





# Annual Report 2008

Central Bank of the Republic of China (Taiwan)



Taipei, Taiwan

The Republic of China

# Foreword

In 2008, the world economy was engulfed in a financial turmoil set off by the US subprime mortgage debacle. Taiwan, a small and highly open economy, was severely affected by weakened external demand. GDP growth remained steady at 5.40 percent in the first half of the year but plunged to a negative 4.74 percent in the second half with a sharp contraction of exports and a slowdown in private consumption and investment. As a result, GDP recorded a growth of only 0.12 percent for 2008 as a whole, accompanied by a marked rise in unemployment. Inflation was more pronounced early in the year led by surging international raw material prices, but subsided later with waning demand both at home and abroad. The CPI increased by 3.53 percent in 2008, a relatively stable level among major countries.

Maintaining price stability is the primary goal of the Bank. In response to heightened pressures from imported inflation, the Bank conducted two fine-tuning rate hikes in the first half of 2008. In the second half of the year, Taiwan's financial sector remained largely sound supported by solid fundamentals, but the domestic economy suffered the fallouts from the global financial crisis. As inflation pressures lessened, the Bank shifted to monetary easing in September 2008 to stimulate domestic demand. By the end of March 2009, the Bank had slashed the policy rates seven times by a total of 237.5 basis points. Lower interest rates can reduce the funding costs of individuals and enterprises and help boost private consumption and investment.

Promoting financial stability is another key mandate of the Bank. In 2008, the Bank adopted various measures to ensure sufficient market liquidity. These include: lowering required reserve ratios on bank deposits; expanding the scope of repurchase agreement operations; helping to strengthen the Small and Medium Enterprise Credit Guarantee Fund to share banks' credit risk; requesting banks to switch the frequency of lending rate reviews from quarterly to monthly to more promptly reflect the Bank's rate cuts. In addition, the Bank also urged banks to continue to extend credit to fulfill their financial intermediary function. Following these actions, M2 grew by 2.67 percent in 2008, falling within the Bank's 2 to 6 percent target zone. On the foreign exchange front, at the end of 2008, the NT dollar stood at 32.860 against the US dollar, a depreciation of 1.27 percent from a year earlier; foreign exchange reserves built up to US\$291.7 billion, an increase of US\$21.4 billion from the end of 2007.



Fai-nan Perng, Governor

The Bank also pursues further financial liberalization while safeguarding financial stability. More financial products were introduced for trading in Taiwan during 2008, allowing greater convenience for capital movement. On June 30, financial institutions were given licenses to commence renminbi exchange business, making renminbi currency conversion possible in Taiwan. Moreover, interbank transactions of book-entry government bonds were incorporated into the CBC Interbank Funds-Transfer System on a delivery-versus-payment basis to enhance settlement safety and efficiency. The Bank compiles financial soundness indicators on a regular basis and began issuing Financial Stability Report in 2008 to monitor potential systemic risks.

At the current juncture, central banks around the world are actively taking steps to address the worst economic recession since World War II. Likewise, the Bank is adopting a loose monetary policy. Complemented with the government's expansionary fiscal policy, these joint efforts are expected to help bring the economy back on track.

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 year ahead.



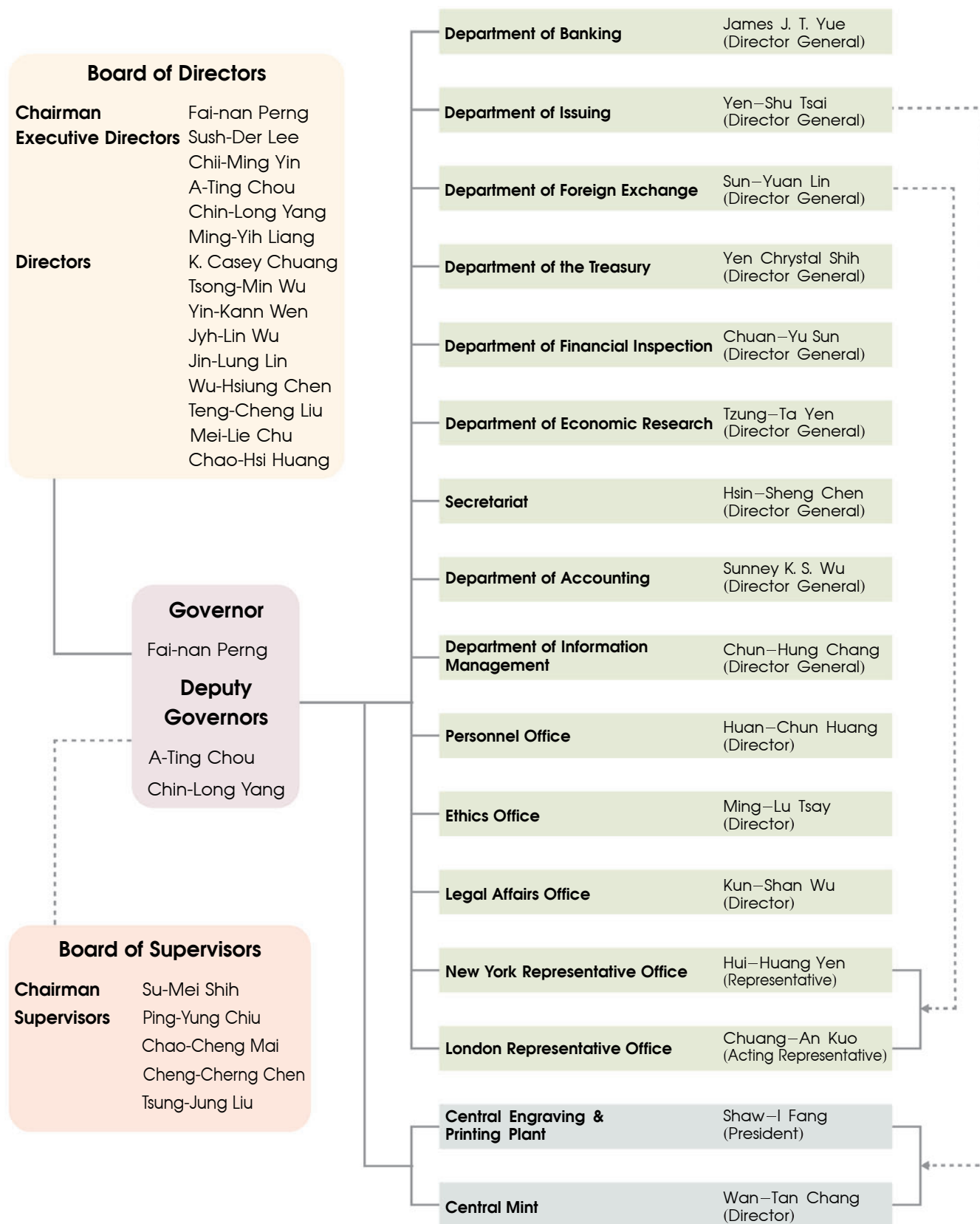
Fai-nan Perng  
Governor  
April 10, 2009

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# Organization and Management of the CBC







Chairman  
Board of Directors  
Governor

Fai-nan Perng



Executive Director

Sush-Der Lee



Executive Director

Chii-Ming Yin



Executive Director  
Deputy Governor

A-Ting Chou



Executive Director  
Deputy Governor

Chin-Long Yang



Executive Director

Ming-Yih Liang



Director

K. Casey Chuang



Director

Tsong-Min Wu





Director

Yin-Kann Wen



Director

Jyh-Lin Wu



Director

Jin-Lung Lin



Director

Wu-Hsiung Chen



Director

Teng-Cheng Liu



Director

Mei-Lie Chu



Director

Chao-Hsi Huang



Chairman  
Board of Supervisors

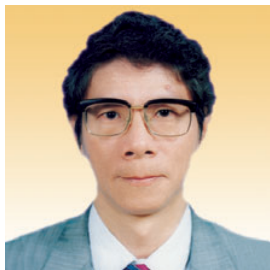
Su-Mei Shih





Supervisor

Ping-Yung Chiu



Supervisor

Chao-Cheng Mai



Supervisor

Cheng-Cheng Chen

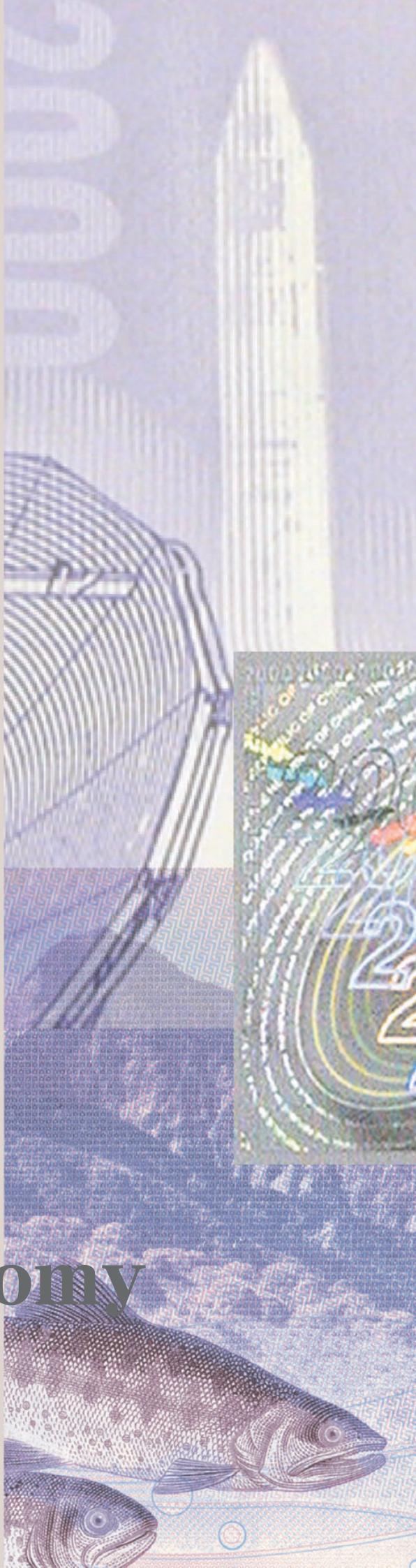


Supervisor

Tsung-Jung Liu



# Developments in the Real Economy



# I. Developments in the Real Economy

## 1. Overview

As external demand slumped amid the global downturn and domestic demand also contracted, Taiwan's economy weakened considerably in 2008. GDP growth decelerated to 0.12 percent accompanied by a marked rise in unemployment. Although current account surplus decreased, a lower net portfolio outflow in the financial account supported an overall balance of payments surplus of US\$26.3 billion. Inflation sped up in the first half of the year driven by surging international raw material prices, but then subsided with waning demand at home and abroad. The CPI increased by 3.53 percent in 2008, a relatively stable level among major countries. Central government finance remained in surplus for the third year, while registering a large decline from the previous year.

### **Economic Growth Slowed**

With strong demand from emerging economies, Taiwan's economy recorded a robust growth of 5.40 percent in the first half of 2008. However, the economic landscape was subsequently reshaped by a global downturn. GDP growth plunged to a negative 4.74 percent in the second half of the year with sharp contraction in exports, private consumption and investment. For 2008 as a whole, GDP recorded a growth of 0.12 percent, down from 5.70 percent in 2007. For the year, per capita GNP in nominal terms increased by US\$277, reaching US\$17,576.

Among all the expenditure components of GDP, net external demand continued to provide solid support to economic growth, contributing 2.17 percentage points to real GDP growth for the year. On the contrary, affected by reductions in consumption and investment, domestic demand growth fell sharply, posting a negative contribution of 2.05 percentage points for the year.

On the supply side, manufacturers cut production as global demand declined. The services sector, which accounted for 73.17 percent of GDP, contributed 0.5 of a percentage point to economic growth for the year, down from 2.90 percentage points in 2007.

### **Balance of Payments Exhibited Surplus**

In 2008, the current account surplus decreased to US\$25.0 billion due to a sharp decline



in goods exports, and accounted for 6.2 percent of nominal GNP, while the financial account showed a mild net outflow of US\$1.8 billion. As a result, the foreign reserve assets held by the Bank increased by US\$26.3 billion.

As the global economic downturn adversely impacted Taiwan's trade performance, exports grew by a mere 3.4 percent and imports growth slowed to 9.6 percent in 2008. As a result, the trade surplus on goods fell to US\$18.2 billion for the year, a decrease of 40.3 percent from the previous year. Due to an increase in service receipts and a decrease in service payments, the services deficit declined to US\$678 million in 2008. Surplus on the income account increased to US\$10.5 billion with surging income from residents' direct investment. Net current transfer payments decreased to US\$3.0 billion due to a decrease in outward remittances by residents to support their overseas relatives.

Capital account deficit rose to US\$334 million as acquisitions of intangible assets increased. The financial account exhibited a mild net outflow of US\$1.8 billion, as the net foreign portfolio outflow reached a historic high, while portfolio investment by residents exhibited the first net inflow on record.

### **Inflation Pressures Stepped Up**

Taiwan's inflation was elevated during the first three quarters of 2008 due to sharp increases in energy and food prices. Afterward, a downturn in sales and production, along with steep declines in the prices of energy and other commodities and a strengthening NT dollar against the US dollar, contributed to a substantial lessening of inflation pressures.

The headline inflation, as measured by the consumer price index (CPI), rose 3.53 percent in 2008, notably higher than the 1.80 percent increase in 2007. The core CPI, which excludes the direct effects of movements in fruits and vegetables, fish and shellfish, and energy prices, rose by 3.08 percent in 2008, also faster than the previous year's 1.35 percent.

### **Fiscal Position Remained in Surplus**

For 2008, central government finance remained in surplus for the third consecutive year at NT\$16.3 billion. However, the figure represented a large decline from the NT\$83.4 billion recorded in 2007 as the increase in government expenditure outpaced tax revenue. In 2008, central government revenue increased by a mere NT\$1.6 billion over the previous year to NT\$1,637.1 billion, mainly supported by an increase of NT\$34.3 billion in tax revenue. Income tax revenue was bolstered by robust economic growth in 2007, while revenue from securities transaction taxes and commodity tax trended down.

Central government expenditure increased by NT\$68.8 billion over the previous year to

NT\$1,620.8 billion, mainly driven by the increase in general subsidies and other expenditure to enhance the financial conditions of local governments. Meanwhile, to boost domestic demand and promote economic growth, the central government expanded infrastructure investment and set aside NT\$130.0 billion in a special budget for the Expansion of Investment in Infrastructure Construction. As a result, the ratio of central government expenditure to GDP rose to 13.1 percent, while the ratio of budget surplus to GDP dropped to 0.1 percent in 2008.

### **Unemployment Trended Upward**

Taiwan's labor market witnessed an unfavorable trend of rising unemployment rates amid an economic slowdown under the impact of the global financial crisis in 2008. In the first half of the year, employment grew at a healthy pace with steady economic expansion. However, the labor market softened from September, with slower employment growth and increasing unemployment rates.

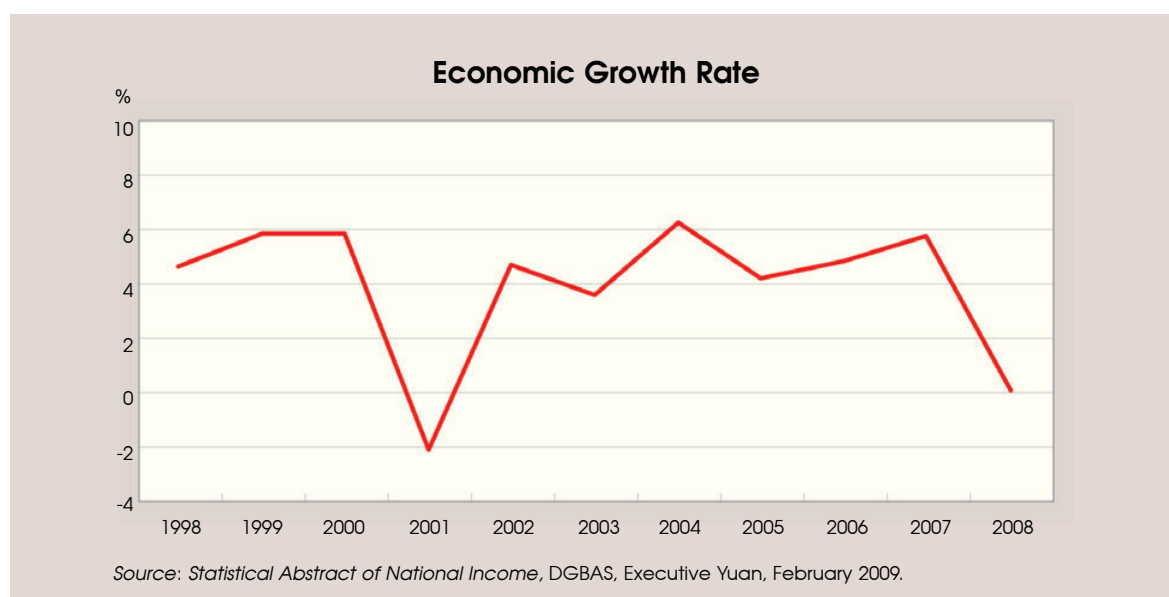
To help boost employment, the government undertook a series of job creation plans in the last quarter of the year. Nevertheless, average employment grew by only 1.06 percent in 2008, slower than the previous year's 1.81 percent. The number of unemployed people reached a record high of 549 thousand in December, despite the government's job creation plans. The average unemployment rate for the whole year stood at 4.14 percent, the highest level since 2005.

In terms of earnings and labor cost, the average monthly earnings per worker in the non-farm sector inched up by a mere 0.02 percent over the previous year to NT\$44,424. As the decline in total production outpaced that in total working hours, the labor productivity index for the goods-producing sector decreased by 1.04 percent. The index of unit labor cost increased by 2.15 percent, resulting from a decrease in total production and an increase in total labor compensation.

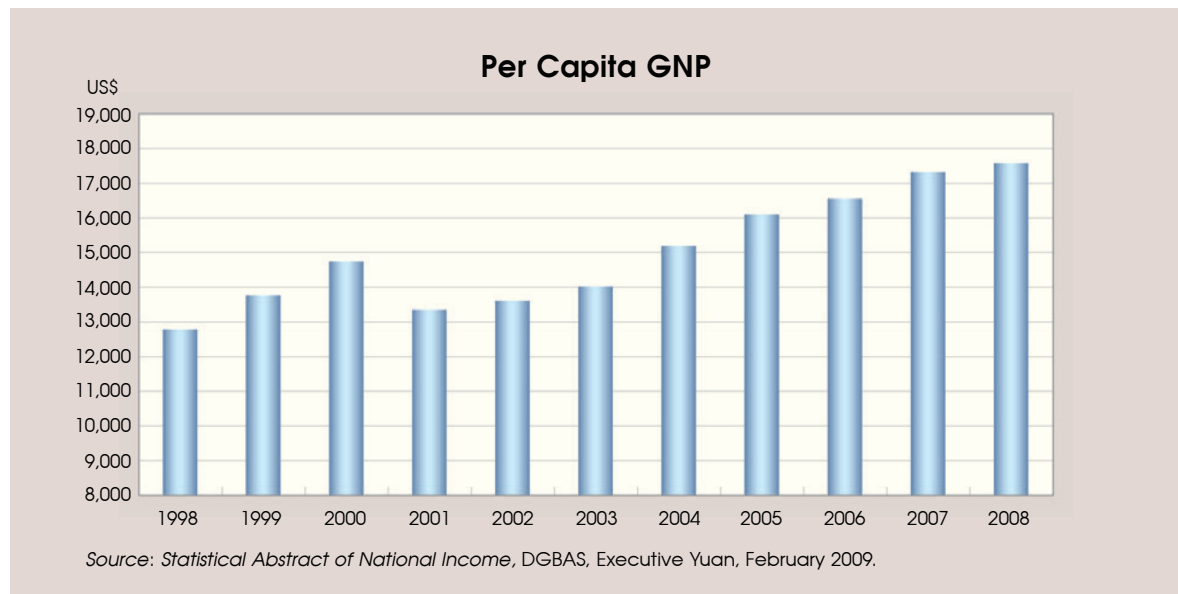
## 2. National Output and Income

While Taiwan's economy grew steadily in the first half of 2008, the economic landscape was subsequently reshaped by the aftereffect of a global downturn. Domestic demand remained robust in the first quarter of the year, but began to decline as private consumption and business investment both weakened amid a deteriorating economic and financial situation. Growth in external trade dropped markedly as the faltering demand in domestic markets became protracted in the second half of the year. The overall economic performance exhibited a downward trend, and real GDP edged up a tiny 0.12 percent in 2008, down from 5.70 percent in 2007.

On account of a solid expansion in exports and a pickup in private consumption and capital outlays, real GDP advanced 6.25 percent year on year in the first quarter. However, the pace decelerated along with rising inflationary pressure and worries over slackening global demand. In the second quarter, slowing consumption and investment held real GDP growth down to 4.56 percent. Moreover, with the economic fallout of the global financial crisis emanating from the US, local stock prices slumped and business investment and exports dropped sharply. Consequently, real GDP shrank by 1.05 percent in the third quarter. As economic weakness spread and intensified, domestic demand slowed and external trade declined further. Real GDP contracted at an unprecedented pace of 8.36 percent in the fourth quarter. For the year, per capita GNP in nominal terms increased by US\$277, reaching US\$17,576.







## Expenditure Components of GDP

Among all the expenditure components of GDP, the trade surplus, albeit narrowed, continued to provide solid support to economic growth, contributing 2.17 percentage points to real GDP growth for the year. Affected by a reduction in consumption and investment, domestic demand growth fell sharply, posting a negative contribution of 2.05 percentage points for the year. In

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## Expenditure on Gross Domestic Product

Unit: %

	2008			2007		
	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*
Private Consumption	61.43	-0.29	-0.16	58.90	2.31	1.31
Government Consumption	12.61	1.15	0.13	12.10	0.92	0.11
Gross Fixed Capital Formation	20.56	-10.78	-2.01	21.11	1.90	0.37
Change in Inventory	0.62	—	-0.01	0.39	—	0.12
Exports of Goods and Services	74.17	-0.17	-0.12	73.48	8.82	5.86
( Less : Imports of Goods and Services)	(69.39)	(-4.30)	(-2.29)	(65.99)	(3.79)	(2.05)
Expenditure on GDP	100.00	0.12	0.12	100.00	5.70	5.70

Note: \* Percentage point.

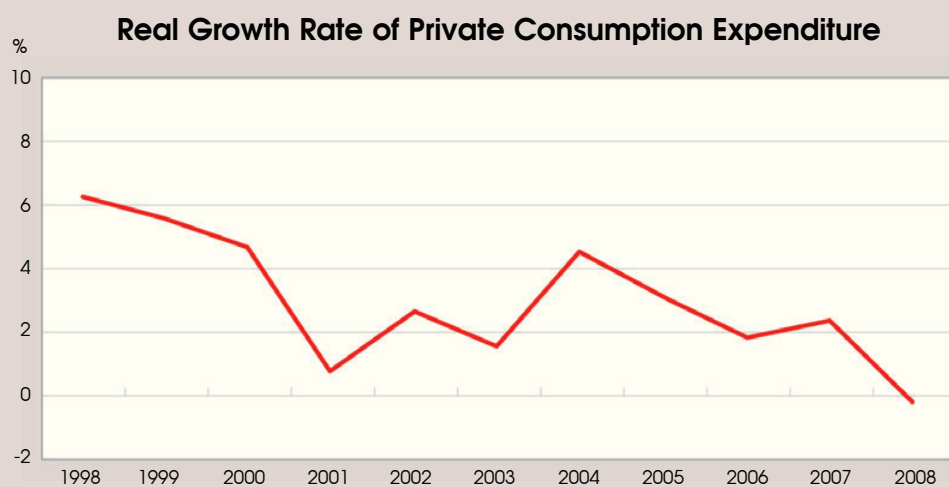
Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2009.

terms of their shares of GDP, consumption, exports and imports went up slightly to 61.43 percent, 74.17 percent and 69.39 percent, respectively, but a continuous decline in private investment led the share of gross fixed capital formation to decrease to 20.56 percent.

### (1) Mild Decline in Private Consumption

Against a background of inflationary pressure, rising unemployment and wealth decline, which was exacerbated by the global financial crisis, consumer spending was further restrained compared with the previous year. Private consumption decreased, for the first time ever, by 0.29 percent in real terms, subtracting 0.16 of a percentage point from GDP growth in 2008. While consumer expenditure picked up slightly in the first quarter, its growth lost momentum from the second quarter onwards and turned down rapidly due to concerns over slowing growth in real income. Moreover, a plunge in equity prices that occurred after global financial markets tumbled seriously eroded household wealth and discouraged consumer willingness to spend. As such, consumption growth fell into negative territory in the third quarter. In response to shrinking wealth and declining employment, consumption expenditure remained sluggish, registering a negative annual growth rate of 1.68 percent in the fourth quarter.

Over the year, slowdown in household spending was widespread in both food and non-food consumption with respective annual growth rates of negative 1.55 percent and positive 0.05 percent. Among the components of non-food consumption, reflecting an aging population, outlays for medical care and health expenses increased steadily and posted the largest growth of 2.62 percent, but the increase was smaller than the previous year's 3.08 percent. Growth of outlays for rent and water charges, the second largest, also went down from 2.53 percent in

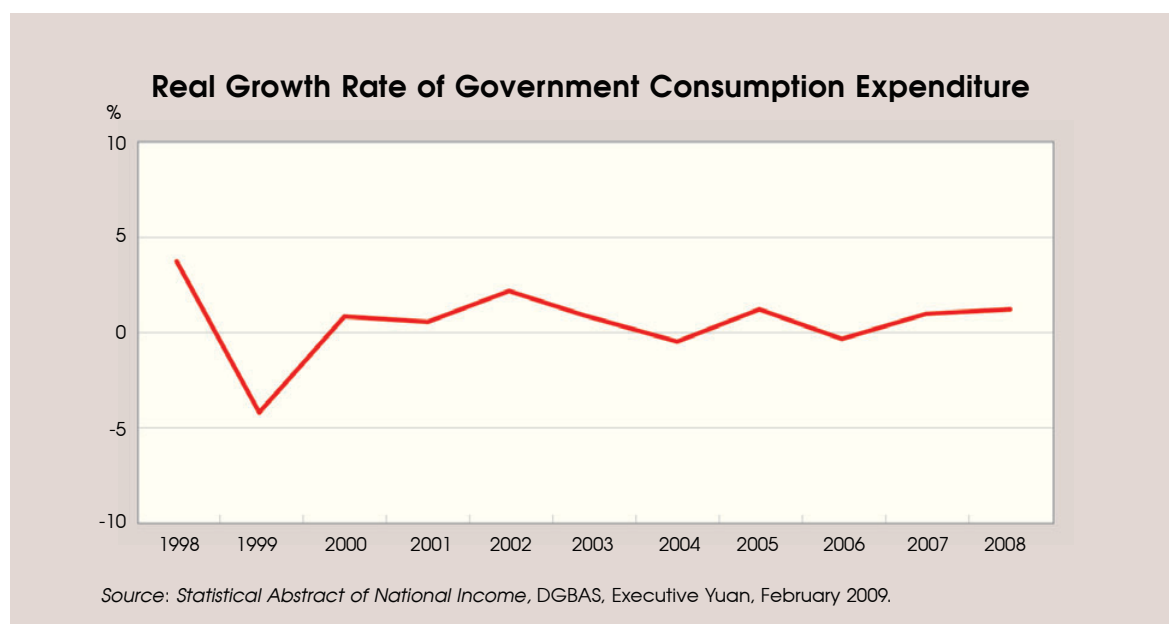


Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2009.

2007 to 2.09 percent in 2008. In contrast to a steady increase of 3.23 percent recorded a year earlier, consumer spending on furniture, furnishings and household equipment was down by 2.13 percent as a result of marked retreat in housing demand.

## (2) Small Growth in Government Consumption

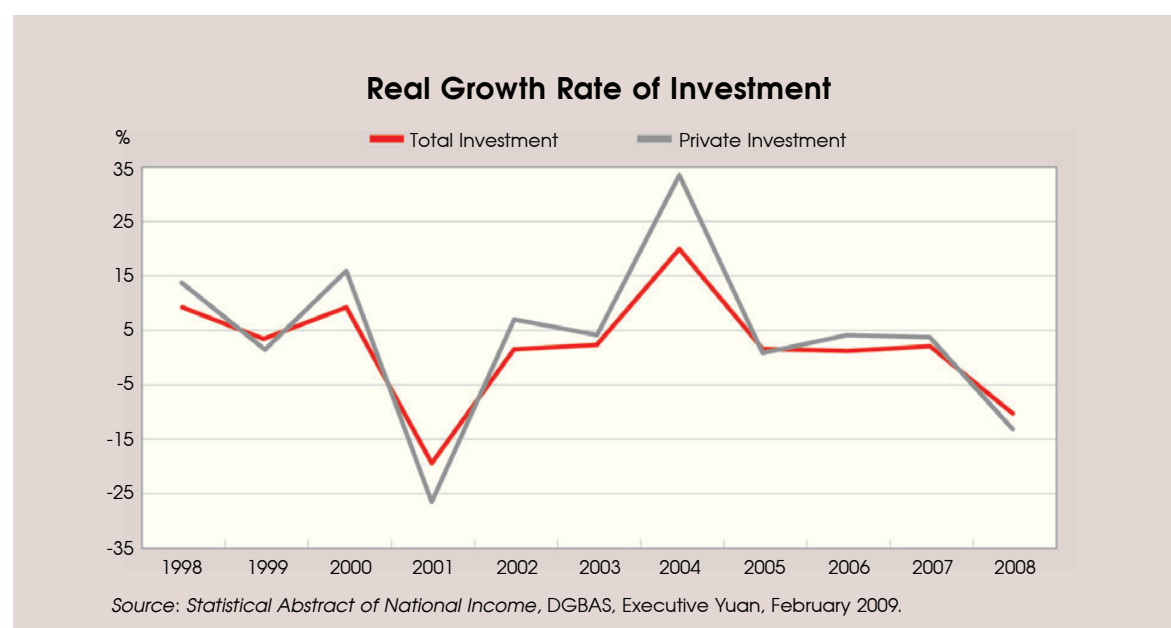
In 2008, government consumption continued with positive, albeit slow, growth of 1.15 percent in real terms and contributed 0.13 of a percentage point to GDP growth, compared with an increase of 0.92 percent and a 0.11 of a percentage point contribution in the previous year. The growth mainly reflected the government's economic stimulus measures, including programs for augmenting employment and subsidies for low-income families, to alleviate the impact of harsh economic conditions and bolster domestic demand.



## (3) Significant Contraction in Fixed Capital Formation

Fixed capital formation dropped 10.78 percent and led to a 2.01 percentage point decrease in real GDP for the year. The significant contraction was largely due to a considerable tightening of business spending on transportation and machinery in response to a downshift demand both internally and externally. The growth rate of fixed investment turned negative in the second quarter and continued to drop thereafter. During the fourth quarter, a global financial turmoil intensified sluggish business activities, causing fixed capital formation to plummet 23.24 percent.

As for the type of purchaser, investment by both private and public enterprises decreased substantially over the year while investment by general governments grew slightly. Mainly attributable to a steady expansion of photoelectric manufacturers and telecommunications companies, private investment gained 3.92 percent in the first quarter. Later, with soaring energy prices and a rapid slowdown in the global economy, the fundamentals supporting business capital spending showed signs of weakness, and companies significantly scaled down or withheld capital spending. Against the backdrop of a further softening in global demand and deepening economic uncertainties, businesses turned even more cautious on capital outlays, leading private investment to recede by 32.23 percent in the fourth quarter. For the year as a whole, private investment declined by 13.47 percent, deducting 1.98 percentage points from real GDP growth. Likewise, investment by public enterprises shrank 2.58 percent, taking 0.04 of a percentage point off economic growth for the year. On the other hand, government investment returned to positive growth, edging up by 0.34 percent for the year, because the government advanced the execution of the Program for Strengthening Local Construction to Expand Domestic Demand.



In regard to the types of capital formation, outlays on intangible fixed assets registered an increase of 10.22 percent, the biggest increase of the year and significantly higher than last year's 2.68 percent. Its growth was attributable to a higher demand for information processing and computer services. On the contrary, the absence of procurement of new aircraft by local airlines, slow growth in tourism, together with a high comparison base, led investment in

transportation to post a decrease of 35.69 percent, the steepest decline of the year. Meanwhile, under the influence of the ongoing weakness in the domestic economy and rising prices for construction materials, investment in machinery equipment and construction slid 15.23 and 6.16 percent, respectively.

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

Exports of goods and services performed relatively well in the first half, but turned sour in the second half due to a sharp drop in global demand. Robust expansion in the first two quarters was mainly supported by resilient intra-Asia trade and strong demand from Taiwan's major trading partners. In the third quarter, with slowing growth abroad and plunging global demand for electronic goods, exports growth rates slipped into negative territory. Due to further weakening of the global economy, the growth rate of exports went down to negative 19.75 percent in the fourth quarter. For the year as a whole, exports contracted 0.17 percent and took 0.12 of a percentage point from economic growth, which was a considerable slowdown when compared with last year's 8.82 percent growth and 5.86 percentage point contribution to GDP growth.

In contrast to the 3.79 percent growth reported last year, imports of goods and services, fell 4.30 percent in 2008. The marked decrease particularly affected machinery and electrical equipment due to a cutback in business investment resulting from slackening external demand. As a sharp fall in imports more than offset a decline in exports, net exports posted a positive contribution of 2.17 percentage points to GDP growth.



## Sectoral Components of GDP

In 2008, overall production activity was relatively weak because of softening demand both at home and abroad. The services sector, the driving force for economic growth, decelerated significantly, contributing 0.5 of a percentage point to economic growth for the year, down from 2.90 percentage points in 2007. Likewise, the contribution of the industrial sector to overall GDP reversed from positive 2.83 percentage points in 2007 to negative 0.36 of a percentage point in 2008 owing to a sharp drop in output of the manufacturing industry as a result of a serious economic contraction in the fourth quarter. Meanwhile, the contribution of agricultural production to overall GDP remained negative, subtracting 0.02 of a percentage point from economic growth.

With regard to sectoral shares of GDP in nominal terms, the services sector continued to dominate Taiwan's economy and made up 73.17 percent of GDP in 2008, higher than the 70.71 percent registered in the previous year. The agricultural sector's share of GDP rose slightly, from 1.51 percent in 2007 to 1.68 percent in 2008. On the other hand, as a result of a cutback in

### Gross Domestic Product by Type of Activity

Unit: %

	2008			2007		
	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*	Share	Real Growth Rate	Contribution to Real Growth Rate of GDP*
Agriculture	1.68	-1.44	-0.02	1.51	-1.90	-0.03
Industry	25.15	-1.15	-0.36	27.77	9.31	2.83
Mining & Quarrying	0.42	-9.20	-0.02	0.41	7.92	0.02
Manufacturing	21.85	-1.00	-0.27	24.01	10.36	2.71
Construction	2.32	-2.55	-0.05	2.25	3.15	0.07
Electricity, Gas & Water	0.56	-0.96	-0.02	1.11	1.88	0.03
Services	73.17	0.75	0.50	70.71	4.26	2.90
Trade	19.23	0.82	0.14	18.51	5.37	0.90
Accommodation & Eating-drinking Places	2.17	-2.82	-0.06	2.11	2.61	0.05
Transport, Storage & Communications	5.85	0.99	0.06	5.83	2.16	0.14
Finance & Insurance	10.02	-1.77	-0.18	10.03	8.19	0.80
Real Estate, Rental & Leasing	8.59	2.42	0.19	8.15	4.64	0.38
Professional, Scientific & Technical Services	2.95	5.08	0.12	2.69	11.30	0.26
Educational Services	1.89	2.56	0.04	1.79	2.53	0.04
Health Care & Social Welfare Services	3.20	3.09	0.08	3.01	3.55	0.10
Government Services	10.45	0.72	0.07	10.10	-0.61	-0.06
Gross Domestic Product	100.00	0.12	0.12	100.00	5.70	5.70

Note: \* Percentage point.

Source: Statistical Abstract of National Income, DGBAS, Executive Yuan, February 2009.

manufacturing, the share of industrial output to GDP fell to 25.15 percent, down from 27.77 percent in 2007.

### **(1) Modest Decrease in Agricultural Output**

The agricultural sector, covering agriculture, forestry, fishing and animal husbandry industries, continued to shrink in 2008 but at a slower pace than in the preceding year. For the year, agricultural output decreased by 1.44 percent mainly due to an unfavorable climate and high petroleum prices that pushed up the cost of petroleum fertilizers and transportation.

### **(2) Mild Contraction in Industrial Output**

A combination of strong growth in the first half of 2008 and a large shrinkage in the second half resulted in a decrease in industrial production of 1.15 percent for the year, which was a sharp drop compared with the previous year's positive growth of 9.31 percent. All sectors of industrial production, namely mining and quarrying, manufacturing, construction, and electricity, gas and water, experienced contractions in 2008, but much of the decline was due to a softening in manufacturing activity, especially after the outbreak of the global financial crisis last fall.

Thanks to robust demand for consumer electronics goods, manufacturing production maintained its strength in the first two quarters. However, a severe setback of exports resulting from the worse-than-expected global economic slowdown kept manufacturing output in a marked downtrend through the fourth quarter, offsetting its strong gains in the first half of the year. Specifically, production indexes of the chemical industry, metal and machinery, and information and electronics all went down by approximately 20 percent over the last quarter. Output in food, textile and other industries was also relatively weak, decreasing by 5.80 percent for the year due to sharp declines in the demand for apparel, clothing accessories and other textile products, and wood and bamboo products. For the year, manufacturing output slipped 1 percent, reversing its double-digit growth of 10.36 percent in 2007.

In contrast to the previous year's 3.15 percent increase, output in the construction industry contracted 2.55 percent for the year, particularly reflecting a slowing housing market and gloomy economic environment in the latter part of the year. Meanwhile, due to the decline in construction activity, output of mining and quarrying dropped by 9.20 percent in 2008.

### **(3) Slight Growth in the Services Sector**

For the year, services output grew by a mere 0.75 percent, much slower than the pace of

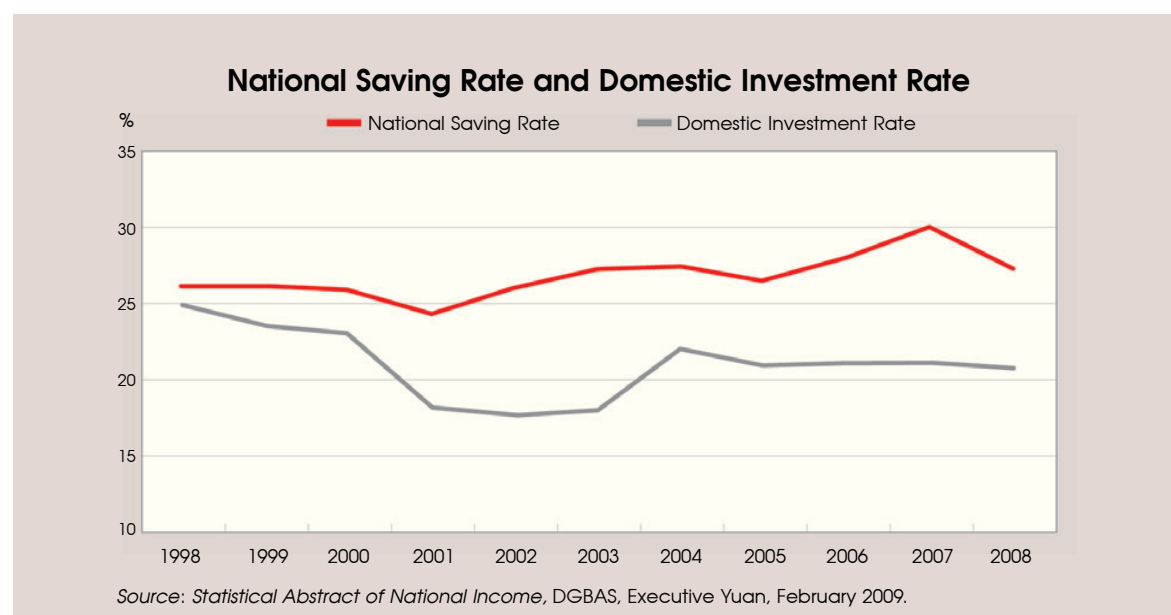
4.26 percent registered in 2007. Most of the services subsectors remained in positive growth, but recorded lower growth rates than in the previous year due to economic deceleration.

Among the services subsectors, the professional, scientific and technical services subsector continued to increase robustly, posting the largest growth of 5.08 percent for the year. Nevertheless, this was a considerable slowdown compared with the previous year's 11.30 percent. The increase mainly reflected steady demand for computer services, data processing services and information services in line with the prevalence of technology in business activity. The health care and social welfare services industry maintained a stable gain of 3.09 percent along with an aging population, but the increase was lower than the previous year's 3.55 percent growth. Affected by slowing economic activity, trade industry growth decelerated to 0.82 percent in 2008, significantly slower than the 5.37 percent in the previous year.

Moreover, weak economic activity and the global financial turmoil took a toll especially on the finance and insurance services and the eating-drinking places sectors. As opposed to positive growth of 8.19 percent in 2007, the finance and insurance services contracted 1.77 percent owing to a plunge in stock markets and a reduction in interest revenues. Likewise, a decrease in consumption expenditure caused food services and drinking establishments to shrink 2.82 percent for the year.

### Fall in National Saving Rate

As the economy suffered significant setbacks, the GNP dipped 2.09 percent for the year,





and growth in national consumption (including both private consumption and government consumption expenditures) slowed down to 2.04 percent in 2008. In addition, the national saving rate (national saving to GNP measured at current prices) fell, from 29.85 percent in 2007 to 27.18 percent in 2008. The excess saving, defined as national saving less gross domestic investment, to GNP ratio went down from 8.90 percent in 2007 to 6.56 percent in 2008, resulting from a greater decrease in national saving than in domestic investment.

### 3. BALANCE OF PAYMENTS

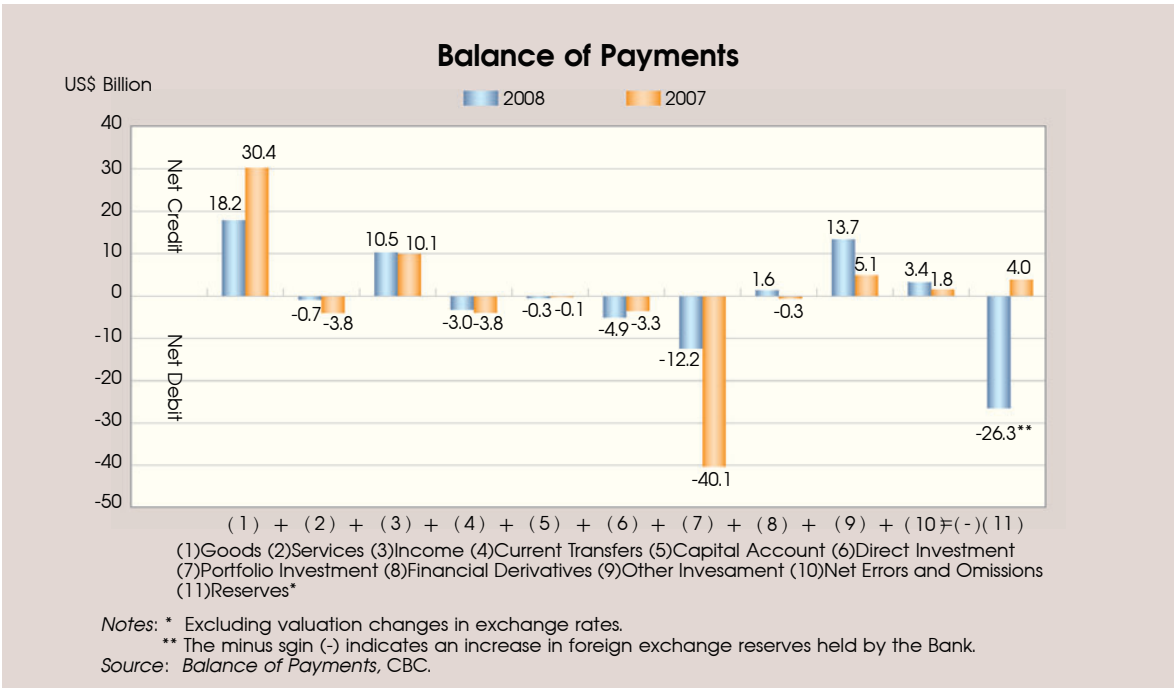
Under the impact of the global financial turmoil, capital flows of Taiwan reached historic highs in scale. Nevertheless, foreign portfolio outflows were partly offset by residents' repatriation of overseas portfolio investment, leading to a mild net outflow of US\$1,779 million in the financial account. The current account surplus decreased to US\$25,024 million, and accounted for a smaller 6.2 percent of nominal GNP compared with the previous year due to a sharp decline in goods exports. As a result, the foreign reserve assets held by the Bank increased by US\$26,274 million.

#### Declining Current Account Surplus

The current account consists of four major items, which are goods, services, income, and current transfers. The current account surplus decreased in 2008 mainly as a result of the substantial decline in the trade surplus of goods.

##### (1) Goods

As the global economic recession adversely impacted Taiwan's exports from the second half of 2008, the value of exports on a balance of payments basis grew by a mere 3.4 percent to US\$254,946 million in 2008, the lowest growth rate since 2001. The value of imports rose to US\$236,770 million, showing a slower growth rate of 9.6 percent. This was primarily led by falling



## Balance of Payments

Unit: US\$ Million

	2008	2007
A. Current Account	25,024	32,975
Goods: exports f.o.b.	254,946	246,500
Goods: imports f.o.b.	-236,770	-216,055
Balance on Goods	18,176	30,445
Services: credit	33,873	31,307
Services: debit	-34,551	-35,102
Balance on Services	-678	-3,795
Income: credit	23,806	23,500
Income: debit	-13,299	-13,368
Balance on Income	10,507	10,132
Current transfers: credit	5,210	4,559
Current transfers: debit	-8,191	-8,366
Balance on Current Transfers	-2,981	-3,807
B. Capital Account	-334	-96
Total, Groups A plus B	24,690	32,879
C. Financial Account	-1,779	-38,656
Direct investment abroad	-10,298	-11,107
Direct investment in R. O. C. (Taiwan)	5,432	7,769
Portfolio investment assets	3,613	-44,993
Portfolio investment liabilities	-15,777	4,904
Financial derivatives assets	7,939	3,691
Financial derivatives liabilities	-6,356	-3,980
Other investment assets	9,511	-5,716
Other investment liabilities	4,157	10,776
Total, Groups A through C	22,911	-5,777
D. Net Errors and Omissions	3,363	3,363
Total, Groups A through D	26,274	-2,414
E. Reserves and Related Items*	-26,274	2,414

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

international energy, raw material, and commodity prices, as well as a decline in derived demand from exports. As a result of a larger increase in imports than in exports, the trade surplus on goods fell to US\$18,176 million for the year, a decrease of 40.3 percent from the previous year.

As indicated by customs' statistics, the top three trading partners for Taiwan in 2008 were China including Hong Kong (hereafter referred to as China), the US, and Japan. Exports to these three countries accounted for 57.9 percent of total exports, while imports from them made up 43.9 percent of total imports.

In terms of Taiwan's trade with China, exports totaled US\$99,579 million for the year, a small reduction of 0.8 percent compared with the previous year. The main reason was China's slowing economic growth due to the global financial crisis from the second half of 2008, which severely

## Direction of Trade in Goods by Country

Unit: %

	2008			2007		
	Amount (US\$ Million)	Share	Annual Change	Amount (US\$ Million)	Share	Annual Change
Exports						
China (including Hong Kong)	99,579	39.0	-0.8	100,397	40.7	12.6
U. S. A.	30,796	12.0	-4.0	32,077	13.0	-0.9
Europe	29,950	11.7	4.6	28,635	11.6	9.7
Southeast Asia 6*	38,396	15.0	7.3	35,784	14.5	16.7
Japan	17,563	6.9	10.2	15,934	6.5	-2.2
Rest of the World	39,372	15.4	16.3	33,851	13.7	15.1
Total	255,656	100.0	3.6	246,677	100.0	10.1
Imports						
Japan	46,525	19.3	1.3	45,937	21.0	-0.8
U. S. A.	26,332	10.9	-0.7	26,508	12.1	17.0
Europe	24,468	10.2	3.8	23,567	10.7	9.9
Southeast Asia 6*	25,686	10.7	8.4	23,693	10.8	1.7
China (including Hong Kong)	32,910	13.7	10.3	29,840	13.6	11.9
Rest of the World	84,903	35.3	21.8	69,707	31.8	11.8
Total	240,823	100.0	9.8	219,252	100.0	8.2

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

impacted exports from Taiwan and reduced the demand for IT products from Taiwanese firms operating there. The share of exports to China in total exports decreased by 1.7 percentage points to 39.0 percent. China remained Taiwan's largest export market in 2008.

Imports from China totaled US\$32,910 millions, up by 10.3 percent, and its share in total imports rose to 13.7 percent in 2008, making China the second largest source of imports. The increase stemmed from the demand for Chinese products due to the division of labor among the industries across the Taiwan Strait. However, the deterioration in global economic growth caused imports from China to decrease from September 2008. The bilateral trade surplus with China declined to US\$66,669 million in 2008, reflecting a 5.5 percent decrease over the previous year. China remained the largest source of Taiwan's trade surplus.

Exports to the US decreased by 4.0 percent in 2008. The share of exports to the US in total exports had been falling since 1998, and dropped further to 12.0 percent in 2008. The continuous decline was mainly due to the competition from China's products and the outward relocation (mainly to China) of local industries. Imports from the US decreased by just 0.7 percent and its share of total imports fell from 12.1 percent in 2007 to 10.9 percent. Because exports decreased relatively faster, the bilateral trade surplus with the US decreased to US\$4,464 million, representing a fall of 19.8 percent.

Exports to Japan increased by 10.2 percent in 2008, and its share in total exports rose to 6.9 percent. Imports from Japan slightly increased by 1.3 percent compared with the previous year, with the share in total imports falling to 19.3 percent. Japan remained Taiwan's largest source of imports. The trade deficit with Japan decreased to US\$28,962 million for the year.

Exports to Europe increased by 4.6 percent in 2008, with the share in total exports rising to 11.7 percent. Imports from Europe increased by 3.8 percent, with the share in total imports amounting to 10.2 percent. The trade surplus with Europe increased from US\$5,068 million in 2007 to US\$5,482 million in 2008.

Owing to steady economic growth in Southeast Asia, exports to the six countries in the region, including Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam, increased by 7.3 percent. In particular, exports to Singapore grew by 11.2 percent, making Singapore the second largest source of Taiwan's trade surplus for the year. The share of exports to these countries in total exports rose to 15.0 percent. Imports from these countries rose by 8.4 percent, with the share in total imports declining to 10.7 percent. The trade surplus with the six countries increased to US\$12,709 million in 2008 from US\$12,091 million in 2007. In addition, bilateral trade with Brazil significantly expanded, with export and import growth rates reaching 64.4 percent and 63.4 percent, respectively.

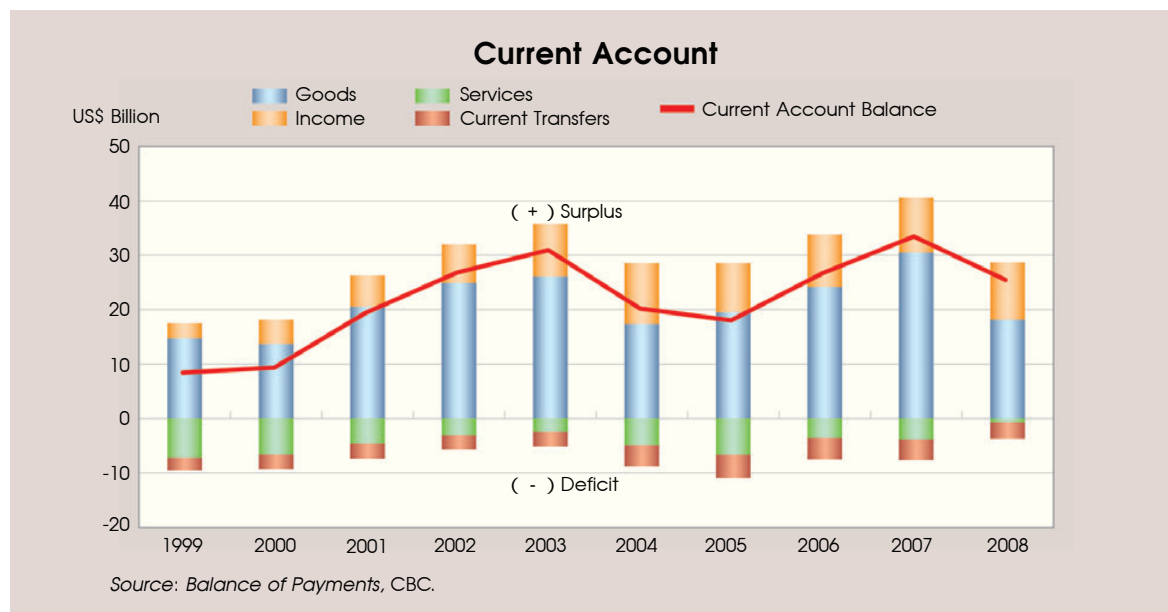
## **(2) Services**

In 2008, service receipts increased by US\$2,566 million to US\$33,873 million, the highest level in history. Service payments fell by US\$551 million to US\$34,551 million. The service deficit largely contracted to US\$678 million in 2008 from US\$3,795 million in 2007.

Of the various components of the services account, net payments with respect to transportation increased from US\$3,433 million recorded a year earlier to US\$4,336 million in 2008, largely due to the increase in import freight expenses paid to foreign carriers. Travel receipts decreased by a mere US\$31 million to US\$5,182 million. Travel payments for the year decreased by US\$619 million to US\$8,451 million, due to a decline in overseas visits by residents. Net travel payments decreased to US\$3,269 million. The surplus in net other services increased from US\$3,495 million in 2007 to US\$6,927 million in 2008, mainly resulting from the decreases in brokerage, professional, and technical services payments.

## **(3) Income**

Income receipts increased to US\$23,806 million in 2008, the highest level in history, which was attributable to the increase in residents' income from direct investment. Income payments for the year amounted to US\$13,299 million, resulting from reduced interest payments due to



interest rate cuts by major industrial countries. The surplus on the income account increased from US\$10,132 million in 2007 to US\$10,507 million in 2008.

#### (4) Current Transfers

Current transfer receipts amounted to US\$5,210 million in 2008, the highest level ever recorded. Current transfer payments for the year decreased by US\$175 million to US\$8,191 million. Net current transfer payments decreased from US\$3,807 million in 2007 to US\$2,981 million in 2008, due to the decrease in outward remittances by residents to support their overseas relatives.

#### Increasing Capital Account Deficit

The capital account includes capital transfers (debt forgiveness, ownership transfers of fixed assets, and migrants' transfers), and the acquisition and disposal of non-produced, non-financial assets. In 2008, the capital account consistently exhibited a deficit, and the size of this deficit increased to US\$334 million from US\$96 million in 2007, as a result of the increased acquisitions of non-produced, non-financial assets.

#### Surging Capital Movements in the Financial Account

Although the financial account exhibited a mild net outflow of US\$1,779 million, the net foreign portfolio outflow reached a historic high, while the repatriation of portfolio investment by residents exhibited the first net inflow. In terms of sub-categories, direct investment and portfolio investment posted a net outflow of US\$4,866 million and US\$12,164 million, respectively,

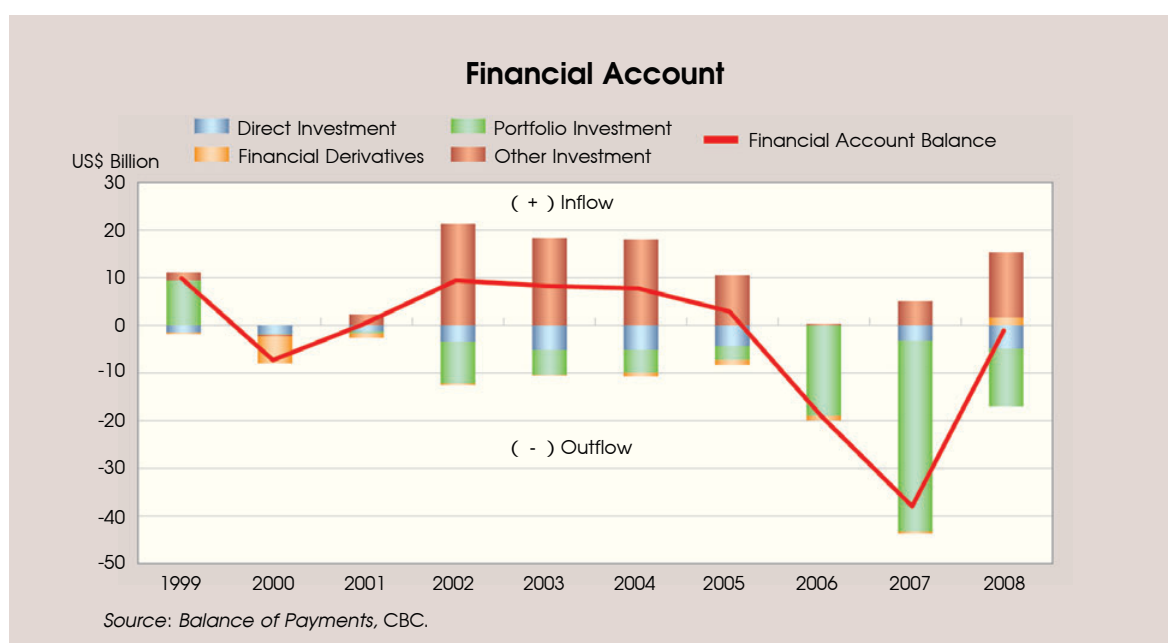
while other investment and financial derivatives posted a net inflow of US\$13,668 million and US\$1,583 million, respectively.

### (1) Direct Investment

Direct investment abroad by residents showed a net outflow of US\$10,298 million, US\$809 million less than in the previous year. Main targets for investment included the electronic parts and components manufacturing industry, the computer and electronic manufacturing industry, and the financial industry. Moreover, China remained the major recipient of Taiwan's direct investment abroad. Direct investment in Taiwan by nonresidents registered a net inflow of US\$5,432 million. Accordingly, direct investment registered a net outflow of US\$4,866 million in 2008, US\$1,528 million more than in 2007.

### (2) Portfolio Investment

Portfolio investment abroad by residents exhibited a net inflow of US\$3,613 million, as residents redeemed their investments in foreign financial products amid the global financial turmoil. This was the first time that portfolio investment abroad by residents showed an inflow. Local portfolio investment by non-residents registered a net outflow of US\$15,777 million in 2008, the highest level ever recorded, mainly because of the offloading of local stocks and bonds among foreign institutional investors to meet the liquidity demand of their headquarters. The net outflow of portfolio investment steeply declined to US\$12,164 million in 2008, compared to US\$40,089 million in 2007.



### **(3) Financial Derivatives**

Financial derivatives assets recorded a net inflow of US\$7,939 million, mainly due to gains from financial derivatives deals by private sectors and the banking sector. Financial derivatives liabilities registered a net outflow of US\$6,356 million, reflecting the gains from financial derivatives deals by nonresidents. As a result, financial derivatives posted a net inflow of US\$1,583 million in 2008.

### **(4) Other Investment**

Other investment abroad by residents recorded a net inflow of US\$9,511 million, representing a decrease in other claims on non-residents by residents. This was mainly because the private sector withdrew overseas deposits. Other local investment by non-residents showed a net inflow of US\$4,157 million, attributable to the borrowings from abroad by residents and the increased deposits from affiliated overseas branches of the banking sector. Therefore, the net inflow of other investment substantially increased to US\$13,668 million in 2008.

### **Increase in Foreign Exchange Reserves**

The foreign exchange reserve assets held by the Bank increased by US\$26,274 million, as a result of the current account surplus exceeding the net outflow in the financial account.



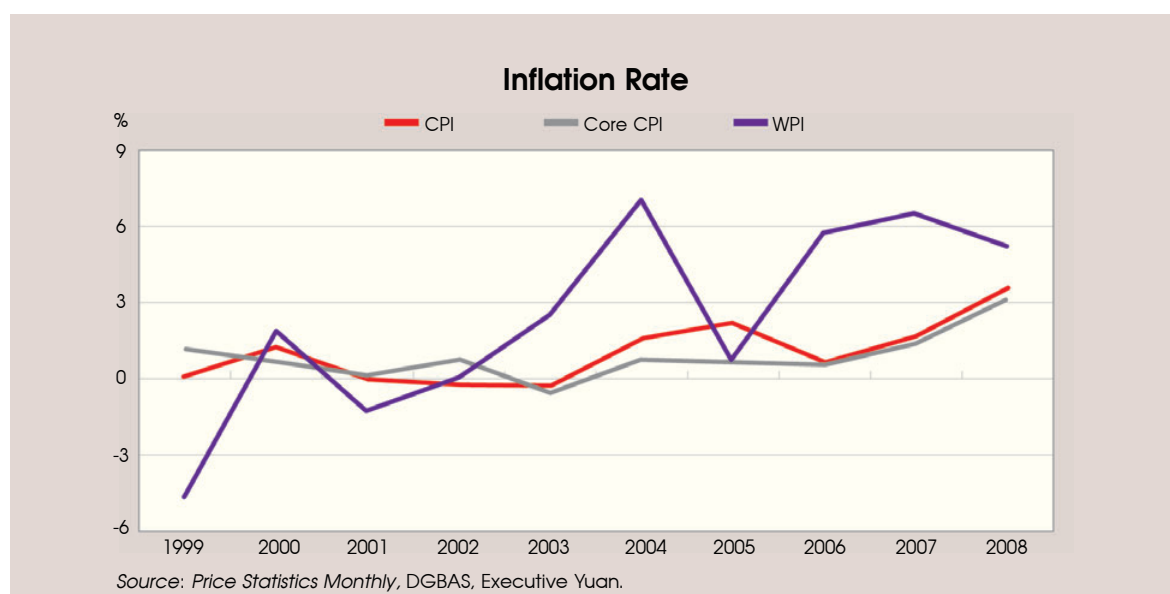
## 4. Prices

Taiwan's inflation was elevated during the first three quarters of 2008 due to sharp increases in energy and food prices. Afterward, a downturn in sales and production, along with steep declines in the prices of energy and other commodities and a strengthening NT dollar against the US dollar, contributed to a substantial lessening of inflation pressures. The headline inflation, as measured by the consumer price index (CPI), rose 3.53 percent in 2008, notably higher than the 1.80 percent increase in 2007. The core CPI, which excludes fruits and vegetables, fish and shellfish, and energy prices, rose by 3.08 percent in 2008, also faster than the previous year's 1.35 percent.

### Steep Increase in Wholesale Prices

The annual growth rate of the wholesale price index (WPI) was 5.15 percent in 2008, 1.32 percentage points lower than in 2007. The pattern of WPI movements was uneven during 2008. In the first seven months of the year, the WPI moved upward and peaked at 11.44 percent in July due to the rising prices of oil and commodities; the development was reversed later in the year. In response to the rapid slowdown of the global economy and the dramatic decline in international commodities prices, the WPI decreased sharply toward the year-end and contracted by 9.64 percent in December.

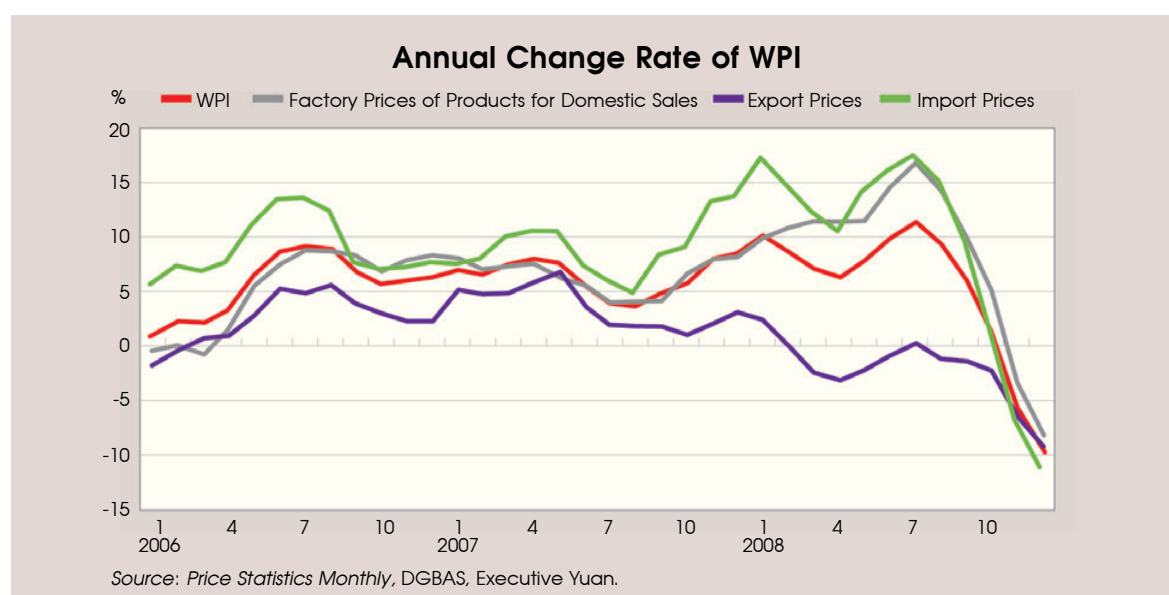
Broken down by the major components of the WPI, factory prices of products for domestic sales and import prices continued to rise markedly, while export prices recorded a relatively



moderate increase in terms of the US dollar.

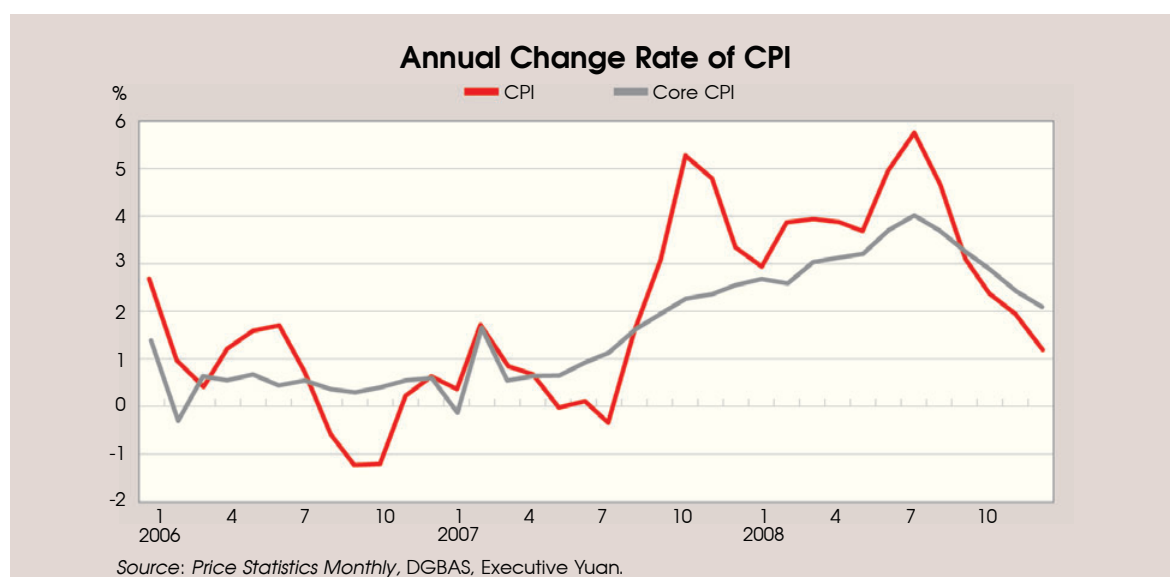
Import prices moved up further by 13.67 percent in US dollar terms, as prices of international raw materials soared in the first half of this year. In local currency terms, import prices only increased by 8.84 percent, down from the 8.95 percent increase in 2007, with the difference largely reflecting the appreciation of the NT dollar against the US dollar. Among the components of import prices, prices of raw materials, which weighed 77.19 percent, rose by 10.86 percent and accounted for 8.52 percentage points in the 8.84 percent increase. The prices of capital goods, which weighed 15.97 percent, increased by 1.30 percent. The prices of consumer goods only rose by 0.45 percent. In addition, export prices in terms of the US dollar increased moderately by 2.12 percent. Due to the appreciation of the NT dollar against the US dollar in 2008, export prices in terms of the NT dollar decreased by 2.14 percent, compared with the 3.56 percent increase in 2007.

Despite the consecutive decline in the prices of domestic electronic components, computers, and electronic and optical products, factory prices of products for domestic sales rose by 8.54 percent in 2008, higher than the 6.39 percent of the previous year. The rise reflected growing import costs of primary commodities in the first three quarters of 2008, as the prices of primary metal products rose by 21.21 percent, agriculture, forestry, livestock and fishery products 19.76 percent, quarrying and mineral products 17.29 percent, food 14.84 percent, and water supply, electricity, and gas 8.52 percent in the year.



## Consumer Prices Stepped up

The CPI rose by 3.53 percent in 2008, 1.73 percentage points more than in the previous year. The core CPI increased at an annual rate of 3.08 percent during 2008. Reflecting the upward pressure of imported inflation, the CPI and core CPI rose by 5.81 percent and 4.06 percent in July, respectively, both of which were the peaks in 2008. However, as the prices of oil and international raw materials dropped dramatically in response to a sharp downturn of the global economy in the second half of the year, the pass-through effect of increases in the import prices of raw materials into the retail prices of fuel and food subsided gradually. In December, the CPI and core CPI declined to 1.27 percent and 2.13 percent, respectively.



The main upward factors contributing to CPI inflation in 2008 were as follows:

- (1) Prices of food away from home moved up further by 7.45 percent in 2008 mainly due to higher food prices and cooking costs, contributing 0.66 of a percentage point to the CPI increase.
- (2) Due to severe damages caused by typhoons and cold weather, fruit prices rose by 12.46 percent and contributed 0.33 of a percentage point to the CPI inflation rate.
- (3) The drought in Australia, flooding in the American Midwest, and strong global demand continued to push up import prices of grains in the first half of 2008. Prices of cereals & cereal products went up 11.25 percent and contributed 0.22 of a percentage point to the CPI inflation rate. In addition, the rise in feeding costs pushed up the prices of meat and dairy products by 14.94 percent and 10.94 percent, contributing 0.35 and 0.12 of a percentage point to the CPI inflation rate, respectively.

(4) Since peaking in July, prices of oil fell sharply in the second half of 2008. However, the continuing hike in international petroleum prices in the first half of 2008 affected domestic oil and gas prices, which rose by 7.01 percent and 9.90 percent and accounted for 0.24 and 0.10 of a percentage point in the CPI increase, respectively. In addition, the price of electricity moved up 2 percent in 2008 because of higher prices for fuel and heating oil inputs for electricity generation, accounting for 0.04 of a percentage point in CPI inflation.

(5) Education and entertainment prices went up 1.31 percent, contributing 0.22 of a percentage point to the CPI inflation rate.

As for the main factors offsetting CPI inflation pressures, slack domestic demand and fierce market competition made it difficult for firms to pass on higher costs to consumers, which caused a 1.39 percent decrease in the prices of durable consumer goods, such as computers, digital equipment, and communication and audio-video equipment, deducting 0.10 of a percentage point from the CPI inflation rate.

### Percentage Changes in the Major Components of the CPI in 2008

Item	Annual change rate (%)	Contribution to CPI inflation rate (percentage point)
CPI	3.53	3.53
Food	8.55	2.26
Food away from Home	7.45	0.66
Meat	14.94	0.35
Fruits	12.46	0.33
Fish & Shellfish	12.47	0.22
Cereals & Other Cereal Products	11.25	0.22
Dairy Products	10.94	0.12
Clothing	1.81	0.08
Housing	1.44	0.40
Residential Rent	0.61	0.11
Gas	9.90	0.10
Electricity	2.00	0.04
Transportation and Communication	2.34	0.33
Fuels and Lubricants	7.01	0.24
Medicines and Medical Care	2.17	0.11
Education and Entertainment	1.31	0.22
Miscellaneous	1.58	0.09
Food and Energy		2.64

Source: Price Statistics Monthly, DGBAS, Executive Yuan.

## 5. Public Finance of the Central Government

For 2008, central government finance remained in surplus for the third straight year at NT \$19.5 billion. However, the figure represented a large decline from the NT\$83.4 billion recorded in 2007, as revenue remained largely unchanged, while expenditure increased by 4.4 percent over the previous year.

### Slight Increase in Central Government Revenue

In 2008, central government revenue increased by a mere NT\$4.8 billion over the previous year to NT\$1,640.3 billion. Taxes were the most important source of revenue, followed by surpluses of public enterprises and public utilities, with respective shares of 75.8 percent and 15.5 percent of total revenue. Among different categories of taxes, revenue from securities transaction taxes decreased by NT\$38.3 billion from the previous year, affected by a major plunge in local stock markets during the second half of 2008. Revenue from commodity taxes declined by NT \$20.1 billion, as car sales were sluggish and the government lowered commodity taxes on gasoline and diesel fuel for half a year to stabilize prices. Nevertheless, income tax revenue surged by NT\$94.4 billion, bolstered by a robust 5.7 percent economic growth in 2007. As a

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### Total Revenue and Expenditure of the Central Government

Unit: NT\$ Billion

	Fiscal Year*									
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008**
Total Revenue	1,228.6	2,030.8	1,417.2	1,304.7	1,320.9	1,368.2	1,464.5	1,546.4	1,635.5	1,640.3
(Ratio to GDP ; %)	13.0	13.6	14.4	12.7	12.6	12.4	12.8	13.0	12.9	13.3
Total Expenditure	1,164.0	2,230.1	1,559.7	1,551.9	1,618.1	1,564.8	1,567.0	1,529.8	1,552.0	1,620.8
(Ratio to GDP ; %)	12.3	14.9	15.8	15.1	15.4	14.1	13.7	12.8	12.3	13.1
Surplus/Deficit	64.6	-199.3	-142.5	-247.2	-297.2	-196.6	-102.5	16.6	83.4	19.5
(Ratio to GDP ; %)	0.7	-1.3	-1.4	-2.4	-2.8	-1.8	-0.9	0.1	0.7	0.2
Debt Repayment	118.0	193.4	122.2	55.5	46.5	56.1	64.1	65.0	6.0	65.0
Financing:	56.6	466.1	275.8	302.7	343.7	253.5	167.3	63.9	0	45.5
Debt Financing	56.6	466.1	275.8	244.4	300.8	253.5	167.3	63.9	0	0
Surplus of Previous Fiscal Years	0	0	0	58.3	42.9	0	0	0	0	45.5
Memorandum:										
Tax Dependency Ratio*** (%)	69.5	60.9	57.6	52.9	51.2	58.6	68.1	71.5	77.9	76.7
Debt Dependency Ratio**** (%)	4.9	20.9	17.7	15.7	18.6	16.2	10.7	4.2	0	0

Notes: \* Effective 2001, the calendar year is adopted as the fiscal year. As a transition, fiscal year 2000 begins on 1 July 1999 and ends on 31 Dec. 2000, while the other fiscal years prior to 2000 run from 1 July of the preceding year to 30 June of the designated year.

\*\* The figures for the year 2008 are preliminary estimates.

\*\*\* Tax dependency ratio is defined as the ratio of annual tax revenue to total government expenditure.

\*\*\*\* 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.

result, overall tax revenue continued to increase, rising by NT\$34.3 billion over the previous year. In terms of surpluses of public enterprises and public utilities, a decrease of NT\$18.0 billion was recorded for 2008, as contributions made by the CBC and some state enterprises declined.

Despite an increase in tax revenue, expenditure also expanded. Hence, the tax dependency ratio of the central government fell from 77.9 percent in the previous year to 76.7 percent in 2008.

### Adequate Increase in Central Government Expenditure

Central government expenditure increased by NT\$68.8 billion over the previous year to NT\$1,620.8 billion in 2008. Leading the increase was the NT\$45.4 billion rise in general subsidies and other expenditure. This expenditure was partly allocated to the Taipei and Kaohsiung municipalities to ensure that their funding remained sufficient after the revision of the Local Government Act. It also included the NT\$20.0 billion to enhance the financial structures of local governments. The second largest increase was the extra NT\$25.7 billion spent on national defense, mainly for arms procurement purposes. In addition, economic development increased by NT\$12.0 billion as a result of the government's infrastructure projects and higher construction costs.

In terms of share of total central government expenditure, education, science and culture, and social welfare were the top two categories, as they had been for years, with respective shares of 19.2 percent and 18.5 percent. Ranking third and fourth were national defense and

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

Unit: NT\$ Billion

	Fiscal Year									
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008*
Total Revenue	1,228.6	2,030.8	1,417.2	1,304.7	1,320.9	1,368.2	1,464.5	1,546.4	1,635.5	1,640.3
Taxes	772.9	1,280.7	841.5	820.1	828.5	916.6	1,067.8	1,094.3	1,208.7	1,243.0
Surpluses of Public Enterprises and Public Utilities	284.1	442.4	335.8	250.7	326.5	282.2	243.4	289.1	271.5	253.5
Fees, Fines and Indemnities	29.1	103.0	72.5	123.3	77.8	76.1	79.0	79.0	81.1	83.1
Revenues from Government-owned Monopolies	35.9	77.3	57.5	0.3	0	0	0	0	0	0
Proceeds from Sales of Properties and Recalled Capital	91.9	88.4	80.9	73.9	65.7	70.3	52.6	58.5	51.3	40.0
Others	14.7	39.0	29.0	36.4	22.4	23.0	21.7	25.5	22.9	20.7
Total Expenditure	1,164.0	2,230.1	1,559.7	1,551.9	1,618.1	1,564.8	1,567.0	1,529.8	1,552.0	1,620.8
General Administration	134.6	234.9	167.0	162.3	167.3	164.1	165.5	167.3	168.2	170.9
National Defense	263.2	343.3	237.7	225.2	227.7	248.9	248.5	237.1	256.7	282.4
Education, Science and Culture	202.7	367.6	257.2	267.0	300.2	302.1	301.5	303.1	308.7	310.4
Economic Development	172.5	356.4	277.1	291.2	295.5	248.9	247.0	197.0	193.3	205.3
Social Welfare	157.6	411.0	293.3	262.2	284.4	279.8	285.7	303.3	305.1	299.7
Community Development & Environmental Protection	19.2	39.6	22.3	23.4	28.7	24.8	25.2	20.4	19.4	13.5
Retirement & Compassionate Aid	129.3	195.4	122.0	124.3	125.4	123.1	130.5	134.7	134.6	133.7
Interest Payments	80.3	249.6	151.2	152.2	144.6	127.1	117.9	125.2	124.0	117.4
General Subsidies and Other Expenditure	4.6	32.3	31.9	44.1	44.3	46.0	45.2	41.7	42.1	87.5

Note: \* The figures for the year 2008 are preliminary estimates.

Sources: 1. Directorate-General of Budget, Accounting and Statistics, Executive Yuan.

2. Department of Statistics, Ministry of Finance.

economic development with shares of 17.4 percent and 12.7 percent, respectively.

The central government expanded infrastructure investment to boost domestic demand and promote economic growth in 2008. For this purpose, in addition to a markup of the general budget, it set aside NT\$130.0 billion in special budget for the Expansion of Investment in Infrastructure Construction with NT\$105.4 billion of the amount specified as subsidy for the construction spending of local governments.

As a result, the ratio of central government expenditure to GDP rose to 13.1 percent in 2008. This was also the third straight year for the central government to post a budget surplus, although its ratio to GDP dropped to 0.2 percent.

### Moderate Increase in Debt Burdens

After deducting NT\$65.0 billion debt repayment from the NT\$19.5 billion fiscal surplus, the central government faced a shortfall of NT\$45.5 billion for its 2008 budget. As the entire shortfall was made up by the accumulated surpluses of previous years, no debt financing was needed for the general budget.

For the special budget, however, the central government still relied on bond issuance and borrowing as financing sources. Total outstanding debt of the central government continued to increase, rising by NT\$64.3 billion over the previous year-end to NT\$3,787.9 billion at the end of 2008. Moreover, as GDP growth remained largely flat in 2008, the ratio of outstanding central government debt to GDP increased from the previous year's 29.5 percent to 30.6 percent, indicating a moderate increase in debt burdens.

### Public Debt of the Central Government

Unit: NT\$ Billion

	End of Fiscal Year									
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008*
Outstanding Debt	1,312.3	2,450.1	2,759.1	2,849.3	3,124.7	3,362.2	3,550.5	3,625.2	3,723.6	3,787.9
(Ratio to GDP ; %)	13.9	24.4	28.0	27.7	29.7	30.4	31.0	30.4	29.5	30.6

Note: \* The figures for the year 2008 are preliminary estimates.

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

## 6. Labor Market

Taiwan's labor market witnessed an unfavorable trend of rising unemployment rates amid an economic slowdown under the impact of the global financial crisis in 2008. In the first half of the year, employment grew at a healthy pace with steady economic expansion. However, the labor market softened from September, with slower employment growth and increasing unemployment rates.

To help boost employment, the government undertook a series of job creation plans in the last quarter of the year. As a result, the annual average employment grew by 109 thousand persons or 1.06 percent, a slower pace compared to the previous year's gain of 1.81 percent. The number of unemployed people reached a record high of 549 thousand persons in December, despite the government's job creation plans. The average unemployment rate for the whole year stood at 4.14 percent, the highest level since 2005. Meanwhile, the broad unemployment rate climbed to 5.61 percent, an increase of 0.02 of a percentage point from the preceding year. A major cause of the rise in unemployment was widespread business closures or downsizing.

In terms of earnings and labor cost, the average monthly earnings per worker in the non-farm sector inched up by a mere 0.02 percent over the previous year to NT\$44,424. As the decline in total production outpaced that in total working hours, the labor productivity index for the goods-producing sector decreased by 1.04 percent. The index of unit labor cost increased by 2.15 percent, resulting from a decrease in total production and an increase in total labor compensation.

### Annual Average Employment Increased at a Slower Pace

Positively influenced by steady economic growth, employment grew at a healthy pace in the first half of 2008. However, employment growth slowed from September as the global financial crisis spilled over to the local labor market.

To help boost employment, the government implemented several job creation plans, such as the 2008-2009 Short-Term Employment-Promotion Measure and the Project to Subsidize Work Income. As a result, the annual average employment amounted to a record high of 10,403 thousand persons, with the bulk of job gains attributable to the services-producing sector. Nevertheless, employment grew at the slowest pace since 2003. For the year as a whole, employment of white-collar workers grew by 3.39 percent, while the employment of sales workers and blue-collar workers decreased by 1.32 percent and 0.44 percent, respectively.





The only occupation category with job gains was professionals, technicians and associate professionals.

Broken down by sector, employment in the goods-producing sector fell for the fourth consecutive month in December, resulting from a weakened economy and an oversupply in the real estate market. Job losses were large and widespread across industries, led by the manufacturing industry with December employment plunging by 53 thousand persons from a peak in August, followed by the construction industry with a decrease of 43 thousand persons. For the whole of 2008, manufacturing industry employment grew by 1.52 percent, a decrease of 0.85 of a percentage point from the preceding year. Construction industry employment fell by 0.56 percent, its first contraction since 2004. As a whole, employment growth in the goods-producing sector decreased by 1.24 percentage points to 1.15 percent. The services-producing sector still accounted for most of the total employment and exhibited a stable annual growth rate of 1.23 percent. A further reduction was reported in the agricultural sector, which decreased by 1.44 percent over the previous year.

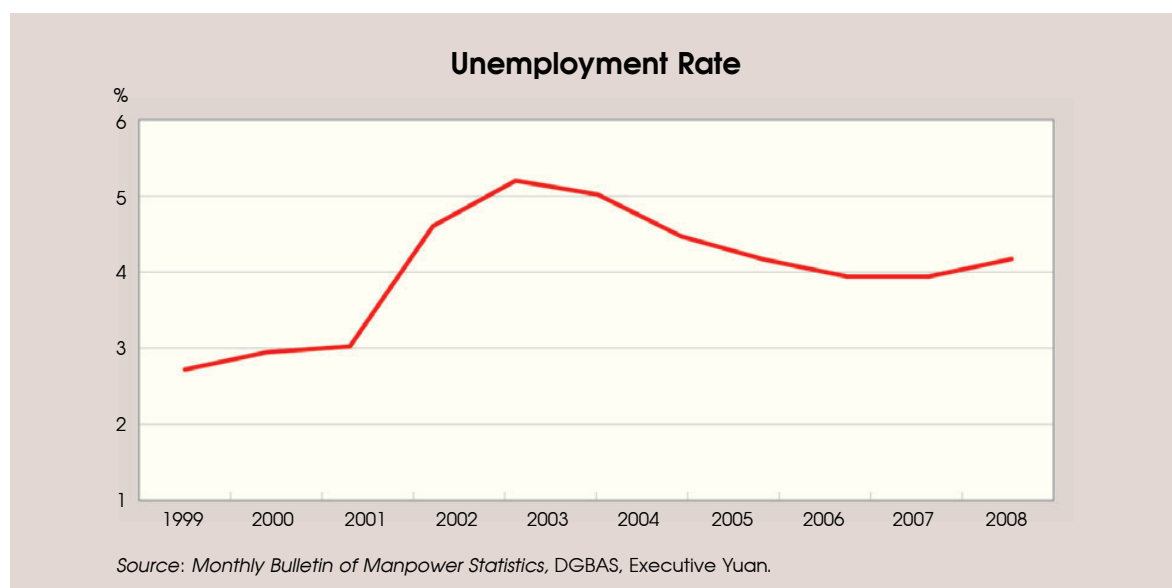
### Unemployment Rate Exhibited an Upward Trend

Taiwan's labor market softened from September 2008, mainly attributable to a weakened economy at home and abroad. The number of unemployed and the unemployment rate rose

in September. This growth runs counter to the usual trend, in which unemployment drops every September as new college graduates land jobs. The unemployed population surged to a record high of 549 thousand persons at the year-end, with the December unemployment rate hitting 5.03 percent, the highest level for that month in six years. The annual average unemployment rate for 2008 climbed to a four-year high of 4.14 percent. Meanwhile, the annual average number of the long-term unemployed (persons who have been continuously unemployed for 53 weeks or more) increased by 8 thousand to 66 thousand persons. The average duration of unemployment also lengthened to 25.25 weeks.

In 2008, business closures or downsizing were the main culprits for the high unemployment and accounted for 33.83 percent of total unemployment. The number of people who lost their jobs due to business closures or downsizing soared to 250 thousand persons in December, a huge increase of 119 thousand persons from August. The surge was more pronounced in the manufacturing, construction, and trade industries. All education groups registered higher unemployment rates compared with the previous year. Following the mushrooming growth in the number of junior colleges and universities, the unemployed people with junior college education or above rose to a record high and accounted for the lion's share, or 40.81 percent of total unemployment.

In terms of age, younger persons suffered higher unemployment rates than older ones as many were inexperienced and tended to change jobs more frequently. All age groups recorded higher unemployment rates from a year ago. The group with the highest unemployment rate was the age group of 15-24, with 11.81 percent, followed by the age group of 25-44, with 4.02



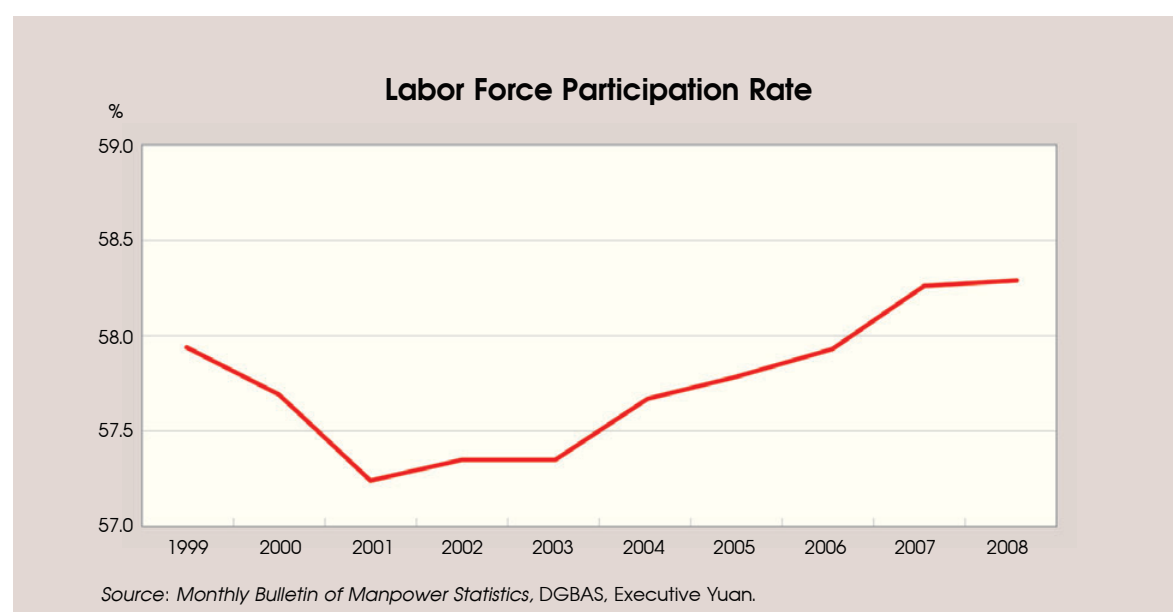
percent. The number of unemployed for the age groups of 25-44 and 45-64 increased significantly and hit record highs in December, highlighting the fact that the economic slowdown worsened job market conditions for the senior group who were normally the main breadwinners.

### Labor Force Participation Rate Inched Up

The annual labor force growth rate decreased by 0.5 of a percentage point to 1.31 percent as demand for labor was falling due to the flagging economy, while the non-labor force growth rate increased to a record high since 2002. The annual labor force participation rate inched up by 0.03 of a percentage point to 58.28 percent in 2008. The growth was mainly sustained by a rise in the female participation rate of 0.23 of a percentage point.

In terms of gender, the female labor force participation rate reached an all-time high of 49.67 percent, while the male rate edged down to an all-time low of 67.09 percent. Broken down by age bracket, the participation rate for the working population aged 25-44 increased by 0.4 of a percentage point to its highest level on record of 83.81 percent, while the participation rate for the working population aged 15-24 experienced another drop. With regard to education groups, the participation rate for the working population with junior college degrees or above increased, while the participation rates for all the other education levels experienced downward trends.

Among the non-labor force population, housekeeping accounted for 30.57 percent of the total, representing a significant decrease of 0.49 of a percentage point over the preceding year. Those pursuing educational attainment or preparing for school entrance examinations, and those intending to work but not actively searching for work, both dropped, with respective



shares of 28.03 percent and 2.16 percent, while the old-aged and disabled increased to 28.45 percent.

### Earnings of Non-Farm Workers Edged Up Slightly

In 2008, the average monthly earnings of the non-farm sector per worker averaged NT \$44,424, a record-low increment of 0.02 percent over the previous year since 2003. The slowdown in economic growth, the wave of downsizing experienced by enterprises, and the rising number of workers taking unpaid leaves translated into sluggish wage increases. After being adjusted by the CPI, real monthly earnings showed a record decline of 3.39 percent.

With respect to different sectors, the average monthly earnings of services-producing sector workers inched up by 0.15 percent to NT\$45,450, while real monthly earnings declined by 3.26 percent. The average monthly earnings of goods-producing sector workers decreased by 0.16 percent to NT\$43,233, and real monthly earnings showed marked declines of 3.56 percent. The real monthly earnings performance was mixed across component industries. While the real estate industry, and the accommodation and food services industry saw increases in real monthly earnings, the finance and insurance industry experienced a 9.04 percent drop during 2008. Regarding real regular earnings by sector, the goods-producing sector and services-producing sector per worker suffered decreases of 3.11 percent and 3.25 percent, respectively, over the previous year.

### Labor Productivity in the Goods-Producing Sector Decreased

As the decrease in total production outpaced that in total working hours, the labor

#### Labor Productivity and Unit Labor Cost Indices in the Goods-Producing Sector



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

productivity index for the goods-producing sector in 2008 posted a record decrease of 1.04 percent, the first decline since 1984. The largest declines in labor productivity were mainly found in traditional industries, such as the wearing apparel and clothing accessories industry, and the motor vehicles and parts manufacturing industry, which showed a two-digit decrease over the previous year.

The index of unit labor cost in the goods-producing sector exhibited an increase of 2.15 percent, the first increase in seven years, resulting from a decrease in total production and an increase in total labor compensation. The increase in unit labor cost in some industries, such as the wearing apparel and clothing accessories industry, and the chemical products manufacturing industry, exceeded 10 percent, which indicated a likely weakening in the competitiveness of these industries.

# Financial Developments



## II. Financial Developments

### 1. Overview

In the first half of 2008, the expansion in Taiwan's foreign trade continued, although the global economy slackened under the impact of a surge in international fuel and food prices. In the second half of the year, however, dragged down by the global financial market turmoil, withering external demand severely dampened Taiwan's trade and economic activity. Against the backdrop of weak demand for funds, liquidity in the financial system continued to remain ample and reserve money grew at a modest pace. Along with the Bank's policy rate adjustments, market interest rates went up in the first half of the year, and turned down from September onwards. The NT dollar exchange rate against the US dollar appreciated in the first three months of the year and then depreciated afterward.

With respect to monetary aggregates, the daily average of M2 grew by 2.67 percent in 2008, a slower pace than the 4.25 percent of the preceding year, mainly reflecting net capital outflows and the sluggish growth in bank loans and investments. However, the growth rate of M2 still fell within the target zone of 2.00 percent to 6.00 percent set by the Bank.

Loans and investments of major financial institutions grew at an annual growth rate of 3.42 percent at the end of 2008, up from 2.35 percent registered a year earlier. The increasing growth was mainly due to a stronger demand for funds from government and government enterprises and an increase in portfolio investments by banks. Among the loans extended by major financial institutions, the balance of consumer loans turned to a decrease, primarily led by banks' conservative attitude toward lending and a shrinkage in consumer spending. In addition to the loans and investments of major financial institutions, if those of life insurance companies and trust and investment companies, and direct finance were included, then the total funds extended by the financial system to the non-financial sector registered an annual growth rate of 2.75 percent at the end of the year, lower than the 3.33 percent at the previous year-end.

The earnings before tax of depository institutions declined in 2008, mainly due to reductions in the fair value of financial assets and the profits of portfolio investments. As a consequence, their return on assets and return on net worth were both lower than those of the previous year. The average capital adequacy ratio of domestic banks increased from the previous year-end's 10.80 percent to 11.00 percent, and the overall non-performing loan ratio decreased



from 1.83 percent to 1.54 percent.

In the stock market, the TAIEX (Taiwan Stock Exchange Weighted Stock Price Index) moved down in January, triggered by the global stock market turmoil. Subsequently, with the interest rate cuts in the US and optimistic expectations over an improvement in cross-strait relationships, the TAIEX rebounded and reached a yearly high in May. From then on, owing to a spillover of the global financial storm, the TAIEX experienced a strong downward trend and hit a yearly low in November. The index moved upward in the last month of the year as worldwide stock markets rebounded, the government successively adopted economic stimulus programs, and direct transportation links across the Taiwan straits began in December. The TAIEX closed the year at 4,591 points, 46.0 percent lower than a year earlier. The daily average turnover for the year decreased by 21.6 percent compared with the previous year.

The NT dollar against the US dollar started the year strong and hit a yearly high in March due to a weak US dollar, reflecting the impact of the US subprime mortgage crisis. From July onwards, due to some US big financial groups facing financial distress, US investors sold their foreign assets and repatriated the proceeds, causing the US dollar to become stronger in the international markets. The NT dollar against the US dollar depreciated to a yearly low in early December. From then on, it appreciated and closed the year-end at 32.860, showing a slight depreciation of 1.27 percent compared with the previous year-end. On a daily average basis, however, it appreciated by 4.20 percent in 2008 over the previous year.



## 2. Monetary Aggregates

The broad monetary aggregate M2 has been the Bank's intermediate target for monetary policy since 1992. The annual growth rate of M2 was 2.67 percent in 2008, lower than the previous year's 4.25 percent and remaining within the Bank's target range of 2 percent to 6 percent.

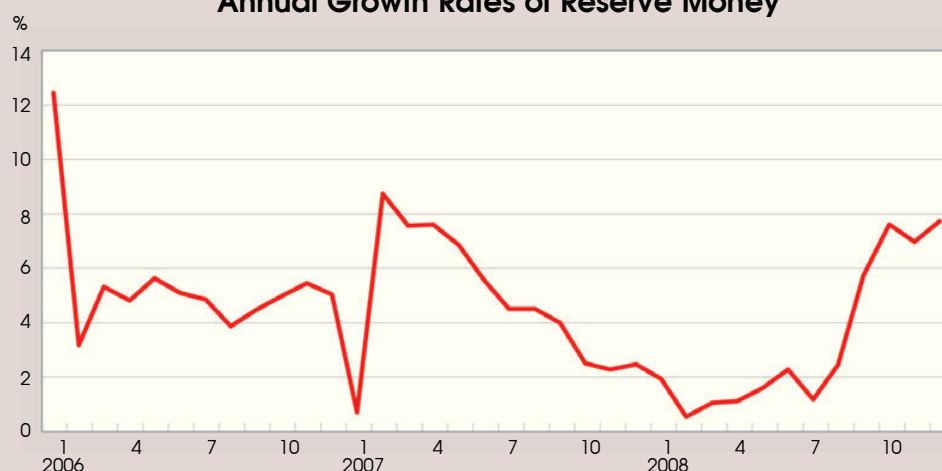
The narrow monetary aggregate M1B, on the other hand, registered a negative 2.94 percent growth for the year 2008, which was far behind the 6.44 percent growth posted in the previous year. The laggard growth in M1B was mainly attributable to the limited demand for liquid funds resulting from economic downturns both at home and abroad as well as the gloomy stock market.

### Moderate Growth in Reserve Money

Reserve money growth slowed for the year of 2008, with an annual growth rate (after adjusting for changes in reserve requirement ratios) falling down by 1.47 percentage points to 3.24 percent from the previous year's figure. Broken down by the components of reserve money, bank reserves posted slower growth of 3.02 percent when compared to the previous year's 6.16 percent, while the growth of currency held by the non-bank public increased to 3.57 percent from 2.65 percent one year earlier.

In terms of the monthly movements of reserve money, the annual growth rates generally trended up except in July and November. The temporary decline in growth of the two months was mainly owing to a larger shift from demand to time deposits, which reduced banks' required

**Annual Growth Rates of Reserve Money**



Source: Financial Statistics Monthly, CBC.

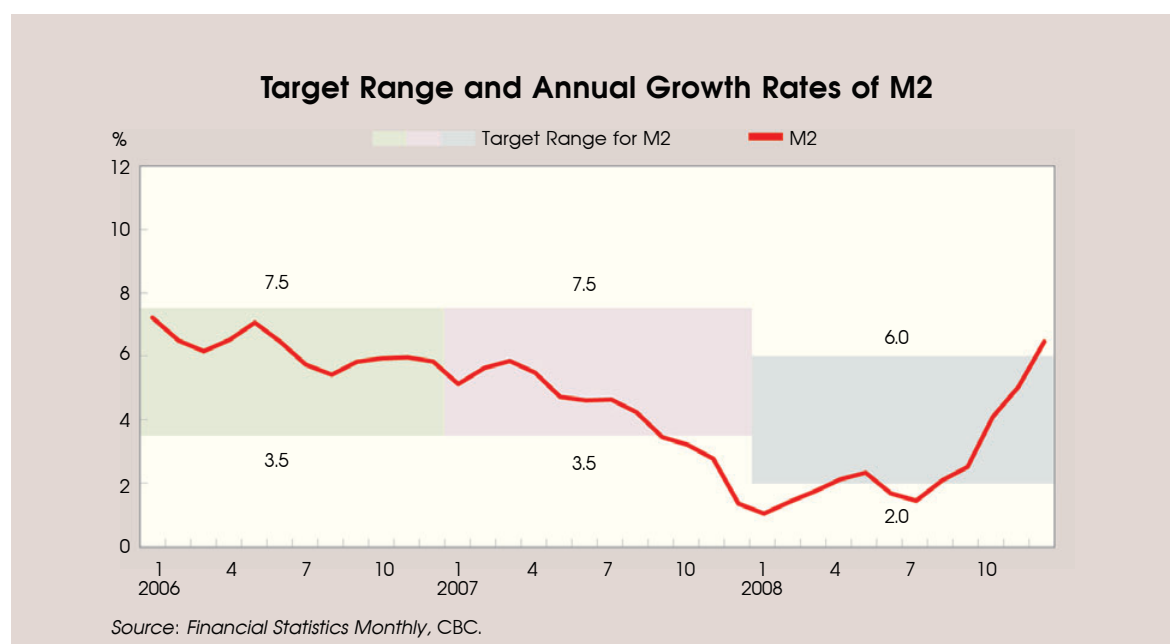
reserves. The annual growth rate of reserve money reached a yearly high of 7.68 percent in December.

On the demand side, several factors contributed to the slower growth of reserve money. For the public, the low opportunity cost of holding currency given the low interest rates paid on bank deposits enhanced their willingness to hold currency. For banks, lackluster domestic demand and unfavorable economic outlook caused credit growth to slow down, which then translated into very limited demand for reserves. However, in response to the disruptions in the global financial system, the Bank's monetary policy stance turned loose after September 2008, leaving the banks with more excess reserves, which partly offset the weak demand for bank reserves.

From the supply side perspective, the Bank's balance sheet revealed the sources of changes in reserve money. On the one hand, 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 largely 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.

### Slight Increase in M2 Growth

M2, which comprises currency in circulation, deposits in banks' checking and demand accounts, and quasi money, is the Bank's intermediate target for conducting monetary policy. The M2 target zone for 2008 was 3 percent to 7 percent initially, and was adjusted downward

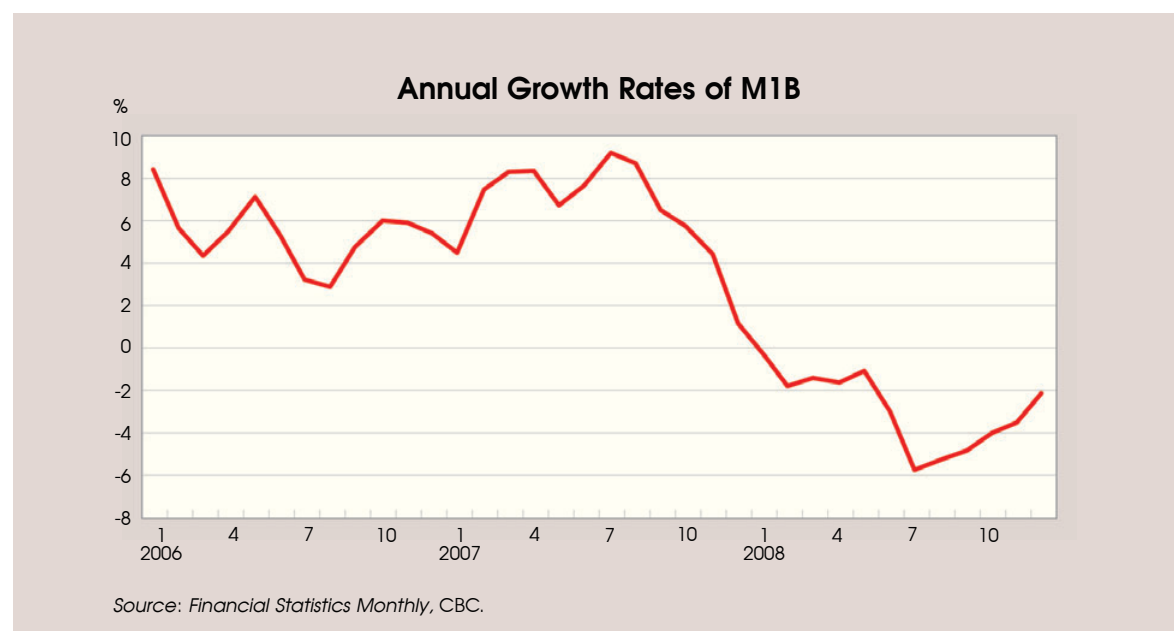


to between 2 percent and 6 percent in mid-year, reflecting weaker demand for money due to residents' portfolio diversification behavior and a significant rise in the public's inflation expectations. The midpoint of the revised target range, therefore, dropped to 4 percent, 1.5 percentage points lower than in the previous year. The annual growth rate of M2 in 2008 was 2.67 percent, down from the previous year's 4.25 percent, and stayed within the Bank's target zone while falling below its target midpoint.

In terms of M2's monthly movement, the growth rates in the first three months of the year were generally below 2 percent because the growth in bank loans and investment were still sluggish. As bank loans and investment started to pick up pace afterwards, the M2 growth rate rose to 2.34 percent in May. However, the rising trend of M2 growth reversed in June and moderated to 1.7 percent due to a significant increase in government's bank deposits. The large outflow of foreign equity capital and the sagging stock market led the M2 growth rate in July to fall further to 1.45 percent. Beginning in August, M2 growth rates trended up as the global financial turmoil triggered a reversal of resident capital outflows. Combined with the continuous growth in bank loans and investment as well as the lower base effect, the M2 growth rate reached a yearly high of 6.45 percent in December.

### Negative Growth in M1B

In the first half of 2008, the global economic slowdown and the rising interest rates on time deposits in local banks helped drive funds to shift from demand deposits to time deposits, leading the M1B growth rates to enter negative territory. As the global economy rapidly



deteriorated in the second half of the year, falling stock markets dragged down the transactions demand for money and led the M1B growth rates to dive further. The average annual growth rate of M1B plummeted to negative 2.94 percent, lagging far behind the previous year's 6.44 percent.

The M1B's monthly movements were as follows: Because local stock markets remained sluggish and interest rates paid on time deposits trended higher since earlier 2008, the M1B annual growth rates were all in negative territory with a floor of negative 2 percent. As the stock market plummeted in June and July, transaction volume shrank largely. Coupled with a higher base effect, the M1B growth rate hit a yearly low of negative 5.77 percent in July. From August onwards, the unfolding turmoil in the global financial markets spurred capital outflows by foreign equity investors, deepening the downside pressure on local bourse. However, with a large repatriation of residents' overseas investment as well as lower bases of comparison, M1B growth rates reversed its downward trend and gradually moved up to negative 2.16 percent in December.

### 3. Banking Sector

#### Increase in the Number of Depository Institutions

At the end of 2008, the number of depository institutions was 387, an increase of one from the previous year-end. Among them, the number of domestic banks decreased by two as a result of the merging of two domestic banks into two different foreign banks. The number of foreign banks remained at 32, as one new bank was established and one existing bank was merged into a domestic bank. However, the number of credit departments of farmers' and fishermen's associations increased by three owing to the opening of three new ones.

#### Number of Depository Institutions by Category

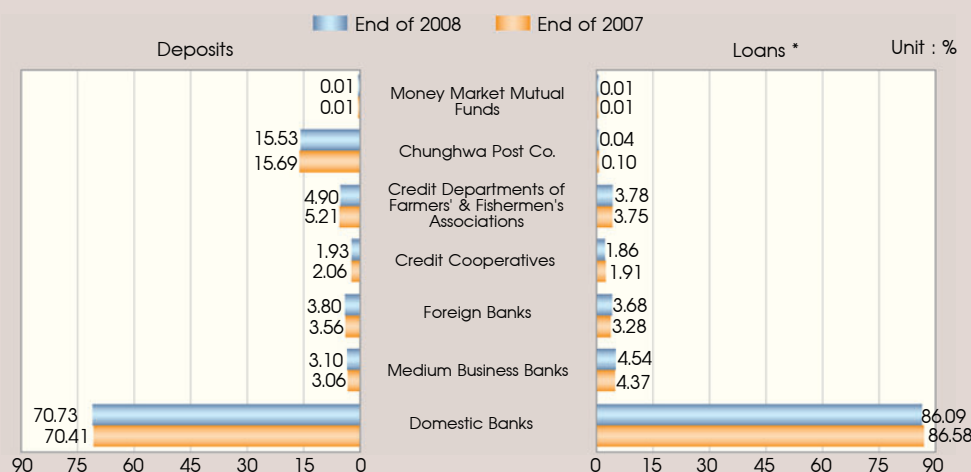
	End of 2008	End of 2007	Annual Change
Combined Number of Main Offices	387	386	1
Domestic Banks	37	39	--2
Medium Business Banks	1	1	0
Foreign Banks	32	32	0
Credit Cooperatives	27	27	0
Credit Departments of Farmers' and Fishermen's Associations	289	286	3
Department of Savings and Remittances of Chunghwa Post Co.	1	1	0
Combined Number of Branches	6,002	5,985	17
Local Branches	5,852	5,835	17
Overseas Branches	87	85	2
Offshore Banking Units	63	65	--2

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

#### Market Shares of Deposits and Loans

Domestic banks have played a major role in Taiwan's banking system. Their market share of deposits increased slightly to 70.73 percent at the end of 2008 mainly because depositors of regional financial institutions such as credit cooperatives and credit departments of farmers' and fishermen's associations shifted their deposits to larger domestic banks to shun the impacts of the global financial turmoil. However, the market share of domestic banks' loans decreased slightly to 86.09 percent because of the merging of two domestic banks into two foreign banks. The Department of Savings and Remittances of Chunghwa Post Co.'s market share of deposits slightly decreased to 15.53 percent at the end of 2008, while its market share of loans decreased to a mere 0.04 percent due to strict restrictions on its operation of loans. Foreign banks enjoyed an increase in their market shares of deposits and loans because two domestic banks were

## 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.

merged into two foreign banks. The medium business bank's market shares of deposits and loans also increased. Credit cooperatives and the credit departments of farmers' and fishermen's associations recorded decreases in their market shares of deposits, reflecting the shift of funds from these institutions to larger banks. Credit cooperatives' market share of loans fell, while that of the credit departments of farmers' and fishermen's associations slightly rose.

### Depository Institutions' Sources and Uses of Funds

The depository institutions' funds increased significantly by NT\$2,030 billion during the year 2008, more than the NT\$556 billion increase recorded in the previous year, owing to the downturn in local stock market and the repatriation of residents' investment in overseas financial markets. Among the different sources of funds, non-transaction deposits and other items (net) contributed the most to the increase, with annual changes of NT\$1,864 billion and NT\$278 billion, respectively.

With respect to the uses of funds, depository institutions' loans expanded by NT\$442 billion in 2008, in line with the increase in their deposits. With banks' efforts to contain their investment risks amid the global financial turmoil, portfolio investments, particularly in the purchases of government-issued securities and the CDs issued by the Bank, also increased. Net foreign assets also increased markedly in the year because of increases in dues from and to foreign financial institutions and net claims on OBUs.

## Sources and Uses of Funds in Depository Institutions

Unit: NT\$ Billion

	End of 2008		End of 2007		Annual Change	
	Amount	Share (%)	Amount	Share (%)	Amount	Share (%)
Sources:						
Transaction Deposits **	7,320	24.09	7,457	26.30	-137	-2.21
Non-transaction Deposits***	19,710	64.86	17,846	62.93	1,864	1.93
Government Deposits	795	2.62	746	2.63	49	-0.01
Borrowings from CBC	58	0.19	81	0.29	-23	-0.10
Other Items (Net)	2,504	8.24	2,227	7.85	278	0.39
Total	30,387	100.00	28,357	100.00	2,030	0.00
Uses:						
Net Foreign Assets *	1,586	5.22	1,155	4.07	431	1.15
Loans	18,470	60.78	18,028	63.58	442	-2.79
Portfolio Investments****	2,862	9.42	2,605	9.19	267	0.23
Purchases of CDs Issued by CBC	4,298	14.14	3,431	12.10	868	2.05
Deposits with CBC	3,170	10.43	3,139	11.07	32	-0.63

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.

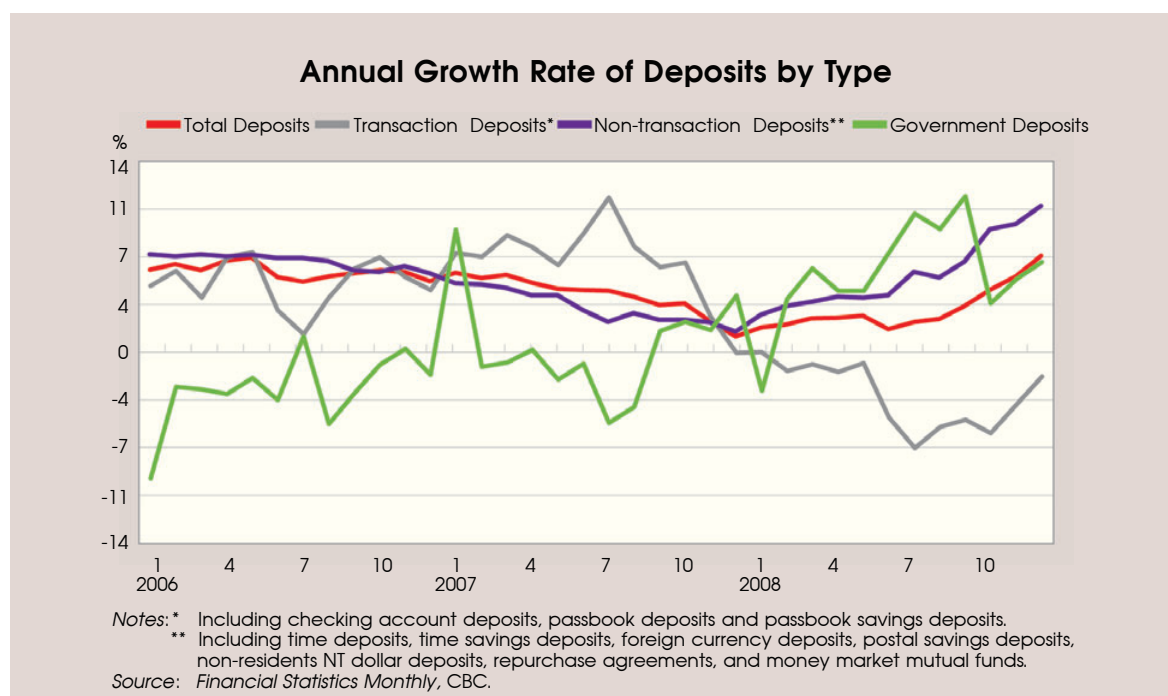
Source: Financial Statistics Monthly, CBC.

## Uptrend in the Growth of Deposits

Total deposits of depository institutions at the end of 2008 grew by 6.92 percent during the year, higher than the 1.03 percent at the end of 2007. The increase was mainly caused by steady growth in banks' loans and investments, as well as acceleration in residents' net capital inflows from September.

Due to substantial net foreign capital inflows, the annual growth rate of deposits rose to 2.35 percent in March. From April onwards, foreign capital turned into an outflow, pushing the annual growth rate of deposits down to a yearly low of 1.57 percent in June before rising to 2.27 percent in August. From September onwards, deposit growth went up as a result of an increase in residents' net capital inflows. The annual growth rate of deposits rose further and reached a yearly high of 6.92 percent at the end of 2008.

The annual growth rate of transaction deposits fell from the previous year's negative 0.09 percent to negative 1.84 percent at the end of 2008. Their share in total deposits also edged down from 28.66 percent to 26.31 percent. This was mainly due to rising interest rates on time deposits in the first half of the year and subdued demand for transaction deposits as stock market activity weakened through the second half of the year, thus inducing a shift of funds from transaction deposits to non-transaction deposits. The annual growth rate of non-transaction



deposits at all depository institutions increased to 10.61 percent at the end of the year from the 1.38 percent of the previous year-end, while their share in total deposits edged up from 68.47 percent to 70.83 percent.

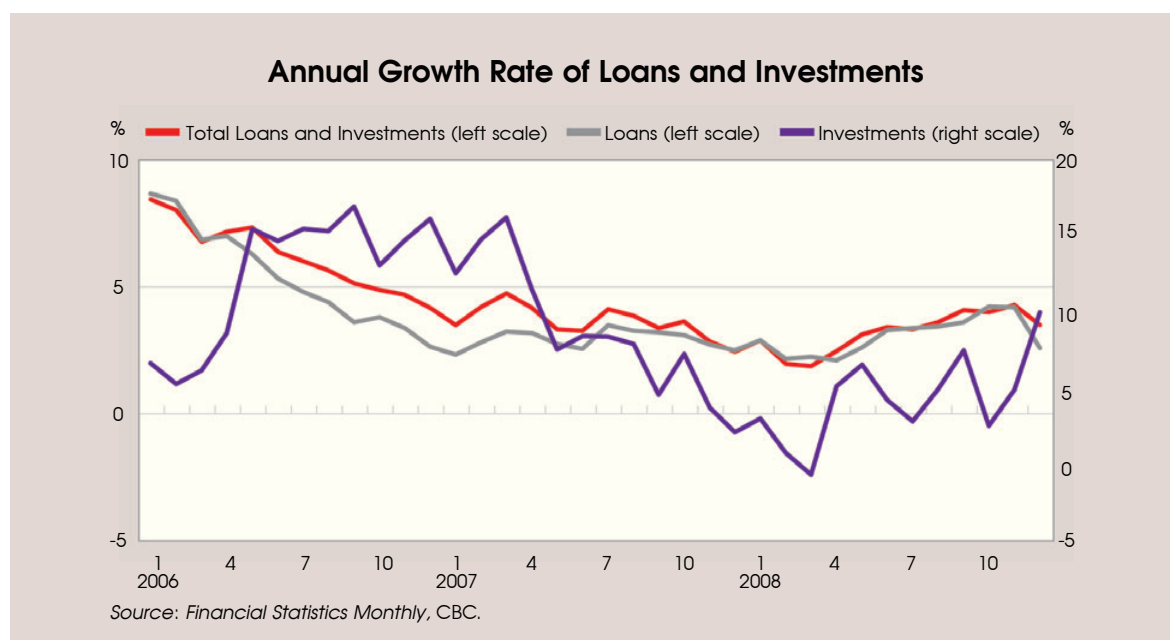
With respect to the different types of non-transaction deposits, the shares of time deposits and foreign currency deposits in total deposits rose at the end of the year when compared with the previous year-end. The shares of time savings deposits, postal savings deposits and NT dollar deposits held by foreigners all shrank.

The annual growth rate of government deposits in depository institutions rose from 4.11 percent in the previous year-end to 6.55 percent at the end of 2008, reflecting an increase in tax revenues. Meanwhile, their share in total deposits declined from 2.87 percent to 2.86 percent.

### Steady Rise in Banks' Loans and Investments

The annual growth rate of loans and investments of depository institutions rose to 3.42 percent at year-end 2008, compared to the 2.35 percent recorded at the end of the previous year. The upturn was owing to public enterprises' stronger demand for funds and a substantial growth in portfolio investments by depository institutions. Loans posted an annual growth rate of 2.49 percent at the end of 2008, edging higher than the 2.40 percent a year earlier, while the growth of investments significantly rose to 9.88 percent in 2008 from the 1.97 percent in 2007.





## Loans by Sector

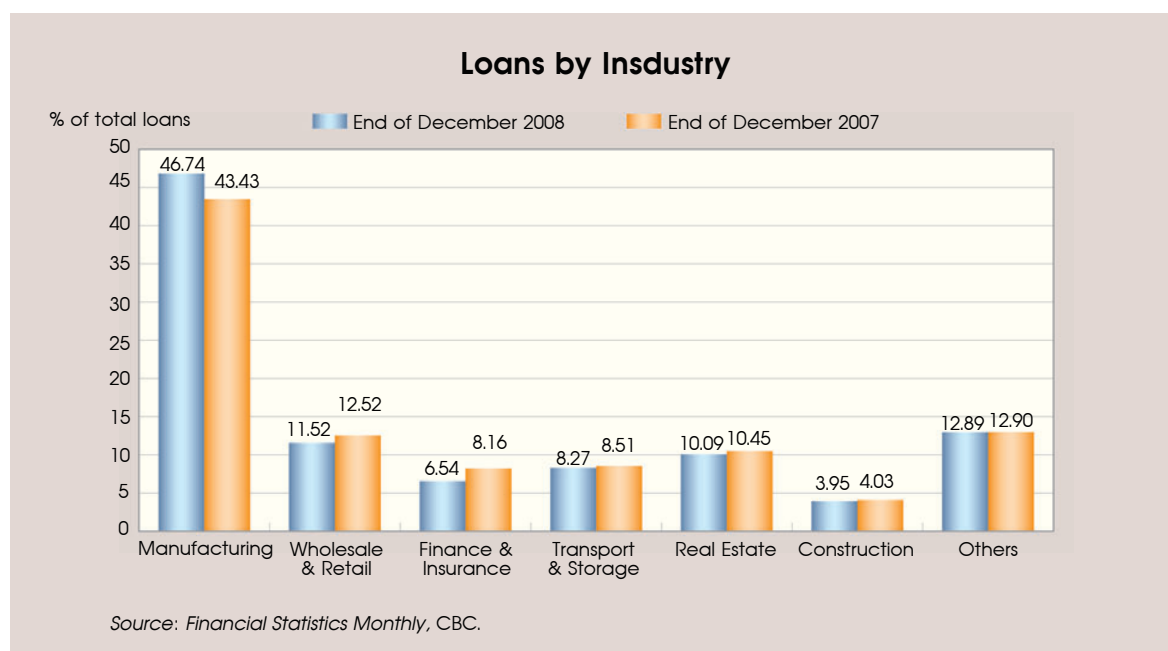
At the end of 2008, loans extended to the private sector and public enterprises accounted for 88.42 percent and 4.37 percent, respectively, of total loans. Compared to the previous year-end, the annual growth rate of loans of the private sector fell from 4.23 percent to 2.50 percent, while that of public enterprises markedly rose from 12.66 percent to 28.43 percent. Owing to the central government's repayment of bank loans by increased bond issuance, the share of loans extended to government agencies in total loans dropped to 7.21 percent from 8.04 percent at the previous year-end, posting an annual growth rate of -8.00 percent. However, the negative growth rate still showed a considerable improvement since early 2008.

## Loans by Industry

Among all industries in 2008, the manufacturing sector continued to account for the largest portion of bank loans, rising from 2007's 43.43 percent to 46.74 percent in 2008. The rise was mainly due to a large increase in bank loans extended to the electronic parts & components industry, the petroleum products industry, and the base metals industry. In addition, the share of loans extended to other industries recorded a marginal decrease mainly due to an economic downturn and a more cautious attitude taken by banks toward lending.

## Consumer Loans

Compared to the previous year, consumer loans registered a mild decrease in 2008, mainly



due to lower private consumption and slower growth of home mortgages on account of the global financial crisis. As a result, the outstanding balance of consumer loans extended by banks at the end of 2008 recorded an annual decrease of NT\$51.4 billion or 0.76 percent from the previous year-end.

## Investments

Owing to greater willingness to purchase securities with excess loanable funds, portfolio investments by depository institutions measured on a cost basis showed an annual increase of NT\$257.3 billion or 9.88 percent in 2008, significantly higher than the NT\$50.2 billion or 1.97 percent a year earlier. Among the investment instruments, government bonds accounted for the largest share with 58.13 percent, edging down from 58.30 percent a year ago. Meanwhile, the annual growth rate of investment in government bonds rose from 7.04 percent to 9.57 percent, mainly due to the massive purchases of government bonds by domestic banks and the Department of Savings and Remittances of the Chunghwa Post Co. When measured at fair value, the annual increase of portfolio investments by depository institutions became NT \$168.4 billion. The negative revaluation adjustment was thus NT\$89.0 billion, an increase from the NT\$49.8 billion of the previous year.

## Decrease in Direct 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	
1999	1,289.1	1,041.3	954.0	87.3	247.8
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	321.9	181.4
2006	1,223.6	1,374.8	837.8	537.0	-151.2
2007	1,044.2	961.8	733.2	228.6	82.4
2008	892.6	1,230.5	647.5	583.0	-337.9

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.

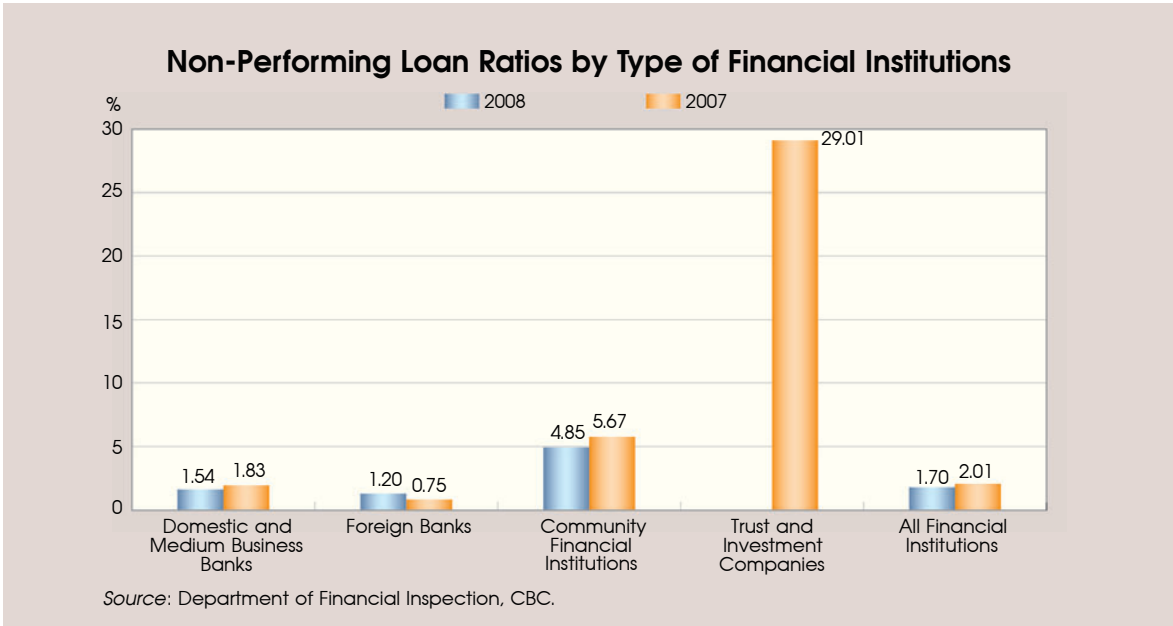
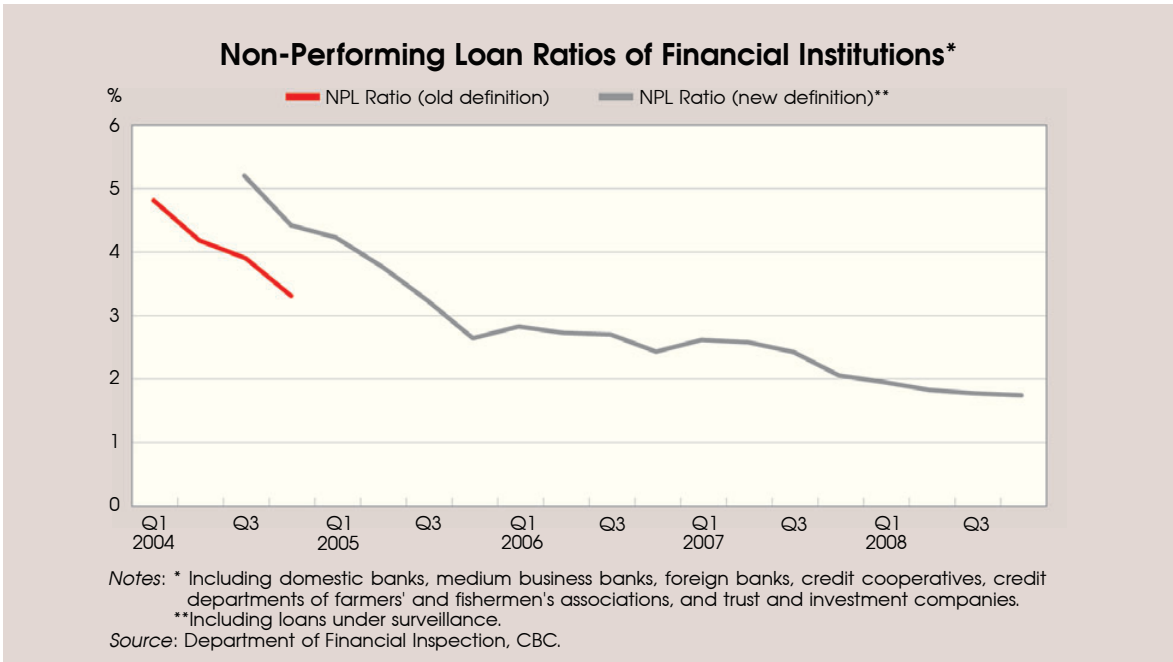
(2) Refers to the total amount of new issues of various marketable securities, including government bonds, corporate bonds, listed stocks, offshore bonds, depository receipts, short-term bills and asset-backed securities held by the non-financial sectors.

Source: Financial Statistics Monthly, CBC.

i.e. borrowing from financial institutions and issuing securities in the markets, respectively. Based on the flow data, the total amount of funds raised by the non-financial sector during the year 2008 decreased from the previous year's NT\$1,044.2 billion to NT\$892.6 billion. Funds raised through borrowing from financial institutions increased from the previous year's NT\$961.8 billion to NT\$1,230.5 billion. Funds raised by issuing securities decreased from the previous year's NT\$82.4 billion to negative NT\$337.9 billion, mainly due to the decreased issuance of offshore bonds and domestic securitized beneficiary certificates. If based on the data of outstanding balance, the share of indirect finance in total funds raised increased from 75.76 percent at the end of 2007 to 77.06 percent at year-end 2008, while the share of direct finance decreased from 24.24 percent to 22.94 percent.

## Decline in the Non-Performing Loan Ratio

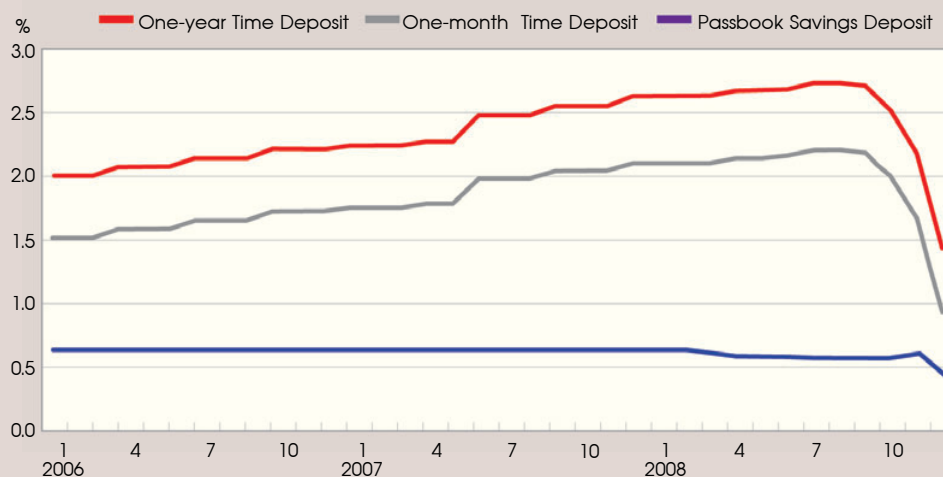
The asset quality of domestic financial institutions improved in 2008, with the continuing disposal of non-performing loans (NPLs) and efforts in writing off bad loans. The average NPL ratio of financial institutions as a whole declined to 1.70 percent at the end of 2008, lower than the previous year's 2.01 percent. With respect to the different types of financial institutions, the NPL ratios of most domestic financial institutions improved in the year when compared with the previous year, except the NPL ratio of foreign banks, which jumped to 1.20 percent from the previous year's 0.75 percent due to the increase of non-performing loans resulting from the acquisition of the Chinese Bank by the Hongkong and Shanghai Banking Corporation Ltd. (HSBC) as well as the acquisition of Bowa Bank by the Development Bank of Singapore Ltd. (DBS) during the year.



### Increase and Subsequent Decline in Bank Interest Rates

At the beginning of the year, the Bank raised the policy rate twice on March and June to curb inflation. However, in the second half of the year, due to negative growth in exports, rising unemployment rates and sluggish consumer and business spending affected by the global economic slowdown, the Bank lowered the policy rate five times in the September-December period to stimulate the economy. As a result, interest rates on deposits and loans of many

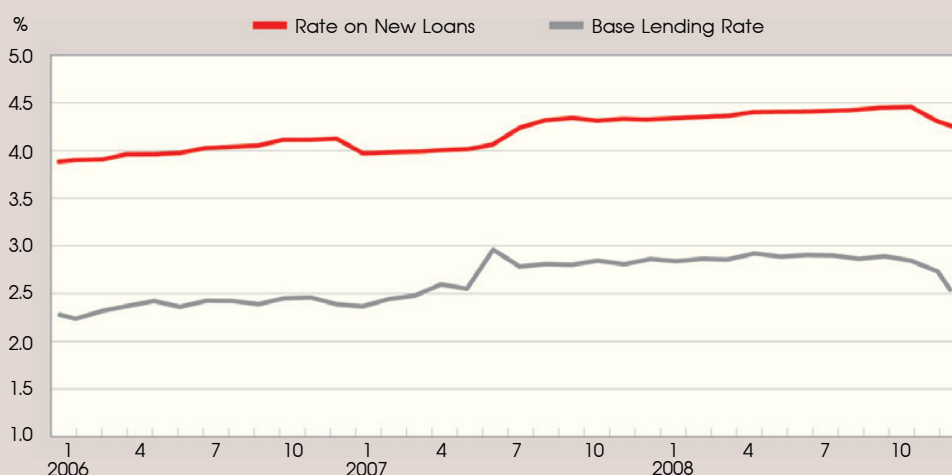
### The Average Deposit Rates of the Five Major Domestic Banks\*



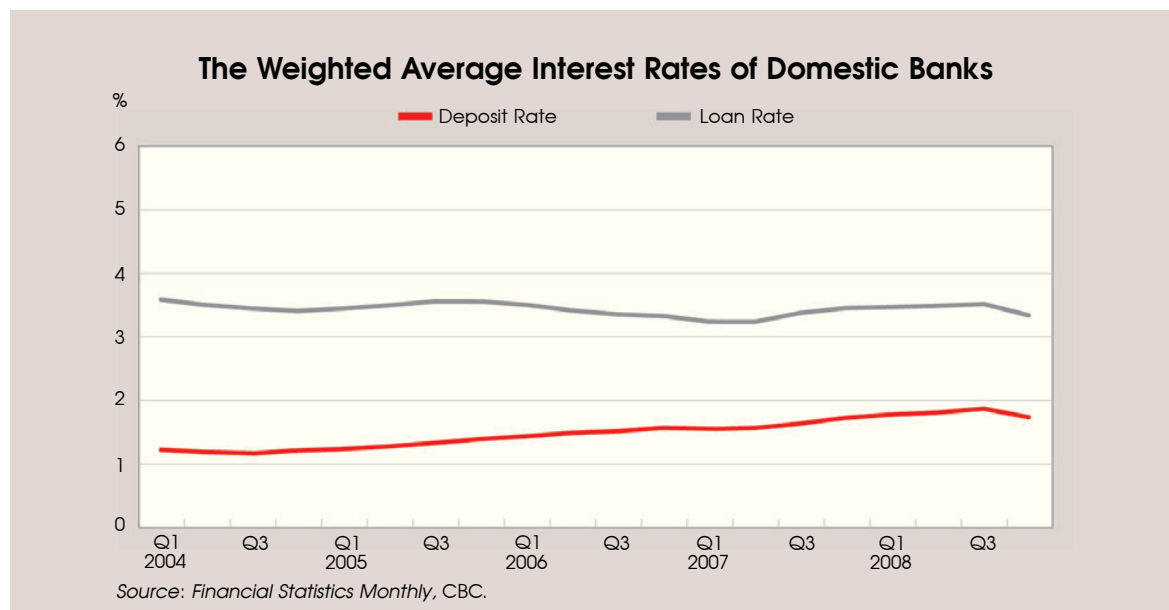
Note: \* Prior to Oct. 2008, the five major domestic banks were Bank of Taiwan, Taiwan Cooperative Bank, First Commercial Bank, Hua Nan Commercial Bank and Chang Hwa Commercial Bank, while beginning Nov. 2008, the Chang Hwa Commercial Bank is replaced by Land Bank of Taiwan.  
Source: Financial Statistics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

banks went down significantly during the fourth quarter, despite an upward trend during the first three quarters. In the case of the interest rates of the five major domestic banks, the average fixed rates on one-month and one-year time deposits respectively moved upward to 2.19 percent and 2.72 percent at the end of August 2008 from 2.09 percent and 2.62 percent at the previous year-end. From September onwards, the interest rates started to decrease to

### The Average Lending Rate of the Five Major Domestic Banks\*



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, the Chang Hwa Commercial Bank is replaced by Land Bank of Taiwan.  
Source: Financial Statistics Monthly, CBC.



0.91 percent and 1.42 percent, respectively, at the end of 2008. Besides, the average base lending rate rose to 4.44 percent at the end of October 2008 from 4.31 percent at the previous year-end, but went down to 4.21 percent at the end of 2008.

With respect to the weighted average lending rate on new loans, it fluctuated within a narrow range between 2.83 percent and 2.91 percent during the January to October period. Then it dropped to 2.72 percent in November 2008 owing to the decreases in base lending rates and the index rates for adjustable-rate mortgages. In December, the rate declined to 2.35 percent. On the whole, the weighted average lending rate still increased from 2.70 percent in 2007 to 2.80 percent in 2008.

As for the weighted average rates on all deposits and loans of domestic banks, these rates exhibited the same trend as the policy rate during 2008. For the year as a whole, the weighted average interest rates on deposits and loans were 1.77 percent and 3.44 percent respectively, which were 0.18 percentage points and 0.13 percentage points higher than those recorded in the previous year. The interest rate spread between deposits and loans continuously shrank to 1.67 percentage points in 2008, lower than the 1.72 percentage points in 2007.

### Decrease in Profitability

The combined pre-tax earnings of all depository institutions fell by NT\$9.5 billion to NT\$72.4 billion during 2008. Of this amount, due to reductions in the fair value of financial assets and in the profits from portfolio investments, the pre-tax earnings of domestic banks and medium business banks combined decreased by NT\$4.5 billion to NT\$34.4 billion, and the pre-tax earnings

of Chunghwa Post Co. decreased by NT\$5.2 billion to NT\$7.8 billion.

### Profits by Type of Depository Institutions

Unit: NT\$ Billion

	Profit before Tax			Return on Assets (%)*			Return on Equity (%)**		
	2008	2007	Annual Change	2008	2007	Annual Change	2008	2007	Annual Change
Domestic Banks and Medium Business Banks	34.4	38.9	-4.5	0.12	0.14	-0.02	1.90	2.15	-0.25
Foreign Banks	24.6	23.7	0.9	0.75	0.89	-0.14	33.05	39.02	-5.97
Credit Cooperatives	1.8	1.8	0.0	0.31	0.30	0.01	4.53	4.47	0.06
Credit Departments of Farmers' and Fishermen's Associations	3.8	4.5	-0.7	0.26	0.31	-0.05	4.17	5.12	-0.95
Chunghwa Post Co.	7.8	13.0	-5.2	0.17	0.30	-0.13	47.66	18.03	29.63
Total	72.4	81.9	-9.5	0.18	0.22	-0.04	3.56	3.95	-0.39

Notes: \* Return on Assets = Profit before Tax / Total Assets.

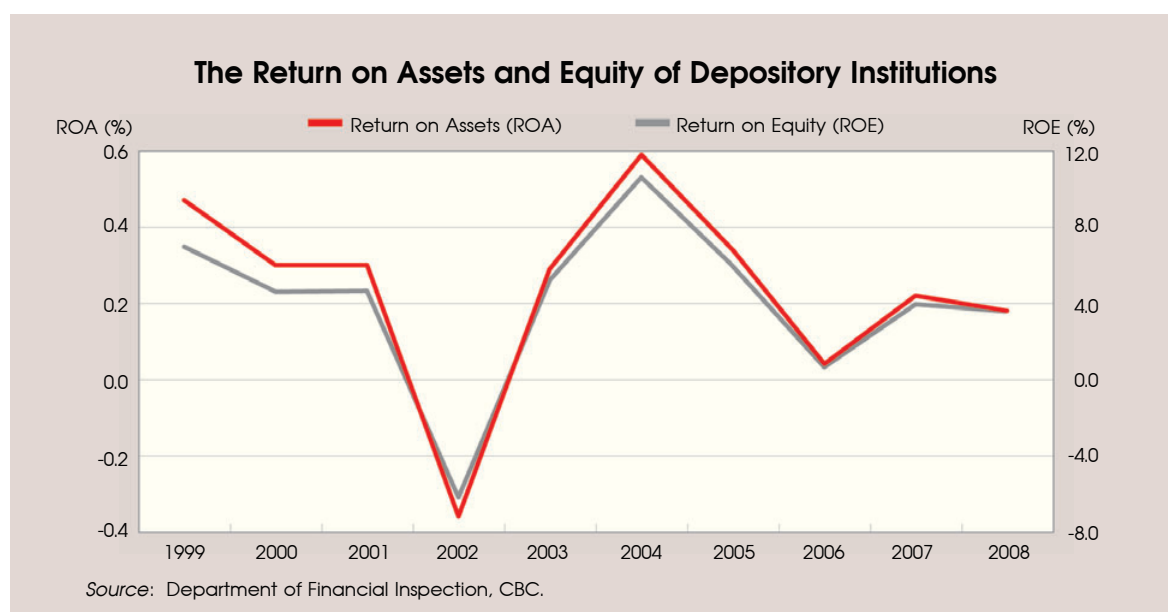
\*\* Return on Equity = Profit before Tax / Net Worth.

Source: Department of Financial Inspection, CBC.

### Decrease in Both ROA and ROE

The average return on assets (ROA) and return on equity (ROE) for all depository institutions went down to 0.18 percent and 3.56 percent in 2008, respectively, from 0.22 percent and 3.95 percent a year earlier. ROAs and ROEs of most depository institutions fell during the year. Among depository institutions, foreign banks were the best performers in terms of ROA and Chunghwa Post Co. was the best performer in terms of ROE.

As for the capital adequacy ratio, the average ratio of domestic banks rose to 11.00 percent at the end of the year from 10.80 percent at the previous year-end on account of new issuance of subordinated debt.



## 4. Money Market

In 2008, the total turnover in the interbank call-loan market decreased by 17.93 percent, but that in the short-term bills market increased by 6.96 percent. Both of these market rates maintained a rising trend in the first half of the year, but then turned downward, as the Bank began to lower the discount rate in the third quarter.

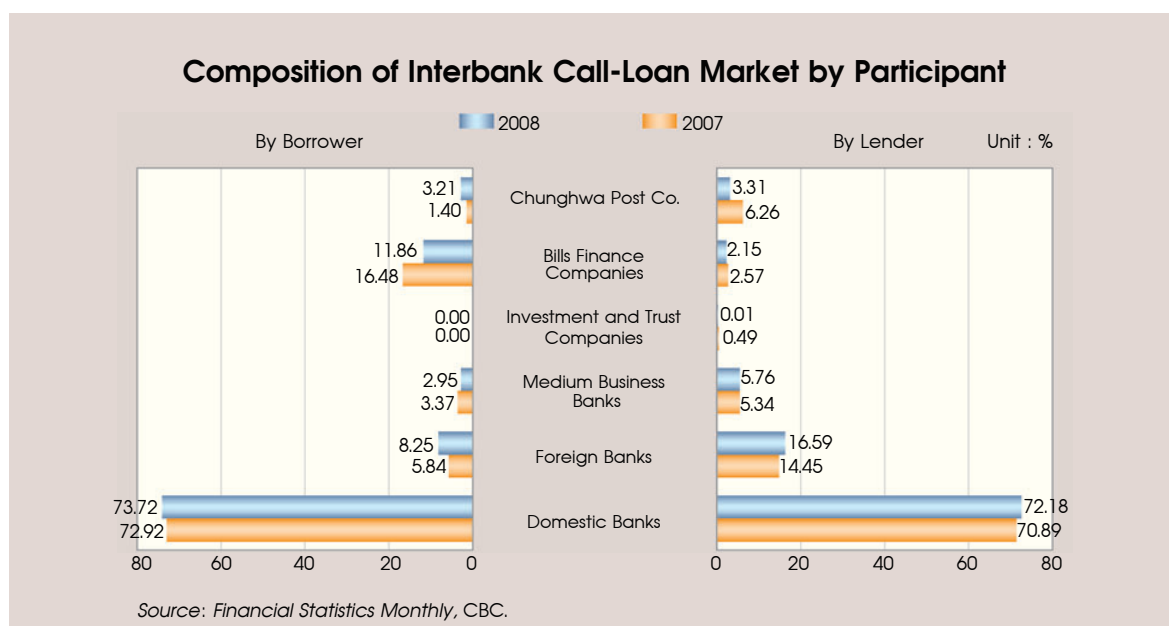
### Less Active Interbank Call-loan Market

The interbank call-loan market was less active in 2008, as a slowdown in the global economy and spillovers from the global financial crisis caused banks to adopt more conservative lending policies. In addition, the Central Deposit Insurance Corporation has imposed special assessment charges on interbank call loans since November 2008. The total annual turnover amounted to NT\$16,609.7 billion for the year, showing a decrease of 17.93 percent compared with the previous year.

Domestic banks were the largest borrower during the year, accounting for 73.72 percent of total trading, followed by bills finance companies, foreign banks and Chunghwa Post Co., with shares of 11.86 percent, 8.25 percent and 3.21 percent, respectively. The share of domestic banks slightly increased by 0.8 percentage points with the borrowed amount decreasing by 17.02 percent. The decrease reflected the Bank's ample supply of liquidity in the banking system in order to maintain financial stability amid the financial market turmoil, which reduced banks' demand for funds. The share of bills finance companies decreased by 4.62 percentage points mainly because their demand for funds weakened, as they cut down business to control business risk. It was partly also because banks reduced their call loans to bills finance companies as such loans are not covered by deposit insurance. The share of foreign banks kept rising and was 2.41 percentage points more than that in the previous year. The share of Chunghwa Post Co. also increased by 1.81 percentage points from the previous year.

With regard to lenders, domestic banks continued to be the largest supplier of funds, accounting for 72.18 percent of total transactions. Following domestic banks were foreign banks, medium business banks and Chunghwa Post Co. with respective shares of 16.59 percent, 5.76 percent and 3.31 percent. The lending amount of domestic banks decreased by 16.43 percent compared with the previous year because banks' lending policy became more conservative. In addition, banks showed less willingness to lend because of the special assessment charge on interbank call loans imposed in November 2008. The share of Chunghwa Post Co. declined by 2.95 percentage points from the previous year owing to an increase in its holdings





of government bonds. The shares of foreign banks and medium business banks climbed by 2.14 and 0.42 percentage points from the previous year, respectively.

Regarding the maturity structure, overnight interbank call loans remained the most actively traded in the market with a predominant share of 51.49 percent, which represented a decrease of 2.22 percentage points compared with the previous year. Second to them were those with a maturity of 1 week, accounting for 32.04 percent with a decrease of 0.24 percentage points from the previous year. The share of loans with a 2 week maturity climbed to 14.09 from 11.57 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.

### Increase in Short-term Bills Market Transactions

In 2008, new issues of short-term bills totaled NT\$6,948.6 billion, 6.98 percent more than that in the previous year. Of the new issues of short-term bills, commercial paper continued to account for the lion's share of 87.42 percent. Second to it were negotiable certificates of deposit, with a share of 8.64 percent. Bankers' acceptances made up a marginal share of 0.48 percent. Compared with the previous year, the Ministry of Finance increased the issues of treasury bills by 172.73 percent to cut down funding costs. This is because the bid rate on treasury bills was lower than short-term borrowing rates due to massive foreign capital inflows in the beginning of the year. In addition, the Bank kept lowering the discount rate from the third quarter onwards. The issues of commercial paper increased by 8.92 percent because funds demand from the private sector increased in the first half of the year and government

enterprises increased issues. As of the end of 2008, total outstanding bills amounted to NT\$969.8 billion, 4.81 percent more than that of the previous year-end.

### Short-Term Bills Market

Unit: NT\$ Billion

Year	Total		Treasury Bills		Commercial Paper		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
1999	10,676.5	2,033.3	315.0	150.0	9,390.6	1,491.3	66.0	13.2	904.9	378.8
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
2007-2008 Changes	453.5	44.5	152.0	78.8	497.5	25.4	-4.9	-3.5	-191.1	-56.2
Growth Rate (%)	6.98	4.81	172.73	281.43	8.92	3.82	-12.83	-41.67	-24.14	-25.09

Source: Financial Statistics Monthly, CBC.

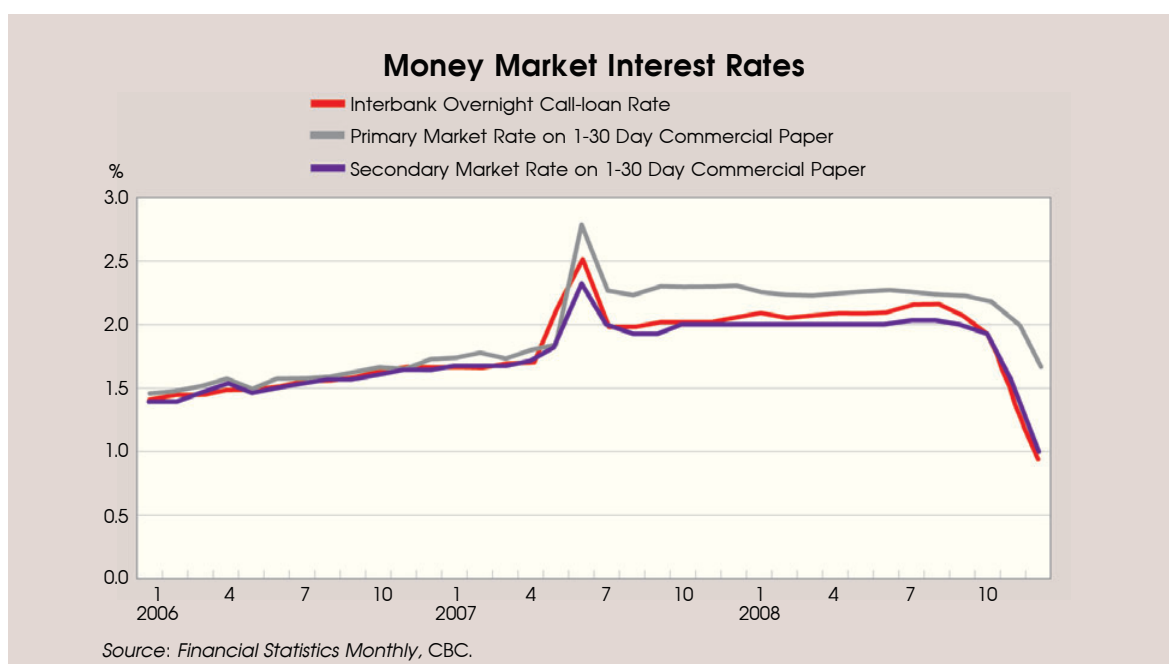
In the secondary market, total turnover of short-term bills increased by 6.96 percent to NT \$46,204.1 billion. Of the total transactions, commercial paper still made up the largest share of 85.24 percent, which represented decrease of 2 percentage points compared with the previous year. It was followed by negotiable certificates of deposit with a share of 9.60 percent, which was the same as in 2007. Treasury bills accounted for 4.49 percent, a small increase from the previous year. With respect to market participants, private enterprises remained the largest player in the market with a share of 48.17 percent, followed by banks with a share of 18.59 percent.

### Money Market Rates Turned Downwards

During 2008, funding conditions in the banking system still remained easy. In the first half of the year, with a slowdown in capital outflows and weaker funds demand from the private sector amid a global economic slowdown, funding conditions were easy. In the second half of the year, while the financial market turmoil deepened, the Bank adopted an easy monetary policy to maintain sufficient liquidity. At the same time, domestic economic expansion slowed, external demand weakened, banks lending growth declined, and residents' portfolio investment abroad posted a net inflow as overseas investment cooled down.

The interbank overnight call-loan rate kept rising in the first half of the year because of the Banks' interest rate hikes. It turned downwards from 2.00 percent at the previous year-end

to 0.87 percent at the end of 2008 because of the Bank's continuous rate cuts since September 2008, adding up to a reduction of 162.5 basis points. The average issuing rate on commercial paper with maturities of 1 to 30 days turned downward from 2.31 percent at the end of last year to 1.73 percent at the end of this year. The secondary market rate on commercial paper with maturities of 1 to 30 days also stepped down from 1.98 percent to 1.00 percent during the same period.



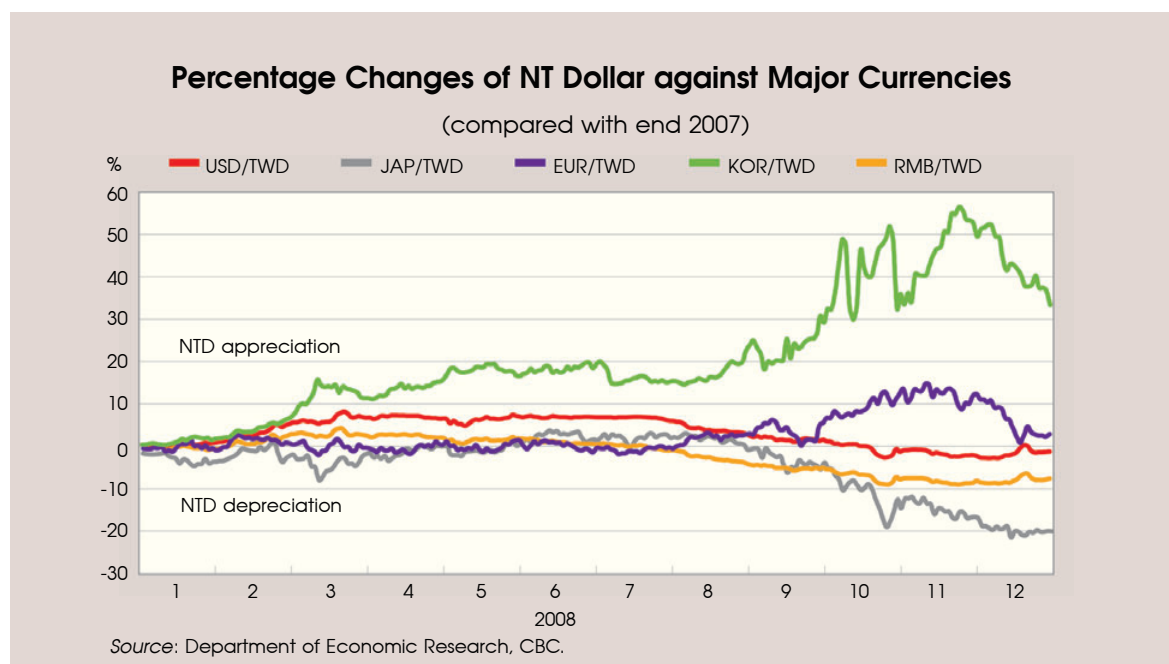
## 5. Foreign Exchange Market

### Moderate Depreciation of the NT Dollar

On a daily average basis, the trade-weighted nominal effective exchange rate index of the NT dollar declined by 3.78 percent in 2008. However, the foreign exchange market had experienced a noticeable fluctuation for the year.

During the first three months, the US dollar weakened because of the continuous rate cuts by the Fed to curb the worsening subprime mortgage crisis. Meanwhile, inflows of capital to Taiwan were fueled by expectations of better political and economic relationships across the Taiwan Strait after the presidential election. The NT\$/US\$ exchange rate appreciated from 32.443 at the beginning of the year to a yearly high of 30.010 on March 26.

The US dollar fluctuated up and down reflecting the mixed message sent by America's better-than-expected economic outcome and surging oil prices. Therefore, the NT\$/US\$ exchange rate moved between 30 and 31 from the end of March to the middle of July. After that, the NT dollar started to depreciate following the outflows of foreign capital from Taiwan in response to the declining stock market. In addition, owing to the bankruptcy of Lehman Brothers and the escalating subprime mortgage crisis, investors tended to hold the US dollar to cope with the high liquidity risk under the crisis. The NT dollar depreciated to 33.550 against



the US dollar on December 4, the lowest level of the year.

However, from the middle of December to the end of the year, expectations of a gloomy American economy forced the Fed to cut the benchmark federal funds rate. In addition, direct shipping and flight links across the Taiwan Strait attracted the inflows of capital. Both factors caused an appreciation of the NT dollar. On December 31, the NT dollar stood at 32.860 against the US dollar, about 1.27 percent weaker than at the end of 2007. However, on a daily average basis, the NT\$/US\$ exchange rate appreciated by 4.20 percent compared with the previous year.

In the first half of 2008, the euro area exhibited relatively strong growth. Hence, the European Central Bank raised interest rates in July to relieve rising inflationary pressure. However, the euro against the NT dollar fluctuated within a narrow range because the NT dollar strengthened as a result of capital inflows during the same period. From July onwards, the euro fell sharply due to the spillover of the American subprime mortgage crisis. At the end of the year, the NT dollar against the euro was 3.02 percent above the level observed one year before. On a daily average basis, the NT dollar depreciated against the euro by 2.87 percent compared with the previous year.

The Japanese yen appreciated against the US dollar for the first two months in 2008 when Japan enjoyed a favorable economic performance and investors unwound their carry trade position in response to the international financial turmoil. Afterwards, the Japanese yen weakened because of diminishing domestic expenditure and trade surplus. The Japanese yen turned strong after August because investors eagerly unwound carry trade under the fierce international economic surroundings. The NT dollar kept stable against the Japanese yen for the first eight months, and then depreciated to 0.3721, a yearly low, on December 12. The NT dollar depreciated markedly against the Japanese yen by 19.78 percent between the end of 2008 and 2007. On a daily average basis, the NT dollar depreciated against the Japanese yen by 8.65 percent when compared with the previous year.

Due to the rapid growth of China's economy, increasing export surplus, and the expectation of an RMB appreciation, the RMB was strong against the NT dollar in 2008. Between the end of 2008 and 2007, the NT dollar depreciated by 7.77 percent against the RMB. On a daily average basis, the NT dollar depreciated by 4.84 percent against the RMB as compared with the previous year.

The Korean won kept weakening against the NT dollar almost all the year. The appreciation of the Korean won attracted capital inflows in 2006 and 2007 and resulted in a substantial increase in external debts. The global financial markets, therefore, expected a financial crisis

emerging in Korea, leading to a severe depreciation of the Korean won. The NT dollar appreciated by 32.85 percent against the Korean won between the end of 2008 and 2007. On a daily average basis, the NT dollar appreciated by 22.40 percent against the Korean won in 2008 when compared with the previous year.

### Increase in Trading in the Foreign Exchange Market

Trading in the Taipei foreign exchange market increased in 2008. After deducting double counting on the part of inter-bank transactions, total net trading volume for the year increased by 4.6 percent from the previous year to US\$4,846.38 billion. The daily average turnover stood at US\$19.31 billion, representing an increase of 3.7 percent over the previous year. The increase in turnover mainly resulted from an expansion of international trade and intensive capital movements. However, transactions in third currencies decreased because countries adopted 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 31.1 percent of the total net turnover, while inter-bank transactions made up a 68.9 percent share, including 17.5 percent for transactions among local banks and 51.4 percent for those between local banks and overseas banks.

As far as traded currencies are concerned, NT dollar trading against foreign currencies accounted for 46.0 percent of the total trading volume, of which the share of NT dollars against US dollars was 42.8 percent. Transactions in third currencies accounted for 54.0 percent of total trading volume, with trading in currency pairs of US dollar-Japanese yen and US dollar-euro accounting for shares of 20.6 percent and 14.2 percent, respectively. Compared with 2007, NT dollar trading against foreign currencies increased by 20.3 percent, but transactions in third currencies decreased by 5.9 percent.

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

Unit: US\$ Million

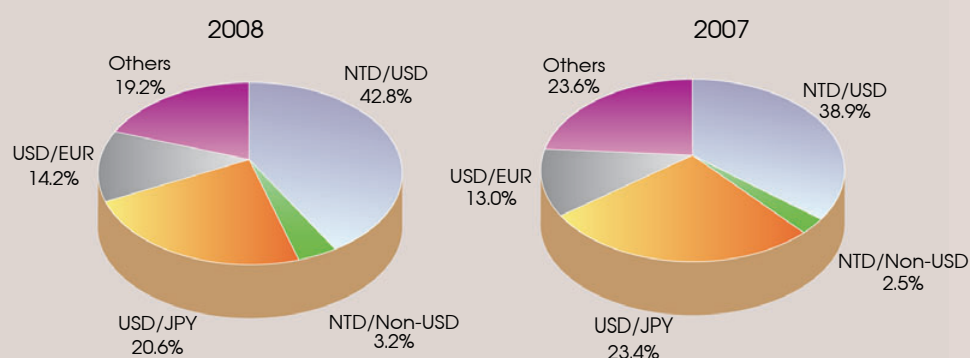
Year	Spots	Forwards	Forex Swaps	Margin Trading	Options	Cross Currency Swaps	Total
2004	1,289,872	273,931	617,577	30,299	350,514	17,764	2,579,955
2005	1,550,731	274,370	823,483	24,378	295,908	39,788	3,008,657
2006	1,910,270	411,182	1,107,646	37,809	396,578	47,353	3,910,838
2007	2,418,963	477,189	1,362,112	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
2007-2008 Growth Rate (%)	1.5	-3.7	13.7	-17.9	1.3	35.1	4.6

Source: Department of Foreign Exchange, CBC.

With respect to transaction types, spot transactions accounted for the highest share of 50.6 percent of total turnover, followed by foreign exchange swaps with a share of 32.0 percent, forwards of 9.5 percent, options of 6.4 percent, cross currency swaps of 0.8 percent, and margin trading of 0.7 percent. Compared with 2007, except for a decrease in forwards and margin trading transactions, the trading volumes of all the other types increased, and cross currency swaps and foreign exchange swaps posted the highest growth rates of 35.1 percent and 13.7 percent, respectively. The main reason was increasing domestic hedging actions in response to the volatile movements of interest rates in 2008.

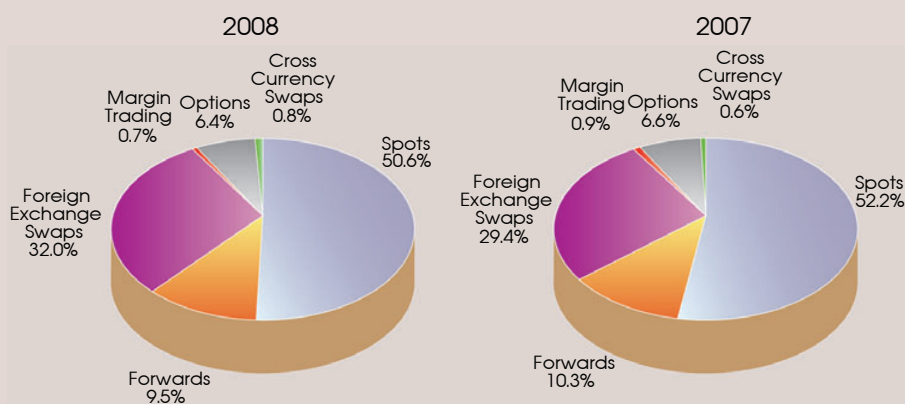
In 2008, the turnover of forwards, swaps and options based on foreign currency interest rates, stock price indices, commodity prices, and credit derivatives amounted to US\$428.08

### 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			
2004	20,020	77,664	45,635	12,500	6,733	—	1,102	168	163,823
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
2007-2008 Growth Rate (%)	45.1	121.2	-49.3	-2.2	157.3	—	-79.9	-31.6	36.7

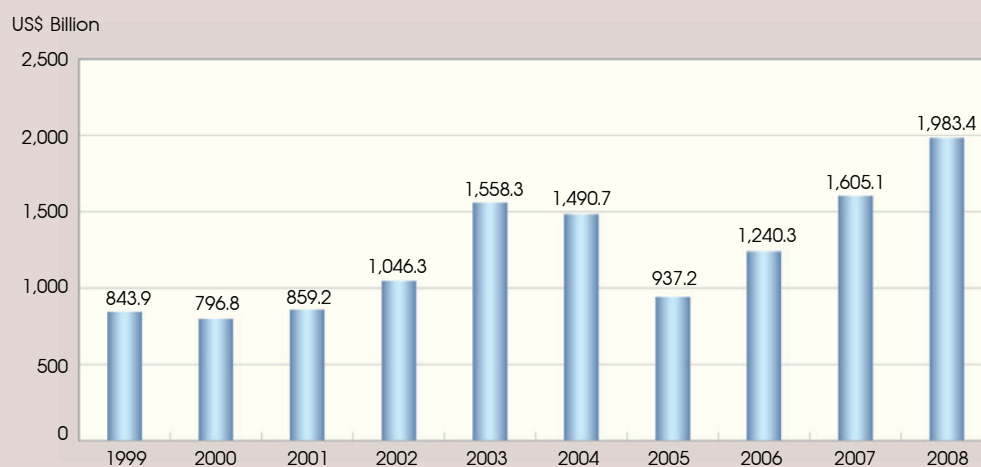
Source: Department of Foreign Exchange, CBC.

billion. Of this amount, interest rate-related derivatives accounted for the lion's share of US \$406.49 billion or 95.0 percent, representing an annual growth rate of 35.4 percent.

## Marked Increase in Transactions in the Foreign Currency Call-Loan Market

The transaction volume in the foreign currency call-loan market in 2008 was US\$1,983.43 billion, an increase of 23.6 percent over the previous year. Of this amount, US dollar transactions accounted for US\$1,969.60 billion, as high as 99.3 percent of the total and about 23.0 percent higher than that in 2007. The increase was mainly because banks used over-night call loans to allocate short-term funds efficiently or to relieve the credit crunch resulting from America's subprime mortgage crisis. Japanese yen transactions totaled ¥ 888.91 billion in 2008, representing a large increase of 2.42 times the figure recorded in 2007, but the share remained rather small

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



Source: Department of Foreign Exchange, CBC.



at only 0.44 percent. The increase in turnover mainly reflected that funds demanders were willing to make use of short-term loans because of the decreasing interest rates in the call-loan market. The amount of euro transactions totaled only 2.89 billion, but representing 1.84 times the figure in the previous year.

### **Moderate Increase in the Assets of Offshore Banking Units**

There were 63 offshore banking units (OBUs) in operation at the end of 2008. Domestic banks operated 36 of the OBUs, while foreign banks ran the other 27 units. Owing to the increases in claims on foreign financial institutions and nonresidents and in portfolio investment, the combined assets of all OBUs reached a historic high of US\$98.63 billion at the end of the year, representing an increase of US\$7.35 billion or 8.1 percent from the previous year-end. Domestic bank OBUs accounted for US\$71.57 billion or 73 percent of these combined assets, and foreign bank OBUs accounted for US\$27.06 billion, or 27 percent of the total. The OBUs' main uses of funds were due from affiliated branches and deposits with financial institutions. These accounted for 49 percent of total assets. Second to these were loans with a share of 33 percent. In terms of fund destination, 60 percent of funds went to Asia, and 24 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 61 percent of total liabilities. These were followed by deposits of non-financial institutions, which accounted for 32 percent of total liabilities. OBUs have been gradually developing into funding centers for overseas Taiwanese firms. In terms of geographical origins, 70 percent of funds came from Asia, and 22 percent from the Americas.

The forex-trading turnover of all OBUs in 2008 was US\$172.61 billion, of which US\$107.79 billion was for spot transactions, US\$37.57 billion for forward transactions, and US\$27.25 billion for foreign exchange swap transactions, increasing by 61.1 percent, 39.3 percent and 13.8 percent, respectively, compared with the previous year. The main reasons were the increases in companies' risk hedging actions and investors' speculation, which reflected expectations over an appreciation of the Japanese yen and a depreciation of the euro and the British pound against the US dollar. The total turnover of other derivative products, including margin trading, options, foreign currency interest rate swaps, financial futures, foreign currency forward rate agreements, cross currency swaps, commodity swaps, and credit derivatives, amounted to US\$30.31 billion, a moderate increase of 11.3 percent over the previous year.

## 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
2004/12	18,066	6,734	37,105	7,314	69,219	18,810	42,688	0	7,721
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	7,169	98,632	31,133	60,198	724	6,577
2007/12-2008/12 Growth Rate (%)	35.7	-9.3	0.7	-5.7	8.1	14.2	7.6	45.1	-13.2

Source: Financial Statistics Monthly, CBC.

## 6. Stock Market

The Taiwan Stock Exchange (TSE) weighted stock price index (TAIEX) closed the year 2008 down 46.0 percent from the end of the previous year. All industrial groups registered a downward trend, with construction and plastics & chemicals industry shares showing the weakest performance. The TAIEX daily average trading value was NT\$104.9 billion, a 21.6 percent decline from the previous year. The GreTai Securities Market (GTSM), an over-the-counter market, weighted stock price index finished the year down 58.3 percent from the end of the previous year, with all industrial group shares dropping. The daily average trading value was NT\$13.2 billion, a drastic fall of 61.8 percent from the previous year.

### The TSE Market

#### Listings Continued to Rise

At the end of 2008, the number of listed companies in the TSE market stood at 718, an increase of 20 from the end of 2007. The par value of shares issued amounted to NT\$5.7 trillion, rising by 2.4 percent from the end of the previous year. The total market capitalization was NT\$11.7 trillion, contracting by 45.6 percent from the end of 2007.

### 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
2006	7,823.7	96.4	142.2	19,377	558.1	-54.3	6.9
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
2008/ 1	7,521.1	139.0	16.0	19,140	-34.4	-4.5	2.3
2	8,412.8	130.1	8.5	21,383	98.3	8.6	12.1
3	8,572.6	152.2	14.7	21,734	-18.4	4.9	4.2
4	8,919.9	156.9	14.6	22,645	-29.3	15.4	18.4
5	8,619.1	140.5	13.5	21,892	13.8	5.0	-6.2
6	7,523.5	96.3	10.6	19,137	-115.9	0.2	-10.6
7	7,024.1	100.1	12.3	17,894	-109.6	6.4	8.8
8	7,046.1	93.0	10.9	17,975	-29.9	10.8	4.7
9	5,719.3	89.1	12.8	14,584	-90.5	-6.1	-2.4
10	4,870.7	56.7	10.1	12,403	-114.6	-5.8	3.8
11	4,460.5	55.7	9.8	11,365	-55.7	-4.7	3.4
12	4,591.2	60.1	11.8	11,707	16.2	13.8	4.8

Notes: \* Refers to end-of-period data.

\*\* Minus sign "-" indicates net sale positions.

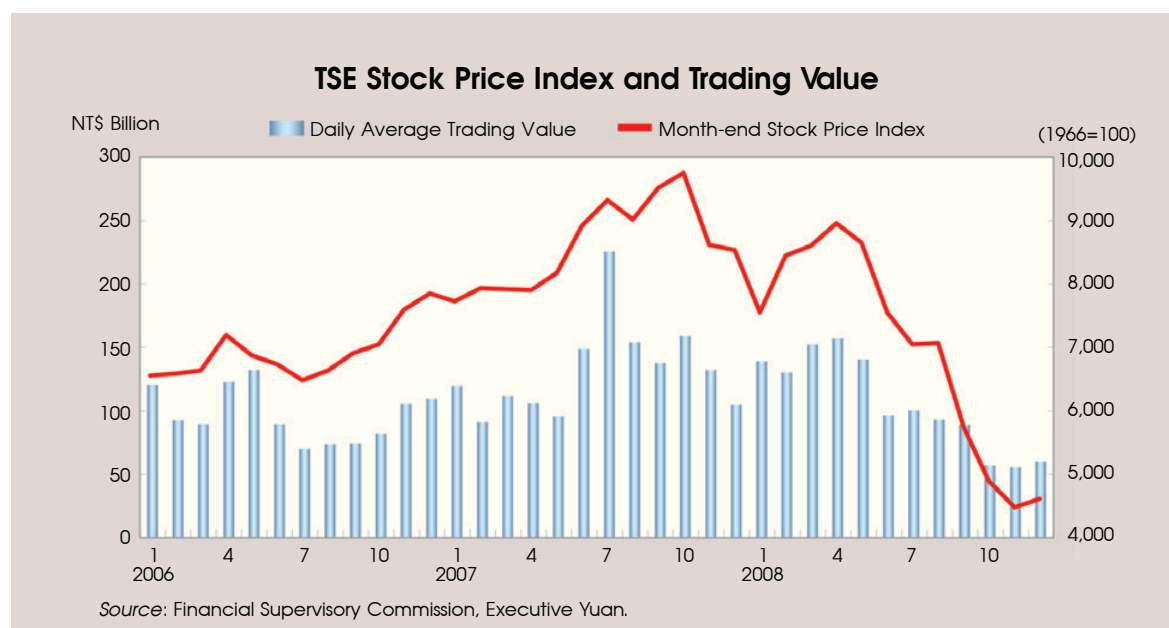
Source: Financial Supervisory Commission, Executive Yuan.

## Share Prices Took a Tumble

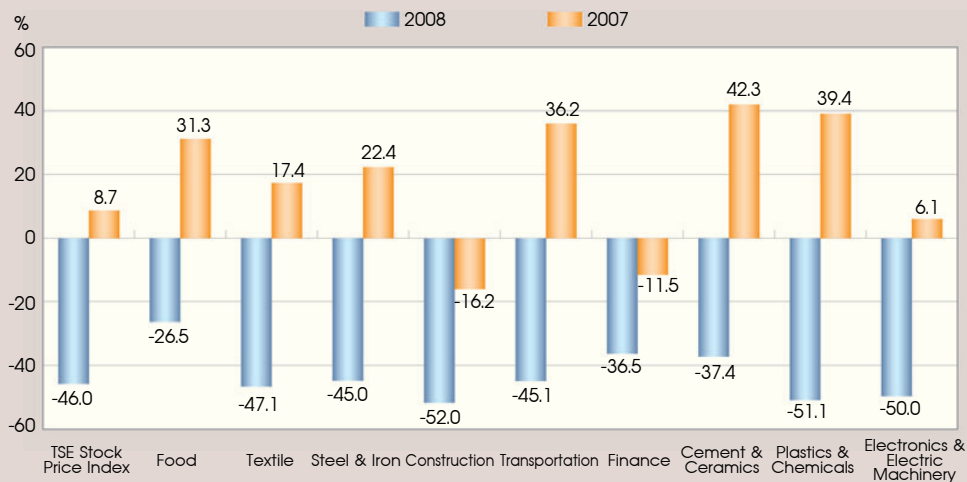
Starting from January, as big international investment banks suffered huge losses and led global stock markets to plummet, TSE shares also felt strains from the massive sell-off by foreign investors and took a plunge. However, the US Fed announced an emergency rate cut of 75 basis points on January 22, boosting global stock markets to rebound. Then in March, the victory of the KMT (Nationalist Party) in the presidential election generated optimism about a warmer cross-strait relationship. Capital inflow poured into domestic market and buoyed TAIEX to firm up to the peak of 9,295 points on May 19.

From then onwards, the optimism for the new government started to lose steam. Coupled with surging global inflationary pressure, the financial turmoil stemming from the financial difficulties of large financial institutions such as Fannie Mae, Freddie Mac, Lehman Brothers, and AIG accelerated to spread out across the world. While global stock markets continued to tumble, more rounds of sell-off by cash-crunching foreign investors led the TAIEX downwards to the all-year low of 4,090 points on November 20. Nevertheless, global stock markets stabilized on several bold rate cuts by central banks around the world. In the domestic scene, fiscal stimulus measures and the launch of the direct cross-strait links brought the TAIEX to recover slowly to 4,591 points on December 31, recording a 46.0 percent decline from the 8,506 points at the year-end of 2007.

All industrial group stock indices registered substantial declines during 2008. This was mainly attributable to the unfolding global financial debacle, the consequential plunge widely seen



### Changes in Industrial Group Stock Price Indices in the TSE Market



Source: TSEC Monthly Review, Taiwan Stock Exchange Corporation.

in global stock markets, and the retreat of foreign investment from the TSE market. Among the industrial groups, construction, plastic & chemical, and electronics & electric machinery stocks suffered the worst fall.

### Turnover Moved to a Decrease

The bullish market trend was reversed in May 2008 and stock prices plummeted. In addition, the government imposed a ban on short-selling and tightened the floor limits on share prices. As a result, the 2008 TAIEX market turnover thinned to a daily average of NT\$104.9 billion, contracting by 21.6 percent from the NT\$133.8 billion of the previous year.

### Massive Sell-off from Foreign Investors

For the year 2008, net sale by foreign investors mounted to NT\$470 billion, a historic high since the deregulation of foreign investment in the stock market. On the other hand, local securities investment trust companies and securities dealers still recorded net buy of NT\$44 billion and NT\$43.3 billion, respectively.

Net equity purchases by foreign investors were only observed in February, May, and December. For February and December, they saw an opportunity of good investment in undervalued stocks on the further subdued TAIEX and the stabilizing global stock markets. For May, the presidential inauguration and the promising outlook of improved cross-Straits relations also encouraged their appetite for the TAIEX stock shares.

However, the faltering financial institutions in the US sent shock waves quickly across Europe and emerging economies, and triggered a worldwide credit crunch. Global stock markets were on a losing streak, and foreign investors thus faced heavy redemption pressures. Against this backdrop, foreign investors turned to a net sale for six consecutive months from June to November as they pulled out of emerging markets including Taiwan.

Along with the sell-off by foreign investors at the beginning of the year, local securities investment trust companies net sold the TSE market shares in January. But they turned to net purchases during the months between February and August on a brighter mid- and long-term investment outlook, backed by the expected thawing of Taiwan-China relations and more liberalized policies after the presidential election. From September to November, though, net sales were recorded as global financial turmoil dragged down international stock markets and local securities investment trust companies had to offload their holdings to cope with redemption pressures. Afterwards, the TAIEX share prices were viewed as overshooting on the downside while local securities investment trust companies took a more bullish position to boost their financial statements at year-end, contributing to a net purchase in December.

Local securities dealers tend to opt for short-swing trading and often net buy on rising prices and net sell on falling prices. They net bought on a market rally between February and April, and net sold in both May and June on weak market performance. From July onwards, local securities dealers had net purchases of the TAIEX shares, except a slight net sale of NT \$2.4 billion in September. This was mostly because a relatively low TSE market attracted the opportunity-seeking securities dealers to buy bargain stocks.

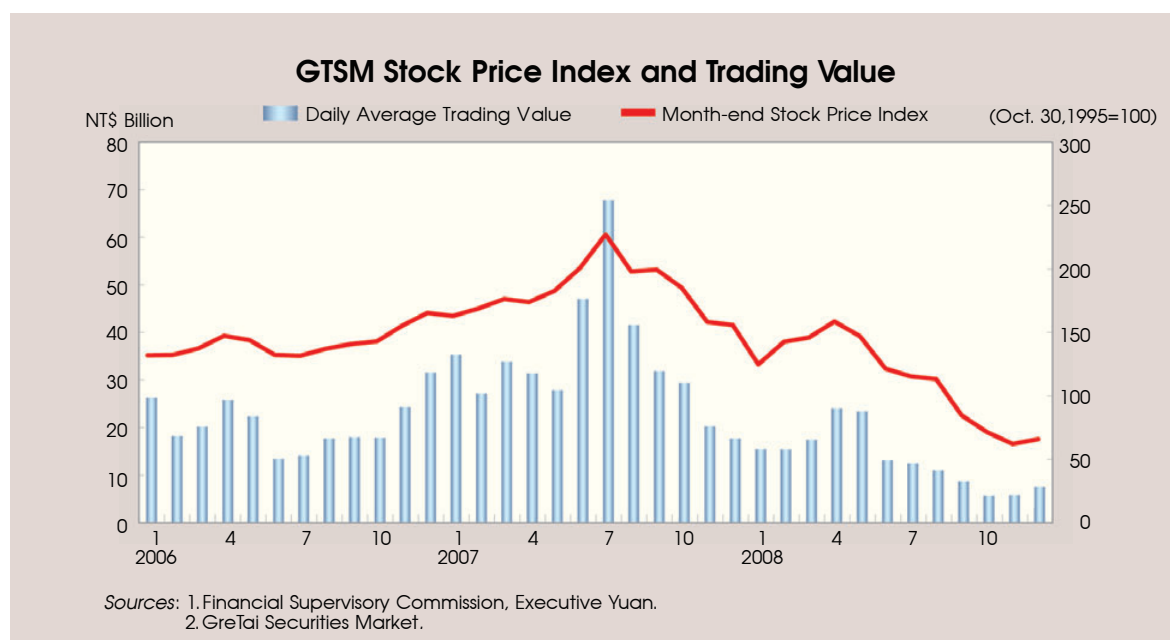
## **The GTSM Market**

### **GTSM Listings Showed the First Decline**

The number of listed companies in the GTSM market fell to 539 at the end of 2008, 8 less when compared to the end of the previous year. It was the first decrease since the GTSM market was established, mainly due to more termination of GTSM listings on account of sluggish business. At the year-end, the par value of total shares amounted to NT\$703.1 billion, 1.6 percent less than the end of last year. Market capitalization reduced drastically by 58.7 percent from the previous year-end to NT\$772.1 billion.

### **Share Prices and Turnover Shrank Markedly**

The GTSM market was severely hit in January by a global stock market slump and the resulting sell-off on the part of foreign and local institutional investors. For the months between February and May, as the government acted to bolster investor confidence ahead of the



presidential election, and then the KMT's win on March 22 sparked optimism about better cross-strait relations, hopeful individual investors continued to buy more shares, spurring the GTSM market to an all-year high of 163.2 points on May 19. For the rest of the year, as global financial crisis deepened, individual investors as well as foreign investors and local securities investment trust companies all turned cold on the GTSM market. The index slipped all the way to an all-year low of 54.9 points on November 20, before rebounding to 64.4 points at year-end, thanks to less volatile international markets and fiscal stimulus measures taken by Taiwan's government. However, the GTSM index still closed the year substantially lower, falling by 58.3 percent when compared to the 154.5 points at the end of 2007.

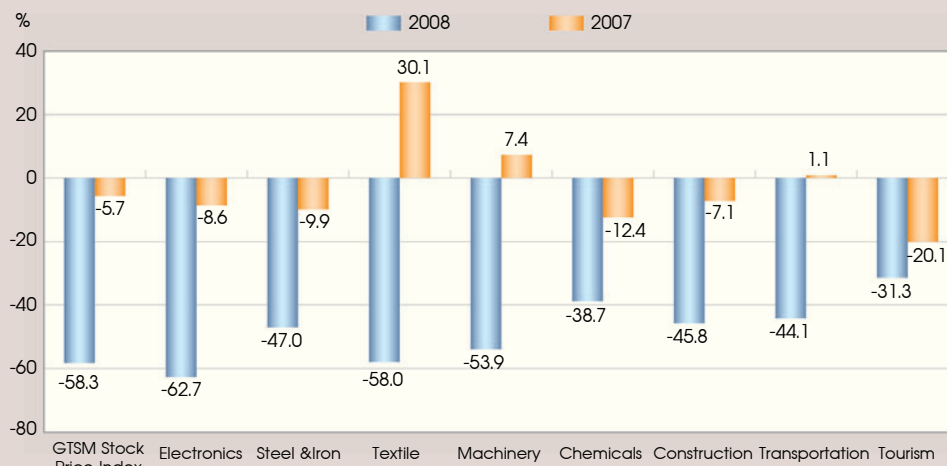
For the year of 2008, foreign investors net sold NT\$25 billion in the GTSM market, while local securities investment trust companies and securities dealers bought a net of NT\$1.8 billion and NT\$5.2 billion, respectively. The daily average turnover in the GTSM market was NT\$13.2 billion, a sharp decline of 61.8 percent from the previous year's NT\$34.6 billion.

### Key Measures for the Stock Market

The following important measures for the stock market were enacted in 2008:

- (1) On February 5, the Financial Supervisory Commission (FSC) approved an enhancement of block trading system proposed by the TSE, including an additional pairs trading session between 8:00 am and 8:30 am before the stock market opens and a reduction of price increment for block trading to NT\$0.01.

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



Source: GreTai Securities Market.

- (2) On March 18, in a related action to promote foreign enterprises' listing on the TSE market, the FSC relaxed restrictions on securities firms trading offshore company securities. According to the FSC, the total shares of any foreign company held by a securities firm shall not exceed 5 percent of the total shares issued by the foreign company, and the total acquiring cost of the securities issued by any foreign company held by a securities firm shall not exceed 10 percent of its capital net worth.
- (3) On June 27, the TSE recognized the Hong Kong Stock Exchange (HKSE) as one of the acknowledged foreign stock exchanges, a move to attract offshore Taiwanese and foreign companies to list on the TSE market. Accordingly, an HKSE listed offshore Taiwanese or foreign company may issue Taiwan Depositary Receipts (TDRs) in Taiwan or seek a second listing on the TSE market.
- (4) On July 14, the FSC notified that investment in the China market securities by an offshore mutual fund raising money in the local market shall be publicly listed securities, of which the total investment amount shall not exceed 10 percent of the net asset value of the fund.
- (5) On July 30, the FSC relaxed restrictions on investing in the China market with the capital raised by issuing new stocks or corporate bonds. In addition, the FSC lifted the ban on investing in the China market with capital raised by an issuer when registering a planned offering and issuance of overseas securities with the FSC.



- (6) On September 21, the FSC announced that in order to boost the stock market, it would impose a ban on the short-selling of stocks below their previous session's close. This measure, in force from September 22 to October 3, applied to a selection of 150 domestic stocks, including those in the Taiwan 50 Index, the Taiwan Mid-Cap 100 Index, and the TSEC Taiwan Technology Index.
- (7) On September 30, the FSC took another action to help relieve the stock market from bearish pressure by temporarily banning the short-selling of all stocks, effective between October 1 and October 14. Under this measure, investors would not be allowed to sell short through securities borrowing and lending (SBL) system and margin selling for stocks of all listed companies in the TSE and GTSM markets, including short-selling of stocks above their last closing prices.
- (8) On October 12, the Executive Yuan took the following measures to stabilize the stock market: (a) to halve the price-fall limit to 3.5 percent, effective from October 13 to 17; (b) to extend the temporary ban on short-selling of all stocks from its initial expiry date of October 14 to December 31; (c) to coordinate with the management committee of the National Stabilization Fund to continue its intervention so as to prop up the stock market.
- (9) On November 27, the FSC announced that starting from November 28, the ban on short-selling of stocks above the last closing prices through SBL system and margin selling was lifted (but short-selling of stocks below their last closing prices remained banned). Nevertheless, Exchange Traded Funds (ETFs) and short-selling through securities borrowing and lending for the purpose of hedging by securities and futures firms may be exempted.
- (10) The FSC announced on December 4 that it had drafted the Regulations Governing Securities Investment and Futures Trading in Taiwan by Mainland China Area Investors. In accordance with the new regulations, qualified domestic institutional investors (QDII) in China may conduct securities investment and futures trading in Taiwan.
- (11) On December 31, the FSC announced that it would lift the ban on the short-selling below the last closing prices of 150 domestic stocks, including those in the Taiwan 50 Index, the Taiwan Mid-Cap 100 Index, and the TSEC Taiwan Technology Index. In the same announcement, the FSC also resumed the original rules governing the total volume of sales of margin selling and securities borrowing and lending.

## 7. Bond Market

In 2008, amid the global financial turmoil and its economic fallout, investors sought a safe haven in bond markets. New issues of bonds reached NT\$1,346.1 billion, a slight decrease of 2.69 percent from the previous year. Among them, corporate bonds gained significant momentum, as the credit rating spread widened, prompting state enterprises and other highly rated enterprises to increase bond issues to lock in low issuing costs. Banks slashed their issues of bank debentures except to meet capital requirements as they tightened credit and enhanced risk aversion. Issues of asset securitization also shrank due to the spillover of the global financial crisis and a slowing domestic housing market.

Despite the decrease in new bond issues, the outstanding amount continued to climb a new high of NT\$6,164.6 billion at the end of 2008. Government bonds accounted for the largest share with 60.61 percent of the total. Corporate bonds followed with 18.44 percent, bank debentures with 14.54 percent, beneficiary securities on asset securitization with 5.40 percent, and foreign and international bonds with 1.01 percent.

In the secondary market, capital inflows fueled by a local currency appreciation led to a bullish sentiment early in the year. Bond yields turned rising after the presidential election in March as stock markets and inflation both heated up, but fell in the second half of the year amid the global economic downturn. The decline accelerated after September with the Bank's successive rate cuts. Five-year government bonds recorded the largest drop of 145.61 basis points over the year. Bond transactions declined by 30.15 percent from the previous year to NT\$135,509.5 billion in 2008, mainly due to a lack of investment vehicles and the concentration of holdings for government bonds.

With respect to fixed income and quasi money market funds, net assets increased by 18.15 percent to NT\$942.7 billion over the year to the end of 2008.

### **Increase in Government Bond Issues**

Government bond issues amounted to NT\$438.7 billion in 2008, an increase of NT\$36.5 billion or 9.08 percent from the previous year. The Ministry of Finance issued a total of NT\$410 billion in central government bonds, an increase of NT\$16.8 billion or 4.27 percent from the previous year, mainly to support infrastructure projects. Of this amount, ordinary government bonds and stripped government bonds accounted for NT\$350 billion and NT\$60 billion, respectively. Local governments issued a sum of NT\$28.7 billion in bonds, primarily to repay maturing debts.

## 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
2006	1,220.1	5,887.6	440.0	3,239.3	28.0	145.4	230.1	1,151.4	172.5	925.9	337.8	342.4	11.7	83.2
2007	1,383.3	6,047.9	393.2	3,410.0	9.0	109.8	162.6	1,104.6	192.5	917.4	617.5	426.2	8.5	79.9
2008	1,346.1	6,164.6	410.0	3,609.7	28.7	126.5	287.3	1,136.9	161.2	896.0	457.6	333.0	1.3	62.5
2008/1	108.3	6,014.7	40.0	3,380.0	12.0	121.7	1.7	1,090.1	21.2	929.6	33.4	424.2	—	69.1
2	95.6	6,031.1	30.0	3,410.0	—	121.7	3.7	1,089.6	3.0	921.1	58.9	419.6	—	69.1
3	100.6	6,066.8	40.0	3,449.9	—	119.7	1.6	1,082.7	16.1	933.3	42.9	415.0	—	66.2
4	119.2	6,119.1	35.0	3,484.9	6.7	126.3	19.5	1,086.1	29.0	946.0	29.0	410.6	—	65.2
5	134.9	6,126.3	30.0	3,479.9	—	126.3	20.9	1,083.3	28.3	969.5	55.7	402.1	—	65.2
6	147.8	6,156.3	35.0	3,514.9	—	126.3	43.6	1,062.4	26.0	991.0	43.2	396.5	—	65.2
7	73.0	6,124.8	30.0	3,499.8	—	126.1	18.2	1,058.3	1.1	986.3	23.7	390.1	—	64.2
8	94.8	6,115.4	30.0	3,529.7	—	116.6	11.9	1,048.7	—	982.9	52.9	373.3	—	64.2
9	119.0	6,122.7	40.0	3,539.7	10.0	126.6	18.1	1,051.4	7.9	968.7	43.0	372.1	—	64.2
10	69.7	6,107.1	30.0	3,539.7	—	126.6	9.1	1,054.5	4.8	956.7	25.8	368.4	—	61.2
11	99.7	6,105.7	30.0	3,569.7	—	126.5	34.5	1,070.1	—	929.0	35.2	349.2	—	61.2
12	183.7	6,164.6	40.0	3,609.7	—	126.5	104.7	1,136.9	23.8	896.0	13.9	333.0	1.3	62.5

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.

The outstanding amount of government bonds continued to climb to a new high of NT \$3,736.2 billion at the end of 2008, an increase of NT\$216.4 billion or 6.15 percent from the previous year-end.

### Large Increase in Corporate Bond Issues

New issues of corporate bonds reached NT\$287.3 billion in 2008, a large increase of NT \$124.7 billion or 76.69 percent from the previous year. Although the demand for funds from enterprises was relatively weak, the credit rating spread continued to widen. The latter prompted state enterprises and other highly rated enterprises to increase bond issues to lock in low issuing costs. The state-owned Taiwan Power Company, the private Formosa Plastics Group and China Steel issued NT\$67 billion, NT\$61 billion and NT\$29.6 billion in bonds, respectively, while financial holding companies, including Cathay Financial Holdings, Mega Holdings and Shin Kong Financial Holding, issued a total of NT\$56.2 billion during the year.

In terms of different bond types, unsecured corporate bonds and secured corporate bonds accounted for 69.35 percent and 30.65 percent of the total amount issued, respectively. Convertible corporate bonds only made up 10.93 percent, a major decrease of 27.37 percentage points from the previous year, affected by a decline in stock markets.

The outstanding amount of corporate bonds stood at NT\$1,136.9 billion at the end of 2008, an increase of NT\$32.3 billion or 2.92 percent from the previous year-end. The issuing rates on

3-year, 5-year and 7-year corporate bonds averaged 2.5375 percent, 2.5473 percent and 2.9371 percent, respectively, all of which were slightly higher than the previous year.

### **Marked Decrease in Bank Debenture Issues**

In 2008, domestic banks issued a total of NT\$161.2 billion in bank debentures, a marked decrease of NT\$31.3 billion or 16.26 percent from the previous year. Bank debentures issued during the first half of 2008 accounted for 76.68 percent of the total amount, as banks took actions to avoid rising issuing costs under inflationary expectations. However, in the second half of the year, banks tightened credit and reduced debenture issues except to raise their capital adequacy ratios or to repay maturing debts.

The outstanding amount of bank debentures was NT\$896 billion at the end of 2008, a decrease of NT\$21.4 billion or 2.33 percent from the previous year-end. As more than 80 percent of bank debentures are subordinated debt securities, limited purchasers, on top of the risk premium required by investors, made the issuing rates more volatile. Nevertheless, the weighted average issuing rates in 2008 were still slightly lower or remained flat compared with the previous year.

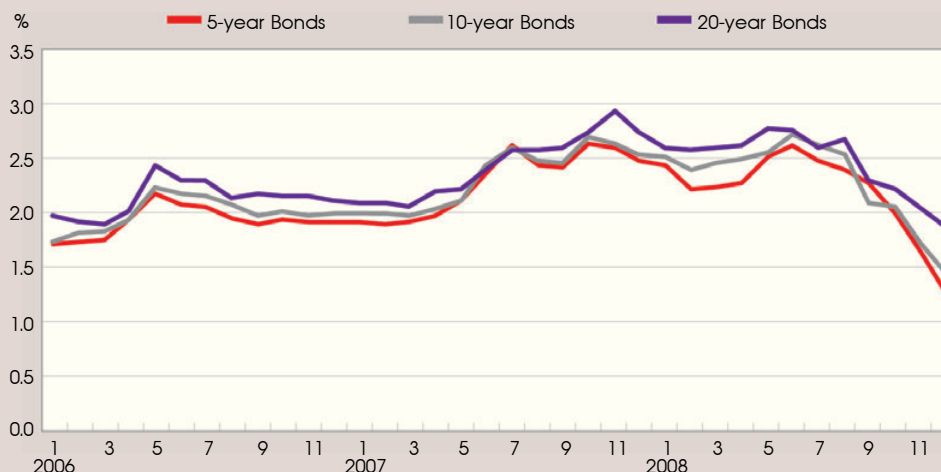
### **Decline in Asset Securitization**

In 2008, asset securitization declined significantly reflecting the influence of the global financial crisis and the slowdown in the domestic housing market. Issues of beneficiary securities on asset securitization amounted to NT\$457.6 billion, a large decrease of NT\$159.9 billion or 25.89 percent from the previous year. Their share in total bond issuance also went down by 10.65 percentage points from the previous year to 33.99 percent. Of the components, issues of financial asset securitization reached NT\$454.1 billion in 2008, representing a 24.88 percent decrease from the previous year. There were no new issues of real estate securitization in the year and the outstanding amount was NT\$333 billion at the year-end, a 21.87 percent decrease from the previous yearend.

### **New Foreign Bond Issuance**

There was one foreign bond (NT dollar-denominated bonds issued by a foreign entity) issuance in 2008. The Central American Bank for Economic Integration issued NT dollar-denominated bonds in Taiwan with a total worth of NT\$1.3 billion and an issuing rate of 2.6 percent, accounting for a mere 0.10 percent of total bond issuance. At the end of 2008, foreign bonds and other international bonds (foreign currency-denominated bonds issued in Taiwan) combined to an outstanding balance of NT\$62.5 billion, a decrease of 21.78 percent from the previous yearend.

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



### Lackluster Transactions in the OTC Market

In early 2008, the bond market exhibited a bullish sentiment as a significant appreciation of the NT dollar attracted capital inflows. After the presidential election in March, bond yields rose from the earlier decline as stock markets and inflation both heated up. In the middle of June, the yield on benchmark 10-year government bonds rebounded to a four-year high of 2.8247 percent as raw material prices surged and bond investors turned conservative.

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

Unit: NT\$ Billion

Year/ Month	Total	Outright Transactions		Repurchase Agreement Transactions	
		Amount	Share (%)	Amount	Share (%)
2006	275,833.3	169,992.0	61.6	105,841.3	38.4
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
2008/1	15,267.1	7,713.7	50.5	7,553.4	49.5
2	9,964.3	4,857.0	48.7	5,107.3	51.3
3	16,350.3	9,318.1	57.0	7,032.2	43.0
4	14,830.3	7,953.5	53.6	6,876.8	46.4
5	11,088.4	4,689.8	42.3	6,398.6	57.7
6	10,288.4	4,148.6	40.3	6,139.8	59.7
7	8,872.8	2,664.5	30.0	6,208.3	70.0
8	9,745.7	3,914.3	40.2	5,831.4	59.8
9	10,380.7	4,090.8	39.4	6,290.0	60.6
10	9,798.5	3,253.6	33.2	6,544.9	66.8
11	8,502.2	3,124.8	36.8	5,377.4	63.2
12	10,421.0	4,020.3	38.6	6,400.7	61.4

Source: Taiwan Securities Exchange & GreTai Securities Market.

## Turnover in Bond Market by Category

Unit: NT\$ Billion

Year/ Month	Total	TSE Market Corporate Bonds (Convertible)	Gre Tai Market						
			Subtotal	Government Bonds	Corporate Bonds		Bank Debentures	Beneficiary Securities	Foreign & int'l bonds
					Nonconvertible	Convertible			
2006	275,833.3	0.1	275,833.2	273,496.1	960.9	615.0	518.8	133.9	108.5
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
2008/1	15,267.1	—	15,267.1	15,115.6	9.6	94.9	40.9	6.1	—
2	9,964.3	—	9,964.3	9,869.7	11.7	57.8	4.6	13.8	6.7
3	16,350.3	—	16,350.3	16,188.5	16.4	92.7	22.9	22.3	7.5
4	14,830.3	—	14,830.3	14,702.6	36.3	71.1	11.9	0.0	8.4
5	11,088.4	—	11,088.4	10,962.5	31.8	67.6	19.0	0.0	7.5
6	10,288.4	—	10,288.4	10,133.6	28.4	74.0	27.3	17.5	7.6
7	8,872.8	—	8,872.8	8,740.3	35.5	86.1	5.5	—	5.4
8	9,745.7	—	9,745.7	9,647.3	14.4	71.1	0.8	5.5	6.6
9	10,380.7	—	10,380.7	10,204.5	47.7	72.2	30.8	16.8	8.8
10	9,798.5	—	9,798.5	9,630.9	66.6	75.0	10.0	0.0	16.0
11	8,502.2	—	8,502.2	8,382.9	56.9	54.0	5.4	—	3.0
12	10,421.0	—	10,421.0	10,175.6	147.2	66.3	26.4	—	5.5

Source: Taiwan Securities Exchange &amp; GreTai Securities Market.

From July 2008 onwards, bond yields embarked on a downward trend amid a world economy mired in the aftereffect of the US mortgage crisis and gloomy local stock markets. Starting in September, the Bank engaged in monetary easing with successive rate cuts and an expansion of the scope of repurchase agreement (repo) transactions. Short-term interest rates had since come down quickly, and hence the decline in bond yields had accelerated. Among the different maturities, the bond yield on 5-year government bonds posted the steepest decline over the year, plunging by 145.61 basis points to 1.0259 percent at the year-end. During the same period, the bond yield on 10-year government bonds decreased from 2.5686 percent

## 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
2006	1,101.5	261.0	23.7	608.5	55.2	209.2	19.0	22.8	2.1
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
2008/ 1	848.3	156.1	18.4	407.7	48.1	262.6	31.0	21.9	2.6
2	871.3	156.9	18.0	400.2	45.9	293.7	33.7	20.4	2.3
3	916.6	154.4	16.8	393.9	43.0	346.3	37.8	22.1	2.4
4	948.9	155.1	16.3	375.5	39.6	387.7	40.9	30.6	3.2
5	926.2	153.5	16.6	321.9	34.8	422.1	45.6	28.6	3.1
6	903.7	146.4	16.2	313.2	34.7	422.4	46.7	21.7	2.4
7	931.5	139.1	14.9	311.4	33.4	460.5	49.4	20.6	2.2
8	901.5	139.1	15.4	264.0	29.3	483.6	53.6	14.8	1.6
9	749.8	127.0	16.9	188.6	25.2	431.6	57.6	2.7	0.4
10	686.6	114.2	16.6	229.8	33.5	340.2	49.5	2.3	0.3
11	746.9	107.4	14.4	265.3	35.5	371.5	49.7	2.7	0.4
12	942.7	101.3	10.8	374.1	39.7	448.4	47.6	18.9	2.0

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

to 1.3748 percent, while that on 20-year government bonds decreased from 2.7428 percent to 1.8522 percent.

In 2008, total bond transactions in the OTC market contracted by NT\$58,496.0 billion or 30.15 percent from the previous year to NT\$135,509.5 billion. Of the components, outright transactions decreased by NT\$34,038.6 billion or 36.29 percent from the previous year. Repo transactions decreased by NT\$24,457.4 billion or 24.40 percent. Regarding the different bond types, government bonds continued to be the most actively traded, making up 98.71 percent of total bond transactions. Compared with the previous year, however, government bond transactions shrank by NT\$58,487.7 billion or 30.42 percent, mainly due to a lack of investment vehicles and the concentration of holdings in the hands of large traders. The second most actively traded were corporate bonds. Their total transactions increased by only 3.02 percent from the previous year, constrained by the shrinkage in convertible corporate bond transactions. In addition, bank debenture transactions expanded by 20.19 percent over the previous year.

### **Expansion in Fixed Income and Quasi Money Market Funds**

Fixed income and quasi money market funds are considered less volatile with more stable returns. Hence during the financial market turmoil in 2008, they became popular targets among risk averse investors. At the year-end, there were two fixed income funds and 49 quasi money market funds amounting to total assets of NT\$942.7 billion, an increase of NT\$144.8 billion or 18.15 percent over the year-ago level. In terms of their portfolio composition, nearly 90 percent of fund assets were allocated to time deposits and repo transactions. The ratio of outright bond purchases had continued to decline over the years and accounted for roughly 10 percent of the total portfolio at the end of 2008.



# Central Bank Operations





## III. Central Bank Operations

### 1. Overview

In the year 2008, the Bank undertook a series of monetary policy actions in response to economic and financial developments. In the first half of the year, prices stepped up due to surging international energy and raw material prices. To maintain price stability, the Bank conducted fine-tuning rate hikes by a total of 25 basis points and raised the reserve requirement on NT dollar deposits. In the second half of the year, as the global financial turmoil intensified and sparked worldwide recession, economic situation at home suffered a significant downturn, accompanied by deteriorating unemployment. In light of subsiding inflationary pressure, the Bank shifted to monetary easing, lowering the policy rates five times by a total of 162.5 basis points.

To ensure that liquidity remained sufficient to sustain financial stability, the Bank reduced required reserve ratios on NT dollar deposits and expanded the scope of its repurchase agreements operations. The Bank also helped to strengthen the Small and Medium Enterprise Credit Guarantee Fund of Taiwan to share banks' credit risk, and requested banks to switch the frequency of lending rate reviews from quarterly to monthly to more promptly reflect the Bank's rate cuts and thus enhance monetary policy transmission. In addition, the Bank urged banks to continue to extend credit to fulfill their financial intermediary function.

In terms of foreign exchange management, the Bank continued to relax restrictions on foreign exchange business. To reduce the interest rate differentials between NT dollar and foreign currency-denominated deposits, the Bank lowered the required reserve ratios on foreign currency deposits. In addition, the Bank authorized fourteen financial institutions to commence Chinese renminbi exchange business, making renminbi conversion available in Taiwan.

The Bank continued to facilitate the efficiency of the payment system. Interbank transactions of book-entry government bonds were incorporated into the CBC Interbank Funds-Transfer System (CIFS) and were all processed on a DVP basis. The Bank also agreed the Taiwan Stock Exchange's decision to allow bulk trades to be settled via the CIFS. Three buy-backs of book-entry treasury bills were conducted to help the Treasury lessen the interest burden.

To promote the sound operation of financial institutions and safeguard financial stability, the Bank established a financial stability evaluation framework. In 2008, the Bank began publishing Financial Stability Report and launched a study project to develop an approach to stress-testing Taiwan's financial system.

## 2. Monetary Management

In the first half of 2008, the Bank's monetary management focused on policy tightening to address upside risks to domestic inflation. Later, as the US subprime mortgage debacle had evolved into a global financial crisis, the Bank then shifted its monetary policy stance to monetary easing. The Bank also maintained an appropriate level of liquidity in the banking system, while promoting preferential loans and enhancing the financing mechanism for small and medium-sized enterprises (SMEs).

### Changing Monetary Policy Stance

In the first half of 2008, a worldwide surge in energy and raw material prices posed upside risks to domestic inflation. To maintain price stability and dampen inflation expectations, the Bank raised the policy rates twice by a total of 25 basis points. However, in the second half of the year, a financial crisis triggered by the US subprime mortgage debacle led to an international economic slowdown. As a result, both external and internal demands declined considerably. To reduce funding costs for businesses and to boost domestic consumption and investment, the Bank adopted expansionary monetary policies and cut its policy rates 5 times by a total of 162.5 basis points. At the end of 2008, the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral were 2 percent, 2.375 percent, and 4.25 percent, respectively.

### Central Bank Interest Rates

Unit: %

Effective Date	Discount Rate	Accommodation Rate with Collateral	Accommodation Rate without Collateral
2006 / Mar. 31	2.375	2.750	4.625
June 30	2.500	2.875	4.750
Sept. 29	2.625	3.000	4.875
Dec. 29	2.750	3.125	5.000
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

Source: Financial Statistics Monthly, CBC.

## Adjusting Required Reserve Ratios

To curb a run-up in domestic prices in the first half of 2008, the Bank also raised the required reserve ratios on NT dollar demand deposits and on NT dollar time deposits by 1.25 percentage points and 0.75 percentage points, respectively, effective from July 1, 2008.

To induce commercial banks to adjust their deposit structures and lower the liquidity of overall outstanding deposits, the Bank adjusted the remuneration rates on banks' B reserve accounts. Originally, a uniform rate of 1.5 percent per annum was offered to the B reserve accounts with the Bank, regardless of the types of deposits. Effective from April 1, 2008, reserves in banks' B accounts from demand deposits would receive an annual rate of 0.25 percent, and those from time deposits would receive 2.75 percent. Later, more adjustments were adopted to reflect changes in commercial banks' deposit rates following the Bank's rate cuts. And, effective December 15, reserves in banks' B accounts from demand deposits would be remunerated at an annual rate of 0.275 percent, while those from time deposits would be offered a annual rate of 1.421 percent.

### Required Reserve Ratios on NT Dollar Deposits

Unit: %

	Checking Deposits	Passbook Deposits	Savings Deposits		Time Deposits
			Passbook	Time	
2008/7/1	12.000	11.025	6.750	4.750	5.750
2008/9/18	10.750	9.775	5.500	4.000	5.000

Source: Financial Statistics Monthly, CBC.

### Remuneration Rates on Required Reserve in B Account

Unit: %

Date	Demand Deposits	Time Deposits
2008/4/1	0.250	2.750
2008/11/3	0.374	2.423
2008/11/11	0.374	2.173
2008/12/15	0.275	1.421

Source: Department of Banking, CBC.

## Absorbing Excess Liquidity through Open Market Operations

The Bank issues certificates of deposit (CDs) and conducts open market operations to maintain banking sector's liquidity at an appropriate level. In 2008, the total value of CDs issued amounted to NT\$19,292 billion. At the end of the year, the total outstanding amount of CDs issued by the Bank was NT\$4,335 billion. In response to liquidity shock from the global

financial crisis, the Bank also conducted repurchase agreement transactions to provide ample liquidity to domestic financial institutions. For the year 2008, the Bank released a total of NT\$78.4 billion to accommodate temporary demand for funds from commercial banks.

The Bank also announced its non-competitive bidding rates for new CD issuance to guide market interest rates in line with policy rate changes. In the first half of 2008, the 30-day CD

### Open Market Operations

Unit: NT\$ Billion; %

Year/ Month	Amount Absorbed*	Amount Offered*	Weighted Average Rate on CDs Issued				
	Issues of CDs	Redemptions of CDs	1-30 days	31-91 days	92-182 days	274-364 days	2 years
2006	13,526	13,290	1.55	1.63	1.69	1.84	—
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	—
2008 / 1	1,426	1,531	2.05	2.13	2.23	—	—
2	1,433	1,002	2.05	2.13	2.23	—	—
3	1,229	1,076	2.05	2.13	2.23	2.20	—
4	1,696	1,524	2.07	2.15	2.25	2.24	—
5	1,432	1,396	2.07	2.15	2.25	2.29	—
6	1,064	1,322	2.08	2.17	2.27	2.39	—
7	1,659	1,886	2.12	2.21	2.31	—	—
8	1,440	1,547	2.12	2.21	2.31	2.31	—
9	1,411	1,175	2.11	2.20	2.30	2.22	—
10	2,273	2,065	1.98	2.07	2.17	—	—
11	1,799	1,650	1.67	1.77	1.90	—	—
12	2,509	2,322	1.25	1.26	1.34	—	—

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
2006 / Mar. 21	1.520	1.590	1.670
June 30	1.590	1.660	1.740
Sept. 29	1.660	1.730	1.810
Dec. 29	1.690	1.760	1.840
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

Note: \* The auction rates on 364-day or above CDs are not shown on this table.

Source: Press Releases on Open Market Operations, CBC.

rate moved up from 2.04 percent to peak at 2.12 percent on June 27, reflecting the tight monetary policy stance amidst mounting inflation risks. From then onwards, the CD rate gradually went down to a low of 1.02 percent on December 12, in step with the Bank's monetary easing.

### **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 2008, outstanding postal savings redeposits amounted to NT\$1,582 billion. At the same time, banks' redeposits was NT\$380 billion.

In addition, the Taiwan Cooperative Bank, the Land Bank of Taiwan and the Agricultural Bank of Taiwan, were allowed to accept deposits from community financial institutions and make redeposits with the Bank. At the end of 2008, their outstanding redeposits was NT\$115 billion.

### **Promoting Preferential Loans**

To help encourage the real estate market and relieve the mortgage burden on home buyers, the Bank, the Ministry of Finance and the Ministry of the Interior jointly initiated a preferential mortgage loan program in August 2000. After having expanded this program 6 times since its inauguration, the total amount of the loanable funds under this program increased to NT\$1,800 billion. By September 21, 2008, the date the program expired, NT\$1,662.9 billion of the loanable funds had been appropriated to 869,575 households.

The Bank also assisted a new NT\$200 billion preferential loan program launched by the Ministry of the Interior on September 22. At the end of the year, NT\$74.5 billion of the loanable funds had been obtained by a total of 28,109 households.

In addition, the Bank continued to provide subsidies to victims of the earthquake in 1999 for interest payments on their mortgage loans. As of the end of 2008, a total of NT\$67.4 billion loans had been approved for 35,013 housing units under this program.

### **Enhancing the SME Financing Mechanism**

To provide easier access to financing for SMEs, the Bank continued to promote the dual-track guarantee system to assist SMEs in obtaining loans. In addition, since June 2003, the Bank has monitored banks' performance of SME financing on a monthly basis to encourage banks to extend loans to SMEs. At the end of 2008, the outstanding guarantees and loans extended to SMEs by domestic banks were NT\$310.8 billion and NT\$3,137.6 billion, respectively.

## **Modifying Mortgage Rates and Loan Rate Adjustment**

To ensure market rates reflect the Bank's monetary policy stance and to improve the monetary policy transmission mechanism, the Bank urged commercial banks to conduct mortgage and business loan rate adjustment more frequently. Banks also agreed to allow this type of loan holders to convert to the new scheme, where rates on mortgages and base-rate pricing business loans would be adjusted on a monthly basis, instead of a quarterly or semiannual one in the original contracts.

## 3. Foreign Exchange Management

### Foreign Exchange Market Management

The NT dollar 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 hot money), causing the exchange rate to become excessively volatile, the Bank may step in to maintain an orderly foreign exchange market.

In the beginning of 2008, Taiwan faced imported inflation pressure. Fortunately, the NT dollar appreciation effectively offset the pressure on domestic inflation. On March 26, the NT\$/US\$ exchange rate appreciated up to a high of 30.010, and then turned to a process of slow depreciation. Later, however, the US subprime mortgage crisis caused a worldwide economic downturn, which resulted in consecutive months of negative export growth for Taiwan and thus a large depreciation of the NT dollar. At the end of the year, the NT\$/US\$ exchange rate was 32.860, which fell by 1.27 percent from last yearend. However, the NT\$/US\$ exchange rate was relatively stable as compared to major international currencies.

To monitor the 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.

### Enlargement of Foreign Exchange Market

To enlarge the scale of the foreign exchange market, the Bank authorized another 123 branches of local banks to conduct foreign exchange business in 2008. By the end of 2008, there were in total of 1,333 authorized foreign exchange banks. In addition, another 74 non-authorized foreign exchange banks were approved to buy/sell foreign currency banknotes and traveler's checks during the year.

The Bank continued to approve new financial products and promote foreign exchange derivatives business by expanding the permissible scope via the negative list approach. For the year 2008, banks introduced 26 new financial products, which effectively promoted bank

services and diversified foreign exchange trades.

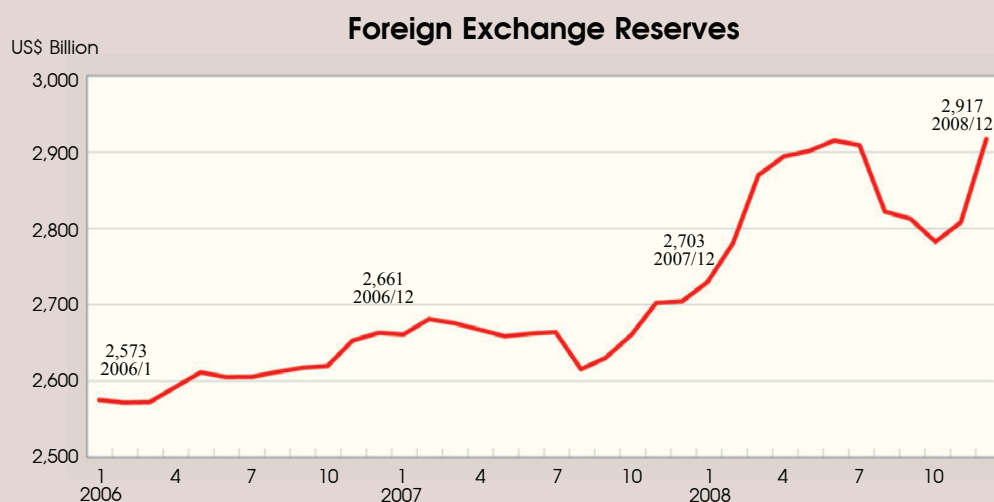
Due to an increase in the number of market participants and product diversity, the daily average transaction amount of the Taipei foreign exchange market further increased to US \$20 billion in 2008, 6.4 percent higher than the US\$18.6 billion of the previous year.

In order to provide the financial system with sufficient foreign currency liquidity to meet the 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.

In order to provide banks with sufficient foreign currency liquidity to meet corporate funding needs, the Bank continued to carry out foreign currency swap transactions with banks and extend foreign currency call loans to banks. During 2008, foreign exchange call loan transactions reached US\$1,983 billion, while foreign currency-NT dollar swap transactions reached US\$472 billion.

### Foreign Currency Deposit Reserve System

In line with monetary policy and to ensure adequate liquidity for banks' foreign exchange deposits, the Bank has implemented the foreign currency deposit reserve system since December 8, 2000. The system required authorized foreign exchange banks to set aside reserves for newly added foreign currency demand deposits and time deposits with a 5 percent required reserve ratio. Afterwards, the ratio has been adjusted several times to reflect the domestic economic situation, and the basis for reserve provision was changed to actual foreign currency deposit balances. In order to reduce bank funding costs and to narrow the interest rate spread between





NT dollar deposits and foreign currency deposits, the Bank lowered the foreign currency deposit reserve ratio from 5 percent to 0.125 percent on April 1, 2008.

### Foreign Exchange Reserve Management

In 2008, the Bank's foreign exchange revenues amounted to US\$1,095.9 billion, while foreign exchange expenditure was US\$1,074.5 billion. At the end of 2008, total foreign exchange reserves stood at US\$291.7 billion, a US\$21.4 billion increase from the end of 2007. The increase was mainly attributed to a higher return on investment of foreign exchange reserves.

### Capital Flow Management

With the progress of financial liberalization and internationalization, the Bank has largely deregulated capital movement restrictions. In general, capital can flow freely in and out of Taiwan. As of 2008, 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 could each conduct inward and outward remittances up to US\$50 million and US\$5 million within one year, respectively. Non-residents could remit up to US\$100 thousand per transaction. For remittances exceeding the respective ceilings, transactions could be made with the approval from the Bank.

Key measures with regard to the management of foreign exchange in 2008 included:

- (1) Having consulted with the Financial Supervisory Commission about broader scope for foreign securities investment, the Bank agreed to the following measures: (i) Agreed March 4, foreign investors would be allowed to engage in trades of structured products with domestic securities firms and banks, including products linked to domestic or foreign equities and interest rates and denominated in NT dollar or foreign currencies. However, the amount of investment in government bonds, time deposits, money market instruments and money market funds, plus the net amount paid on NT dollar premiums for trading of over-the-counter equities and NT dollar interest rate derivatives, structured products and option-side transactions on convertible bond asset swaps and net payment of the swap settlement difference should not exceed 30 percent of each foreign investor's inward remittances. Nonetheless, this limit does not apply to investments in outright trading of government bonds with more than one year to maturity. (ii) Agreed March 6, foreign investors would be allowed to trade with domestic securities firms and banks in NT dollar- or foreign currency-denominated Taiwan or foreign equities options or swap derivatives.
- (2) In order to encourage overseas enterprises to list on Taiwan's stock market, the Bank took the following measures: (i) Agreed October 20, the cap of US\$5 million on domestic

securities investment by an overseas Chinese or a foreign individual investor (FIDI) would be removed. (ii) Agreed October 30, the original stockholders of overseas enterprises listed on the Taiwan stock market may, as a foreign institutional investor (FINI) or a FIDI in pursuant to the Regulations Governing Investment in Securities by Overseas Chinese and Foreign Nationals, take the funds which they obtain from selling their shares in Taiwan's market and place in settlement accounts for subsequent investments so as to save time and fees of foreign exchange transactions.

- (3) Agreed August 6, with the permission of the competent authorities, overseas Chinese and foreigners were allowed to get NT dollar loans from financial institutions as foreign direct investors. If collateral is needed, domestic securities purchased by them as FINIs could be used as collateral.
- (4) Along with the recent overseas branching of domestic enterprises, there were increasing cases where foreign employees received stock dividends. Agreed August 13, in order to relieve these foreign employees from the inconvenience of selling their holdings through new or borrowed accounts, overseas subsidiaries or branches of listed and emerging stock companies were allowed to use the investment accounts in the name of offshore FINIs, originally used for handling overseas employees' warrants, to manage stock dividends for overseas employees and new stock issuance.
- (5) In order to promote the internationalization of the capital market, the Bank agreed to the following measures: (i) Domestic enterprises may issue overseas marketable securities to raise funds. In 2008, 3 corporations issued overseas depository receipts with a total of US\$0.46 billion; 7 corporations issued European Convertible Bonds with a total of US \$1.85 billion. (ii) On August 20, the Bank agreed the issuance of NT dollar-denominated bonds by the Central American Bank for Economic Integration (CABEI) with an NT\$7 billion upper limit for the total balance. (iii) Two foreign companies were allowed to issue Taiwan Depository Receipts (TDRS) with the total amount reaching NT\$5.5 billion.
- (6) The Bank loosened the following regulations regarding foreign exchange remittances: (i) On May 21, the Bank notified banks that the remittances of the following types of donations for Szechuan earthquake in China would not be counted toward the reporting obligator's yearly remittance balance, including donations through the Straits Exchange Foundation, local governments, R.O.C. Red Cross, etc. (ii) On September 5, the Bank relaxed the restrictions on outward remittances of investment in China. A remittance for the aforesaid purpose in the amount of no more than US\$1 million would be allowed without prior approval of the Ministry of Economic Affairs.

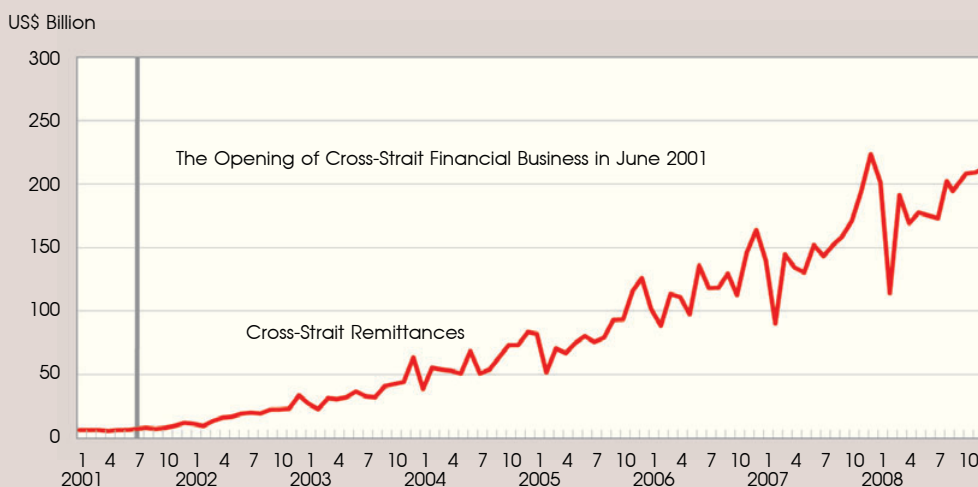
## Management of the Foreign Exchange Business of Financial Institutions

- (1) At the end of 2008, there were 1,327 authorized foreign exchange banks in total, which included 36 head offices and 1,198 branches of domestic banks, 93 branches of 32 foreign banks, and 2,631 authorized money exchanger and financial institutions authorized to engage in basic foreign exchange business.
- (2) Up to the end of 2008, 13 insurance companies were allowed to engage in investment-oriented insurance business; 7 insurance companies were allowed to conduct business in relation to foreign currency conventional insurance certificates; 2 securities firms were allowed to conduct overseas warrant business.
- (3) On April 11, the Bank allowed futures trust enterprises to apply to the Bank for business regarding "raising domestic foreign currency-denominated futures trust funds".
- (4) As the government agreed to open Taiwan to mainland China tourists and to expand the three mini Cross-Strait communication links, the Bank promulgated the Regulations Governing the Administration and Settlement of Renminbi in the Taiwan Area on June 27, and approved 14 financial institutions to conduct Renminbi cash exchange business. Up to the end of 2008, the total amount of purchase was 1.63 billion Renminbi, while the total sale was 1.98 billion Renminbi.

## Development of Offshore Banking Business

Since June 2001 with official approval, OBUs have conducted cross Taiwan-Strait financial business, which has shown rapid growth. At the end of 2008, foreign currency deposits from

### Non-Financial Institution Deposits and Cross-Strait Remittances through OBUs



Source: Department of Foreign Exchange, CBC.

non-financial institutions totaled US\$31.13 billion, or a 14.2 percent increase from the end of 2007, while cross Taiwan-Strait remittances grew to US\$219.1 billion, a US\$39.65 billion or 22.09 percent increase from the previous year. This rapid growth of cross-Strait remittances helped promote OBUs as the funding center for Taiwanese businesses operating overseas.<sup>1</sup>

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<sup>1</sup> The overall OBU development is analyzed in the Foreign Exchange Market segment in Section II of this Annual Report.

## 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 a financial report auditing 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 2008 inspected the handling of counterfeit money by financial institutions, interest rate announcements, provision of deposit reserves, forward foreign exchange transactions, foreign exchange remittances, correctness of reporting to the Bank, and the operation of foreign currency exchanges by authorized money exchangers, etc.

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

In light of the Bank's examination opinions and the Financial Supervisory Commission's examination opinions related to the Bank's business or regulations, the Bank monitors how the examined financial institutions have done for improvement, urges the financial institutions to rectify related deficiencies, and thus ensures the successful implementation of the Bank's policies.

### Report Auditing

Based on the periodical reports submitted by financial institutions and utilizing the computerized report auditing system, the Bank assesses the operation, financial conditions and regulatory compliance of individual financial institutions. In 2008, there were a total of 60 documents about report auditing and important business analyses.

Moreover, starting from 2008, the report auditing system of foreign bank branches in Taiwan was changed from a CARSEL system to a SMAC (support from the head office, management and control, asset quality, compliance) system. The latter incorporated the evaluation of a parent company's support capability in order to reflect its risk bearing ability and business situation. Furthermore, to assure consistency and accuracy, the reporting material of domestic banks, foreign bank branches in Taiwan, and bills finance companies were since to be reported through a single window.

## **Financial Stability Evaluation**

The Bank compiles financial soundness indicators and issues financial stability reports so that related competent authorities, market participants and the society can understand the status and sources of financial system risks in this country and adopt appropriate actions accordingly.

In June 2008, the Bank issued the first Chinese edition of Taiwan's financial stability report. The issuance of the coming English edition in 2009 will help promote cross-border exchange of information on banking supervision and boost Taiwan's international visibility.

## **Monitoring Mismanaged Financial Institutions**

The Bank closely monitors mismanaged financial institutions and collects related information for the Bank's policy decisions. Moreover, the information is forwarded to the Financial Supervisory Commission and/or the Bureau of Agricultural Finance in order to adopt prompt corrective actions to deal with mismanaged financial institutions.

## **Other Important Measures**

To reinforce the evaluation of financial stability, the Bank collaborated with academia in the research project regarding the "Stress Test of Taiwan's Financial System" in order to gradually establish Taiwan's macro stress test model for the financial sector. The databank of listed companies' financial data and statistical information of financial institutions' non-performing loans were established as part of the financial stability report framework.

**Box****Publication of Financial Stability Report**

In step with the global trend of safeguarding financial stability and publishing financial stability reports, coupled with a renewed focus on the statutory objective of promoting financial stability, the Bank took measures with reference to the proposal of the IMF and the experiences of other central banks as follows: (1) setting up the Financial Stability Assessment Section within the Department of Financial Inspection in January 2006; (2) compiling financial soundness indicators of Taiwan's financial system; and (3) establishing an effective financial stability framework.

The Financial Stability Report aims to provide financial authorities, market participants, and others interested in financial stability issues with an insight into the current financial status, potential vulnerabilities and main sources of risks that might undermine the stability of the financial system. The Report reviews the following: (1) international and domestic economic and financial conditions; (2) the financial sectors (i.e. financial markets, financial institutions and financial infrastructure); and (3) non-financial sectors (i.e. corporate sector, household sector and real estate market). The Report was prepared by the Department of Financial Inspection under the guidance of the Financial Stability Assessment Committee, which was chaired by the deputy governor of the Bank and consisted of four director generals from related departments as well as two academics. To offer a broader perspective, the Financial Supervisory Commission and other supervisory agencies were also consulted during the compilation of this report.

The Financial Stability Report of the Republic of China (Taiwan) would be issued semiannually starting from 2008. The first Report was issued on June 27, 2008.

According to the conclusion of the recent Report issued in January 2009, the financial markets functioned normally in the first half of 2008. Asset quality and capital adequacy at domestic financial institutions remained satisfactory despite the declining profits, and their intermediary functions were unimpaired. The payment and settlement system remained sound and its efficiency continued to improve. Since the third quarter of 2008, with the increasing spillover effect amid the deepening global financial crisis, the turbulence in domestic financial markets posed some risks to Taiwan's financial system. However, Taiwan's financial institutions remained sound and resilient, and the government has taken prompt and effective actions to stabilize the financial sector and the economy. As a result, the impact of the global financial crisis on Taiwan was relatively limited.

Overall, the financial system in Taiwan remained relatively stable as compared with other countries. Nevertheless, whether the risks to the financial system would be further aggravated warranted closer monitoring.

## 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). Among them, 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 sound operation of these systems.

### 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 2008, participants of the CIFS included 70 banks, 10 bills finance companies, and 5 other institutions, including Chunghwa Post Co., the Taiwan Stock Exchange (TSE), and the GreTai Securities Market (GTSM), etc. For the year as a whole, the daily average value of funds transferred via the CIFS was NT\$1,120.6 billion, while the daily average number of transactions reached 3,376.

### 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 book-entry form since then.

The registration of central government securities transfers is handled by 16 clearing banks and their 1,642 branches. In 2008, more than 797 thousand transfers with a total value of NT \$56,231 billion were processed by the system. Also, the outstanding balance of the book-entry central government bonds amounted to NT\$3,605 billion, or 99.9 percent of the total outstanding



balance of the bond market. The total transaction value of the book-entry central government bonds reached NT\$119 trillion, or 88.0 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 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.

The Bank's monitoring activities include the following:

1. 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. To supervise clearing institutions to make contingency plans and business continuity plans in case of emergency.
3. To invite the Financial Information Services Co., the Taiwan Depository and Clearing Corporation, and the Taiwan Clearing House to participate in the panel discussions held regularly on promoting sound operation of the payment system.
4. To manage clearing institutions based on the Clearing Institutions section in the Directions for the Central Bank of the Republic of China (Taiwan) to Govern Electronic Interbank Funds Transfer and Settlement.
5. To follow the Core Principles for Systemically Important Payment Systems of the BIS as guidance to govern and review payment systems.

## 6. Currency Issuance

### Currency Issued Slightly Increased

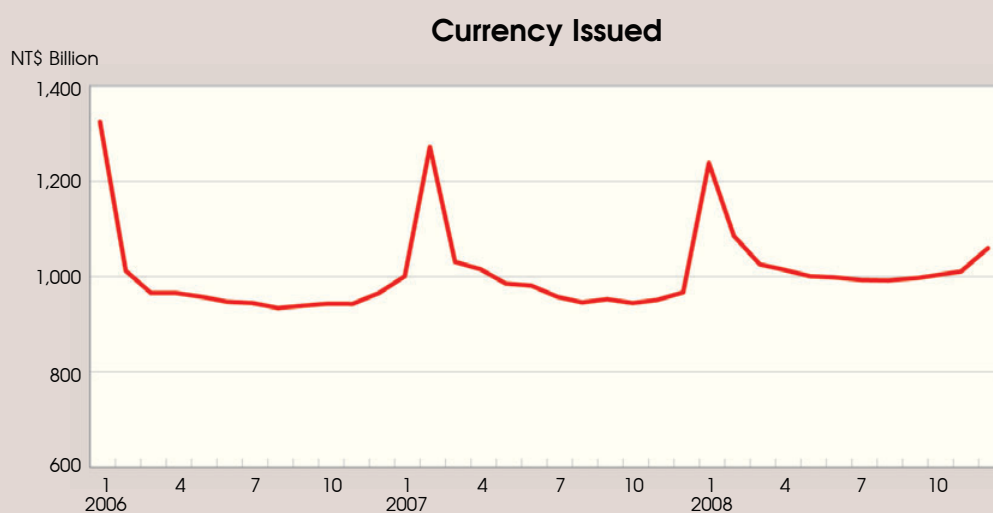
An important function of the Bank is to ensure a smooth and efficient supply of banknotes and coins to meet public demand, which is dependent on the level of economic activity, seasonal factors, and the development of noncash payments.

In 2008, the Bank successfully implemented a currency distribution plan for delivering banknotes and coins. The currency issued reached a peak at NT\$1,356.8 billion on February 5, the day before the Chinese Lunar New Year holidays, reflecting a temporary seasonal surge in cash demand. The outstanding amount of the currency issued at the end of 2008 was NT\$1,054.2 billion, representing an increase of NT\$92.5 billion or 9.63 percent over the previous yearend.

The composition of NT dollar banknotes issued did not change much in 2008. The largest part was the NT\$1,000 denomination (84.23 percent), followed by the NT\$100 (6.04 percent) and the NT\$2,000 (4.23 percent) notes.

### Currency in Circulation to GDP Ratio Increased

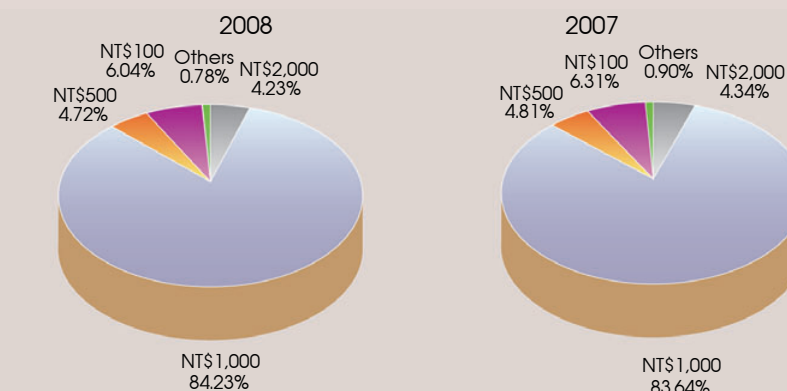
From the fourth quarter of 2005 onwards, currency demand for transaction purposes decreased as credit card defaults weakened private consumption. The ratio of currency in circulation to nominal GDP trended downwards. However, due to the economic slowdown and the prevailing low interest rate environment since September 2008, the willingness of



Source: CBC.

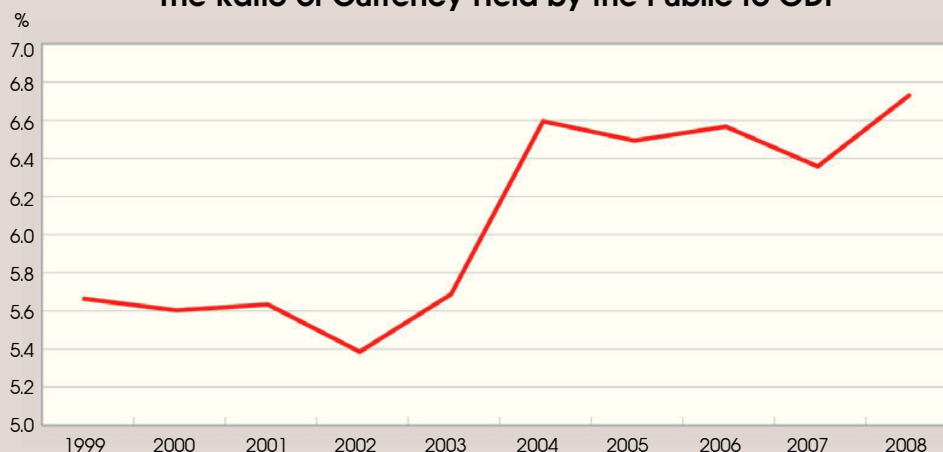
### Composition of NT Dollar Banknotes Issued

(year-end figure)



Source: CBC.

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



Source: CBC.

holding currency increased. The above ratio rose significantly to 6.72 percent in 2008, an increase of 0.35 of a percentage point than a year before.

### Commemorative Coin Sets Successively Issued

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 2008, the Bank issued the coin set for the Chinese Zodiac Year of the Rat, the commemorative silver coin for the 21st Asian International Stamp Exhibition, the commemorative gold and silver coins for the inauguration of the 12th president and vice president of the Republic of China, and the 11th coin set of the Taiwan Indigenous Peoples Cultural Series-the Kavalan tribe.

## 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 holding 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 354 branches, including 5 overseas branches located in New York, Los Angeles, Seattle, and Paris. In 2008, the Bank received a total of NT\$2,645 billion worth of treasury deposits, a mild advance of NT\$189.5 billion or 7.72 percent over the previous year. Payments made for the Treasury were NT\$2,642.2 billion, an increase of NT\$183.9 billion or 7.48 percent from 2007. At the end of 2008, the outstanding balance in the TDA was NT\$41 billion, increasing by NT\$2.9 billion or 7.61 percent from a year earlier.

### 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 2008, the balance of central government agencies' deposits with the Bank amounted to NT\$112.4 billion, a decrease of NT\$35.6 billion or 24.05 percent over the previous year, as the Ministry of the Interior transferred deposits to other delegated banks to fund the national pension insurance scheme, which became effective in October 2008. Deposits with other delegated banks were NT\$429.3 billion at the end of 2008, an increase of NT\$17.1 billion or 4.15 percent. Redeposits registered NT\$17.8 billion at the end of 2008, increasing by a mere NT\$0.1 billion or 0.56 percent from a year earlier.

### 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 65 domestic dealers qualified to directly participate in the auctions, including 22 banks, 28 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 2008, the Bank managed 12 issues of central government bonds amounting to NT\$410.0 billion. The weighted average yields of successful bids for these issues ranged from 1.404 percent to 2.748 percent per annum. During 2008, the Bank paid a total of NT\$210.3 billion in principal and NT\$117.5 billion in interest payments for central government bonds. At the end of 2008, the outstanding amount of central government bonds was NT\$3,609.7 billion, an increase of NT\$199.7 billion or 5.86 percent from the previous year-end, of which 99.90 percent was in book-entry form.

### **Managing Treasury Bills**

Treasury bills are sold at discounts through auctions. Direct participants include banks, investment trusts, insurance companies, bills finance companies, and Chunghwa Post Co. In 2008, the Bank handled 10 issues of book-entry treasury bills with a total amount of NT\$240 billion. The highest accepted rates for these issues ranged from 0.700 percent to 2.243 percent. Besides, the Bank conducted 3 buy-backs of book-entry treasury bills with a total amount of NT\$15 billion in 2008. At year-end 2008, the outstanding amount of treasury bills was NT\$106.8 billion, an increase of NT\$78.8 billion or 2.8 times from the previous year-end.

### **Improving Operational Efficiency**

To reduce the settlement risk in interbank transactions and improve the settlement efficiency, the Bank linked the Central Government Securities Settlement (CGSS) system to the CBC Interbank Funds Transfer System (CIFS) on a delivery-versus-payment (DVP) basis on April 14, 2008. Hereafter, all book-entry central government securities interbank transactions excluding netting transactions in the over-the-counter (OTC) market are all processed on a DVP basis.

## 8. Participation in International Activities

In 2008, the Bank actively participates in international activities. As a member, the Bank hosts conferences, provides training courses, and attends the annual meetings organized by 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 2008, the Bank has strengthened 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 2008, the Bank participated in the 41st annual meeting of ADB held in Madrid, Spain, and shared views on the monitoring of short-term cross-border capital flows, the establishment of a regional exchange rate stability mechanism, and the development of Asian bond markets with other members.

The Bank is also a member of the SEACEN. In March 2008, the Bank attended the annual conference of governors held in Jakarta, Indonesia, where governors from 18 central banks discussed issues on financial deepening to support monetary stability and sustainable growth as well as in areas of cooperation. Besides, the Bank hosted two SEACEN training courses this year, namely, the third SEACEN-CeMCoA/BOJ Intermediate Course on Payment and Settlement Systems for Emerging Economies held in May and the 49th SEACEN-Fed Course on Principles of Asset & Liability Management: Intermediate Level in November. The SEACEN-CeMCoA/BOJ course was attended by 38 participants from 14 countries. Lecturers came from the Bank of Japan and SEACEN member central banks. The SEACEN-Fed course was attended by a total of 38 participants from 12 countries, and the lecturers comprised instructors and technical experts from the US Federal Reserve, Taiwan's Financial Supervisory Commission, and the Bank.

In November 2008, the Bank attended the International Symposium 2008 on Financial Globalization and Emerging Market Economies hosted by the Bank of Thailand to discuss issues on financial globalization and exchange views with other central banks.





# 大事紀

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## Chronology of Events of the CBC in 2008



## Chronology of Events of the CBC in 2008

*Jan.*

10

The Bank and the FSC agreed OBUs to accept foreign currency checking deposits in currencies other than the RMB to expand the scope of services provided by OBUs.

*Feb.*

27

The Bank added SinoPac Securities Co. to the list of primary dealers in the central government bond market, and allowed Chunghwa Post Co., Chinatrust Commercial Bank and Taipei Fubon Commercial Bank to act both as designated dealers for open market operations and primary dealers in the central government bond market, effective April 1, 2008.

*Mar.*

4

The FSC and the Bank adopted the following measures:

1. Foreign investors were allowed to deal in structured products with domestic securities firms and banks, including domestic and foreign equity and interest rate linked products denominated in the NT dollar or foreign currencies.
2. The total amount for a foreign investor to invest in government bonds, time deposits, money market instruments and money market mutual funds, together with NT dollar premiums and netting payments from trading OTC equity and NT dollar interest rate derivatives, structured products and equity swaptions derived from convertible bonds, shall not exceed 30 percent of his/her net inwardly remitted funds. The amount invested in outright transactions against government bonds with a residual maturity greater than one year is exempt from the said cap.

6

The FSC and the Bank agreed foreign investors to deal in equity derivatives with domestic securities firms and banks, including NT dollar or foreign currency denominated equity options and equity swaps.

14

The Bank and the FSC amended the *Regulations Governing Approvals of Banks to Engage in Financial Activities Between the Taiwan Area and the Mainland China Area*. Key amendments allowed the OBUs and overseas branches of Taiwan banks to extend loans to the Chinese branches of third-country enterprises, to engage in the factoring

of receivables resulting from transactions within Mainland China, and to accept Taiwan stocks, real estate, and other NT dollar assets as collateral for loans. The new regulation also cancelled the restriction that unsecured loans extended by an OBU or an overseas branch to Taiwanese companies in China may not exceed 10 percent of its assets.

25

The Bank amended the *Directions for the Operation of Book-Entry Central Government Securities*. The settlement of the central government securities would be incorporated into the CBC Interbank Funds Transfer System with the delivery versus payment (DVP) scheme, effective April 14, 2008.

27

The Bank's Board Meeting made the following decisions:

1. Raising the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral by 12.5 basis points to 3.5 percent, 3.875 percent and 5.75 percent, respectively, effective March 28, 2008.
2. Decreasing the required reserve ratio on foreign currency deposits from 5 percent to 0.125 percent, effective April 1, 2008.
3. Adjusting the remunerative rates on banks' B reserve accounts with the Bank by type of deposits, effective April 1, 2008. Reserves from demand deposits and time deposits will receive an annual rate of 0.25 percent and 2.75 percent, respectively.

May

21

The Bank informed banks and Chunghwa Post Co. that outward remittances of domestic donation to the earthquake in Sichuan, China are exempt from the annual accumulated remittance amount of a company, an association, or an individual.

23

In line with the newly adopted DVP scheme for central government securities settlement, the Bank amended the reserve requirement stipulated in Article 7 of the *Regulations Governing the Audit and Adjustment of Deposit and Other Liability Reserves of Financial Institutions*.

Jun.

26

The Bank's Board Meeting made the following decisions:

1. Raising the discount rate, the rate on accommodations with collateral, and the rate

on accommodations without collateral by 12.5 basis points to 3.625 percent, 4 percent and 5.875 percent, respectively, effective June 27, 2008.

2. Raising the required reserve ratios on NT dollar demand deposits and time deposits by 1.25 percentage points and 0.75 percentage points, respectively, effective July 1, 2008.

3. Revising the target zone of M2 growth for 2008 at 2 percent to 6 percent.

27

The FSC and the Bank promulgated the *Regulations Governing the Administration and Settlement of Renminbi in the Taiwan Area* to allow trading of RMB banknotes in Taiwan, effective on June 29, 2008.

The Bank published the first issue of *Financial Stability Report of the Republic of China*.

Jul.

1

The Bank incorporated the settlement of block trades in Taiwan Stock Exchange into the CBC Interbank Funds Transfer System.

15

The Bank amended Article 5 of the *Directions Governing the Central Bank of the Republic of China (Taiwan) Special Financial Accommodations to the Central Deposit Insurance Corp., Ltd.* From new regulation effective onward, the financing interest rate shall be charged at a floating rate based on the weighted average interest rate on new loans set by five leading banks as announced by the Bank.

Aug.

6

The FSC and the Bank agreed overseas Chinese and offshore foreign nationals to pledge securities in their Foreign Institutional Investor (FINI) accounts if additional collaterals are required for their NT dollar loans.

13

The FSC and the Bank allowed foreign affiliates and branches of listed companies to set up FINI accounts to process offshore employees' stock dividends and cash capital increase.

29

The Bank amended the *Regulations for Funds to be Re-Deposited by and Accommodated*

to the Credit Cooperatives to strengthen the risk management of redeposits of credit cooperatives, effective August 31, 2008.

*Sep.*

5

The Bank relaxed remittance regulations to allow banks and Chunghwa Post Co. to engage in outward remittances related to investment in Mainland China with an accumulated value per project of US\$1 million and below without requiring the Bank's verification of the approval documents issued by the Ministry of Economic Affairs.

18

The Bank's Executive Directors Meeting decided to lower the required reserve ratios on NT dollar demand deposits and time deposits by 1.25 percentage points and 0.75 percentage points, respectively, effective today.

22

To be in line with the new NT\$200 billion preferential housing loan program launched by the Ministry of the Interior on September 22, 2008, the Bank would no longer accept the applications for the NT\$300 billion preferential housing loan program launched by the Ministry of the Interior on May 20, 2005.

25

The Bank's Board Meeting made the following decisions:

1. Lowering the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral by 12.5 basis points to 3.5 percent, 3.875 percent and 5.75 percent, respectively, effective September 26, 2008.
2. Enlarging the scope of repo facility operations to ensure sufficient sources of liquidity for financial institutions. Eligible counterparties were expanded to include banks, bills finance companies, Chunghwa Post Co. securities firms and insurance companies. The terms of the facility were extended to be within a maximum period of 180 days, and the eligible collateral mainly included CDs and NCDs issued by the Bank and government bonds to provide market access to longer-term liquidity.

*Oct.*

7

The Executive Yuan (Cabinet) announced to provide full coverage for all deposit accounts at CDIC-insured institutions that agree to participate in the deposit insurance program, effective from October 7, 2008 until December 31, 2009.

9

The Bank's Executive Directors Meeting decided to lower the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral by 25 basis points to 3.25 percent, 3.625 percent and 5.5 percent, respectively, effective today.

20

The FSC and the Bank abolished the US\$5 million cap on foreign portfolio investment in domestic securities made by any foreign individual person.

30

The Bank's Executive Directors Meeting made the following decisions:

1. Lowering the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral by 25 basis points to 3 percent, 3.375 percent and 5.25 percent, respectively, effective today.
2. Adjusting the remunerative rates on financial institutions' required reserves kept in B accounts with the Bank to be aligned with the average deposit rates offered by the five leading domestic banks.

30

The FSC and the Bank agreed shareholders of foreign companies listed in Taiwan's stock markets to register as FINIs or Foreign Individuals (FIDIs) to deposit the funds obtained from stake sales in a settlement account for further investment purposes.

*Nov.*

3

The Bank lowered the remunerative rates on banks' B reserve accounts with the Bank. Reserves required against demand deposits received 0.374 percent interest on such deposits, while those against time deposits received 2.423 percent.

9

The Bank's Executive Directors Meeting decided to lower the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral by 25 basis points to 2.75 percent, 3.125 percent and 5 percent, respectively, effective November 10, 2008.

11

The Bank adjusted the remunerative rates on banks' B reserve accounts with the Bank. Reserves required against demand deposits received an unchanged 0.374 percent interest, while those against time deposits received a lower remunerative rate of 2.173 percent.

The Bank amended Article 5 of the *Regulations Governing the Central Bank of the Republic of China (Taiwan) Administration of Accommodations Extended by Banks to Securities Finance Companies or Securities Firms*. The ceiling on the aggregate outstanding balance of financing from all banks in support of a securities firm's margin trading services was raised to 3.5 times the securities firm's net worth.

The local banks agreed that clients could apply to reset their mortgage rates from quarterly adjustments to monthly adjustments in three months, aimed at improving the transmission of the Bank's rate cuts.

27

The Bank approved the Asian Development Bank (ADB) to issue NT dollar denominated bonds from 2006 to 2036 with maturities of 1 year and above and a total net outstanding face value of up to NT\$35 billion under the Asian Currency Note Program.

Dec.

11

The Bank's Board Meeting made the following decisions:

1. Lowering the discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral by 75 basis points to 2 percent, 2.375 percent and 4.25 percent, respectively, effective December 12.
2. Setting the target zone of M2 growth at 2.5 percent to 6.5 percent for 2009.

15

The Bank lowered the remunerative rates on banks' B reserve accounts with the Bank. Reserves required against demand deposits and against time deposits were 0.275 percent and 1.421 percent, respectively.

30

The local banks agreed that corporate clients could apply to modify their loan contracts from quarterly to monthly rate adjustments before Mar. 31, 2009, to more promptly reflect the Bank's rate cuts.

# Financial Statements of the CBC

## 1. Balance Sheet

Unit: NT\$ Million

	December 31 2008	December 31 2007	Change	
			Amount	%
<b>Assets</b>				
Foreign Assets	9,713,834	8,935,836	777,998	8.71
Due from Domestic Banks	16,283	28,111	-11,828	-42.08
Loans and Accommodations to Financial Institutions	388,990	303,423	85,567	28.20
Other Assets	235,893	406,099	-170,206	-41.91
<b>Total Assets</b>	<b>10,355,000</b>	<b>9,673,469</b>	<b>681,531</b>	<b>7.05</b>
<b>Liabilities</b>				
Currency Issued	1,054,290	961,715	92,575	9.63
Deposits of Financial Institutions	1,075,172	1,064,320	10,852	1.02
Certificates of Deposit Issued	4,334,945	3,460,300	874,645	25.28
Redeposits of Financial Institutions	2,095,265	2,074,277	20,988	1.01
Government Deposits	154,177	186,779	-32,602	-17.45
Other Liabilities	267,528	564,369	-296,841	-52.60
<b>Total Liabilities</b>	<b>8,981,377</b>	<b>8,311,760</b>	<b>669,617</b>	<b>8.06</b>
<b>Net Worth</b>	<b>1,373,623</b>	<b>1,361,709</b>	<b>11,914</b>	<b>0.87</b>
<b>Total Liabilities and Net Worth</b>	<b>10,355,000</b>	<b>9,673,469</b>	<b>681,531</b>	<b>7.05</b>

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## 2. Income Statement

Unit: NT\$ Million

	2008	2007
<b>Income</b>		
Interest Income	356,890	374,446
Fee Income	102	82
Subsidiaries Investment Income	1,102	1,039
Revenue from Trust Investment	21,386	14,090
Foreign Exchange Gains	23,865	15,530
Others	1,130	469
<b>Total Income</b>	<b>404,475</b>	<b>405,656</b>
<b>Expenses</b>		
Interest Expenses	150,684	150,989
Fee Expenses	61	33
Expenses for Coin Issuance	1,013	897
Allowances	9,901	14,256
Expenses for Correny Issuance	3,672	4,373
Operating Expenses	1,616	1,729
Administrative Expenses	478	499
Others	603	379
<b>Total Expenses</b>	<b>168,028</b>	<b>173,155</b>
<b>Net Income</b>	<b>236,447</b>	<b>232,501</b>

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

Year / Month	I. Business Indicators			II. National Income and Aggregate Demand										
	C.E.P.D. <sup>(1)</sup> Total Score of Monitoring Indicators  (average)	T.I.E.R. <sup>(2)</sup> Business Climate Index		Economic Growth Rate  (%)	Per Capita GNP  (US\$)	Unemploy- ment Rate  (%)	Manufacturing Sector			Annual Rate of Change of Industrial Production Indices (%)				
		Manufacturing Sector  (1991=100)  (average)	Services Sector  (2001=100)  (average)				Labor Productivity Index  (2001=100)	Average Monthly Earnings (per Employee) (NT\$)	Index of Producer's Inventory  (%)	General Index	Manufacturing Index	Index of Construction		
												(2001=100)		
1999	22	103.06	112.58	5.75	13,737	2.92	90.70	37,882	86.3	7.37	7.78	6.61		
2000	26	100.29	112.19	5.77	14,721	2.99	96.36	39,080	90.9	6.70	7.85	-14.65		
2001	22	92.39	100.00	-2.17	13,348	4.57	100.00	38,586	96.3	-8.40	-9.02	-11.19		
2002	23	106.89	115.94	4.64	13,604	5.17	109.55	38,565	88.4	7.10	8.52	-20.66		
2003	23	108.10	122.19	3.50	14,012	4.99	115.34	39,583	89.5	8.72	9.16	9.02		
2004	33	110.74	122.18	6.15	15,156	4.44	122.13	40,611	93.3	8.40	8.97	4.78		
2005	22	102.43	116.91	4.16	16,113	4.13	128.50	41,751	100.8	3.76	3.66	11.38		
2006	22	108.48	118.80	4.80	16,532	3.91	134.47	42,293	100.0	4.70	4.50	9.02		
2007	25	115.81	114.11	5.70	17,299	3.91	144.51	43,026	101.0	7.77	8.34	-0.48		
2008	19	99.10	106.88	0.12	17,576	4.14	142.46	42,930	110.8	-1.78	-1.56	-9.26		
2008/ 1	29	105.05	114.11			3.80	144.87	67,597	102.6	12.65	12.87	20.55		
2	27	101.96	115.60			3.94	159.73	57,819	103.3	16.06	17.58	-16.68		
3	26	105.08	118.77			6.25	4,705	3.86	148.33	38,328	102.5	9.75	10.17	5.39
4	27	106.85	121.84			3.81	147.99	38,556	103.8	10.54	10.85	10.14		
5	22	110.05	122.61			3.84	148.90	39,483	106.3	5.70	6.38	-8.53		
6	20	107.27	113.76	4.56	4,372	3.95	147.73	39,676	106.5	5.19	6.01	-11.72		
7	16	107.63	106.35			4.06	143.08	40,751	111.1	1.92	3.17	-28.92		
8	18	105.03	100.68			4.14	149.93	40,152	117.9	0.68	1.27	-17.86		
9	12	98.74	98.38			-1.05	4,444	4.27	144.14	40,453	119.8	-1.19	-0.89	-9.89
10	12	87.80	94.43			4.37	137.80	37,821	119.7	-12.46	-13.33	8.32		
11	11	78.01	89.67			4.64	123.83	35,704	120.3	-28.27	-28.92	-29.38		
12	9	75.72	86.35	-8.36	4,055	5.03	112.07	38,599	116.3	-32.04	-33.12	-16.24		

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		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 <sup>(3)</sup>						Annual Rate of		Trade	Annual Rate
		Capital Formation	Private Sector			Change of Total Imports <sup>(3)</sup>	Capital Equipment	Balance <sup>(3)</sup>	of Change						
(%)	(%)	(%)	(%)	(%)	(%)	China and H.K. (%)	U.S. (%)	Japan (%)	Europe (%)	Southeast Asia <sup>(4)</sup> (%)	(%)	(%)	(US\$ Million)	(%)	
1999	5.51	2.94	1.01	26.07	23.42	9.9	11.8	4.6	27.6	3.3	19.9	5.7	18.4	12,537	7.26
2000	4.59	9.02	15.61	25.67	22.94	22.8	26.2	13.6	40.2	16.9	28.8	26.6	37.4	11,218	20.36
2001	0.67	-19.91	-26.83	24.15	18.01	-16.9	-9.5	-20.9	-22.9	-16.3	-19.1	-23.3	-31.4	18,344	-11.54
2002	2.60	1.07	6.68	25.95	17.55	7.1	29.4	-2.7	-5.0	-5.9	7.4	4.9	-3.4	22,072	11.23
2003	1.48	1.72	3.65	27.12	17.84	11.3	23.6	-3.0	0.5	10.4	10.5	13.0	0.5	22,590	12.64
2004	4.46	19.46	33.05	27.33	21.92	21.1	28.8	8.3	11.1	14.7	33.0	31.8	37.8	13,613	26.50
2005	2.99	1.19	0.31	26.29	20.85	8.8	12.2	1.3	9.4	-0.7	13.8	8.2	-4.1	15,817	19.20
2006	1.76	0.87	3.57	27.95	20.96	12.9	14.8	11.2	7.9	10.6	13.8	11.0	-0.5	21,319	16.74
2007	2.31	1.90	3.25	29.85	20.95	10.1	12.6	-0.9	-2.2	9.7	16.7	8.2	3.0	27,425	15.54
2008	-0.29	-10.78	-13.47	27.18	20.62	3.6	-0.8	-4.0	10.2	4.6	7.3	9.7	-8.1	15,181	1.71
2008/ 1						11.8	14.6	-1.0	-5.3	7.2	19.3	14.7	20.7	1,534	16.89
2						18.3	31.5	-8.5	0.3	11.8	35.4	26.0	17.8	1,661	18.08
3	2.07	3.69	3.92	26.92	18.79	22.7	23.3	7.7	3.2	17.5	37.8	37.5	21.0	129	12.79
4						13.9	15.7	2.2	11.7	9.3	14.8	17.7	7.5	988	15.69
5						20.5	23.5	-3.6	23.7	10.7	28.9	17.6	-13.6	2,222	14.46
6	0.52	-8.00	-9.92	29.76	22.57	21.2	25.5	-2.6	19.8	24.2	15.9	22.3	-8.4	1,508	9.27
7						7.9	4.0	-6.1	17.3	5.8	21.2	11.6	-23.4	-284	5.52
8						18.2	13.9	11.6	32.9	12.3	20.7	39.3	-9.6	36	5.38
9	-2.13	-11.82	-12.77	25.51	22.67	-1.6	-16.3	4.7	14.5	9.2	-4.4	9.9	-6.6	908	2.82
10						-8.3	-19.9	-11.4	17.7	-5.1	-5.7	-7.4	-16.3	3,024	-5.56
11						-23.3	-38.5	-14.2	19.2	-9.8	-19.4	-13.7	-18.4	1,590	-28.51
12	-1.68	-23.24	-32.23	26.64	18.60	-41.9	-54.0	-23.5	-21.9	-29.5	-46.0	-44.6	-47.2	1,864	-33.00

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 <sup>(5)</sup>					Amount	Adjusted Annual Growth Rate <sup>(6)</sup> (%)	M1B		M2	
									Amount	Annual Growth Rate (%)	Amount <sup>(7)</sup> (NT\$ Billion)	Annual Growth Rate (%)
	(Annual Rate of Change, %; 2006=100)						(NT\$ Billion)	(%)	(NT\$ Billion)	(%)	(NT\$ Billion)	(%)
1999	0.18	1.15	-4.55	-4.10	-8.53	-3.38	1,518.7	5.68	4,052.6	9.87	16,986.2	8.33
2000	1.25	0.63	1.83	4.63	-0.88	-2.63	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	2.69	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	-10.28	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	-2.84	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	-4.26	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	-1.11	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	-2.37	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	-5.37	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	2.61	2,084.1	3.24	8,045.8	-2.94	26,820.1	2.67
2008/1	2.94	2.69	10.10	17.15	2.58	27.28	1,991.3	1.90	8,182.6	0.30	26,190.8	1.06
2	3.86	2.62	8.77	14.58	0.22	-33.47	2,150.9	0.45	8,261.0	-1.84	26,629.1	1.43
3	3.94	3.06	7.19	12.17	-2.46	-6.42	2,042.4	0.99	8,201.6	-1.45	26,695.3	1.75
4	3.88	3.13	6.33	10.46	-3.13	-5.05	2,032.4	1.05	8,194.8	-1.66	26,818.0	2.12
5	3.71	3.23	7.93	13.94	-2.13	0.63	2,025.9	1.51	8,204.6	-1.14	26,865.2	2.34
6	4.97	3.70	9.85	16.01	-0.91	-2.32	2,011.2	2.21	7,972.4	-3.04	26,577.6	1.70
7	5.81	4.06	11.44	17.31	0.28	3.35	2,170.3	1.12	7,856.8	-5.77	26,568.2	1.45
8	4.68	3.73	9.35	14.90	-0.99	0.42	2,190.9	2.42	7,921.3	-5.32	26,678.9	2.11
9	3.10	3.26	6.10	9.59	-1.31	1.45	2,163.4	5.68	7,929.8	-4.89	26,696.8	2.54
10	2.39	2.89	1.55	1.62	-2.18	11.35	2,074.1	7.58	7,961.8	-4.08	27,083.1	4.09
11	1.94	2.45	-5.72	-6.84	-6.42	26.10	2,065.6	6.93	7,913.2	-3.55	27,362.8	5.05
12	1.27	2.13	-9.64	-11.26	-9.04	31.87	2,090.9	7.68	7,949.3	-2.16	27,675.9	6.45

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 <sup>(8)</sup>				Past-Due	Interest Rates (%)						
	Deposits		Loans & Investments <sup>(9)</sup>		Loan Ratio of Domestic Banks <sup>(10)</sup> (%)	CBC's Discount Rate (end of period)	Interbank Call-Loan Rate	31-90 Day Commercial Paper Secondary Market Rate	Five Major Domestic Banks <sup>(11)</sup>		Domestic Banks	
	Amount  (NT\$ Billion)	Annual Rate of Change (%)	Amount  (NT\$ Billion)	Annual Rate of Change (%)					Base Lending Rate <sup>(12)</sup> (end of period)	New Loan Rate  (average)	Deposit Rate  (average)	Loan Rate  (average)
1999	18,064.2	8.19	16,024.9	3.58	N.A.	4.500	4.771	4.88	7.667	7.10	5.00	8.03
2000	19,308.7	6.89	16,622.0	3.73	N.A.	4.625	4.732	4.91	7.711	6.72	4.62	7.61
2001	20,160.7	4.41	16,489.3	-0.80	11.27	2.125	3.692	3.69	7.377	5.75	4.09	6.99
2002	20,609.8	2.23	16,078.0	-2.49	8.85	1.625	2.046	2.03	7.100	4.04	2.38	5.53
2003	21,746.9	5.52	16,535.1	2.84	6.08	1.375	1.097	1.05	3.429	2.80	1.47	4.10
2004	23,256.5	6.94	17,964.0	8.64	3.80	1.750	1.061	0.99	3.516	2.16	1.17	3.47
2005	24,709.5	6.25	19,360.2	7.77	2.24	2.250	1.312	1.27	3.845	2.31	1.29	3.50
2006	25,942.0	4.99	20,153.9	4.10	2.13	2.750	1.552	1.54	4.115	2.37	1.47	3.38
2007	26,208.8	1.03	20,626.9	2.35	1.84	3.375	1.998	1.90	4.313	2.70	1.59	3.31
2008	27,977.9	6.75	21,332.6	3.42	1.54	2.000	2.014	1.92	4.205	2.80	1.77	3.43
2008/ 1	26,520.1	1.62	20,743.8	2.81	1.83	3.375	2.088	2.05	4.326	2.83		
2	26,669.8	2.03	20,674.5	1.88	1.79	3.375	2.082	2.01	4.342	2.85		
3	26,844.0	2.40	20,709.2	1.78	1.69	3.500	2.084	2.04	4.350	2.85	1.75	3.45
4	26,941.7	2.47	20,835.6	2.40	1.65	3.500	2.105	2.04	4.392	2.91		
5	26,911.1	2.66	20,990.9	3.03	1.61	3.500	2.101	2.03	4.392	2.88		
6	26,886.1	1.83	21,066.5	3.33	1.55	3.625	2.105	2.06	4.396	2.89	1.78	3.47
7	26,960.0	2.30	21,133.4	3.23	1.54	3.625	2.166	2.07	4.404	2.89		
8	26,919.0	2.42	21,188.7	3.53	1.53	3.625	2.158	2.06	4.416	2.86		
9	27,076.8	3.22	21,343.5	4.02	1.53	3.500	2.092	2.03	4.438	2.88	1.84	3.50
10	27,407.5	4.30	21,318.3	3.91	1.54	3.000	1.926	1.97	4.443	2.83		
11	27,563.3	5.29	21,331.0	4.21	1.60	2.750	1.410	1.64	4.295	2.72		
12	27,977.9	6.75	21,332.6	3.42	1.54	2.000	0.872	1.07	4.205	2.35	1.71	3.32

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 Cooperative 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	Trading Value		Current Account	Capital Account	Financial Account	Change in CBC's Net Foreign Assets <sup>(1)</sup>	(end of period)	(end of period)	(US\$ Billion)
	(1966=100) (average)	(NT\$ Billion)	(end of period)	Share of Outright Transactions	(US\$ Million)	(US\$ Million)	(US\$ Million)					
			(NT\$ Billion )					(%)				(US\$ Billion)
1999	7,427	29,291.5	1,933.2	52,432.6	13.84	7,993	-173	9,220	-18,593	106.20	31.395	4.18
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	59.95	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	15.66
2007	8,510	33,043.9	5,541.8	194,005.5	48.34	32,979	-96	-38,656	4,020	270.31	32.443	18.62
2008	7,024	26,115.4	5,769.1	135,508.6	44.10	25,024	-334	-1,779	-26,274	291.71	32.860	19.37
2008/ 1	7,923	3,057.5	5,521.4	15,267.1	50.53					272.82	32.198	21.08
2	7,999	1,821.3	5,542.4	9,964.3	48.81					277.84	30.950	21.46
3	8,440	3,195.7	5,585.5	16,350.3	56.99	8,494	-271	981	-11,322	286.86	30.405	23.17
4	8,878	3,295.6	5,643.3	14,830.3	53.63					289.38	30.449	20.27
5	8,910	2,949.9	5,659.1	11,088.4	42.29					290.07	30.413	19.73
6	8,180	2,023.2	5,694.6	10,288.4	40.32	6,744	-20	993	-4,590	291.41	30.354	19.08
7	7,128	2,203.1	5,670.6	8,872.8	30.03					290.90	30.590	18.58
8	7,071	1,953.8	5,677.9	9,745.7	40.16					282.09	31.520	18.21
9	6,204	1,871.8	5,686.5	10,379.9	39.40	1,867	-32	-6,250	2,598	281.13	32.130	22.48
10	5,043	1,246.9	5,677.5	9,798.5	33.21					278.15	33.000	22.46
11	4,510	1,113.8	5,695.5	8,502.2	36.75					280.69	33.295	13.54
12	4,496	1,382.8	5,769.1	10,421.0	38.58	7,919	-11	2,497	-12,960	291.71	32.860	12.34

Note: ③ The minus sign "-" represents an increase.

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