# Annual Report 2009

Central Bank of the Republic of China (Taiwan)

Taipei, Taiwan

The Republic of China

# Foreword

Fai-nan Perng, Governor

The worldwide recession continued to affect Taiwan's economy during the first half of 2009. During the second half of the year, the turnaround in the U.S. and Europe, coupled with the local government's stimulus package, gradually lifted Taiwan's external trade, private consumption and investment. Economic growth resumed in the fourth quarter but remained at negative 1.87 percent for the year as a whole. The annual unemployment rate also rose to 5.85 percent. Meanwhile, weak domestic demand, on top of falling international commodity prices, led consumer prices to decline by 0.87 percent for the year, a relatively stable level among major countries.

To boost domestic demand, the Bank twice lowered policy rates during the first two months of 2009, as part of the rate cut cycle that began in September 2008. A total of 237.5 basis points were slashed on seven occasions during the cycle. Lower interest rates helped reduce the funding costs of individuals and enterprises and encourage private consumption and investment.

In addition, the Bank engaged in open market operations to keep reserve money and the interbank call-loan rate at accommodative levels. It also helped enhance the capacity of the Small and Medium Enterprise Credit Guarantee Fund to meet funding demands of SMEs. These measures helped create an environment conducive to economic recovery. Bolstered by monetary easing actions, and net foreign capital inflows in the second half of the year, M2 grew by 7.21 percent in 2009, breaching the upper limit of the Bank's 2.5 percent to 6.5 percent target zone.

On the foreign exchange front, the NT dollar exhibited dynamic stability, standing at 32.030 against the US dollar at the end of 2009, an appreciation of 2.59 percent from a year earlier. Foreign exchange reserves built up to US$348.2 billion at the end of the year.

The Bank continued with financial liberalization in 2009. New foreign exchange products were introduced and cross-border remittances were further deregulated. The Bank also devised the Government Bond Buyback System and a withdrawal mechanism for central government bond dealers. These actions would contribute to efficient public finance management and a sound government bond issuance market. Moreover, the Bank closely monitored the domestic payment system to ensure its smooth operations in line with international standards.

At the current juncture, the global economy has generally begun to recover. Yet, a number of countries face severe challenges in the form of huge fiscal deficits, high unemployment, and uncertainty over the strength of recovery. Always mindful of its mandate to pursue price and financial stability and sustainable economic growth, the Bank will continue adopting appropriate monetary policy in response to the evolving economic and financial conditions at home and abroad.

Finally, my sincere appreciation goes to my colleagues for their dedication during past years. Together, we will work hard to meet the challenges in the years ahead.

Fai-nan Perng
Governor
March 29, 2010

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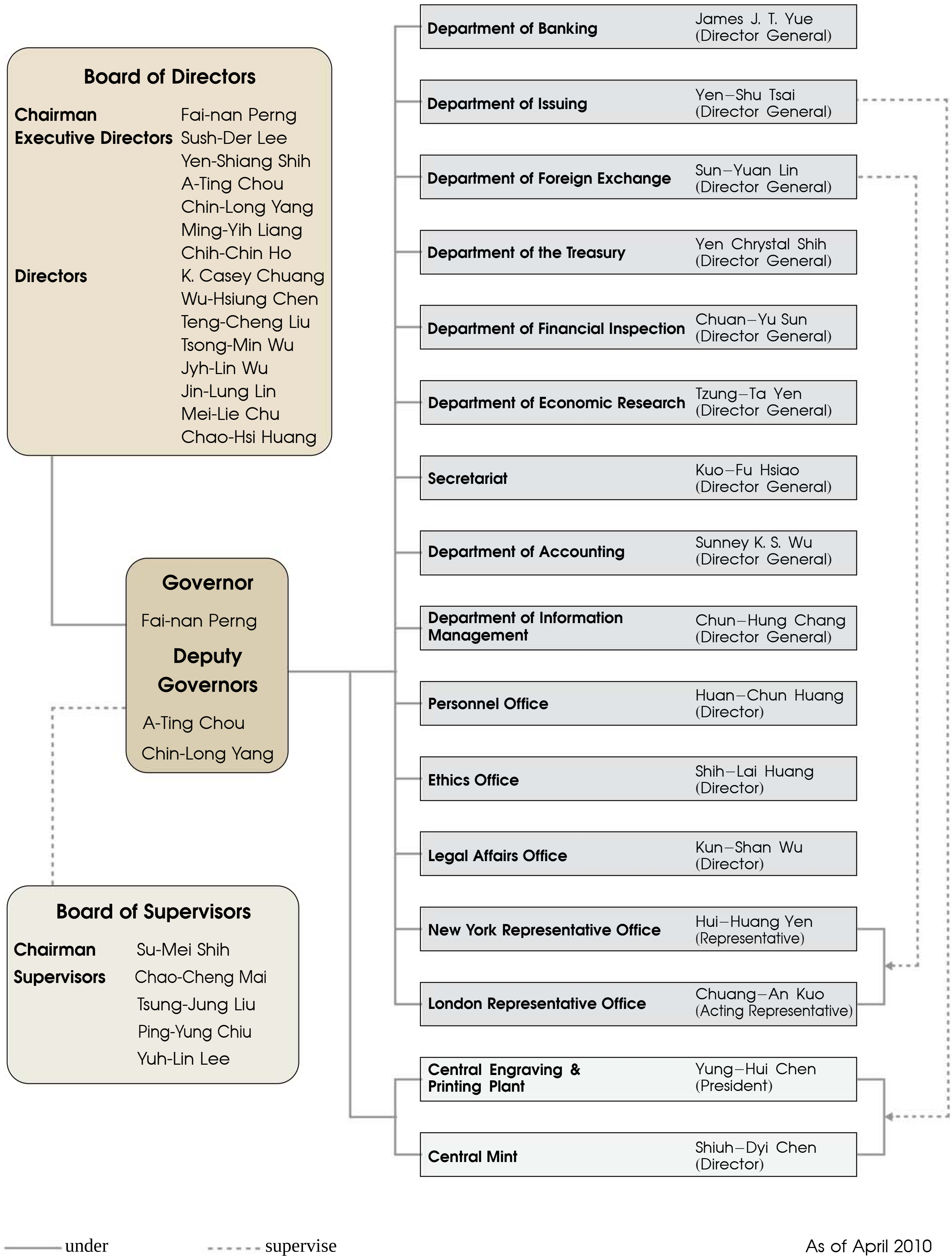
CBC Annual Report 2009

# Organization and Management of the CBC




As of April 2010

Chairman
Board of Directors
Governor

Fai-nan Perng

Executive Director

Sush-Der Lee

Executive Director

Yen-Shiang Shih

Executive Director
Deputy Governor

A-Ting Chou

Executive Director
Deputy Governor

Chin-Long Yang

Executive Director

Ming-Yih Liang

Executive Director

Chih-Chin Ho

Director

K. Casey Chuang

Director

Wu-Hsiung Chen

Director

Teng-Cheng Liu

Director

Tsong-Min Wu

Director

Jyh-Lin Wu

Director

Jin-Lung Lin

Director

Mei-Lie Chu

Director

Chao-Hsi Huang

Chairman
Board of Supervisors

Su-Mei Shih

Supervisor

Chao-Cheng Mai

Supervisor

Tsung-Jung Liu

Supervisor

Ping-Yung Chiu

Supervisor

Yuh-Lin Lee

# Developments in the Real Economy

# I. Developments in the Real Economy

## 1. Overview

The fallout from the global financial crisis continued to overshadow Taiwan's economy during the first half of 2009. With the gradual recovery of the global economy, Taiwan's economy has regained momentum since the fourth quarter of 2009. The balance of payments remained in good shape and registered a record high surplus as the current account and net inflow on the financial account both reached historic highs. Meanwhile, falling prices of oil, vegetables and fruits led consumer prices to decline. The unemployment rate climbed to a record peak in August and then gradually trended downwards. As reduced revenues and increased expenditures due to tax cuts and the economic downturn, central government finances turned to a deficit, after registering surpluses for three years.

### Gradual Recovery in the Second Half of 2009

In the first half of 2009, Taiwan's external trade declined, which in turn affected economic activity and the labor market. As a result, GDP growth was mired in negative territory. In the second half of the year, the nascent recovery of the global economy alleviated the decline in Taiwan's exports and GDP growth turned positive in the fourth quarter. In terms of domestic demand, the government adopted an expansionary fiscal policy, including consumption vouchers and infrastructure construction. However, economic doldrums continued in the first half of 2009, as unemployment rose, private consumption weakened, and firms delayed investment due to low capacity utilization. In the second half of the year, as emerging economies regained strength and the government's stimulus efforts bore fruit, private consumption and investment gradually picked up. For the year as a whole, Taiwan's GDP still shrank by 1.87 percent, compared to 0.73 percent growth in the previous year.

With regard to the expenditure components of GDP, both external and domestic demand were below favorable levels. Nevertheless, net external demand contributed 1.48 percentage points to GDP growth due to a larger decline in imports than exports. Domestic demand, on the other hand, subtracted 3.34 percentage points from GDP growth. On the production side, the industrial sector was more severely affected than the services sector with respective contributions of negative 1.47 and negative 0.15 percentage points to GDP growth.

## Balance of Payments Surplus Hit a Historic High

On the current account, a greater decrease in imports over exports resulted in a goods trade surplus of US$30.8 billion, a large increase of 66.6 percent from the previous year. Services recorded the first surplus ever, at US$1.3 billion, due to a decrease in transportation and travel payments and an increase in travel receipts. Income surplus expanded to US$12.7 billion mainly owing to a decrease in payments to equity investment by nonresidents. As a result, the current account surplus was US$42.6 billion, a significant increase of 69.5 percent over the previous year.

The net inflow in the financial account was largely attributable to other investment, which exhibited a record high net inflow of US$25.8 billion, as the government reduced estate and gift tax rates, the US actively tracked taxes on the affluent, and overseas businessmen repatriated funds. Portfolio investment by nonresidents also showed a large inflow of US$21.4 billion, mainly for investing in Taiwan's stock markets and overseas depository receipts issued by Taiwan's businesses. Portfolio investment abroad by residents shifted to a net outflow of US$31.7 billion, mainly as residents invested in foreign securities through banks' earmarked trust funds and life insurance companies invested in foreign bonds.

For the year 2009, the overall balance of payments recorded a surplus of US$54.1 billion, posting a historic high.

## Prices Remained Relatively Stable

Compared with the previous year, prices of oil and other international commodities declined significantly in 2009. Import prices decreased by 13.89 percent as denominated in the US dollar and by 9.61 percent in the NT dollar. The milder decline reflected a depreciation of the NT dollar against the US dollar. Therefore, the WPI decreased by 8.74 percent, the largest decline ever recorded.

Regarding consumer prices, import prices and retail prices were dampened by the decline in international commodity prices, while the rising unemployment rate and lackluster effective demand further depressed prices. As a result, the CPI decreased by 0.87 percent in 2009 and core CPI (excluding fruits and vegetables, fish and shell fish, and energy) decreased by 0.14 percent. Overall, price levels remained relatively stable in 2009.

## Government Finance Turned into Large Deficit

For 2009, the central government revenue amounted to NT$1,553.5 billion, 5.3 percent less than the previous year, mainly due to a significant decline in tax revenue dragged down by the economic downturn and tax cuts. Total government expenditure increased by 6.1 percent to reach NT$715.5 billion after the government further stepped up public spending and social welfare-related expenditure. Furthermore, a special budget of NT$280 billion was allocated for economic stimulus measures such as the shopping voucher scheme, expanded infrastructure spending and Typhoon Morakot disaster relief and reconstruction efforts. In sum, the central government ran a deficit of NT$162.0 billion, as opposed to a surplus of NT$23.2 billion in the previous year.

To finance the fiscal deficit and debt principal repayment, the central government raised NT$164.5 billion through issuing government bonds and borrowing from banks. The NT$280.0 billion special budget also incurred a demand for debt financing. As a result, total outstanding debt of the central government amounted to NT$4,141.9 billion at the end of 2009. The ratio of outstanding central government debt to the three-year average of nominal GDP rose from last year's 31.2 percent to 32.8 percent.

## Rising Unemployment Rates

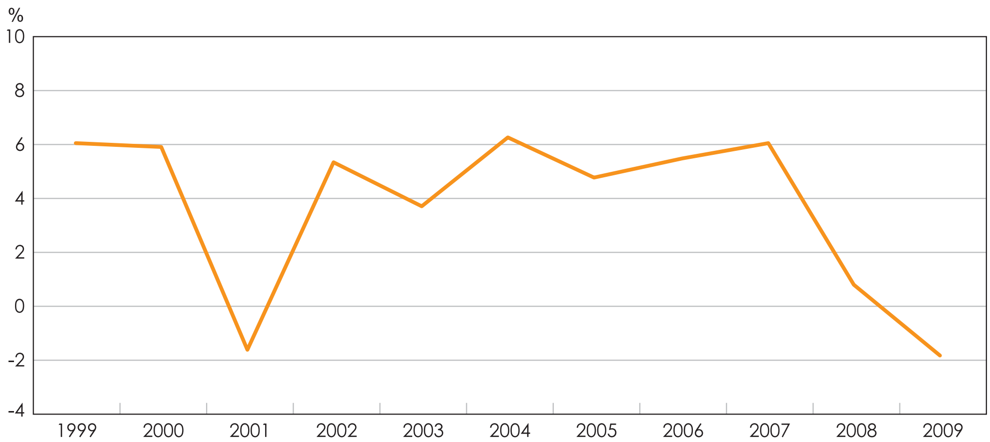
Economic recession took a toll on Taiwan's labor market in 2009, with a decrease in job opportunities and an increase in the number of workers involuntarily unemployed. The annual average unemployment rate increased by 1.71 percentage points over the previous year to 5.85 percent, the largest ever year-on-year increase. In response, the government launched short-, medium- and long-term measures to promote employment and raise the quality of human resources.

# 2. National Output and Income

Taiwan experienced a notable slowdown in overall economic activity in 2009 amid a synchronized global recession in the aftermath of the financial crisis. While consumption expenditure grew moderately, domestic demand contracted as corporations further slashed capital outlays and held back investment projects. External trade also suffered a marked setback reflecting a pronounced decrease in foreign demand. Despite continued contraction in real GDP for the first three quarters, the pace of deceleration eased considerably and real GDP resumed positive growth thereafter. For the year as a whole, real GDP decreased by 1.87 percent, down from positive growth of 0.73 percent in 2008, and per capita GNP in nominal terms decreased by US$944 to US$16,997.

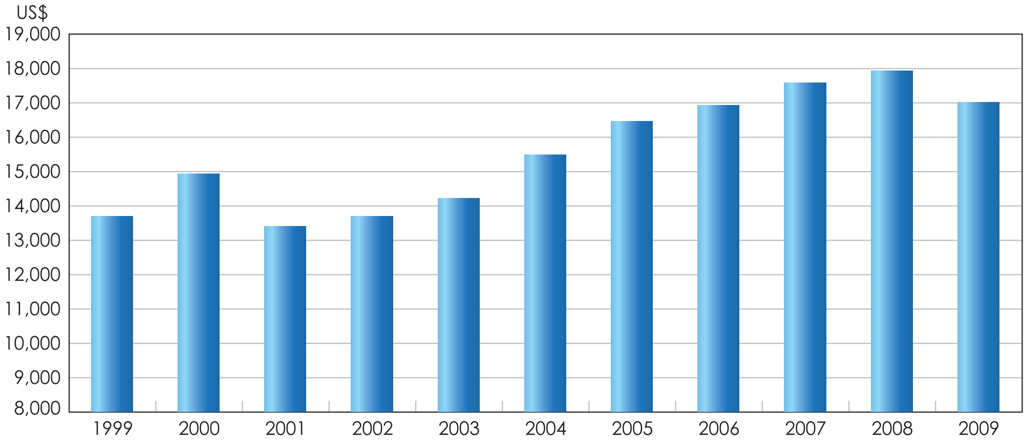
As the global financial turmoil that emerged in mid 2008 continued into early 2009, economic conditions worsened and real GDP further declined by 9.06 percent year on year in the first quarter. Coupled with slowing consumption, falling capital spending and declining exports, real GDP continued to shrink but at a slower pace of 6.85 percent in the second quarter. Thanks to an upturn in stock markets and a strengthening rebound in Asian economies, consumption expenditure improved and the plunge in trade and capital outlay mitigated, moderating GDP contraction to 0.98 percent in the third quarter. From the fourth quarter onwards, the sustained recovery of the global economy boosted external trade and helped encourage consumption and business investment. Moreover, with a low base effect, real GDP advanced 9.22 percent in the last quarter.

**Economic Growth Rate**




*Source*: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2010.

## Per Capita GNP




Source: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2010.

## Expenditure Components of GDP

Among all of the expenditure components of GDP, private consumption and government consumption contributed 0.83 of a percentage point and 0.42 of a percentage point to economic growth in 2009, respectively. Net exports also posted a positive contribution of 1.48 percent for the year because imports fell more than exports. On the contrary, affected by a sharp decline in investment in machinery and equipment, fixed capital formation declined substantially, dragging real GDP growth down by 2.20 percentage points. With respect to

## Expenditure on Gross Domestic Product

Unit: %

| | 2009 | | | 2008 | | |
|---|---|---|---|---|---|---|
| | Share | Real Growth Rate | Contribution to Real Growth Rate of GDP* | Share | Real Growth Rate | Contribution to Real Growth Rate of GDP* |
| Private Consumption | 60.82 | 1.48 | 0.83 | 60.06 | -0.57 | -0.33 |
| Government Consumption | 12.83 | 3.63 | 0.42 | 12.32 | 0.68 | 0.08 |
| Gross Fixed Capital Formation | 18.53 | -11.80 | -2.20 | 21.15 | -11.17 | -2.36 |
| Change in Inventory | (1.28) | — | -2.39 | 1.52 | — | 1.07 |
| Exports of Goods and Services | 62.51 | -9.21 | -6.47 | 72.66 | 0.56 | 0.40 |
| ( Less : Imports of Goods and Services) | (53.41) | (-13.73) | (-7.94) | (67.71) | (-3.12) | (-1.88) |
| Expenditure on GDP | 100.00 | -1.87 | -1.87 | 100.00 | 0.73 | 0.73 |

*Note*: * Percentage point.
*Source*: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2010.

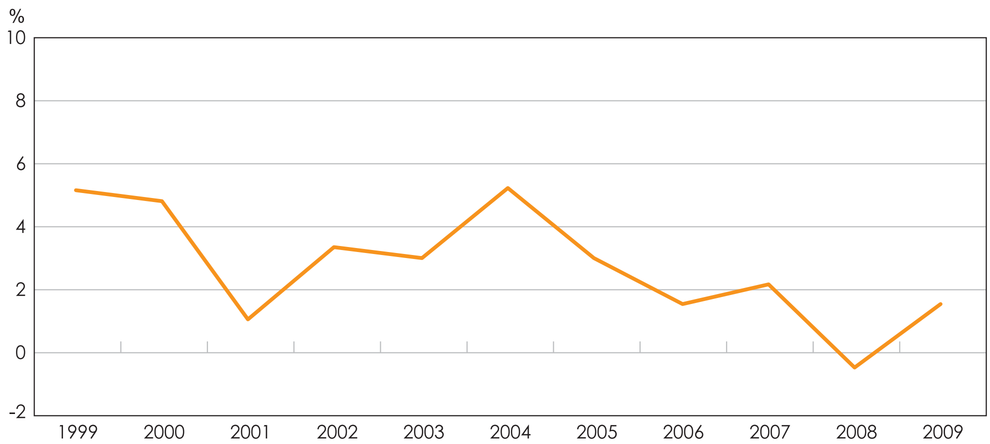
shares of GDP, private consumption rose further, accounting for 60.82 percent of GDP for the year. Due to a contraction in global trade, both exports and imports slid considerably to 62.51 percent and 53.41 percent of GDP, respectively. Meanwhile, reflecting a slump in private investment, the share of gross fixed capital formation further shrank to 18.53 percent.

**(1) Moderate Growth in Private Consumption**

In line with the easing pace of the economic downturn, private consumption grew moderately by 1.48 percent in real terms, contributing 0.83 of a percentage point to GDP growth for the year. While the government's consumption-voucher program and the excise tax cut on motor vehicles helped bolster consumer sentiment in the beginning of the year, consumer spending decreased by 1.96 percent in the first quarter due to rising unemployment, declining incomes and falling housing wealth. Private consumption picked up slightly in the middle of the year, but in the aftermath of Typhoon Morakot in August slipped back into a gloomy state. In the late third quarter, the number of persons on unpaid leave gradually declined and the stock and housing markets showed signs of resilience, which lifted consumers' willingness to spend. Thereafter, supported by a surge in stock prices and the positive effect of the impending expiration of the excise tax cut on demand for motor vehicles, consumer spending rose by a remarkable 6.27 percent in the fourth quarter.

In terms of food and non-food categories, both went up moderately with respective annual growth rates of 1.86 percent and 1.43 percent in 2009. Among the components of non-food consumption, with the emergence of the Otaku economy, namely the stay-at-home economy, and the popularity of mobile phones, outlays for communications registered the

**Real Growth Rate of Private Consumption Expenditure**



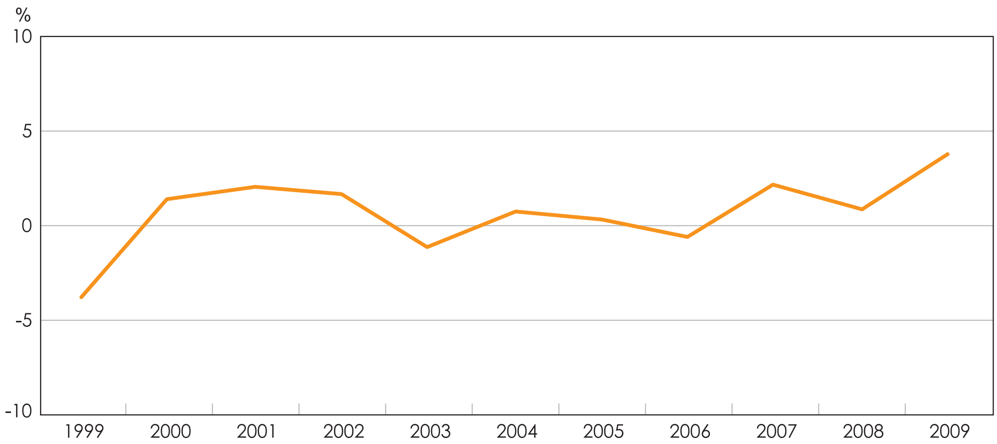

*Source*: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2010.

largest growth of 7.81 percent, higher than the previous year's 7.59 percent. Attributable to the tax incentive program encouraging new car purchases, outlays for transport posted the second largest growth, up significantly from negative 4.95 percent in 2008 to positive 5.62 percent in 2009. Meanwhile, consumer spending on recreation and culture posted a modest growth of 4.30 percent, reflecting increasing demand for outdoor recreation and arts and cultural activities.

**(2) Marked Increase in Government Consumption**

In 2009, government consumption grew by 3.63 percent in real terms and contributed 0.42 of a percentage point to GDP growth, compared with a rise of 0.68 percent and a 0.08 of a percentage point contribution in the previous year. The marked increase was attributable to the government's economic stimulus package, including employment promotion programs, unemployment relief, issuance of consumption vouchers and subsidies for purchase and installation of home appliances, aimed to ease the adverse impact of economic contraction and boost domestic demand.

**Real Growth Rate of Government Consumption Expenditure**




*Source*: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2010.

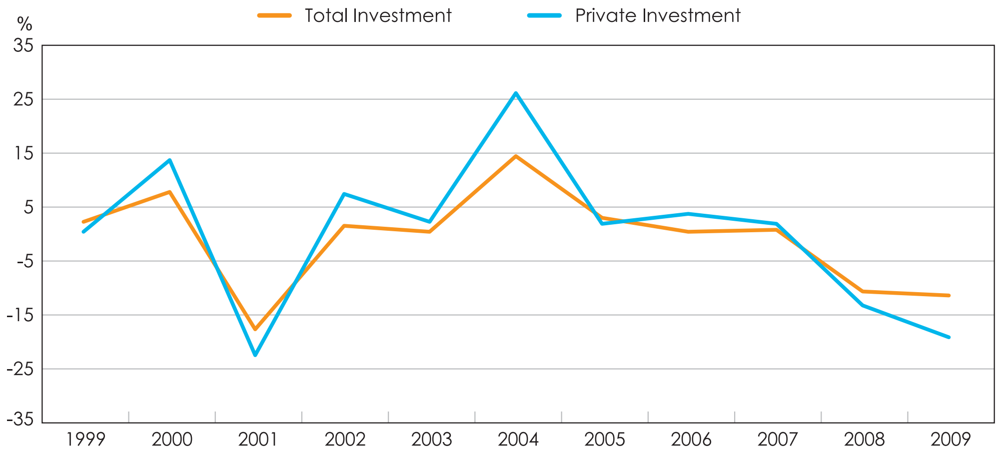
**(3) Significant Fall-off in Fixed Capital Formation**

Adjustment in business activity continued in response to a sharp slowdown in demand both internally and externally, which resulted in a significant fall-off in fixed capital outlay for the year. Fixed capital formation receded sharply in the first half, but contracted at a slower pace in the third quarter due to a narrower decline in private investment along with rising capacity utilization and loosening financial conditions for businesses. Thanks to the onset of a recovery in the global economy, fixed capital formation resumed growth and rebounded to 11.14 percent with the help of a lower-base effect in the fourth quarter. For the year as a whole, fixed capital formation dropped by 11.80 percent, subtracting 2.2 percentage points from GDP growth in 2009.

In terms of the type of purchaser, while investment by public enterprises and general government showed robust growth, investment by private businesses declined sharply over the year. During the first two quarters, private investment plunged by more than 30 percent, restrained by an uncertain economic outlook. Later, following a turnaround in major Asian economies and a gradual pickup in domestic consumption, capacity utilization rose and incentives for business investment subsequently improved. Accordingly, business capital outlays showed signs of recovery as some manufacturers upgraded their production equipment and operating systems to meet a gradual increase in demand in the third quarter. Thereafter, strengthening domestic demand and ongoing global economic recovery further improved capacity utilization and encouraged capital spending, which boosted private investment to increase by 8.16 percent in the final quarter. For the year as a whole, private investment declined by 19.38 percent, deducting 2.79 percentage points from real GDP growth.

On the other hand, in order to stimulate domestic demand to offset the impact of the global economic slowdown, the government vigorously carried out its fiscal stimulus, including the Program for Strengthening Local Infrastructures and the Project for Expansion of Investment in Public Works. For the year, government investment advanced by 18.77 percent, contributing 0.53 of a percentage point to economic growth. Furthermore, because public enterprises speeded up their execution of investment projects, investment by public enterprises also

**Real Growth Rate of Investment**



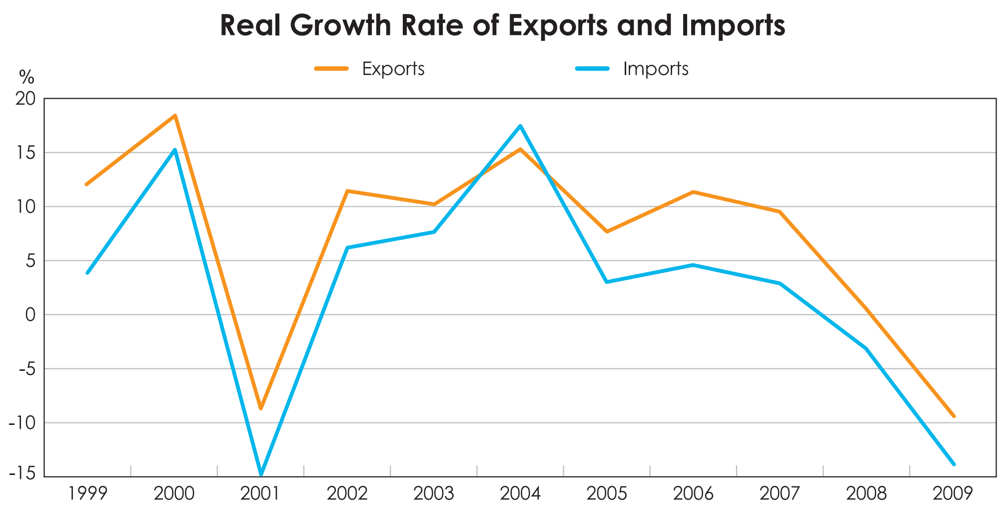

*Source*: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2010.

increased by 4.03 percent, contributing 0.06 of a percentage point to economic growth for the year.

In regard to the type of capital formation, investment spending on transportation equipment and intangible fixed assets edged up by 1.12 percent and 0.88 percent respectively, a significant slowdown compared with the previous year. Affected by the intensification of global economic contraction, outlays on machinery and other equipment continued to fall sharply, posting a decrease of 21.02 percent, the largest decline among all types of capital formation. Likewise, due to weakness in the domestic economy and a slowing housing market, investment in construction also went down by 6.36 percent.

**(4) Exports Fell Less Than Imports**

As a result of the dismal international trade environment in the first half of 2009, exports of goods and services suffered a significant setback for the year. With a sharp decline in foreign demand and a high base effect, exports fell further by 26.87 percent in the first quarter and remained in negative territory in the following two quarters. However, supported by an improvement in the Asian economies, demand for electronic goods and IT products gradually rose, mitigating the pace of deceleration in exports in the third quarter. Against the backdrop of a recovering global economy, foreign demand steadily increased and exports continued rebounding. Moreover, the expansion of service exports, including the influx of tourists from China and the growth in merchanting, together with the low base effect led growth of exports to jump to 19.06 percent in the fourth quarter. For the year as a whole, exports contracted 9.21 percent and took 6.47 percentage points from economic growth, a considerable slowdown when compared with last year's 0.56 percent growth and 0.40 of a percentage point contribution to GDP growth.




*Source*: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2010.

Similarly, imports of goods and services shrank by 13.73 percent for the year, a further decline compared with last year's 3.12 percent contraction. The sharp decrease was particularly affected by the reduction of demand for machinery and electrical equipment due to further cutbacks in business investment resulting from slowing demand. Nevertheless, because the sharp fall in imports surpassed the decline in exports, net exports posted a positive contribution of 1.48 percentage points to GDP growth.

## Sectoral Components of GDP

Largely hindered by the economic slowdown and unfavorable weather conditions, overall production activity remained subdued and all sectoral output dropped. A further deceleration in manufacturing activity led the industrial sector to post the largest decline in output, subtracting 1.47 percentage points from economic growth for the year, a larger decrease than in the previous year. The contribution of the services sector to overall GDP also went down and reversed from 0.62 of a percentage point in 2008 to negative 0.15 of a percentage point in 2009. Likewise, the contribution of agricultural production to overall GDP fell into negative territory, subtracting 0.05 of a percentage point from economic growth.

### Gross Domestic Product by Type of Activity

Unit: %

| | 2009 | | | 2008 | | |
|---|---|---|---|---|---|---|
| | Share | Real Growth Rate | Contribution to Real Growth Rate of GDP* | Share | Real Growth Rate | Contribution to Real Growth Rate of GDP* |
| Agriculture | 1.55 | -3.08 | -0.05 | 1.60 | 0.55 | 0.01 |
| Industry | 29.86 | -4.61 | -1.47 | 29.25 | -0.17 | -0.05 |
| Mining & Quarrying | 0.46 | -12.03 | -0.04 | 0.36 | -13.80 | -0.05 |
| Manufacturing | 24.78 | -4.64 | -1.27 | 24.98 | 0.43 | 0.12 |
| Construction | 2.55 | -6.69 | -0.16 | 2.87 | -5.55 | -0.14 |
| Electricity, Gas Water & Remediation Services | 2.07 | -0.28 | -0.01 | 1.03 | 1.19 | 0.02 |
| Services | 68.59 | -0.22 | -0.15 | 69.16 | 0.94 | 0.62 |
| Wholesale and Retail Trade | 18.49 | -0.41 | -0.07 | 18.80 | 1.16 | 0.21 |
| Transport & Storage | 3.10 | -2.62 | -0.08 | 3.15 | 0.46 | 0.01 |
| Information and Communications | 3.67 | 3.15 | 0.11 | 3.62 | 5.14 | 0.17 |
| Finance and Insurance | 6.35 | -7.03 | -0.50 | 7.24 | -2.20 | -0.16 |
| Real Estate | 9.08 | 2.12 | 0.18 | 8.77 | 0.96 | 0.08 |
| Administration and Defense | 7.58 | 1.39 | 0.10 | 7.50 | 0.90 | 0.06 |
| Educational | 4.90 | 1.84 | 0.08 | 4.77 | 1.00 | 0.05 |
| Other Services | 15.42 | 0.26 | 0.04 | 15.30 | 1.36 | 0.20 |
| Gross Domestic Product | 100.00 | -1.87 | -1.87 | 100.00 | 0.73 | 0.73 |

*Note*: * Percentage point.
*Source*: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2010.

With regard to sectoral shares of GDP in nominal terms, the services sector still dominated Taiwan's economy and accounted for 68.59 percent of GDP in 2009, slightly lower than the 69.16 percent registered in the previous year. The agricultural sector's share of GDP also decreased slightly from 1.60 percent in 2008 to 1.55 percent in 2009. On the other hand, the share of industrial output to GDP rose to 29.86 percent, up from 29.25 percent in 2008.

**(1) Marked Decrease in Agricultural Output**

Agricultural activity further decelerated in 2009 and its output posted a marked decrease of 3.08 percent. The decline was mainly due to an unfavorable climate, particularly affected by Typhoon Morakot in August, and slowing demand for agricultural products.

**(2) Further Contraction in Industrial Output**

Against the backdrop of a slowdown in export demand and business investment in 2009, all sectors of industrial production, namely mining and quarrying, manufacturing, construction, and electricity, gas and water, experienced marked contractions, especially manufacturing activity. While industrial output surged by 22.76 percent in the last quarter, large shrinkages in the first three quarters resulted in a decrease in industrial production of 4.61 percent for the year as a whole, a significant deceleration compared with last year's mild slowdown of 0.17 percent.

Mainly due to falling demand resulting from the worse-than-expected global economic performance, growth of manufacturing output further deteriorated to negative 22.62 percent in the first quarter and remained in negative territory thereafter. Accordingly, production indexes of machinery and equipment, metal and other transportation equipment contracted by more than 20 percent for the year. Thanks to an upturn in exports resulting from the global recovery and resilient intra-Asia trade, manufacturing output revived, especially in electronic parts and components, chemical materials and products, and motor vehicles and parts, leading to a marked rebound of 25.96 percent in the fourth quarter. For the year as a whole, manufacturing output decreased by 4.64 percent, reversing its positive growth of 0.43 percent in the previous year.

While the government actively expanded public works, output in the construction industry further contracted 6.69 percent in 2009, particularly reflecting a lackluster housing market and a gloomy economic environment in the first half of the year. As a result of slowing construction activity, output of mining and quarrying also dropped significantly by 12.03 percent for the year.

### (3) Mild Contraction in the Services Sector

In contrast to the previous year's 0.94 percent increase, services output suffered a mild contraction, slipping by 0.22 percent for the year. The slight decrease was because its sharp decline in the first half of the year was largely offset by a marked improvement in the fourth quarter.

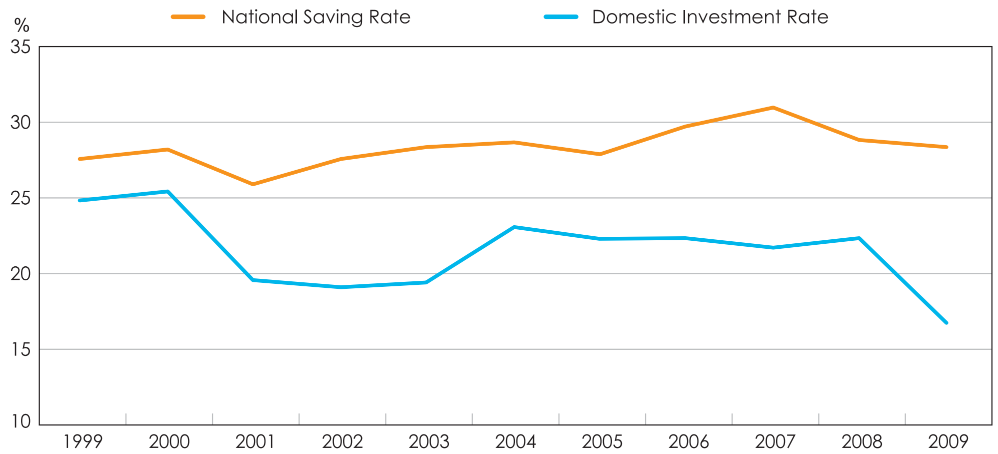
Among the services subsectors, finance and insurance services continued to fall, registering the largest decline of 7.03 percent for the year, resulting from less interest revenues due to low interest rates and slowing trading activity amid the global financial turmoil. Likewise, wholesale and retail trade and transportation and storage shrank by 2.62 percent and 0.41 percent due to a decrease in consumption expenditure and exports demand.

On the other hand, reflecting a higher demand for data processing services, an increasing tendency of home-based businesses and booming popularity of online games, the information and communication services subsector expanded steadily, posting the largest growth of 3.15 percent for the year. Nevertheless, the growth rate was lower than the previous year's 5.14 percent. The housing market showed a marked rebound in the second half of the year, recording a moderate gain of 2.12 percent for the year. Educational services registered a 1.84 percent growth because of an improvement in the quality of education and training.

## Fall in National Saving Rate

As the economy experienced a marked slowdown, the national saving rate (national saving to GNP measured at current prices) fell from 28.65 percent in 2008 to 28.14 percent in 2009. For the year as a whole, GNP declined by 0.48 percent, and growth of national consumption

**National Saving Rate and Domestic Investment Rate**




Source: *Statistical Abstract of National Income*, DGBAS, Executive Yuan, February 2010.

(including both private consumption and government consumption expenditures) went down to 0.39 percent, which reflected a slowing consumption demand due to economic contraction. The excess saving, defined as national saving less gross domestic investment, to GNP ratio went up from 6.53 percent in 2008 to 11.45 percent in 2009, resulting from a larger decrease in domestic investment than in national saving.

# 3. BALANCE OF PAYMENTS

In 2009, the current account surplus, net financial inflows, and overall balance all reached historic highs. Compared with the previous year, the balance of trade in goods, services and income simultaneously increased, while net current transfer payments continually decreased. Consequently, the current account surplus increased to US$42,572 million, and accounted for 10.9 percent of nominal GNP. The financial account exhibited a net inflow of US$13,980 million, as the private sector repatriated overseas funds in large amounts. Finally, the overall balance recorded a surplus of US$54,126 million, which reflected an increase in the foreign reserve assets held by the Bank.

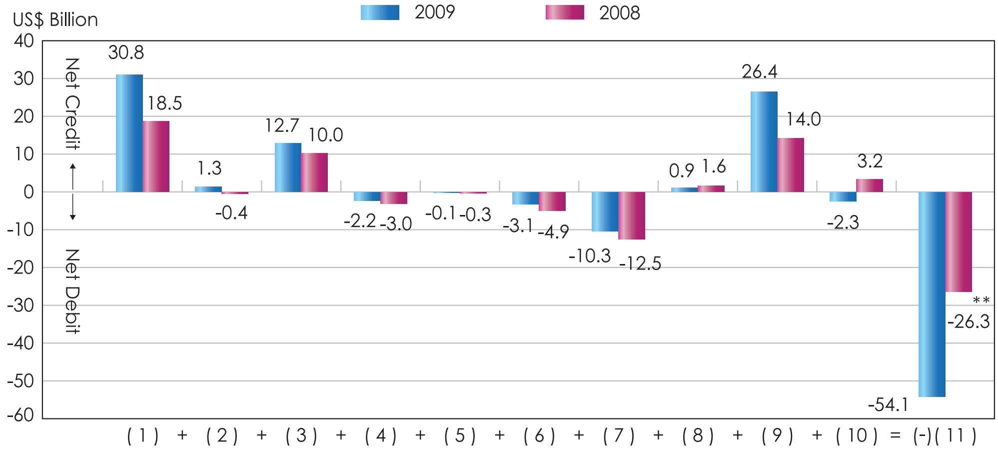
## Widening Current Account Surplus

The current account consists of four major items, which are goods, services, income, and current transfers. The current account surplus increased in 2009, mainly as a result of the massive surge in the trade surplus of goods and income, accompanied by a shift in services from deficit to surplus.

### (1) Goods

As the global economic downturn continued to weaken foreign demand, both exports and imports on a balance of payments basis declined by record-high percentage points,

**Balance of Payments**




(1) Goods (2) Services (3) Income (4) Current Transfers (5) Capital Account (6) Direct Investment (7) Portfolio Investment (8) Financial Derivatives (9) Other Investment (10) Net Errors and Omissions (11) Reserves *

Note: * Excluding valuation changes in exchange rates.

** The minus sign (-) indicates an increase in foreign exchange reserves held by the Bank.

*Source*: *Balance of Payments,* CBC.

## Balance of Payments

Unit: US$ Million

| | 2009 | 2008 |
|---|---|---|
| A. Current Account | *42,572* | *25,122* |
| Goods: exports f.o.b. | 203,442 | 254,897 |
| Goods: imports f.o.b. | -172,653 | -236,419 |
| Balance on Goods | 30,789 | 18,478 |
| Services: credit | 31,286 | 34,770 |
| Services: debit | *-29,994* | *-35,125* |
| Balance on Services | 1,292 | -355 |
| Income: credit | 20,532 | 23,277 |
| Income: debit | -7,829 | -13,299 |
| Balance on Income | 12,703 | 9,978 |
| Current transfers: credit | 4,753 | 5,210 |
| Current transfers: debit | -6,965 | -8,189 |
| Balance on Current Transfers | *-2,212* | *-2,979* |
| B. Capital Account | *-96* | *-334* |
| Total, Groups A plus B | *42,476* | *24,788* |
| C. Financial Account | *13,980* | *-1,753* |
| Direct investment abroad | -5,858 | -10,287 |
| Direct investment in R.O.C. (Taiwan) | 2,804 | 5,432 |
| Portfolio investment assets | *-31,658* | *3,289* |
| Portfolio investment liabilities | 21,372 | -15,777 |
| Financial derivatives assets | 5,404 | 7,938 |
| Financial derivatives liabilities | -4,492 | -6,349 |
| Other investment assets | 25,758 | 10,766 |
| Other investment liabilities | 650 | 3,235 |
| Total, Groups A through C | *56,456* | *23,035* |
| D. Net Errors And Omissions | -2,330 | 3,239 |
| Total, Groups A through D | *54,126* | *26,274* |
| E. Reserves and Related Items* | *-54,126* | *-26,274* |

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

falling into negative territory for the first time since 2002. The value of exports declined by 20.2 percent to US$203,442 million, while the value of imports fell considerably by 27.0 percent to US$172,653 million. Nevertheless, benefiting from governments' economic stimulus efforts and a lower base effect, both exports and imports returned to positive growth from November. As a result of a greater reduction in imports than in exports, the trade surplus on goods rose to US$30,789 million, a record-high increase of 66.6 percent from the previous year.

As indicated by customs' statistics, the top three trading partners for Taiwan in 2009 were China including Hong Kong (hereafter referred to as China), the US, and Japan. Exports to these three countries accounted for 59.8 percent of total exports, while imports from them made up 45.8 percent of total imports.

In terms of Taiwan's trade with China, exports totaled US$83,699 million in 2009, a large

## Direction of Trade in Goods by Country

Unit: %

| | 2009 | | | 2008 | | |
|---|---|---|---|---|---|---|
| | Amount (US$ Million) | Share | Annual Change | Amount (US$ Million) | Share | Annual Change |
| Exports | | | | | | |
| China (including Hong Kong) | 83,699 | 41.1 | -15.9 | 99,573 | 39.0 | -0.8 |
| U. S. A. | 23,557 | 11.6 | -23.5 | 30,791 | 12.0 | -4.0 |
| Europe | 22,578 | 11.1 | -24.6 | 29,948 | 11.7 | 4.6 |
| Southeast Asia 6* | 30,153 | 14.8 | -21.5 | 38,389 | 15.0 | 7.3 |
| Japan | 14,508 | 7.1 | -17.4 | 17,556 | 6.9 | 10.2 |
| Rest of the World | 29,203 | 14.3 | -25.8 | 39,372 | 15.4 | 16.3 |
| Total | 203,698 | 100.0 | -20.3 | 255,629 | 100.0 | 3.6 |
| Imports | | | | | | |
| Japan | 36,231 | 20.7 | -22.1 | 46,508 | 19.3 | 1.2 |
| U. S. A. | 18,156 | 10.4 | -31.0 | 26,327 | 10.9 | -0.7 |
| Europe | 19,456 | 11.1 | -20.4 | 24,451 | 10.2 | 3.8 |
| Southeast Asia 6* | 19,909 | 11.4 | -22.2 | 25,582 | 10.6 | 8.0 |
| China (including Hong Kong) | 25,626 | 14.7 | -22.1 | 32,884 | 13.7 | 10.2 |
| Rest of the World | 55,285 | 31.7 | -34.7 | 84,696 | 35.2 | 21.5 |
| Total | 174,663 | 100.0 | -27.4 | 240,448 | 100.0 | 9.7 |

*Note*: * Including Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.
*Source*: *Monthly Statistics of Exports and Imports*, Ministry of Finance, R. O. C. (Taiwan).

reduction of 15.9 percent compared with the previous year. The decrease was attributable to China's economic deceleration amid the global economic downturn since the second half of 2008, which led to a severe decline in demand for Taiwan's IT exports, particularly in electrical machinery and equipment and optical products. Given China's better-than-expected economic recovery and a lower base period, exports to China, however, grew by 0.3 percent in September after posting negative growth for 12 consecutive months, and registered remarkable growth of 11.0 percent, 47.8 percent and 91.2 percent in October, November and December, respectively. Meanwhile, the share of exports to China in total exports increased steadily by 2.1 percentage points to 41.1 percent. China remained Taiwan's largest export market in 2009.

Imports from China decreased to US$25,626 millions, down by 22.1 percent, but its share in total imports rose to 14.7 percent in 2009, making China the second largest source of imports. Due to the pickup in the world economy, especially in China, imports from China returned to positive growth in November and December. The bilateral trade surplus with China declined by 12.9 percent to US$58,073 million for the year. China remained the largest source of Taiwan's trade surplus.

Exports to the US decreased by 23.5 percent in 2009. The share of exports to the US in total exports dropped further to 11.6 percent in 2009. The decline resulted mainly from weak demand in the US and the continued outward relocation (mainly to China) of local industries. Imports from the US fell significantly by 31 percent and its share of total imports dropped from 10.9 percent in 2008 to 10.4 percent. Because imports decreased by a larger amount, the bilateral trade surplus with the US increased to US$5,400 million, representing a growth rate of 21 percent. The US returned to being the second largest source of Taiwan's trade surplus in 2009.

Exports to Japan decreased by 17.4 percent in 2009, while its share in total exports edged up to 7.1 percent. Imports from Japan fell sharply by 22.1 percent from a year earlier, with its share in total imports up to 20.7 percent. Japan remained Taiwan's largest source of imports. The trade deficit with Japan narrowed to US$21,724 million for the year.

Exports to Europe decreased by 24.6 percent in 2009, with the share in total exports down to 11.1 percent. Imports from Europe fell by 20.4 percent, but its share in total exports rose to 11.1 percent. The trade surplus with Europe shrank from US$5,498 million in 2008 to US$3,122 million.

Exports to the six countries in Southeast Asia, including Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam, declined by 21.5 percent. The combined share of exports to these countries in total exports slipped to 14.8 percent. Total Imports from these countries dropped by 22.2 percent, but the combined share in total imports went up to 11.4 percent. The trade surplus with the six countries decreased to US$10,244 million in 2009 compared with US$12,807 million in 2008.

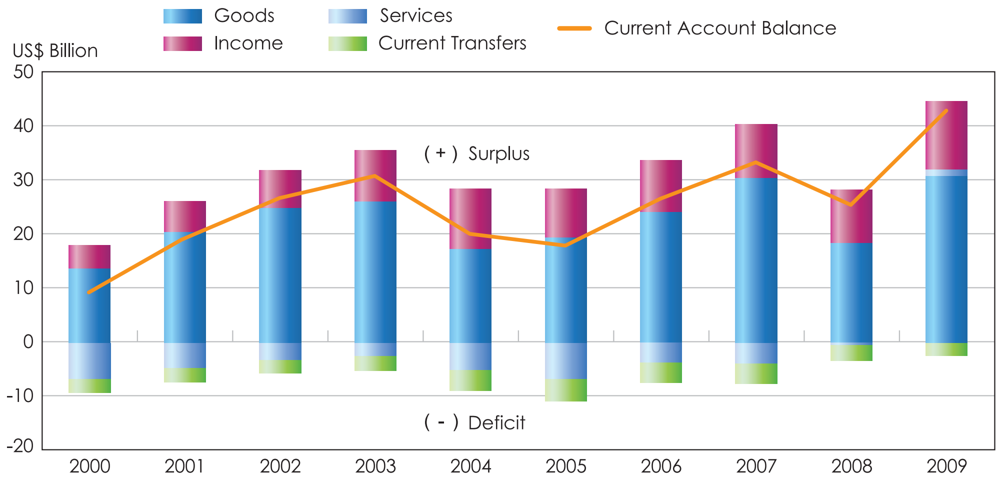
**(2) Services**

The balance of trade in services recorded its first ever surplus of US$1,292 million in 2009. Service receipts decreased by US$3,484 million to US$31,286 million and payments fell by US $5,131 million to US$29,994 million.

Of the various components of the services account, receipts with respect to transportation decreased by US$1,659 million to US$5,473 million, mainly due to less receipts from domestic carriers on international shipments. Transportation payments also decreased by US$3,407 million to US$8,010 million, largely because of lower payments to foreign carriers in import freight costs. Consequently, net payments with respect to transportation declined from US$4,285 million recorded a year earlier to US$2,537 million in 2009.

Travel receipts increased by US$1,023 million to US$6,958 million, mainly because visitors from Mainland China increased significantly. In contrast, travel payments for the year decreased by US$1,258 million to US$7,858 million, because both the number and the expenditure of overseas visits by residents declined in the economic recession. Net travel payments decreased to US$900 million.

**Current Account**




*Source: Balance of Payments, CBC.*

Receipts from other services declined by US$2,846 million to US$18,855 million, mainly because net merchanting and financial service receipts diminished significantly. Other services payments decreased by US$466 million to US$14,126 million, largely accountable to charters of ships, professional and technical services. As a result, the surplus in net other services shrank from US$7,109 million in 2008 to US$4,729 million in 2009.

**(3) Income**

In 2009, both income receipts and payments decreased to US$20,532 million and US$7,829 million, respectively. In response to the global financial turmoil and its economic fallout, most countries cut interest rates, leading to a simultaneous decrease in all types of investment income. However, income payments decreased by a larger amount. Hence, the surplus on the income account increased from US$9,978 million in 2008 to US$12,703 million in 2009, reaching a record high.

**(4) Current Transfers**

Current transfer receipts and payments amounted to US$4,753 million and US$6,965 million, respectively. Net current transfer payments decreased from US$2,979 million in 2008 to US$2,212 million, due to the decrease in outward remittances by residents to support their overseas relatives.

## Decreasing Capital Account Deficit

In 2009, the capital account registered a narrower deficit of US$96 million, from a US$334 million deficit in 2008. This was mainly due to the decreased acquisitions of non-produced, non-financial assets.

### Net Inflows in the Financial Account

In 2009, the financial account showed a significant net inflow of US$13,980 million, the highest level on record, mainly because the private sector repatriated overseas funds. In terms of sub-categories, direct investment and portfolio investment posted a net outflow of US$3,054 million and US$10,286 million, respectively, while other investment and financial derivatives showed a net inflow of US$26,408 million and US$912 million, respectively.

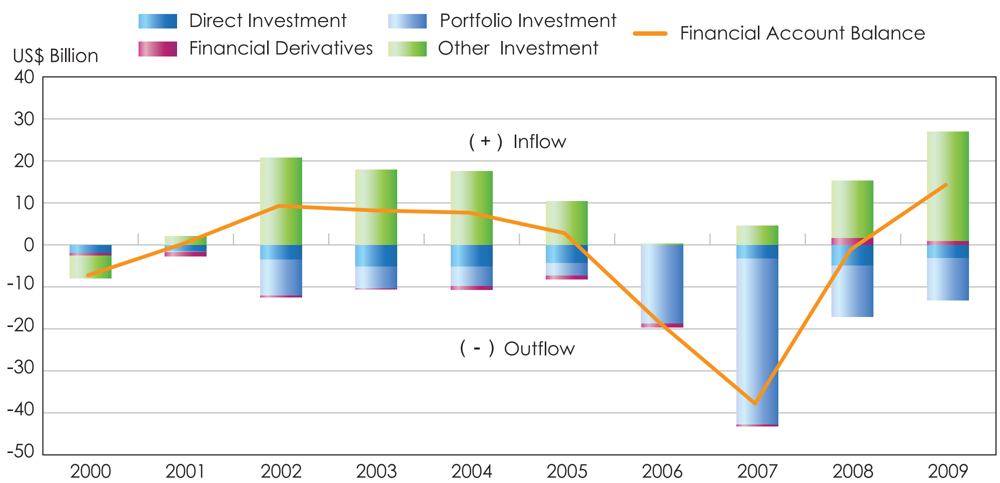
#### (1) Direct Investment

Direct investment abroad by residents showed a net outflow of US$5,858 million. On the other hand, direct investment in Taiwan by nonresidents registered a net inflow of US$2,804 million. They were US$4,429 million and US$2,628 million less than in the previous year, respectively. Affected by the global financial turmoil, direct investment remained conservative. The main targets for investment included the electronic parts and components manufacturing industry, the computer and electronic manufacturing industry, the financial industry, and the wholesale and retail industry. In particular, China remained the major recipient of Taiwan's direct investment abroad. Accordingly, direct investment registered a net outflow of US$3,054 million in 2009, US $1,801 million less than in 2008.

#### (2) Portfolio Investment

Portfolio investment abroad by residents exhibited a net outflow of US$31,658 million, as

**Financial Account**




*Source: Balance of Payments, CBC.*

global financial markets gradually became stable and interest rates stayed low in the domestic market. In contrast, local portfolio investment by nonresidents registered a net inflow of US $21,372 million in 2009. The factors encouraging them included the better cross-strait relationship and the portfolio allocation of international funds in Asia, which were attracted by economic recovery in East Asia. Consequently, the net outflow of portfolio investment slightly declined to US$10,286 million in 2009, compared to US$12,488 million in 2008.

**(3) Financial Derivatives**

Financial derivatives recorded a net inflow of US$912 million, mainly because the banking sector took profits from financial derivatives transactions such as interest rate swaps and foreign exchange swaps.

**(4) Other Investment**

Other investment abroad by residents recorded a net inflow of US$25,758 million, representing an increase in other claims on nonresidents by residents. This mainly reflected the withdrawal of overseas deposits by the private sector. Other local investment by nonresidents showed a net inflow of US$650 million, attributable to the borrowings from abroad by residents. Therefore, the net inflow of other investment substantially increased to US$26,408 million in 2009.

## Significant Increase in Foreign Exchange Reserves

The foreign exchange reserve assets held by the Bank increased by US$54,126 million, as a result of the current account surplus and the net inflow in the financial account.

# 4. Prices

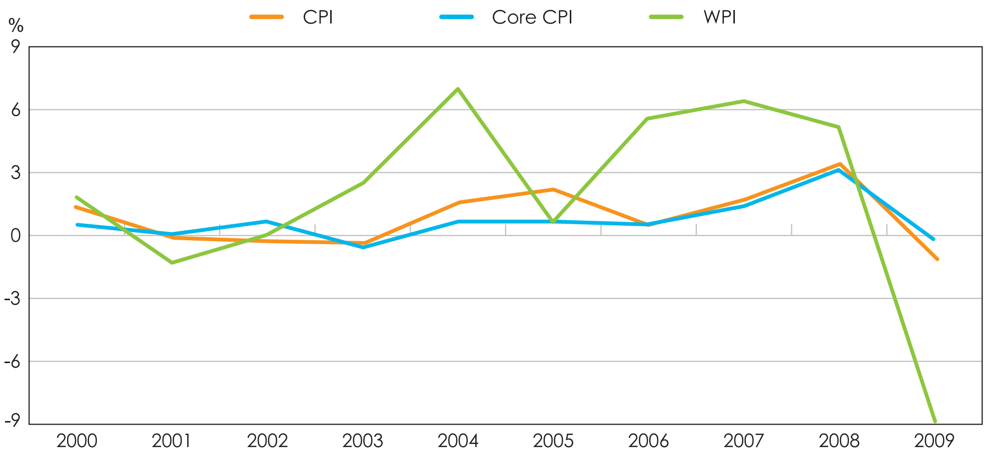
Taiwan's inflation fell into negative territory in 2009, largely driven by the steep drop in international commodity prices from the historically high levels reached in the previous year. In addition, slack domestic demand caused by rising unemployment and subdued compensation also dragged inflation down. Headline inflation, as measured by the consumer price index (CPI), declined to -0.87 percent in 2009, the lowest level on record. The core CPI, which excludes fruits and vegetables, fish and shellfish, and energy prices, fell by 0.14 percent in 2009, significantly lower than the 3.08 percent increase in the previous year.

## Large Decrease in Wholesale Prices

The wholesale price index (WPI) decreased by 8.74 percent in 2009, the largest decline in history, mainly reflecting the sharp retreat from 2008's spike in international commodity prices in the face of a dampened global economy. In the first seven months of the year, the annual growth rate of the WPI displayed a downward movement and fell to an all-year low rate of -13.99 percent in July. Afterwards, it recovered and turned positive to reach 1.06 percent in November. To end the year, the WPI rose by 5.75 percent in December, owing to the low base effect caused by a dramatic fall in commodity prices in the same period of the previous year.

Broken down by the major components of the WPI, the annual rates of change of import prices, domestic sales excluding import prices, and export prices declined substantially in 2009, mainly on account of marked drops in international raw material prices.

**Inflation Rate**



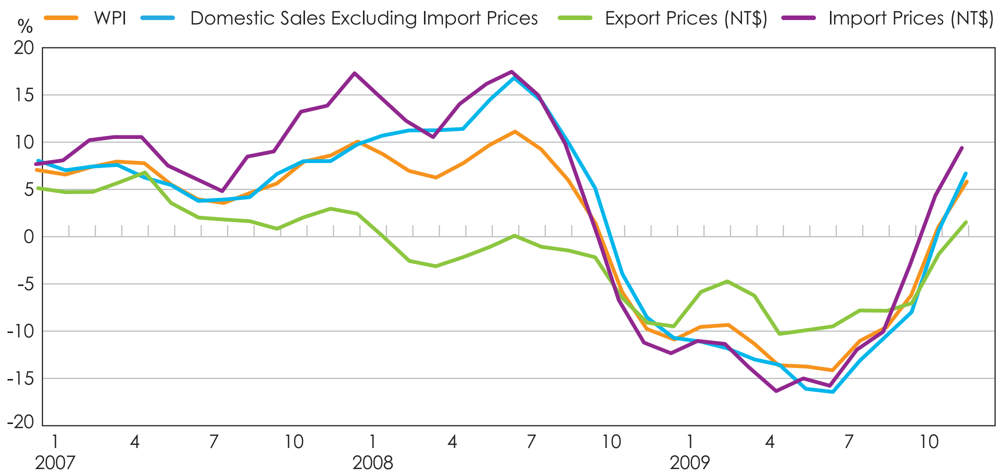

Source: *Price Statistics Monthly*, DGBAS, Executive Yuan.

Import prices fell by 13.89 percent in US dollar terms, the steepest drop in history, due to declining international raw material prices since the second half of 2008. In local currency terms, import prices only decreased by 9.61 percent, with the difference largely reflecting the depreciation of the NT dollar against the US dollar. Among the components of import prices, a 13.84 percent decrease in prices of raw materials, which account for 77.19 percent of imports, was the major contributor to the decline in import prices. In contrast, the prices of capital goods and consumer goods, which make up 15.97 percent and 6.83 percent of imports, increased by 8.19 percent and 4.28 percent, respectively.

The annual change in export prices in US dollar terms was -10.95 percent, compared with a 2.12 percent increase in 2008. Due to the depreciation of the NT dollar against the US dollar in 2009, export prices in terms of the NT dollar declined by 6.60 percent, compared with a 2.14 percent decrease in 2008.

Prices of domestic sales excluding import prices fell by 10.0 percent in 2009, notably lower than the 8.54 percent increase in the previous year. This was attributable to the drop in imported costs of primary commodities, and the consecutive decreases in the prices of domestic electronic components, computers, and electronic and optical products due to subdued domestic demand. Among the components of domestic sales excluding import prices, the prices of quarrying and mineral products and manufacturing products decreased by 16.76 percent and 12.31 percent, respectively. In contrast, the prices of water supply, electricity, and gas rose by 8.89 percent in the year because of the rising cost of electricity.

**Annual Rate of WPI**




Source: *Price Statistics Monthly*, DGBAS, Executive Yuan.

## Consumer Prices Moved Down Slightly

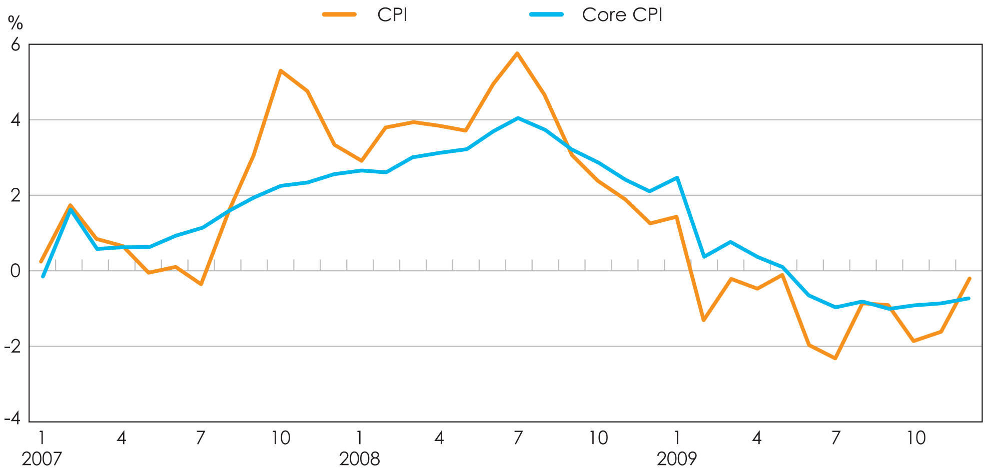
The CPI decreased at an annual rate of 0.87 percent in 2009, and monthly inflation rates stayed in negative territory throughout the year except for January. The decline in CPI inflation was driven by the pass-through effect from decreases in imported prices of raw materials into the general price level amid a weak global economy. In addition, sluggish domestic demand stemming from rising unemployment and subdued compensation added to the downward pressure on inflation. In particular, declining international oil prices, and prices for vegetables and fruits contributed minus 0.81 of a percentage point to the decline in the CPI. The core CPI inflation was -0.14 percent during 2009 as prices of other retail goods and services remained relatively steady.

The main downward factors contributing to the CPI decrease in 2009 were as follows:

(1) Compared with the dramatic fall in the second half of 2008, international petroleum prices rebounded in 2009 due to the onset of global economic recovery, and a rise in market speculation. However, average international petroleum prices in 2009 still fell by 37.67 percent compared with 2008. As a result, the decline in the imported costs of petroleum and natural gas lowered domestic oil and gas prices, which fell by 10.40 percent and 8.92 percent and accounted for 0.37 and 0.10 of a percentage point in the CPI decrease, respectively.

(2) Due to high base effects stemming from severe damage caused by typhoons and cold weather in 2008, prices of vegetables and fruits declined by 10.76 percent and 5.75 percent in 2009, and subtracted 0.28 and 0.16 of a percentage point from the CPI inflation rate, respectively.

### Annual Rate of CPI




*Source*: *Price Statistics Monthly*, DGBAS, Executive Yuan.

(3) Prices of durable consumer goods fell by 4.73 percent and accounted for -0.33 of a percentage point to the CPI inflation rate, as slack domestic demand and fierce market competition made it difficult for firms to pass on higher costs to consumers, and prices of cars and motorcycles declined due to tax deductions enacted as part of domestic policy stimulus measures in 2009.

(4) Education and entertainment prices decreased at an annual rate of 2.34 percent, subtracting 0.11 of a percentage point from the CPI inflation rate, mainly caused by the economic downturn, an H1N1 virus outbreak, and slashed prices of airlines tickets.

(5) As fees of passenger transport, internet and cell phones adjusted downward, prices of transportation and communication services declined by 1.09 percent, deducting 0.08 of a percentage point from the CPI inflation rate.

The main upward factors contributing to CPI inflation in 2009 were as follows:

(1) In line with the adjustment of the tobacco health and welfare surcharge from NT$10 to NT$20 in June 1, 2009, prices of tobacco and betelnut rose by 10.46 percent, contributing 0.15 of a percentage point to CPI inflation.

(2) Prices of fish and shellfish increased at an annual rate of 4.36 percent in 2009 as their prices reveal an upward trend due to decreasing catch in the long term.

## Percentage Changes in the Major Components of the CPI in 2009

| Item | Weight (%) | Annual rate of change (%) | Contribution to CPI inflation rate (percentage point) |
|---|---|---|---|
| CPI | 100 | -0.87 | -0.87 |
| Tobacco & Betelnut | 1.5 | 10.46 | 0.15 |
| Fish & Shellfish | 1.7 | 4.36 | 0.08 |
| Food away from Home | 8.9 | 0.70 | 0.07 |
| Electricity | 2.2 | 3.46 | 0.07 |
| Total | 14.3 | | 0.37 |
| Fuels and Lubricants | 3.3 | -10.40 | -0.37 |
| Durable Consumer Goods | 7.5 | -4.73 | -0.33 |
| Vegetables | 2.5 | -10.76 | -0.28 |
| Fruits | 2.8 | -5.75 | -0.16 |
| Education and Entertainment | 4.3 | -2.34 | -0.11 |
| Gas | 1.0 | -8.92 | -0.10 |
| Transportation & Communication Services | 7.7 | -1.09 | -0.08 |
| Total | 29.1 | | -1.43 |
| Others | 56.6 | | 0.19 |

*Source*: *Price Statistics Monthly*, DGBAS, Executive Yuan.

(3) The cost of eating out, which went up in 2008 because of higher food prices and cooking costs, continued to rise modestly by 0.70 percent in 2009, as it is difficult for retailers to lower such prices.

(4) Driven by higher imported prices for fuel, natural gas and heating oil inputs for electricity generation, electricity prices moved up by 3.46 percent.

# 5. Public Finance of the Central Government

For the year of 2009, with central government revenue contracting by 5.3 percent while expenditure increasing by 6.1 percent, overall 2009 central government finances turned to a deficit of NT$162.0 billion, ending a streak of surpluses since 2006.

## Significant Decline in Central Government Revenue

In 2009, central government revenue decreased by NT$87.4 billion to NT$1,553.5 billion. Tax revenue reduced significantly by NT$191.3 billion, while the revenue from surpluses of public enterprises and public utilities increased by NT$65.3 billion.

A closer look at the components shows that the two major sources of central government revenue in 2009 continued to be tax revenue and surpluses of public enterprises and public utilities, contributing to 67.7 percent and 20.5 percent, respectively, of the total revenue. The decline in tax revenue was attributable to reduced enterprise earnings and individual income amid the economic downturn, and the government's tax cuts to stimulate the economy. As a result, income tax revenue fell to NT$576.9 billion and showed a record 23.2 percent decrease

### Total Revenue and Expenditure of the Central Government

Unit: NT$ Billion

| | Fiscal Year* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009** |
| Total Revenue | 2,030.8 | 1,417.2 | 1,304.7 | 1,320.9 | 1,368.2 | 1,464.5 | 1,546.4 | 1,635.5 | 1,640.9 | 1,553.5 |
| (Ratio to GDP ; %) | 13.5 | 14.3 | 12.5 | 12.3 | 12.0 | 12.5 | 12.6 | 12.7 | 12.9 | 12.4 |
| Total Expenditure | 2,230.1 | 1,559.7 | 1,551.9 | 1,618.1 | 1,564.8 | 1,567.0 | 1,529.8 | 1,552.0 | 1,617.7 | 1,715.5 |
| (Ratio to GDP ; %) | 14.8 | 15.7 | 14.9 | 15.1 | 13.8 | 13.3 | 12.5 | 12.0 | 12.7 | 13.7 |
| Surplus/Deficit | -199.3 | -142.5 | -247.2 | -297.2 | -196.6 | -102.5 | 16.6 | 83.4 | 23.2 | -162.0 |
| (Ratio to GDP ; %) | -1.3 | -1.4 | -2.4 | -2.8 | -1.7 | -0.9 | 0.1 | 0.6 | 0.2 | -1.3 |
| Debt Repayment | 193.4 | 122.2 | 55.5 | 46.5 | 56.1 | 64.1 | 65.0 | 6.0 | 65.0 | 65.0 |
| Financing: | 466.1 | 275.8 | 302.7 | 343.7 | 253.5 | 167.3 | 63.9 | 0 | 45.5 | 227.0 |
| Debt Financing | 466.1 | 275.8 | 244.4 | 300.8 | 253.5 | 167.3 | 63.9 | 0 | 0.0 | 164.5 |
| Surplus of Previous Fiscal Years | 0 | 0 | 58.3 | 42.9 | 0 | 0 | 0 | 0 | 45.5 | 62.5 |
| Memorandum: | | | | | | | | | | |
| Tax Dependency Ratio***(%) | 60.9 | 57.6 | 52.9 | 51.2 | 58.6 | 68.1 | 71.5 | 77.9 | 76.8 | 61.3 |
| Debt Dependency Ratio****(%) | 20.9 | 17.7 | 15.7 | 18.6 | 16.2 | 10.7 | 4.2 | 0 | 0 | 9.6 |

*Notes:* * Effective 2001, the calender year is adopted as the fiscal year. As a transition, fiscal year 2000 begins on July 1, 1999 and ends on Dec. 31. 2000.
** The figures for the year 2009 are preliminary estimates.
*** Tax dependency ratio is defined as the ratio of annual tax revenue to total government expeiditure.
**** Debt dependency ratio is defined as the ratio of annual issuance of government bonds and borrowing from banks to total government expenditure.

*Sources:* 1. Directorate-General of Budget, Accounting and Statistics, Executive Yuan.
2. Department of Statistics, Ministry of Finance.

from the previous year. The revenue from estate and gift taxes fell by 25.9 percent in 2009 due to lower tax rates. Business tax revenue declined by 8.4 percent from the previous year, despite the government's shopping voucher scheme to boost consumption.

As tax revenue shrank and expenditure increased in 2009, the ratio of tax revenue to government expenditure, an indicator of the tax dependency of central government finances, dropped substantially to 61.3 percent from 76.8 percent in 2008.

## Steady Increase in Central Government Expenditure

In 2009, central government expenditure reached NT$1,715.5 billion, an increase of NT$97.8 billion from the previous year. Of the increase, NT$43.2 billion was aimed at promoting economic development via infrastructure projects such as mass rapid transit systems, railroads, flood prevention and mitigation, and broadband networks. The second largest portion of the increase went to social welfare, where a total of NT$22.2 billion bolstered the subsidies for low-income employees and the labor insurance scheme.

In terms of share in total government expenditure, education, science and culture, and social welfare were the top two categories, accounting for 19.0 percent and 18.7 percent, respectively, followed by national defense with 17.0 percent. The share for economic development as percentage of total expenditure rose to 14.3 percent from last year's 12.5 percent.

### Total Revenue and Expenditure of the Central Government by Category

Unit: NT$ Billion

| | Fiscal Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009* |
| Total Revenue | 2,030.8 | 1,417.2 | 1,304.7 | 1,320.9 | 1,368.2 | 1,464.5 | 1,546.4 | 1,635.5 | 1,640.9 | 1,553.5 |
| Taxes | 1,280.7 | 841.5 | 820.1 | 828.5 | 916.6 | 1,067.8 | 1,094.3 | 1,208.7 | 1,242.9 | 1,051.6 |
| Surpluses of Public Enterprises and Public Utilities | 442.4 | 335.8 | 250.7 | 326.5 | 282.2 | 243.4 | 289.1 | 271.5 | 253.4 | 318.7 |
| Fees, Fines and Indemnities | 103.0 | 72.5 | 123.3 | 77.8 | 76.1 | 79.0 | 79.0 | 81.1 | 83.1 | 78.0 |
| Revenues from Government-owned Monopolies | 77.3 | 57.5 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Proceeds from Sales of Properties and Recalled Capital | 88.4 | 80.9 | 73.9 | 65.7 | 70.3 | 52.6 | 58.5 | 51.3 | 40.0 | 53.7 |
| Others | 39.0 | 29.0 | 36.4 | 22.4 | 23.0 | 21.7 | 25.5 | 22.9 | 21.4 | 51.5 |
| Total Expenditure | 2,230.1 | 1,559.7 | 1,551.9 | 1,618.1 | 1,564.8 | 1,567.0 | 1,529.8 | 1,552.0 | 1,617.7 | 1,715.5 |
| General Administration | 234.9 | 167.0 | 162.3 | 167.3 | 164.1 | 165.5 | 167.3 | 168.2 | 173.0 | 168.9 |
| National Defense | 343.3 | 237.7 | 225.2 | 227.7 | 248.9 | 248.5 | 237.1 | 256.7 | 282.4 | 291.2 |
| Education, Science and Culture | 367.6 | 257.2 | 267.0 | 300.2 | 302.1 | 301.5 | 303.1 | 308.7 | 310.4 | 326.5 |
| Economic Development | 356.4 | 277.1 | 291.2 | 295.5 | 248.9 | 247.0 | 197.0 | 193.3 | 201.3 | 244.5 |
| Social Welfare | 411.0 | 293.3 | 262.2 | 284.4 | 279.8 | 285.7 | 303.3 | 305.1 | 298.4 | 320.6 |
| Community Development & Environmental Protection | 39.6 | 22.3 | 23.4 | 28.7 | 24.8 | 25.2 | 20.4 | 19.4 | 13.5 | 21.4 |
| Retirement & Compassionate Aid | 195.4 | 122.0 | 124.3 | 125.4 | 123.1 | 130.5 | 134.7 | 134.6 | 133.8 | 133.4 |
| Interest Payments | 249.6 | 151.2 | 152.2 | 144.6 | 127.1 | 117.9 | 125.2 | 124.0 | 117.4 | 116.8 |
| General Subsidies and Other Expenditure | 32.3 | 31.9 | 44.1 | 44.3 | 46.0 | 45.2 | 41.7 | 42.1 | 87.5 | 92.2 |

*Note*: * The figures for the year 2009 are preliminary estimates.
*Sources*: 1. Directorate-General of Budget, Accounting and Statistics, Executive Yuan.
2. Department of Statistics, Ministry of Finance.

In addition to the general budget expenditures, the central government also set aside a total of NT$234.9 billion as a special budget in the course of 2009, for plans to reenergize the economy through programs or measures including the shopping vouchers, the expansionary public spending scheme, as well as the Typhoon Morakot disaster relief and reconstruction efforts.

As a result, the ratio of central government expenditure to GDP rose from 12.7 percent in the previous year to 13.7 percent, while the ratio of budget deficit to GDP was 1.3 percent.

### Greater Demand for Debt Financing

The NT$162.0 billion fiscal deficit and the NT$65.0 billion debt principal repayment combined to represent a need for the central government to finance NT$227.0 billion for 2009. Of this amount, NT$164.5 billion was raised through issuing government bonds and borrowing from banks, while the remaining NT$62.5 billion was financed with surpluses from previous fiscal years. The debt dependency ratio, i.e. the ratio of annual government bond issuance and borrowing from banks to total government expenditure, jumped to 9.6 percent in 2009, as opposed to the two preceding years, when there was no demand for debt financing.

### Considerable Increase in Debt Obligations

For the year of 2009, the central government was faced with a demand to finance not only the general budget but also the special budget, both relying on government bond issuance and borrowing from banks. Total outstanding debt of the central government increased significantly by NT$358.3 billion over the previous year-end, amounting to NT$4,141.9 billion at the end of 2009. Furthermore, the ratio of outstanding central government debt to GDP also rose markedly from the previous year's 29.8 percent to 33.1 percent.

## Public Debt of the Central Government

Unit: NT$ Billion

| | End of Fiscal Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009* |
| Outstanding Debt | 2,450.1 | 2,759.1 | 2,849.3 | 3,124.7 | 3,362.2 | 3,550.1 | 3,623.5 | 3,720.5 | 3,783.6 | 4,141.9 |
| (Ratio to GDP ; %) | 24.1 | 27.8 | 27.4 | 29.2 | 29.6 | 30.2 | 29.6 | 28.8 | 29.8 | 33.1 |

*Note*: * The figures for the year 2009 are preliminary estimates.
*Sources*: 1. Directorate-General of Budget, Accounting and Statistics, Executive Yuan.
2. Ministry of Finance.

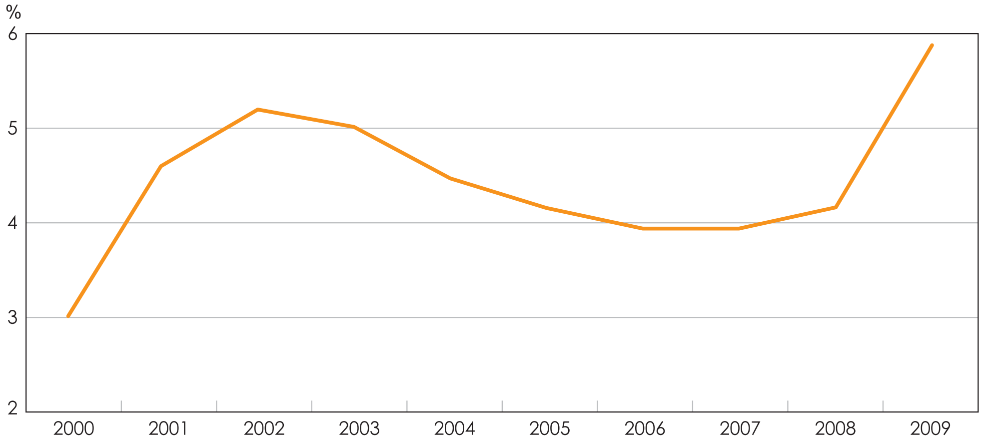
# 6. Labor Market

Following global financial turmoil and the recession it induced in the domestic economy, Taiwan's labor market conditions worsened in 2009. Job opportunities decreased and involuntary unemployment increased. The unemployment rate climbed to a historic high of 6.13 percent in August, and then trended downwards to 5.74 percent in December as the pace of economic recovery accelerated.

The annual average unemployment rate increased by 1.71 percentage points to 5.85 percent in 2009, the largest year-on-year increase ever recorded. The broad unemployment rate rose by 1.74 percentage points to 7.35 percent, while average employment decreased by 1.20 percent from the previous year to 10,279 thousand persons, the largest annual decrease on record. To promote employment, the government initiated various short-, mid- and long-term measures, including training programs to foster quality human resources.

In terms of earnings and labor cost, the average monthly earnings per worker in the non-farm sector, i.e. the industrial and services sectors, dropped by 4.31 percent over the previous year to NT$42,509, posting the deepest decline in history. As the decline in total working hours outpaced that in production, labor productivity increased by 0.62 percent for the industrial sector. The unit labor cost decreased by 6.54 percent, resulting from a smaller decrease in production than in total labor compensation.

**Unemployment Rate**




*Source*: *Monthly Bulletin of Manpower Statistics*, DGBAS, Executive Yuan.

## Annual Average Employment Decreased

Employment was affected by declining corporate profitability and production amid the economic downturn in 2009. Annual average employment was 10,279 thousand persons, a decrease of 124 thousand persons or 1.20 percent over the previous year. However, employment slowly picked up with the pace of economic recovery from the third quarter of 2009 onwards.

Among the three economic sectors, the industrial sector was the most severely hit, with employment decreasing by 148 thousand persons or 3.85 percent in 2009. Employment in the agricultural and services sectors increasing by 8 thousand and 15 thousand persons or 1.41 and 0.26 percent, respectively.

Broken down by industry, the manufacturing industry registered the largest job losses with 96 thousand persons, followed by the construction industry with 54 thousand persons, and then by the wholesale and retail trade industry with 35 thousand persons. However, employment in public administration and defense, and compulsory social security increased by 39 thousand persons, thanks to the government's 2008-2009 Short-term Employment Promotion Program.

Employment in most job categories also decreased, with machinery operation and physical labor jobs suffering the largest decline of 144 thousand persons or 4.34 percent.

## Unemployment Rate Remained High

The unemployment rate rose sharply from the beginning of 2009 as the economic downturn deepened. It reached a historic high of 6.13 percent in August with 672 thousand persons unemployed. From September onwards, however, the economy recovered and the seasonal factor of job-seeking graduates and students vanished. Hence, the unemployment rate gradually declined month by month to 5.74 percent in December. On an annual average basis, the unemployment rate was 5.85 percent, while the unemployed population reached 639 thousand persons, a year-on-year increase of 189 thousand persons or 41.96 percent. The average duration of unemployment also lengthened by 2.2 weeks from the previous year to 27.5 weeks.

The annual average number of the long-term unemployed (those continuously unemployed for 53 weeks or more) was 101 thousand persons in 2009, an increase of 35 thousand persons or 53.03 percent over the previous year. Among these people, the 25-44 age group accounted for 62.3 percent, while those with college education or above made up 40.5 percent. Thus, a trend of lower ages and higher educational levels was observed in the unemployed population.

Due to the economic recession, business closures or downsizing were the major cause for unemployment from 2008. In 2009, it accounted for 52.76 percent of the total unemployed, marking the first increase over 50 percent on record and a steep increase of 18.93 percentage points over the previous year. In the first quarter of 2009 alone, those unemployed because of business closures or downsizing had accumulated to 94 thousand persons, especially in the manufacturing, construction, and wholesale and retail trade industries.

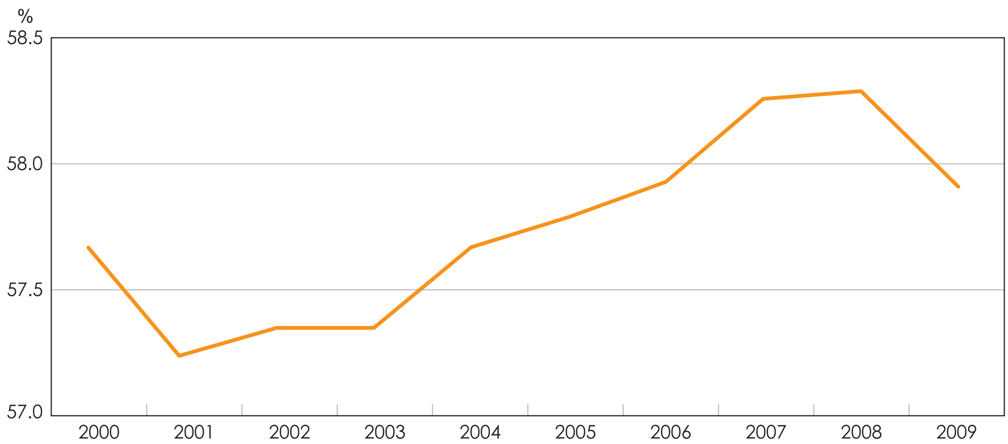
In terms of age, the 15-24 age group continued with the highest unemployment rate in 2009, as they are generally inexperienced and tend to change jobs more frequently. The average number of the unemployed for the age groups of 25-44 and 45-64 increased by 121 thousand and 51 thousand persons or 48.13 and 57.75 percent, respectively, over the previous year. A majority of them were unemployed involuntarily.

## Labor Force Participation Rate Edged Down

The labor force growth rate decreased from 1.31 percent in the previous year to a mere 0.59 percent in 2009, reflecting falling demand for labor in the flagging economy. The number of employed people recorded the largest decrease ever of 1.2 percent, while that of unemployed people increased by 41.96 percent to a historic high level.

The labor force participation rate inched down by 0.38 of a percentage point to 57.90 percent in 2009. In terms of gender, the male labor force participation rate sank by 0.69 of a percentage point to an all-time low of 66.4 percent. The female rate edged down to 49.62 percent due to the gloomy economy, the first decline since 2001. Broken down by age bracket, the labor force participation rate for the 15-24 age group continued declining as a result of extended years of education. The rate for the 25-44 age group increased by 0.38 of a percentage point to 84.19 percent, remaining the highest level of participation among all age groups. With regard to education groups, those with college degrees or above were the only group that

**Labor Force Participation Rate**




*Source*: *Monthly Bulletin of Manpower Statistics,* DGBAS, Executive Yuan.

recorded an increase in the labor force participation rate at 68.4 percent, indicating a more aggressive attitude in the job market among the better educated.

The non-labor force population increased by 167 thousand persons, or 2.15 percent, to 7,937 thousand persons. Among them, senior disabled people increased by 0.58 of a percentage point, showing a long-term upward trend due to an aging population. Affected by the stagnant economy, those intending to work but not actively searching rose by 0.07 of a percentage point, while housekeeping decreased by 0.76 of a percentage point.

### Earnings of Non-Farm Workers Declined

In 2009, the economic downturn, the waves of corporate downsizing and workers taking unpaid leaves helped drive down wages. The average monthly earnings of a non-farm sector worker declined by 4.31 percent, the largest drop recorded, to NT$42,509. After adjusting for CPI inflation, real monthly earnings per worker also declined by 3.47 percent. For the industrial sector, monthly earnings per worker decreased by 7.4 percent to NT$40,032, while real earnings decreased by 6.59 percent. For the services sector, monthly earnings per worker decreased by 1.91 percent to NT$44,583, while real earnings decreased by 1.05 percent.

With respect to different industries, the manufacturing industry was the most severely affected by the global financial turmoil, with an 8.37 percent drop in real monthly earnings per worker. However, the electricity and gas supply industry and the accommodation and food services industry managed to achieve respective increases of 8.45 percent and 2.48 percent in real monthly earnings despite the turmoil. As for real regular earnings per worker by sector, the industrial sector recorded a 2.68 percent decrease, while the services sector showed a 0.75 percent increase. Real regular earnings per worker for the non-farm sector as a whole decreased by 0.68 percent over the previous year.

### Labor Productivity Increased Slightly

As the decrease in total working hours outpaced that in production, labor productivity for the industrial sector posted a year-on-year increase of 0.62 percent in 2009. Within the manufacturing industry, the largest increase was observed in motor vehicles and parts manufacturing, followed by electronic parts and components manufacturing. For most traditional manufacturers, however, their continued decline in productivity was aggravated by the economic downturn, with wearing apparel and clothing accessories manufacturing experiencing the deepest decline of 20.09 percent.

The unit labor cost in the industrial sector exhibited a decrease of 6.54 percent in 2009, as total labor compensation decreased faster than production. Within the manufacturing industry, chemical material manufacturing recorded the largest drop of around 20 percent, followed by electronic parts and components manufacturing and motor vehicles and parts manufacturing with declines of around 15 percent.

**Labor Productivity and Unit Labor Cost Indices in the Industrial Sector**


*Source*: *Monthly Bulletin of Earnings and Productivity Statistics*, DGBAS, Executive Yuan.

# Financial Developments

# II. Financial Developments

## 1. Overview

In the first half of 2009, affected by the financial turmoil that severely impacted the global economy, Taiwan's external trade and private investment shrank, and the economy continued to contract. In the second half of the year, against the backdrop of a recovering global economy, Taiwan's domestic economic activity steadily picked up. Demand for funds, however, remained soft and banks' loans and investments growth declined before trending upwards in the fourth quarter of the year. Along with the Bank's easy monetary policy, market interest rates moved downward gradually. The NT dollar exchange rate against the US dollar depreciated in the first two months of the year and then appreciated afterward.

With respect to monetary aggregates, the annual growth rate of M2 rose from 2.67 percent in the previous year to 7.21 percent in 2009, exceeding the upper bound of the Bank's 2.5 percent to 6.5 percent target zone for the year. The main reasons included a net foreign capital inflow and an increase in net foreign exchange receipts from external trade. The easy monetary policy adopted by the Bank to bolster economic recovery in the absence of inflationary pressures also played a role.

Loans and investments of major financial institutions grew at an annual rate of 0.75 percent at the end of 2009, down from 3.42 percent registered a year earlier, mainly due to soft demand for funds from enterprises affected by the global financial turmoil and sluggish growth in bank portfolio investments. Among the loans extended by major financial institutions, the outstanding balance of consumer loans turned to an increase, primarily led by a rise in private consumption and a warming housing market. If the loans and investments of life insurance companies and trust and investment companies, as well as funds raised directly in the financial markets were taken into account, the total funds raised by the non-financial sector registered an annual growth rate of 1.62 percent at the end of the year, lower than the 2.76 percent recorded at the previous year-end.

The pre-tax profits of depository institutions went up in 2009, mainly due to increases in the fair value of financial assets and the profits of portfolio investments. As a result, their average return on assets and return on equity were both higher than those of the previous year. The average capital adequacy ratio of domestic banks increased from the previous year-end's 11.04 percent to 11.85 percent, meanwhile the overall non-performing loan ratio decreased from 1.54 percent to 1.15 percent during the same period.

In the stock market, the TAIEX (Taiwan Stock Exchange Capitalization Weighted Stock Index) moved down in January, triggered by a marked drop of business in major hi-tech companies amid the deteriorating US economic climate and a continued sell-off by foreign investors. Subsequently, owing to falling interest rates and an easing of restrictions by the government on Chinese investment in Taiwan, the TAIEX rebounded substantially. From August onwards, owing to improvement in the US economy, the Fed's commitment to low interest rates, and the emerging effects of the cross-Strait MOU and ECFA issues, the TAIEX gained significant upward momentum and reached a yearly high of 8,188 points on December 31, recording a 78.3 percent rise from a year earlier. The daily average turnover for the year increased by 12.8 percent compared with the previous year.

The NT dollar exchange rate (NT$/US$) started the year weakly and hit a yearly low of 35.174 in March due to the impact of global financial distress. Afterwards, owing to the popularity of the US dollar carry trade as well as the warming cross-Strait relations, the exchange rate appreciated to reach a yearly high at the year-end of 32.030, showing an appreciation of 2.59 percent compared with the previous year-end. On a daily average basis, however, it depreciated by 4.54 percent in 2009 over the previous year.

# 2. Monetary Aggregates

The broad monetary aggregate M2 has been the Bank's intermediate target for monetary policy since 1992. For the year 2009, the annual growth rate of M2 registered 7.21 percent, not only higher than the previous year's 2.67 percent, but also exceeding the upper bound of the Bank's 2.5 to 6.5 percent target zone. This was mainly attributable to net foreign capital inflows and the increase in net foreign exchange receipts. In addition, the Bank's easy monetary policy stance to boost economic activity amid low inflation also contributed to the rise in M2.

The narrow monetary aggregate M1B trended up and registered a much higher growth rate of 16.54 percent for the year 2009, when compared with the previous year's negative 2.94 percent. The sharp growth in M1B was mainly attributable to a recovery of economic activity, the shift from term deposits to demand deposits resulting from a rebounding stock market, and a lower base effect.

### Rapid Growth in Reserve Money

Reserve money growth accelerated for the year of 2009, with the annual growth rate increasing by 9.36 percentage points to 12.60 percent from the previous year's figure. Broken down by the components of reserve money, bank reserves posted faster growth of 14.86 percent when compared to the previous year's 3.02 percent, while the growth of currency held by the non-bank public increased to 9.31 percent from 3.57 percent one year earlier.

The monthly movements of reserve money in 2009 were as follows: (i) Because the exact

**Annual Growth Rates of Reserve Money**


*Source: Financial Statistics Monthly, CBC.*

timing of the Chinese lunar new year shifts on the Gregorian calendar each year, the annual growth rates for January and February are more volatile, and posted a combined growth rate of 12.00 percent during this period; (ii) Afterwards, the annual growth rates of reserve money generally trended up and reached its yearly high of 15.59 percent in July; (iii) In line with the Bank's gradual removal of banks' excess reserves, as well as the high base effect, the annual growth rates of reserve money trended down for the following months but remained above 10 percent.

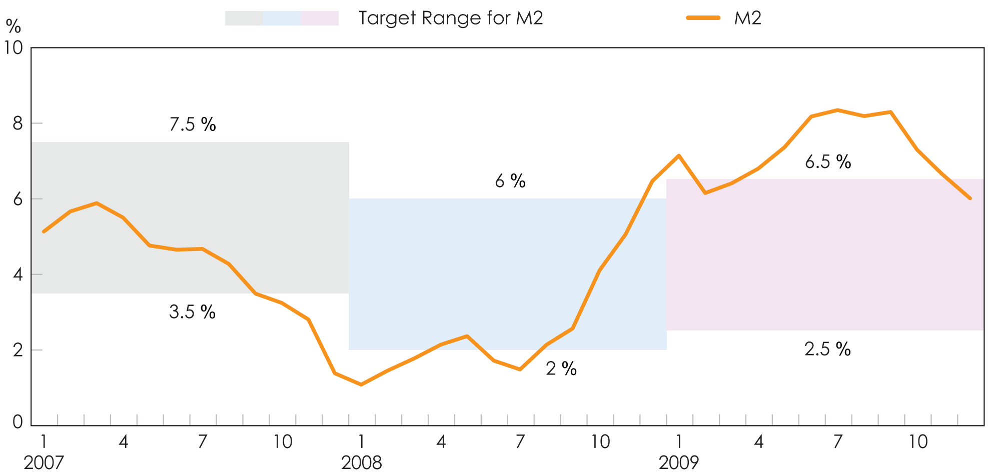
On the demand side, growth of currency held by the non-bank public increased because the low opportunity cost of holding currency given the low interest rates paid on bank deposits enhanced their willingness to hold currency. Banks' demand for reserves also rose as the Bank's monetary policy stance loosened in response to the unfavorable economic outlook. Coupled with the shift from term deposits to demand deposits, banks were left with excess reserves.

From the supply side perspective, the Bank's balance sheet revealed the sources of changes in reserve money. On the one hand, against the backdrop of continued capital inflows, the Bank's intervention in the foreign exchange market to smooth excessive fluctuations in exchange rates led to a net increase in the Bank's foreign assets and a simultaneous rise in reserve money. On the other hand, reserve money declined mainly because the Bank increased the issuance of certificates of deposit (CDs) to conduct open market operations in order to mop up excess liquidity in the banking sector.

### Significant Increase in M2 Growth

M2, which comprises currency in circulation, deposits in banks' checking and demand

**Target Zone and Annual Growth Rates of M2**




Source: *Financial Statistics Monthly*, CBC.

accounts, and quasi money, is the Bank's intermediate target for conducting monetary policy. The annual growth rate of M2 in 2009 was 7.21 percent, up from the previous year's 2.67 percent and exceeded the upper limit of the Bank's target zone. The rise of M2 growth rates was due to the increase of net foreign exchange receipts resulting from a larger decline in imports than exports and massive net foreign capital inflows induced by the rebounding stock market. Moreover, the Bank's easy monetary policy stance to boost economic activity in a low inflation environment also contributed to the rise in M2.

In terms of M2's monthly movement in 2009, because demand for money increased at the start of the year as the Chinese lunar new year fell in January, the M2 growth rate increased to 7.12 percent. The M2 growth rate fell to 6.13 percent in February because the Chinese lunar new year fell in its base month bank loans and investments declined. The M2 growth rate gradually rose from March onwards due to continued net inflows of foreign capital and the lower base effect, and reached its yearly high of 8.33 percent in July. In August, due to net capital outflows and the slow growth of bank loans and investments, the M2 growth rate dropped to 8.17 percent. As bank loans and investments started to pick up and foreign capital flooded in, M2 growth rose to 8.28 percent in September. However, due to the high base effect, the rising trend of M2 growth reversed from October onwards and recorded a yearly low of 5.99 percent in December, falling within the Bank's M2 growth target zone.

### Accelerated Growth in M1B

M1B grew rapidly in 2009, primarily reflecting the sharp increase in demand deposits owing to the shift of term deposits to demand deposits, the bullish stock market, net foreign capital inflows and the lower base in the previous year. The average annual growth rate of M1B recorded 16.54 percent, far higher than the previous year's negative 2.94 percent.

The M1B's monthly movements in 2009 were as follows: (i) Because local stock market remained sluggish earlier in the year, the M1B annual growth rate registered a yearly low of 1.78 percent in January; (ii) Afterwards, the rebounding stock market and net capital inflows led the M1B growth rate to rise and reach 12.95 percent in May against the backdrop of massive foreign capital inflows; (iii) In June, although the scale of net foreign capital inflows decreased and the stock market moderated slightly, the M1B growth rate rose to 17.03 percent due to the lower base in the previous year; (iv) From July onwards, the M1B growth rate trended up due to the rising transaction volume in the stock market, foreign capital inflows and the continued shift from term deposits to demand deposits, coupled with a lower base effect. The M1B growth rate hit a yearly high of 30.30 percent in December.

## Annual Growth Rates of M1B


*Source*: *Financial Statistics Monthly*, CBC.

# 3. Banking Sector

### Number of Depository Institutions Increased

There were 397 depository institutions at the end of 2009, an increase of ten compared with the previous year-end. The numbers of domestic banks, medium business banks and foreign banks remained the same. The number of credit cooperatives decreased by one as a result of a merger. Eleven new credit departments of farmers' and fishermen's associations were set up in 2009.

#### Number of Depository Institutions by Category

| Types of institutions | End of 2009 | End of 2008 | Annual Change |
|---|---|---|---|
| Total Number of Main Offices | 397 | 387 | 10 |
| Domestic Banks | 37 | 37 | 0 |
| Medium Business Banks | 1 | 1 | 0 |
| Foreign Banks | 32 | 32 | 0 |
| Credit Cooperatives | 26 | 27 | -1 |
| Credit Departments of Farmers' and Fishermen's Associations | 300 | 289 | 11 |
| Department of Savings and Remittances of Chunghwa Post Co. | 1 | 1 | 0 |
| Total Number of Branches | 5,998 | 6,002 | -4 |
| Local Branches | 5,844 | 5,852 | -8 |
| Overseas Branches | 91 | 87 | 4 |
| Offshore Banking Units | 63 | 63 | 0 |

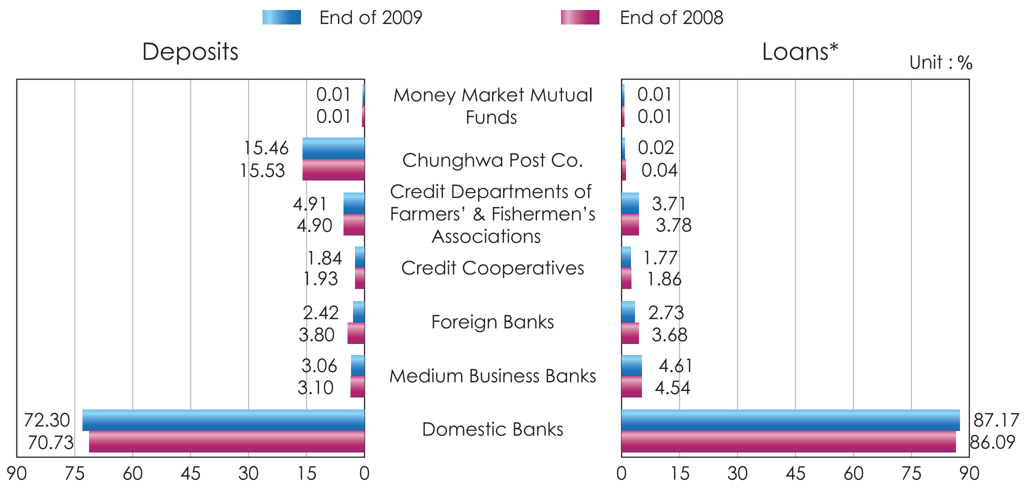
*Sources*: 1. *Financial Statistics Monthly*, CBC.
2. Department of Financial Inspection, CBC.

In addition, the numbers of financial holding companies and money market mutual funds remained at 15 and 2, respectively, at year-end 2009.

### Market Shares of Deposits and Loans

Domestic banks have played a major role in Taiwan's banking system. At the end of 2009, domestic banks accounted for 72.30 percent of deposits and 87.17 percent of loans in terms of market share. Both were higher than those of the previous year, mainly due to the transfer of business from the Citibank N.A., Taipei Branch to the newly formed Citibank Taiwan Limited. As a result, foreign banks' market shares of deposits and loans decreased to 2.42 percent and 2.73 percent, respectively. The Department of Savings and Remittances of Chunghwa Post Co.'s market share of deposits slightly decreased to 15.46 percent at the end of 2009, while its market share of loans continued to fall to a mere 0.02 percent due to mandated restrictions

### Market Shares of Deposits and Loans by Category of Depository Institutions




*Note*: * Including data for securities acquired under reverse repurchase agreements.

*Source*: *Financial Statistics Monthly*, CBC.

on its lending business. As for medium business banks, their market share of deposits dropped slightly to 3.06 percent, while their market share of loans rose to 4.61 percent. Credit cooperatives recorded modest decreases in their market share of deposits and loans. As for the credit departments of farmers' and fishermen's associations, their market share of deposits rose while that of loans decreased.

### Depository Institutions' Sources and Uses of Funds

Depository institutions' funds increased significantly by NT$2,239 billion during the year 2009 owing to the current account surplus and huge capital inflows. Among the different sources of funds, transaction deposits and net other items were the major contributors to the increase. A notable shift of funds from non-transaction deposits to transaction deposits was the main reason for the increase in transaction deposits and the decrease in non-transaction deposits.

With respect to the uses of funds, the ratio of loans to the total use of funds declined as depository institutions' loans expanded more slowly than deposits. With banks' efforts to contain their investment risks, the funds used for purchasing CDs issued by the CBC increased, taking up a larger share in terms of fund usage. Net foreign assets increased in the year because of increases in dues from other branches and dues to other branches, and in net claims on OBUs.

## Sources and Uses of Funds in Depository Institutions

Unit: NT$ Billion

| | End of 2009 | | End of 2008 | | Annual Change | |
|---|---|---|---|---|---|---|
| | Amount | Share (%) | Amount | Share (%) | Amount | Share (%) |
| Sources: | | | | | | |
| Transaction Deposits ** | 9,599 | 29.47 | 7,320 | 24.14 | 2,279 | 5.34 |
| Non-Transaction Deposits*** | 18,951 | 58.19 | 19,649 | 64.79 | -698 | -6.60 |
| Government Deposits | 772 | 2.37 | 795 | 2.62 | -23 | -0.25 |
| Borrowings from CBC | 191 | 0.59 | 58 | 0.19 | 133 | 0.39 |
| Other Items (Net) | 3,055 | 9.38 | 2,507 | 8.27 | 548 | 1.11 |
| Total | 32,568 | 100.00 | 30,329 | 100.00 | 2,239 | 0.00 |
| Uses: | | | | | | |
| Net Foreign Assets * | 1,938 | 5.95 | 1,543 | 5.09 | 395 | 0.86 |
| Loans | 18,608 | 57.13 | 18,456 | 60.58 | 151 | -3.72 |
| Portfolio Investments**** | 2,883 | 8.85 | 2,861 | 9.43 | 22 | -0.58 |
| Purchases of CDs Issued by CBC | 5,787 | 17.77 | 4,298 | 14.17 | 1,489 | 3.60 |
| Deposits with CBC | 3,353 | 10.30 | 3,170 | 10.45 | 183 | -0.16 |

*Notes*: * Excluding valuation changes in the exchange rate of the NT dollar against foreign currencies when calculating their annual change.
** Including checking account deposits, passbook deposits and passbook savings deposits.
*** Including time deposits, time savings deposits, foreign currency deposits, postal savings deposits, non-residents NT dollar deposits, and repurchase agreements.
**** Measured at original costs.
*Source*: *Financial Statistics Monthly*, CBC.

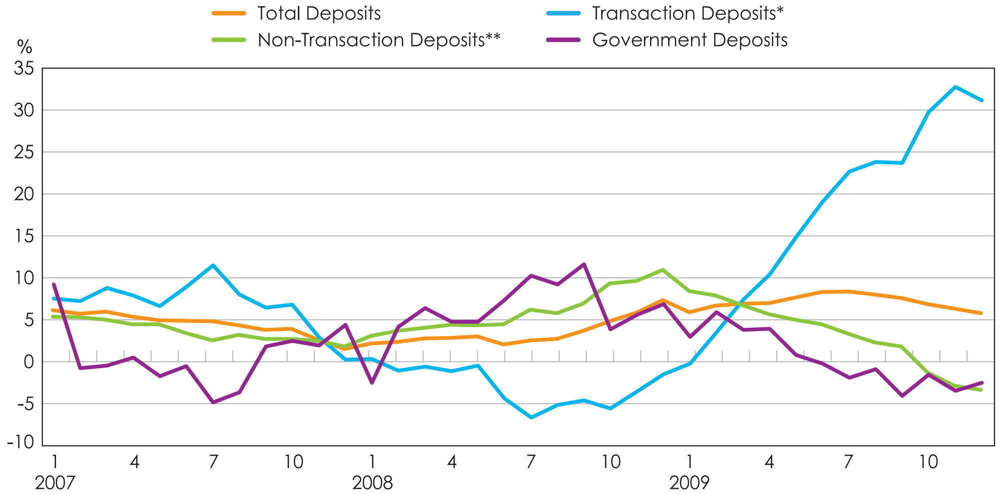
### Downtrend in the Growth of Deposits

At the end of 2009, total deposits of depository institutions grew by 5.38 percent during the year. This was lower than the 6.92 percent at the end of 2008, mainly caused by slower growth in banks' loans and investments.

Due to the expanding current account surplus, the annual growth rate of deposits rose to 6.26 percent in February. From March onwards, foreign capital turned to a net inflow, pushing the annual growth rate of deposits to climb to a yearly high of 7.98 percent in July. From August onwards, deposit growth went down as a result of an increase in residents' net capital outflows. The annual growth rate of deposits declined and reached a yearly low of 5.38 percent at the end of 2009.

The annual growth rate of transaction deposits jumped from the previous year's -1.84 percent to 31.13 percent at the end of 2009. Its share in total deposits also increased from 26.31 percent to 32.74 percent. This was mainly due to the higher demand for transaction deposits, as active trading in the stock market was boosted by the economic recovery and the lower interest rate spread between different deposits, inducing a shift of funds from non-transaction deposits to transaction deposits. The annual growth rate of non-transaction deposits at all depository institutions declined to -3.85 percent at the end of the year in contrast to the

**Annual Growth Rates of Deposits by Type**




*Note*: * Including checking account deposits, passbook deposits and passbook savings deposits.
** Including time deposits, time savings deposits, foreign currency deposits, postal savings deposits, non-residents NT dollar deposits, repurchase agreements, and money market mutual funds.
*Source*: *Financial Statistics Monthly*, CBC.

10.61 percent increase of the previous year-end, while their share in total deposits edged down from 70.83 percent to 64.63 percent.

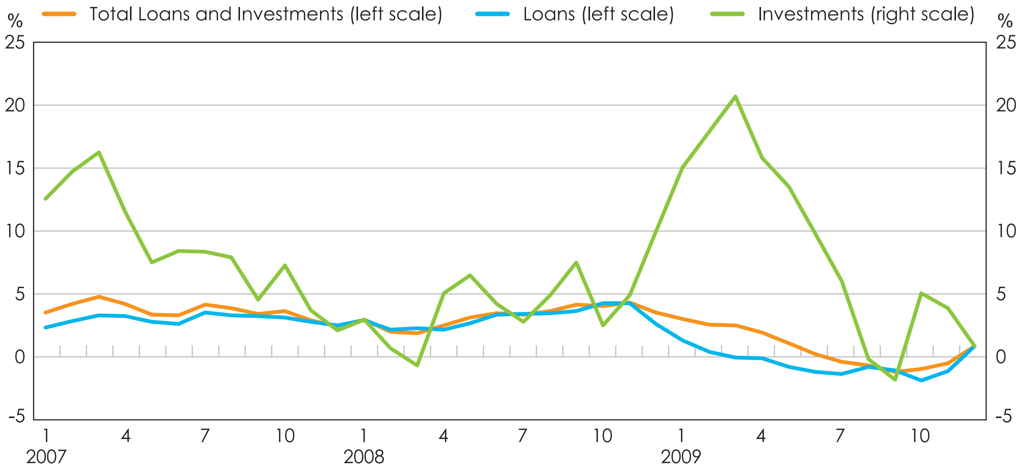
With respect to the different types of non-transaction deposits, the shares of each of them in total deposits went down at the end of the year when compared with the previous year-end.

The annual growth rate of government deposits in depository institutions declined from 6.55 percent at the end of previous year to -2.88 percent at the end of 2009, reflecting a decrease in tax revenues. Meanwhile, their share in total deposits declined slightly from 2.86 percent to 2.63 percent.

### Decrease in Banks' Loans and Investments

The annual growth rate of loans and investments of depository institutions declined to 0.75 percent at year-end 2009, compared to the 3.42 percent recorded at the end of the previous year. This was mainly because private enterprises' demand for funds weakened and the growth of portfolio investment slowed in the wake of the global financial crisis and economic downturn. Loans posted an annual growth rate of 0.74 percent at the end of 2009, lower than the 2.49 percent a year earlier, while the growth of investments significantly declined to 0.76 percent in 2009 from the 9.84 percent in 2008.

Annual Growth Rate of Loans and Investments




Source: *Financial Statistics Monthly*, CBC.

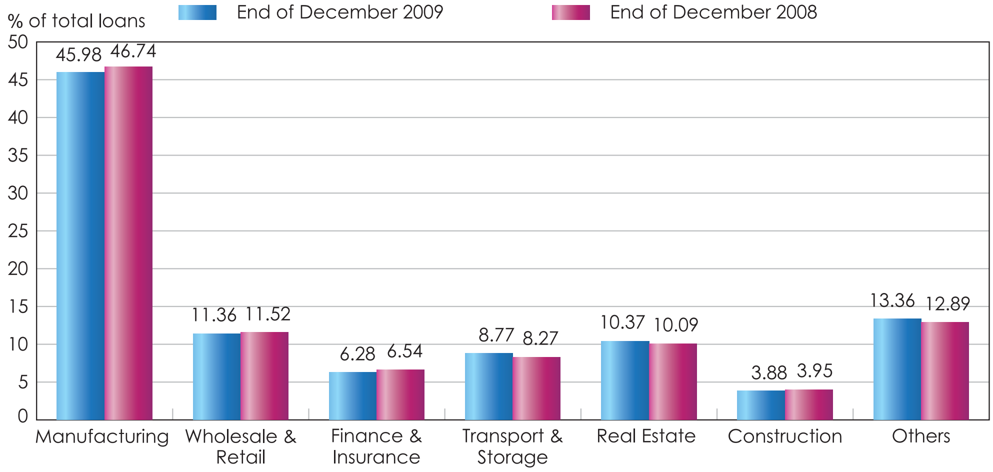
## Loans by Sector

At the end of 2009, loans extended to the private sector and public enterprises accounted for 87.33 percent and 4.18 percent of total loans, respectively. Compared to the previous year-end, the annual growth rate of loans to the private sector fell from 2.50 percent to -0.18 percent, while those to public enterprises fell markedly from 28.42 percent to -3.47 percent. Owing to the central government's expanded public spending and lower tax revenue, the share of loans extended to government agencies in total loans rose to 8.49 percent from 7.21 percent at the previous year-end, posting an annual growth rate of 19.09 percent.

## Loans by Industry

Among all industries, the manufacturing sector continued to account for the largest portion of bank loans, slightly falling from 46.74 percent in 2008 to 45.98 percent in 2009. This was mainly due to a decrease in bank loans extended to the electronic parts & components industry, the petroleum products industry, and the chemical material industry. In addition, the share of loans extended to the wholesale & retail industry, finance & insurance industry and construction industry also decreased in 2009 from the previous year-end.

## Loans by Industry




Source: *Financial Statistics Monthly*, CBC.

### Consumer Loans

Compared to the previous year, consumer loans registered an increase in 2009, mainly due to a modest increase in private consumption and growth in the real estate market. As a result, the outstanding balance of consumer loans extended by banks at the end of 2009 recorded an annual increase of NT$154.2 billion or 2.32 percent from the previous year-end.

### Investments

Owing to a more conservative attitude to purchase securities during the global financial crisis, portfolio investments by depository institutions measured on a cost basis showed an annual increase of NT$21.7 billion or 0.76 percent in 2009, significantly lower than the NT$256.2 billion or 9.84 percent a year earlier. Among the investment instruments, government bonds accounted for the largest share with 60.97 percent, higher than the 58.16 percent a year ago, mainly due to the massive purchases of government bonds by domestic banks and the Department of Savings and Remittances of the Chunghwa Post Co. Meanwhile, the annual growth rate of investment in government bonds fell from 9.57 percent to 5.64 percent. When measured at fair value, the annual increase of portfolio investments by depository institutions became NT$116.5 billion. The revaluation adjustment was thus an increase of NT$94.8 billion, compared to the negative NT$89.0 billion of the previous year.

### Decrease in the Share of Indirect Finance

Financing channels of the non-financial sector comprise indirect finance and direct finance,

## Indirect Finance vs. Direct Finance*

Unit: NT$ Billion

| Year | Total Funds Raised (3)=(1)+(2) | Indirect Finance (1) | | | Direct Finance (2) |
|---|---|---|---|---|---|
| | | Subtotal | Loans | Investments | |
| 2000 | 1,377.1 | 1,203.2 | 1,053.2 | 150.0 | 173.9 |
| 2001 | 665.2 | 594.5 | 200.6 | 393.9 | 70.7 |
| 2002 | 807.5 | 424.8 | 71.7 | 353.1 | 382.7 |
| 2003 | 1,677.1 | 716.0 | 711.5 | 4.5 | 961.1 |
| 2004 | 2,129.3 | 1,815.9 | 1,569.7 | 246.2 | 313.4 |
| 2005 | 1,961.7 | 1,780.3 | 1,458.5 | 321.8 | 181.4 |
| 2006 | 1,223.6 | 1,374.8 | 837.8 | 537.0 | -151.2 |
| 2007 | 1,044.5 | 961.8 | 733.2 | 228.6 | 82.7 |
| 2008 | 894.4 | 1,222.8 | 647.5 | 575.3 | -328.4 |
| 2009 | 540.8 | 390.7 | 138.7 | 252.0 | 150.1 |

*Notes*: * Measured in terms of flow data.
(1) Refers to loans and investments (measured on a cost basis) made by depository institutions, trust and investment companies, and life insurance companies, after taking account of their non-accrual loans reclassified and bad loans written off.
(2) Refers to the total amount of new issues of various marketable securities, including government bonds, corporate bonds, listed stocks, offshore bonds, depository receipts, short-term bills and asset-backed securities held by the non-financial sectors.
*Source*: *Financial Statistics Monthly*, CBC.

i.e. borrowing from financial institutions and issuing securities in the markets, respectively. The total amount of funds raised by the non-financial sector during the year 2009 decreased from the previous year's NT$894.4 billion to NT$540.8 billion. Funds raised through borrowing from financial institutions decreased from the previous year's NT$1,222.8 billion to NT$390.7 billion. Funds raised by issuing securities increased from the previous year's negative NT$328.4 billion to positive NT$150.1 billion, mainly due to the increasing issuance of offshore bonds, public offerings of stocks, and government bonds. Based on outstanding balance data, the share of indirect finance in total funds raised decreased from 77.04 percent at the end of 2008 to 76.89 percent at year-end 2009, while the share of direct finance increased from 22.96 percent to 23.11 percent.

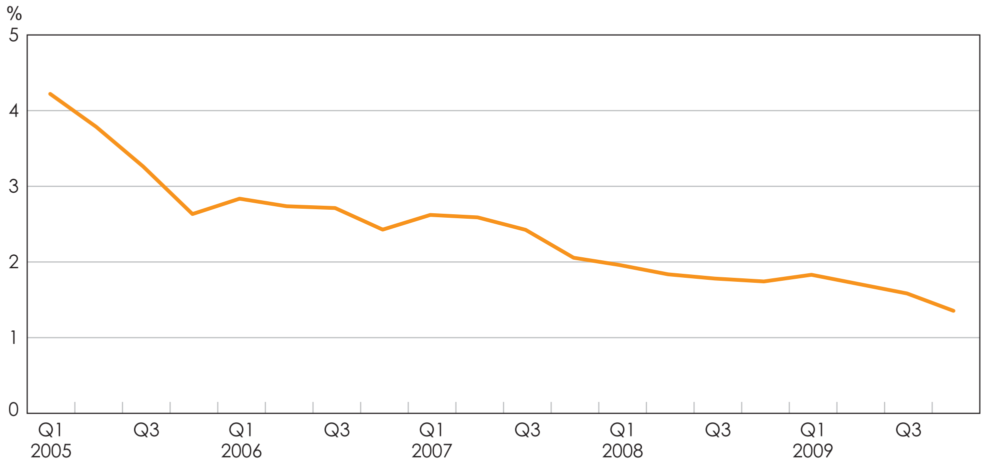
### Decline in the Non-Performing Loan (NPL) Ratio

As the asset quality of domestic financial institutions continued to improve in 2009 along with efforts to write off bad loans, the average NPL ratio of financial institutions as a whole declined to 1.30 percent at the end of 2009, lower than the previous year's 1.70 percent. With respect to different types of financial institutions, the NPL ratios of community financial institutions showed the biggest improvement during the course of the year.

### Steady Decline in Bank Interest Rates

In 2009, the Bank adopted an easy monetary policy and cut its policy rate twice to stimulate the economy. As a result, interest rates on deposits and loans of many banks remained low for the whole year. In the case of the interest rates of the five major domestic banks, the

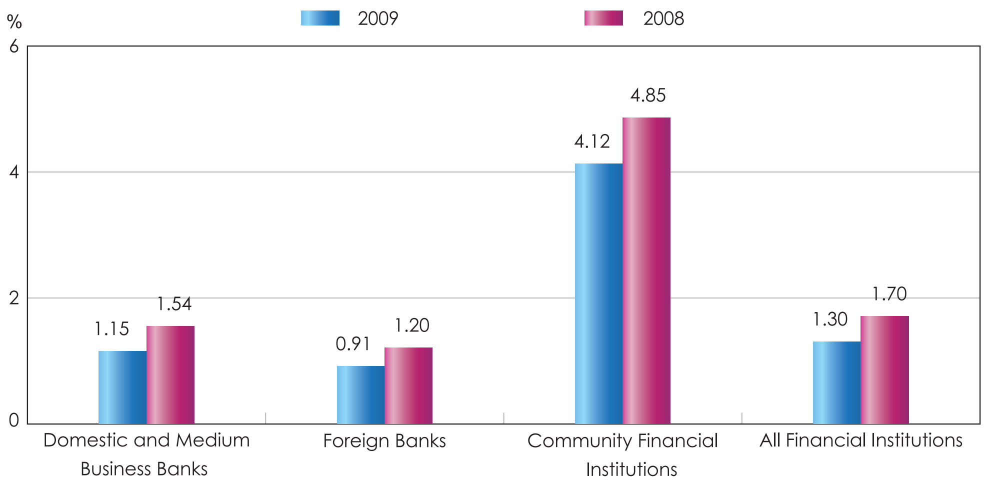
## Non-Performing Loan Ratios of Financial Institutions




*Notes*: 1. Financial institutions include domestic banks, medium business banks, foreign banks, credit cooperatives, credit departments of farmers' and fishermen's associations, as well as trust and investment companies for data prior to 2008 Q4.
2. Data of loans include loans under surveillance.

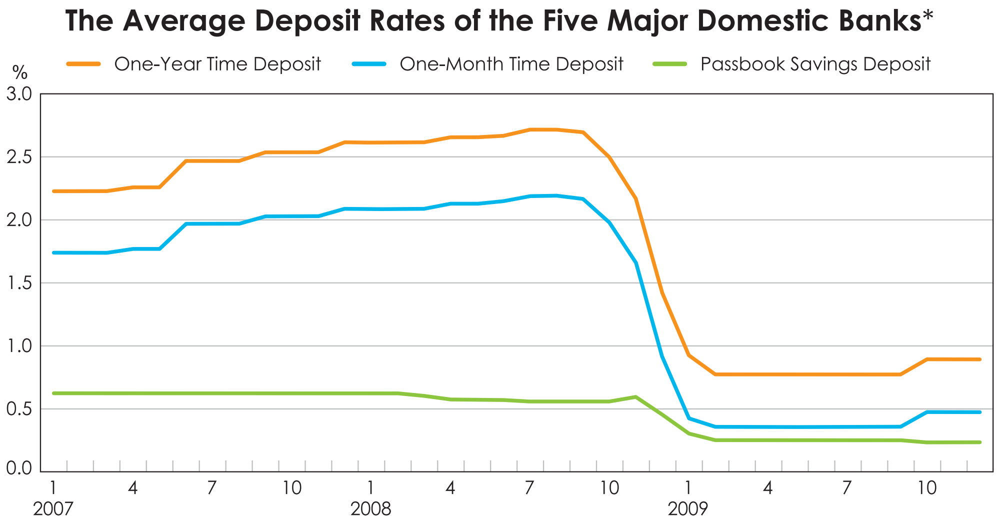
*Source*: Department of Financial Inspection, CBC.

## Non-Performing Loan Ratios by Type of Financial Institutions




*Source*: Department of Financial Inspection, CBC.

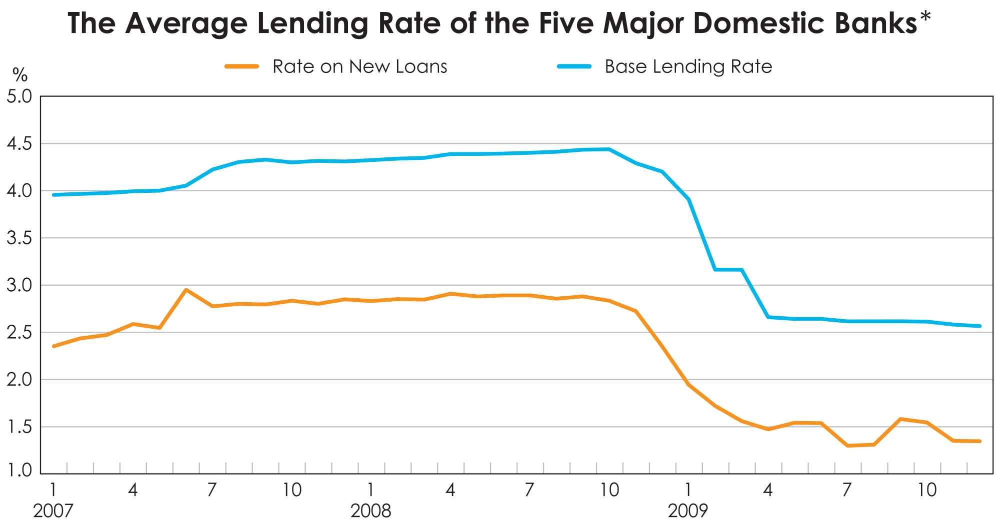
average fixed rates on one-month and one-year time deposits, respectively, declined to 0.35 percent and 0.77 percent at the end of September 2009 from 0.91 percent and 1.42 percent at the end of 2008, but turned to rise to 0.47 percent and 0.89 percent at the end of 2009. This was because many banks adjusted to reverse the situation where floating interest rates on deposits were higher than fixed rates. Furthermore, the average base lending rate continued to decline to 2.56 percent in 2009 from 4.21 percent in 2008.




Note: * Prior to Oct. 2008, the five major domestic banks were Bank of Taiwan, Taiwan Cooperative Bank, First Commercial Bank, Hua Nan Commercial Bank and Chang Hwa Commercial Bank, while beginning Nov.2008, Chang Hwa Commercial Bank was replaced by Land Bank of Taiwan.

*Source*: *Financial Statistics Monthly*, CBC.

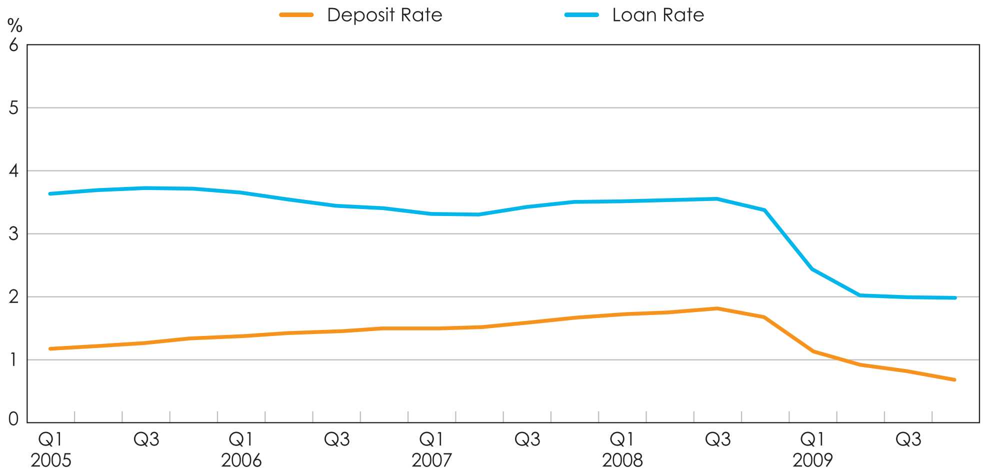
During 2009, owing to easy funding conditions, the weighted average lending rate on new loans extended by the five major domestic banks broadly exhibited a downward trend. It fell to a yearly low of 1.29 percent in July 2009, and then fluctuated between 1.30 percent and 1.58 percent for the rest of the year. On the whole, the weighted average lending rate declined from 2.80 percent in 2008 to 1.50 percent in 2009.




Note: * Prior to Oct. 2008, the five major domestic banks were Bank of Taiwan, Taiwan Cooperative Bank, First Commercial Bank, Hua Nan Commercial Bank and Chang Hwa Commercial Bank, while beginning Nov.2008, Chang Hwa Commercial Bank was replaced by Land Bank of Taiwan.

*Source*: *Financial Statistics Monthly*, CBC.

## The Weighted Average Interest Rates of Domestic Banks




*Source*: *Financial Statistics Monthly*, CBC.

The weighted average rates on deposits and loans of domestic banks showed a downward trend as well. In the fourth quarter of 2009, the weighted average interest rates on deposits and loans were 0.64 percent and 1.95 percent, respectively, which were 1 percentage point and 1.4 percentage points lower than those recorded in the previous year. The interest rate spread between deposits and loans shrank to 1.11 percentage points in the second quarter from 1.71 percentage points in the fourth quarter of 2008 because loan rates declined more than deposit rates, and rose to 1.31 percentage points in the fourth quarter of 2009, as many time deposits with higher fixed rates matured.

### Increase in Profitability

The pre-tax profits of all depository institutions increased by NT$41.3 billion to NT$113.7

## Profits of Depository Institutions

Unit: NT$ Billion

| | Pre-tax Profits | | | Return on Assets (%)* | | | Return on Equity (%)** | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2009 | 2008 | Annual Change | 2009 | 2008 | Annual Change | 2009 | 2008 | Annual Change |
| Domestic Banks and Medium Business Banks | 85.1 | 34.4 | 50.7 | 0.27 | 0.12 | 0.15 | 4.35 | 1.90 | 2.45 |
| Foreign Banks | 12.1 | 24.6 | -12.5 | 0.54 | 0.75 | -0.21 | 17.16 | 33.05 | -15.89 |
| Credit Cooperatives | 0.2 | 1.8 | -1.6 | 0.03 | 0.31 | -0.28 | 0.42 | 4.53 | -4.11 |
| Credit Departments of Farmers' and Fishermen's Associations | 3.1 | 3.8 | -0.7 | 0.20 | 0.26 | -0.06 | 3.39 | 4.17 | -0.78 |
| Chunghwa Post Co. | 13.2 | 7.8 | 5.4 | 0.28 | 0.17 | 0.11 | 17.85 | 47.66 | -29.81 |
| Total | 113.7 | 72.4 | 41.3 | 0.28 | 0.18 | 0.10 | 5.10 | 3.56 | 1.54 |

*Notes*: * Return on Assets = Pre-tax Profits / Total Assets
** Return on Equity = Pre-tax Profits / Net Worth
*Source*: Department of Financial Inspection, CBC.

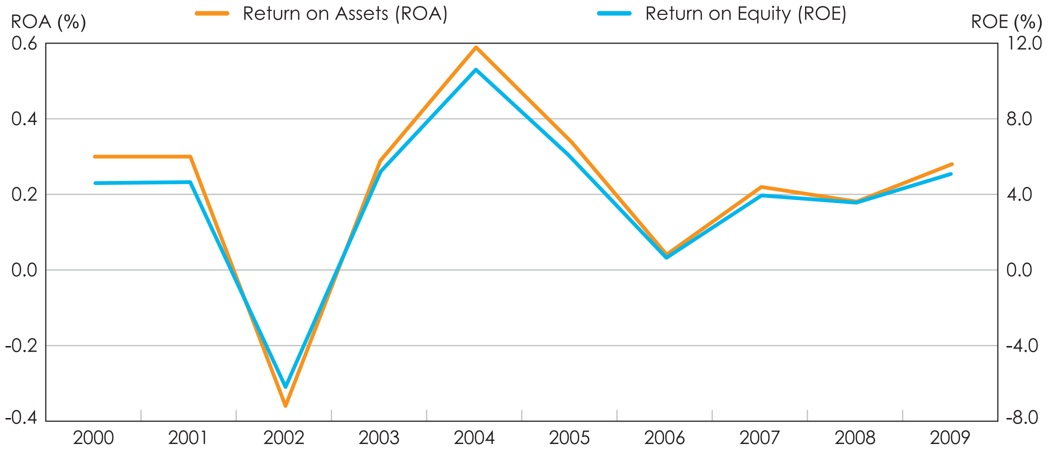
billion. Of which, due to increases in the fair value of financial assets and the profits from portfolio investments, domestic banks and medium business banks increased by NT$50.7 billion to NT$85.1 billion, and Chunghwa Post Co. increased by NT$5.4 billion to NT$13.2 billion.

### Increase in Both ROA and ROE

The average return on assets (ROA) and return on equity (ROE) for all depository institutions went up to 0.28 percent and 5.10 percent in 2009, respectively, from 0.18 percent and 3.56 percent a year earlier, mainly due to improved ROAs and ROEs of domestic banks and medium business banks. Among the depository institutions, foreign banks were the best performers in terms of ROA, while Chunghwa Post Co. posted the highest ROE.

As for the capital adequacy ratio, the average ratio of domestic banks rose to 11.85 percent at the end of the year from 11.04 percent at the previous year-end on account of increased regulatory capital and reduced risk-weighted assets.

**The Return on Assets and Equity of Depository Institutions**




*Source*: Department of Financial Inspection, CBC.

# 4. Money Market

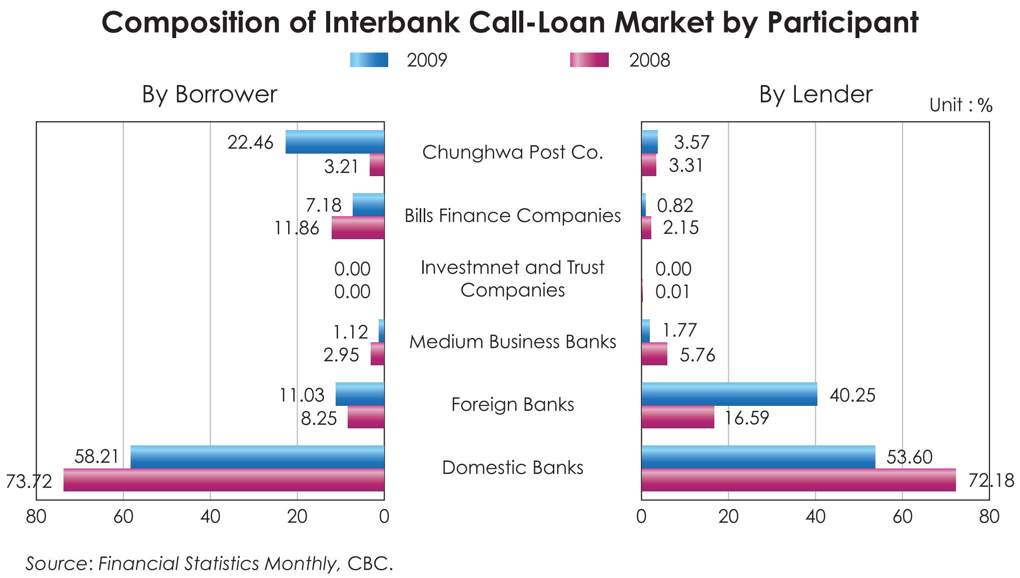
In 2009, the total turnover in the interbank call-loan market increased by 54.77 percent, but that in the short-term bills market decreased by 8.89 percent. Market rates of both remained at low levels after the Bank stopped cutting the discount rate in the first quarter.

### Active Interbank Call-loan Market

The interbank call-loan market was active in 2009. As the effect of the global financial crisis lessened and the domestic economy gradually bottomed out in the first quarter, banks adopted more aggressive lending policies. In the second half of the year, foreign capital inflows increased, and the supply of domestic funds was abundant. The total annual turnover amounted to NT$25,707.2 billion for the year, showing a marked increase of 54.77 percent compared with the previous year.

Domestic banks were the largest borrower during the year, accounting for 58.21 percent of total trading, followed by Chunghwa Post Co., foreign banks and bills finance companies, with shares of 22.46 percent, 11.03 percent and 7.18 percent, respectively. The share of domestic banks decreased by 15.51 percentage points with the borrowed amount increasing by 22.21 percent. The increase reflected the continuous inflow of foreign capital under more stable financial conditions and an ample supply of liquidity in the banking system. To mop up excess liquidity, the Bank increased the issuance of certificates of deposit, which induced banks' demand for funds. The share of Chunghwa Post Co. increased by 19.25 percentage points because of its collaborative efforts in absorbing market liquidity. The share of foreign banks also increased due to the outflow of foreign capital at the beginning of the year and was 2.78 percentage points more than that in the previous year. The share of bills finance companies decreased by 4.68 percentage points from the previous year, mainly because they continuously decreased the issuing amount to control risk, thus lowering the demand for funds.

With regard to lenders, domestic banks continued to be the largest supplier of funds, accounting for 53.60 percent of total transactions. Following domestic banks were foreign banks, Chunghwa Post Co. and medium business banks with respective shares of 40.25 percent, 3.57 percent and 1.77 percent. The lending amount of domestic banks increased by 14.92 percent compared with the previous year because banks' lending policies became less conservative. With abundant funds gained from custodian business for foreign investors, the lending amount of foreign banks kept increasing. The share of foreign banks climbed from 16.59 percent in the previous year to 40.25 percent. The share of Chunghwa Post Co. increased




to 3.57 percent from 3.31 percent in the previous year. In contrast, the share of medium business banks decreased by 3.99 percentage points from the previous year.

In terms of maturity, overnight interbank call loans remained the most actively traded in the market with a predominant share of 58.62 percent, up by 7.13 percentage points from that of the previous year. Second were those with a maturity of 1 week, accounting for 31.27 percent, down by 0.77 percentage points from that of the previous year. The share of loans with a 2-week maturity declined to 8.25 percent from 14.09 percent in the previous year. Trading of those with maturities of 3 weeks, 1 month, 2-6 months, and above 6 months accounted for negligible shares.

### Decrease in Short-term Bills Market Transactions

In 2009, newly issued short-term bills totaled NT$6,293.4 billion, 9.43 percent less than that in the previous year. Of the new issues of short-term bills, commercial papers continued to account for the lion's share of 85.77 percent. Second were negotiable certificates of deposit with a share of 6.97 percent. Bankers' acceptances made up a marginal share of 0.35 percent. Compared with the previous year, the growth rate of commercial papers issued was negative because corporate demand for funds was weak. On the contrary, the Ministry of Finance increased the issues of treasury bills owing to tax revenue reduction. As of the end of 2009, total outstanding short-term bills amounted to NT$1043.1 billion, 7.56 percent more than that of the previous year-end.

## Short-Term Bills Market

Unit: NT$ Billion

| Year | Total | | Treasury Bills | | Commercial Papers | | Bankers' Acceptances | | Negotiable Certificates of Deposit | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Issue | Year-end Outstanding | Issue | Year-end Outstanding | Issue | Year-end Outstanding | Issue | Year-end Outstanding | Issue | Year-end Outstanding |
| 2000 | 10,324.6 | 1,805.0 | 95.0 | 45.0 | 9,032.7 | 1,256.3 | 46.2 | 10.2 | 1,150.8 | 493.5 |
| 2001 | 9,901.5 | 1,487.8 | 85.0 | 50.0 | 8,926.8 | 1,102.4 | 36.1 | 8.3 | 853.6 | 327.1 |
| 2002 | 8,378.1 | 1,309.5 | 180.0 | 180.0 | 7,525.1 | 870.1 | 40.1 | 7.9 | 632.9 | 251.5 |
| 2003 | 7,547.7 | 1,194.4 | 60.0 | 60.0 | 6,815.1 | 808.8 | 34.5 | 6.8 | 638.1 | 318.7 |
| 2004 | 6,888.8 | 1,316.5 | 130.9 | 130.9 | 5,642.8 | 775.6 | 35.2 | 7.6 | 1,080.0 | 402.4 |
| 2005 | 7,121.0 | 1,168.1 | 115.0 | 45.0 | 5,690.4 | 747.0 | 31.1 | 7.7 | 1,284.5 | 368.5 |
| 2006 | 7,004.0 | 1,092.4 | 45.0 | 25.0 | 5,879.8 | 717.6 | 36.1 | 8.1 | 1,043.1 | 341.7 |
| 2007 | 6,495.1 | 925.3 | 88.0 | 28.0 | 5,577.2 | 664.8 | 38.2 | 8.4 | 791.7 | 224.0 |
| 2008 | 6,948.6 | 969.8 | 240.0 | 106.8 | 6,074.7 | 690.2 | 33.3 | 4.9 | 600.6 | 167.8 |
| 2009 | 6,293.4 | 1,043.1 | 435.0 | 215.0 | 5,397.7 | 651.3 | 21.9 | 4.9 | 438.8 | 171.9 |
| 2008-2009 Change | -655.2 | 73.3 | 195.0 | 108.2 | -677.0 | -38.9 | -11.4 | 0.0 | -161.8 | 4.1 |
| Growth Rate (%) | -9.43 | 7.56 | 81.25 | 101.31 | -11.14 | -5.56 | -34.23 | 0.00 | -26.94 | 2.44 |

*Source*: *Financial Statistics Monthly*, CBC.

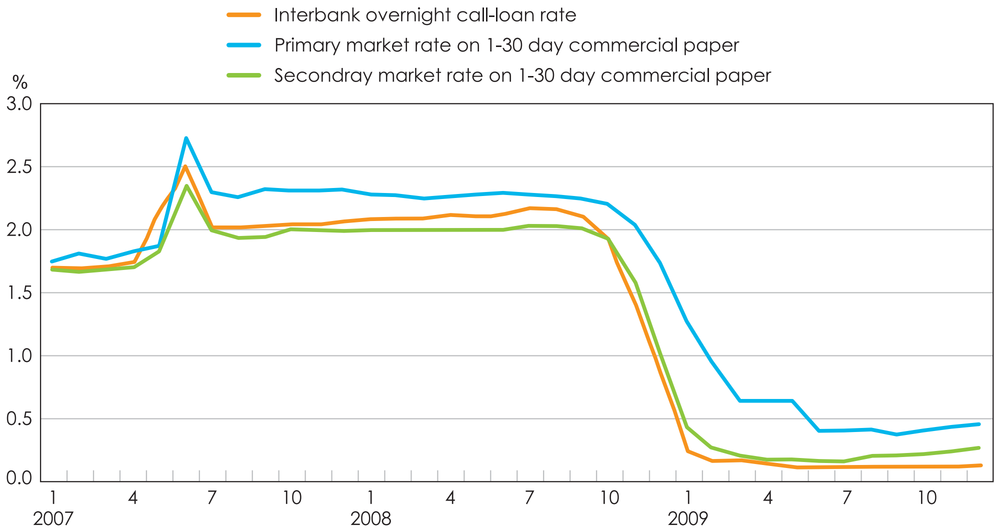
In the secondary market, total turnover of short-term bills decreased by 8.89 percent to NT$42,096.4 billion. Of the total transactions, commercial papers still made up the largest share of 78.17 percent, which represented a decrease of 7.07 percentage points compared with the previous year. It was followed by negotiable certificates of deposit with a share of 17.54 percent, which represented an increase of 7.94 percentage points compared with 2008. Treasury bills accounted for 4.08 percent. With respect to market participants, private enterprises remained the largest player in the market with a share of 45.49 percent, followed by banks with a share of 21.77 percent.

### Money Market Rates Went Down and Stayed Low

During 2009, funding conditions in the banking system remained easy. In the first quarter, with weak funds demand from the private sector amid a domestic economic slowdown, repatriation of funds from overseas and the Bank's increase in banks' excess reserves, funding conditions were easy. In the second quarter, because net foreign capital inflows increased, funding conditions stayed easy. In the third quarter, the Bank issued more certificates of deposit to bring down the level of the huge banks' excess reserves to prevent excess liquidity from affecting the stability of financial markets. In the fourth quarter, as the financial crisis waned, the global economy clearly rebounded and domestic recovery also gained momentum, demand for funds increased, but funding conditions remained easy under the Bank's monetary easing policy.

The interbank overnight call-loan rate went down in the first quarter of the year because of the Banks' interest rate cuts. It turned downwards from 0.87 percent at the previous year-end to a low of 0.10 percent in May 2009 and then stayed low under the Bank's continued monetary easing policy. The primary market rate on commercial paper with maturities of 1-30 days went downward from 1.73 percent at the end of the previous year to 0.43 percent at the end of 2009. The secondary market rate on commercial paper with maturities of 1-30 days also stepped down from 1.00 percent to 0.25 percent during the same period.

**Money Market Interest Rates**




*Source: Financial Statistics Monthly*, CBC.

# 5. Foreign Exchange Market

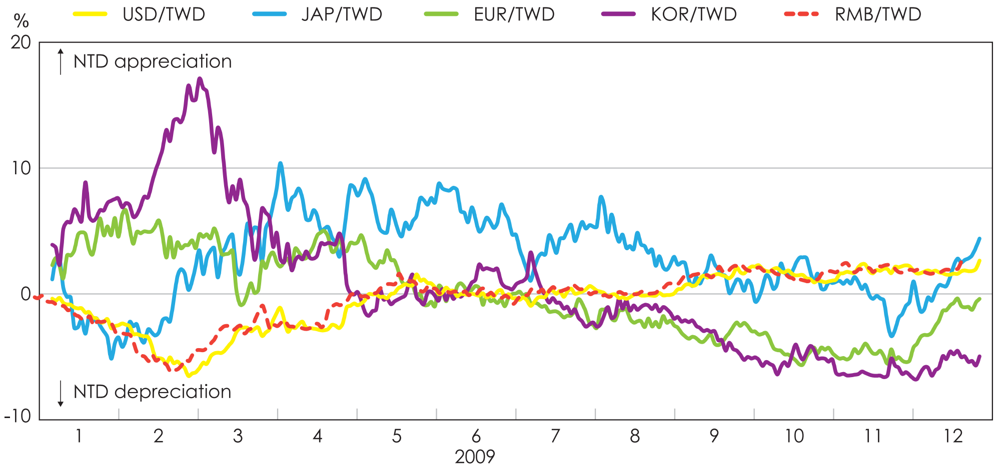
## Large Fluctuations of the NT dollar Exchange rate

On a daily average basis, the trade-weighted nominal effective exchange rate index of the NT dollar declined by 4.13 percent in 2009. However, the foreign exchange market experienced noticeable fluctuations during the year.

The NT dollar depreciated against the US dollar at the beginning of the year, and then appreciated gradually. The NT dollar weakened in the first two months as a result of Taiwan's export decline and foreign capital outflow. The NT$/US$ exchange rate depreciated to a yearly low of 35.174 on March 2.

After March, as the pace of the economic decline slowed and demand for hedges weakened, the NT dollar started to appreciate against the US dollar. From mid-July onwards, US dollar carry trade expanded because the short-term interest rate for borrowing US dollars was lower to near zero percent. In addition, foreign capital flowed into Taiwan in response to the better relationship across the Taiwan Strait and rebounding stock market. All these factors pushed the NT dollar appreciated slowly against the US dollar, from 32.785 on July 1 to a yearly high of 32.030 on December 31, 2.59 percent higher than at the end of 2008. On a daily average basis, the NT$/US$ exchange rate depreciated by 4.54 percent compared with that of the previous year.

**Percentage Changes of NT Dollar against Major Currencies (compared with end 2008)**




*Source*: Department of Economic Research, CBC.

The NT dollar appreciated against the euro at first, then declined in the following months, and went up again in December. At the beginning of the year, the economic performance of the euro area deteriorated and Eastern Europe faced a credit downgrade. Therefore, as the European Central Bank (ECB) cut policy rates twice in the first quarter, the NT dollar appreciated. In early March, the euro became stronger due to the easing of the Eastern European credit crisis. After mid-March, the euro turned weak again because markets expected the ECB to cut interest rates further. However, after late April, the threat of an economic recession diminished in the euro area, capital flowed from the dollar denominated assets to more risky ones, and central banks diversified their portfolio of foreign currency reserves. Hence, the NT dollar depreciated slowly against the euro. In December, the NT dollar bounced back against the euro because of the increasing sovereign credit risk of Greece and Spain. At the end of the year, the exchange rate of the NT dollar against the euro was 0.46 percent below the level observed one year before. On a daily average basis, the NT dollar appreciated against the euro by 0.58 percent compared with the previous year.

The NT dollar appreciated against the Japanese yen till March, slowly depreciated in the following months, and strengthened again in December. In January, investors unwound their yen carry trade positions in response to the international financial turmoil. The NT dollar depreciated against the Japanese yen, and touched a yearly low of 0.3826 on January 23. Afterwards, the NT dollar turned strong against the Japanese yen in March, when Japan suffered exports contraction and weak domestic demand. However, after April, because of Japan's increasing trade surplus, the government economic stimulus plan, and a rosy global economic outlook, the Japanese yen gained strength and the NT dollar depreciated gradually against the Japanese yen until December. In December, the NT dollar appreciated against the Japanese yen, as the US dollar bounced, and Japan faced the threat of deflation. At the end of the year, the NT dollar appreciated by 4.33 percent against the Japanese yen compared to the end of 2008. On a daily average basis, the NT dollar depreciated against the Japanese yen by 13.47 percent when compared with the previous year.

The exchange rate of the RMB against the US dollar remained relatively stable in 2009. The NT dollar exchange rate against the RMB weakened in the first quarter to reach a low of 5.138 on March 2, before consolidating and climbing to a high of 4.692 on December 31. Between the end of 2008 and 2009, the NT dollar appreciated by 2.65 percent against the RMB. On a daily average basis, the NT dollar depreciated by 6.11 percent against the RMB as compared with the previous year.

The NT dollar appreciated against the Korean won at the beginning of the year before depreciating gradually. The NT dollar appreciated dramatically against the Korean won in the first two months. This was because Korea's exports decreased substantially, and foreign capital flowed out of the country. The Bank of Korea cut policy rates twice in order to stimulate economic growth, and global financial markets expected a financial crisis to emerge in Korea at the beginning of the year, adding to the pressure on the Korean Won. However, after April, as Korea's current account returned to a surplus, and foreign capital flowed back in, the Korean won rebounded. The won kept appreciating after the FTSE upgraded Korea from emerging market to developed country status and markets expected more foreign capital to flow into the stock market. The NT dollar kept depreciating against the Korean won and hit a yearly low of 0.028 on December 8. The NT dollar depreciated by 5.02 percent against the Korean won between the end of 2008 and 2009. On a daily average basis, the NT dollar appreciated by 10.14 percent against the Korean won in 2009 when compared with the previous year.

## Turnover of Foreign Exchange Market Decreased

Trading in the Taipei foreign exchange market decreased in 2009. Total net trading volume for the year decreased by 15.2 percent from the previous year to US$4,111.29 billion. The daily average turnover was US$16.25 billion, representing a decrease of 15.8 percent over the previous year. The decrease in turnover mainly reflected a contraction of international trade and diminishing capital movements. Furthermore, transactions in third currencies decreased because major central banks introduced loose monetary policies to tackle the financial crisis, which narrowed the interest rate spreads between currencies.

In terms of trading partners, transactions between banks and non-bank customers accounted for 25.8 percent of the total net turnover, while inter-bank transactions made up a 74.2 percent share, including 23.5 percent for transactions among local banks and 50.7 percent for those between local banks and overseas banks.

### Turnover of Major Products in the Taipei Foreign Exchange Market

Unit: US$ Million

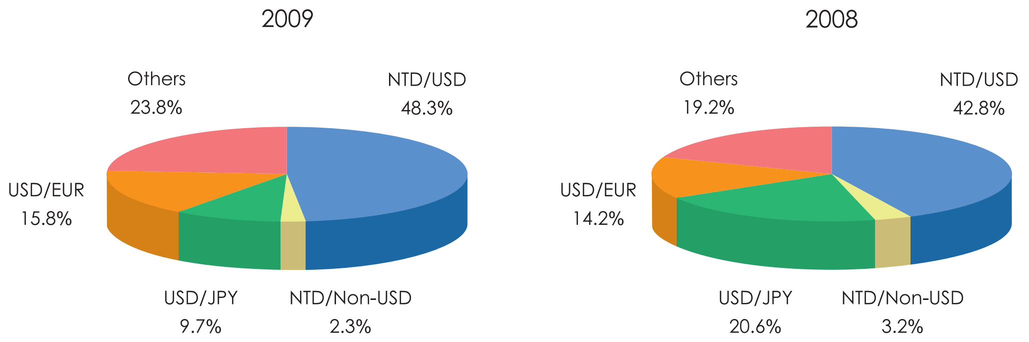
| Year | Spots | Forwards | Forex Swaps | Margin Trading | Options | Cross Currency Swaps | Total |
|---|---|---|---|---|---|---|---|
| 2005 | 1,550,731 | 274,370 | 823,483 | 24,378 | 295,908 | 39,788 | 3,008,657 |
| 2006 | 1,910,270 | 411,182 | 1,107,646 | 37,809 | 396,578 | 47,353 | 3,910,838 |
| 2007 | 2,418,963 | 477,189 | 1,362,112 | 42,482 | 303,857 | 29,683 | 4,634,286 |
| 2008 | 2,455,394 | 459,393 | 1,548,763 | 34,871 | 307,857 | 40,097 | 4,846,375 |
| 2009 | 1,841,951 | 283,233 | 1,627,020 | 20,809 | 311,353 | 26,927 | 4,111,293 |
| 2008-2009 Growth Rate (%) | -25.0 | -38.3 | 5.1 | -40.3 | 1.1 | -32.8 | -15.2 |

*Source*: Department of Foreign Exchange, CBC.

As far as traded currencies are concerned, NT dollar trading against foreign currencies accounted for 50.6 percent of the total trading volume, of which trading against the US dollar made up a dominant 48.3 percent. Transactions in third currencies accounted for 49.4 percent of total trading volume, with trading in currency pairs of US dollar-other currencies and US dollar-euro accounting for shares of 23.8 percent and 15.8 percent, respectively. Compared with 2008, NT dollar trading against foreign currencies decreased by 6.7 percent, and transactions in third currencies decreased by 22.39 percent as well.

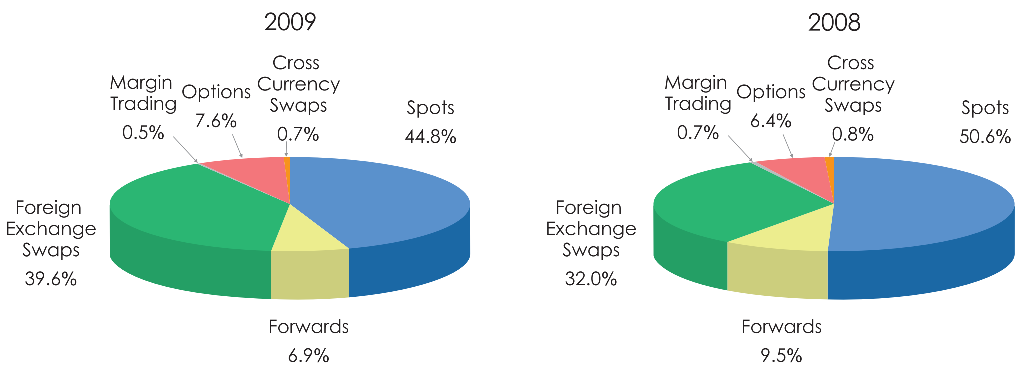
With respect to transaction types, spot transactions accounted for the highest share of 44.8 percent of total turnover, followed by foreign exchange swaps with a share of 39.6 percent. Compared with 2008, except for an increase in cross currency swaps and options transactions,

**Composition of Foreign Exchange Transactions by Traded Currency**




*Source*: Department of Foreign Exchange, CBC.

**Composition of Foreign Exchange Transactions by Product**




*Source*: Department of Foreign Exchange, CBC.

## Turnover of Other Products in the Taipei Foreign Exchange Market

Unit: US$ Million

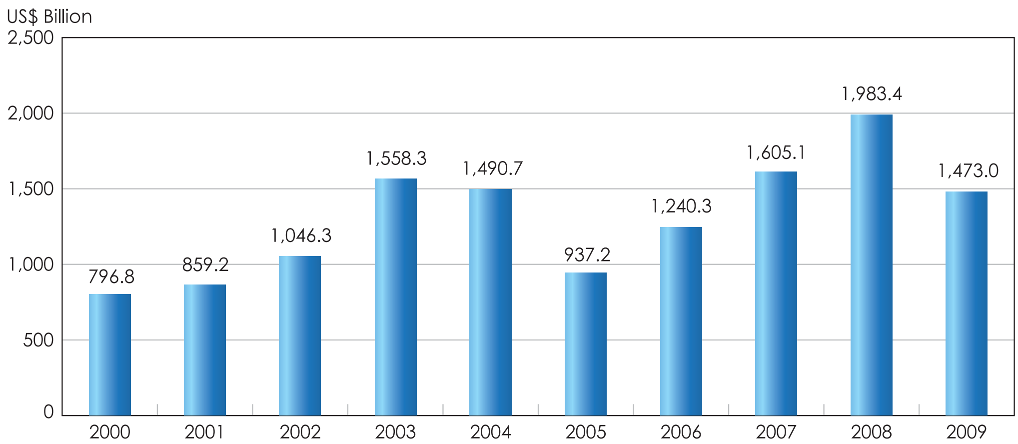
| Year | Interest Rate-related Products | | | | Commodity-related Products | | Stock Index Options | Credit Derivatives | Total |
|---|---|---|---|---|---|---|---|---|---|
| | Forward Rate Agreements | Interest Rate Swaps | Interest Rate Options | Foreign Currency Interest Rate Futures | Commodity Options | Commodity Price Swaps | | | |
| 2005 | 25,089 | 78,528 | 23,668 | 29,385 | 4,594 | – | 389 | 581 | 162,235 |
| 2006 | 24,796 | 69,219 | 11,970 | 40,992 | 1,827 | – | 1,005 | 964 | 150,772 |
| 2007 | 12,958 | 93,072 | 17,475 | 176,723 | 6,947 | – | 627 | 5,243 | 313,044 |
| 2008 | 18,799 | 205,911 | 8,860 | 172,918 | 17,875 | – | 126 | 3,586 | 428,075 |
| 2009 | 5,715 | 469,003 | 4,999 | 208,566 | 18,360 | – | 51 | 3,312 | 710,006 |
| 2008-2009 Growth Rate (%) | -69.6 | 127.8 | -43.6 | 20.6 | 2.7 | – | -59.4 | -7.6 | 65.9 |

*Source*:Department of Foreign Exchange, CBC.

the trading volumes of all the other types decreased, and margin trading and forwards posted the largest decreases of 40.3 percent and 38.3 percent, respectively. The main reason was the enterprise demand for forwards decreased because of a slowdown in exports amid the financial crisis.

In 2009, the turnover of forwards, swaps and options based on foreign currency interest rates, stock price indices, commodity prices, and credit derivatives amounted to US$710.01 billion. Of this amount, interest rate-related derivatives accounted for the lion's share of US $688.28 billion or 96.9 percent, representing an annual growth rate of 69.3 percent. Because the demand for interest rate hedging increased, interest rate swaps accounted for the highest growth rate of 127.8 percent among all kinds of derivatives compared with the previous year.

## Transactions in the Taipei Foreign Currency Call-Loan Market




*Source*: Department of Foreign Exchange, CBC.

## Foreign Currency Call-Loan Market Transactions Decreased

The transaction volume in the foreign currency call-loan market in 2009 was US$1,473.01 billion, a decrease of 25.7 percent over the previous year. Of this amount, US dollar transactions accounted for US$1,459.17 billion, as high as 99.06 percent of the total and about 25.9 percent lower than that in 2008. The decrease mainly reflected declining turnover in the call-loan market with plentiful supply of long-term funds and the easing of the credit crunch. Japanese yen transactions totaled ¥958.00 billion in 2009, a slight increase of 7.8 percent over the figure recorded in 2008, but the share remained rather small at only 0.70 percent. The amount of euro transactions totaled only €1.45 billion, 49.7 percent lower than that of the previous year, and the share was 0.14 percent. Other currencies accounted for 0.11 percent of total transaction volume in 2009.

## Offshore Banking Units' Assets Decreased

There were 63 offshore banking units (OBUs) in operation at the end of 2009. Domestic banks operated 36 units of the OBUs, while foreign banks ran the other 27 units. Owing to the decreases in claims on foreign financial institutions and nonresidents, the total assets of all OBUs decreased to US$95.05 billion at the end of the year, representing a decrease of US$3.58 billion or 3.6 percent from the previous year-end. OBUs of domestic bank accounted for US $81.44 billion or 86 percent of these combined assets, and OBUs of foreign bank accounted for US$13.61 billion, or 14 percent of the total. The OBUs' main uses of funds were due from affiliated branches and deposits with financial institutions. These accounted for 46 percent of total assets. Second to these were loans with a share of 32 percent. In terms of fund destination, 57 percent of funds went to Asia, and 26 percent went to the Americas.

The OBUs' main sources of funds were due to affiliated branches and deposits by financial institutions, which together accounted for 57 percent of total liabilities. These were followed by deposits of non-financial institutions, which accounted for 34 percent of total liabilities and increased by 4.4 percent compared to the previous year. OBUs have been gradually developing into funding centers for overseas Taiwanese firms. In terms of geographical origin, 72 percent of funds came from Asia, and 23 percent from the Americas.

The forex-trading turnover of all OBUs in 2009 was US$158.60 billion, of which US$88.99 billion was for spot transactions and US$36.71 billion for forward transactions. Compared with the previous year, spot and forward transactions decreased 17.44 percent and 2.3 percent, respectively. Foreign exchange swap transactions amounted to US$32.91 billion, a 20.77 percent increase from 2008. The main reason was because of more banks entering the swap transaction market during 2009.

## Consolidated Balance Sheet of Offshore Banking Units in Banking System

Unit: US$ Million

| Year/Month | Loans to Non-financial Institutions | Portfolio Investment | Claims on Financial Institutions | Other Assets | Total Assets= Total Liabilities | Deposits of Non-financial Institutions | Due to Financial Institutions | Securities Issued | Other Liabilities |
|---|---|---|---|---|---|---|---|---|---|
| 2005/12 | 18,697 | 8,718 | 38,432 | 4,311 | 70,158 | 20,712 | 44,305 | 0 | 5,141 |
| 2006/12 | 19,473 | 10,805 | 40,352 | 6,056 | 76,686 | 24,227 | 46,664 | 483 | 5,312 |
| 2007/12 | 23,931 | 11,969 | 47,788 | 7,593 | 91,281 | 27,263 | 55,939 | 499 | 7,580 |
| 2008/12 | 32,481 | 10,851 | 48,141 | 7,159 | 98,632 | 31,133 | 60,198 | 724 | 6,577 |
| 2009/12 | 29,988 | 13,757 | 43,954 | 7,352 | 95,051 | 32,493 | 54,070 | 352 | 8,136 |
| 2008/12-2009/12 Growth Rate (%) | -7.7 | 26.8 | -8.7 | 2.7 | -3.6 | 4.4 | -10.2 | -51.4 | 23.7 |

*Source*: *Financial Statistics Monthly*, CBC.

The total turnover of derivative products amounted to US$313.82 billion, a moderate increase of 3.5 percent over the previous year. Of this amount, financial futures accounted for US$209.37 billion, as high as 66.72 percent of the total and an increase of 19.47 percent from 2008. The main reasons were huge global equity market fluctuations and low interest rates affected by the financial crisis, as well as the related hedging and speculative needs. Commodity forwards showed a large increase of 261.28 percent from the previous year; however, such transactions only accounted for 0.05 percent of total turnover of derivative products.

# 6. Stock Market

The Taiwan Stock Exchange (TSE) capitalization weighted stock index (TAIEX) closed the year 2009 up 78.3 percent from the end of the previous year. All industrial groups performed better than last year, with construction and textile industry shares among the strongest. The TAIEX daily average trading value was NT$118.3 billion, increasing by 12.8 percent from the previous year.

At the end of 2009, the weighted stock price index of the GreTai Securities Market (GTSM), an over-the-counter market, rose 133.1 percent compared to the end of 2008, with all industrial group shares gaining. The daily average trading value was NT$20.9 billion, an increase of 58.3 percent from the previous year.

## The TSE Market

### Listings Increased Substantially

At the end of 2009, the number of listed companies in the TSE market totaled 741, an increase of 23 from the end of 2008. The par value of shares issued amounted to NT$5.9 trillion, rising 2.3 percent from a year ago. The total market capitalization grew 79.7 percent from the

**Major Statistics of the TSE Market**

| | Stock price Index* (1966=100) | Daily Average Trading Value (NT$ Billion) | Turnover Rate (%) | Market Capitalization* (NT$ Billion) | Net Buying / Sale Positions** (NT$ Billion) | | |
|---|---|---|---|---|---|---|---|
| | | | | | Foreign Investors Net Buy/Sell | Securities Investment Trust Companies Net Buy/Sell | Securities Dealers Net Buy/Sell |
| 2007 | 8,506.3 | 133.8 | 153.3 | 21,527 | 74.1 | 155.4 | 15.8 |
| 2008 | 4,591.2 | 104.9 | 145.5 | 11,707 | -470.0 | 44.0 | 43.3 |
| 2009 | 8,188.1 | 118.3 | 178.3 | 21,034 | 480.1 | -28.9 | 10.0 |
| 2009/ 1 | 4,248.0 | 56.4 | 7.8 | 10,844 | -51.9 | -2.5 | 1.8 |
| 2 | 4,557.2 | 65.5 | 11.3 | 11,636 | -15.0 | 1.1 | 1.5 |
| 3 | 5,210.8 | 105.0 | 17.5 | 13,199 | 13.4 | -2.5 | 1.3 |
| 4 | 5,992.6 | 142.4 | 20.8 | 15,098 | 103.7 | -4.3 | 1.9 |
| 5 | 6,890.4 | 192.2 | 19.9 | 17,349 | 63.6 | 5.3 | 2.4 |
| 6 | 6,432.2 | 123.7 | 17.6 | 16,215 | 21.9 | -8.1 | -7.1 |
| 7 | 7,077.7 | 131.8 | 17.0 | 17,893 | 84.5 | -1.4 | 11.0 |
| 8 | 6,826.0 | 104.8 | 12.1 | 17,330 | 9.4 | 2.8 | -6.0 |
| 9 | 7,509.2 | 120.0 | 13.8 | 19,108 | 142.2 | 2.6 | 1.0 |
| 10 | 7,340.1 | 126.3 | 14.8 | 18,728 | -12.0 | -9.0 | -5.6 |
| 11 | 7,582.2 | 108.8 | 11.8 | 19,403 | 21.8 | -0.4 | 2.0 |
| 12 | 8,188.1 | 128.1 | 14.0 | 21,034 | 98.5 | -12.6 | 5.9 |

*Notes*: * Refers to end-of-period data.
** Minus sign "-" indicates net sale positions.
*Source*: Financial Supervisory Commission, Executive Yuan.

previous year-end to NT$21 trillion. In addition, a total of 10 companies issued Taiwan Depository Receipts (TDRs) in 2009, a record increase since the last TDR issuance in 2003.

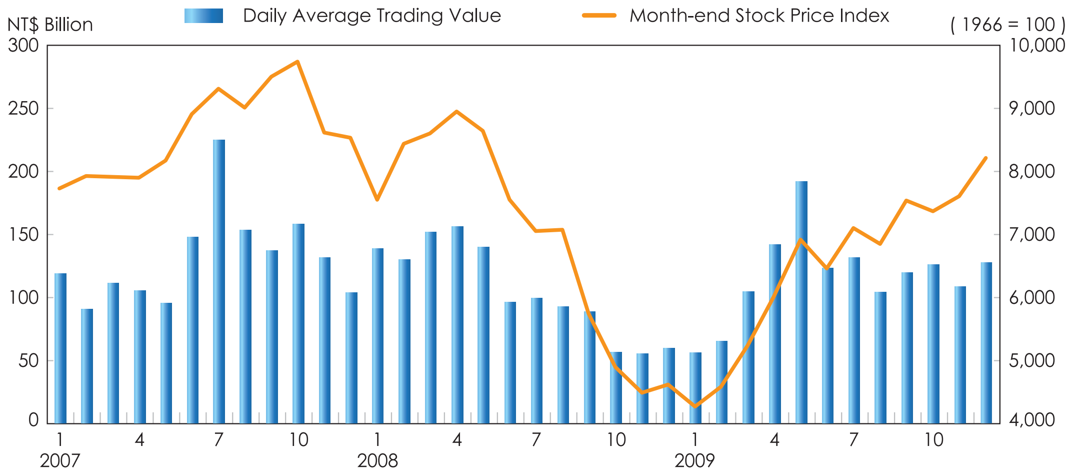
### Share Prices Surged

In January 2009, as the US recession deepened, the Dow Jones Industrial Average index plummeted. It also adversely affected the performance of Taiwan's IT industry. Combined with a continued sell-off by foreign investors, the above factors dragged down the TAIEX with a low of 4,243 points recorded on January 20.

However, a flush of funds due to low interest rates and the bottoming out of US stock markets in mid March combined to set off a worldwide upswing in stock markets. In late June, the government markedly loosened restrictions on Chinese investment in Taiwan, encouraging foreign investors to net buy in the TSE market and spurring the TAIEX to a high of 7,143 points on July 28. Nevertheless, notable downward corrections in Chinese stock markets as well as some political effects in the aftermath of the August 8 flood in Taiwan combined to bring down the TAIEX, which dipped to 6,655 points on August 21.

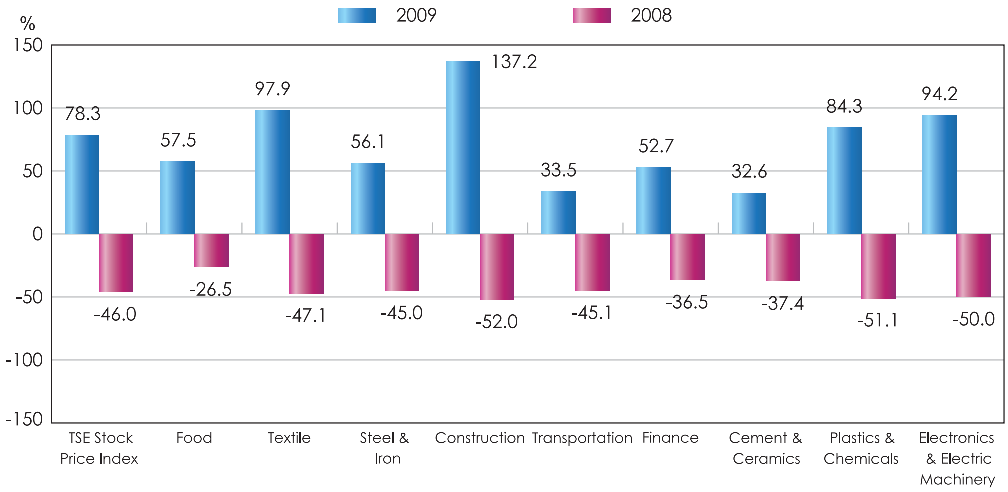
From late August, US stock markets rose steadily on evidence of improved economic conditions as well as the Fed's decision to leave interest rates unchanged. Meanwhile, favorable developments in cross-Strait relations, such as the possible signing of memorandums of understanding (MOUs) on financial cooperation and the Economic Cooperation Framework Agreement (ECFA), also attracted increasing foreign investment in Taiwan's stock market. Against this backdrop, the TAIEX continued a strong upswing to reach an all-year high of 8,188

**TSE Stock Price Index and Trading Value**




*Source*: Financial Supervisory Commission, Executive Yuan.

Changes in Industrial Group Stock Price Indices in the TSE Market




*Source*: *TSEC Monthly Review*, Taiwan Stock Exchange Coorporation.

points on December 31, 2009, a remarkable rally of 78.3 percent from the 4,591 points at the end of 2008.

In terms of stock price changes in industrial groups, all industrial group stock indices enjoyed significant gains during the year. This was mainly because the economy seemed to have bottomed worldwide as the financial turmoil gradually subsided, sending global stock markets upward. Likewise, foreign investors bought more than they sold in the Taiwan Stock Exchange. The net purchase by foreign investors and ample liquidity on the domestic scene combined to prop up all industrial group shares, with the best performance delivered by the construction, textile, and electronics & electric machinery stocks.

### Turnover Rose Moderately

The extended gains in the domestic stock market bolstered investor confidence, rekindling trading activity. For the year of 2009, the TAIEX market recorded a daily average turnover of NT$118.3 billion, growing by 12.8 percent from the NT$104.9 billion of the previous year.

### Dealers and Foreign Investors Net Bought, While Local Securities Investment Trust Companies Net Sold

In 2009, foreign investors bought a net NT$480.1 billion in the TSE market, along with an NT$10 billion net purchase by local securities dealers. In contrast, local securities investment trust companies net sold NT$28.9 billion in the year.

Net sales by foreign investors were only registered in January, February, and October, with the rest of the months of the year recording net buying. For the first two months, foreign investors net sold on bearish views of the Taiwan market due to concerns about deteriorated global economic conditions and share price slumps around the world. The net sale in October was induced mainly by stock market corrections globally and profit-taking in TAIEX stocks after a wave of upsurge.

From March onwards, foreign investors set off a seven-month streak of net buying mainly due to positive developments in both Taiwan and the world. Internationally, the global economy was healing and the US stock market had continued to firm up since mid-March. On the other hand, cross-Strait relations had greatly improved, supporting the optimism for closer cooperation in economy and trade between Taiwan and China. Towards the end of the year, the signing of a cross-Strait MOU on financial cooperation as well as the ECFA attracted attention. At the same time, US stocks posted strong performance with renewed all-year highs for several times. These factors combined to encourage foreign investors to net buy in the TSE market in both November and December.

Local securities investment trust companies adopted a relatively conservative strategy and net sold in eight months out of twelve in the year of 2009. The net sale in January was attributable to massive share-offloading by foreign investors amid weak global stock markets. Net sales recorded in the other 7 months (March, April, June, July, October, November and December) were a result of profit taking in stocks after sufficient short-term gains. On the other hand, they net bought in February as they increased holdings of stocks deemed undervalued after a considerable price fall. In May, a net purchase emerged on hopes that the MOU on financial cooperation, if inked, would boost the TSE market with an influx of approved Chinese investment. Seeing that foreign investors bought vigorously in the TSE market amid the ongoing bull run in global markets, domestic securities investment trust companies also net bought in August and September.

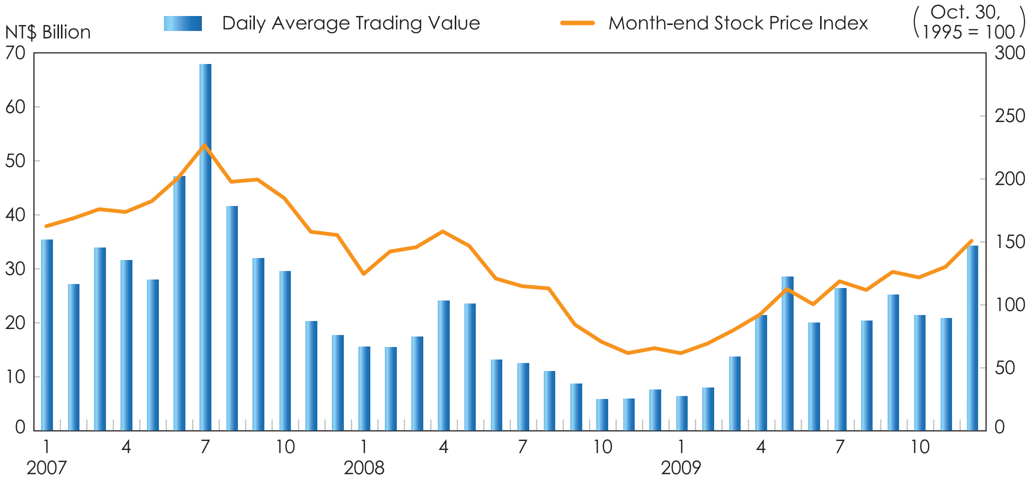
As for local securities dealers, they tend to opt for short-swing trading and often net buy on rising prices and net sell on falling prices. However, they net bought in January despite a flagging stock market, taking the chance to invest more while prices were at historical lows. By contrast, they net sold in June, August and October on a bearish market. Net buying was recorded in all the other months as local securities dealers naturally bought more than they sold in a strong market.

### The GTSM Market

#### GTSM Listings Increased Modestly

At the end of 2009, the number of listed companies in the GTSM market increased by 7

## GTSM Stock Price Index and Trading Value




*Source*: 1. Financial Supervisory Commission, Executive Yuan.
2. GreTai Securities Market.

from a year before, bringing the total to 546. This showed a turnaround from the first-ever annual decrease in 2008. The par value of total shares amounted to NT$772.7 billion at the year-end, rising 9.9 percent from the end of the year before. Market capitalization surged by a remarkable 147.9 percent from the previous year-end to NT$1,914.2 billion.

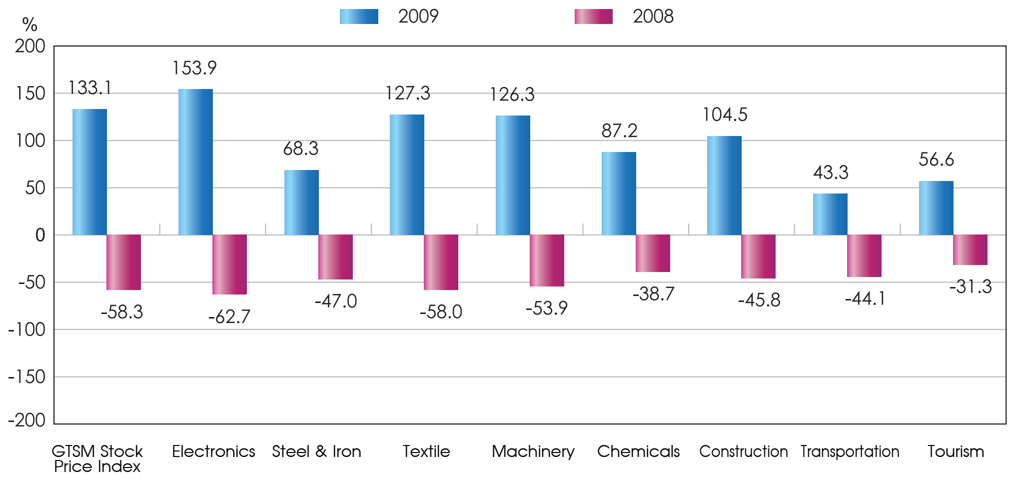
### Share Prices and Turnover Increased Significantly

At the beginning of the year, affected by the deteriorating global economy and the ensuing plunge in stock markets, foreign investors net sold in the Taiwan market, dragging down GTSM share prices to a yearly low of 60.5 points on January 21. But the low share prices attracted local securities investment trust companies, leading to a market rebound in February.

From March onwards, the GTSM index further strengthened. First, the US stock market rally bolstered the global market. Then in late June, the government deregulation regarding Chinese investment in Taiwan boosted stock purchases by both foreign investors and local securities investment trust companies. As a result, the GTSM index climbed steadily to peak at 117.5 points on July 31. However, the political impact in the wake of the August 8 flood, on top of the profit-taking pressure to offload high-priced share holdings, contributed to a faltering performance in August.

Towards the end of the year, the US stock market kept rising to new highs on encouraging US economic data. Meanwhile, the cross-Strait MOUs and ECFA also offered an optimistic outlook. Benefiting from the above developments, investment of foreign investors and local

**Changes in Industrial Group Stock Price Indices in the GTSM Market**




*Source*: GreTai Securities Market.

securities investment trust companies showed a net purchase and had thus sent the GTSM market on an upward climb from September. On December 31, the GTSM index closed at an all year high of 150.1 points, gaining by 133.1 percent from 64.4 points at the end of 2008.

For the year of 2009, foreign investors net bought NT$30.5 billion in the GTSM market, followed by local securities investment trust companies and securities dealers, who bought a net of NT$12.2 billion and NT$5.3 billion, respectively. The daily average turnover in the GTSM market was NT$20.9 billion, a growth of 58.3 percent from the previous year's NT$13.2 billion.

## Key Government Measures for the Stock Market

Many important measures for the stock market were implemented in 2009, including the following:

1. On January 15, the Financial Supervisory Commission (FSC) approved the application for setting up the MF Global Futures Trust Co., Ltd., the first of its kind in Taiwan.

2. On January 19, the FSC approved the Taiwan Futures Exchange to launch a new Gold Options contract, expanding the family of commodity futures products in addition to the existing US dollar- and NT dollar-denominated gold futures contracts.

3. On April 30, the FSC promulgated the Regulations Governing Securities Investments and Futures Trading in Taiwan by Investors from Mainland China, giving permission for Mainland Chinese to invest in Taiwan's securities and futures markets. The FSC further announced on December 23 that a Mainland Chinese investor may, pursuant to the aforesaid Regulations, invest in Taiwan's

government bonds, money market instruments (bills of terms no longer than 90 days), and money market funds, where the total amount shall not exceed 30 percent of the investor's inward remittance.

4. On May 8, the FSC announced that the total amount of foreign currencies held by a securities investment consultant company was to be raised from 10 percent of the company's net worth to 30 percent, in accordance with its needs for business operations.

5. On May 22, the FSC announced that Hong Kong would be recognized as a place of registration for offshore Exchange Traded Funds (ETFs) and a place where fund manager can be located.

6. On July 21, the W.I.S.E. Polaris CSI 300 ETF was approved by the FSC to raise funds in Taiwan, and was later listed for trading as of August 17. Similarly, two other ETFs, the Hang Seng Index ETF and Hang Seng H-Share Index ETF, which are offered and sold in Taiwan by HSBC Global Asset Management (Taiwan) Ltd., were approved by the FSC on July 29 and listed for trading on August 14.

7. The TSE announced on September 14 the amendment to the Rules Governing Review of Securities Listings to allow a foreign IT enterprise whose depository receipts already are or have been listed on any major foreign securities exchange or securities market to apply for primary listing in Taiwan.

8. On September 28, the FSC announced that, pursuant to the amendment to the Directions for the Conduct of Wealth Management Business by Securities Firms, a securities firm may conduct investment trust business as part of wealth management services for its customers.

9. On November 10, the FSC announced that the funds remitted into Taiwan by overseas Chinese and foreigners shall no longer be placed in time deposit accounts.

10. On November 16, the FSC announced that three cross-Strait financial supervisory MOUs governing banking, insurance, and securities and futures were inked and will take effect within 60 days from November 16.

# 7. Bond Market

During the first half of 2009, Taiwan's capital markets remained overshadowed by the global economic downturn. Issuances of corporate bonds and bank debentures drastically declined from the level a year earlier. In the second half of the year, capital markets regained momentum along with the pace of economic recovery. For the year as a whole, new issues of bonds totaled NT$1,062.9 billion, a decrease of NT$283.4 billion or 21.05 percent from the previous year. While issuance of government bonds and foreign bonds increased, issuance of all the other types of bonds decreased. At the end of 2009, the outstanding amount of bonds issued stood at NT$6,251.9 billion, a slight increase of NT$85.2 billion or 1.38 percent from the previous year-end. In the secondary market, transactions continued to decline due to a lack of supply relative to demand for investment vehicles. The annual total decreased by NT$37,962.0 billion or 28.01 percent from the previous year to NT$97,547.5 billion.

With respect to fixed income and quasi money market funds, net assets decreased by NT $17.4 billion or 1.85 percent over the year to NT$925.3 billion at the end of 2009.

## Increase in Government Bond Issuance

The Ministry of Finance issued a total of NT$470.0 billion in central government bonds in 2009, an increase of NT$60.0 billion or 14.63 percent from the previous year, as tax income was affected by the financial turmoil. Maturities of these issuances included 5 years, 10 years, and 20 years, as well as a 2-year issue worth NT$40 billion to meet market demand for shorter-term bonds. With an abundant supply of funds in the market, the weighted average issuing rates on various maturities were lower than in the previous year. The rate was 0.349 percent for 2-year bonds, 0.975 percent for 5-year bonds, 1.509 percent for 10-year bonds, and 2.229 percent for 20-year bonds. The largest year-on-year decline in issuing rates was the 134 basis points observed in 5-year bonds. Local governments issued a total of NT$25.6 billion in bonds, primarily to repay maturing debts.

In sum, government bond issuance amounted to NT$495.6 billion in 2009, an increase of NT$56.9 billion or 12.97 percent from the previous year. The outstanding amount continued to climb to NT$3,971.0 billion at the end of 2009, an increase of NT$234.8 billion or 6.28 percent from the previous year-end.

## Decrease in Corporate Bond Issuance

During the first half of 2009, as an uncertain economic outlook discouraged business

### Issues and Outstanding Values in Bond Market by Category

Unit: NT$ Billion

| Year/ Month | Total | | Central Government Bonds | | Local Government Bonds | | Corporate Bonds | | Bank Debentures | | Beneficiary Securities** | | Foreign & int'l bonds* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Issues | Outstanding | Issues | Outstanding | Issues | Outstanding | Issues | Outstanding | Issues | Outstanding | Issues | Outstanding | Issues | Outstanding |
| 2007 | 1,383.6 | 6,048.2 | 393.2 | 3,410.0 | 9.0 | 109.8 | 162.9 | 1,104.9 | 192.5 | 917.4 | 617.5 | 426.2 | 8.5 | 79.9 |
| 2008 | 1,346.3 | 6,166.7 | 410.0 | 3,609.7 | 28.7 | 126.5 | 287.5 | 1,139.0 | 161.2 | 896.0 | 457.6 | 333.0 | 1.3 | 62.5 |
| 2009 | 1,062.9 | 6,251.9 | 470.0 | 3,829.6 | 25.6 | 141.4 | 203.9 | 1,136.9 | 98.7 | 812.5 | 243.9 | 264.4 | 20.8 | 67.1 |
| 2009/1 | 59.2 | 6,163.0 | 40.0 | 3,649.7 | - | 126.4 | 6.0 | 1,111.7 | 3.0 | 888.5 | 6.5 | 320.5 | 3.7 | 66.2 |
| 2 | 66.9 | 6,126.1 | 30.0 | 3,639.7 | - | 126.4 | 5.0 | 1,108.9 | 1.0 | 872.0 | 30.9 | 312.9 | - | 66.2 |
| 3 | 55.2 | 6,098.9 | 40.0 | 3,679.5 | - | 124.4 | - | 1,105.4 | 0.5 | 819.2 | 14.7 | 308.7 | - | 61.7 |
| 4 | 81.8 | 6,144.1 | 40.0 | 3,719.5 | - | 124.4 | 24.7 | 1,109.0 | 8.1 | 824.2 | 9.0 | 305.3 | - | 61.7 |
| 5 | 82.7 | 6,124.9 | 30.0 | 3,719.5 | 8.3 | 132.7 | 8.0 | 1,092.3 | 6.7 | 820.5 | 29.7 | 298.2 | - | 61.7 |
| 6 | 93.6 | 6,145.5 | 40.0 | 3,759.5 | 10.0 | 142.6 | 4.2 | 1,062.2 | 12.1 | 820.8 | 18.8 | 293.7 | 8.5 | 66.7 |
| 7 | 68.7 | 6,092.0 | 40.0 | 3,729.5 | - | 142.1 | 10.1 | 1,056.0 | 4.4 | 810.2 | 14.2 | 287.5 | - | 66.7 |
| 8 | 93.6 | 6,093.7 | 30.0 | 3,728.6 | - | 142.1 | 28.4 | 1,060.9 | 1.0 | 811.2 | 34.2 | 284.2 | - | 66.7 |
| 9 | 81.7 | 6,128.4 | 40.0 | 3,768.6 | - | 142.1 | 13.7 | 1,068.1 | 9.0 | 809.8 | 19.0 | 273.1 | - | 66.7 |
| 10 | 157.8 | 6,239.5 | 70.0 | 3,838.6 | - | 142.1 | 48.4 | 1,105.8 | 24.9 | 814.2 | 14.5 | 272.1 | - | 66.7 |
| 11 | 101.9 | 6,246.5 | 30.0 | 3,828.6 | 7.3 | 149.4 | 22.2 | 1,124.2 | 2.0 | 805.5 | 31.8 | 271.7 | 8.6 | 67.1 |
| 12 | 119.8 | 6,251.9 | 40.0 | 3,829.6 | - | 141.4 | 33.2 | 1,136.9 | 26.0 | 812.5 | 20.6 | 264.4 | - | 67.1 |

*Notes*: * Including NT dollar and foreign currency-denominated bonds issued in Taiwan by international financial institutions.
** Including those purchased back by originators for credit enhancement.
*Sources*: *Financial Statistics Monthly*, CBC.
Banking Bureau, Financial Supervisory Commission, Executive Yuan, R.O.C.
Department of Foreign Exchange, CBC.

investment, corporate bond issues amounted to NT$47.9 billion, only 23.49 percent of the yearly total. In the second half of the year, the economy gradually recovered from the financial turmoil, and market risk premiums narrowed. Both factors prompted businesses to raise funds in the bond market. For the year as a whole, corporate bond issuance totaled NT$203.9 billion, a decrease of NT$83.6 billion or 29.08 percent from the previous year. The state-owned Taiwan Power Company and the private Formosa Plastics Group continued to lead the market with a total amount of issuance of NT$109.2 billion, making up around half of all issues.

In terms of different bond types, more than 85 percent of corporate bonds issued in 2009 were non-convertible. Among these, unsecured and secured corporate bonds accounted for 59.68 percent and 40.32 percent, respectively, and the five-year maturity made up a leading share of 56.74 percent.

The outstanding amount of corporate bonds stood at NT$1,136.9 billion at the end of 2009, a slight decrease of NT$2.1 billion or 0.18 percent from the previous year-end. With market players competing for a limited supply of bonds, the issuing rates on corporate bonds trended downwards. The rates on 3-year, 5-year and 7-year corporate bonds averaged 2.1771 percent, 1.7080 percent and 2.2616 percent, respectively.

### Marked Decrease in Bank Debenture Issuance

In 2009, an unclear economic situation curtailed corporate demand for funds, while banks were loaded with liquidity. Bank debentures were issued mostly in the second and fourth quarters to meet capital adequacy requirements. For the year as a whole, bank debenture issuance totaled NT$98.7 billion, a large decrease of NT$62.5 billion or 38.77 percent over the previous year. As more than 90 percent of bank debentures issued in 2009 were subordinated debt securities, the issuing rates were 30 to 40 basis points higher than those of corporate bonds of the same maturities. Nevertheless, thanks to ample market liquidity, the average issuing rates on all maturities remained slightly lower or flat compared with the previous year. The outstanding amount of bank debentures was NT$812.5 billion at the end of 2009, a decrease of NT$83.5 billion or 9.32 percent from the previous year-end.

### Decline in Asset Securitization

Under the impact of the US subprime mortgage crisis, there had been no new issuance of asset securitization in Taiwan since February 2008. For those previous issues, revolving issues of financial asset securitization amounted to NT$246.3 billion in 2009, mostly in asset-backed commercial paper. In terms of real estate securitization, the total net value of the eight existing real estate investment trust funds decreased by NT$2.4 billion in the year, reflecting a lack of market confidence. In sum, issuance of asset-backed securities declined radically by NT$213.7 billion or 46.7 percent over 2009 to NT$243.9 billion. Their outstanding amount stood at NT$264.4 billion at the end of 2009, an NT$68.6 billion or 20.60 percent decrease from the previous year-end.

### Increase in Foreign Bonds and International Bonds

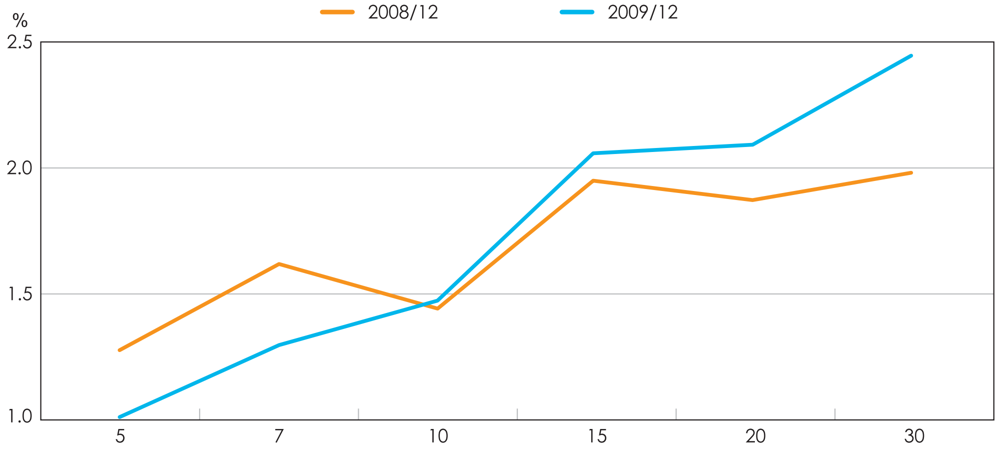
In 2009, three foreign financial institutions issued bonds in Taiwan due to the relatively low cost of funds. The Central American Bank for Economic Integration issued NT$3.7 billion worth of NT dollar-denominated bonds with a maturity of two years and an issuing rate of 2.6 percent in January. Deutsche Bank issued US$0.26 billion (NT$8.5 billion) in US dollar-denominated bonds of a 3-year duration with an issuing rate of 3.0 percent in June. BNP Paribas issued AU$0.29 billion in Australian dollar-denominated bonds (NT$8.6 billion) with a maturity of three years and an issuing rate of 5.75 percent in November. At the end of 2009, the outstanding amount of foreign bonds stood at NT$67.1 billion, an increase of NT$4.6 billion or 7.36 percent from the previous year-end.

### Lackluster Transactions in the OTC Market

As the year 2009 began, the yield on benchmark 10-year government bonds climbed along with bearish sentiment in international bond markets. It started to fall following the Bank's 50 basis points rate cut on January 8, and then fluctuated between 1.4215 percent and 1.5282 percent. From February to April, the yield moved higher as the economic downturn abated and the Bank kept policy rates unchanged. After mid-May, the yield fell to a range between 1.5739 percent and 1.6123 percent on worries over the H1N1 epidemic and its potential economic impact. In June, the yield rose at first in line with weakening international bond markets and then fell as local stock markets declined, recording an average of 1.6315 percent.

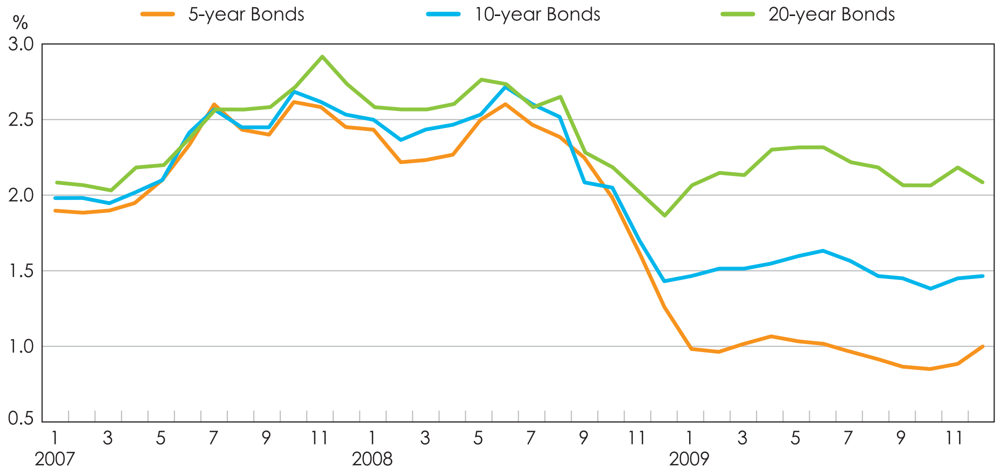
From July to September, despite rising local stock markets, the abundant liquidity and bullish international sentiment led to the yield continually slipping to 1.3963 percent at the end of September. From October onwards, massive foreign buying of local bonds and further rising local stock markets caused the yield to swing between 1.3251 percent and 1.4757 percent. In

**Yield Curve of Central Government Bonds**




*Source*: Department of Economic Research, CBC.

**Yield Structure of Central Government Bonds with Different Maturities**




*Source*: Department of Economic Research, CBC.

## Bond Transactions in the Over-the-Counter Market

Unit: NT$ Billion

| Year/ Month | Total | Outright Transactions | | Repurchase Agreement Transactions | |
|---|---|---|---|---|---|
| | | Amount | Share (%) | Amount | Share (%) |
| 2007 | 194,005.5 | 93,787.6 | 48.3 | 100,217.9 | 51.7 |
| 2008 | 135,509.5 | 59,749.0 | 44.1 | 75,760.5 | 55.9 |
| 2009 | 97,547.5 | 39,404.7 | 40.4 | 58,142.8 | 59.6 |
| 2009/1 | 6,820.1 | 2,810.9 | 41.2 | 4,009.2 | 58.8 |
| 2 | 8,052.6 | 3,593.8 | 44.6 | 4,458.8 | 55.4 |
| 3 | 9,740.9 | 4,546.9 | 46.7 | 5,194.0 | 53.3 |
| 4 | 7,961.8 | 3,195.8 | 40.1 | 4,766.0 | 59.9 |
| 5 | 7,704.2 | 3,321.5 | 43.1 | 4,382.7 | 56.9 |
| 6 | 8,530.1 | 3,571.9 | 41.9 | 4,958.2 | 58.1 |
| 7 | 8,301.7 | 4,018.7 | 48.4 | 4,283.0 | 51.6 |
| 8 | 7,675.2 | 3,041.7 | 39.6 | 4,633.5 | 60.4 |
| 9 | 8,702.8 | 3,499.7 | 40.2 | 5,203.1 | 59.8 |
| 10 | 9,206.9 | 3,488.7 | 37.9 | 5,718.2 | 62.1 |
| 11 | 7,303.8 | 2,106.3 | 28.8 | 5,197.5 | 71.2 |
| 12 | 7,547.4 | 2,208.8 | 29.3 | 5,338.6 | 70.7 |

*Source*: Taiwan Securities Exchange & GreTai Securities Market.

mid-December, as the Bank actively mopped up excess liquidity and bond issuing plans for the coming year were announced, the yield rebounded to close the year at 1.5403 percent.

In terms of different maturities, 5-year, 20-year and 30-year government bonds recorded yield spreads of 52, 56 and 90 basis points over 10-year government bonds at the end of 2009, respectively. Compared to the previous year-end, yield spreads between short- and long-term bonds apparently expanded, resulting in a steeper yield curve. The main factors distorting the yield curve included a limited supply of long-term bonds, as well as excess liquidity and hot money vying for short-term bonds due to their lower duration risk.

## Turnover in Bond Market by Category

Unit: NT$ Billion

| Year/ Month | Total | TSE Market Corporate Bonds (Convertible) | GreTai Market | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Subtotal | Government Bonds | Corporate Bonds | | Bank Debentures | Beneficiary Securities | Foreign & int'l bonds |
| | | | | | Nonconvertible | Convertible | | | |
| 2007 | 194,005.5 | - | 194,005.5 | 192,241.6 | 412.1 | 932.7 | 170.9 | 162.2 | 86.0 |
| 2008 | 135,509.5 | - | 135,509.5 | 133,753.9 | 502.5 | 882.9 | 205.4 | 81.9 | 82.9 |
| 2009 | 97,547.5 | - | 97,547.5 | 95,993.2 | 480.4 | 861.2 | 152.5 | 0.0 | 60.2 |
| 2009/1 | 6,820.1 | - | 6,820.1 | 6,725.0 | 35.3 | 48.3 | 6.2 | - | 5.3 |
| 2 | 8,052.6 | - | 8,052.6 | 7,926.6 | 50.9 | 62.6 | 6.8 | - | 5.7 |
| 3 | 9,740.9 | - | 9,740.9 | 9,617.5 | 40.9 | 77.5 | 1.5 | 0.0 | 3.5 |
| 4 | 7,961.8 | - | 7,961.8 | 7,823.0 | 50.6 | 74.8 | 10.0 | - | 3.4 |
| 5 | 7,704.2 | - | 7,704.2 | 7,590.2 | 27.1 | 72.9 | 10.6 | - | 3.4 |
| 6 | 8,530.0 | - | 8,530.0 | 8,395.0 | 27.7 | 69.5 | 31.9 | - | 5.9 |
| 7 | 8,301.7 | - | 8,301.7 | 8,188.2 | 25.0 | 69.9 | 11.6 | - | 7.0 |
| 8 | 7,675.2 | - | 7,675.2 | 7,557.4 | 43.7 | 66.5 | 4.3 | 0.0 | 3.3 |
| 9 | 8,702.8 | - | 8,702.8 | 8,581.6 | 24.8 | 75.9 | 17.0 | 0.0 | 3.5 |
| 10 | 9,206.9 | - | 9,206.9 | 9,057.2 | 54.9 | 71.5 | 18.0 | 0.0 | 5.3 |
| 11 | 7,303.8 | - | 7,303.8 | 7,168.0 | 45.3 | 62.9 | 14.2 | 0.0 | 13.4 |
| 12 | 7,547.5 | - | 7,547.5 | 7,363.5 | 54.2 | 108.9 | 20.4 | - | 0.5 |

*Source*: Taiwan Securities Exchange & GreTai Securities Market.

In 2009, total bond transactions in the OCT market contracted by NT$37,962.0 billion or 28.01 percent from the previous year to NT$97,547.5 billion. Of the components, outright transactions decreased by NT$20,344.3 billion or 34.05 percent from the previous year. Repo transactions decreased by NT$17,617.7 billion or 23.25 percent. Regarding the different bond types, government bonds continued to be the most actively traded, with NT$95,993.2 billion or over 98 percent of total bond transactions. However, compared with the previous year, government bond transactions shrank by NT$37,760.7 billion or 28.23 percent, mainly due to a lack of supply relative to demand. The second most actively traded were corporate bonds. Their total transactions decreased by NT$43.8 billion or 3.16 percent from the previous year to NT$1,341.6 billion. Bank debenture transactions fell by NT$52.9 billion or 25.75 percent over the year to NT$152.5 billion. In addition, transactions of foreign bonds totaled NT$60.2 billion, a decrease of NT$22.7 billion or 27.38 percent from the previous year.

### Decrease in Fixed Income and Quasi Money Market Funds

At the end of 2009, there were two fixed income funds and 48 quasi money market funds with total assets amounting to NT$925.3 billion, a decrease of NT$17.4 billion or 1.85 percent over the level a year ago. At the end of 2009, fixed income funds fell to about NT$4.8 billion, less than 1 percent of total bond fund assets.

## Portfolio Composition of Fixed Income and Quasi Money Market Funds

Unit: % ; NT$ Billion

| Year / Month End | Total | Outright Purchases | | Repurchase Agreements | | Bank Deposits | | Short-term Securities | |
|---|---|---|---|---|---|---|---|---|---|
| | | Amount | Share | Amount | Share | Amount | Share | Amount | Share |
| 2007 | 797.9 | 150.0 | 18.8 | 410.2 | 51.4 | 216.5 | 27.1 | 21.3 | 2.7 |
| 2008 | 942.7 | 101.3 | 10.8 | 374.1 | 39.7 | 448.4 | 47.6 | 18.9 | 2.0 |
| 2009 | 925.3 | 72.6 | 7.8 | 245.5 | 26.5 | 531.7 | 57.5 | 75.5 | 8.2 |
| 2009/ 1 | 1,080.3 | 99.2 | 9.2 | 408.8 | 37.8 | 512.3 | 47.4 | 60.0 | 5.6 |
| 2 | 1,157.0 | 97.2 | 8.4 | 385.8 | 33.3 | 563.1 | 48.7 | 110.9 | 9.6 |
| 3 | 1,172.2 | 93.1 | 7.9 | 373.6 | 31.9 | 571.1 | 48.7 | 134.5 | 11.5 |
| 4 | 1,189.9 | 90.8 | 7.6 | 376.7 | 31.7 | 581.2 | 48.8 | 141.1 | 11.9 |
| 5 | 1,129.6 | 86.7 | 7.7 | 357.2 | 31.6 | 554.0 | 49.0 | 131.8 | 11.7 |
| 6 | 1,073.5 | 86.0 | 8.0 | 309.7 | 28.8 | 539.5 | 50.3 | 138.3 | 12.9 |
| 7 | 1,053.8 | 82.0 | 7.8 | 279.8 | 26.5 | 570.8 | 54.2 | 121.2 | 11.5 |
| 8 | 1,003.3 | 79.2 | 7.9 | 253.3 | 25.2 | 558.7 | 55.7 | 112.1 | 11.2 |
| 9 | 971.8 | 77.0 | 7.9 | 249.1 | 25.6 | 540.1 | 55.6 | 105.6 | 10.9 |
| 10 | 979.4 | 76.6 | 7.8 | 250.9 | 25.6 | 541.3 | 55.3 | 110.6 | 11.3 |
| 11 | 966.0 | 75.5 | 7.8 | 248.8 | 25.8 | 543.4 | 56.2 | 98.4 | 10.2 |
| 12 | 925.3 | 72.6 | 7.8 | 245.5 | 26.5 | 531.7 | 57.5 | 75.5 | 8.2 |

*Source*: Securities Investment Trust & Consulting Association of the R.O.C.

# Central Bank Operations

# III. Central Bank Operations

## 1. Overview

Taiwan's domestic demand was fragile at the start of 2009. During the first two months of 2009, as the inflationary pressure remained largely subdued, the Bank twice lowered policy rates by a total of 75 basis points to boost domestic demand. Despite economic activity regaining momentum from March onwards, the CBC left the rates unchanged to further support the economy.

Meanwhile, to provide ample liquidity to the market and to promote financial stability, the CBC continued to create a favorable financial environment. As economic and financial conditions improved from April onwards, the CBC adjusted its quantitative easing policy by increasing open market operations, bringing the net excess reserves in the banking system down to NTD 39.9 billion in December, from NTD 154.1 billion in April. The annual growth rates of reserve money and M2 monetary aggregates also trended downwards from the second half of 2009.

In terms of foreign exchange management, the CBC also lifted restrictions on various foreign exchange regulations, and continued its efforts to encourage banks to engage in the foreign exchange derivatives business. To strengthen consumer protection, the CBC also reasserted that banks have to fully disclose the attendant risks to customers. This year, the CBC also allowed many financial institutions and designated places to provide Chinese RMB exchange services to accommodate the needs of increasing tourists from the mainland China as a result of the improvement in cross-strait relations.

To assure the smooth operations of the payment system, the CBC closely monitored domestic payment systems and urged each settlement institution to set up backup facilities and adequate contingency plans to provide business continuity. The CBC also established the central government bond buyback system, which not only enhanced the liquidity of the central government bond market, but also strengthened its management efficiency and lessened the interest burden of the government.

To promote the sound operation of financial institutions and safeguard financial stability, the CBC has established an off-site review system and a framework for financial stability to ensure that any potential risks to the financial system are effectively managed.

# 2. Monetary Management

As the US subprime mortgage crisis evolved into a global financial crisis that resulted in a worldwide economic recession, the Bank adopted an easy monetary policy stance in 2009. The Bank lowered the policy rates twice and continuously conducted open market operations to maintain market interest rates at a level conducive to supporting economic activity. The Bank also promoted various preferential loan programs and enhanced the financing mechanism for small and medium-sized enterprises (SMEs).

## Monetary Easing to Boost the Economy

Against the backdrop of the economic slowdown and subdued prices, the Bank cut policy rates on January 8 and February 19 with the aim of reducing business' funding costs and boosting consumption and investment. The discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral were all decreased by a total of 0.75 of a percentage point. However, as the expansionary fiscal and monetary policy measures facilitated a gradual economic recovery from March, the Bank kept policy rates at the levels set on February 19. At the end of 2009, the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral were 1.25 percent, 1.625 percent, and 3.5 percent, respectively.

In line with the movements in banks' deposit interest rates, during 2009, the Bank adjusted

### CBC Policy Rates

Unit:% ( percent per annum)

| Effective Date | Discount Rate | Accommodation Rate with Collateral | Accommodation Rate without Collateral |
|---|---|---|---|
| 2007 / Mar. 30 | 2.875 | 3.250 | 5.125 |
| June 22 | 3.125 | 3.500 | 5.375 |
| Sept. 21 | 3.250 | 3.625 | 5.500 |
| Dec. 21 | 3.375 | 3.750 | 5.625 |
| 2008 / Mar. 28 | 3.500 | 3.875 | 5.750 |
| June 27 | 3.625 | 4.000 | 5.875 |
| Sept. 26 | 3.500 | 3.875 | 5.750 |
| Oct. 9 | 3.250 | 3.625 | 5.500 |
| Oct. 30 | 3.000 | 3.375 | 5.250 |
| Nov. 10 | 2.750 | 3.125 | 5.000 |
| Dec. 12 | 2.000 | 2.375 | 4.250 |
| 2009 / Jan. 8 | 1.500 | 1.875 | 3.750 |
| Feb. 19 | 1.250 | 1.625 | 3.500 |

*Source: Financial Statistics Monthly*, CBC.

## Remuneration Rates on Required Reserves in B Accounts

Unit: %

| Date | Demand Deposits | Time Deposits |
|---|---|---|
| 2008/12/15 | 0.275 | 1.421 |
| 2009/01/09 | 0.200 | 0.921 |
| 2009/02/20 | 0.173 | 0.771 |
| 2009/10/12 | 0.165 | 0.767 |

*Source*: The CBC website.

the remuneration rate on required reserves in banks' B accounts three times. The remuneration rate on required reserves for demand deposits was cut from 0.275 percent to 0.165 percent, while the remuneration rate on time deposits was lowered from 1.421 percent to 0.767 percent.

### Providing Liquidity through Open Market Operations

The Bank issued Certificates of Deposit (CDs) and conducted open market operations to provide liquidity to the banking sector in an effort to boost the sluggish economy in the first two months of 2009. However, the gradual recovery of the economy and an inflow of short-term capital led to the buildup of excess liquidity in the banking sector from March. With this view, the Bank conducted open market operations to maintain reserve money and overnight interest rates at appropriate levels. As a result of the Bank's operations, net excess reserves of the banking sector dropped significantly from NT$154 billion in April to NT$40 billion in December.

## Open Market Operations

Unit: NT$ Billion; %

| Year/ | Amount Absorbed* | Amount Offered* | Weighted Average Rate on CDs Issued | | | | |
|---|---|---|---|---|---|---|---|
| Month | Issues of CDs | Redemptions of CDs | 1-30 days | 31-91 days | 92-182 days | 274-364 days | 2 years |
| 2007 | 13,672 | 13,968 | 1.91 | 1.95 | 1.94 | 2.29 | -- |
| 2008 | 19,370 | 18,495 | 1.89 | 2.05 | 2.17 | 2.27 | -- |
| 2009 | 40,416 | 38,823 | 0.58 | 0.62 | 0.72 | -- | -- |
| 2009 / 1 | 1,620 | 1,730 | 0.69 | 0.76 | 0.87 | -- | -- |
| 2 | 2,780 | 2,402 | 0.61 | 0.65 | 0.75 | -- | -- |
| 3 | 3,050 | 3,075 | 0.57 | 0.61 | 0.71 | -- | -- |
| 4 | 3,490 | 3,296 | 0.57 | 0.61 | 0.71 | -- | -- |
| 5 | 3,350 | 3,155 | 0.57 | 0.61 | 0.71 | -- | -- |
| 6 | 3,690 | 3,547 | 0.57 | 0.61 | 0.71 | -- | -- |
| 7 | 4,070 | 3,855 | 0.57 | 0.61 | 0.71 | -- | -- |
| 8 | 3,970 | 3,931 | 0.57 | 0.61 | 0.71 | -- | -- |
| 9 | 3,480 | 3,424 | 0.57 | 0.61 | 0.71 | -- | -- |
| 10 | 3,540 | 3,303 | 0.57 | 0.61 | 0.71 | -- | -- |
| 11 | 3,500 | 3,455 | 0.57 | 0.61 | 0.71 | -- | -- |
| 12 | 3,876 | 3,651 | 0.54 | 0.61 | 0.71 | -- | -- |

*Note*: * End-of-period data.
*Source*: *Financial Statistics Monthly*, CBC.

### Non-Competitive Bidding Rates on CDs Issued by the Central Bank

Unit: %

| Effective Date | 30 days | 91 days | 182 days |
|---|---|---|---|
| 2007 / Mar. 30 | 1.720 | 1.790 | 1.870 |
| June 22 | 1.920 | 1.990 | 2.070 |
| Sept. 21 | 1.980 | 2.060 | 2.150 |
| Dec. 21 | 2.040 | 2.130 | 2.230 |
| 2008 / April. 1 | 2.060 | 2.150 | 2.250 |
| June 27 | 2.120 | 2.210 | 2.310 |
| Sept. 26 | 2.070 | 2.160 | 2.260 |
| Oct. 9 | 1.970 | 2.060 | 2.160 |
| Oct. 30 | 1.870 | 1.960 | 2.060 |
| Nov. 10 | 1.620 | 1.710 | 1.810 |
| Dec. 12 | 1.020 | 1.060 | 1.160 |
| 2009 / Jan. 8 | 0.620 | 0.660 | 0.760 |
| Feb. 19 | 0.570 | 0.610 | 0.710 |

*Note*: The auction rates on 364-day or above CDs are not shown on this table.
*Source*: *Press Releases on Open Market Operations*, CBC.

In 2009, the total value of CDs issued amounted to NT$40,416 billion, while at the end of the year the total outstanding amount was NT$5,929 billion. In the first two months of 2009, non-competitive bidding rates on new CD issuance were also adjusted to guide market interest rates to be in sync with policy rate changes. The 30-, 91-, and 182-day CD interest rates were lowered to 0.57 percent, 0.61 percent, and 0.71 percent, respectively, following subsequent changes reflecting monetary conditions in the banking sector. As a consequence, overnight interest rates changed accordingly. The Interbank overnight interest rate was 0.233 percent in January, fell to 0.097 percent in June, and edged up to reach 0.106 percent in December.

### Redeposits of Financial Institutions

Accepting redeposits from Chunghwa Post Co. and commercial banks is another instrument for the Bank to influence banks' reserve positions to promote financial stability. At the end of 2009, outstanding postal savings redeposits amounted to NT$1,582 billion. Also, commercial banks' redeposits with the Bank were NT$443 billion.

In addition, the Taiwan Cooperative Bank, the Land Bank of Taiwan and the Agricultural Bank of Taiwan may accept deposits from community financial institutions and make redeposits with the Bank. At the end of 2009, their outstanding redeposits were NT$130 billion.

### Promoting Preferential Loans

The Ministry of the Interior launched an NT$200 billion preferential housing loan program in 2008 to help relieve the mortgage burdens of homebuyers. Another NT$200 billion was added to the expanded program in April 2009. The Bank continued to assist in this effort. By the end of 2009, a total of 147,775 households were granted NT$399.5 billion under the program.

The Bank also continued to provide subsidies for victims of the 1999 earthquake regarding interest payments on their mortgage loans. On January 23, 2009, to further relieve interest burdens on those victims, the Bank changed the interest payment plan to allow the option to choose between a floating rate or a 2% fixed-rate preferential loan.

Moreoever, Typhoon Morakot slammed into southern Taiwan on August 8, 2009, resulting in heavy losses. On August 10, the Bank asked 8 public banks to provide a preferential loan program to aid the typhoon victims. The Bank not only shared its own experience in disaster relief, but also helped implement relevant relief measures. The pamphlet Q&A for Victims of Typhoon Morakot prepared by the Bank, was also distributed for reference.

### Enhancing the SME Financing Mechanism

To provide easier access to financing for SMEs, the Bank continued to assist them by encouraging bank lending and by urging the Small and Medium Enterprise Credit Guarantee Fund (SMEG) to raise the guarantee coverage ratio, increase the maximum guarantee amount, and lower guarantee fees.  At the end of 2009, the outstanding amount of guarantees and loans extended to the SMEs by domestic banks were NT$372.8 billion and NT$3,207.3 billion, respectively.

# 3. Foreign Exchange Management

## Foreign Exchange Market Management

Taiwan's exchange rate regime is a managed float, where in principle the exchange rate is determined by supply and demand in the foreign exchange market. If the market is disrupted by seasonal or irregular factors (e.g. large flows of short-term capital), causing the exchange rate to become excessively volatile, the Bank may step in to maintain an orderly foreign exchange market.

To monitor market activities, the Bank continued to implement the Real-Time Reporting System for Large-Amount Foreign Exchange Transactions. In addition, the requirement that forward transactions should be made only upon real transactions, such as trade and financing, was reinforced in order to curb foreign exchange speculation. The Bank also urged authorized banks to enhance their exchange rate risk management so as to lower their risk exposures and systemic risks. Moreover, the Bank strengthened target examinations to maintain an orderly foreign exchange market.

## Management of Foreign Exchange Swap and Foreign Currency Call Loan Business

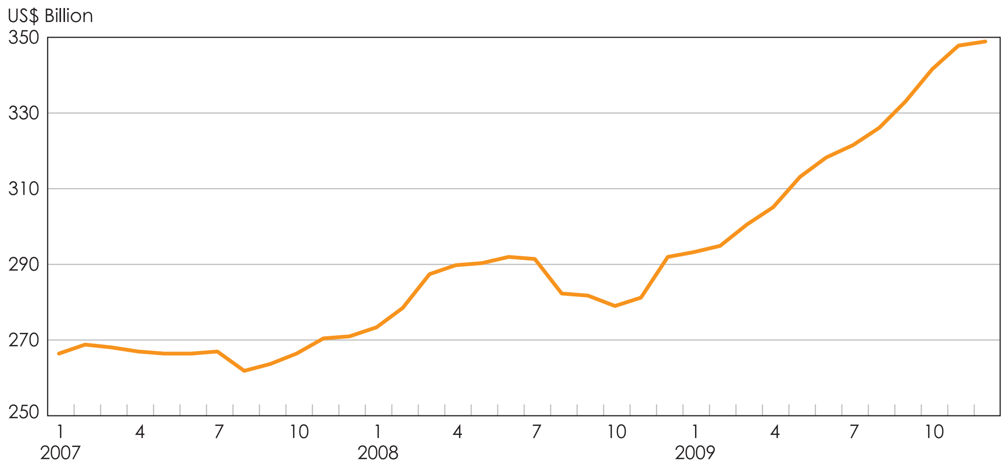
In order to provide the financial system with sufficient foreign currency liquidity to meet funding needs, including corporate needs to venture into overseas markets, the Bank provided US$20 billion, €1 billion and ¥80 billion as seed funds for the Taipei Foreign Currency Call-Loan Market.

Meanwhile, the Bank continued to carry out foreign currency swap transactions with banks and extended foreign currency call loans to banks so as to facilitate corporate financing smoothly. During 2009, foreign exchange call loan transactions reached US$1,473 billion, while foreign currency-NT dollar swap transactions reached US$703.4 billion.

## Foreign Exchange Reserve Management

In 2009, the Bank's foreign exchange revenues amounted to US$825.8 billion, while foreign exchange expenditure was US$769.3 billion. At the end of 2009, total foreign exchange reserves stood at US$348.2 billion, a US$56.5 billion increase from the end of 2008. The increase was mainly attributable to a higher return on investment of foreign exchange reserves, and the appreciation of the euro and the British pound against the US dollar.

**Foreign Exchange Reserves**




*Source*: Department of Foreign Exchange, CBC.

## Capital Flow Management

With the progress of financial liberalization and internationalization, the Bank has gradually deregulated capital movement restrictions since 1980s. In general, capital can flow freely in and out of Taiwan. As of 2009, restrictions only remained on a few short-term financial transactions involving the conversion of the NT dollar. For example, a domestic company or a resident can each conduct inward and outward remittances up to US$50 million and US$5 million, respectively, within one year. A non-resident may remit up to US$100 thousand per transaction. For remittances exceeding the respective ceilings, transactions may be made with the approval in advance from the Bank.

Key measures with regard to the management of foreign exchange in 2009 included:

(1) Having consulted with the Financial Supervisory Commission about a broader scope for foreign securities investment, the Bank agreed to the following measures: (i) Agreed June 9, foreign investors would be allowed to invest in beneficiary certificates of futures trust funds; (ii) Agreed September 10, foreign investors would be allowed to invest in separable warrants issued with corporate bonds or preferred stocks of TSE and OTC listed companies.

(2) In order to promote the internationalization of Taiwan's capital market, the Bank agreed to the following in 2009: (i) The issuance of overseas depository receipts by 11 corporations with a total of US$2.94 billion and the issuance of European Convertible Bonds by 6 corporations with a total of US$1.43 billion ; (ii) The issuance of Taiwan Depository

Receipts (TDRs) by 18 foreign corporations with the total amount reaching NT$34 billion; (iii) BNP Paribas and Deutsche Bank may raise and issue foreign currency corporate bonds up to US$1 billion each.

(3) The Bank agreed to an increase in residents' investments in foreign securities, as follows: (i) Securities investment trust companies were allowed to raise 37 securities investment trust funds domestically to invest in foreign securities worth a total of NT$315 billion; (ii) Life insurance companies were given consent to invest in foreign securities with the amount totaling US$0.98 billion, while their investment-linked insurance products invested a total of US$2.39 billion in foreign securities through non-discretionary money trusts managed by financial institutions; (iii) Three major government pension funds and the Postal Savings Fund invested in foreign securities with the total amount reaching US $2.20 billion.

(4) The Bank loosened the following regulations regarding foreign exchange remittances: (i) On May 25, the Bank notified authorized foreign exchange banks that, effective from June 1, banks would be allowed to conduct foreign exchange settlement related to foreign workers' salaries as consigned to employment agencies with proper documents; (ii) On June 15, the Bank notified financial institutions undertaking non-discretionary money trust for investment in foreign securities that, effective from June 17, the types and scope of such investments shall comply with the FSC rules and regulations, instead of relevant circulars issued by the Bank prior to September 19, 2005; (iii) In light of improved cross-Strait relations, the FSC amended the regulations governing cross-Strait remittances; the Bank also made relevant amendments regarding documents to be confirmed about remittances to or from Mainland China, effective from June 30; (iv) The Bank announced that overseas donations for Typhoon Morakot relief would be exempted from the declarer's annual accumulated amount of foreign exchange settlements, effective from August 17.

### Management of the Foreign Exchange Business of Financial Institutions

(1) At the end of 2009, there were 1,478 authorized foreign exchange banks in total, which included 36 head offices and 1,346 branches of domestic banks, 96 branches of 32 foreign banks, as well as 2,558 authorized money exchangers, postal offices and financial institutions authorized to engage in basic foreign exchange business.

(2) In 2009, the Bank permitted the issuance of 20 foreign exchange derivative products in order to expand the scope of banking services. However, for investor protection, the Bank notified all banks in June of the need to formulate and implement the principle of Knowing Your Customers in managing foreign currency margin transactions and

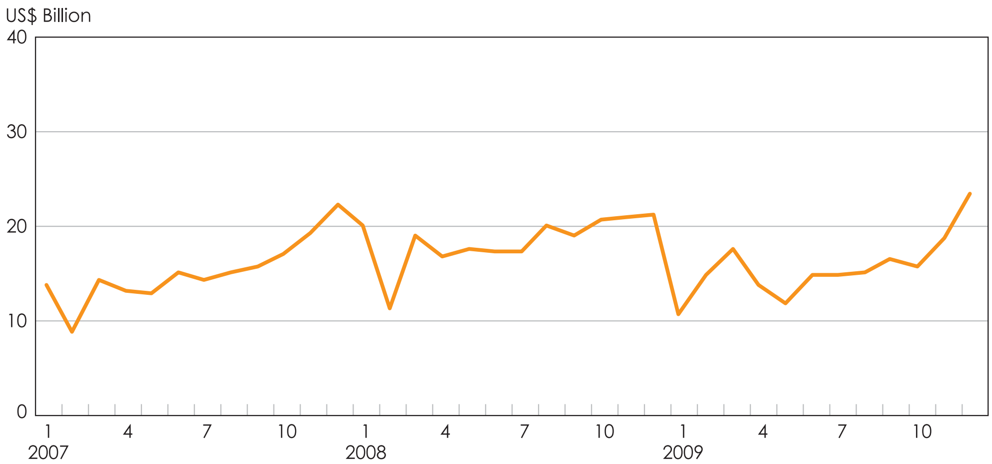
structured products, and to fully disclose related risks, so as not to mislead customers.

(3) Up to the end of 2009, 15 insurance companies were allowed to engage in foreign currency investment-linked insurance business, and 9 insurance companies were permitted to conduct business in relation to traditional foreign currency insurance products.

(4) In 2009, the government approved 44 financial institutions (with a total of 3,103 branches) and 156 authorized money exchangers to conduct the Chinese renminbi (RMB) cash exchange business. The total amount of renminbi purchased was RMB 5.71 billion, while the total sale was RMB 7.08 billion.

(5) Since June 2001, OBUs have been approved to conduct cross-Strait remittances. The steady growth had gradually turned OBUs into funding arrangement centers for overseas Taiwanese businessmen. In 2009, due to the global financial crisis, cross-Strait remittances amounted to US$185.2 billion, a decrease of US$33.9 billion, or 15.5 percent, from last year.

**Cross-Strait Remittances through OBUs**




*Source*: Department of Foreign Exchange, CBC.

# 4. Banking Supervision

Pursuant to the Central Bank of the Republic of China (Taiwan) Act, the Bank conducts target examinations to ensure effective enforcement of related regulations, and establishes an offsite review system and a financial stability evaluation framework to systematically monitor, analyze, and evaluate the potential sources of financial system risks in order to adopt appropriate policies and measures in a timely manner.

## Implementing On-Site Examinations

The Bank conducts target examinations related to monetary, credit, and foreign exchange policies and payment systems when necessary. The target examinations in 2009 inspected the handling of counterfeit money by financial institutions, maintenance of required reserves, 921 earthquake relief loans, forward foreign exchange transactions, foreign exchange remittances, the operation of foreign currency exchanges by authorized money exchangers, and correctness of reporting to the Bank, etc.

## Following up on Banks' Compliance with the Examination Findings

In light of the Bank's examination findings and the FSC's examination findings related to the Bank's business or regulations, the Bank monitors what the examined financial institutions have done to improve, urges the financial institutions to rectify related deficiencies, and thus ensures the successful implementation of the Bank's policies.

## Offsite Review

Based on the periodical reports submitted by financial institutions and utilizing the computerized offsite review system, the Bank assesses the operation, financial conditions and regulatory compliance of individual financial institutions.

Moreover, the Bank regularly compiles and publishes various financial institution statistics and the most recent financial regulations. The Bank also discloses related information on the Bank's website. Therefore, the transparency of the operation of financial institutions is increased, reinforcing the market discipline mechanism.

## Financial Stability Evaluation

The Bank compiles financial soundness indicators and issued the third financial stability report in 2009 so that related competent authorities, market participants and the public can understand the status and sources of financial system risks in Taiwan. This will also promote cross-border exchange of information on banking supervision.

### International Cooperation of Financial Supervision

The Bank actively engages in international cooperation of financial supervision. The Bank assigned a researcher for the SEACEN centre research project on the practice of liquidity risk management and provided the Centre with needed information regarding the "College of Supervisors" survey. The Bank also provided the World Bank's Consultative Group to Assist the Poor (CGAP) with information about Taiwan's savings, finance and consumer protection.

### Other Important Measures

To reinforce the evaluation of financial stability, the Bank collaborated with academia in the research project titled "Evaluation of Taiwanese Banks' Credit Losses" in order to understand the risk source(s) of Taiwanese banks' credit losses and possible impacts.

# 5. Payment and Settlement Systems

Taiwan's payment systems mainly include the Check Clearing House System (CCHS), the Interbank Remittance System (IRS), the CBC Interbank Funds-Transfer System (CIFS), and the Central Government Securities Settlement System (CGSS). The CCHS and the IRS are retail payment systems, while the CIFS and the CGSS are the two main subsystems operated by the Bank. The Bank plays a key role in Taiwan's payment systems. All these payment systems make use of banks' A reserve accounts with the Bank for final settlement. In addition to operating the CIFS and CGSS, the Bank also monitors major payment systems based on international standards to ensure their sound operations.

## Funds Transfers via the CIFS

The CIFS launched in May 1995 is an on-line, large-value fund transfer system. Since September 2002, the System has been operated based on the real-time gross settlement (RTGS), under which payments are settled on a real-time basis and the banks involved are required to hold sufficient account balances with the Bank. Those who maintain transaction accounts with the Bank may directly use the CIFS to transfer funds. Payment instructions are sent over the CIFS for settling obligations on check clearing, adjusting reserve account balances, or making payments associated with interbank loans, bill transactions, and bond transactions.

At the end of 2009, participants of the CIFS included 68 banks, 10 bills finance companies, and 5 other institutions including Chunghwa Post Co., the Taiwan Stock Exchange (TSE), and the GreTai Securities Market (GTSM). For the year as a whole, the total value of funds transferred via the CIFS was NT$312 trillion, while the total number of transactions reached 727 thousand.

## Transactions via the CGSS

Established in September 1997, the CGSS is an RTGS system for the issuance, transfer, redemption, and interest payment of book-entry central government securities. Since its inception, central government bonds have been issued in book-entry form. In October 2001, treasury bills were included in the system and have been issued in the same form since then.

The registration of central government securities transfers is processed by 16 clearing banks and their 1,679 branches. In 2009, nearly 601 thousand transfers with a value of NT$49,471 billion were processed by the system. Also, the outstanding balance of book-entry central government bonds amounted to NT$ 3,826 billion, or 99.9 percent of the total outstanding balance of the bond market. The total transaction value of book-entry central government bonds reached

NT$ 85 trillion, or 86.7 percent of the total transaction value of the entire bond market.

### Improving and Monitoring Payment Systems

The Bank and other government agencies have worked out a plan to improve payment and clearing processes of the securities market. Under this plan, the TSE and the GTSM are able to process net payment clearing of stocks and bonds through the CIFS. Another plan was also implemented to link the CIFS and CGSS to allow clearing banks to handle settlements on a delivery-versus-payment (DVP) basis. This system has been operating since April 14, 2008.

Based on the Core Principles for Systemically Important Payment Systems (hereinafter the Core Principles) and Recommendations for Securities Settlement Systems issued by the Bank for International Settlements (BIS), the Bank monitors the payment system to maintain its safety and efficiency as one of its foremost goals. Large-value payment systems monitored by the Bank include the CIFS, the CGSS, the CCHS, and the Depository and Clearing System (DCS). The Bank also monitors interbank settlement and clearing activities involving retail payment and electronic money.

In 2009, the Bank's monitoring activities included the following:

(1) The Bank continued to require each payment system operator and payment instrument issuer to provide detailed data and information on a periodic basis regarding their operations and activities.

(2) The Bank supervised clearing institutions to make contingency plans and business continuity plans in case of emergency.

(3) The Bank invited the FSC's Banking Bureau, the Financial Information Services Co., the Taiwan Depository and Clearing Corporation, and the Taiwan Clearing House to participate in panel discussions on promoting sound operation of the payment system held in April and November.

(4) The Bank required that participants of CCHS and IRS conduct self-evaluations based on the BIS Core Principles and send the report to the Bank for further review by November. Those who failed to meet the standards as per the Core Principles were asked to improve their operations and risk management mechanism.

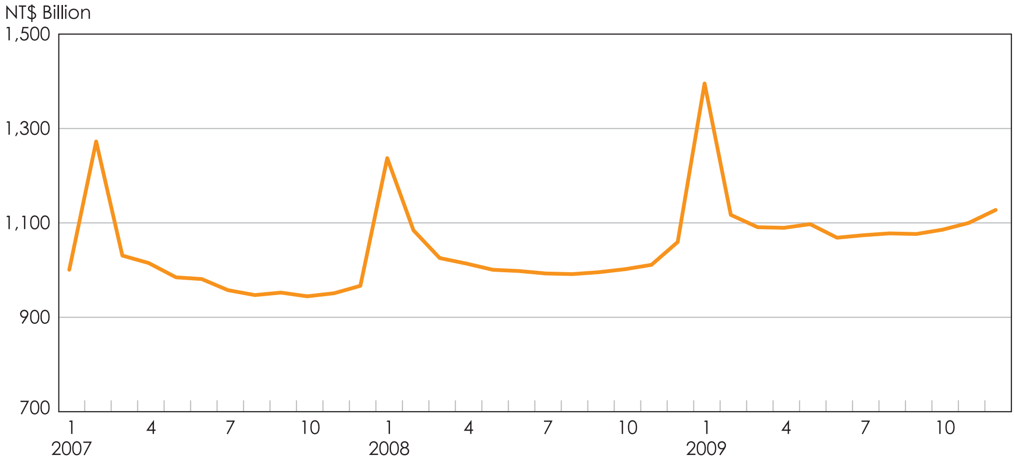
# 6. Currency Issuance

## Currency Issued Slightly Increased

An important function of the Bank is to ensure a smooth and efficient supply of banknotes and coins to meet public demand, which is dependent on the level of economic activity, seasonal factors, and the development of noncash payments instruments.

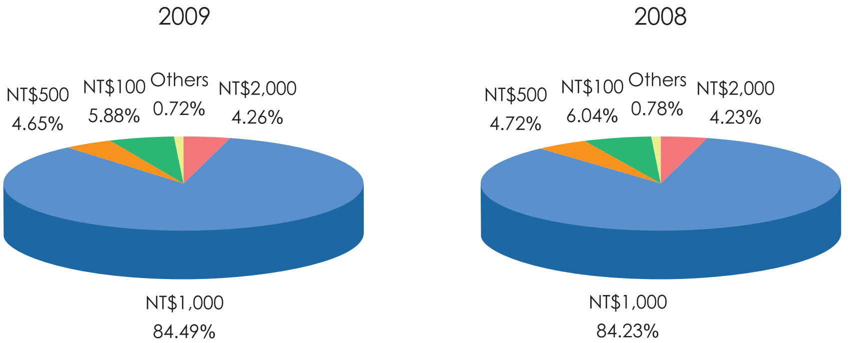
In 2009, the Bank implemented a proper currency distribution plan for delivering banknotes and coins. The currency issued peaked at NT$1,389.7 billion on January 23, the day before the Chinese Lunar New Year holidays, reflecting a temporary seasonal surge in cash demand. At the end of 2009, the outstanding amount of the currency issued was NT$1,122.7 billion, representing an increase of NT$68.4 billion or 6.49 percent over the previous year-end.

### Currency Issued




*Source*: CBC.

### Composition of NT Dollar Banknotes Issued
(year-end figure)




*Source*: CBC.

The composition of NT dollar banknotes issued in 2009 was similar to last year. The largest portion was the NT$1,000 denomination note (84.49 percent), followed by the NT$100 (5.88 percent) and the NT$500 (4.65 percent) notes.

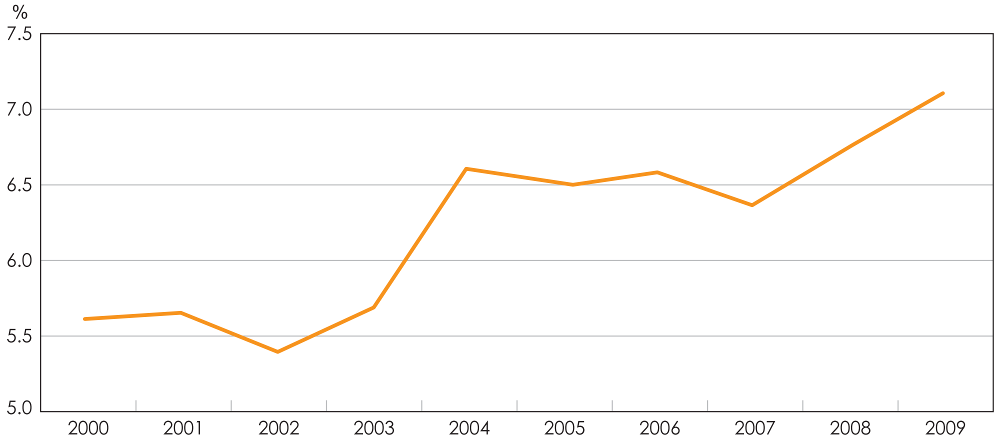
### Currency in Circulation to GDP Ratio Increased

Between 2005 and 2007, as credit card defaults weakened private consumption, currency demand for transaction purposes decreased, causing the ratio of currency in circulation to nominal GDP to trend downwards. However, due to the economic slowdown and the prevailing low interest rate environment since September 2008, which led the public to hold more currency, the ratio rose further to 7.08 percent in 2009, an increase of 0.36 of a percentage point than a year before.

### Commemorative Coin Sets Issued Successively

With the authority of currency issuance, the Bank may also issue gold and silver coins, and commemorative notes and coins on a non-periodic basis, such as for important ceremonies, national holidays, major international events or other significant national events. During the year 2009, the Bank issued the coin set for the Chinese Zodiac Year of the Ox, and the 12th coin set of the Taiwan Indigenous Peoples Cultural Series-the Truku tribe.

**The Ratio of Currency Held by the Public to GDP**




*Source*: CBC.

# 7. Fiscal Agency Functions

The Central Bank acts as a banker to other banks as well as the government. It also functions as the fiscal agent for the government by maintaining the Treasury Deposit Account (TDA) and central governmental agency deposit accounts, and undertaking the issuance, registration, redemption, and interest payment of central government bonds and treasury bills.

## Managing the Treasury Deposit Account

The Bank manages the TDA on behalf of the Ministry of Finance (MOF), processing receipts and disbursements of the central government. The Bank delegates the handling of treasury transactions to 14 financial institutions and their 362 branches, including 5 overseas branches located in New York, Los Angeles, Seattle, and Paris. In 2009, the Bank received a total of NT $3,190.8 billion worth of treasury deposits, an increase of NT$545.8 billion or 20.64 percent from 2008. Payments made for the Treasury were NT$3,196.2 billion, an increase of NT$554 billion or 20.97 percent over the previous year. At the end of 2009, the outstanding balance in the TDA was NT$35.5 billion, decreasing by NT$5.5 billion or 13.41 percent from a year earlier. This was attributable to a substantial tax revenue decrease and an increase in government spending to boost the domestic economy in the wake of the global financial turmoil.

## Handling Central Government Agency Deposits

Central government agencies are required to make their deposits with the Bank or other delegated banks subject to the approval of the MOF. However, the delegated banks are required by law to redeposit 60 percent of the deposits with the Bank, except those in interest-bearing accounts. At the end of 2009, the balance of central government agencies' deposits with the Bank amounted to NT$198.2 billion, a substantial increase of NT$85.8 billion or 76.33 percent over 2008, as the Ministry of the Interior transferred deposits of the new labor pension system and the national pension insurance scheme from other delegated banks to the Bank. Deposits with other delegated banks were NT$377.8 billion at the end of 2009, a decrease of NT$51.5 billion or 12 percent. Among them, redeposits with the Bank registered NT$11.1 billion at the end of 2009, decreasing by NT$6.7 billion or 37.64 percent from a year earlier, as the Ministry of Finance introduced a policy that non interest-bearing accounts were to be subsumed into the TDA.

## Managing Central Government Bonds

As a fiscal agent, the Bank, on behalf of the MOF, performs services related to the issuance, registration, transfer, redemption, and interest payment of central government bonds. The Bank also conducts the auctions of central government bonds. There are 64 domestic dealers qualified to directly participate in the auctions, including 23 banks, 26 securities companies, 10 bills finance companies, 4 insurance companies, and Chunghwa Post Co.

All central government bonds issued since 1997 have been in book-entry form. The paperless system expedites trading and saves the cost of printing, safekeeping, and bond delivery. In 2009, the Bank managed 13 issues of central government bonds amounting to NT$470.0 billion and paid a total of NT$250.2 billion in principal and NT$122.4 billion in interest payments for central government bonds. At the end of 2009, the outstanding amount of central government bonds was NT$3,829.6 billion, an increase of NT$219.9 billion or 6.09 percent from the previous year-end, of which 99.90 percent was in book-entry form.

### Managing Treasury Bills

Treasury bills are issued at a discount through auctions. Direct participants include banks, insurance companies, bills finance companies, and Chunghwa Post Co. In 2009, the Bank handled 18 issues of treasury bills with a total amount of NT$435 billion. At year-end 2009, the outstanding amount of treasury bills was NT$215.0 billion, an increase of NT$108.2 billion or 101.31 percent from the previous year-end.

### Establishment of Government Bonds Buy-Back System

To enhance the efficiency of government debt management and increase the domestic bond market liquidity, the Bank established the government bonds buy-back system in March, 2009. Through buying-back less-liquid government bonds and issuing new ones, the government was able to manage treasury deposit accounts more flexibly and reduce the interest burden.

# 8. Participation in International Activities

The Bank actively took part in international activities during 2009. As a member, the Bank hosts conferences, provides training courses, and attends various forums, such as the annual meetings of the Asian Development Bank (ADB), the Central American Bank for Economic Integration (CABEI), and the South East Asian Central Banks (SEACEN). In addition, the Bank also maintains close relationships with the Inter-American Development Bank (IDB), the European Bank for Reconstruction and Development (EBRD) and the Bank for International Settlements (BIS), and participates in their annual meetings. In 2009, the Bank continued to strengthen its interaction with other central banks to exchange views on key economic and financial issues.

The Bank is a founding member of the ADB and, through this platform, has played an active role in promoting financial cooperation and stability in Asia. In May 2009, the Bank participated in the 42nd annual meeting of the ADB held in Indonesia, and shared views on the establishment of a multilateral swap arrangement, the formation of the loan arrangement as an additional source of funding, and the development of a formal regional exchange rate coordination mechanism.

Furthermore, in February 2009, the Bank attended the 44th annual SEACEN conference of governors held in Kuala Lumpur, Malaysia, where governors from 18 central banks discussed issues on the role of central banks in sustaining economic recovery and in achieving financial stability. Furthermore, the Bank hosted the 4th SEACEN-OSFI Workshop on Internal Capital

Adequacy Assessment Process held in May. A total of 35 participants from 12 countries attended the workshop. Lecturers comprised technical experts and senior officers from the Office of the Superintendent of Financial Institution and SEACEN member central banks. The Bank also dispatched staff to attend seminars held by other central banks, such as the Federal Reserve, Bank of Japan, Bank of England, and Swiss National Bank.

# Annex

# IV. Annex

## Impact of the Global Financial Crisis on Selected Countries' International Investment Positions

The international investment position (IIP) is an important indicator for the International Monetary Fund to monitor the member countries' ability to make external payments and maintain financial stability. It also provides valuable reference for credit ratings agencies, syndicated loan markets and international investors to assess country risk or make investment decisions.

The global financial crisis of 2008 caused market turbulence and a shrinkage of wealth worldwide. This report observes changes in the external assets and liabilities of 19 countries[1] based on their IIP data at the end of 2008. The findings are then used to analyze the impact of the global financial crisis on these countries.

**Direct investment**

Direct investment may be expressed at either market values or book values[2]. As the global financial crisis induced a severe plunge in asset prices, the difference between market and book values widened drastically. For example, when measured at year-end book values, assets and liabilities of direct investment increased by 7.2 percent and 8 percent for the U.S. in 2008. France recorded respective increases of 9.6 percent and 5.7 percent, and Japan posted even larger increases of 25.4 percent and 53.1 percent. However, when measured at market values, both assets and liabilities decreased by more than 26 percent for the U.S. and Japan. France showed a substantial 46.6 percent decrease in assets, leading to an abrupt increase in its net liabilities.

Among emerging economies, Russia and Hong Kong experienced the deepest decline in foreign direct investment. Russia reported a decline of 56.5 percent in 2008, as its stock market suffered the largest drop worldwide. Acting as an intermediary for investment in China, Hong Kong possesses five times as much bilateral direct investment as the other three Asian tigers. Its bilateral direct investment evaporated by US$577 billion or 26.4 percent in 2008, due to nose-diving global asset prices. Direct investment to China increased by 24.5 percent in 2008, sustaining a rising trend.

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1 These include G7 (U.S., Canada, Japan, U.K., Germany, France and Italy), four other developed countries (Luxemburg, Netherlands, Switzerland and Spain), and the emerging economies known as the "four Asian tigers" (South Korea, Hong Kong, Singapore and Taiwan) and the "Brics" (Brazil, Russia, India and China).

2 In IIP statistics, direct investment exhibits the most varied valuation methods among countries. Portfolio investment and derivatives are generally reported at market values, while other investment and reserve assets are generally reported at book values.

**Portfolio investment**

Portfolio investment registered the largest decline among all the investment categories. In particular, equity investment fell drastically along with worldwide stock markets. Both the total equity assets and liabilities of the 19 countries experienced over 40 percent declines, a major cause for the shrinkage of global wealth.

The U.S. recorded the deepest decline in equity investment. Its equity assets decreased by 2.1 times as much as liabilities, leading to a steep rise in net liabilities. By contrast, in emerging economies, equity liabilities decreased by 2.8 times as much as assets. Russia, South Korea, Brazil and Hong Kong all recorded over 50 percent declines in liabilities, causing a sharp depreciation in their currencies[3]. China was the only country that enjoyed continually rising inward equity investment, as well as sustained outward equity investment.

As global stock markets plunged, bond markets provided a safe haven for international investors. Moreover, governments worldwide issued large amounts of bonds to finance economic stimulus programs. Therefore, bonds issued by the US, French, German and Japanese governments became favorable investment targets. The US government issued bonds on an unprecedented scale to bail out troubled financial institutions, leading to a US$329 billion increase in liabilities of debt securities.

As global liquidity flooded bond markets, bond yields fell and bond prices rose. Following the outbreak of the global financial crisis in October 2008, the average yield on 10-year government bonds issued by major countries clearly dropped and hit a nadir around the end of 2008. It then rebounded along with the pace of market stabilization.

**Other investment**

Banks are the main traders in other investment. Large investment banks in Europe and the U.S. engaged in a de-leveraging process amid the financial crisis to improve their financial conditions. Many of them sold overseas assets to fill the capital shortfall of their parent banks. As a result, these banks experienced shrinkages in both assets and liabilities of other investment. The U.K. suffered the most severe shrinkage with assets and liabilities decreasing by US$1,301 billion and US$1,806 billion, respectively.

Amid the international liquidity shortage, banks in Japan and emerging countries became fund providers to their overseas affiliated banks. Therefore, other investment increased in these countries, with Japan recording the largest increase.

**Reserve assets**

The "Brics," the four Asian tigers and Japan all possessed large pools of foreign exchange

3 At the end of 2008, the Korean won, Brazilian real and Russian ruble depreciated by 25.7 percent, 24.2 percent and 16.4 percent, respectively, compared with the end of 2007.

reserves, and hence large positions of reserve assets. Among these countries, China continued to rank first in foreign exchange reserves due to sustained capital inflows and trade surpluses. On the other hand, South Korea and Russia both experienced an exodus of foreign capital and strong demand for US dollars in their domestic markets. They provide foreign currency liquidity from their own reserves, hence recording the largest decreases in reserve assets.

## Changes in IIPs of Selected Countries in 2008

Unit: US$ billion

| | US | Japan | UK | France | South Korea | Hong Kong | Taiwan | China | Russia | Others | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Assets | 1,609 | 366 | -2,390 | -1,689 | -105 | -450 | 10 | 546 | -89 | -2,220 | -4,412 |
| Direct investment abroad | 247 | 138 | -264 | -1,141 | 21 | -235 | 17 | 53 | -167 | 36 | -1,295 |
| Portfolio investment | -2,643 | -147 | -825 | -473 | -83 | -223 | -60 | -33 | -2 | -2,288 | -6,776 |
| Equity securities | -2,397 | -179 | -679 | -394 | -57 | -242 | -68 | 1 | -1 | -1,862 | -5,878 |
| Debt securities | -246 | 32 | -145 | -79 | -26 | 19 | 8 | -34 | -1 | -426 | -898 |
| Financial derivatives | 4,065 | 38 | — | 99 | 7 | 39 | 10 | — | 4 | 435 | 4,698 |
| Other investment | -77 | 279 | -1,301 | -163 | 11 | -61 | 22 | 106 | 128 | -424 | -1,479 |
| Reserve assets | 17 | 57 | -1 | -12 | -61 | 30 | 21 | 419 | -51 | 21 | 441 |
| Liabilities | 2,939 | 76 | -3,091 | -795 | -225 | -586 | -87 | 189 | -470 | -2,392 | -4,442 |
| Dir. invest. in rep. economy | 197 | 71 | -276 | -582 | -37 | -342 | -3 | 173 | -277 | -94 | -1,172 |
| Portfolio investment | -805 | -397 | -1,009 | -197 | -205 | -246 | -97 | 15 | -233 | -2,293 | -5,466 |
| Equity securities | -1,134 | -490 | -838 | -396 | -195 | -218 | -97 | 15 | -210 | -2,347 | -5,911 |
| Debt securities | 329 | 93 | -171 | 200 | -10 | -28 | 0 | 0 | -23 | 55 | 444 |
| Financial derivatives | 3,977 | 42 | — | 88 | 9 | 36 | 11 | — | 10 | 449 | 4,622 |
| Other investment | -430 | 360 | -1,806 | -103 | 7 | -34 | 2 | 2 | 32 | -454 | -2,426 |
| Net IIP | -1,329 | 290 | 702 | -895 | 120 | 136 | 98 | 357 | 381 | 172 | 31 |

## Annual Growth Rates of IIPs of Selected Countries in 2008

Unit:%

| | US | Japan | UK | France | South Korea | Hong Kong | Taiwan | China | Russia | Others | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Assets | 8.8 | 6.8 | -18.7 | -21.8 | -17.6 | -16.6 | 1.2 | 23.0 | -8.1 | -7.9 | -5.5 |
| Direct investment abroad | 7.2 | 25.4 | -14.4 | -46.6 | 27.8 | -23.3 | 10.6 | 46.1 | -45.2 | 0.6 | -7.9 |
| Portfolio investment | -36.5 | -5.8 | -24.3 | -15.7 | -52.5 | -28.7 | -24.1 | -11.5 | -7.9 | -21.5 | -24.0 |
| Equity securities | -45.7 | -31.2 | -45.0 | -45.9 | -54.3 | -47.1 | -49.3 | 5.7 | -33.3 | -39.9 | -43.1 |
| Debt securities | -12.3 | 1.6 | -7.7 | -3.6 | -48.8 | 7.2 | 7.4 | -12.8 | -3.3 | -7.2 | -6.1 |
| Financial derivatives | 158.8 | 98.6 | — | 42.5 | 290.8 | 82.1 | 281.7 | — | 272.5 | 122.7 | 144.9 |
| Other investment | -1.6 | 21.8 | -17.3 | -8.4 | 11.5 | -8.4 | 12.2 | 24.9 | 57.4 | -4.3 | -5.5 |
| Reserve assets | 6.0 | 5.9 | -1.1 | -10.7 | -23.3 | 19.6 | 7.8 | 27.1 | -10.6 | 2.1 | 8.6 |
| Liabilities | 14.4 | 2.4 | -23.1 | -10.8 | -27.2 | -26.2 | -22.5 | 15.6 | -38.3 | -8.4 | -5.7 |
| Dir. invest. in rep. economy | 8.0 | 53.1 | -21.9 | -36.0 | -30.1 | -29.0 | -6.5 | 24.5 | -56.5 | -1.7 | -8.6 |
| Portfolio investment | -7.8 | -20.4 | -26.3 | -6.9 | -44.9 | -51.5 | -46.7 | 9.9 | -67.7 | -17.4 | -16.2 |
| Equity securities | -35.1 | -39.3 | -51.1 | -39.5 | -61.1 | -50.3 | -48.0 | 11.6 | -71.8 | -37.3 | -40.0 |
| Debt securities | 4.6 | 13.3 | -7.8 | 10.8 | -7.0 | -63.0 | -1.8 | -2.4 | -44.7 | 0.8 | 2.3 |
| Financial derivatives | 159.9 | 96.4 | — | 25.9 | 191.3 | 110.4 | 296.1 | — | 1088.3 | 122.4 | 141.0 |
| Other investment | -8.3 | 34.6 | -21.9 | -4.0 | 3.0 | -6.2 | 1.3 | 0.4 | 8.1 | -5.0 | -8.7 |

*Notes:* (1) The tables are compiled according to IFS. Direct investments of the U.S. and Japan are based on book values, while those of France are market values.
(2) "—" figure not available.
*Sources*: IMF and central banks of selected countries.

# Chronology of Events of the CBC in 2009

# Chronology of Events of the CBC in 2009

| Date | Events |
|---|---|
| Jan. 7 | The Bank's Executive Directors' Meeting lowered the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral by 50 basis points to 1.5 percent, 1.875 percent and 3.75 percent, respectively, effective January 8, 2009. |
| Jan. 9 | The Bank lowered the remunerative rates on banks' B reserve accounts with the Bank. Reserves from demand deposits received 0.2 percent interest, while those from time deposits received 0.921 percent. |
| Jan. 17 | The Bank amended *the Directions for the Central Bank of the Republic of China (Taiwan) to Regulate the Acceptance of Re-Deposits from Banks. The Bank*, if deemed necessary, may accept foreign currency re-deposits from banks, effective January 19, 2009. |
| Jan. 23 | The Bank revised the rule of interest payment on *the 921 Earthquake Victim Emergency Home Reconstruction Loans*. The 2 percent fixed annual interest rate on such loans became linked to the one-year postal savings floating rate when the latter rate fell below 2 percent, effective today. |
| Feb. 9 | The Bank asked banks that borrowers of *the 921 Earthquake Victim Emergency Home Reconstruction Loans* facing financial difficulty may negotiate with banks to defer their principal payments or extend the loan term up to 30 years. |
| Feb. 18 | The Bank's Executive Directors' Meeting lowered the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral by 25 basis points to 1.25 percent, 1.625 percent and 3.5 percent, respectively, effective February 19, 2009. |
| Feb. 20 | The Bank lowered the remunerative rates on banks' B reserve accounts with the Bank. Reserves from demand deposits received 0.173 percent interest, while those from time deposits received 0.771 percent. |
| Mar. 20 | The Bank launched the central government bond buyback mechanism to allow the Ministry of Finance more flexibility in managing public finances and enhance the liquidity of the bond market, effective on March 23, 2009. |
| Mar. 26 | The Board decided to leave the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral unchanged at 1.25%, 1.625% and 3.50%, respectively, effective from March 27, 2009. |
| May 25 | The Bank allowed authorized banks to accept applications for foreign |

| Date | Events |
|---|---|
| | exchange remittances by employment agencies on behalf of foreign workers with prior verification of work permits and related documents, effective on June 1, 2009. |
| Jun. 15 | The Bank amended *the Regulations Governing Foreign Exchange Business of Banking Enterprises*, effective on June 17. Financial institutions engaged in foreign securities investment through money trusts shall comply with the FSC's regulations. |
| Jun. 24 | The Bank promulgated *the Regulations Governing the Saving and Audit of Stored Fund Reserves of Electronic Stored Value Card issued by Non-bank Institutions*, effective today. |
| Jun. 25 | The Board decided to leave the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral unchanged at 1.25%, 1.625%, and 3.50%, respectively. |
| Jun. 29 | In line with the FSC's adoption of a negative list management for outward remittances to the Mainland Area, the Bank amended the related guideline demanding banking enterprises to verify the documents needed before conducting such transactions, effective on June 30, 2009. |
| Jul. 1 | To enhance financial institutions' liquidity management, the Bank set the reference value of "NT dollar maturity gap within thirty days as a percentage of total assets". The lowest reference value is -5% for banks and the Agricultural Bank of Taiwan, -10% for industrial banks, and -15% for the Export-Import Bank of ROC. |
| Aug. 17 | The Bank amended remittance regulations to exempt foreign donations for Typhoon Morakot from the declarers' annual accumulated amounts of foreign exchange settlements. |
| Sep. 10 | In response to the needs of collateral title transfers in the derivatives market and the amendment to *the Civil Code* on pledge agreements, the Bank introduced collateral title transfer services and pledge transfer on defaults in *the Central Government Securities Settlement System (CGSS)*, effective September 14, 2009. |
| Sept. 24 | The Board decided to leave the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral unchanged at 1.25%, 1.625%, and 3.50%, respectively. |
| Oct. 8 | The full coverage program for all deposit accounts at insured institutions was |

| Date | Events |
|---|---|
| | extended to December 31, 2010. |
| Oct. 12 | The Bank lowered the remunerative rates on banks' B reserve accounts with the Bank. Reserves from demand deposits received 0.165 percent interest, while those from time deposits received 0.767 percent. |
| Dec. 3 | The Bank amended *the Regulations Governing the Audit and Adjustment of Deposit and Other Liability Reserves of Financial Institutions*. The principal portion of proceeds derived from the sale of structured products shall be reclassified as "other debts" with required reserves, effective January 1, 2010. |
| Dec. 11 | The Bank's Board Meeting decided to keep the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral unchanged at 1.25%, 1.625%, and 3.50%, respectively. |
| | The Board also decided to set the target zone of M2 growth for 2010 at 2.5 percent to 6.5 percent. |
| Dec. 31 | In line with the amendment to *the Income Tax Act* regarding structured products, the Bank amended *the Directions for Auditing Liquidity of Financial Institutions*, effective January 1, 2010. |

# Financial Statements of the CBC

## 1. Balance Sheet

Unit: NT$ Million

| | December 31 2009 | December 31 2008 | Change | |
|---|---|---|---|---|
| | | | Amount | % |
| **Assets** | | | | |
| Foreign Assets | 11,357,059 | 9,717,348 | 1,639,711 | 16.87 |
| Due from Domestic Banks | 158,722 | 16,283 | 142,439 | 874.77 |
| Loans and Accommodations to Financial Institutions | 460,718 | 388,990 | 71,728 | 18.44 |
| Other Assets | 685,564 | 234,098 | 451,466 | 192.85 |
| **Total Assets** | **12,662,063** | **10,356,719** | **2,305,344** | **22.26** |
| **Liabilities** | | | | |
| Currency Issued | 1,122,754 | 1,054,290 | 68,464 | 6.49 |
| Deposits of Financial Institutions | 1,185,486 | 1,075,172 | 110,314 | 10.26 |
| Certificates of Deposit Issued | 5,928,485 | 4,334,945 | 1,593,540 | 36.76 |
| Redeposits of Financial Institutions | 2,167,391 | 2,095,265 | 72,126 | 3.44 |
| Government Deposits | 234,582 | 154,177 | 80,405 | 52.15 |
| Other Liabilities | 799,979 | 268,988 | 530,991 | 197.40 |
| **Total Liabilities** | **11,438,677** | **8,982,837** | **2,455,840** | **27.34** |
| **Net Worth** | **1,223,386** | **1,373,882** | **-150,496** | **-10.95** |
| **Total Liabilities and Net Worth** | **12,662,063** | **10,356,719** | **2,305,344** | **22.26** |

*Source*: CBC.

## 2. Income Statement

Unit: NT$ Million

| | 2009 | 2008 |
|---|---|---|
| **Income** | | |
| Interest Income | 395,163 | 356,890 |
| Fee Income | 118 | 102 |
| Subsidiaries Investment Income | 1,100 | 1,036 |
| Revenue from Trust Investment | 13,192 | 23,091 |
| Foreign Exchange Gains | 25,886 | 23,865 |
| Others | 723 | 1,130 |
| **Total Income** | **436,182** | **406,114** |
| **Expenses** | | |
| Interest Expenses | 66,728 | 150,502 |
| Fee Expenses | 140 | 61 |
| Expenses for Coin Issuance | 668 | 1,013 |
| Allowances | 65,458 | 10,303 |
| Expenses for Currency Issuance | 2,848 | 3,670 |
| Operating Expenses | 1,563 | 1,637 |
| Administrative Expenses | 470 | 489 |
| Others | 630 | 670 |
| **Total Expenses** | **138,505** | **168,345** |
| **Net Income** | **297,677** | **237,769** |

*Source*: CBC.

# Key Economic and Financial Indicators of the Republic of China (Taiwan)

| Year / Month | I. Business Indicators: C.E.P.D.[1] Total Score of Monitoring Indicators (average) | I. Business Indicators: T.I.E.R.[2] Business Climate Index: Manufacturing Sector (1991=100) (average) | I. Business Indicators: T.I.E.R.[2] Business Climate Index: Services Sector (2001=100) (average) | II. National Income and Aggregate Demand: Economic Growth Rate (%) | Per Capita GNP (US$) | Unemploy-ment Rate (%) | Manufacturing Sector: Labor Productivity Index (2006=100) | Manufacturing Sector: Average Monthly Earnings (per Employee) (NT$) | Manufacturing Sector: Index of Producer's Inventory (2006=100) (%) | Annual Rate of Change of Industrial Production Indices (%): General Index (2006=100) | Manufacturing Index (2006=100) | Index of Construction (2006=100) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2000 | 26 | 100.29 | 112.19 | 5.80 | 14,906 | 2.99 | 73.97 | 38,914 | 90.9 | 6.71 | 7.84 | -14.65 |
| 2001 | 22 | 92.39 | 100.00 | -1.65 | 13,401 | 4.57 | 76.15 | 38,412 | 96.3 | -8.41 | -9.02 | -11.19 |
| 2002 | 23 | 106.89 | 115.94 | 5.26 | 13,716 | 5.17 | 82.67 | 38,435 | 88.4 | 7.46 | 8.93 | -20.66 |
| 2003 | 23 | 108.10 | 122.19 | 3.67 | 14,197 | 4.99 | 88.24 | 39,549 | 89.5 | 9.09 | 9.55 | 9.02 |
| 2004 | 33 | 110.74 | 122.18 | 6.19 | 15,503 | 4.44 | 92.45 | 40,657 | 93.3 | 9.30 | 9.97 | 4.78 |
| 2005 | 22 | 102.43 | 116.91 | 4.70 | 16,449 | 4.13 | 96.18 | 41,858 | 100.8 | 3.76 | 3.66 | 11.38 |
| 2006 | 22 | 108.48 | 118.80 | 5.44 | 16,911 | 3.91 | 100.00 | 42,393 | 100.0 | 4.70 | 4.50 | 9.02 |
| 2007 | 25 | 115.81 | 114.11 | 5.98 | 17,596 | 3.91 | 107.12 | 43,169 | 101.0 | 7.77 | 8.34 | -0.48 |
| 2008 | 19 | 99.10 | 106.88 | 0.73 | 17,941 | 4.14 | 106.02 | 43,105 | 110.8 | -1.78 | -1.56 | -9.26 |
| 2009 | 19 | 110.38 | 113.45 | -1.87 | 16,997 | 5.85 | 106.62 | 39,152 | 103.7 | -8.08 | -7.97 | -19.08 |
| 2009/ 1 | 9 | 80.51 | 90.68 | | | 5.31 | 89.48 | 64,585 | 113.2 | -42.64 | -44.22 | -21.10 |
| 2 | 10 | 93.72 | 93.48 | | | 5.75 | 86.20 | 34,930 | 106.1 | -26.29 | -26.81 | -32.39 |
| 3 | 10 | 104.97 | 103.14 | -9.06 | 3,980 | 5.81 | 94.50 | 34,395 | 104.2 | -24.73 | -25.42 | -19.59 |
| 4 | 11 | 112.48 | 106.83 | | | 5.76 | 100.95 | 35,512 | 102.8 | -19.30 | -19.67 | -21.40 |
| 5 | 12 | 112.40 | 116.37 | | | 5.82 | 113.90 | 36,694 | 105.0 | -18.13 | -18.31 | -27.38 |
| 6 | 17 | 114.50 | 117.75 | -6.85 | 4,027 | 5.94 | 107.27 | 35,836 | 102.5 | -10.74 | -10.90 | -15.74 |
| 7 | 18 | 116.80 | 122.84 | | | 6.07 | 109.51 | 37,862 | 100.3 | -7.18 | -7.25 | -14.10 |
| 8 | 18 | 118.76 | 121.22 | | | 6.13 | 112.71 | 36,524 | 99.5 | -8.95 | -8.73 | -28.76 |
| 9 | 20 | 118.54 | 122.13 | -0.98 | 4,264 | 6.04 | 114.04 | 38,015 | 101.6 | 2.80 | 2.89 | -0.36 |
| 10 | 26 | 117.59 | 119.29 | | | 5.96 | 114.13 | 37,399 | 102.7 | 7.38 | 8.86 | -29.70 |
| 11 | 37 | 117.10 | 122.50 | | | 5.86 | 115.86 | 36,732 | 104.0 | 31.95 | 34.88 | -24.51 |
| 12 | 37 | 117.57 | 125.81 | 9.22 | 4,726 | 5.74 | 113.25 | 40,931 | 102.1 | 47.76 | 50.68 | 10.69 |

*Notes:* (1) C.E.P.D.: Council for Economic Planning and Development, Executive Yuan.
(2) T.I.E.R.: Taiwan Institute of Economic Research.

# Key Economic and Financial Indicators of the Republic of China (Taiwan) Cont.

| Year / Month | II. National Income and Aggregate Demand: Annual Rate of Change of Private Consumption Expenditure (%) | Annual Rate of Change of Gross Fixed Capital Formation (%) | Annual Rate of Change of Gross Fixed Capital Formation: Private Sector (%) | Gross National Savings / GNP (%) | Gross Domestic Investment / GNP (%) | External Trade of Goods on Customs basis (in US Dollars): Annual Rate of Change of Total Exports [(3)] (%) | China and H.K. (%) | U.S. (%) | Japan (%) | Europe (%) | Southeast Asia [(4)] (%) | Annual Rate of Change of Total Imports [(3)] (%) | Annual Rate of Change of Capital Equipment (%) | Trade Balance [(3)] (US$ Million) | Annual Rate of Change of Export Orders (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2000 | 4.75 | 7.27 | 13.19 | 28.03 | 25.33 | 22.8 | 26.2 | 13.6 | 40.2 | 16.9 | 28.8 | 26.6 | 37.4 | 11,218 | 20.36 |
| 2001 | 0.98 | -17.91 | -22.98 | 25.79 | 19.46 | -16.9 | -9.5 | -20.9 | -22.9 | -16.3 | -19.1 | -23.3 | -31.4 | 18,344 | -11.54 |
| 2002 | 3.26 | 1.12 | 7.12 | 27.39 | 18.90 | 7.1 | 29.4 | -2.7 | -5.0 | -5.9 | 7.4 | 4.9 | -3.4 | 22,072 | 11.23 |
| 2003 | 2.91 | -0.11 | 1.93 | 28.27 | 19.32 | 11.3 | 23.6 | -3.0 | 0.5 | 10.4 | 10.5 | 13.0 | 0.5 | 22,590 | 12.64 |
| 2004 | 5.17 | 13.96 | 25.62 | 28.59 | 22.94 | 21.1 | 28.8 | 8.3 | 11.1 | 14.7 | 33.0 | 31.8 | 37.8 | 13,613 | 26.50 |
| 2005 | 2.90 | 2.66 | 1.53 | 27.76 | 22.17 | 8.8 | 12.2 | 1.3 | 9.4 | -0.8 | 13.8 | 8.2 | -4.1 | 15,817 | 19.20 |
| 2006 | 1.49 | 0.07 | 3.31 | 29.55 | 22.12 | 12.9 | 14.8 | 11.2 | 7.9 | 10.5 | 13.8 | 11.0 | -0.5 | 21,319 | 16.74 |
| 2007 | 2.08 | 0.55 | 1.36 | 30.89 | 21.56 | 10.1 | 12.6 | -0.9 | -2.2 | 9.7 | 16.7 | 8.2 | 3.0 | 27,425 | 15.54 |
| 2008 | -0.57 | -11.17 | -13.78 | 28.65 | 22.13 | 3.6 | -0.8 | -4.0 | 10.2 | 4.6 | 7.3 | 9.7 | -8.1 | 15,181 | 1.71 |
| 2009 | 1.48 | -11.80 | -19.38 | 28.14 | 16.68 | -20.3 | -15.9 | -23.5 | -17.4 | -24.6 | -21.5 | -27.5 | -21.3 | 29,304 | -8.33 |
| 2009/1 | | | | | | -44.1 | -58.6 | -26.5 | -18.0 | -32.7 | -51.1 | -56.6 | -53.4 | 3,431 | -41.67 |
| 2 | | | | | | -28.6 | -25.2 | -24.7 | -10.6 | -34.7 | -36.6 | -32.1 | -20.0 | 1,751 | -22.27 |
| 3 | -1.96 | -29.37 | -35.53 | 25.55 | 12.33 | -35.8 | -37.7 | -22.1 | -34.6 | -36.6 | -44.0 | -49.7 | -48.7 | 3,438 | -24.29 |
| 4 | | | | | | -34.3 | -33.5 | -33.7 | -32.3 | -37.0 | -35.8 | -41.2 | -51.2 | 2,145 | -20.90 |
| 5 | | | | | | -31.4 | -30.0 | -28.0 | -24.0 | -36.3 | -30.6 | -39.1 | -37.8 | 3,166 | -20.14 |
| 6 | -0.61 | -21.37 | -30.75 | 28.07 | 16.79 | -30.4 | -30.3 | -29.0 | -18.6 | -38.5 | -22.5 | -33.5 | -29.5 | 1,756 | -10.91 |
| 7 | | | | | | -24.5 | -20.7 | -28.7 | -20.3 | -29.0 | -25.4 | -34.1 | -23.9 | 2,020 | -8.77 |
| 8 | | | | | | -24.6 | -17.4 | -34.4 | -22.1 | -28.4 | -26.4 | -32.4 | -13.6 | 1,967 | -11.96 |
| 9 | 2.31 | -5.20 | -12.02 | 27.55 | 17.87 | -12.7 | 0.3 | -28.2 | -13.4 | -20.4 | -6.3 | -21.2 | -15.1 | 2,561 | -3.00 |
| 10 | | | | | | -4.6 | 11.0 | -16.5 | -8.1 | -11.0 | -9.0 | -6.7 | 12.1 | 3,262 | 4.41 |
| 11 | | | | | | 19.3 | 47.8 | -5.8 | -6.6 | 3.9 | 17.5 | 18.0 | 35.6 | 2,103 | 37.11 |
| 12 | 6.27 | 11.14 | 8.16 | 31.01 | 19.36 | 46.8 | 91.1 | 3.9 | 7.4 | 22.5 | 57.9 | 55.6 | 54.5 | 1,704 | 52.63 |

*Notes:* (3) Since Jan. 2006, the Ministry of Finance has revised total exports, total imports and trade balance based on the United Nation's *International Merchandise Trade Statistics Compilers Manual 2004.*
(4) Only includes six major countries in the region, i.e., Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.

# Key Economic and Financial Indicators of the Republic of China (Taiwan) Cont.

| Year / Month | III. Prices | | | | | | IV. Money, Banking and Finance | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Consumer Price Indices | | Wholesale Price Index | Import Price Index | Export Price Index | Unit Labor Cost Index | Reserve Money (daily average) | | Monetary Aggregates (daily average) | | | |
| | General Index | Core CPI (5) | | (in NT Dollars) | | | Amount | Adjusted Annual Growth Rate (6) | M1B | | M2 | |
| | | | | | | | | | Amount | Annual Growth Rate | Amount (7) | Annual Growth Rate |
| | (Annual Rate of Change, %; 2006=100) | | | | | | (NT$ Billion) | (%) | (NT$ Billion) | (%) | (NT$ Billion) | (%) |
| 2000 | 1.25 | 0.63 | 1.83 | 4.63 | -0.88 | -2.35 | 1,566.8 | 5.05 | 4,481.5 | 10.58 | 18,182.6 | 7.04 |
| 2001 | -0.01 | 0.09 | -1.35 | -1.25 | 0.33 | 3.52 | 1,539.1 | 1.21 | 4,435.8 | -1.02 | 19,236.0 | 5.79 |
| 2002 | -0.20 | 0.68 | 0.05 | 0.40 | -1.50 | -9.35 | 1,417.4 | 2.07 | 5,190.4 | 17.01 | 19,918.3 | 3.55 |
| 2003 | -0.28 | -0.61 | 2.48 | 5.14 | -1.49 | -3.92 | 1,492.3 | 5.28 | 5,803.9 | 11.82 | 20,669.8 | 3.77 |
| 2004 | 1.61 | 0.71 | 7.03 | 8.57 | 1.62 | -3.04 | 1,662.2 | 11.38 | 6,905.4 | 18.98 | 22,209.3 | 7.45 |
| 2005 | 2.31 | 0.66 | 0.62 | 2.43 | -2.46 | 0.14 | 1,792.5 | 7.84 | 7,395.8 | 7.10 | 23,590.7 | 6.22 |
| 2006 | 0.60 | 0.52 | 5.63 | 8.81 | 2.49 | -1.80 | 1,888.1 | 5.33 | 7,787.5 | 5.30 | 25,057.1 | 6.22 |
| 2007 | 1.80 | 1.35 | 6.47 | 8.95 | 3.56 | -4.94 | 1,977.1 | 4.71 | 8,289.2 | 6.44 | 26,122.7 | 4.25 |
| 2008 | 3.53 | 3.08 | 5.15 | 8.84 | -2.14 | 2.37 | 2,084.1 | 3.24 | 8,045.8 | -2.94 | 26,820.1 | 2.67 |
| 2009 | -0.87 | -0.14 | -8.74 | -9.61 | -6.60 | -6.95 | 2,298.4 | 12.60 | 9,376.5 | 16.54 | 28,753.1 | 7.21 |
| 2009/1 | 1.48 | 2.48 | -10.85 | -12.56 | -9.38 | 65.49 | 2,296.8 | 15.34 | 8,327.9 | 1.78 | 28,056.3 | 7.12 |
| 2 | -1.33 | 0.41 | -9.34 | -11.19 | -5.85 | -22.56 | 2,342.6 | 8.91 | 8,484.0 | 2.70 | 28,261.6 | 6.13 |
| 3 | -0.15 | 0.81 | -9.32 | -11.56 | -4.67 | 11.80 | 2,271.4 | 11.21 | 8,647.5 | 5.44 | 28,400.5 | 6.39 |
| 4 | -0.46 | 0.39 | -11.14 | -14.16 | -6.17 | 5.99 | 2,330.4 | 14.66 | 8,973.4 | 9.50 | 28,635.1 | 6.78 |
| 5 | -0.09 | 0.11 | -13.51 | -16.60 | -10.13 | 5.12 | 2,328.9 | 14.96 | 9,266.8 | 12.95 | 28,838.5 | 7.35 |
| 6 | -1.98 | -0.61 | -13.70 | -15.15 | -9.88 | -5.90 | 2,298.0 | 14.26 | 9,330.5 | 17.04 | 28,744.6 | 8.15 |
| 7 | -2.33 | -0.93 | -13.99 | -15.98 | -9.35 | -7.30 | 2,277.7 | 15.59 | 9,478.3 | 20.64 | 28,780.7 | 8.33 |
| 8 | -0.82 | -0.80 | -11.01 | -12.21 | -7.72 | -7.76 | 2,269.2 | 14.03 | 9,674.8 | 22.14 | 28,858.2 | 8.17 |
| 9 | -0.88 | -0.97 | -9.47 | -10.21 | -7.69 | -14.46 | 2,276.4 | 11.08 | 9,793.9 | 23.51 | 28,907.1 | 8.28 |
| 10 | -1.89 | -0.90 | -6.17 | -3.69 | -6.98 | -14.62 | 2,286.1 | 10.22 | 10,005.0 | 25.66 | 29,054.3 | 7.28 |
| 11 | -1.62 | -0.86 | 1.07 | 4.23 | -1.78 | -26.77 | 2,289.0 | 10.82 | 10,178.1 | 28.62 | 29,166.8 | 6.59 |
| 12 | -0.25 | -0.74 | 5.76 | 9.23 | 1.48 | -31.15 | 2,313.9 | 10.66 | 10,358.3 | 30.30 | 29,333.9 | 5.99 |

*Notes:* (5) Core CPI refers to CPI excluding the categories of fruits, vegetables, fish, shellfish, and energy.
(6) The annual growth rates are adjusted for most recent changes in required reserve ratios on Sep. 18, 2008 and in the share of required reserves deposited with the Bank's B account in Nov. 2001.
(7) Data from Oct. 2004 onwards included the net present value of money market mutual funds.

# Key Economic and Financial Indicators of the Republic of China (Taiwan) Cont.

| Year / Month | IV. Money, Banking and Finance | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Major Financial Institutions (8) | | | | Past-Due Loan Ratio of Domestic Banks (10) (%) | Interest Rates (%) | | | | | | |
| | Deposits | | Loans & Investments (9) | | | CBC's Discount Rate (end of period) | Interbank Call-Loan Rate (average) | 31-90 Day Commercial Paper Secondary Market Rate (average) | Five Major Domestic Banks (11) | | Domestic Banks | |
| | Amount (NT$ Billion) | Annual Rate of Change (%) | Amount (NT$ Billion) | Annual Rate of Change (%) | | | | | Base Lending Rate (12) (end of period) | New Loan Rate (average) | Deposit Rate (average) | Loan Rate (average) |
| 2000 | 19,308.7 | 6.89 | 16,622.0 | 3.73 | N.A | 4.625 | 4.732 | 4.91 | 5.63 | 7.711 | 6.72 | 5.00 |
| 2001 | 20,160.7 | 4.41 | 16,489.3 | -0.80 | 11.27 | 2.125 | 3.692 | 3.69 | 4.03 | 7.377 | 5.75 | 2.41 |
| 2002 | 20,609.8 | 2.23 | 16,078.0 | -2.49 | 8.85 | 1.625 | 2.046 | 2.03 | 3.46 | 7.100 | 4.04 | 1.86 |
| 2003 | 21,746.9 | 5.52 | 16,535.1 | 2.84 | 6.08 | 1.375 | 1.097 | 1.05 | 2.16 | 3.429 | 2.80 | 1.40 |
| 2004 | 23,256.5 | 6.94 | 17,964.0 | 8.64 | 3.80 | 1.750 | 1.061 | 0.99 | 2.66 | 3.516 | 2.16 | 1.52 |
| 2005 | 24,709.5 | 6.25 | 19,360.2 | 7.77 | 2.24 | 2.250 | 1.312 | 1.27 | 2.05 | 3.845 | 2.31 | 1.99 |
| 2006 | 25,942.0 | 4.99 | 20,153.9 | 4.10 | 2.13 | 2.750 | 1.552 | 1.54 | 1.98 | 4.115 | 2.37 | 2.20 |
| 2007 | 26,208.8 | 1.03 | 20,626.9 | 2.35 | 1.84 | 3.375 | 1.998 | 1.90 | 2.27 | 4.313 | 2.70 | 2.62 |
| 2008 | 27,977.9 | 6.75 | 21,331.5 | 3.42 | 1.54 | 2.000 | 2.014 | 1.92 | 2.29 | 4.205 | 2.80 | 1.42 |
| 2009 | 29,555.9 | 5.64 | 21,490.6 | 0.75 | 1.15 | 1.250 | 0.109 | 0.24 | 1.51 | 2.563 | 1.50 | 0.89 |
| 2009/ 1 | 27,958.7 | 5.42 | 21,345.4 | 2.90 | 1.57 | 1.500 | 0.233 | 0.44 | 1.47 | 3.910 | 1.94 | 0.92 |
| 2 | 28,265.5 | 5.98 | 21,185.0 | 2.47 | 1.61 | 1.250 | 0.143 | 0.34 | 1.53 | 3.162 | 1.72 | 0.77 |
| 3 | 28,515.1 | 6.23 | 21,206.7 | 2.40 | 1.63 | 1.250 | 0.137 | 0.19 | 1.52 | 3.162 | 1.56 | 0.77 |
| 4 | 28,667.6 | 6.41 | 21,219.0 | 1.84 | 1.63 | 1.250 | 0.131 | 0.18 | 1.55 | 2.659 | 1.47 | 0.77 |
| 5 | 28,806.2 | 7.04 | 21,190.7 | 0.95 | 1.61 | 1.250 | 0.097 | 0.16 | 1.61 | 2.639 | 1.54 | 0.77 |
| 6 | 28,862.5 | 7.35 | 21,095.2 | 0.14 | 1.50 | 1.250 | 0.097 | 0.16 | 1.63 | 2.639 | 1.53 | 0.77 |
| 7 | 28,970.8 | 7.46 | 21,028.8 | -0.50 | 1.47 | 1.250 | 0.100 | 0.16 | 1.57 | 2.615 | 1.29 | 0.77 |
| 8 | 28,906.6 | 7.38 | 21,014.6 | -0.82 | 1.44 | 1.250 | 0.101 | 0.22 | 1.47 | 2.615 | 1.30 | 0.77 |
| 9 | 29,042.4 | 7.26 | 21,070.4 | -1.28 | 1.38 | 1.250 | 0.100 | 0.24 | 1.46 | 2.615 | 1.58 | 0.77 |
| 10 | 29,237.8 | 6.68 | 21,088.0 | -1.08 | 1.35 | 1.250 | 0.101 | 0.22 | 1.38 | 2.611 | 1.54 | 0.89 |
| 11 | 29,275.1 | 6.21 | 21,198.3 | -0.62 | 1.29 | 1.250 | 0.104 | 0.24 | 1.46 | 2.579 | 1.34 | 0.89 |
| 12 | 29,555.9 | 5.64 | 21,490.6 | 0.75 | 1.15 | 1.250 | 0.106 | 0.27 | 1.47 | 2.563 | 1.34 | 0.89 |

*Notes:* (8) The data are from the consolidated balance sheet of the monetary institutions and the Chunghwa Post Co.,
(9) From Jan. 2004, includes data for securities acquired under reverse repurchase agreements. Portfolio investments are measured at original costs.
(10) The data are based on the new NPL definition, which includes 90-day overdue loans.
(11) Prior to Oct. 2008, the five major domestic banks are Bank of Taiwan, Taiwan Coorperative Bank, First Commercial Bank, Hua Nan Commercial Bank and Chang Hwa Commercial Bank, while beginning Nov. 2008, the Chang Hwa Commercial Bank is replaced by Land Bank of Taiwan.
(12) Between 1993 and 2002, the figures represent prime lending rates.

# Key Economic and Financial Indicators of the Republic of China (Taiwan) Cont.

| Year / Month | V. Securities Market | | | | | VI. Balance of Payments and Foreign Exchange Market | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TSE Stock Market | | OTC Bond Market | | | Balance of Payments | | | | Foreign Exchange Reserves | Exchange Rate | Daily Average Value of Foreign Exchange Transactions |
| | Stock Price Index | Total Trading Value | Outstanding (end of period) | Trading Value | Share of Outright Transactions | Current Account | Capital Account | Financial Account | Change in CBC's Net Foreign Assets [13] | (end of period) | (end of period) | |
| | (1966=100) (average) | (NT$ Billion) | (NT$ Billion) | | (%) | (US$ Million) | | | | (US$ Billion) | NT$/US$ | (US$ Billion) |
| 2000 | 7,847 | 30,526.6 | 2,279.3 | 68,843.1 | 24.25 | 8,899 | -287 | -8,019 | -2,477 | 106.74 | 32.992 | 4.89 |
| 2001 | 4,907 | 18,354.9 | 2,869.4 | 118,992.5 | 44.56 | 18,936 | -163 | -384 | -17,353 | 122.21 | 34.999 | 4.71 |
| 2002 | 5,226 | 21,874.0 | 3,599.0 | 134,399.0 | 45.13 | 26,357 | -139 | 8,749 | -33,664 | 161.66 | 34.753 | 5.61 |
| 2003 | 5,162 | 20,333.2 | 4,306.6 | 203,624.0 | 62.16 | 30,504 | -87 | 7,628 | -37,092 | 206.63 | 33.978 | 7.30 |
| 2004 | 6,034 | 23,875.4 | 4,777.3 | 206,132.4 | 59.89 | 19,728 | -77 | 7,169 | -26,595 | 241.74 | 31.917 | 10.24 |
| 2005 | 6,092 | 18,818.9 | 5,145.3 | 319,737.0 | 69.49 | 17,578 | -117 | 2,302 | -20,056 | 253.29 | 32.850 | 12.07 |
| 2006 | 6,842 | 23,900.4 | 5,462.1 | 275,833.2 | 61.63 | 26,300 | -118 | -19,595 | -6,086 | 266.15 | 32.596 | 15.63 |
| 2007 | 8,510 | 33,043.9 | 5,542.1 | 194,005.5 | 48.34 | 32,980 | -96 | -38,980 | 4,020 | 270.31 | 32.443 | 18.62 |
| 2008 | 7,024 | 26,115.4 | 5,771.2 | 135,509.5 | 44.09 | 25,120 | -334 | -1,750 | -26,274 | 291.71 | 32.860 | 19.37 |
| 2009 | 6,460 | 29,680.5 | 5,920.3 | 97,547.5 | 40.40 | 42,570 | -100 | 13,980 | -54,130 | 348.20 | 32.030 | 16.22 |
| 2009/ 1 | 4,475 | 846.0 | 5,776.4 | 6,820.1 | 41.21 | | | | | 292.68 | 33.801 | 13.84 |
| 2 | 4,477 | 1,309.1 | 5,747.0 | 8,052.6 | 44.63 | | | | | 294.19 | 34.950 | 13.62 |
| 3 | 4,926 | 2,309.6 | 5,728.5 | 9,740.9 | 46.68 | 12,670 | -20 | -630 | -12,890 | 300.12 | 33.917 | 14.76 |
| 4 | 5,724 | 3,132.2 | 5,777.0 | 7,961.8 | 40.13 | | | | | 304.66 | 33.233 | 14.83 |
| 5 | 6,586 | 3,459.4 | 5,765.0 | 7,704.2 | 43.11 | | | | | 312.64 | 32.650 | 17.60 |
| 6 | 6,496 | 2,845.2 | 5,785.1 | 8,530.0 | 41.87 | 10,140 | -20 | 3,760 | -11,820 | 317.56 | 32.818 | 15.96 |
| 7 | 6,835 | 3,032.3 | 5,737.9 | 8,301.7 | 48.41 | | | | | 321.09 | 32.818 | 15.24 |
| 8 | 6,856 | 2,096.3 | 5,742.8 | 7,675.2 | 39.63 | | | | | 325.42 | 32.923 | 16.71 |
| 9 | 7,321 | 2,640.4 | 5,788.6 | 8,702.8 | 40.21 | 7,960 | -20 | 6,430 | -11,760 | 332.24 | 32.200 | 17.76 |
| 10 | 7,589 | 2,779.0 | 5,900.6 | 9,206.9 | 37.89 | | | | | 341.22 | 32.535 | 19.07 |
| 11 | 7,612 | 2,284.0 | 5,907.6 | 7,303.8 | 28.84 | | | | | 347.19 | 32.185 | 18.80 |
| 12 | 7,837 | 2,946.8 | 5,920.3 | 7,547.4 | 29.27 | 11,810 | -30 | 4,410 | -17,660 | 348.20 | 32.030 | 16.48 |

*Note:* [13] The minus sign "-" represents an increase.

*Sources:*
1. *Taiwan Business Indicators,* Council for Economic Planning and Development, Executive Yuan, R.O.C. (Taiwan).
2. *Monthly Report on Economic Climate and Trends,* Taiwan Institute of Economic Research.
3. *Quarterly National Economic Trends,* Directorate-General of Budget, Accounting and Statistics (DGBAS), Executive Yuan, R.O.C. (Taiwan).
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