# 2. National Output and Income

Following an upturn in late 2009, the Taiwan economy continued its robust recovery and expanded remarkably in 2010. This was driven by a global economic revival and further supported by favorable development that boosted both consumer spending and business expansion. External trade witnessed strong growth during the first three quarters on the back of a broad rebound in emerging markets. Private consumption and business spending continued to expand along with the sustained improvement in economic outlook. With solid aggregate demand, coupled with a low-base effect, real GDP growth posted a 23-year high of 10.82 percent in 2010.

Bolstered by a stunning growth in exports, business activity gained strength and capital expenditures accelerated in the first half of the year. Accordingly, growth in real GDP surged to 13.59 percent year on year in the first quarter and 12.86 percent in the second quarter. This momentum continued into the third quarter and real GDP reported its third consecutive quarter of double-digit growth as a gradual improvement in the employment situation enhanced consumer confidence. The signing of the Economic Cooperation Framework Agreement (ECFA) also helped promote private investment. However, owing to the high base effect and a moderation in the global economy, the real GDP growth rate settled to a more modest 6.92 percent in the fourth quarter.

Meanwhile, owing to the upswing in economic activity and the appreciation of the domestic currency against the US dollar, per capita GNP in nominal terms increased considerably from US\$16,895 to US\$19,188.

# Economic Growth Rate 96 12 10 8 6 4 2 0 -2 -4 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010

Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2011.

### Per Capita GNP US\$ 20,000 19,000 18.000 17,000 16.000 15.000 14.000 13.000 12,000 11,000 10.000 9,000 8.000 2003 2004 2005 2006 2007 2008 2009 2010

### **Expenditure Components of GDP**

Against the backdrop of a solid gain in exports and a marked increase in domestic demand, all expenditure components of GDP posted a positive contribution to economic growth in 2010. Among them, net exports continued to record a positive contribution of 2.33 percent for the year. Gross fixed capital formation also increased its contribution to GDP growth by 3.95 percentage points due to a sharp pickup in capital expenditures. Private consumption and government consumption contributed 2.14 percentage points and 0.21 of a percentage point to economic growth, respectively. In terms of shares of GDP, exports and imports shares increased further along with the expansion of global demand, accounting for 73.66 percent and 66.47 percent, respectively. Attributable to a large expansion in private investment, the share of gross fixed capital formation went up to 21.74 percent, higher than the previous year's 18.88 percent. On the other hand, the share of private consumption slipped to below 60 percent of GDP in 2010 due to the relatively moderate increase in household spending when compared with other GDP components.

### (1) Steady Increase in Private Consumption

In the beginning of the year, private consumption gradually picked up amid an economic upturn, but progressed at a cautious pace owing to subdued income growth. Later, as the impact of the rising stock market and housing market bolstered household wealth, consumer spending in the retail sector and restaurant business progressed and private consumption grew by 3.02 percent in the first quarter. During the second quarter a more vigorous recovery in economic activity boosted consumer confidence significantly. This, together with the continued improvement in labor market conditions, helped encourage private spending and the growth of consumption expenditure

### **Expenditure on Gross Domestic Product**

Unit: %

	2010			2009		
	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*
Private Consumption	57.99	3.69	2.14	60.75	1.08	0.61
Government Consumption	12.19	1.74	0.21	12.96	3.88	0.45
Gross Fixed Capital Formation	21.74	23.65	3.95	18.88	-11.01	-2.03
Change in Inventory	0.89	_	2.19	(1.22)	_	-2.20
Exports of Goods and Services	73.66	25.59	16.76	62.49	-8.71	-6.13
( Less : Imports of Goods and Services)	(66.47)	(28.24)	(14.43)	(53.86)	(-12.83)	(-7.38)
Expenditure on GDP	100.00	10.82	10.82	100.00	-1.93	-1.93

Note: \* Percentage point.

climbed to 4.63 percent in the third quarter. As wage increases were still far below the growth rate of the economy, which constrained the momentum of household spending, private consumption growth weakened to 2.85 percent along with a high base effect in the fourth quarter. Nevertheless, for the year as a whole, private consumption grew 3.69 percent, higher than the figure of 1.08 percent registered in the previous year.

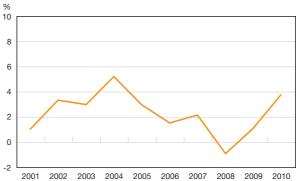
With regard to food and non-food categories, both rose steadily with respective annual growth rates of 1.88 percent and 3.94 percent for the year. Among the components of non-food consumption, outlays for recreation and culture recorded the largest growth of 9.88 percent for the year, reflecting

an economic revival as well as increasing demand for outdoor recreation, arts and expo activities. Moreover, consumer spending on communications increased further, registering the second largest growth of 8.98 percent for the year. This was mainly the result of an increase in consumer interest in new IT products, such as internet-related products and mobile phones, and the continual growth of home-based businesses. Due to the economic boom, outlays for restaurants and hotels also advanced markedly by 8.11 percent, much higher than the previous year's growth rate of 1.48 percent.

### (2) Modest Lift in Government Consumption

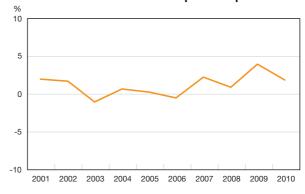
In 2010, the rise in government consumption was mainly associated with the implementation of employment promotion and unemployment relief measures. As the domestic economy regained its growth momentum, the government gradually scaled down its stimulus spending, leading to a mild increase in government consumption expenditure of 1.74 percent in real terms and contributed 0.21 of a percentage point to GDP growth for the year.

# Real Growth Rate of Private Consumption Expenditure



Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2011.

# Real Growth Rate of Government Consumption Expenditure



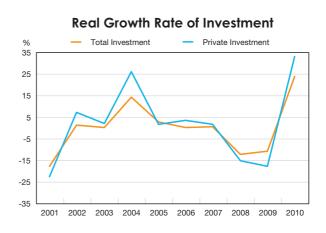
### (3) Sharp Rebound in Fixed Capital Formation

Benefiting from the strong growth in exports and the signing of the ECFA, business sentiment improved significantly and fixed capital formation exhibited a sharp rebound during 2010. In the first quarter, as firms accelerated capital spending on the back of the economic recovery, fixed capital formation soared 28.61 percent. Thereafter, as hi-tech firms increased capital expenditure to upgrade their production process and expand capacity to meet surging overseas demand, fixed investment strengthened further and grew by 31.98 percent in the second quarter. While capital outlays continued to expand, the growth of fixed capital investment slowed from the third quarter onwards and moderated to 13.04 percent in the last quarter due to a higher comparison base. For the year as a whole, fixed capital formation rose by 23.65 percent, contributing 3.95 percentage points to GDP growth in 2010.

Regarding expenditure by the type of purchaser, investment by private businesses increased by 32.79 percent for the year, adding 3.87 percentage points to real GDP growth, in sharp contrast to the decline of the previous year. As the traction of the global economic recovery became stronger, foreign demand soared, which enhanced firms' incentives to invest in capacity expansion. The increase in private capital spending, led by the semiconductor industry and the TFT-LCD industry, was especially vigorous in the first three quarters of the year, pushing private investment up by more than 35 percent. However, due to uncertainties over the robustness of the global economic recovery and the high base effect, private investment lost momentum and dropped to 17.76 percent in the final quarter. Furthermore, as public enterprises continued to carry out their investment projects, investment by public enterprises increased by 8.99 percent, contributing 0.14 of a percentage point to economic growth in 2010. On the other hand, government investment edged down by

1.59 percent, subtracting 0.05 of a percentage point from economic growth because of heavy rain and delayed progress of environmental appraisal for many public works projects.

In terms of the type of capital formation, the largest increase was observed in outlays on machinery and other equipment, registering a stunning growth of 43.01 percent, mainly attributable to plant expansions, production upgrading and a strong increase in



Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2011.

manufacturing orders. Transportation spending also accelerated and grew by 28.93 percent as the economic recovery led to increased demand for commercial vehicles. Additionally, investment in construction and intangible fixed assets grew by 9.96 percent and 8.04 percent, respectively.

### (4) Robust Expansion in Exports and Imports

Exports of goods and services sustained strong momentum from the last quarter of 2009 and registered a robust growth of 25.59 percent in 2010, accounting for 16.76 percentage points of economic growth. Underpinned by the brisk demand for consumer electronics from emerging Asian and other major trading partners, export orders hit historic highs. The increase in services exports, including the influx of tourists from Mainland China and the rise in merchanting, further accelerated exports expansion. Exports jumped over 30 percent in the first two quarters and moderated to 14.9 percent in the fourth quarter due to a high base effect.

Following a robust growth in business investment spending, the growth of imports reversed its sharp decline of the previous year and outpaced that of exports in 2010. The increase in imports

was more notable in the first half of the year as capital outlays on machinery and electrical equipment rose with mounting export demand. Like exports, imports growth trended down in the last two quarters due to a high base effect. However, during the year as a whole, imports of goods and services, measured in NT dollar terms, increased by 28.24 percent, thus subtracting 14.43 percentage points from economic growth.

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Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2011.

### Sectoral Components of GDP

On the output side, while agricultural output continued to shrink, industrial output and services benefited from the economic upswing and advanced at a brisk pace. In 2010 the industrial sector became the predominant driving force behind economic growth, adding 7.56 percentage points to economic growth for the year, a sharp contrast to the previous year's contraction. The contribution of the services sector to overall GDP growth also moved up from the previous year's negative 0.44 of a percentage point to positive 3.69 percentage points in 2010. Conversely, growth in agricultural output remained in negative territory, subtracting 0.01 of a percentage point from economic growth.

### Gross Domestic Product by Type of Activity

Unit: %

	2010			2009			
	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*	
Agriculture	1.57	-0.89	-0.01	1.74	-3.00	-0.04	
Industry	31.37	24.17	7.56	28.96	-4.30	-1.38	
Mining & Quarrying	0.46	9.26	0.03	0.42	4.41	0.01	
Manufacturing	26.31	26.82	7.19	23.83	-4.40	-1.21	
Construction	2.77	10.86	0.25	2.68	-8.04	-0.20	
Electricity, Gas, Water Supply and Remediation Services	1.83	5.21	0.10	2.03	0.69	0.01	
Services	67.05	5.50	3.69	69.30	-0.66	-0.44	
Wholesale and Retail Trade	18.18	5.64	1.03	18.67	-1.26	-0.23	
Transport & Storage	3.03	6.54	0.20	3.05	-3.69	-0.12	
Information and Communications	3.47	5.95	0.22	3.70	3.43	0.12	
Finance and Insurance	6.38	6.88	0.46	6.41	-7.66	-0.54	
Real Estate	8.60	2.98	0.26	9.17	1.81	0.15	
Administration and Defense	7.26	2.93	0.21	7.65	0.84	0.06	
Education	4.61	0.96	0.05	4.99	2.55	0.12	
Other Services	15.51	8.57	1.27	15.67	0.02	0.00	
Gross Domestic Product	100.00	10.82	10.82	100.00	-1.93	-1.93	

Note: \* Percentage point.

Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2011.

Regarding the sectoral shares of GDP in nominal terms, Taiwan's economy was dominated by the services sector with a 67.05 percent share, albeit declining, in 2010. The industrial sector accounted for 31.37 percent of GDP as its output increased substantially along with the rise in exports and high value-added manufacturing activities. Meanwhile, the ratio of agricultural output to GDP slightly dipped to 1.57 percent, from the 1.74 percent posted in the previous year.

### (1) Further Shrinkage in Agricultural Output

During 2010, all agricultural production subsectors, namely agriculture, forestry, fishing and animal husbandry, remained subdued due to an unstable climate, which led agricultural output to shrink by 0.89 percent.

### (2) Strong Growth in Industrial Output

The industrial sector, comprising industries of mining and quarrying, manufacturing, construction, and electricity, gas and water, surged by 24.17 percent in 2010, a significant growth compared with the previous year's 4.30 percent decrease. The manufacturing sector, which carried a weight

of over 90 percent in the index of industrial production, was the key driver behind the acceleration of industrial output.

In 2010, the increasing production of the semiconductor, panel, machinery, automobile and textile mills industries resulting from stronger-than-expected demand for exports and business investment led manufacturing output to progress remarkably. Specifically, the production index of the information and electronic industry was at the top with 40.27 percent growth, followed by metal and machinery with 32.54 percent and food, textile and other industry with 10.74 percent, which was substantially higher than the figures for the preceding year. Manufacturing output exhibited a downward trend from a peak of 42.59 percent in the first quarter to 16.58 percent in the fourth quarter. However, this slowdown was mainly due to the base effect. For the year as a whole, manufacturing output increased by 26.82 percent, reversing a decline of 4.4 percent in the previous year.

As the government continued to expand public works and the housing market appeared to be heating up along with the economic expansion, construction output growth hit a 13-year high of 10.86 percent. Accordingly, output of mining and quarrying also grew considerably by 9.26 percent for the year.

### (3) Brisk Performance in the Services Sector

In 2010, services output rose solidly and recorded a brisk growth rate of 5.5 percent. The sustained economic recovery helped drive the remarkable growth in the services sector, of which finance and insurance, information and communication as well as trade, food and tourism services exhibited sizeable increases.

Among the services subsectors, finance and insurance services resumed healthy growth after two consecutive years of declines, registering an increase of 6.88 percent for the year due to the increased financial trading activity, interest revenue and fee income. Driven by vigorous export demand in line with the revival of global trade, transportation and storage services also grew by 6.54 percent, compared with a contraction of 3.69 percent posted in 2009. Likewise, wholesale and retail trade services posted a growth rate of 5.64 percent, reversing from the previous year's 1.26 percent decline. The rise in wholesale services output largely reflected the sturdy demand for machinery and equipment associated with rapid business investment. The growth in the retail trade sector was due to the increase in general merchandising turnover spurred by rising household spending. In addition, the information and communication services subsector continued to expand rapidly with growth of 5.95 percent, largely bolstered by the growing popularity of e-commerce and a robust demand for data processing services.

### Slight Decline in National Savings Rate

While GNP surged by 8.95 percent for the year, national consumption (including both private consumption and government consumption expenditures) grew by a modest 3.88 percent in line with the steady pickup in domestic demand. Accordingly, the national savings rate (the ratio of national savings to GNP measured at current prices) rose from 27.68 percent in 2009 to 31.28 percent in 2010. The excess savings ratio, defined as the excess of national savings over gross domestic investment to GNP, slightly declined from 10.59 percent in 2009 to 9.34 percent in 2010, reflecting that growth in domestic investment outpaced that in national savings.

# National Saving Rate and Domestic Investment Rate

