# II. International and domestic economic and financial conditions

#### 1. International economic and financial conditions

#### Global economy facing downside risks

The sustained global financial crisis, significant housing price corrections in some advanced economies, and heightened energy and commodity prices caused the global economy to face downside risks in 2008. Based on the IMF estimates, the global economy would grow at 3.7% in 2008, lower than the 5.0% in 2007. The advanced economies suffered greater impacts, with the projected economic growth rate declining to 1.4% from 2.6% a year earlier, while many of them were on the verge of recession. Emerging and developing economies were also expected to grow at a slower pace of 6.6% in 2008, down from 8.0% in 2007 (Chart 1.1).

With a view to stabilizing financial conditions and preventing systemic crises, many countries in Europe and North America undertook emergency policy measures. However, the IMF forecast that the global economy would face a protracted deleveraging process and the further weakening of growth momentum, during economic growth in 2009 downward by 1.5 percentage points from the previous year to reach 2.2%, the lowest since 2002. In 2009, the advanced economies are expected to experience the first negative growth of -0.3% since

World War II, while the emerging economies will also decelerate but still grow at slightly over 5% (Chart 1.1).

Among the advanced economies, statistics from the US Commerce Department's Bureau of Economic Analysis showed that the US economy once dropped to a negative growth of -0.2% in 2007 Q4, but then rebounded to positive growth and reached 2.8% in 2008 Q2, supported both by expanded personal consumption expenditures due to tax rebates and by enhanced export growth; however, the





economic growth was still lower than that registered in the same period in the previous year. With respect to the euro area, Eurostat's data revealed that growth slowed in the first half of 2008, declining to 1.4% in Q2 owing to weak performance in household consumption expenditures, fixed capital formation, and exports. On the other hand, statistics from the Japanese Cabinet Office indicated that Japan's economic growth rate reached 2.8% in 2008 Q1, but then fell to a negative growth of -3.0% in 2008 Q2 as a result of slowdowns in private consumption expenditures, private investments, and exports (Chart 1.2).

### Chart 1.2 Economic growth rates in selected economies or areas



The emerging and developing economies

grew moderately in the first half of 2008 because of weak domestic demands and net exports. Despite this, their overall performance was better than that of the advanced economies. China's economy kept growing rapidly until 2008 Q1 amid buoyant fixed investments, according to the National Bureau of Statistics of China. Its economic growth rate for 2008 Q2 nevertheless dropped to 10.1% from the 12.6% in the same period of the preceding year, due to the impact of the global economic slowdown and the implementation of tighter macroeconomic policies (Chart 1.2).

### Many countries took actions to stabilize financial markets and revitalize the economy in view of the extended global financial crisis

The on-going global financial crisis caused by US subprime mortgage problems continued to impact the financial stability of many countries around the world in 2008 Q3. In early July, both Fannie Mae and Freddie Mac encountered liquidity problems which were later temporarily resolved when the US government supplied emergency financing and placed the two agencies into conservatorship. In mid-September, Lehman Brothers filed for bankruptcy protection and American International Group was downgraded by credit rating agencies, resulting in tight interbank markets and money markets as well as a soaring LIBOR overnight rate that once peaked at 6.875%<sup>3</sup> (Chart 1.3). These developments, together with the global

<sup>&</sup>lt;sup>3</sup> Overnight LIBOR in US dollars on 30 September 2008 increased from 2.56875% of the previous day to 6.875%, the highest for the last seven and a half years.

credit crunch and lack of confidence among investors and depositors, led many large financial institutions in the United States and Europe to face increasing distresses, ranging from bank runs, short-term funding difficulties, liquidity problems, as well as possible failures. Governments around the world took many actions, which included providing ample liquidity for the financial markets, making available emergency financing or capital injections to financial institutions in hardship, as well as raising deposit insurance coverage (even blanket guarantees), to mitigate potential systemic risks. Some countries had to depend on emergency loans from the IMF to survive the crisis due to poor fiscal conditions or high external debt burdens. Furthermore, as the financial crisis deepened and concerns for an economic slowdown intensified, major stock markets around the world slumped, with single-day drops in share prices successively breaking historical records, and the fall in stock prices was the most significant in emerging Asia (Chart 1.4).

In October 2008, the IMF estimated that the







aggregate writedowns based on global holdings of US-originated and securitized mortgage, consumer and corporate debt had climbed to US\$1.4 trillion.<sup>4</sup> It was expected that deleveraging by financial institutions would continue to exert negative influences on the macroeconomy through reduced credit availability and higher credit costs. Many governments took a series of emergency measures (Box 1) to stabilize the financial system and revitalize the economy. Through these measures, financial markets gradually stabilized and systemic risks were greatly reduced at least in the short run. However, whether the aim of revitalizing the economy was achieved is still unclear and pending on further observation.

<sup>&</sup>lt;sup>4</sup> Compared to the US\$945 billion losses estimated by the IMF in April 2008, expected losses as estimated in October increased by 49%.

According to the IMF, the global financial system continued to face the following systemic risks: (1) some financial institutions may have inadequate capital because of difficulties in raising funds from the private sectors; (2) US Government Sponsored Enterprises may not be able to assume sizable losses and maintain their capacity to support US mortgage and real estate markets without government assistance; (3) bank failures following increased credit losses are likely to raise concerns about insufficient deposit insurance funds; (4) higher settlement risks in credit derivatives and repo markets may intensify concerns on counterparty risks; (5) deleveraging by and mergers between financial institutions may lead to shrinking transaction volumes in the markets of many key financial products, which could in turn limit market participants' abilities to adjust their positions; (6) escalating redemption pressures on money market mutual fund investments could increase reliance on funding through interbank markets while decreasing investments in commercial paper, leading to heightened pressures in interbank markets as well as reduced funding options and increased funding cost for the corporate sectors; and (7) increasing government commitments may transfer risks from the private sector to the public sector, raising concerns about sovereign risk.

#### Falling oil and commodity prices helped ease Inflation pressure

Beginning from early 2008, the growing demand for and tight supply of international oil, grains, and other commodities, as well as the continued depreciation of the US dollar, caused their

prices to surge. Spot prices of West Texas Intermediate crude oil reached a historical high of US\$145.29 per barrel in July, while the commodity<sup>5</sup> (crude oil excluded) index also rose above 3,000 points in March (Chart 1.5), contributing to increasing global inflationary pressures. Subsequently, international oil and commodity prices fell back significantly and gradually stabilized, owing to the influences of energy conservation, decreasing speculative activities in crude oil futures, shrinking oil demand on concerns about a global recession, as well as increased oil supplies from oil-producing nations.



<sup>&</sup>lt;sup>5</sup> Commodity (crude oil excluded) includes the following 17 items: wheat, pork, corn, copper, sugar, rapeseeds, rapeseed oil, coffee, soy meal, zinc, rubber, lead, cocoa, wool, rice, tin, and cotton.

The IMF forecasts that stabilized commodity prices, slower global economic growth, and wilder production gaps would help ease inflationary pressures. The inflation rate in the advanced economies is expected to drop from 3.6% in 2008 to 1.4% in 2009, while that in the emerging economies will decline from 9.2% to 7.1%. However, inflationary risks remain high in some of the emerging economies that experienced high prices and sustained shortages of domestic supply in the goods market.

#### Emerging markets faced challenges to withstand shocks

It was thought that emerging markets were capable of withstanding financial and economic shocks originating from advanced economies. Yet with the intensified global turmoil, their capabilities to withstand these shocks underwent a series of challenges. Emerging Asia appeared more vulnerable due to the challenges of high inflation, worsening terms-of-trade, and increasing concerns about the impacts of the slowing global economy. In Latin America, there were concerns about abilities to overcome the global economic slowdown due to recent declines in commodity prices. Among emerging countries in Europe, many of which had experienced booming credit and soaring inflation in the past, some confronted credit cycle downturns, drastic decreases in economic activities, and increasing regional credit crunch risks.

The rising demand for US dollars and the increasing risks in emerging markets arising from

the US subprime crisis caused institutional investors, such as mutual funds and pension funds, to reduce or withdraw their portfolio investments from emerging markets, especially emerging Asia. This led to large drops in stock prices in many economies. The capital outflows from emerging markets, together with financing difficulties and rising funding costs, became great obstacles for those countries that rely on external funding and have low foreign reserves (Chart 1.6). If the difficulty in external funding cannot be eased, or even deteriorates, some economies with high leverage ratios or rapid growth in domestic credit previously may face the pressures of severe funding shortages.



#### Box 1 Key measures to stabilize the financial system and stimulate the economy in major countries

The financial turmoil sparked by the US subprime mortgage crisis has persisted and spread to the world since September 2008. Its impact has resulted in the global financial markets' violent fluctuations along with downside risks to global economic growth. In response, a series of policy measures designed to stabilize the financial system has been taken by the US and many other governments, together with the joint actions employed by the EU, G7, IMF, and the euro area, to cope with the worldwide crisis. Moreover, growing concerns about the global downside risks stemming from the financial turmoil have prompted major countries to launch a succession of economic stimulus packages to alleviate the extent and impacts of the economic slump. Recent measures adopted by selected countries to stabilize the financial system and stimulate economic growth are summarized as follows.

#### 1. Measures to stabilize the financial system

#### 1.1 Liquidity injection

Major central banks including the US Federal Reserve Board and the Bank of England have implemented a series of measures aimed at easing liquidity pressures in short-term funding markets, which encompass: (1) introducing new accommodation facilities and extending the range of eligible collaterals for repo operations so that sufficient liquidity would be injected into the financial system; (2) cutting policy rates markedly several times or reducing reserve requirement ratios in order to ease money market constraints; (3) establishing temporary foreign currency swap mechanisms between major countries to mitigate the elevated pressures in the short-term US dollar funding market.

#### 1.2 Government's assurance on interbank funding and a raise in deposit protection

To resolve credit crunches in interbank funding markets, the UK and fifteen members of the euro area successively announced guarantees on interbank lending with public funds. The US, Italy, and several other countries also provided guarantees on newly issued bank debt. Meanwhile, the UK, the US, twenty-seven member states of the EU, and some emerging countries sought to restore depositors' confidence through raising deposit insurance limits or providing blanket guarantees on deposits.

#### **1.3 Supports for troubled financial institutions**

To prevent systemic threats resulting from failures of large financial institutions, the US and many European governments have initiated massive programs to aid troubled financial institutions through lending, recapitalizing with public funds, nationalization, or arranging mergers or acquisitions by other financial institutions. For instance, a series of government supports has been provided to Fannie Mae, Freddie Mac, AIG, Citigroup, UBS, Fortis, Dexia SA, ING, and other financial institutions to help them overcome their financial distress.

#### 1.4 Stock market rescue packages

The expanding global financial crisis and the accompanying economic slowdown caused global stock markets to tumble. To rescue stock markets, the US, Europe, and some Asian countries restricted short selling on financial stocks or banned naked shorting on all stocks. Some countries that were hard hit by the tumbling stock markets, such as Iceland, Russia, Brazil, and Indonesia, even temporarily suspended trading in the stock market. Moreover, South Korea and Japan eased restrictions on share buyback, while China cut the stamp tax on security transactions to 0.1% in an effort to boost local stock markets.

#### 1.5 Other financial stabilization measures

In addition to those measures taken by individual countries, international organizations also took joint policy actions. For example, (1) the G7 finance ministers and central bank governors jointly released a five-point action plan designed to stabilize financial markets,<sup>\*</sup> restore the flow of credit, and to support global economic growth; (2) leaders from fifteen member states of the euro area reached a consensus on the financial bailout framework, which allows individual countries to take the necessary steps to support troubled financial institutions in terms of their current state and requirement; and (3) the IMF announced the initiation of an emergency funding scheme to support member states in financial difficulty. Moreover, in order to mitigate the unfavorable impact of the application of fair value accounting rules on financial institutions, the International Accounting Standards Board (IASB) issued amendments to International Accounting Standards 39 (IAS 39) and International Financial Reporting Standards 7 (IFRS 7) that would permit reclassification of securities out of the trading category in rare circumstances without applying fair value assessments.

#### 2. Economic stimulus plans

#### 2.1 Measures to rescue housing market

The decline in housing prices is the origin of this financial crisis. To support the housing market, the US government promulgated the Housing and Economic Recovery Act in July 2008, which includes the following key measures: (1) refinancing eligible distressed homeowners' mortgages into affordable 30-year fixed-rate mortgages insured by the Federal Housing Administration (FHA); (2) providing assistance to borrowers and communities devastated by falling housing prices; and (3) raising the limits of new FHA-insured mortgages. The UK government later announced its Homeowners Support Package in September 2008. The package was designed to increase confidence, stability, and fairness in the housing market by (1) reducing the thresholds of housing tax breaks; (2) offering interest-free mortgages for first-time, low-income home buyers; and (3) for those who can not sustain their mortgages, the government offered a "sale and rent back" option (the so-called "government mortgage to rent" plan). Moreover, the governments of Japan, South Korea, Australia, and China also deployed a wide range of rescue plans to the domestic housing market, respectively, including (1) raising the mortgage tax-exemption limit, (2) reducing property taxes, (3) increasing the mortgage subsidy for first-time buyers, and (4) implementing a housing protection plan.

#### 2.2 Tax cuts

In early 2008, the US government took the lead in introducing an economic stimulus plan focusing on tax rebates. The UK, France, Japan, South Korea, China, India, and Singapore later followed suit by adopting tax reform measures to boost private consumption and investment. For instance, (1) the governments of the US, Japan, South Korea, India, and Singapore offered tax cuts or tax rebates to individuals; (2) the US, France, South Korea, and India reduced corporate taxes; (3) the UK government cut value added tax (VAT) and slashed income tax rates for low-income and middle-income families while raising taxes on high-income earners; (4) the German government lowered inheritance tax rates; and (6) the Chinese government raised the rate of export tax rebates for specific products along with decreasing the tax rates relating to house purchases by individuals.

#### 2.3 Expanding public expenditures

The governments of the UK, Germany, Australia, Japan, South Korea, and China successively unveiled large-scale plans for expanding public expenditures on infrastructure investments, aiming to boost domestic demand and prevent a protracted economic downturn. Among these countries, the scale of public funds used to expand public spending under South Korea's and China's economic stimulus plans in September and November 2008 reached on equivalent share of 17.9% and 16.2% of GDP, respectively.

#### 2.4 Assistance to corporate sector and individuals

To mitigate the impacts on different sectors or industries, assorted fiscal support or loan assistance measures were undertaken by national governments in response to their respective economic and financial conditions. These assistance measures were mainly aimed at low- or middle-income families, employed labor, SMEs, and the construction sector.

\* The details of the five-point plan include: (1) taking decisive action using all available tools to support struggling financial institutions and prevent their failure; (2) taking all necessary steps to unfreeze credit and money markets; (3) ensuring that banks can raise sufficient capital from public as well as private sources in order to continue lending to households and businesses; (4) strengthening deposit insurance and guarantee programs to maintain depositors' confidence; and (5) taking action, where appropriate, to restart the mortgage securitization markets. Accurate valuation and transparent disclosure of assets and consistent implementation of high quality accounting standards are necessary.

#### 2. Domestic economic and financial conditions

Taiwan's economy was expected to moderate in 2008 while inflationary pressures eased. The economy exhibited resilience supported by ample foreign exchange reserves, a sustained current account surplus, and strong short-term external debt servicing capacity despite increases in the scale of external debt. Although the government's fiscal deficits could widen along with rising government debts, the ratio of outstanding government debts to GDP was still below the international warning level.

#### Domestic economy expected to moderate in 2008

Taiwan's economic growth reached 5.4% in the first half of 2008, underpinned mainly by robust export growth against the backdrop of intra-Asian trade performance. strong However, export momentum weakened in the face of the global economic downturn, coupled with sluggish private consumption and private investments. Preliminary statistics from the DGBAS indicate that Taiwan's economy turned to a negative growth of -1.02% in 2008 Q3, and further contracted to -1.73% in 2008 Q4, causing annual economic growth to decline considerably from the previous year's 5.70% to 1.87% in 2008 (Chart 2.1). Looking ahead, despite sharp expansion in public fixed investments and mild growth in private consumption, the slowing of the global economy may continue to impact Taiwan's exports and exert adverse effects on private investments through reduced external demand. The DGBAS forecast Taiwan's economy to grow 2.12% in 2009, slightly up 0.25 percentage points from 2008.











#### Inflationary pressures eased

From the beginning of 2008, high international raw material and commodity prices had driven up wholesale prices. Consumer prices also continued to rise, attributable to price hikes in crude oil, electricity, fuel, agricultural and industrial raw materials as well as heightened food prices due to damage from several typhoons. The Wholesale Price Index (WPI) reached a peak of 11.44% year on year in July, while the Consumer Price Index (CPI) and core CPI<sup>6</sup> stood at 5.81% and 4.06%, respectively, reflecting increased inflationary pressures. However, the upward pressure on inflation eased subsequently, thanks to declining prices of international raw material that led to a drop in wholesale and consumer prices (Chart 2.2). The average WPI, CPI, and core CPI from January through October of 2008 increased notably by 7.95%, 3.92%, and 3.23% year on year, respectively. The DGBAS projected the annual WPI and CPI inflation rates to reach 6.33% and 3.64%, respectively, in 2008. Furthermore, the CPI inflation rate is expected to decline to 0.37% year on year in 2009, and the WPI to contract to -2.18%, largely driven by the ongoing global economic downturn, falling commodity prices, and higher figures for the base year of 2008.

### *Current account remained in surplus, and foreign exchange reserves stayed sufficient*

With sizable foreign capital inflows, Taiwan's foreign exchange reserves grew substantially in the first half of 2008 and reached a peak of US\$291.4 billion as of the end of June. The outstanding amount, however, trended generally downward as a result of net foreign capital outflows in Q3, and declined to US\$281.1 billion at the end of September, slightly up 4.00% from the end of 2007. Nevertheless, foreign exchange reserves remained adequate, enough to cover 12.91 months of imports,<sup>7</sup> while the ratio of short-term external debt to foreign exchange reserves registered 33.35% at the end of



<sup>&</sup>lt;sup>6</sup> The term "core CPI" in this report refers to a consumer price index excluding perishable fresh fruits and vegetables, fish and shellfish, and energy.

<sup>&</sup>lt;sup>7</sup> See "Damocles: Testing Times Ahead," Lehman Brothers, 22 July 2004. For import cover of foreign exchange reserves, the cutoff point for risk is three months. A country with an import cover of less than three months is considered to be at relatively high risk.

September 2008.<sup>8</sup> These data indicated that Taiwan's foreign exchange reserves have a strong capacity to meet payment obligations for imports and to service short-term external debt (Chart 2.3). In addition, the current account surplus during the first three quarters of 2008 stood at US\$17.6 billion, down by 19.13% year on year. The reduction in the current account surplus was due mainly to a sharp expansion in imports, especially imports of mineral products (e.g. crude oil), steel, and steel-related products. Reflecting this, the ratio of current account surplus to GDP decreased to 5.85% over the same period (Chart 2.4).<sup>9</sup>

### External debt trended upward, but servicing capacity remained strong

External debt<sup>10</sup> reached US\$107.5 billion at the end of September 2008, fueled by a significant rise in private short-term debts that mainly emanated from increased deposits of overseas correspondent banks and foreigners. Meanwhile, the ratio of external debt to annual GDP<sup>11</sup> stood at 26.78%, still far lower than the internationally recognized warning level of 50%.<sup>12</sup> In addition, external debt as





Note: Ratio of 2008 Q1-Q3 is measured by dividing the current account balances during the first three quarters of 2008 by GDP over the same period. Sources: CBC and DGBAS.





<sup>&</sup>lt;sup>8</sup> See Wu Yih-Jiuan, "Taiwan's financial crisis early warning system [in Chinese]" (April 2003), quoting the country risk scoring system of JP Morgan and similar scoring system benchmarks from American Express Bank. The general international consensus is that a reading of less than 50% indicates relatively low risk.

<sup>&</sup>lt;sup>9</sup> See Note 7. For the ratio of current account deficit to GDP, the cutoff point for risk is 3%. A country in which the reading is greater than 3% and has risen by at least 5 percentage points from the previous year is considered to be at relatively high risk.

<sup>&</sup>lt;sup>10</sup> External debt is defined by the CBC as the combined amount owed to foreign parties by Taiwan's public and private sectors, including long-term debts with a maturity of greater than one year and short-term debts with a maturity of one year or less. The term "public external debt" refers to debts that the public sector is either obligated to repay directly or has guaranteed (starting from December 2004, figures for public external debt include outstanding foreign debts arising from repo transactions between the CBC and international financial institutions). The term "private external debt" refers to private-sector foreign debts that are not guaranteed by the public sector.

<sup>&</sup>lt;sup>11</sup> The figure for the GDP of 2008 is based on DGBAS statistics released on 20 November 2008 (hereafter quoting the same source).

<sup>&</sup>lt;sup>12</sup> See Note 7. For the ratio of external debt to GDP, the cutoff point for risk is 50%. A country with a ratio of 50% or higher is deemed to be at relatively high risk.

of the end of September 2008 was equivalent to 39.45% of annual exports,<sup>13</sup> higher than the 38.32% registered at the end of 2007. Nevertheless, export revenues were still sufficient to cover external debt (Chart 2.5), and there was no clear sign of pressure on external debt servicing capacity.<sup>14</sup>

## Fiscal deficits could grow, while government debts increased steadily

Fiscal deficits shrank gradually from 2002, falling to a low of NT\$62.1 billion at the end of 2007. In 2008, however, the government increased infrastructure spending to spur domestic demand, thereby boosting overall economic growth. As a result, the fiscal deficit budget expanded to NT\$244.1 billion or 1.93% of GDP (Chart 2.6). The ratio, however, is still below the internationally recognized warning level of 3%.<sup>15</sup>

As fiscal deficits rose and governments relied on debt issuance to finance debt servicing expenditures, outstanding public debt of central and local governments<sup>16</sup> increased steadily over the past decade and stood at NT\$4.3 trillion in 2007,<sup>17</sup> up slightly from NT\$4.2 trillion as of the end of 2006. The ratio of outstanding public debt to annual GDP fell back

#### **Chart 2.6 Fiscal positions**



figures. Figures for 2008 are budgeted ones.

2. Fiscal positions data include those of central and local governments.

Sources: MOF and DGBAS.

#### Chart 2.7 Public debts



 Outstanding public debts for 2008 are budgeted figures, while the 2008 data for local governments are not available.
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Sources: MOF and DGBAS

<sup>&</sup>lt;sup>13</sup> Figures for exports refer to Ministry of Finance statistics for the total amount of annual exports on a customs basis. The figure for 2008 is an annualized figure up to 2008 Q3.

<sup>&</sup>lt;sup>14</sup> See Note 8. A ratio of external debt to exports of less than 100% indicates relatively low risk.

<sup>&</sup>lt;sup>15</sup> See Note 8. Under the 1992 European Union Maastricht Treaty and the subsequent Stability and Growth Pacts, fiscal deficits in EU member nations are not allowed to exceed 3% of GDP.

<sup>&</sup>lt;sup>16</sup> The term "outstanding debt at all levels of government" as used in this report refers to outstanding non-self-liquidating debt with a maturity of one year or longer. Final audited figures for outstanding one-year-or-longer non-self-liquidating public debt (NT\$4.3 trillion) issued by all levels of government during the 2007 fiscal year within their general budgets and extraordinary budgets is equivalent to 36.5% of the average GNP for the preceding three fiscal years (NT\$11.8 trillion). This figure is below the ceiling of 48% set out in the Public Debt Act.

<sup>&</sup>lt;sup>17</sup> This figure indicates the amount of non-self-liquidating debt with a maturity of one year or more issued by all levels of government. If adding in debt with a maturity of less than one year and self-liquidating debt, outstanding government debt as of 31 December 2007 stood at NT\$5.2 trillion.

to 34.07% in 2007, well below the internationally recognized warning level of 60%,<sup>18</sup> mainly due to sustained economic growth. In 2008, the central government's outstanding public debt was projected to increase to NT\$3.9 trillion following the expansion in infrastructure investments, compared to NT\$3.7 trillion in the previous year. Consequently, the public debt is likely to grow further (Chart 2.7).

<sup>&</sup>lt;sup>18</sup> See Note 8. Under the Maastricht Treaty and the subsequent Stability and Growth Pact, outstanding debt in EU member nations is not allowed to exceed 60% of GDP.