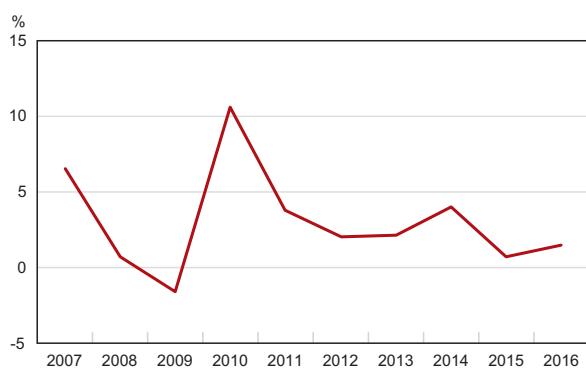


2. National Output and Income

In 2016, the Taiwanese economy expanded at a mild pace and real GDP grew by 1.50% over the previous year because of a slight revival in domestic demand. Private consumption rose steadily owing to stronger new car sales, continued expansion in the number of citizens traveling abroad, and an increase in disposable income resulting from declining oil prices. Fixed capital formation displayed modest growth, mainly because the aviation industry expanded capital outlays and the semiconductor industry increased capacity in advanced manufacturing in the second half of the year. External trade witnessed a weaker performance in the first half of the year and then exhibited strong growth during the second half of the year on the back of a broad rebound in global demand. Nevertheless, exports showed a slower recovery for the year as a whole.

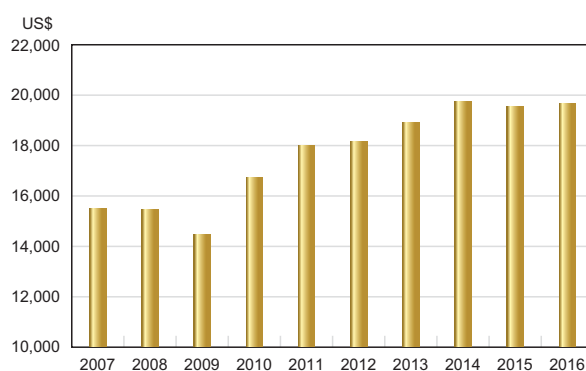
In the first quarter, external trade continued to fall as foreign demand remained lackluster and construction investment decreased. Modest growth in private consumption was unable to offset sluggish external trade and construction investment, leading real GDP to shrink 0.23%. On account of a gradual expansion in external trade, improved private investment, and an increase in private consumption, real GDP grew mildly by 1.13% in the second quarter. The domestic economy continued to expand during the third quarter, reflecting increased private investment and a pickup in external demand boosted by solid global demand for semiconductors. Consequently, real GDP growth rose to 2.12% in the third quarter. During the fourth quarter, as continuously strong demand for semiconductors bolstered external trade and private investment, real GDP growth rose further to 2.88% in the fourth quarter, the highest level in the year. Meanwhile, amid a moderate recovery in the domestic economy, per capita GNI (Gross National Income) in nominal terms increased slightly from US\$19,540 to US\$19,653.

Real Growth Rate of GDP



Source: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2017.

Per Capita GNI



Source: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2017.

Expenditure Components of GDP

All expenditure components of GDP except for private consumption posted higher growth rates than those in the previous year. Among them, exports recorded a positive contribution of 1.36 percentage points to GDP growth for the year, replacing private consumption as the primary source of economic growth. Private consumption also posted a positive contribution of 1.12 percentage points to GDP growth in 2016. Gross fixed capital formation contributed 0.56 percentage points to GDP growth owing to a pickup in capital expenditures by the private sector. Meanwhile, growth in government consumption moved from negative to positive territory and further boosted GDP growth by 0.43 percentage points. With respect to shares of GDP, exports of goods and services still accounted for the largest share of GDP at 62.83%, followed by private consumption at 52.72% and gross fixed capital formation at 21.00% for the year.

(1) Steady Growth in Private Consumption

During 2016, private consumption grew by 2.14% in real terms and contributed 1.12 percentage points to GDP growth. Overall consumer spending grew at a steady pace on account of stronger new car sales, continued expansion in the number of citizens traveling abroad, and an increase in disposable income resulting from declining oil prices.

In the first quarter, driven by the government's consumption-boosting program, an increase in the number of citizens traveling abroad, and a stable rise in consumer spending in the retail sector and restaurant business, private consumption expanded at an annual rate of 2.64%. In the second quarter, affected by weaker retail sales, private consumption registered the lowest growth rate of 1.59% for the year. Subsequently, continued expansion in new car sales, growth in tourism, and the

Expenditure on Gross Domestic Product

Unit: %

	2016			2015		
	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*
Private Consumption	52.72	2.14	1.12	52.27	2.68	1.43
Government Consumption	14.28	3.05	0.43	13.97	-0.26	-0.04
Gross Fixed Capital Formation	21.00	2.71	0.56	20.84	1.64	0.36
Change in Inventory	-0.07	-	-0.22	0.09	-	-0.08
Exports of Goods and Services	62.83	2.12	1.36	64.30	-0.34	-0.24
(Less : Imports of Goods and Services)	50.76	3.39	1.75	51.48	1.19	0.71
Expenditure on GDP	100.00	1.50	1.50	100.00	0.72	0.72

Note: * Percentage point.

Source: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2017.

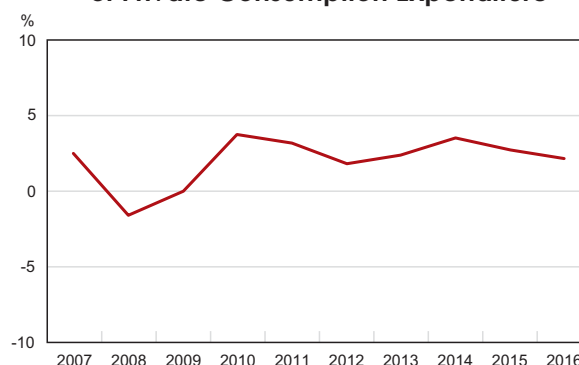
launch of new smartphone products drove private consumption to rise at an annual rate of 2.70% in the third quarter. During the final quarter, despite increases in new car sales and the number of outbound travelers, private consumption growth weakened to 1.62% on account of abated growth momentum for retail sales.

(2) Modest Growth in Fixed Capital Formation

For the year 2016, domestic semiconductor manufacturers continued to invest in advanced manufacturing, yet the sluggish housing market resulted in slower growth in construction investment. Meanwhile, growth momentum for investment by public enterprises softened. Therefore, fixed capital formation exhibited modest growth with an annual rate of 2.71% in real terms and contributed 0.56 percentage points to economic growth. In the first quarter, despite a mild expansion in private investment, continuous contractions in investments by public enterprises and general government dragged growth in fixed capital formation down to a yearly low of negative 0.12%. In the second quarter, imports of capital equipment increased further, pushing private investment to rise. As a result, growth in fixed capital formation turned positive, recording an annual rate of 0.16%. Subsequently, as the semiconductor industry continued to expand capacity in advanced production and airline companies increased investment in aircraft purchases, fixed capital formation expanded by 3.66% and 6.81%, respectively, in the last two quarters.

Regarding expenditure by type of purchaser, investments by the private sector and general government both registered positive growth, whereas investment by public enterprises experienced two consecutive years of decline. In the first half of the year, an increase in machinery and equipment investment was partially offset by decreases in investment in transport equipment and construction, leading private investment to advance by 0.22% and 1.16%, respectively, in the first and second quarters. Later, reflecting a pickup in capital spending led by the semiconductor and transportation industries, private investment rose by 3.99% and 7.24%, respectively, in the last two quarters. For the year as a whole, private investment increased by 3.12%, slightly higher than the 2.97% registered in 2015. Meanwhile, the government's expansionary fiscal policy boosted government investment growth back into positive territory for the first time in six years, with a year-on-year increase of 1.72%. In contrast, investment by public enterprises went down by 1.93%, primarily owing to a decline in investment in machinery and equipment.

**Real Growth Rate
of Private Consumption Expenditure**



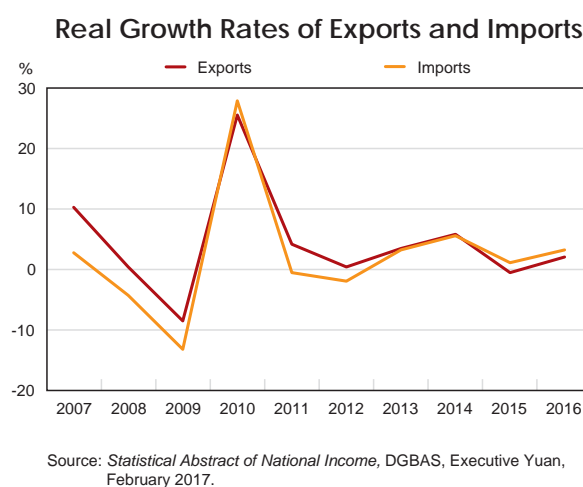
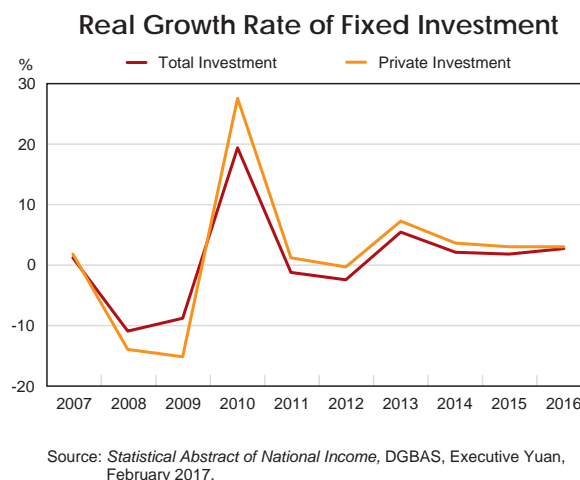
Source: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2017.

In terms of the type of capital formation, the largest increase was observed in outlays on machinery and equipment, registering a growth of 9.14%, mainly attributable to capacity expansion and technology upgrades conducted by semiconductor manufacturers. Transportation spending decelerated in the first half of the year as a result of a poor domestic business climate. Bolstered by increased procurement of airliners, growth in transportation spending turned positive in the second half of the year. Consequently, transportation investment rose moderately by 3.35% for the entire year. Investment in intellectual property was relatively stable, registering an annual growth rate of 2.51%. On the other hand, because of stagnant growth in the housing market, investment in the construction sector contracted by 2.85%.

(3) Mild Expansion in Exports and Imports

Despite a weaker global business climate, competitive pressure from Mainland China's efforts to localize the supply chain, and volatility in raw material prices, growth in exports still outpaced that in 2015, registering a year-on-year increase of 2.12% and contributing 1.36 percentage points to economic growth for the year as a whole. The increase in exports was mainly due to an improvement in foreign demand as well as a lower base effect.

For the first quarter, growth in exports of electronics products and machinery, plastics, rubber, base metals, and optical and precision instruments all retreated, and net proceeds from merchandising also slid, whereas the number of tourists from abroad rose by 16.03%. As a result, growth in exports of goods and services went down to negative 3.88%. In the second quarter, growth in exports of electronic parts and components returned to positive territory, leading exports of goods and services to rise by 0.21%. Then, influenced by continued solid expansion in exports of electronic parts and components



and regained growth momentum in exports of base metals, machinery, and information, communications and audio-video products, exports of goods and services went up 3.66% and 8.02%, respectively, in the last two quarters.

Since a large proportion of import demand was derived from exports, the growth trends of imports and exports moved together. Import growth was negative in the first half of the year, while it turned positive in the second half of the year as raw material prices gradually rebounded and capital outlays on machinery and electrical equipment rose with mounting export demand. For the year as a whole, imports of goods and services advanced by 3.39%, subtracting 1.75 percentage points from economic growth.

Sectoral Components of GDP

Looking at sectoral production in 2016, industry and services, making up major shares of national output, were key forces behind economic growth. With intelligent technologies being utilized in a wider range of applications, industrial output grew by 2.04%, in contrast to the previous year's contraction, and contributed 0.73 percentage points to overall GDP. Services output exhibited continuous expansion, pitching in 0.83 percentage points to economic growth for the year. On the contrary, agricultural output declined in 2016 as a consequence of abnormal weather conditions and crop damage caused by typhoons, subtracting 0.12 percentage points from GDP growth.

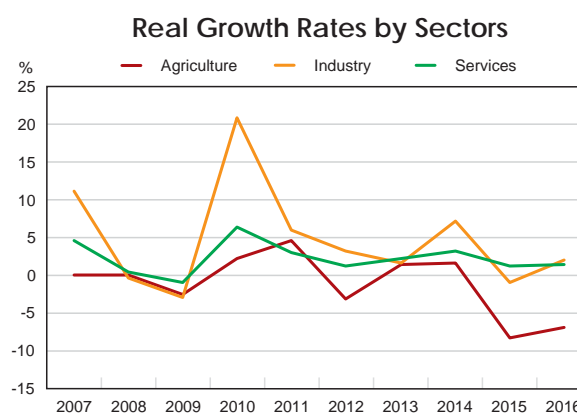
Regarding the sectoral shares of GDP in nominal terms, Taiwan's economy was still dominated by the services sector with a 63.15% share in 2016. The industrial sector accounted for 35.04% of GDP, slightly lower than the share in the previous year. Meanwhile, the ratio of agricultural output to GDP slightly increased to 1.82%.

(1) Continued Shrinkage in Agricultural Output

During 2016, agricultural production, covering agriculture, forestry, fishing and animal husbandry industries, continued to contract owing to adverse weather conditions. Agricultural output shrank by 6.91%, up from an 8.26% decrease in the previous year.

(2) Moderate Expansion in the Industrial Sector

The industrial sector, consisting of the industries of mining and quarrying, manufacturing, construction, and electricity, gas, and water, increased by 2.04% for the year, higher than in



Source: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2017.

the previous year. The growth in industrial output benefited from rising global demand for electronics products amid the improving global economy in the second half of the year.

Manufacturing production in 2016 went up by 2.28%, mainly led by the information and electronics industry, which showed a moderate growth of 4.26% in the production index during the year. The gain in the information and electronics industry was mostly attributed to a boom in semiconductor-related exports in the second half of the year, driven by soaring demand for new mobile devices. The production index of the chemical industry inched up 0.90%, supported by the rebound in oil prices. The index of food, textile, and other industries also rose by 0.77% because of a stable increase in the production of food. However, output growth in metal and machinery edged down to 0.60%, primarily hit by weaker global demand and inventory adjustment.

Output of mining and quarrying also dropped significantly by 9.74% for the year, on account of the decline in the production volume of marble, sand, and gravel. Affected by the softening real estate market, output growth in the construction industry slipped by 2.84%.

(3) Mild Growth in the Services Sector

In 2016, services output increased mildly and recorded a growth of 1.33%, slightly higher than

Gross Domestic Product by Type of Activity

Unit: %

	2016			2015		
	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*
Agriculture	1.82	-6.91	-0.12	1.70	-8.26	-0.15
Industry	35.04	2.04	0.73	35.13	-1.05	-0.35
Mining and Quarrying	0.08	-9.74	-0.01	0.10	-6.58	-0.01
Manufacturing	30.16	2.28	0.68	30.05	-0.85	-0.26
Construction	2.38	-2.84	-0.07	2.52	-0.88	-0.02
Electricity and Gas Supply	1.76	5.45	0.12	1.85	-5.45	-0.06
Water Supply and Remediation Services	0.65	1.98	0.01	0.61	-0.03	0.00
Services	63.15	1.33	0.83	63.17	1.14	0.71
Wholesale and Retail Trade	16.19	0.63	0.10	16.37	0.27	0.04
Transport and Storage	3.03	3.68	0.11	3.06	-0.26	-0.01
Information and Communications	2.84	3.07	0.09	2.92	4.71	0.14
Finance and Insurance	6.60	2.37	0.16	6.56	3.78	0.25
Real Estate and Ownership of Dwellings	8.20	1.35	0.11	8.16	2.08	0.17
Public Administration and Defense; Compulsory Social Security	6.36	0.20	0.01	6.41	0.05	0.00
Other Services	19.92	0.10	0.25	19.70	0.62	0.12
Gross Domestic Product	100.00	1.50	1.50	100.00	0.72	0.72

Note: * Percentage point.

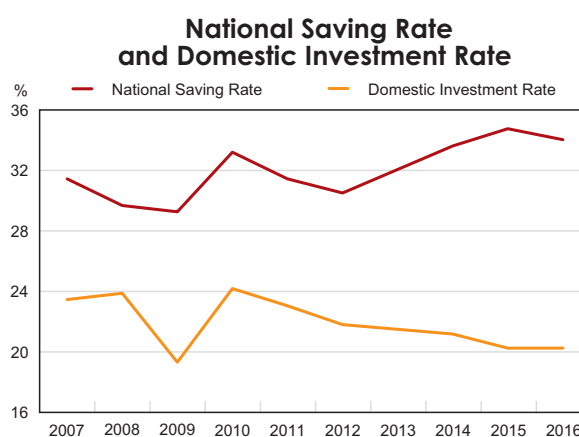
Source: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2017.

the growth rate of 1.14% of the previous year. The mild growth in services output for the year was consistent with slower private consumption growth. The subsectors of transport and storage services, wholesale and retail trade services, and public administration and defense services recorded higher growth rates compared with those of the previous year.

Owing to increased demand for public transportation, transport and storage services registered the largest growth of 3.68% among the services subsectors in 2016. Information and communications services also posted an increase of 3.07%, largely attributable to a rising number of internet users over the year. Finance and insurance services continued to grow along with increased fee income and life insurance premium income, yet posted a moderate growth of 2.37% for the year. Real estate and ownership of dwellings services expanded by 1.35%, reflecting the lackluster housing market. Wholesale and retail trade services edged up by 0.63% on account of a slowdown in trade-related export demand and slack domestic demand.

Slight Decline in National Saving Rate

As government consumption growth turned positive, national consumption (including both private consumption and government consumption expenditures) grew at a moderate rate of 3.26% in nominal terms for the year, higher than the GNI growth rate of 2.30%. As a consequence, the national saving rate (the ratio of national saving to GNI measured at current prices) declined from 34.70% in 2015 to 34.04% in 2016. The excess saving ratio, defined as the excess of national saving over gross domestic investment to GNI, slid from 14.44% in 2015 to 13.82% in 2016, reflecting a greater increase in domestic investment than that in national saving.



Source: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2017.