor productivity indices of the industrial sector and the manufacturing industry exhibited significant year-on-year rises of 11.72% and 12.51%, respectively. Meanwhile, unit labor costs decreased by 5.73% in the industrial sector and 6.26% in the manufacturing sector, reflecting smaller gains in total earnings than those in production.

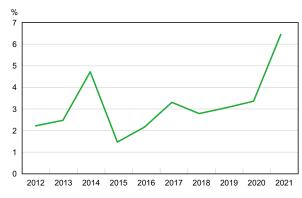
2. National Output and Income

In 2021, Taiwan's economy grew at an annual rate of 6.45%, higher than the 3.36% of the previous year. Domestic demand served as the leading force for economic expansion and contributed 4.55 percentage points to real GDP growth. This was in part due to a robust increase in fixed capital formation as well as an expansion in government consumption. In terms of external demand, both exports and imports achieved double-digit growth, and thus net exports grew moderately and contributed 1.90 percentage points to real GDP growth. In the meantime, nominal GNI (gross national income, in US dollars) rose by 14.67% and per capita GNI increased from US\$29,202 to US\$33,638 over the year 2021.

In the first quarter, real GDP recorded the highest level of growth over the year at 9.20%. Private consumption regained its growth momentum, and government consumption grew at a steady pace. A tremendous increase in private investment was driven by expansions in machinery and equipment investment and construction investment. Meanwhile, exports grew robustly owing to emerging technology applications (e.g., 5G telecommunication, high performance computing, and automotive electronics) and business opportunities arising from the stay-at-home economy. In the second quarter, real GDP growth declined slightly to 7.76%. Growth momentum in private consumption retreated as the government raised the COVID-19 alert level to curb the pandemic. Yet, growth in government consumption, private investment, and exports remained strong amid a spike in infections in mid-May.

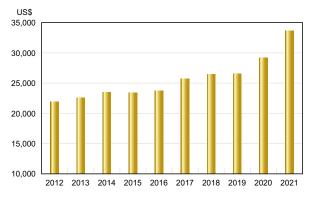
In the third quarter, growth in real GDP declined further to 4.37% while the impact of COVID-19 on private consumption worsened. In response to the pandemic, the government revised up the budget for epidemic prevention, relief, etc. and thereby boosted government consumption.

Real Growth Rate of GDP



Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2022.

Per Capita GNI



Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2022.

Benefiting from higher semiconductor capital expenditures and the construction of 5G networks and offshore wind power plants, growth in private investment strengthened further. In the meantime, the global economic recovery and business opportunities arising from emerging technology applications and digital transformation-related products provided favorable conditions for export growth. In the fourth quarter, real GDP growth improved slightly and reached 4.86%. Of note, private consumption resumed positive growth as the pandemic eased off; the growth was partly fueled by the fiscal stimulus program. The combination of production capacity enhancement, green energy investment, and transportation procurement resulted in another quarter of strong growth for private investment. Meanwhile, the holiday shopping season effect in Western countries, together with emerging technology applications and demand for digital transformation, bolstered export growth in the fourth quarter.

Expenditure Components of GDP

All expenditure components of GDP, except private consumption, recorded positive growth in 2021. Among all the components, exports of goods and services was the primary source of economic growth and contributed 9.89 percentage points to real GDP growth for the year. Gross fixed capital formation and government consumption contributed to real GDP growth by 3.55 and 0.53 percentage points, respectively. Private consumption, on the other hand, was a drag of 0.18 percentage points on real GDP growth. With respect to shares of GDP, exports of goods and services remained to account for the largest share of GDP at 66.32%, followed by private consumption at 44.69% and gross fixed capital formation at 26.03%.

GDP by Expenditure

Unit: %

	2021			2020			
	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*	
Private Consumption	44.69	-0.38	-0.18	48.49	-2.53	-1.32	
Government Consumption	13.52	3.81	0.53	14.00	2.60	0.37	
Gross Fixed Capital Formation	26.03	14.68	3.55	24.16	5.91	1.41	
Change in Inventory	0.82	-	0.65	0.03	-	0.23	
Exports of Goods and Services	66.32	17.04	9.89	58.04	1.22	0.77	
(Less: Imports of Goods and Services)	51.38	17.86	7.99	44.72	-3.59	-1.91	
Expenditure on GDP	100.00	6.45	6.45	100.00	3.36	3.36	

Note: * Percentage point.

Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2022.

(1) Sluggish Growth in Private Consumption

Caused by a surge in COVID-19 cases, private consumption fell sharply in the second and

the third quarters and then recovered in the last quarter of 2021. For the year as a whole, private consumption grew at an annual rate of -0.38%, considerably better than the -2.53% of 2020, and contributed -0.18 percentage points to real GDP growth.

Because of travel restrictions, consumers were induced to reallocate spending away from outbound tourism to domestic consumption, and therefore private consumption grew by 2.66% in the first quarter. However, the domestic pandemic situation took a sharp turn for the worse in May and forced the government to tighten COVID-19 restrictions. As a consequence, consumers cut back spending on domestically-oriented service activity; private consumption then dropped by

0.46% in the second quarter. The pandemic-induced disruptions continued into the second half of the year, and catering, retail, and transportation industries were particularly hard hit. Private consumption declined further by 5.25% in the third quarter. As the pandemic eased off over time, the government gradually loosened epidemic control restrictions and attempted to revitalize the economy with various fiscal stimulus measures. Private consumption therefore increased by 1.57% in the fourth quarter.

Real Growth Rate of Private Consumption Expenditure



Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2022.

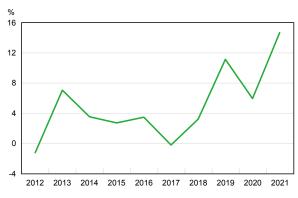
(2) Healthy Expansion in Fixed Capital Formation

Fixed capital formation grew robustly at an annual rate of 14.68% and contributed 3.55 percentage points to real GDP growth. The growth was attributed to higher demand for 5G

infrastructure investment, continuing investment in green energy-related projects, and the expansion of production capacity in Taiwan by leading technology firms.

Driven by higher capital expenditures in the technology industry and continuing investments in 5G-infrastructure and green energy-related projects, both machinery and equipment investment and construction investment expanded at a healthy pace in the first half of the year. Gross fixed capital formation increased by 12.13% and 13.33% in the first

Real Growth Rate of Fixed Capital Formation



Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2022.

two quarters, respectively. Stable growth in transportation investment, machinery and equipment investment and construction investment continued to push fixed capital formation to a higher level in the second half of the year. The growth rates of fixed capital formation were 21.40% and 11.72% in the last two quarters of the year, respectively.

In terms of the type of fixed capital formation, a boom in the technology industry resulted in a high growth rate of 29.26% for machinery and equipment investment, while construction investment grew steadily at an annual rate of 8.33% in 2021. Transportation investment, on the other hand, also achieved a double-digit growth rate of 14.64% owing to the procurement of rail vehicles, vessels, and aircrafts by local carriers. Lastly, investment in intellectual property remained relatively stable and increased by 3.07% for the entire year.

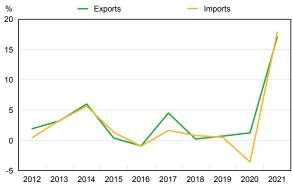
(3) Significant Growth in Real Exports

In light of the global economic recovery and business opportunities arising from emerging technology applications, exports of goods and services grew notably by 17.04% for the entire year, supported by exports of traditional manufacturing goods and electronic goods. On balance, exports of goods and services contributed 9.89 percentage points to real GDP growth in 2021.

In the first half of the year, emerging technology applications began to prevail, and COVID-19 accelerated the development of digital transformation; at the same time, demand for traditional manufacturing goods gradually recovered. Driven by those positive factors, exports grew by

21.74% and 22.51% in the first two quarters, respectively. In the second half of the year, widespread vaccinations around the world slowly brought global trade activity back to normal, thereby stimulating demand for traditional manufacturing goods. As a result, exports increased by 13.95% in the third quarter. Although the growth momentum remained strong because of technology megatrends and the holiday shopping season effect in Western countries, a higher base effect resulted in a slightly lower growth rate of 11.68% in the fourth quarter.

Real Growth Rates of Exports and Imports



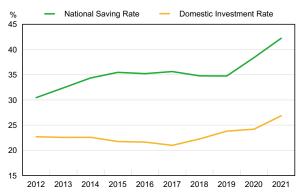
Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2022.

Turning to the imports of goods and services, the combination of stronger demand for capital equipment and an increase in export-derived demand caused imports to rise remarkably by 17.86% for the entire year.

Rises in National Saving Rate and Domestic Investment Rate

The national saving rate (the ratio of national saving to GNI measured at current prices) increased moderately from 38.39% in 2020 to 42.22% in 2021, reflecting the adverse impact of the pandemic on consumption. Meanwhile, benefiting from spectacular growth in prviate investment, the domestic investment rate (the ratio of domestic investment to GDP measured at current prices) reached 26.85% in 2021, slightly higher than the 24.19% of the previous year. Overall, the difference between gross national saving and gross domestic investment as a share of GDP rose from 15.31% in 2020 to 16.19% in 2021.

National Saving Rate and Domestic Investment Rate



Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2022.

3. Balance of Payments

In 2021, Taiwan's current account registered a record surplus of US\$116,123 million, which accounted for 15.0% of nominal GDP, up from 14.2% in the previous year. The financial account posted a net asset increase of US\$104,604 million. The reserves and related items recorded a surplus of US\$20,993 million, which was reflected in the increase in foreign reserve assets held by the Bank.

Balance of Payments

Unit: US\$million

	(1) 2021	(2) 2020	(1)-(2)
A. Current account	116,123	94,956	21,167
Goods: credit (exports)	459,068	342,489	116,579
Goods: debit (imports)	368,948	267,461	101,487
Balance on goods	90,120	75,028	15,092
Services: credit (exports)	52,012	41,211	10,801
Services: debit (imports)	39,698	37,457	2,241
Balance on services	12,314	3,754	8,560
Primary income: credit	38,364	38,446	-82
Primary income: debit	21,974	19,118	2,856
Balance on primary income	16,390	19,328	-2,938
Secondary income: credit	8,707	7,945	762
Secondary income: debit	11,408	11,099	309
Balance on secondary income	-2,701	-3,154	453
B. Capital account	3	-9	12
C. Financial account	104,604	46,251	58,353
Direct investment: assets	10,108	11,500	-1,392
Equity and investment fund shares	10,007	10,942	-935
Debt instruments	101	558	-457
Direct investment: liabilities	5,405	6,053	-648
Equity and investment fund shares	2,614	5,528	-2,914
Debt instruments	2,791	525	2,266
Portfolio investment: assets	81,194	36,153	45,041
Equity and investment fund shares	19,721	2,003	17,718
Debt securities	61,473	34,150	27,323
Portfolio investment: liabilities	-20,087	-22,881	2,794
Equity and investment fund shares	-21,189	-23,212	2,023
Debt securities	1,102	331	771
Financial derivatives: assets	-21,822	-20,563	-1,259
Financial derivatives: liabilities	-21,536	-20,997	-539
Other investment: assets	18,780	-808	19,588
Other investment: liabilities	19,874	17,856	2,018
D. Net errors and omissions	9,471	-354	9,825
E. Reserves and related items*	20,993	48,342	-27,349

Note: * Excluding valuation changes in exchange rates. Source: Balance of Payments, CBC, February 2022.

Wider Current Account Surplus

The current account consists of four major items, namely goods, services, primary income, and secondary income.

(1) Goods

Bolstered by strong demand for emerging technology applications like high performance computing, Taiwan's external merchandise trade continued with substantial growth in 2021, with the value of exports, on a BOP basis, increasing by 34.0% to US\$459,068 million

Current Account ☐ Goods Services Primary Income US\$billion Secondary Income Current Account Balance 110 (+) Surplus 100 80 70 60 50 40 30 20 10 -10 -20 Deficit -30 2013 2014 2015 2016 2017 2018 2019 2020 2021

Source: Balance of Payments, CBC, February 2022.

from 2020. Among its components, net exports of goods under merchanting increased by 61.8% to US\$20,867 million. The value of imports increased by 37.9% to US\$368,948 million. Overall, as the increase in exports exceeded that in imports, the trade surplus widened from US\$75,028 million to US\$90,120 million for the year. The top five trading partners of Taiwan in 2021 were Mainland China including Hong Kong (hereafter in this chapter referred to as Mainland China), ASEAN,¹ the US, Europe, and Japan.

In terms of Taiwan's trade with Mainland China, the value of exports amounted to US\$188,905 million in 2021, 24.8% higher than the previous year. As a manufacturing center of the world, Mainland China remained Taiwan's largest trading partner, though its share of total exports dropped to 42.3%. Among major export products, electronic parts and components maintained the leading role, which benefited from increasing use of emerging technologies. Imports from Mainland China grew by 29.9% to US\$84,171 million in 2021, though its share of total imports shrank to 22.1%. The increase mainly came from electronic parts and components and information, communication and audio-video products as a result of stronger export-derived demand. As the increase in exports exceeded that in imports, the trade surplus with Mainland China increased to US\$104,734 million in 2021, still the largest source of Taiwan's trade surplus.

Exports to the ASEAN economies increased to US\$70,246 million in 2021, up by 32.0% with a strong export performance of electronic parts and components and mineral products. Imports from the ASEAN economies increased by 31.4% to US\$47,169 million, accounting for 12.4% of total imports, as imports of iron and steel and articles thereof and mineral products rose. Overall, the trade surplus with the ASEAN economies rose to US\$23,076 million. Singapore, Vietnam, and the Philippines were the third, fourth, and fifth largest sources of Taiwan's trade surplus, respectively.

Association of Southeast Asian Nations, including Brunei Darussalam, Cambodia, Indonesia, Laos, Myanmar, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.

In 2021, Taiwan's exports to the US grew 30.0% to US\$65,696 million, comprising a slightly higher share of 14.7% in total exports compared to the year before. The increase mainly came from information, communication and audio-video products. As for imports from the US, the amount increased by 20.2% to US\$39,075 million, with its share in total imports decreasing to 10.3%. The major products contributing to the expansion were mineral products and machinery. The trade surplus with the US expanded to US\$26,621 million for the year, ranking second among Taiwan's surplus sources.

Exports to Europe increased by 36.8% to US\$38,491 million, with its share of total exports increasing to 8.6%. The major products contributing to this expansion were iron and steel and articles thereof, and information, communication and audio-video products. Imports from Europe increased by 28.4% to US\$47,230 million and the share of total imports decreased to 12.4%, with machinery and mineral products being the main sources of this increase. In all, Taiwan's trade deficit with Europe expanded to US\$8,739 million in 2021.

Exports to Japan increased by 6.5% to US\$29,212 million and its share in Taiwan's total exports slightly decreased to 6.5%. Imports from Japan increased by 22.3% to US\$56,146 million as its share of total imports decreased to 14.7%. Both exports to and imports from Japan owed their year-on-year increases to electronic parts and components. The trade deficit with Japan widened to US\$26,934 million. Japan remained Taiwan's second largest source of imports and the largest source of trade deficit in 2021.

Trade in Goods by Country

Unit: %

	2021			2020			
	Amount (US\$million)	Share	Annual Change	Amount (US\$million)	Share	Annual Change	
Exports							
Mainland China (including Hong Kong)	188,905	42.3	24.8	151,381	43.9	14.6	
ASEAN	70,246	15.7	32.0	53,215	15.4	-1.3	
US	65,696	14.7	30.0	50,550	14.6	9.3	
Europe	38,491	8.6	36.8	28,143	8.2	-5.5	
Japan	29,212	6.5	24.8	23,398	6.8	0.5	
Rest of the World	53,893	12.1	40.2	38,438	11.1	-12.3	
Total	446,443	100.0	29.4	345,126	100.0	4.9	
Imports							
Mainland China (including Hong Kong)	84,171	22.1	29.9	64,808	22.6	10.9	
Japan	56,146	14.7	22.3	45,901	16.0	4.2	
US	39,075	10.3	20.2	32,514	11.4	-6.7	
Europe	47,230	12.4	28.4	36,797	12.9	0.7	
ASEAN	47,169	12.4	31.4	35,901	12.5	2.7	
Rest of the World	107,230	28.1	52.7	70,227	24.5	-8.6	
Total	381,022	100.0	33.2	286,148	100.0	0.2	

Source: Monthly Statistics of Exports and Imports, Ministry of Finance, R.O.C. (Taiwan).

(2) Services

In 2021, services registered a record surplus of US\$12,314 million, up from US\$3,754 million in the previous year, mainly because of an increase in freight transport receipts.

Of the various components of the services account, receipts of manufacturing services on physical inputs owned by others² increased by US\$509 million to US\$4,313 million in 2021. On the debit side, payments for manufacturing services increased by US\$512 million to US\$2,044 million. In total, net manufacturing receipts decreased from US\$2,272 million to US\$2,269 million.

In terms of maintenance and repair services n.i.e. (not included elsewhere), which covers maintenance and repair work for or by nonresidents on ships, aircraft, and other transport equipment, the receipts declined by US\$379 million to US\$901 million owing to decreased receipts from aircraft repairs. On the other hand, the payments increased by US\$145 million to US\$894 million. In all, the surplus on this account narrowed from US\$531 million to US\$7 million.

Transport receipts hit a record high, which increased by US\$8,716 million to US\$19,739 million, reflecting increases in international freight proceeds as active global trade and supply chain bottlenecks led to an increase in freight rates. Transport payments decreased by US\$99 million to US\$9,582 million as a result of declines in passenger fares paid to foreign airlines. Overall, the surplus of transport services in 2021 increased substantially from US\$1,342 million to US\$10,157 million.

Travel receipts decreased by US\$1,015 million to US\$785 million. Meanwhile, travel payments decreased by US\$1,799 million to US\$1,247 million. As many countries kept border controls in place during the pandemic, numbers of inbound visitors and outbound travelers remained low. In all, the deficit on the travel account narrowed to US\$462 million.

In terms of other services, the receipts grew by US\$2,970 million to US\$26,274 million, while the payments grew by US\$3,482 million to US\$25,931 million, both mainly attributable to the increase in professional and management consulting services (which is under other business services). Overall, the surplus of other services narrowed to US\$343 million in 2021.

(3) Primary Income

Primary income consists of compensation of employees, investment income, and other primary income. In 2021, primary income receipts decreased by US\$82 million to US\$38,364 million, mainly because of a reduction in banks' interest receipts. Meanwhile, primary income payments increased to US\$21,974 million, US\$2,856 million more than the previous year. This was mostly attributable to an increase in portfolio investment income paid to nonresidents. Consequently, the surplus on the

² Manufacturing services on physical inputs owned by others includes the processing, assembly, labeling, and packing undertaken by a service provider that does not own the goods; namely a resident's payments to a nonresident for providing these services for the resident who is also the owner of the goods concerned.

primary income account declined to US\$16,390 million for the year of 2021.

(4) Secondary Income

For the year of 2021, secondary income receipts amounted to US\$8,707 million, reflecting increases in gifts and samples. Secondary income payments amounted to US\$11,408 million, mainly owing to increases in outward family support allowances. As a whole, the deficit on the secondary income account narrowed to US\$2,701 million in 2021.

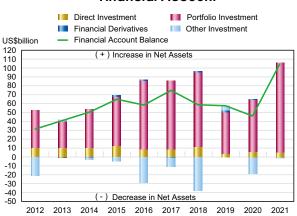
Capital Account Deficit

The capital account includes capital transfers and the acquisition and disposal of non-produced, non-financial assets. In 2021, the balance of the capital account grew from a deficit to a surplus of US\$3 million.

Net Asset Increase in Financial Account

In 2021, the financial account showed an increase of US\$104,604 million in net assets. In terms of sub-categories, direct investment and portfolio investment exhibited increases of US\$4,703 million and US\$101,281 million in net assets, respectively. Financial derivatives and other investment exhibited a decrease of US\$286 million and US\$1,094 million in net assets, respectively.

Financial Account



Source: Balance of Payments, CBC, February 2022.

(1) Direct Investment

Direct investment abroad by residents exhibited an increase of US\$10,108 million in assets. Direct investment in Taiwan by nonresidents showed an increase of US\$5,405 million.

(2) Portfolio Investment

In 2021, portfolio investment abroad by residents increased by US\$81,194 million mainly because insurance companies and banks expanded their investment abroad. Equity and investment fund shares increased by US\$19,721 million while debt securities rose by US\$61,473 million.

On the other hand, local portfolio investment by nonresidents decreased by US\$20,087 million as foreign investors reduced holdings of Taiwanese stocks. Equity and investment fund shares decreased by US\$21,189 million. Debt securities increased by US\$1,102 million.

(3) Financial Derivatives

Assets in financial derivatives decreased by US\$21,822 million, principally because of gains on transactions of financial derivatives received by other financial corporations.

Liabilities in financial derivatives decreased by US\$21,536 million, mainly because of losses on transactions of financial derivatives paid by other financial corporations.

(4) Other Investment

In 2021, other investment abroad by residents increased by US\$18,780 million. Of the components, currency and deposits rose by US\$8,953 million mainly because of an increase in foreign deposits of corporations; loans grew by US\$4,685 million because of an increase in interbank loans; other accounts receivable increased by US\$2,625 million as a result of an increase in corporations' accounts receivable from nonresidents; trade credit increased by US\$2,502 million, owing to an upturn in trade credit extended by corporations.

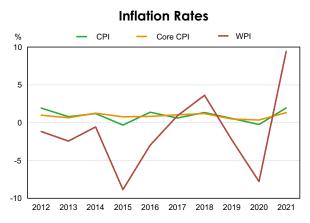
Other inward investment by nonresidents increased by US\$19,874 million. Of the components, currency and deposits rose by US\$21,996 million because of growing deposits from nonresidents and overseas branches; loans increased by US\$7,871 million because of expanded external borrowing by corporations; trade credit dropped by US\$1,239 million, owing to a decrease in trade credit received by corporations; other accounts payable declined by US\$8,754 million, as a result of a decrease in banks' accounts payable to nonresidents.

Increase in Foreign Exchange Reserves

The foreign exchange reserve assets held by the Bank increased by US\$20,993 million in 2021, mainly owing to returns from foreign exchange reserves management.

4. Prices

In 2021, Taiwan's WPI rose by 9.44%, mainly attributable to imbalances between demand and supply owing to a strong increase in global demand amid persistent supply chain bottlenecks and a rebound in international crude oil and other raw material prices from pandemic-induced price declines in 2020. Headline inflation, measured by the CPI, increased by 1.96% compared to the previous year's 0.23% decrease, mainly driven by supply side shocks such as rising prices of fuels and lubricants, transportation, and fruit



Source: Price Statistics Monthly, DGBAS, Executive Yuan.

and vegetables, as well as a lower base effect. The core CPI, which excludes fruit, vegetables, and energy, averaged 1.33%, representing a mild price uptrend.

Marked Increase in Wholesale Prices

The WPI went up by 9.44% in 2021, the highest level since 1981. The marked increase reflected rising global demand owing to a reopening of major economies led by progress on vaccinations against COVID-19, and lingering supply chain bottlenecks pushing up international goods prices, coupled with a lower base effect. In terms of monthly movements, the annual WPI inflation rate trended upwards from the beginning of the year and reached an all-year high of 15.21% in October because of higher import prices. Later, the increase in the annual WPI inflation rate abated and narrowed to 12.46% in December.

Broken down by the three major components of the WPI, the annual rates of change in prices for imports, domestic sales excluding imports, and exports ran up markedly in 2021 on account of soaring prices of international raw materials.

Import prices, weighted at 34.10% of the WPI, rose by 16.63% in US dollar terms in 2021. As the NT dollar appreciated against the US dollar over 2021, the annual growth rate of import prices eased to a 10.53% increase in NT dollar terms, which mitigated imported inflationary pressures at home. Among the components of import prices in terms of the NT dollar, prices of raw materials went up by 16.20% and accounted for 11.40 percentage points in the import price increase, mainly boosted by rising prices of mineral products, base metal products and chemical products. Nonetheless, prices of capital goods and consumer goods declined by 4.59% and 0.91%, respectively.

Export prices, weighted at 40.20% of the WPI, advanced by 12.40% in US dollar terms in 2021. Owing to the NT dollar appreciation against the US dollar, the annual change in export prices abated to a 6.54% increase in terms of the NT dollar. Among the components of export prices in NT dollar terms, prices of raw materials moved up by 7.88%, contributing 6.80 percentage points to the export price increase, primarily reflecting higher prices of mineral products, chemical products, as well as base metal products. Prices of consumer goods rose by 1.87%, while prices of capital goods dropped by 3.08%.

Annual WPI Rates - WPI Domestic Sales Excluding Import Prices Export Prices (NT\$) Import Prices (NT\$) 20 15 10 5 n -5 -10 -15 -20 10 2019 2020

Source: Price Statistics Monthly, DGBAS, Executive Yuan.

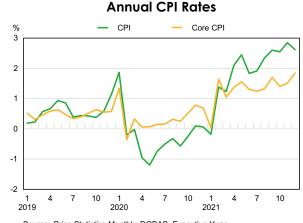
Driven by rising import costs of primary commodities, prices of domestic sales excluding imports, weighted at 25.70% of the WPI, increased by 12.24% in 2021. In terms of the basic groups, prices of manufacturing products rose by 14.36%, mainly attributable to surging prices of base metal products and petroleum and coal products. Prices of agriculture, forestry, fishing, and animal husbandry products, and prices of water, electricity, and gas supply went up by 8.32% and 0.43%, respectively. In contrast, prices of quarrying and mining products registered a decrease of 2.59%.

Uptick in Consumer Prices

Compared with a slight decrease of 0.23% in the previous year, the CPI rose by 1.96% in 2021, the highest increase since 2009. The CPI inflation rate trended up from the beginning of the year and reached 2.62% in December, which marked the fifth consecutive month of an increase above

2%. The uptrend in CPI inflation was associated with an increase in domestic fuel prices amid international oil price upswings since the start of the year, a spike in fruit and vegetables prices caused by a lingering effect from the disruptions of a typhoon and torrential rain in August, and price hikes by some food and beverage service providers during the fourth quarter of the year.

The core CPI inflation rate recorded mild year-on-year growth at an average pace of 1.33% in 2021. With the pandemic situation



Source: Price Statistics Monthly, DGBAS, Executive Yuan.

Brent Oil Prices

2020

2021

69.95

under control at home, domestic demand gradually rebounded, leading the core inflation rate to trend up mildly and register 1.84% in December.

US\$/Barrel

100 90

80

70 60

50

40 30

20

10

The main factors contributing to the rise of CPI inflation in 2021 were as follows:

- (1) For 2021, Brent oil prices averaged US\$70.75 per barrel, increasing by 69.50% from the previous year. As a result, higher import costs of petroleum nudged up domestic fuel and lubricant prices, which climbed by 22.06% and accounted for 0.49 percentage points in the CPI inflation rate.
- (2) As pandemic-related border controls and travel restrictions implemented around the world constrained flight seat capacity and thus sent airfares soaring, transportation fees went up by 11.86%, contributing 0.33 percentage points to CPI inflation.
- (3) Owing to crop damage caused by torrential rain and a typhoon in June and August, prices of vegetables and of fruit moved up by 14.01% and 4.56%, and accounted for 0.19 and 0.09 percentage points in the CPI inflation rate, respectively.
- (4) Prices of residential rent continued a mild uptrend and grew by 0.83%, contributing 0.12 percentage points to CPI inflation.
- (5) With imported beef prices surging because of global supply chain bottlenecks and prices of pork rallying on tighter domestic pig supplies as rising feed costs hit pig farmers' margins, prices of meat rose by 4.05%, contributing 0.09 percentage points to CPI inflation.
- (6) Less discounted clothing drove up prices of garments by 2.54%, accounting for 0.09 percentage points in the CPI inflation rate.
- (7) Price hikes by food and beverage service providers to reflect higher raw food costs pushed up prices of food away from home by 0.87%, contributing 0.09 percentage points to CPI inflation.
- (8) An increase in tour group fees on account of growing demand for travel amid the eased pandemic situation at home, as well as a lower base effect, caused prices of entertainment services to grow by 1.66%, accounting for 0.09 percentage points in the CPI inflation rate.
- (9) Reflecting an upswing in prices of raw material imports, prices of household appliances went up by 1.42%, contributing 0.06 percentage points to CPI inflation.

The main factor contributing to downward pressure on the CPI in 2021 was the decline in prices of communication equipment. Dragged down by discount promotions for mobile phones, prices of communication equipment dropped by 8.25% year on year, subtracting 0.04 percentage points from CPI inflation.

Percentage Changes in the Major Components of the CPI in 2021

ltem	Annual Rate of Change (%)	Contribution to CPI Inflation Rate (Percentage Point)
CPI	1.96	1.96
Fuels & Lubricants	22.06	0.49
Transportation Fees	11.86	0.33
Vegetables	14.01	0.19
Residential Rent	0.83	0.12
Fruit	4.56	0.09
Meats	4.05	0.09
Garments	2.54	0.09
Food Away from Home	0.87	0.09
Entertainment Services	1.66	0.09
Household Appliances	1.42	0.06
Total		1.64
Communication Equipment	-8.25	-0.04
Total		-0.04
Others		0.36

Source: Price Statistics Monthly, DGBAS, Executive Yuan.

5. Labor Market

Decrease in Employment

As the domestic COVID-19 case spike in mid-May 2021 led to a tightening of containment measures that battered the labor market, employment decreased from 11.53 million persons in the beginning of the year to 11.30 million persons in June. Afterwards, employment gradually picked up month by month along with the easing of restrictions as the domestic outbreak came under control. For the year as a whole, annual average employment was 11.45 million persons, a decrease of 57 thousand persons or 0.49% from the previous year, marking the first year-on-year decline since 2010.

In terms of employment by sector, the services sector was the most severely affected by the tightened containment measures in response to the domestic COVID-19 flare-up, with employment decreasing by 32 thousand persons or 0.47%. Within this sector, sharper declines were recorded in wholesale and retail trade, down by 21 thousand persons, and in accommodation and food service

activities, down by 15 thousand persons. Employment in the industrial sector decreased by 17 thousand persons or 0.43%. Within this sector, employment in manufacturing registered the largest job losses with 21 thousand persons less. Employment in the agricultural sector also went down by six thousand persons or 1.13%. Of total employment, the services sector accounted for the lion's share at 59.81%, up by 0.01 percentage points from the previous year. The share of the industrial sector also ticked up by 0.02 percentage points to 35.45%, while that of the agricultural sector shrank 0.03 percentage points to 4.73%.

Employment and Unemployment Rate 1,000 Persons Employment (left) — Unemployment Rate (right) % 12,000 11,000 9,000 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 Source: DGBAS, Executive Yuan.

In terms of employed persons by occupation, employment of white-collar workers,³ accounting for 45.35% of total employment, decreased by eight thousand persons or 0.15%. Services and sales employment made up 19.91% of total employment and decreased by eight thousand persons or 0.35%. The employment of blue-collar workers,⁴ accounting for 34.74% of total employment, suffered the largest decline of 42 thousand persons or 1.05% owing to the pandemic.

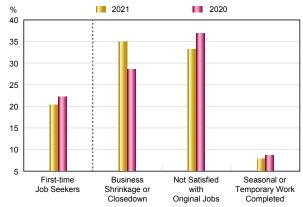
³ Including legislators, senior officials, managers, professionals, technicians, associate professionals, and clerical support workers.

⁴ Including skilled workers in agricultural, forestry, fishing, and animal husbandry industries, and craft and machinery-related workers.

Rising Unemployment Rate

Affected by a surge in coronavirus caseloads in May 2021, the unemployment rate rose sharply from 3.66% in the beginning of the year to 4.80% in June, the highest since November 1999, and then gradually moved down to 3.64% in December as domestic economic activity recovered amid an improving pandemic situation. For the year as a whole, the unemployment rate was 3.95%, the highest since 2015.

Causes of Unemployment



Source: DGBAS, Executive Yuan.

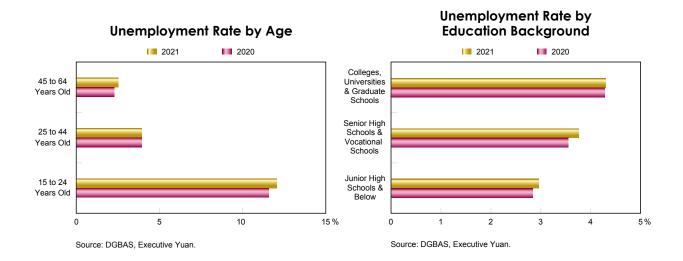
With the government's support measures⁵ to mitigate the pandemic's impacts on the labor market, unemployment duration decreased by 2.39 weeks over the previous year to 20.24 weeks. In terms of age groups, unemployment duration of the age group 45-64 improved the most and decreased by 4.51 weeks to 19.30 weeks, followed by the 16.99 weeks for the age group 15-24 with a decrease of 1.69 weeks. The unemployment duration of the age group 25-34 decreased by 1.67 weeks to 22.32 weeks. Meanwhile, the average number of the long-term unemployed⁶ was 50 thousand persons, a decrease of five thousand persons compared to that in the previous year.

In terms of causes of unemployment, total unemployment in 2021 was 471 thousand persons, increasing by 11 thousand or 2.39% from the previous year, mainly because unemployment of experienced job seekers, with a 79.88% share of total unemployment, increased by 18 thousand persons or 5.03%. Among them, unemployment because of shrinkage or closedown of business recorded the greatest increase by 34 thousand persons or 25.50%, and its share of total unemployment also grew from 28.69% the previous year to 35.16%, reflecting a rise in this type of involuntary unemployment as a result of the impacts of the pandemic. On the other hand, unemployment because of dissatisfaction with their original jobs accounted for the second largest share of total unemployment at 33.38%, dropping by 14 thousand persons or 8.08%. Meanwhile, unemployment because of conclusion of seasonal or temporary work decreased by four thousand persons or 9.21%, with a share of 7.26%.

In terms of age groups, the unemployment rates of the age groups 25-44 and 45-64 edged up by 0.02 and 0.22 percentage points from the previous year to 3.96% and 2.52%, respectively. The

⁵ Including extending the immediate part-time job program for workers impacted by COVID-19, measures to encourage youth employment and subsidize employers to hire young people, support measures for workers who are self-employed or without definite employers, "Relief Loans for Workers" program, and "the Recharge and Restart Training Program" for furloughed employees, and launching support measures for full-time and part-time employees, etc.

⁶ Referring to those who have been unemployed for 53 weeks or more.



unemployment rate of the age group 15-24 also went up by 0.50 percentage points to 12.11%, the highest among all the age groups.

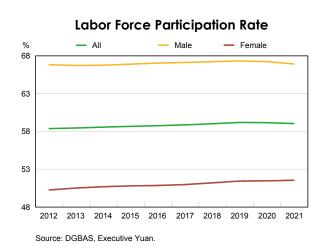
In terms of educational background, the unemployment rates of people rose for all groups in 2021. For people with a junior high school diploma or below, a senior high school or vocational school diploma, and a college degree or above, the unemployment rates increased by 0.12, 0.21, and 0.02 percentage points to 2.97%, 3.77%, and 4.32%, respectively.

Decline in Labor Force Participation Rate

Affected by structural demographic change driven by a declining fertility rate and an aging population in Taiwan and hit by the coronavirus pandemic, the labor force (employed and unemployed combined) shrank by 45 thousand persons, or 0.38%, to 11.91 million persons in 2021, the first contraction since records began in 1978. In contrast, the non-labor force grew by seven

thousand persons, or 0.09%, to 8.27 million persons. The average labor force participation rate edged down by 0.12 percentage points over the previous year to 59.02% in 2021, recording two consecutive years of decline.

In terms of gender, the male labor force participation rate was 66.93%, a drop of 0.31 percentage points from the year before. The female labor force participation rate has continued to grow since 2001 and increased by 0.08 percentage points to 51.49% in 2021,



reflecting that government policies have been effective in promoting gender equality, improving the work environment, and facilitating female employment in recent years.

In terms of age groups, the labor participation rate of the age group 25-44 went down by 0.17 percentage points to 89.35%, while those of the age groups 16-24 and 45-64 increased by 0.28 and 0.65 percentage points to 36.81% and 64.65%, respectively. Taiwan's labor force participation rate, in its second year of decline owing to the pandemic, remained lower than those of the United States (61.7%), Japan (62.1%), South Korea (62.8%), and Singapore (70.5%), attributable to structural factors such as the extension of schooling and early retirement.

In terms of education background, the labor force participation rates of workers with a junior high school diploma or below and those with a senior high school or vocational school diploma dropped by 1.46 and 0.32 percentage points to 38.24% and 62.45%, respectively, while that of workers with a college degree or above rose by 0.22 percentage points to 66.22%.

Modest Wage Growth

For the year 2021, the average monthly earnings per worker of the non-farm sector grew by 2.94% to NT\$55,754, the largest increase over the past three years. The increase was due to higher pay raises in the manufacturing sector benefiting from a steady recovery of the global economy, as well as increased overtime hours in non-farm sectors, which combined to boost regular earnings and irregular earnings such as overtime pay and bonuses. After adjustment for inflation, the average real monthly earnings increased by 0.96% to a historical high at NT\$53,445.

Amount and Rate of Change of Average Earnings of Non-farm Workers



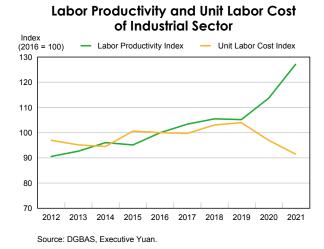
In terms of major sectors, thanks to rising external demand, the industrial sector gained faster wage growth, while the services sector performed worse owing to the domestic COVID-19 flare-up, leading to an uneven recovery between these two sectors. The average monthly earnings of the industrial and services sectors increased by 5.82% and 0.95% to NT\$56,227 and NT\$55,413, respectively, while increasing by 3.78% and decreasing by 1.00%, respectively, in real terms.

In terms of industrial classification, the finance and insurance sector had the highest average monthly earnings with NT\$98,897, the electricity and gas supply sector came in second with

NT\$93,628. On the other hand, the education sector⁷ and the accommodation and food service activities earned average monthly wages of NT\$31,386 and NT\$35,057, respectively, the lowest two among all sectors owing to impacts of the pandemic and a large number of part-time employees in these sectors. In terms of growth rates, the manufacturing sector's average monthly earnings witnessed the highest increase of 6.26%, followed by the real estate sector at 6.04%.

Labor Productivity Significantly Increased While Unit Labor Cost Decreased

As the increase in total production outpaced the increase in total working hours, labor productivity of the industrial and the manufacturing sectors substantially rose by 11.72% and 12.51%, respectively, compared with the previous year. In the manufacturing sector, machinery equipment manufacturing registered the largest growth in labor productivity with 21.01%, boosted by robust demand for semiconductors, infrastructure building for 5G networks, and automation equipment. Wood and bamboo products manufacturing came in second place with an increase of 18.00%.



Since the increase in total earnings was lower than that in production, unit labor costs of the industrial and the manufacturing sectors decreased by 5.73% and 6.26% year on year, respectively. Of all the manufacturing sectors, the leather, fur and related products manufacturing sector experienced the largest decrease in unit labor cost with 20.23%, followed by machinery equipment manufacturing with a decrease of 16.17%.

 $[\]overline{}^7$ Excluding schools at all levels within the formal education system (except preschools).