II. Macro environmental factors potentially affecting financial sector

2.1 International economic and financial conditions

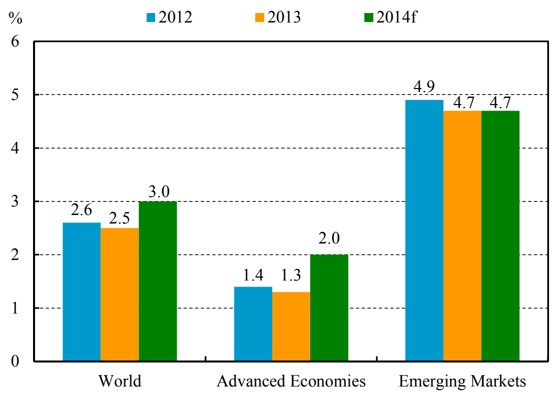
2.1.1 International economic conditions

Global recovery proceeded at a mild pace

In 2013, the global economic recovery proceeded at a cautious pace. In the US, growth momentum waned as a result of fiscal retrenchment, while the downturn in the euro area mitigated with the subsiding of the sovereign debt crisis. Meanwhile, Japan saw an accelerating growth impetus, underpinned by the stimulus package of the Abenomics program. In Mainland China, output growth seems to have leveled off due to structural economic transformation. In particular, declining economic growth in emerging economies reflected concerns about unexpectedly rapid normalization of US monetary policy and the impact of weakening demand in major international commodities markets.

From 2014 onwards, domestic consumption momentum in the US picked up, benefiting from continued robust labor market conditions. This, together with the euro area resuming growth following two consecutive years of downturn, presaged that advanced economies would mainly drive a sustainable pace of global economic recovery. Global Insight predicts world real GDP growth to increase to 3.0% in 2014, higher than the 2.5% recorded a year earlier. Real GDP in advanced economies is projected to nudge up to 2.0% from 1.3% in 2013. Output in emerging economies is forecast to grow moderately and reach 4.7% in 2014, approximating that achieved in 2013[8] (Chart 2.1).

Chart 2.1 Global economic growth rates



Note: Figures for 2014 are Global Insight estimates.
Source: Global Insight (2014/4/15).

[8] See Note 1.

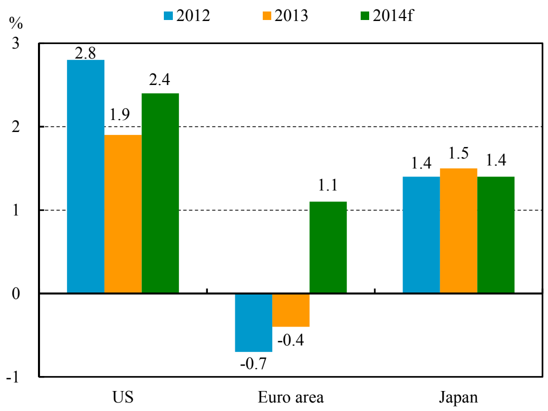
Looking ahead, international spillovers from the US exiting it sun conventional monetary policy, a decelerating economic growth rate in Mainland China, along with mounting concerns about Japan's consumption-tax hike undermining private consumption, all add to uncertainty over global economic growth in 2014.

Advanced economies gained steady growth momentum

The US continued its road to recovery but moved toward a more moderate pace of growth owing to fiscal retrenchment

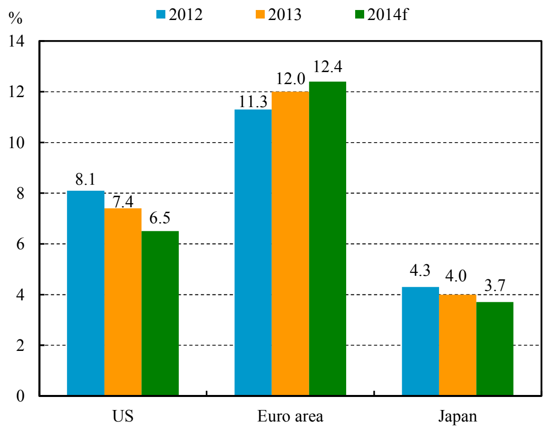
In 2013, the recovery in the US real estate market pushed domestic private consumption up. Meanwhile, US manufacturers returning jobs back to the States from overseas prompted a build-up in private investment. Nevertheless, US economic growth fell to 1.9% from 2.8% a year before, affected by a reduction in government expenditure due to the rolling back of automatic spending cuts. From the beginning of 2014, improving labor market conditions, coupled with the tempering impact of fiscal retrenchment and the warming up of the real estate market, could promote ongoing economic recovery. Reflecting this, Global Insight estimates the US economic growth to stand at 2.4% in 2014, above the level recorded the previous year (Chart 2.2).

Chart 2.2 Economic growth rates in US, Euro area and Japan



Note: Figures for 2014 are Global Insight estimates.
Sources: Official websites of the selected economies and Global Insight (2014/4/15).

Chart 2.3 Unemployment rates in US, Euro area and Japan

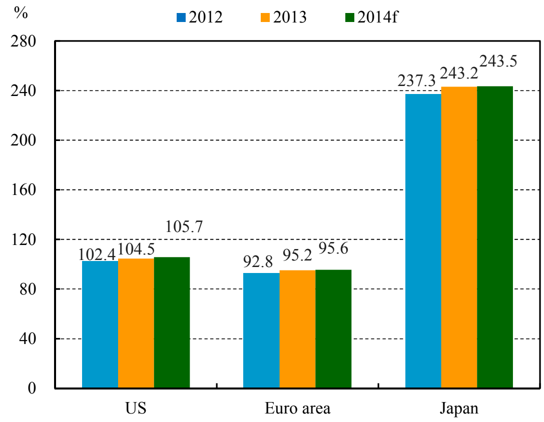


Note: Figures for 2014 are Global Insight estimates.
Sources: Official websites of the selected economies and Global Insight (2014/4/15).

The US unemployment rate dropped to 7.4% in 2013 from 8.1% a year earlier. The rate persistently fell in early 2014 against the backdrop of a rallying housing market and vigorous development in the energy sector. Global Insight anticipates the US unemployment rate to continue reducing to an annual rate of 6.5% in 2014 (Chart 2.3).

The US deficit shrank to US$680 billion in fiscal year 2013, but outstanding government debt relative to annual GDP kept expanding in recent years. President Barack Obama signed a bipartisan budget agreement, stipulating the total fiscal expenditure to increase by US$62 billion for fiscal years 2014 and 2015. While the incremental spending is expected to be offset by deficit-reduction measures, the International Monetary Fund (IMF) forecasts that the ratio of outstanding government debt relative to annual GDP will elevate to an estimated 105.7% in 2014[9] (Chart 2.4).

Chart 2.4 Government debt-to-GDP ratios in US, Euro area and Japan



Note: Figures for 2014 are IMF projections.
Source: IMF (2014), *Fiscal Monitor*, April.

The darkest cloud over the euro area subsided gradually

In the euro area, economic growth posted a rate of -0.4% in 2013 from -0.7% a year earlier thanks to the receding impact of the European sovereign debt crisis, growing exports and rebounding consumption across the area. Furthermore, inflation continued to undershoot projections. This, coupled with the European Central Bank's (ECB's) continuing monetary easing, is likely to underpin private consumption and promote corporate investment. Global Insight estimates that euro area GDP will grow by 1.1% year on year in 2014 (Chart 2.2).

The euro area unemployment rate spiked to a new high of 12.0% in 2013. Severe youth unemployment is an open question across the area, where Spain and Greece suffered youth unemployment rates of more than 50%. Global Insight forecasts the unemployment rate in euro area to continue advancing to 12.4% in 2014 (Chart 2.3).

According to IMF projections, the euro area outstanding government debt-to-GDP ratio is expected to surge to 95.6% in 2014 (Chart 2.4). Greece kept implementing harsh fiscal austerity measures, whereas Ireland exited its international bailout program. Against this backdrop, the ratios for these two countries are forecast to fall for the first time in seven years.[10]

[9] IMF (2014), *Fiscal Monitor*, April.
[10] See Note 9.

The implementation of "Abenomics" revitalized Japanese economic growth

In 2013, the Shinzo Abe cabinet launched the "three-arrows" strategy that comprises "aggressive monetary policy," "expansionary fiscal policy" and "growth strategy that promotes private investment" with the aim of curbing deflation and promoting economic growth. Reflecting this, Japanese economic growth registered 1.5% throughout the year. In 2014, the government laid out a 5.5 trillion yen economic stimulus package. This, together with a marked improvement in the performance of domestic corporations as well as vigorous machinery and equipment investment, could sustain this growth momentum. According to Global Insight, Japanese economic growth is expected to stand at 1.4% in 2014, somewhat lower than the figure recorded in 2013(Chart 2.2). Meanwhile, the unemployment rate is forecast to further drop to 3.7% over the same period (Chart 2.3), backstopped by a sharp increase in total employment due to steady recovery.

The Japanese government expanded the budget to invest in local public infrastructure construction with a view to the implementation of "expansionary fiscal policy." As a result, the government debt-to-GDP ratio further uplifted to 243.2% in 2013. Although a consumption tax hike that raises the tax rate to 8% from 5% from April 2014 onwards might help to relieve the government's debt burden, fiscal risks remained owing to the build-up of policy uncertainties.[11] The IMF forecasts the government debt-to-GDP ratio to slightly rise to 243.5% in 2014[12] (Chart 2.4).

In contrast, Taiwan differs from Japan with regard to economic conditions. Furthermore, under the precondition of safeguarding price stability, the CBC has provided monetary easing circumstances favorable to Taiwanese economic development in recent years. Against this background, there is no need for Taiwan to echo the adoption of the recent quantitative and qualitative monetary easing as has taken place in Japan (Box 1).

The economic growth of Asian emerging economies proceeded at a mild pace

Hit by the impact of capital outflows owing to the uncertainty surrounding the Fed's tapering of its asset purchases, coupled with contracting demand for major international commodities, GDP growth in key Asian emerging economies experienced a slowdown in 2013. The Asian newly industrialized economies saw a slack recovery in exports; however, output growth in these economies rose to 2.8% from 1.8% in 2012, spurred by the economic stimulus

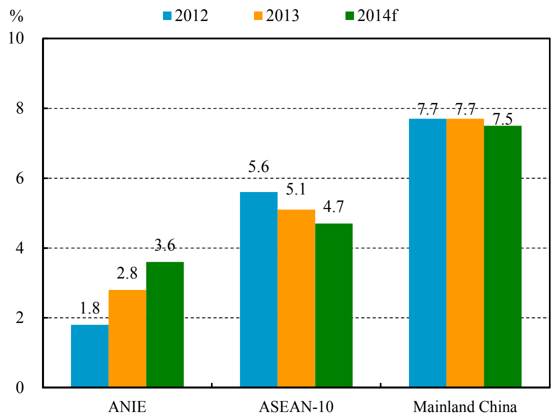
[11] Major concerns emanate from whether Japan can successfully carry out the second phase of a consumption tax hike program, raising the tax rate to 10% from 8%, and implement the proposed medium term fiscal policy in 2015 and afterwards.
[12] See Note 9.

measures of local governments.

Thailand was mired in political vulnerabilities. Meanwhile, in Indonesia, a slump in major international commodity prices impacted exports, while high interest rates jeopardized domestic investment. As a result, output growth for both of these two countries slowed down. This, in turn, impacted on the overall growth rates of the Association of South East Asian Nations (ASEAN-10) to contract to 5.1% in 2013 from 5.6% a year before. In addition, Mainland China's growth rate of 7.7% was similar to that in 2012 (Chart 2.5).

Global Insight anticipates that the economic growth rate in the Asian newly industrialized economies will mount to 3.6% in 2014, whereas the ASEAN-10 countries and Mainland China would both see more moderate growth rates of 4.7% and 7.5%, respectively (Chart 2.5). Meanwhile, the unempolyment rate in the Asian newly industrialized economies is projected to stand at 3.3%, the same figure as in 2013, while the rate will slightly rise to 4.7% from 4.6% a year earlier in the ASEAN-10 countries. In Mainland China, the unempolyment rate is forecast to drop to 4.0% from 4.1% in 2013 (Chart 2.6).

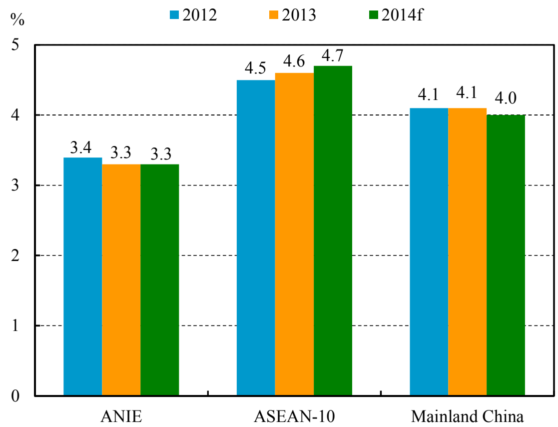
Chart 2.5 Economic growth rates in Asian emerging economies



Notes: 1. Figures for 2014 are Global Insight projections.
2. ANIE refers to Asian Newly Industrialized Economies, including Taiwan, Hong Kong, Singapore and South Korea.
3. ASEAN-10 refers to the 10 member countries of the Association of South East Asian Nations, including Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

Sources: Official websites of the selected economies and Global Insight (2014/4/15).

Chart 2.6 Unemployment rates in Asian emerging economies



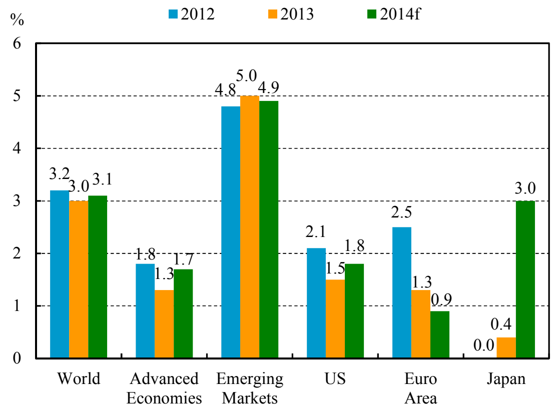
Notes: 1. Figures for 2014 are Global Insight projections.
2. For ANIE and ASEAN-10, see Notes 2 & 3 in Chart 2.5.

Sources: Official websites of the selected economies and Global Insight (2014/4/15).

Global inflationary pressures kept subsiding

In 2013, global prices of crude oil temporarily surged amid geopolitical uncertainty in the Middle East. Conversely, the international prices of cereals witnessed a continued decline in virtue of increasing production of soy, wheat and corn. Reflecting this, global inflation moderated in 2013 compared to the previous year, with the CPI inflation rate registering 3.0%, down from 3.2% in 2012. CPI inflation rates in advanced economies were lower than the figures a year earlier, whereas in the emerging economies they increased marginally (Chart 2.7).

Chart 2.7 Global headline inflation indices



Note: Figures for 2014 are Global Insight estimates.
Sources: Official websites of the selected economies and Global Insight (2014/4/15).

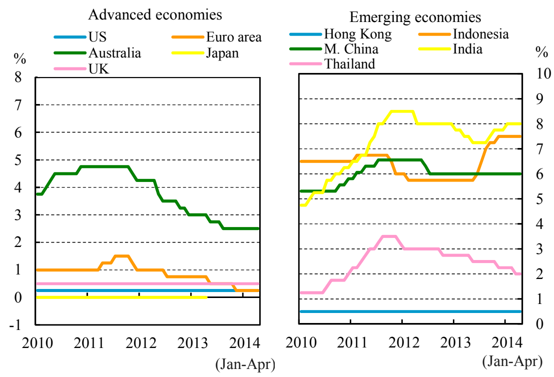
From the beginning of 2014 onwards, cereal production suffered poor yields due to severe cold weather in Northern America and drought in Brazil. This, coupled with mounting concerns about political tension in Ukraine, which is likely to impact its cereal exports, resulted in a rise in international prices. Meanwhile, global crude oil prices fluctuated within a narrow range, affected by an upswing in crude oil supply from Iran and the rising geopolitical risks related to Ukraine. Global Insight predicts the global CPI inflation rate will rise to 3.1% in 2014, slightly higher than that of 3.0% in 2013. However, the figure for Japan will upsurge to 3.0% from 0.4% a year earlier due to its consumption tax hike (Chart 2.7).

Monetary policy kept easing in advanced economies, whereas the US was tapering the size of bond purchases

From May 2013 onwards, the major advanced economies preserved their easy monetary stances. The Reserve Bank of Australia lowered the policy rate by 25 basis points in May. Thereafter, the ECB sequentially cut the main refinancing operations fixed rate by 25 basis points in May and November, separately, hitting a record low of 0.25%. This reflected a raising concern about recovery stalling in the euro area. Additionally, the Fed maintained the target range for the federal funds rate at 0 to 0.25%. Likewise, the Bank of England, the BOJ and the Bank of Canada all kept their low-interest-rate policies unchanged.

In emerging Asian economies, the Bank of Thailand lowered the 1-day repurchase rate twice to 2.25% in November 2013 in hope of invigorating the economy. Bank Indonesia raised the Bank Indonesia rate five times in an attempt to appreciate Rupiah and dampen inflationary pressure. The Reserve Bank of India consecutively raised the repurchase rate to 8% from September onwards following three rate cuts in the first half of the year. The People's Bank of China (PBC) held the financial institution one year lending base rate unchanged (Chart 2.8).

Chart 2.8 Policy rates in selected economies



Notes: 1. Advanced economies: figure for the US is based on the federal funds rate target; for Australia, cash rate target; for the UK, official bank rate; for the euro area, the main refinancing operations fixed rate; for Japan, uncollateralized overnight call rate.
2. Emerging Asia: figure for Hong Kong is based on discount window base rate; for Mainland China, financial institution one-year lending base rate; for Thailand, 1-day repurchase rate; for Indonesia, Bank Indonesia rate; for Reserve Bank of India, repurchase rate.
3. The BOJ changed the main operating target for money market operations to the monetary base from 4 April 2013 onwards.
4. Figures are as of 3 April 2014.

Sources: Central banks' websites.

2.1.2 International financial conditions

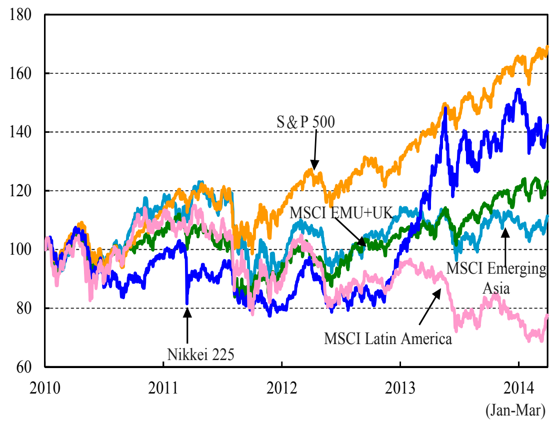
International financial markets improved but global financial risks elevated

In the first half of 2013, global financial risks alleviated, underpinned by the appropriate monetary policy stances and precautionary measures implemented by numerous countries. Over this period, global stock markets initially fluctuated against the backdrop of increasing political tensions on the Korean peninsula, the further spread of avian influenza in China, and the sluggish economy in the US. However, the markets resumed stable growth subsequently. From the second half of 2013 onwards, concerted monetary easing by the major economies and improvement in fiscal conditions in the euro area contributed to allaying tensions in financial markets. However, the spillovers emanating from the advanced economies' transitions to less accommodative monetary policy stances led to the build-up of global financial risks.

Financial market conditions in the advanced economies saw a notable improvement but risks lingered

In 2013, the prolonged period of accommodative policy and low interest rates in the US led to a search for higher yield, which sent massive flows of funds into high risk assets, and lifted

Chart 2.9 Performance of key international equity indices



Note: 1 January 2010 = 100.
Source: Bloomberg.

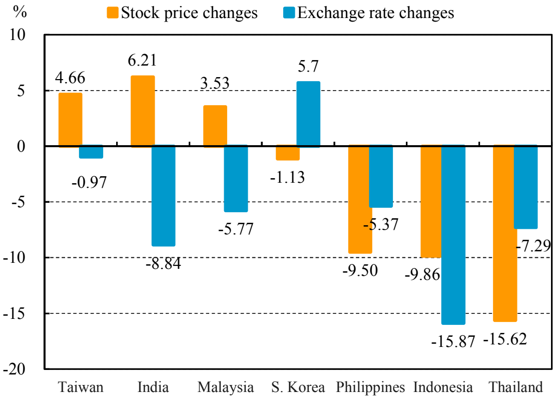
asset prices. As a result, major US stock indices, in particular, trended up noticeably (Chart 2.9). However, against the backdrop of prolonged periods of monetary expansion, speculative transactions searching for high yields increased. Coupled with rising corporate leverage and loosening corporate lending standards in the US credit markets, this, in turn, may become a latent risk to financial stability.

In April 2013, the announcement of QQE aiming at implementing "Abenomics" by the BOJ was largely successful in advancing yen depreciation and resetting deflationary expectations. Accordingly, the main Japanese stock index moved up (Chart 2.9). Nevertheless, from May onwards, the Fed signaled steps toward normalizing monetary policy, coupled with mounting concerns about Japanese government fiscal vulnerabilities, led to bouts of turmoil in bond and stock markets. Reflecting this, the Japanese Nikkei 225 stock index at one point tumbled over 7% in one day, followed by fluctuations within a narrow range. Moreover, to some extent, the spillovers resulting from domestic capital outflows spurred by lasting yen depreciation would impact both emerging economies and advanced economies.

In 2013, in the euro area, market pressure temporarily relieved thanks to continued monetary easing along with various structural reforms launched by member states. Meanwhile, the credit conditions of bond markets for governments, banks and corporate largely improved. However, banks in periphery economies still faced the combined challenges of elevated funding costs, deteriorating asset quality and slender profits that could hinder banks' lending capabilities. The firms in these economies also confronted considerable debt pressures due to overly high leverage ratios.

Emerging economies' weakening economic fundamentals spurred the run-up of financial fragilities and risks

Chart 2.10 Changes in equity indices and exchange rates among Asian emerging economies



Note: The comparison is based on the difference between the figures of end-May 2013 and of end-February 2014.
Source: Bloomberg.

In the wake of the global financial crisis, the nonconventional monetary policies and policy rate cuts pursued in advanced economies provoked large capital inflows to emerging markets. As of 2013, growing capital inflows stirred declining risk premiums and contracting funding costs. As a consequence, credit expanded dramatically, particularly with regard to corporate bond issuance, which exhibited a notable upsurge. However, some large emerging economies (such as Brazil, Mainland China, India and Russia) observed deteriorating asset quality, ascending leverage and asset prices reaching bubble levels as economic growth moderated and credit expansion lost momentum. This phenomenon, in turn, posed several challenges to emerging market economies, including: (1) governments and corporations with greater debt would be vulnerable to the reversal of interest rate rises, a shrinkage in earnings, and a depreciating currency; (2) debt-laden economies would find it more difficult to re-finance as risk premiums reversed to move upwards; and (3) increased foreign capital inflows exposed some economies to an additional source of capital outflow pressure which may cause renewed bouts of market turmoil in the event of a reversal to a massive outflow. Moreover, geopolitical risks related to Ukraine could also pose a new threat to financial stability.

Monetary policy transitions in advanced economies have substantial impacts on the financial markets in emerging economies. For example, massive international capital flowed back to the US around the Fed tapering announcement and investors showed concerns about political turbulence and unstable financial circumstances in emerging economies. These brought about greater fluctuations in global stock markets, particularly in Latin America, which saw the most significant drop (Chart 2.9). In Asian emerging economies, Indonesia and Thailand suffered considerable impacts on their stock markets and foreign exchange markets. Conversely, Taiwanese financial markets, buttressed by relatively robust economic fundamentals, were affected to a limited extent as they were more resilient to the shocks (Chart 2.10).

International organizations urged national governments to take further measures to foster global financial stability

The prolonged period of monetary easing witnessed in recent years could possibly pose a threat to global financial stability, while the US exiting from unconventional monetary policies could give rise to subsequent spillovers. In response, international organizations (such as the IMF[13] and the Asian Development Bank[14]) have advocated national governments to take preemptive measures, and provided the major policy suggestions as follows:

- In the US, as the Fed intends to gradually taper its asset purchases, reductions in liquidity could amplify market volatilities. In this regard, the financial supervisors must remain vigilant and preventative plans need to be put in place, such as enhancing oversight of mutual fund, real estate investment trust and exchange-traded fund liquidity terms for investors and management practices. Besides, it is also suggested to develop a contingency leverage unwinding facility for markets that heavily use repo transactions to manage liquidity.

- In the euro area, with a view to entrenching the European Monetary Union and reducing debt levels, the improvement in the structure of bank balance sheets is a prerequisite to restoring investor confidence. Meanwhile, the euro area should address financial fragmentation[15] through promptly carrying out the Single Supervisory Mechanism and the Single Resolution Mechanism with a commitment of cross-border deposit insurance.

- The emerging economies are likely to face the challenge of capital flow reversals. Policy makers should ensure orderly financial market operations and prudential surveillance of risks deriving from soaring corporate leverage and bank exposure to currency mismatch.

- Asian emerging economies confronting global and regional threats are expected to prevent themselves from suffering various external financial shocks by sustaining price stability and deploying prudential fiscal policies. Mainland China, among others, should gradually liberalize deposit rates and address moral hazard concerns to rein in credit growth mainly arising from the shadow banking system. Furthermore, an improvement of monitoring and disclosure in the nonbanking system, such as insurance companies and trust funds, is needed.

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13 IMF (2013), Global Financial Stability Report, October.
14 Asian Development Bank (2014), Asian Development Outlook 2014: Fiscal Policy for Inclusive Growth.
15 The ECB adopted monetary easing which kept the policy rate at historical lows to increase credits to corporations in core euro area with low interest rates. However, corporations in periphery economies were still exposed to funding risks.

Internationally increased focus on Bitcoin online virtual currency scheme

In the beginning of 2013, the Bitcoin exchange rate against the US dollar was about 20 but subsequently skyrocketed to 1200 or so in November as a result of media exaggeration and manipulation by interested parties. This, in turn, has drawn the attention of national central banks and financial authorities to address a number of issues, particularly about: (1) whether Bitcoin should be supervised; (2) how to supervise Bitcoin; (3) whether Bitcoin undermines financial stability; and (4) whether Bitcoin can be exploited as a tool for criminals. Currently the interconnection between Bitcoin, the real economy, and financial markets is still low, indicating that it is not likely to compromise the economy and financial stability as a whole.

Due to lack of a transaction protection scheme which is subject to exclusive regulation, along with inherent risks coming from the high volatility in price, hacker attacks and collapse of the exchange platform, some economies consecutively employed regulatory measures or provided statements in the hope of protecting consumer rights as well as safeguarding payment systems and financial stability. There are broadly four types of regulatory tendency among the above-mentioned measures, including: (1) excluding Bitcoin as a legal tender; (2) regarding Bitcoin as a virtual commodity; (3) alerting consumers and investors to be cautious about the related risks; and (4) preventing Bitcoin from becoming an alternative currency for money laundering.

2.1.3 Mainland China's economic and financial conditions

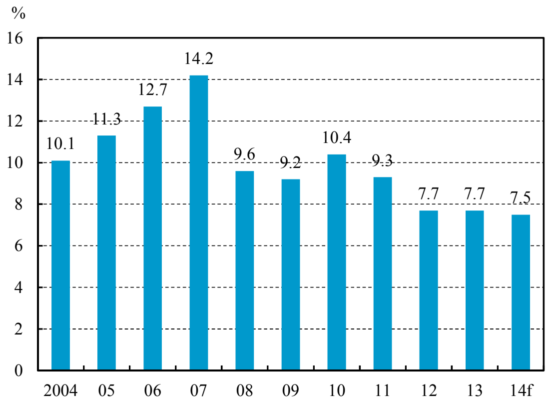
Economic growth momentum waned

In the first half of 2013, Mainland China decelerated infrastructure investments and reduced excess capacity in some industries,[16] bringing economic growth rates down to 7.7% and 7.5% in Q1 and Q2, respectively. In Q3, thanks to a series of measures to maintain steady growth taken by the State Council in the second half of July,[17] economic growth rebounded to 7.8% and registered an annual growth of 7.7% for the whole year, the same as in 2012 (Chart 2.11).

[16] See Note 2.
[17] Such measures include temporarily exempting the value-added tax and business tax for micro- and small-sized firms, facilitating trade to stabilize import and export business, and accelerating railway and infrastructure facilities constructions in the Midwest, etc.

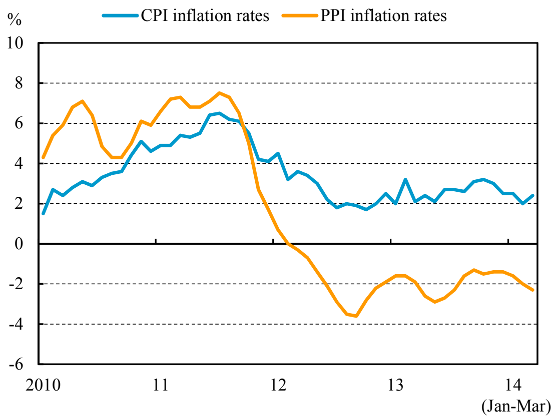
Although Mainland China's economic transition, aiming to shift toward a domestic demand-led growth model through structural reforms, might cause economic slowdown, measures to maintain steady growth and the increase in social security expenditures are expected to boost private consumption (Box 2). In March 2014, the National People's Congress (NPC) and Chinese People's Political Consultative Conference (CPPCC) set the economic growth target for 2014 at 7.5%, the same level as Global Insight's economic growth projection for Mainland China in 2014 (Chart 2.11).

Chart 2.11 Economic growth rates of Mainland China



Note: Figure for 2014 is a Global Insight projection.
Sources: National Bureau of Statistics of China and Global Insight (2014/4/15).

Chart 2.12 Inflation rates of Mainland China



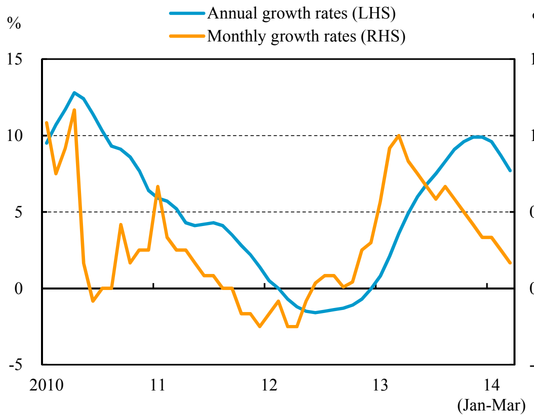
Source: National Bureau of Statistics of China.

Prices stabilized and housing prices grew at a slower pace

Due to stable international raw materials prices and domestic food prices, the CPI inflation rate of Mainland China was 2.6% in 2013, lower than the official goal of 3.5%. In 2014, after the CPI inflation rate continued decreasing to a thirteen-month low of 2.0% in February, it slightly rebounded to 2.4% in March. Global Insight projects the CPI inflation rate for the whole year of 2014 to decrease further to 2.0%. Moreover, in March 2014, the producer price index (PPI) inflation rate stood at -2.3%, the 25th consecutive month in negative territory, also indicating a waning growth momentum (Chart 2.12).

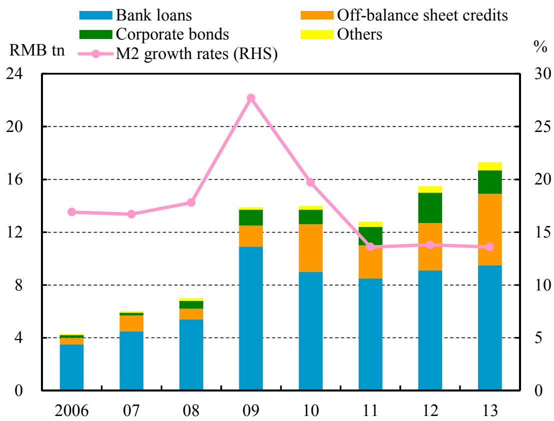
The annual growth rate of building sales prices in 70 medium-large cities was 7.7% in March 2014. This marked the fifteenth consecutive month of positive annual increases, although the rate of increase began to decline. The monthly growth rates were positive for the 22nd consecutive month, but also followed a downward trend (Chart 2.13). In response to rising house prices, Mainland China has taken a series of measures to curb house prices since February 2013.[18] However, considering that excessively constrained housing markets may decelerate growth momentum and increase downside economic risks,[19] no stricter measures to curb house prices have been introduced since then. In November 2013, the Third Plenary Session of the Eighteenth Central Committee of the Communist Party of China decided to give priority to fiscal and land reforms in order to increase supplies of land and residential property.

Chart 2.13 Average growth rates of building sales prices in 70 medium-large cities of Mainland China



Note: Figures for 2011 onwards are estimated by Thomson Reuters based on statistics published by the National Bureau of Statistics of China.
Sources: National Bureau of Statistics of China and Thomson Reuters.

Chart 2.14 Aggregate financing to the real economy and annual growth rates of M2 of Mainland China



Source: PBC.

Aggregate financing to the real economy hit a new high as off-balance sheet credits increased

Although the annual growth rate of broad money supply M2 in 2013 decreased from 15.9% at the beginning of the year to 13.6% at the end of the year, it stayed higher than the official annual target of 13%. Meanwhile, aggregate financing to the real economy[20] hit a new high as off-balance sheet credits, representing a proportion of the shadow banking system,[21] increased rapidly. In 2013, new off-balance sheet credit accounted for 31.2% of

[18] Measures aimed at curbing property prices include levying a 20% individual income tax rate on residential property sales and raising the down payment ratio and lending rate for second house buyers.
[19] Real estate investment accounted for about 20% of fixed investment, while fixed investment accounted for nearly a 50% share of GDP.
[20] See Note 3.
[21] See Note 4.

new aggregate financing to the real economy (RMB 17.3 trillion), which was well above the 2012 level of 23.2%, indicating a rapid rise in the scale of shadow banking (Chart 2.14).

In order to contain the risk in shadow banking and to gear it toward sound development, Document No. 107, issued by the State Council of Mainland China in 2013, identified the types of shadow banking[22] and urged relevant authorities accordingly to ensure segregation of duties, develop a sound supervisory mechanism, strengthen risk management and formulate complementary measures. As Mainland China's financial authorities continue strengthening supervision on shadow banking, including wealth management products, trust business, credit guarantee companies and micro-finance companies, close monitoring of subsequent developments is needed.

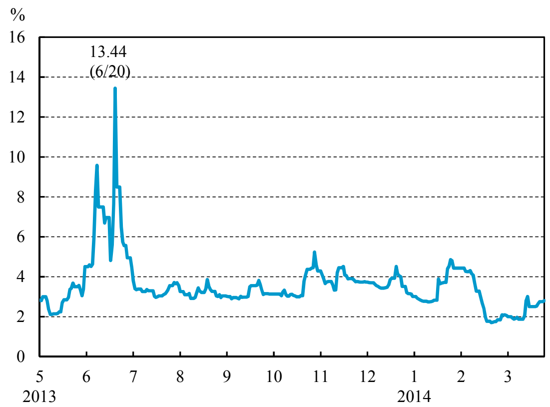
Measures launched successively to curb ballooning local government debts

The National Office of Audit of Mainland China published the audit findings of public debts at all levels of government in December 2013. Based on the report, local government debts swelled from RMB 15.9 trillion at the end of 2012 to RMB 17.9 trillion at the end of June 2013, which equaled more than 30% of GDP, showing a marked increase in local government debts. In order to curb debt risks to the banking industry, in January 2014, financial authorities approved local governments to issue bonds for fundraising. Moreover, the government, aiming to effectively monitor debt risks, vowed to strictly control the use of local government funds deriving from debt, launch an early warning system of local government debts and adopt a differentiated supervisory mechanism on different types of debts.

With policies promoted to reduce leverage and production capacity, expectation of cautious monetary policy remains

In the second half of June 2013, Mainland China's interbank market experienced a serious liquidity shortage, causing a surge of the Shanghai Interbank Offered Rate (SHIBOR). After the PBC injected funds into

Chart 2.15 Shanghai Interbank Offered Rates



Source: China Foreign Exchange Trading System & National Interbank Funding Center.

22 See Note 4.

markets through repo operations and short-term liquidity operations (SLO), the SHIBOR dropped back gradually (Chart 2.15). Considering the government's determination to deleverage and reduce production capacity, lessen property bubble risk, trim swelling shadow banking activities and curb local government debts, the PBC is expected to maintain a cautious monetary policy stance in the near future.

Box 1
Taiwan has no need to follow Japan's monetary policy of quantitative and qualitative easing

In the early 2000s, the Bank of Japan (BOJ) started implementing a quantitative easing (QE) monetary policy. As a result of this policy, until 2004, Japan's economy appeared to revive after years of recession. The year-on-year growth rate of the consumer price index (CPI) also saw a modest improvement. Nevertheless, the BOJ put an end to the QE policy too early in 2006. On top of that, the global financial crisis erupted in 2008, throwing Japan's economy into a deflationary dilemma again from 2009 onwards. The BOJ hence re-started its QE policy in October 2010. Furthermore, after Shinzo Abe assumed the premiership in December 2012, the BOJ Governor Haruhiko Kuroda, who took office in April 2013, announced at his first monetary policy meeting that, in order to achieve its price stability target of a 2% inflation rate at the earliest possible time within two years, the BOJ would introduce a policy of quantitative and qualitative monetary easing (QQE). This box will explore the contents of QQE and the reasons Taiwan need not follow Japan's monetary policy.

1. The contents of QQE

The objective of QQE is, via strong commitment to the target of 2% annual growth rate in core CPI within a time horizon of two years, to significantly change market inflation expectations, reduce long-term interest rates, support asset prices, and facilitate consumption as well as investment. The major contents of the policy are summarized below.

1.1 Switching to control the monetary base while nominal interest rates are near zero bound

The expansion of the monetary base at an annual pace of about 60-70 trillion yen will be set as the new target of money market operations. The monetary base will double from its original amount within two years and is projected to reach 270 trillion yen by the end of 2014.

1.2 Increasing JGB purchases to push down long-term interest rates

The BOJ will increase their holding of long-term Japanese government bonds (JGBs) by an annual growth of about 50 trillion yen. The holdings are expected to expand to twice the current balance within two years. In addition, JGBs with maturities of 40 years will be eligible for purchase; therefore, the average remaining maturity of the JGB purchases will be extended from slightly less than three years to about seven years.

1.3 Increasing ETF and J-REIT purchases to affect risk premia of asset prices

The BOJ will purchase exchange-traded funds (ETFs) and Japan real estate investment trusts (J-REITs) with annual increases of 1 trillion yen and 30 billion yen, respectively. By way of expanding purchases of financial instruments to ignite the stock market and real estate market, it will help push asset prices upwards and, in turn, elevate domestic demand and prices.

2. Taiwan's moderately accommodative monetary situation was no less suitable than Japan's QE

Taiwan's economy varied from that of Japan's because Taiwan's nominal interest rate didn't approach the zero bound like Japan's. Moreover, under the precondition of maintaining price stability and in the context of actual output below full capacity, the CBC provided loose monetary circumstances in recent years, which was conducive to macroeconomic development in Taiwan. Thus, there is no need for Taiwan to echo Japan on its latest execution of QQE.

2.1 Taiwan already implemented its own version of QE during the global financial crisis

In order to promote financial stability and boost the domestic economy, the CBC lowered its discount rate seven times during the period of the financial crisis from 3.625% on 25 September 2008 to 1.25% on 19 February 2009, slashing it by a total of 2.375 percentage points. The interbank call loan rate subsequently dropped to 0.10% or so. Meanwhile, the CBC maintained excess reserves in the banking system with a peak close to NT$160 billion. These moderately accommodative measures can be regarded as Taiwan's version of QE.

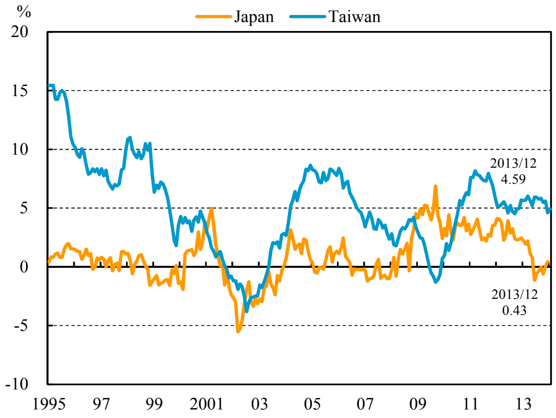
2.2 Taiwan has never experienced deflation nor a credit crunch

(1) Japan's deflationary malaise had existed for nearly 15 years since 1998, with the average year-on-year change of CPI being -0.2%. On the other hand, prices in Taiwan remained stable, with the average annual growth rate of CPI stabilizing at around 1% in the same period.

(2) With abundant capital, the average annual growth rate of bank credit in Taiwan posted 5.2% since 1995 while in Japan it registered merely 0.9% (Chart B1.1).

(3) Taiwan actively promoted lending to small- and medium-sized enterprises (SMEs), with the average annual growth rate recording 8.2% from 2009 to 2013, while Japan's SME loans shrank by 1.3% per year on average.

Chart B1.1 Annual growth rates of bank credit in Taiwan and Japan



Note: During the global financial crisis in 2009, the BOJ bought up massive amounts of Japanese government bonds, thereby lifting the annual growth rates of bank credit.
Sources: CBC and BOJ.

2.3 Taiwan's M2 money supply grew steadily and sufficiently to sustain domestic economic activity

(1) The CBC set a target zone for M2 growth according to economic growth rates and annual change of the CPI. In recent years, M2 growth rates approximated the sum of GDP growth rates and annual change of the CPI (Table B1.1).

(2) In recent years, M2 annual growth rates have fallen within the target zone, showing that M2 money supply has maintained proper growth, sufficient to meet the demands of economic activity.

Table B1.1Annual change in M2 ≈ Real GDP growth rates + Annual change of CPI

Annual average	GDP growth rates (a)	Annual change of CPI (b)	GDP growth rates+ Annual change of CPI (a) + (b)	Annual change in M2
1995-2013	4.19	1.28	5.47	6.28
2001-2013	3.62	1.05	4.67	5.09
2003-2013	3.95	1.25	5.20	5.18
2008-2013	2.91	1.29	4.20	4.91

Source: DGBAS.

2.4 QE was only beneficial to major economies as it contributed to depreciation of their currencies

(1) Japan is the world's third largest economy, and the yen is one of the major currencies in terms of international trade and FX trading. Its adoption of large-scale QE was expected to drive the yen's depreciation; however, such a policy would not work in Taiwan's favor, as Taiwan didn't warrant the conditions.

(2) In spite of the implementation of QE to push down the yen's value, the intended effect of depreciation might be partly offset by the spillover effects triggered by QE in the US.

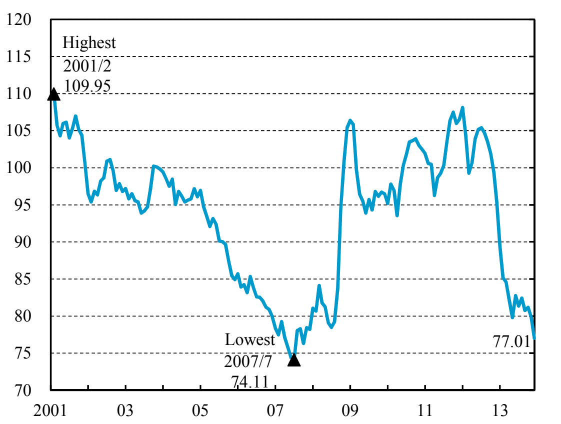
2.5 The yen's depreciation was to rectify its previous over-valuation resulting from investors' hedging demands

(1) The yen's real effective exchange rate (REER) indices were still higher than the lowest point pegged before the financial crisis (Chart B1.2).

(2) After the earthquake hit northeast Japan on 11 March 2011, massive imports of energy resulted in the trade deficit progressively hitting record highs and in turn speeding up the yen's depreciation.

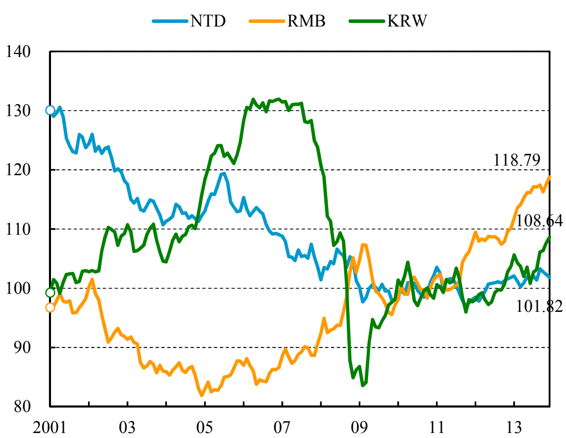
(3) The NTD's REER is still lower than those of South Korea's won (KRW) and Mainland China's RMB. As such, it still gives Taiwan an edge on export prices (Chart B1.3).

Chart B1.2 JPY REER indices



Notes: 1. The REER, which is compiled by the BIS and based on currency data comprising 27 economies, is the weighted average of a country's currency relative to a basket of other major currencies adjusted for the effects of inflation.
2. Year 2010 = 100.
Source:BIS.

Chart B1.3 REER indices for NTD, KRW and RMB



Notes: 1. The compilation of REER refers to the footnote of Chart B1.2.
2. Year 2010=100.
Source:BIS.

3. Conclusion

In the past twenty years, Japan experienced a period of two "lost decades" with an average economic growth rate of just 0.89%, while Taiwan's economy saw stable growth, maintaining an average annual growth rate of at least 4% and relatively stable prices. Moreover, Taiwan adopted without delay its own version of QE during the global financial crisis. Current monetary circumstances are moderately accommodative, which is beneficial to its macroeconomic development. Therefore, there is no need for Taiwan to follow Japan to introduce a policy of QQE.

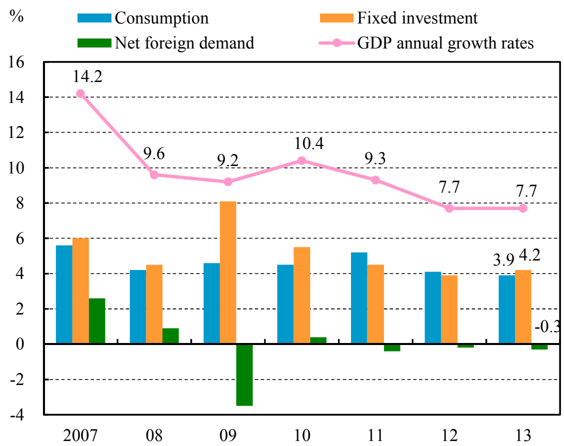
Box 2
Economic transformation of Mainland China and its impacts on Taiwan's exports

From 2009 onwards, with rising production costs and the appreciation of the RMB, the major driving force of Mainland China's economic growth gradually shifted from exports to investment and consumption. However, excessive investment from 2009 to 2012 caused production gluts in several industries. Thus, the government had to adopt measures to restrain investment growth and lift private consumption, so as to enable the transformation of the nation's economic structure and achieve economic balance and sustainable growth. Because Mainland China is Taiwan's largest investment destination and export market, its economic transformation has severely impacted Taiwan's exports.

1. Development of service industries and promotion of industrial upgrading

On the contributions to Mainland China's economic growth from 2011 to 2013, average net foreign demand made a negative contribution of 0.3 percent, while the contribution of average consumption surpassed that of fixed investment,[1] becoming the major source of economic growth (Chart B2.1). During the Twelfth Five-Year Plan (2011-2015), Mainland China set the development of production-oriented service industries as its primary task in a bid to prop up private consumption.

Chart B2.1 Contributionsto economic growth in Mainland China

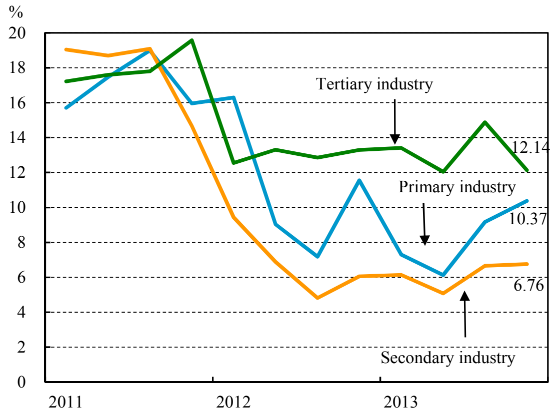


Source: National Bureau of Statistics of China.

In terms of the breakdown of various industrial sectors, the growth rates of the tertiary industry (service industry) have been steadily higher than the primary industry (agriculture, forestry, fishing and animal husbandry) and the secondary industry (mining, manufacturing and construction) since 2012 Q2 (Chart B2.2), becoming a key driving force of GDP growth.

The third Plenary Session of the Eighteenth Central Committee of Mainland China held in November 2013 also announced many reforms to the economy. For example, it will allow the market to determine prices in some areas such as finance, land, telecommunications, and energy, engage in fiscal reforms, promote urbanization, and open-up certain service industries including healthcare, old-age care, telecommunications and logistics services. All of these measures are conducive to the growth of consumption.

Chart B2.2 Growth rates of production value in three classes of industries in Mainland China



Note: Primary industry covers agriculture, forestry, fishing and animal husbandry. Secondary industry comprises mining, manufacturing and construction, among others. Tertiary industry consists of various types of service sectors.
Source: National Bureau of Statistics of China.

Moreover, the manufacturing sector has been experiencing a period of adjustment. For example, industry supply chains are increasingly geared toward localization and investment patterns are moving from downstream to mid- and up-stream industries, resulting in less imports of intermediary goods, parts and components than before. Besides, reducing low efficiency industries via import substitution, replacing domestic production with foreign imports allows factors of production to move to higher efficiency industries with the aim of promoting industrial upgrading.

2. Economic transformation of Mainland China is likely to slow down its economic growth in the short run, but could help raise per capita GDP in the long run

In the wake of the global financial crisis that erupted in 2008, Mainland China put forward a RMB 4-trillion Economic Stimulus Package. Although the package supported its economy and helped it rebound, there emerged a problem of a production glut in the real sector, coupled with excess liquidity washing around in the financial system. To reduce the economy-wide risks, the government adopted measures to tighten credit growth, facilitate investment rationalization, and weed out over-capacity of production. These measures caused GDP growth to slip.

With the transformation of economic structure and increasing expansion of economic scale, Mainland China's economic policy in recent years no longer gave top priority to raising economic growth. Instead, it stressed the importance to strike a balance between "stabilizing growth " and "restructuring the economy." The IMF forecasts that, if the proposed reforms are implemented, Mainland China's economy will grow 6% per annum from 2013-2030.[2]

It is worth noting that, Mainland China's economy is facing a number of challenges, such as rising labor costs, imbalances in economic development, resource constraints, and environmental pollution. The IMF indicated that, if Mainland China does not continue proceeding with structural transformation, it may risk falling into a “middle income trap,” and its per capita GDP would still be merely a fourth of America's by 2030. However, in the case where the proposed reforms are successfully implemented, its per capita GDP is projected to achieve 40% of the US level in 2030.

3. The impacts of Mainland China’s economic transformation on Taiwan’s exports

Much of the decline in the growth of Taiwan’s exports can be attributed to the downswing in the global economy and the slowdown of Mainland China’s economic growth. In recent years, the transformation of Mainland China’s economic structure leading to the reduction of its imports from Taiwan has also been an important factor.

3.1 Economic transformation with a decline in the proportion of processing trade is unfavorable to the growth of Taiwan’s exports of intermediary goods

Mainland China is Taiwan’s largest investment destination and export market. Under international fragmentation of production, Taiwan exported a lot of intermediary goods to Mainland China for subsequent processing, and then re-exported the final products to various destinations all over the world. Nevertheless, the contribution of net exports to Mainland China’s economic growth turned from positive to negative. The proportion of processing exports to total exports slipped from 50.7% in 2007 to 39.0% in 2013, while the proportion of processing imports to total imports dropped from 38.5% to 25.5% in the same period (Table B2.1). Under this policy of restructuring the economy and expanding domestic demand, a reduction of processing trade has impacted the growth of Taiwan’s exports of intermediary goods to Mainland China.

Table B2.1 Mainland China’s imports and exports

Unit: US$ bn; %

Year	Export			Import		
	Total amount	Processing trade		Total amount	Processing trade	
		Amount	%		Amount	%
2007	1,218.0	617.7	50.7	955.8	368.4	38.5
2008	1,428.5	675.2	47.3	1,133.1	378.4	33.4
2009	1,201.7	587.0	48.8	1,005.6	322.3	32.1
2010	1,577.9	740.3	46.9	1,394.8	417.4	29.9
2011	1,898.6	835.4	44.0	1,743.5	469.8	26.9
2012	2,048.9	862.7	42.1	1,817.8	481.1	26.5
2013	2,210.0	860.8	39.0	1,950.3	497.0	25.5

Source: General Administration of Customs of the People's Republic of China.

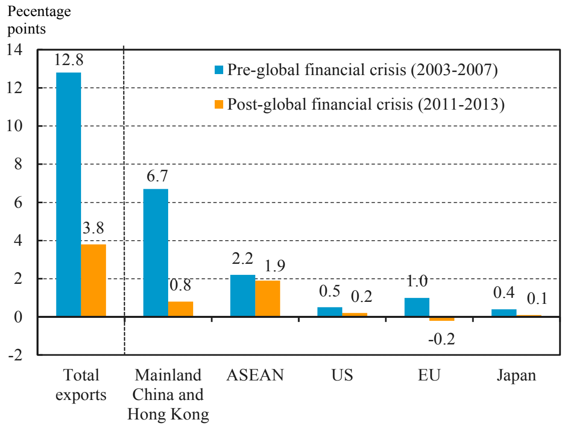
3.2 The downturn of Taiwan’s export growth is attributed to the slowdown of the growth in exports to Mainland China, particularly for the panel industry

Over recent years, Mainland China has adopted the policy of import substitution which has actively helped develop local strategic industries, such as the flat-panel and semiconductor industries. This made the trade pattern of vertical specialization wane, led to cross-strait industries moving toward competition with one another, and thereby impacted Taiwan's exports.

3.2.1 The downturn of Taiwan's exports to Mainland China is the main cause of the slowdown of export growth

(1) Before the global financial crisis (2003-2007), the average annual growth rates of Taiwan's exports reached 12.8%. However, the growth rates after the crisis (2011-2013) sharply plunged by 9 percentage points to 3.8% (Chart B2.3).

Chart B2.3 Contributions to Taiwan's exports by region



Source: The Customs Administration, Ministry of Finance.

(2) Taiwan's exports to Mainland China accounted for about 40% of Taiwan's total exports. After the crisis, the export contribution of the Mainland China market fell by 5.9 percentage points compared to that before the crisis (Chart B2.3). The degree of reduction was larger than that in other areas, pointing to the slowdown of Taiwan's export growth being mainly attributable to the drop in exports to Mainland China.

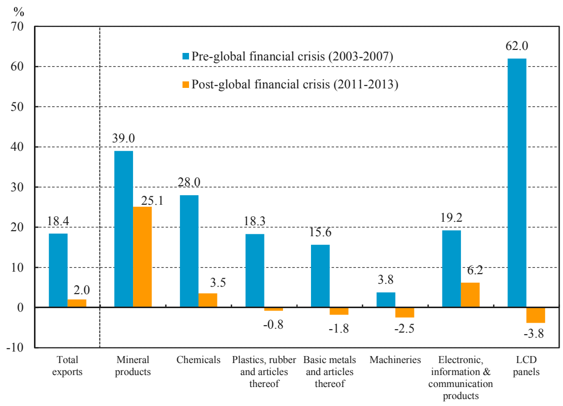
3.2.2 Taiwan's main export products were impacted by the policy of industrial upgrading and import substitution promoted in Mainland China

(1) Before the crisis, the average annual growth rate of Taiwan's exports to Mainland China reached 18.4%. Nevertheless, the growth rate touched just 2.0% after the crisis (Chart B2.4).

(2) Mineral products, chemicals, plastics & rubber and articles thereof, basic metals and articles thereof, machineries, electronics, information & communication products, and flat panels are key commodities exported from Taiwan to Mainland China. The total amount of these exports accounted for 90% of all exports to Mainland China. Compared to those before the crisis, the pace of their yearly growth rates showed signs of slowing down.

(3) Among the above-mentioned products, the average annual growth rate of flat-panel exports declined substantially to -3.8% from 62.0%, signaling the largest degree of reduction, and constituting a severe challenge to the domestic flat-panel industry. Consequently, as the balances of domestic banks' loans to local major flat-panel companies are still high, banks are suggested to pay close attention to flat-panel industry developments and related credit risks.

Chart B2.4 Annual growth rates of major products exported from Taiwan to Mainland China



Note: Including the data of exports to Hong Kong.
Source: The Customs Administration, Ministry of Finance.

Notes: 1. In 2013, owing to the increase in the investment of railway construction and other civil infrastructure, the contribution from fixed investment was somewhat greater than that from consumption.

2. Referring to Barnett, Steven (2013), *China's Growth: Why Less is More*, IMF direct, Oct. 29.

2.2 Domestic economic and financial conditions

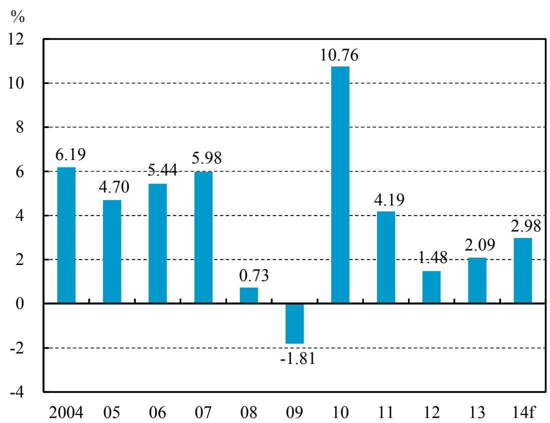
Taiwan's economic growth was moderate in the first three quarters of 2013 due to weaker foreign demand. Nevertheless, thanks to the sustained expansion of the global economy, the real growth rate regained its upward momentum in Q4. Meanwhile, the rise in the general price level remained moderate. Short-term external debt servicing ability remained strong on the back of a continued surplus in the current account and ample foreign exchange reserves. Although the scale of external debt continued to expand, overall external debt servicing ability stayed robust. Moreover, the government's fiscal deficit shrank, whereas total government debt continuously mounted.

2.2.1 Domestic economy expanded slightly

At the beginning of 2013, affected by the sluggish global economy, as well as a tepid domestic stock market and falling real wages, export demand and domestic private consumption posted worse figures than expected, resulting in the economic growth rate registering merely 1.44% in Q1. However, it rose to 2.69% in Q2 owing to temporarily recovering private consumption and growing exports, but then fell to 1.31% in Q3 on account of export shrinkage as well as lackluster consumption and investment. After that, under the green shoots of a global recovery began to emerge, exports and domestic demand performed better than expected in Q4, leading the quarterly growth rate to rebound to 2.88%. As a result, the annual economic growth rate rose to 2.09%[23] for 2013, higher than the 1.48% of the previous year (Chart 2.16).

Taking a glance into 2014, the pickup of economic growth in advanced countries is expected to boost exports, while raising salaries by domestic companies and steadily rising stock prices could help to improve private consumption. Moreover, accelerating 4G network construction and increasing aircraft purchases by the airline industry also could enhance private investment. In line with these improvements in the economic environment, the DGBAS forecasts Taiwan's

Chart 2.16 Economic growth rates in Taiwan



Note: Figure for 2014 is forecast by DGBAS.
Source: DGBAS.

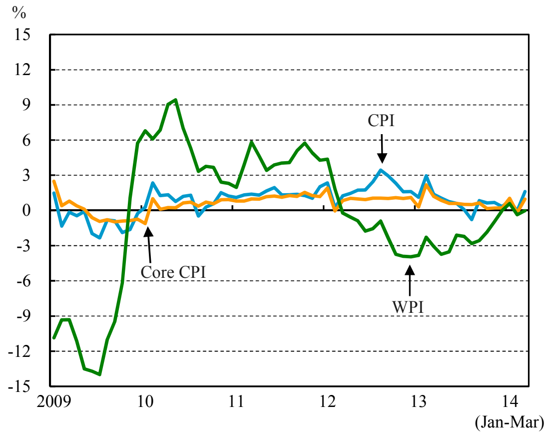
23 See Note 5.

economic growth rate to improve to 2.98%[24] in 2014 (Chart 2.16).

2.2.2 Domestic prices rose mildly

In 2013, owing to the descending prices of crude oil and raw materials, the wholesale price index (WPI) inflation rates in the first three quarters showed a significant fall compared to the same periods of the previous year. However, the WPI inflation rate turned to decline at a diminished pace in Q4, registering -0.01% in December as a result of depreciation of the NT dollar (Chart 2.17). The annual WPI inflation rate stood at -2.43% in 2013, lower than the -1.16% recorded a year earlier, according to the DGBAS.

Chart 2.17 Consumer and wholesale price inflation rates



Note: Figures are measured on a year-on-year change basis.
Source: DGBAS.

At the beginning of 2013, the average CPI inflation rate registered 2.04% during January and February due to rising prices of gasoline, fruits, and travel fares. However, after March, the CPI inflation rate fell successively and hit a yearly low of -0.78% in August, primarily because of a higher 2012 base. Subsequently, domestic prices of vegetables and fruits surged significantly owing to typhoons, and, combined with an electricity price hike, pushed consumer prices upwards and led to the rebound of the CPI inflation rate. Overall, domestic prices rose mildly in 2013 as the average CPI inflation rate was 0.79%, lower than the 1.93% of the previous year, whereas the core CPI[25] inflation rate was 0.66%, lower than the 1.00% recorded a year earlier.

In 2014, while the prices of international agricultural products and raw materials went up due to abnormal climate events, the DGBAS projects the annual WPI inflation rate to rebound to 0.93%. Regarding the CPI, as the rising prices of raw materials exert upward pressure on food prices, the CPI inflation rate is predicted by the DGBAS to rise to 1.53%[26] in the same year.

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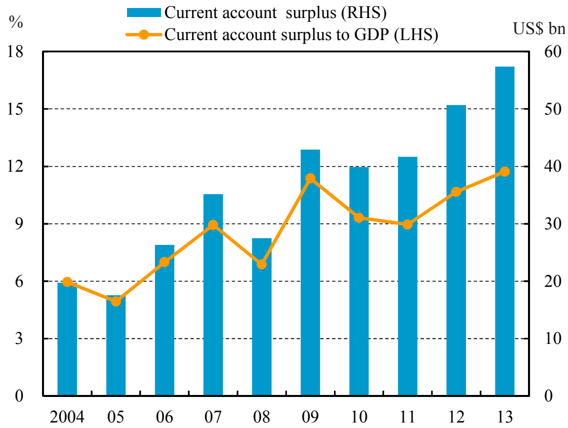
24 See Note 5.
25 The term "core CPI" in this report refers to the consumer price index excluding fruits, vegetables and energy.
26 See Note 5.

2.2.3 Current account surplus persisted and foreign exchange reserves stayed abundant

On account of slightly increasing exports supported by gradual global economic recovery and contracting imports, the goods surplus trended up in 2013. This, combined with a larger services surplus, caused the annual current account surplus to reach US$57.4 billion, or 11.73% of annual GDP, [27] increasing by US$6.7 billion or 13.24% compared to 2012 (Chart 2.18).

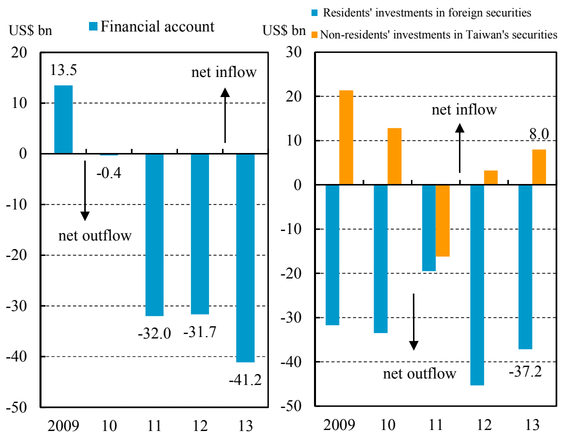
Chart 2.18 Current account surplus



Note: Current account surplus and GDP are annual figures.
Sources: CBC and DGBAS.

As for the financial account, in 2013, the annual balance of outflows registered a record high of US$41.2 billion, primarily because net outflows of residents' direct investment and debt securities investments, as well as due from foreign banks in the banking sector, registered record highs. Analyzing the components of financial account, the net outflows of residents' investment in foreign securities in 2013 recorded US$37.2 billion, mainly due to more investments in foreign debt securities by insurance companies seeking higher revenues. During the same period, the net inflows of non-residents' investment in Taiwan's securities registered US$8 billion because of greater investments by foreign institutional investors in the domestic stock market (Chart 2.19). In addition, the outflows of other investments saw an expansion led by domestic banks increasing re-deposits at foreign banks due to a sharp growth in RMB deposit balances. Although the funds of foreign institutional investors primarily flowed into the stock market and, in turn, helped to promote stock market momentum, this may have a negative impact on the domestic stock market if capital flows reverse.

Chart 2.19 Financial account and net inflow of investments in securities

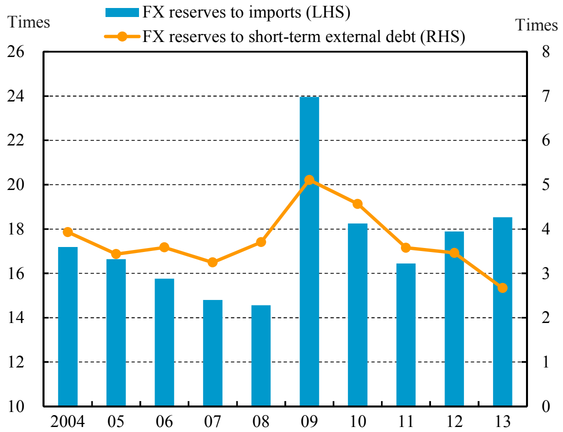


Source: CBC.

[27] 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.

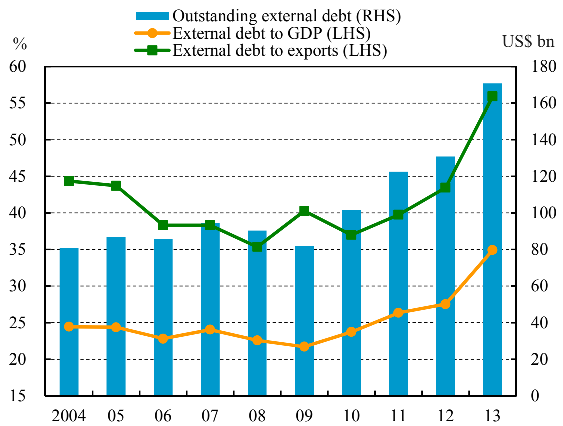
With a rising current account surplus but a greater increase in outflows on the financial account, the balance of payments surplus declined to US$11.3 billion in 2013, contracting by 26.91% from a year earlier. Over the same period, the steady balance of payments surplus together with continuously ascending investment earnings of reserve assets contributed to accumulating foreign exchange reserves, which reached US$416.8 billion at the end of December, a 3.38% increase from the previous year. Furthermore, at the end of March 2014, this total amount had continuously climbed to US$419.2 billion, reflecting ample foreign exchange reserves. At the end of 2013, the ratio of foreign exchange reserves to imports increased to 18.53 months,[28] led by growth in foreign reserves and shrinkage of import values, whereas the ratio of foreign exchange reserves to short-term external debt decreased to 2.67 times[29] due to a greater rise in external debt. These two ratios were both higher than internationally recognized minimum levels, implying that Taiwan's foreign exchange reserves have a robust capacity to meet payment obligations for imports and to service short-term external debt (Chart 2.20).

Chart 2.20 Short-term external debt servicing capacity



Notes: 1. FX reserves and external debt are end-of-period figures.
2. Imports are average monthly figures.
Sources: CBC, DGBAS and MOF.

Chart 2.21 External debt servicing capacity



Notes: 1. External debts are end-of-period figures.
2. GDP and exports are annual figures.
Sources: CBC, DGBAS and MOF.

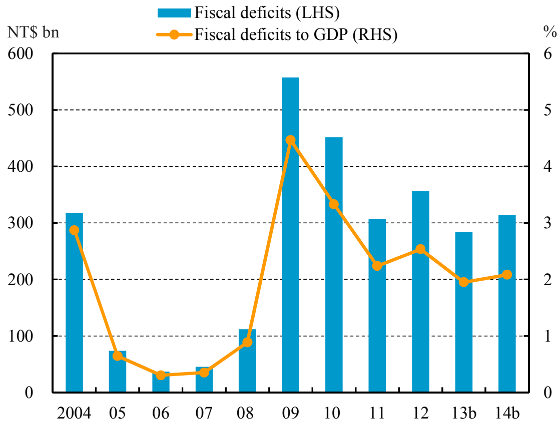
28 A country with a ratio of foreign exchange reserves to imports of more than three months is considered to be at relatively low risk.

29 The general international consensus is that a ratio of foreign exchange reserves to short-term external debt higher than 100% indicates relatively low risk.

2.2.4 Scale of external debt expanded and debt servicing capacity remained strong

Taiwan's external debt[30] increased continuously in 2013 and registered US$170.8 billion, or 34.92% of annual GDP, at the end of the year, indicating that the capacity to service external debt remained robust.[31] In recent years, the scale of external debt expanded constantly owing to the increases of foreign institutional investors' NTD deposit balances and domestic banks' due from foreign banks. Owing to the greater rise of external debt than that of exports in 2013, the ratio of external debt to annual exports rose to 55.91% as of the year end (Chart 2.21). Nevertheless, export revenues were still sufficient to cover external debt,[32] and there were no signs of servicing pressure on external debt.

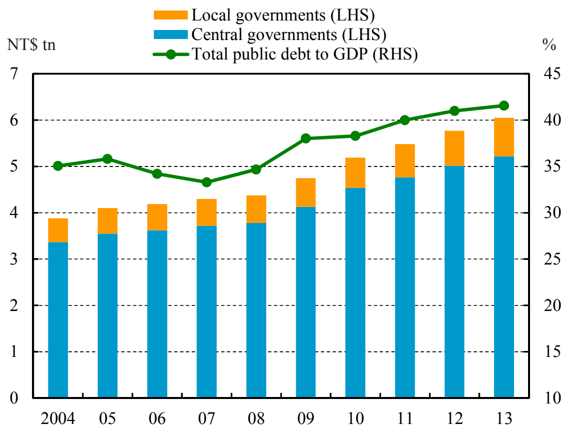
Chart 2.22 Fiscal deficits position



Notes: 1. Fiscal position data include those of central and local governments.
2. Data of fiscal deficits are annual figures. Figures for 2013 and 2014 are budgets.
Sources: MOF and DGBAS.

2.2.5 Fiscal deficits slightly contracted while government debt kept accumulating

Chart 2.23 Public debt



Notes: 1. Outstanding public debt refers to non-self-liquidating debt with a maturity of one year or longer, excluding external debt.
2. Figures for 2013 are preliminary final accounts and budgets for the central government and local governments, respectively.
Sources: MOF and DGBAS.

Since the times of peak spending on public infrastructure construction and domestic demand expansion plans ended, fiscal deficits at all levels of government have notably contracted from 2009 onwards. In 2013, the amount of the fiscal deficits declined to NT$284.1 billion, or 1.95 % of annual GDP, following a marginal rebound in 2012. It is

[30] The CBC defines external debt as the combined amount owed to foreign parties by Taiwan's public and private sectors, including long-term debt with a maturity of greater than one year and short-term debt with a maturity of one year or less. The term "public external debt" refers to debt 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 debt arising from repo transactions between the CBC and international financial institutions). The term "private external debt" refers to private-sector foreign debt that is not guaranteed by the public sector.

[31] The general international consensus is that a country with a ratio of external debt to GDP lower than 50% is deemed to be at relatively low risk.

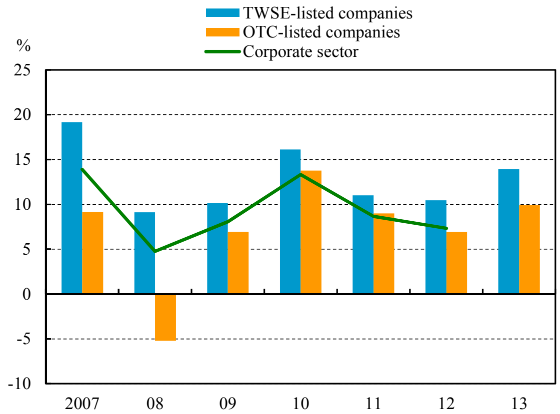
[32] The general international consensus is that a ratio of external debt to exports less than 100% indicates relatively low risk.

expected that fiscal deficits will increase to NT$313.9 billion alongside a slight rise in the ratio of fiscal deficits to annual GDP to 2.08%[33] in 2014 (Chart 2.22).

As fiscal deficits stayed high and both central government and local governments relied on debt issuance to finance debt servicing expenditures, outstanding public debt at all levels of government[34] in 2013 expanded steadily to NT$6.05 trillion,[35] or 41.55% of annual GDP,[36] well above the NT$5.77 trillion recorded in 2012 (Chart 2.23).

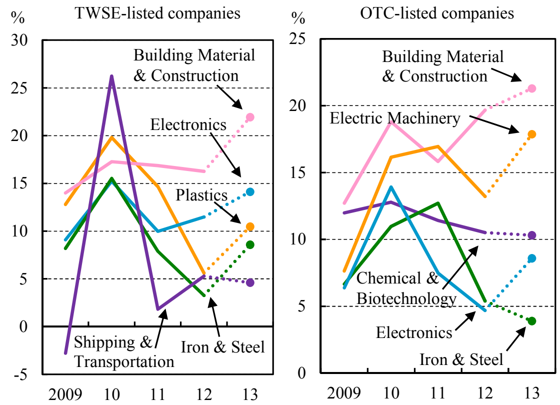
To promote fiscal health, the Ministry of Finance proposed the "Fiscal Health Plan" that seeks to enhance a sound fiscal system through urging related government agencies to take action. The key aspects of the policy direction include: controlling the scale of debt; adjusting the structure of expenditure; coordinating all the resources; diversifying sources of finance; and timely modifying taxation.[37]

Chart 2.24 Return on equity in corporate sector



Note: Return on equity = net income before interest and tax / average equity.
Sources: JCIC and TEJ.

Chart 2.25 Return on equity of TWSE-listed and OTC-listed companies by major industries



Note: Return on equity = net income before interest and tax / average equity.
Source: TEJ.

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33 As a comparison, fiscal deficits in EU member nations are not allowed to exceed 3% of GDP, according to the *Maastricht Treaty* and the subsequent *Stability and Growth Pact*.

34 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. As of February 2014, the outstanding one-year-or-longer non-self-liquidating public debts are NT$5.30 trillion, NT$0.54 trillion, NT$0.16 trillion, and NT$1.2 billion for central government, municipalities, counties, and townships, respectively. The figures account for 37.52%, 3.86%, 1.16%, and 0.009% of the average GDP for the preceding three fiscal years, which are below the ceilings of 40.6%, 7.65%, 1.63%, and 0.12% for central government, municipalities, counties, and townships, separately, set out in the *Public Debt Act*.

35 The figure is based on preliminary final accounts and budgets for central government and local governments, respectively. Outstanding non-self-liquidating debt at all levels of government with a maturity of one year or longer stood at NT$6.01 trillion as of the end of February 2014. If debt with a maturity of less than one year and self-liquidating debt are added in, outstanding public debt stood at NT$6.82 trillion.

36 As a comparison, outstanding debt in EU member nations is not allowed to exceed 60% of GDP, according to the *Maastricht Treaty* and the subsequent *Stability and Growth Pact*.

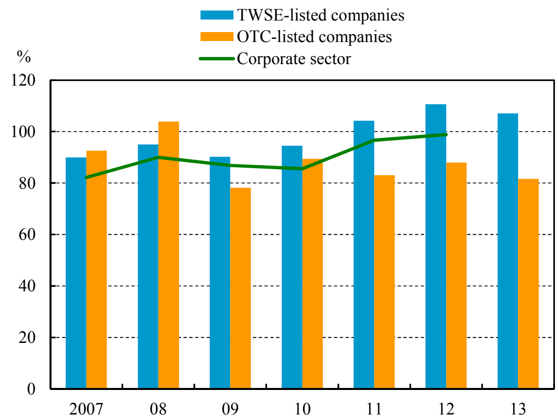
37 Taiwan's legislature has passed the amendment of *Income Tax Act* and *Value-added and Non-value-added Business Tax Act* on 16 May 2014. It will help to promote fiscal health and to improve income allocation.

2.3 Non-financial sectors

2.3.1Corporate sector[38]

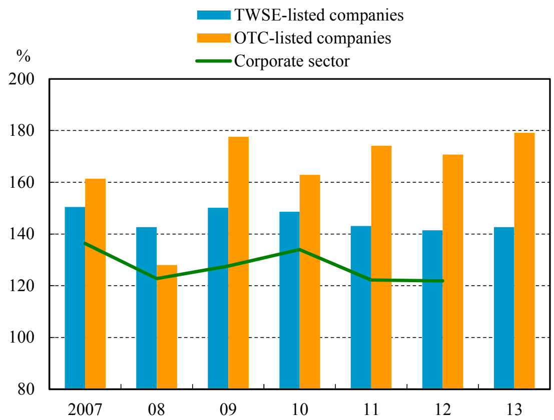
The profitability of listed companies increased in 2013. Meanwhile, their financial structure was stable and short-term debt servicing capacity enhanced. The credit quality of corporate loans stayed sound, as NPL ratios were still at low levels. Owing to the uncertainties surrounding the prospects for global economic recovery, coupled with economic restructuring in Mainland China and a possible elevation of global interest rates, the corporate sector's operations and future profits are likely to face challenges.

Chart 2.26 Leverage ratios in corporate sector



Note: Leverage ratio = total liabilities / equity.
Sources: JCIC and TEJ.

Chart 2.27 Current ratios in corporate sector



Note: Current ratio = current assets / current liabilities.
Sources: JCIC and TEJ.

Profitability of listed companies grew in 2013

In 2013, benefiting from the global recovery and stable economic growth in Mainland China, average ROEs of TWSE-listed and OTC-listed companies rose to 13.95% and 9.90%, respectively, compared to 10.45% and 6.91% in 2012 (Chart 2.24). Profitability broadly improved, mainly because the semiconductor and the trading and consumer goods industries reported profit growth, and the optoelectronic industry saw a return to profitability after a period of great losses.

Except for the shipping and transportation industry, all major industries for TWSE-listed companies reported increasing ROEs in 2013, especially the building material and construction industry. For OTC-listed companies, except for decreased profitability in the chemical and biotechnology and the iron and steel industries, all other industries registered

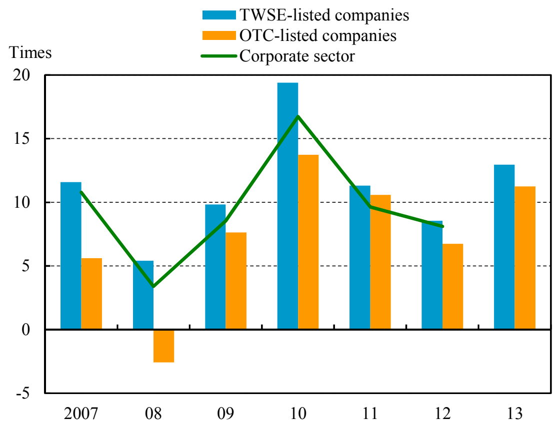
[38] Throughout this section, figures for the corporate sector are entity financial data as of 2012 in accordance with ROC GAAP. Listed companies prepare consolidated financial data as of 2013; prior to 2011 are under ROC GAAP, while 2012 and 2013 are under the TIFRSs. In light of changes in accounting treatment and presentation, readers should interpret these figures prudently when comparing statistics before and after IFRSs adoption.

better performance (Chart 2.25).

Leverage ratio decreased slightly for listed companies

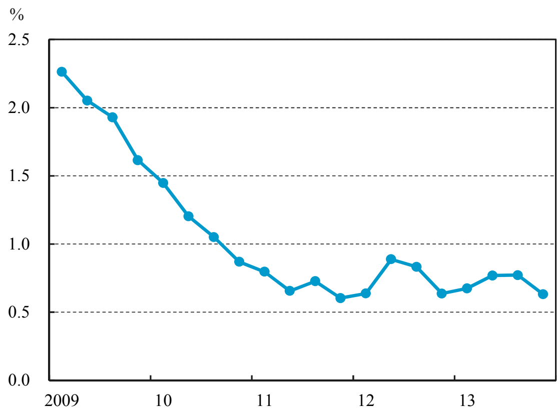
At the end of 2013, the average leverage ratio for TWSE-listed companies slightly fell to 107.07% from 110.61% at the end of the previous year, but remained at a high level. In addition, the average leverage ratio for OTC-listed companies decreased to 81.65% from 87.95% a year earlier (Chart 2.26). Over the same period, outstanding commercial paper and corporate bonds issued by listed companies in view of raising short-term and mid- to long-term funds were much higher than a year earlier, resulting in the run-up of total liabilities. However, leverage ratios declined somewhat due to a greater increase in equity.

Chart 2.28 Interest coverage ratios in corporate sector



Note: Interest coverage ratio = income before interest and tax /interest expenses.
Sources: JCIC and TEJ.

Chart 2.29 NPL ratios of corporate loans



Note: End-of-period figures.
Source: JCIC.

Short-term debt servicing capacity for listed companies enhanced

The current ratio for TWSE-listed companies remained stable at 143% at the end of 2013, while the interest coverage ratio rose to12.96 as a result of increasing profitability. Moreover, the current ratio and interest coverage ratio for OTC-listed companies rebounded to 179% and 11.24, respectively, both higher than the average levels of recent years (Chart 2.27 and 2.28). For listed companies as a whole, short-term debt servicing capacity slightly enhanced.

Credit quality of corporate loans remained sound

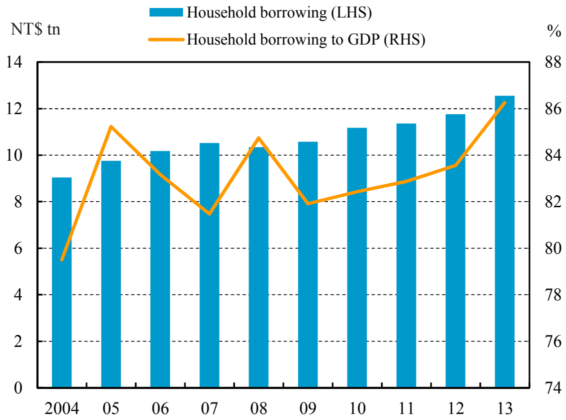
In 2013, the NPL ratio for corporate loans granted by financial institutions was maintained at a relatively low level. Furthermore, the ratio rose in the first three quarters of 2013, owing to the reclassification of impaired loans of a few large corporationsas NPLs. However, the ratio declined to 0.63% at the end of the year, lower than the ratio of 0.64% posted the year before, reflecting sound credit quality for the corporate sector (Chart 2.29).

Corporate sector's profit outlook still faces challenges

The international economy has gradually improved and the domestic economy has grown moderately, which has aided to underpin corporate profits. However, the prospects for global economic recovery remain uncertain. This, coupled with concerns about the pace of the US reducing the size of quantitative easing and the expected rises in interest rates, will affect the global economy and capital market performance. Should interest rates go up, it could leave firms, especially highly leveraged firms, exposed to heavier debt servicing burdens.

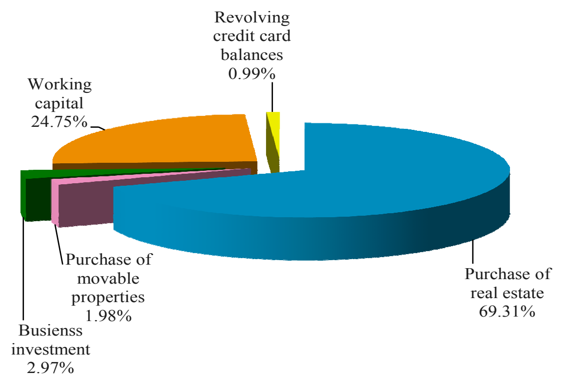
In addition, Mainland China's economic restructuring is also an important factor impacting on Taiwan's export industries (Box 2), especially those in which revenue and assets are mainly concentrated in the automobile, chemical and infrastructure-related industries in Mainland China. Moreover, as Mainland China's TFT-LCD panel and petrochemical industries localize their supply chains, which will transfer the relationship with Taiwanese firms from being complementary and cooperative to being competitive and alternative, coupled with overcapacity and price competition, a situation which is unfavorable for the profitability of Taiwan's export industries might arise.

Chart 2.30 Household borrowing to GDP



Sources: CBC, JCIC and DGBAS.

Chart 2.31 Household borrowing by purpose



Note: Figures are as of the end of 2013.
Sources: CBC and JCIC.

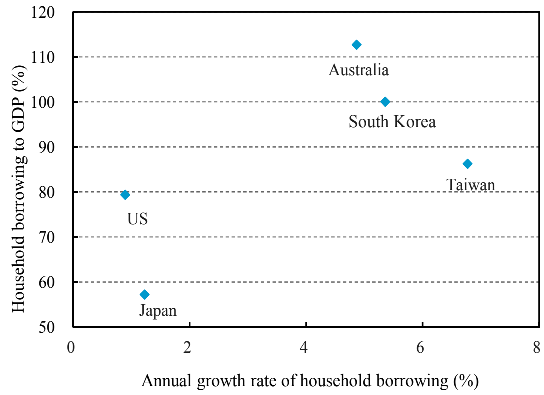
2.3.2 Household sector

The household debt burden relieved slightly as the balance of total household borrowing expanded more slowly than that of disposable income. However, short-term debt servicing capacity of the household sector marginally deteriorated, driven by the build-up of medium-and short- term borrowing. The overall credit quality of household borrowing remained satisfactory. Furthermore, the gradual easing of the unemployment rate and the continuous growth of regular earnings should help to underpin the debt servicing capacity of households.

Household borrowing increased continuously

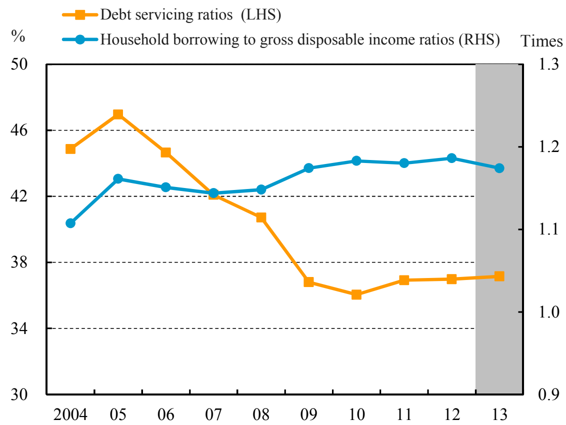
Total household borrowing[39] saw a continued expansion in 2013 and reached NT$12.56 trillion at the end of the year, equivalent to 86.26% of annual GDP (Chart 2.30). The year-on-year growth rate of household borrowing, mainly contributed to by an increase in the purchase of real estate and working capital loans, uplifted to 6.77% at the end of 2013. The largest share of household borrowing went for the purchase of real estate (69.31%), with an annual growth rate of 4.84%, followed by working capital loans[40] (24.75%), with a considerably increased annual growth rate of 12.21%. The rest of the household borrowing categories took only minor percentages, including loans to movable property purchases largely consisting of vehicle loans, business investment loans mainly for margin purchases of securities, and revolving balances on credit cards (Chart 2.31). Among these three types of household borrowing, the first two loans exhibited year-on-year growth rates above 13%, whereas revolving balances on credit cards posted a negative annual growth rate.

Chart 2.32 Household indebtedness in selected countries



Note: Figures for Taiwan and the US are as of the end of 2013. The others are as of the end-September 2013.
Sources: Fed, BOJ, BOK, ABS, IMF, DGBAS, CBC and JCIC.

Chart 2.33 Household indebtedness and debt servicing ratios



Note: Gross disposable income in shaded area is CBC estimate.
Sources: CBC, JCIC and DGBAS.

[39] The term "household borrowing" as used in this section refers to outstanding loans and revolving credit card balances taken out by households from the following financial institutions:
(1) Depository institutions: domestic banks, local branches of foreign banks, credit cooperatives, credit departments of farmers' associations, credit departments of fishermen's associations, and the Remittances & Savings Department of Chunghwa Post Co.
(2) Other financial institutions: trust and investment companies, life insurance companies, securities finance companies, and securities firms.

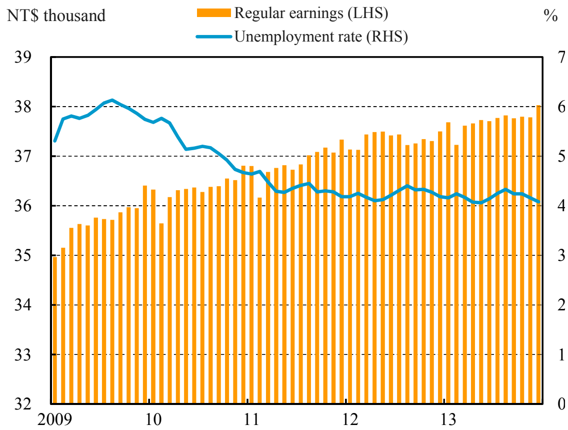
[40] The term "working capital loans" includes outstanding cash card loans.

Compared to other selected countries, the growth of total household borrowing in Taiwan was relatively high. As a percentage of GDP, household borrowing in Taiwan was lower than that in Australia and South Korea (Chart 2.32).

Household debt burden alleviated somewhat

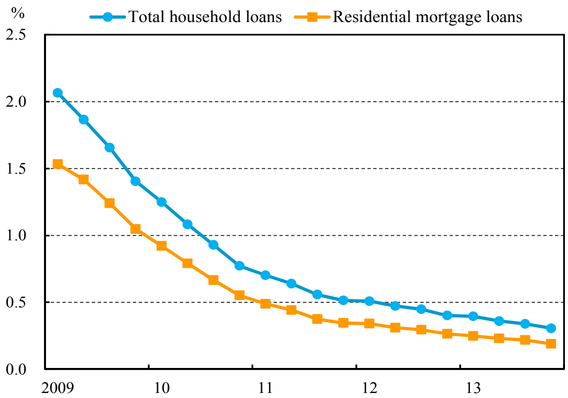
As total household borrowing grew at a slower pace than disposable income in 2013, the ratio of household borrowing to gross disposable income[41] shrank to 1.17 at the end of the year, reflecting that the household debt burden lessened. However, the debt servicing ratio kept rising to 37.15% in 2013, higher than that of 36.98% a year earlier (Chart 2.33), mainly driven by mounting household short-term debt servicing pressure due to the increase in loans to movable property purchases and working capital loans. Nevertheless, the decreasing domestic unemployment rate along with steadily growing regular earnings (Chart 2.34) should help to improve the debt servicing capacity of the household sector.

Chart 2.34 Unemployment rate and regular earnings



Source: DGBAS.

Chart 2.35 NPL ratios of household borrowing



Note: Figures are as of the end of each quarter.
Source: JCIC.

NPL ratio of household borrowing declined to a historical low

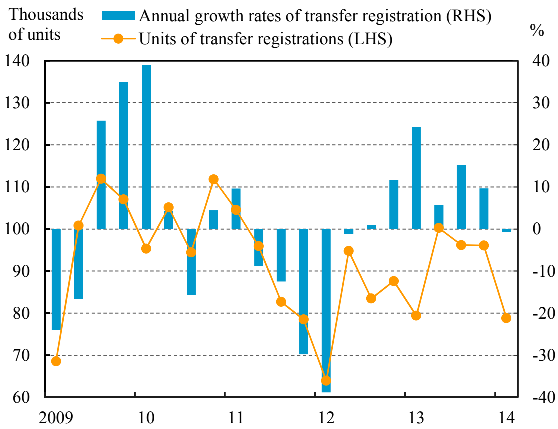
The NPL ratio of household borrowing continuously dropped to 0.31% at the end of 2013, the lowest level in fifteen years (Chart 2.35). The main reason behind this was that NPLs for real estate purchases and working capital loans, the largest shares of household borrowing, steadily contracted during the year. This indicated that household credit quality remained satisfactory.

[41] Gross disposable income =disposable income + rental expenses + interest expenses.

2.3.3 Real estate market

In the first half of 2013, transactions in the real estate market increased significantly, but resumed a stable level in the second half of the year. While housing prices continuously trended upwards in 2013, it stayed at high levels with fluctuating movements in 2014 Q1. In addition, real estate loans grew moderately as mortgage interest rates rose slightly.

Chart 2.36 Building ownership registrations for transaction



Source: *Monthly Bulletin of Interior Statistics*, MOI.

Trading volume in the real estate market expanded before resuming a stable level

In the first half of 2013, trading volume in the real estate market increased in Q2 boosted by issues regarding the Taoyuan Aerotropolis, the upgrading of cities and counties to special municipalities as well as pan-Taipei metropolitan area mass rapid transit construction. In the second half of the year, housing market sentiment turned conservative and the trading volume declined slightly owing to concerns over an early exit from QE in the US in addition to the proposed amendment of the *Specifically Selected Goods and Services Tax Act* by the Ministry of Finance. In Q3, the total number of building ownership transfers for transaction increased by more than 15% year on year owing to a lower base in the previous year as a result of the launch of a property transaction price registration system that led to contracting trading volume. In Q4, the number of building ownership transfers for transaction remained at the same level quarter on quarter due to an increase in trading volume before adjusting for current land value and massive construction projects entering the completion phase. Starting 2014, transactions in the real estate market contracted gradually, and the number of building ownership transfers for transaction declined to 79 thousand units in Q1, with an annual growth rate of -0.73% (Chart 2.36).

In 2013, the accumulated number of building ownership transfers for transaction rebounded to 370 thousand units, with an annual growth rate of 12.78%. Analyzed by the six metropolitan areas, Taipei City registered slight growth of 2%, while the other special municipalities and Taoyuan County saw annual growth rates of above 10%. Taichung City and New Taipei City, among others, reported greater increases.

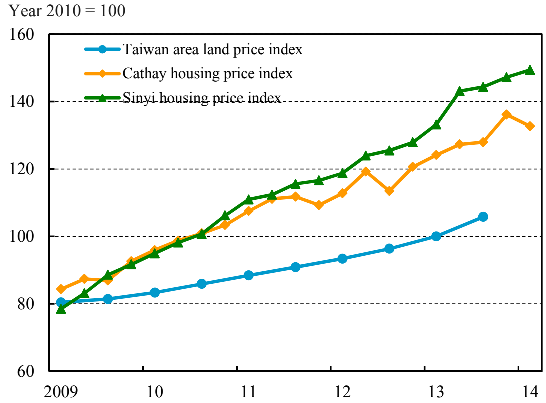
Real estate prices trended upwards

Driven by a buoyant housing market, housing prices rose in 2013. Land prices also continuously trended up due to an active market, as the land price index recorded an annual growth rate of 9.83% in September 2013[42] (Chart 2.37).

The Cathay housing price index (for new constructions) fluctuated with an upward trend. The average growth rate for the whole of 2013 was 9.61%, higher than 7.48% a year earlier. Among the major metropolitan areas, there was greater growth in Taoyuan and Hsinchu City and County as well as Kaohsiung City. In 2014 Q1, the Cathay housing price index decreased, but still increased 6.91% year on year. House prices in the major metropolitan areas mostly elevated, but New Taipei City reversed to trend downwards.

The Sinyi housing price index (for existing buildings) also saw a rise. The average growth rate of the index was 14.43% in 2013, higher than 8.89% a year earlier. Among the major metropolitan areas, there were significant increases in Kaohsiung City and Taoyuan County. In 2014 Q1, the Sinyi housing price index continued an upward trend, with the annual growth rate registering 12.16%, although Taipei City saw a narrower upturn.

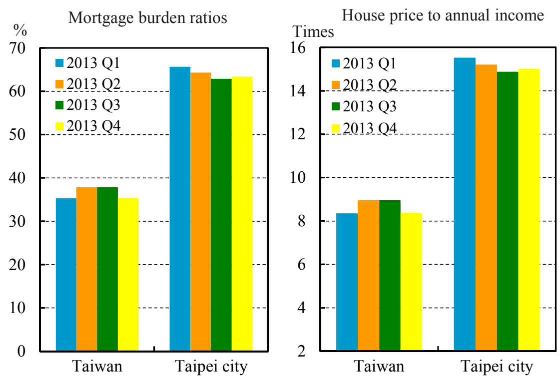
Chart 2.37 Land and house price indices



Notes: 1. Taiwan area land price index is released semiannually.
2. The sample and compilation methods employed to generate the Sinyi housing price index were changed in 2012 Q4 and applied retroactively to historical data.
3. For comparison purposes, all the three indices use the same base year of 2010.

Sources: MOI,Cathay Real Estate and Sinyi Real Estate Inc.

Chart 2.38 Mortgage burden ratios and house price to income ratios



Notes: 1. Mortgage burden ratio = median of housing loans monthly payments / median of household monthly disposable income.
2. Housing price was taken from the residential trading price data recorded in the property transaction price registration system of the Department of Land Administration, MOI.

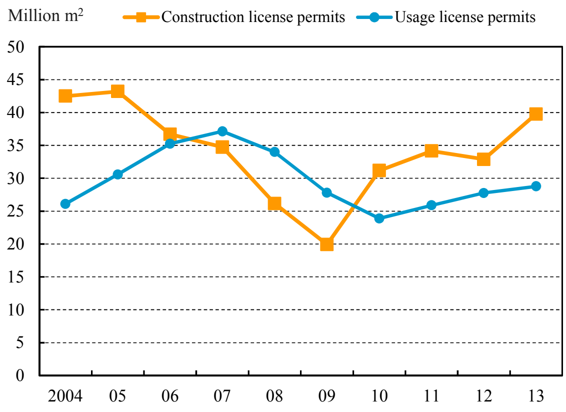
Source: *Housing price affordability indicator statistics*, Construction and Planning Agency of theMOI.

[42] The land price index was 105.8 as the Ministry of Interior re-designated 31 March 2013 as the base period (index=100).

Mortgage burden was heavy

Starting 2013, with rising housing prices, the mortgage burden ratio for Taiwan stayed high and registered 35.4% in 2013 Q4. The house price to income ratio during the same period was 8.4 (Chart 2.38), demonstrating that the mortgage burden was heavy. Among the metropolitan areas, the mortgage burden and house price to income ratios in Taipei City were the highest, reaching 63.4% and 15.0, respectively.

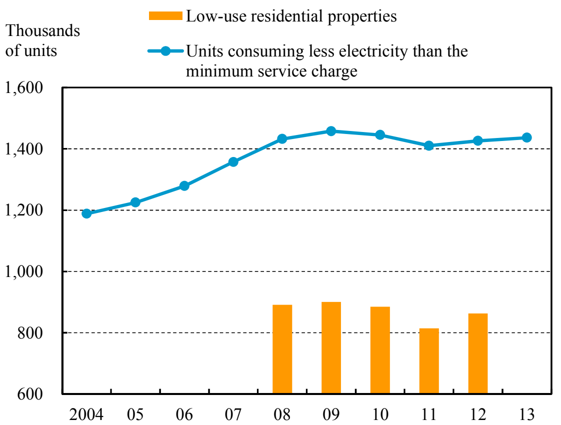
Chart 2.39 Floor space of construction license permits and usage license permits



Source: *Monthly Bulletin of Interior Statistics*, MOI.

Construction license permits increased significantly and vacant houses expanded

Chart 2.40 Estimated units of vacant houses



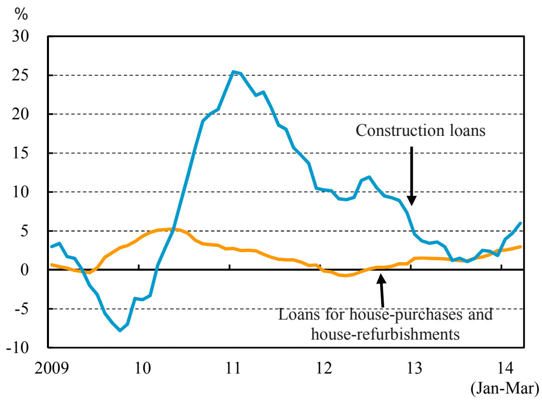
Sources: Construction and Planning Agency of the MOI and Taiwan Power Company.

Due to significantly increasing construction projects introduced to the market, the total floor space of construction license permits sharply increased by 20.92% year on year in 2013, with residential properties increasing by 31.56%. Starting 2014, owing to the lower-than-expected sale of new construction projects as well as a higher base in the previous year, the annual growth rate of residential properties decreased to 1.55% in 2014 Q1 in terms of the total floor space of construction license permits.

Additionally, total floor space of usage permits increased by 3.64% year on year in 2013, with residential properties increasing by 7.27% (Chart 2.39). In 2014 Q1, the annual growth rate of residential properties registered 6.50% in 2014 Q1 in terms of the total floor space of usage permits.

The total number of low-use residential properties was about 863 thousand units at the end of 2012, estimated by the Construction and Planning Agency of the Ministry of Interior. And the ratio of low-use residential properties to housing inventory was about 10.63%. In addition, total new construction housing inventory (for sale)[43] registered 31 thousand units at the end of same year. Moreover, the number of vacant residential properties was 1.44 million units in 2013, estimated by the number of units consuming less electricity than the minimum service charge from the Taiwan Power Company (Chart 2.40). Due to massive construction projects introduced over the last few years and lower-than-expected sales, the units of vacant houses remained high.

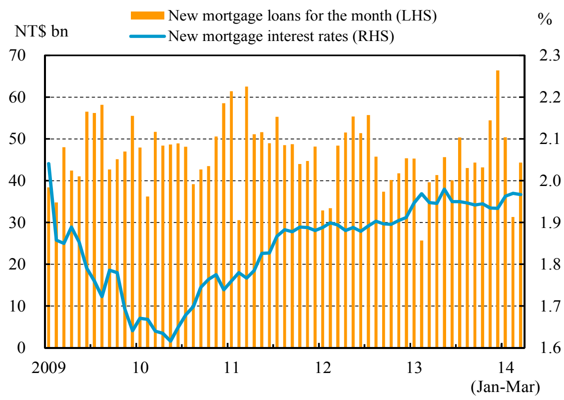
Chart 2.41 Annual growth rates of real estate loans



Source: CBC.

Real estate loans grew modestly as mortgage interest rates gradually increased

Chart 2.42 New mortgages – amounts and interest rates



Source: CBC.

Affected by the CBC's and the FSC's measures to strengthen risk management regarding the real estate loans of banks, the outstanding loans for house purchases and house refurbishments granted by banks [44] reached NT$5.94 trillion at the end of 2013, with an annual growth rate of 2.48%. Outstanding construction loans reached NT$1.49 trillion and the annual growth rate decreased to 1.83%. At the end of March 2014, the annual growth rate of the two types of loans increased compared to the end of 2013 (Chart 2.41).

The new loans for house purchases granted by the five large banks[45] increased slightly by 0.04% year on year to NT$ 539.5 billion in 2013. In 2014 Q1, they continued to increase, posting a growth rate of 13.93% year on year. As for the interest rate for new mortgages, it gradually increased but remained at a low level in 2013, and then rose slightly to 1.967% in March 2014 (Chart 2.42).

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[43] According to the Construction and Planning Agency of the Ministry of Interior, new construction housing inventory (for sale) includes: residential properties with house tax registration, built within the last 5 years, still maintaining the first registration and having the possibility of being for sale.

[44] Refers to domestic banks and the local branches of foreign banks.

[45] The five large banks refer to Bank of Taiwan, Taiwan Cooperative Bank, First Commercial Bank, Hua Nan Commercial Bank, and Land Bank of Taiwan.

CBC continuously implemented targeted prudential measures and reminded borrowers to pay attention to the risk of interest rate fluctuations

The CBC continuously deployed measures to enhance risk management regarding the real estate loans of banks in 2013, and in March urged banks to take self-disciplined prudential measures for housing loans in the areas that have seen dramatic increases in housing prices. Subsequently, in December, the CBC suggested that banks cautiously conduct the business of land collateralized loans in industrial areas for the purpose of ensuring banking soundness and financial stability. In addition, it is noted that domestic banks mostly adopted floating-rate mortgage loans. Meanwhile, the ratio of mortgage expenditure to household income exceeded 30% in Taiwan. As a consequence, it would not only increase borrowers' mortgage payment burdens but also heighten the credit exposures of financial institutions given the possibility of future interest rate hikes. The CBC, in turn, continuously alerted borrowers to pay attention to the risk of interest rate fluctuations in the future and to prepare a well-developed financial plan in advance.

Those measures proved to be effective, as both the concentration of real estate loans and loan-to-value ratios fell. Such measures, together with the continuous promotion of real estate tax reform, strengthening of tax audits on real estate transactions and improving the property transaction price registration system, helped promote sound development of the real estate market.