

# Inflation Report

October 2011

The *Inflation Report* is prepared quarterly by staff of the Bank of Thailand with the approval of the Monetary Policy Committee (MPC). It serves two purposes: (1) to provide a clear forward-looking framework for economic and inflation forecasting to assist the MPC in making monetary policy decisions and (2) to give the MPC an opportunity to present the explanation for their decisions on various policy issues to the public.

Although individual MPC members may have differing opinions regarding the assumptions on which the forecasts are based, as a group they are in agreement with the forecasts on the outlook for inflation and output as well as the risk factors involved as illustrated in the fan charts.

## The Monetary Policy Committee:

Mr. Prasarn	Trairatvorakul	Chairman
Mrs. Suchada	Kirakul	Vice Chairman
Mr. Sorasit	Soontornkes	Member
Mr. Ampon	Kittiampon	Member
Mr. Praipol	Koomsup	Member
Mr. Siri	Ganjarende	Member
Mr. Krirk-krai	Jirapaet	Member

## *Thailand Monetary Policy Strategy*

### **Monetary Policy Formulation**

- The Monetary Policy Committee (MPC) sets monetary policy in order to attain price stability conducive to sustainable economic growth. The MPC also monitors factors contributing to external stability and financial imbalances.

### **The Monetary Policy Instrument**

- The MPC utilizes the 1-day bilateral repurchase transaction rate as the key policy rate to signal the monetary policy stance.

### **The Target**

- The MPC uses core inflation (excluding raw food and energy) as its policy target with the range of 0.5-3.0 percent (quarterly average). In the event that the target is missed, the MPC is required to explain the reasons thereof to the public.

### **Forecasting Tools**

- To assist the MPC in making monetary policy decisions, the Bank of Thailand has developed a macroeconomic model to forecast economic conditions and inflation outlook. The model is also employed to evaluate the impact of various factors on the economy and to offer guidelines for appropriate monetary policy responses.

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## 1. Overview

Industrialized economies expanded moderately in 2011 Q2 and Q3. In particular, the U.S. economy grew slowly and faced greater risks of recession, as private investment and consumption moderated due to sluggish recovery in employment and the real estate sector. Moreover, the sovereign debt problem in the U.S. and the euro area also intensified recently, adding more risk aversion to the marketplace. In light of weak U.S. growth, the FOMC decided to hold the federal funds rate within the range of 0-0.25 percent, as well as initiated the Maturity Extension Program, also known as “Operation Twist”, to stimulate domestic economy going forward. Meanwhile, euro area’s growth also moderated amid greater risks of recession. This owed largely to the impasse over the ongoing sovereign debt crisis, which started to spill over into the financial sector and the real economy of core countries such as Italy, France and Spain, and would possibly call for further fiscal consolidation in these countries. As for Japan, while recovery from natural disasters strengthened, appreciation in the Japanese yen and external demand slowdown would weigh on Japan’s growth momentum going forward. By contrast, Asian economies continued to expand well on the back of robust domestic demand, but would remain constrained by weak external demand to some extent.

Over the past three months, the Monetary Policy Committee (MPC) observed that:

1. The Thai economy contracted by 0.2 percent in 2011 Q2 from the previous quarter, moderated from

the first quarter's growth of 2.0 percent. The deceleration owed mainly to a drop in exports, particularly for the automobile industry that was gravely affected by supply disruption following natural disasters in Japan. Meanwhile, exports in other product categories and the tourism sector continued to expand. Private investment and consumption grew moderately, with slowdown in durable goods consumption notably automobiles, as domestic production was severely affected by supply disruption. Public investment also declined mainly due to lower investment by central and local governments.

Change from the previous period (Percent)	2010	2010			2011	
		Q2	Q3	Q4	Q1	Q2
Domestic demand <sup>1/</sup>	<b>6.1</b>	<b>2.5</b>	<b>-0.6</b>	<b>0.8</b>	<b>2.2</b>	<b>0.0</b>
Private consumption	4.8	2.1	-0.4	1.4	0.8	0.2
Private investment	13.8	5.9	0.2	-1.3	7.6	1.9
Government consumption	6.4	0.2	-1.8	3.1	0.7	-0.7
Public investment	-2.2	0.6	-2.4	-2.3	2.7	-8.1
Net exports of goods and services	<b>-2.8</b>	<b>1.5</b>	<b>-15.8</b>	<b>20.0</b>	<b>10.6</b>	<b>-7.6</b>
Exports of goods and services	14.7	3.2	-3.7	5.9	10.4	-0.3
Imports of goods and services	21.5	3.8	0.2	2.1	10.4	2.1
Gross domestic product	<b>7.8</b>	<b>0.2</b>	<b>-0.4</b>	<b>1.3</b>	<b>2.0</b>	<b>-0.2</b>

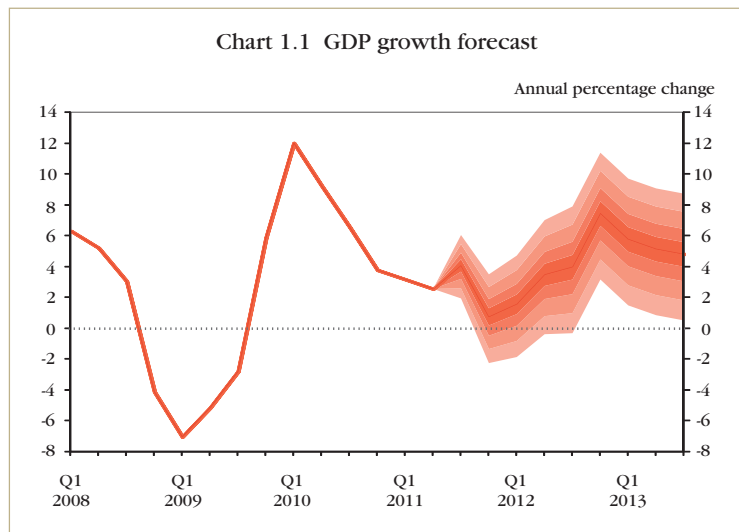
Note: <sup>1/</sup>Domestic demand excluding changes in stocks  
Source: National Economic and Social Development Board

Recent data in July and August indicated that the Thai economy is likely to resume growth in 2011 Q3 given positive developments in both domestic and external demand, particularly exports, tourism and private investment. Exports should expand in all categories as automobile exports resume once supply

disruption resolves. Private investment, particularly in machinery and equipment, and tourism are expected to sustain strong momentum. Lastly, government consumption and public investment should continue to stimulate growth further due to accelerated disbursement late in the fiscal year.

2. Going forward, the MPC views major risks to growth to arise from the following internal and external factors. (1) Widespread floods may affect agricultural and manufacturing production in 2011 Q4, particularly for automobiles and electronics, as well as the tourism sector. As a result, recovery from the floods may take longer than expected. (2) Trading partners' economies may expand slowly, given the sovereign debt problem in the euro area and the fragile economic recovery in the U.S. (3) International capital flows may be highly volatile due to uneven global economic growth, contributing to higher uncertainty and volatility in the global economic landscape. Lastly, (4) oil prices in the global market may turn out higher than expected.

Given the assessment of risk factors and the outlook on the global recovery, the MPC expects continued expansion for the Thai economy. Output growth in 2011 is projected to be 2.6 percent, down from the previous projection mainly due to the impacts of domestic floods in the fourth quarter. Output growth is then forecast to be 4.1 percent in 2012, a slight drop from the previous projection, as domestic floods subside and government stimulus measures take effect.



Note: The fan chart covers 90 percent of the probability distribution.

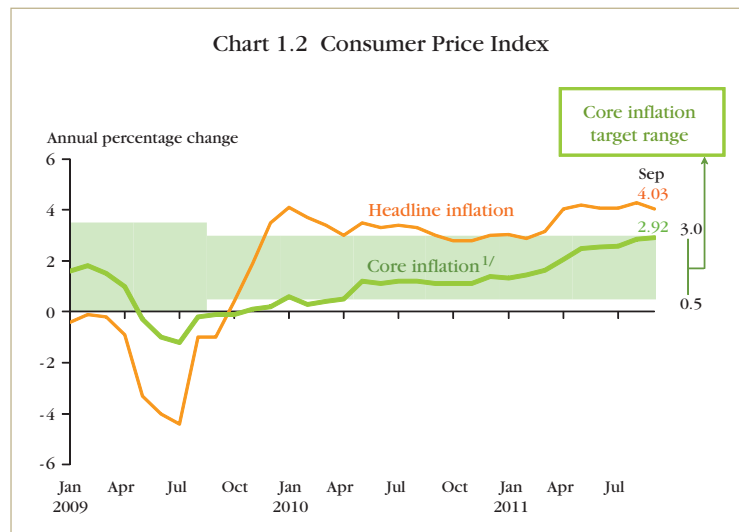
3. Thailand's overall financial stability remained sound due to healthy corporate, financial institutions and household balance sheets thanks to favorable income and employment conditions. Nevertheless, the sovereign debt problem in the euro area and the weak outlook for global economic recovery added more risks to Thailand's economic and financial stability compared to the assessment in the previous *Report*. This may adversely affect Thailand's exports and domestic economy, which will result in greater uncertainty in household income and thus higher risks on debt-servicing ability of households and firms. Should the debt problem in the euro area lead to credit crunch in the global financial market, risks on financial institutions' short-term debt denominated in foreign currency will increase and may give rise to volatility of capital flows and exchange rates. The MPC will also closely monitor upcoming risks from the global economic slowdown, the sovereign debt problem in the

euro area, and the government's stimulus packages, which may affect Thailand's household spending behavior and long-term fiscal sustainability while also adding to inflationary and cost pressures.

### *Inflation outlook and monetary policy*

Headline inflation stood at 4.1 percent in 2011 Q3, accelerating from the previous quarter due to the pick-up in core inflation and energy prices, which resulted from the reduction in electricity charge subsidy and high retail gasoline prices driven by global prices. During the latter part of the quarter, however, domestic gasoline prices subsided with lower global fuel prices and the reduction in oil fund levy. Fresh food prices, at the same time, decelerated from the previous quarter. On the other hand, core inflation also edged up to 2.8 percent mainly due to higher prices of food and beverages, reflecting that pass-through of input costs to final prices remained high.

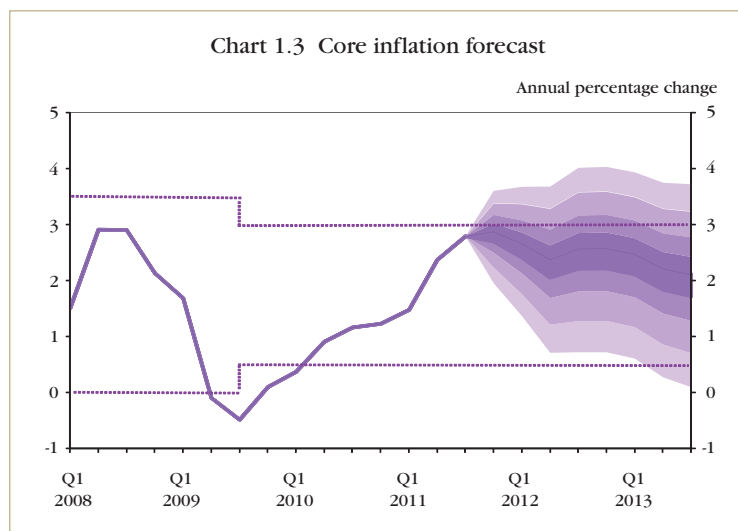
Looking ahead, the MPC projects pressures from production costs and inflation expectations to sustain. Domestic floods will likely drive up prices of fresh food due to devastation of agricultural output and higher transport costs, although demand-side pressures may decline due to the reduction in oil fund levy (effective since August 27, 2011) and the extension of part of government's cost-of-living subsidy measures.



Note: <sup>1/</sup>Consumer Price Index excluding raw food and energy items  
 Source: Trade and Economic Index Bureau, Ministry of Commerce

Major upside risks to inflation remain due to the following: (1) government policies that may contribute to higher cost pressures, domestic spending, and inflation expectations – including the minimum wage raise, the rice pledging scheme, and the gradual increase in oil fund levy; and (2) elevated global oil and commodity prices driven by supply shocks due to natural disasters and global demand’s resumption to its normal trend. On the other hand, downside risks to inflation include: (1) oil and commodity prices that may turn out lower than the baseline scenario due to demand factors, such as protracted recovery in the global economy; (2) the possibility that the government may implement price control measures to encourage economic recovery after the floods subside; and (3) increased pass-through of production costs to final prices that may prove less than expected should Thailand’s economic growth register below its projection.

In light of the assessment of pressures and risks to inflation above, the MPC projects headline inflation in 2011 and 2012 to be 3.8 and 3.5 percent, respectively, slightly moderated in 2011 but up in 2012 compared to the previous projection. Core inflation forecast stays unchanged at 2.4 percent in 2011, and then revised up to 2.5 percent in 2012. The upward revision for next year's forecast owes to sustained demand pressures and also government policies that may add to inflation pressures going forward, such as the minimum wage hike, the rice pledging scheme, and gradual increase in excise tax on diesel fuel.



Note: The fan chart covers 90 percent of the probability distribution.

With regard to monetary policy, the MPC in its meeting on August 24, 2011, assessed the slowdown in advanced countries to weigh on the prospects of Thai exports. However, more intra-regional trade within Asia and export diversification to alternative markets would help mitigate the adverse impacts. Domestic consumption and investment were expected to expand firmly.

Meanwhile, inflation pressures remained as domestic demand continued to expand amid the government's stimulus measures, despite some softening in global oil and commodity prices. As a consequence, inflation expectations picked up. The MPC thus decided with a 5-2 vote to raise the policy interest rate by 0.25 percent from 3.25 to 3.50 percent, with two votes to hold the policy interest rate at the current level of 3.25 percent. In its subsequent meeting on October 19, 2011, the MPC judged that the Thai economy continued to expand thanks to intra-regional trade within Asia and strong domestic demand, especially with pushes from fiscal stimulus, although export growth began to demonstrate some moderation. Meanwhile, domestic floods intensified and brought about a partial halt in some economic activities. Inflation pressures continued to sustain driven by growth in domestic demand, while inflation expectations became more stable. The MPC also assessed the current level of the policy rate to be appropriate in addressing upcoming inflation pressures and supporting economic adjustments, amid heightened global uncertainty and further impacts of domestic floods coming underway. Accordingly, the MPC voted 6 to 1 to hold the policy interest rate at the current level of 3.50 percent, with one vote in favor of a 0.25 percent reduction.

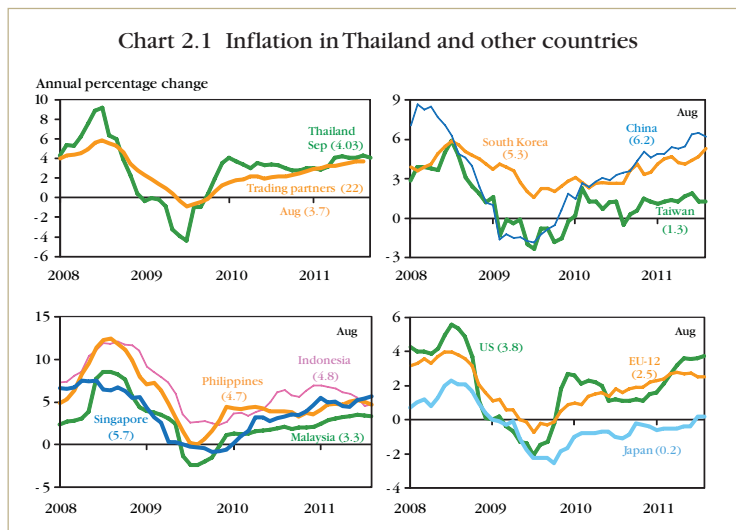
## 2. Inflation and Economic Conditions

### Inflation trends

#### Trading partners' inflation

In July and August, inflation in most of Thailand's trading partners, especially in Asia such as South Korea and Singapore, continued to pick up from the previous quarter in line with sustained price pressures driven by both supply and demand factors. Commodity prices remained high and demand pressures from the ongoing growth momentum resulted in continued pass-through. This was broadly consistent with the trend observed in Thai inflation.

*Inflation in most of Thailand's trading partners continued to pick up due to high commodity prices and continued economic expansion.*



Source: Various official sources and Bloomberg

#### Domestic inflation

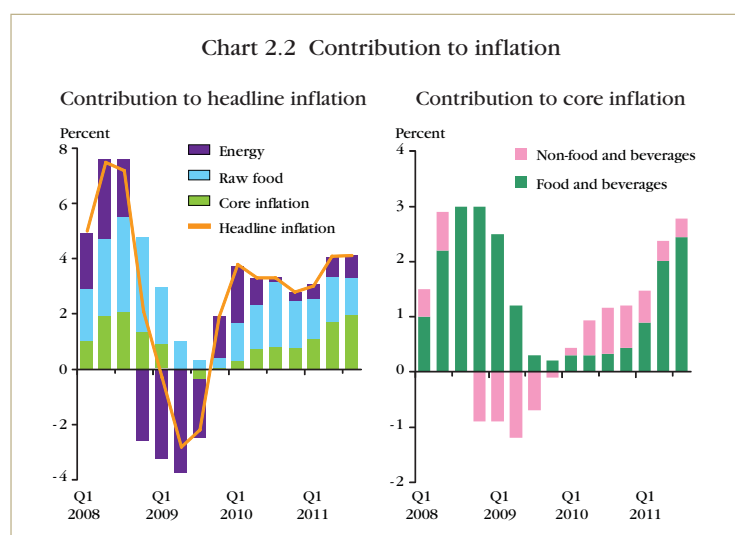
Headline inflation accelerated to 4.13 percent in 2011 Q3, up from the previous quarter due to the upswing in core inflation and energy prices, which resulted from the reduction in electricity charge subsidy

*Headline and core inflation stood at 4.13 and 2.79 percent, respectively, in 2011 Q3, accelerating from the previous quarter.*

and high domestic retail gasoline prices in line with global prices. During the latter part of the quarter, however, domestic gasoline prices subsided with prices in the global market and the reduction in oil fund levy. Meanwhile, fresh food prices decelerated from the previous quarter due to unfavorable weather conditions.

Table 2.1 Quarterly inflation							
Unit: Percent	2010	2010			2011		
		Q2	Q3	Q4	Q1	Q2	Q3
<b>Percentage change from the previous year (%ΔYoY)</b>							
- Headline Consumer Price Index	3.3	3.3	3.3	2.8	3.01	4.10	4.13
• Core Consumer Price Index	0.9	0.9	1.2	1.2	1.46	2.37	2.79
• Raw food	10.3	9.1	13.8	10.2	8.28	9.06	7.07
• Energy	10.5	10.9	1.5	3.2	5.21	7.92	8.65
<b>Percentage change from the previous quarter (%ΔQoQ)</b>							
- Headline Consumer Price Index	-	1.0	0.6	0.2	1.2	2.1	0.5
• Core Consumer Price Index	-	0.4	0.2	0.2	0.7	1.3	0.6
• Raw food	-	4.0	3.4	-0.8	1.5	4.7	1.6
• Energy	-	0.5	-2.2	2.4	4.6	3.0	-1.5

Source: Trade and Economic Index Bureau, Ministry of Commerce.



Source: Trade and Economic Index Bureau, Ministry of Commerce, and calculations by Bank of Thailand.

Core inflation rose to 2.79 percent, picking up from the second quarter mainly due to the rise in prices of food and beverages, which reflected high pass-through of production costs to final prices.

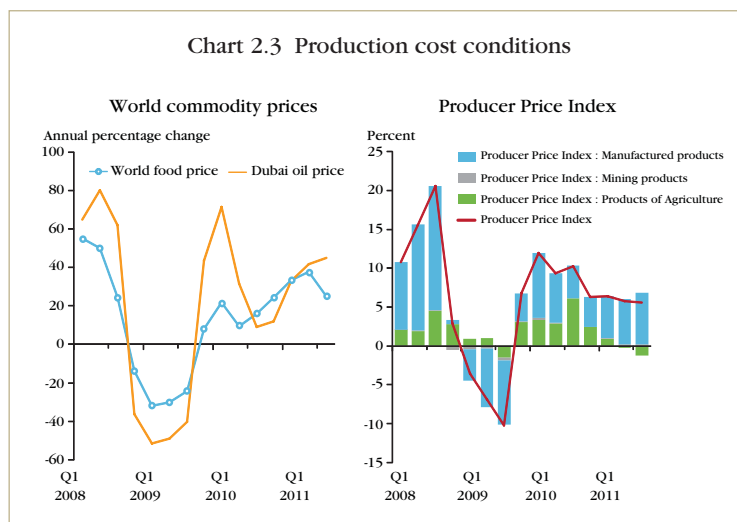
### *Production cost conditions*

#### Raw material cost

Global oil prices continued to trend up in 2011 Q3, despite some softening in August due to concerns over the fragile global economy stemming from the sovereign debt problem in the euro area and the U.S. Meanwhile, global food prices moderated from the previous quarter with prices of cereals and meat products, whereas prices of dairy products ticked up gradually.

*Overall production costs remained elevated, reflecting high global commodity prices, manufactured product prices in PPI, and labor costs.*

Producer Price Index (PPI) inflation rose to 5.6 percent, decelerating slightly from the previous quarter in line with prices of agricultural products, notably



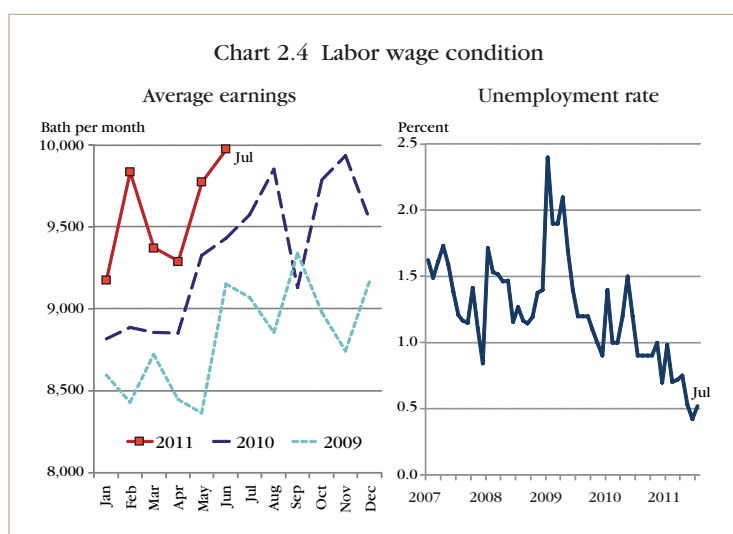
Source: Bloomberg and Food and Agriculture Organization of the United Nations (FAO).

Source: Trade and Economic Index Bureau, Ministry of Commerce, and calculations by Bank of Thailand.

vegetables. However, prices of manufactured and mining products continued to accelerate including prices of food, beverage and tobacco products, chemicals and chemical products, as well as other manufactured products. These developments reflected that cost-side pressures continued to build up.

### Labor cost

Labor market data in 2011 Q2 indicated that pressures on labor costs remained elevated owing to the continued increase in average earnings compared to the same period last year, in line with domestic growth and tightened labor market conditions as reflected by low rate of unemployment.



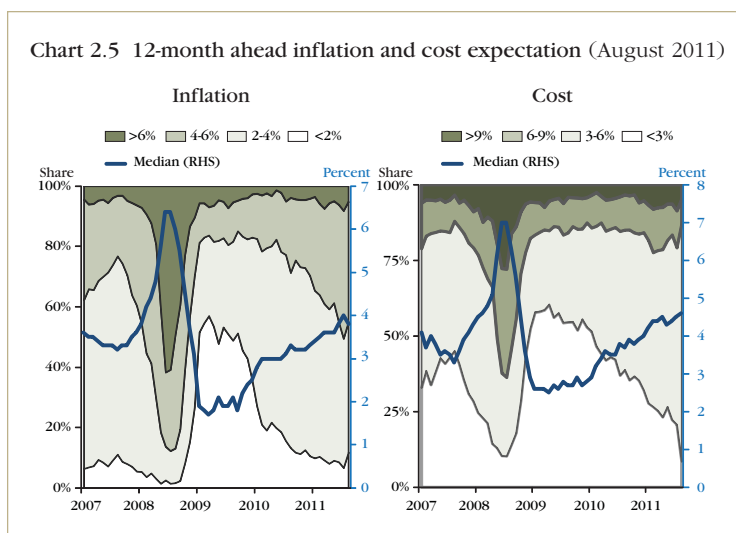
Source: National Statistical Office.

### *Pass-through from cost to final prices*

*Going forward, pass-through of production costs to final prices will likely continue amid pressures from higher costs, strong demand, and high inflation expectations.*

Pass-through from production costs to final prices, especially for food and beverages, subsided slightly in 2011 Q3 from the previous quarter but remained elevated. Going forward, the pass-through is expected

to continue, driven by high production costs resulting from: (1) elevated global oil and commodity prices, despite some softening due to heightened risks to the global economy; (2) the government's plan to gradually float energy prices such as prices of LPG for industries; (3) rising labor wages in line with tightened labor market conditions and the minimum wage raise; and (4) the rice pledging scheme that may drive up rice prices. Meanwhile, demand pressures and inflation expectations will likely allow greater pass-through of production costs to final prices, with key support from fiscal stimulus.



Source: Bank of Thailand's Business Sentiment Survey

## *Aggregate demand in 2011 Q2 and the outlook for 2011 Q3<sup>1/</sup>*

*In 2011 Q2, the Thai economy contracted from the previous quarter following a drop in exports and declining government expenditure. However, the economy is expected to resume growth in 2011 Q3.*

The Thai economy contracted by 0.2 percent in 2011 Q2 from the previous quarter, after expanding by 2.0 percent in 2011 Q1. The contraction owed largely to a drop in exports following Japan's natural disaster, coupled with lower government spending on consumption and investment. Meanwhile, private consumption and investment moderated from the previous quarter.

Change from the previous quarter (seasonally adjusted, percent)	2010				2011	
	Q1	Q2	Q3	Q4	Q1	Q2
<b>GDP</b>	<b>2.9</b>	<b>0.2</b>	<b>-0.4</b>	<b>1.3</b>	<b>2.0</b>	<b>-0.2</b>
<b>Domestic demand</b>	<b>1.6</b>	<b>2.5</b>	<b>-0.6</b>	<b>0.8</b>	<b>2.2</b>	<b>0.0</b>
Private consumption	0.8	2.1	-0.4	1.4	0.8	0.2
Private investment	4.6	5.9	0.2	-1.3	7.6	1.9
Government consumption	1.2	0.2	-1.8	3.1	0.7	-0.7
Public investment	1.2	0.6	-2.4	-2.3	2.7	-8.1
Exports of goods and services	<b>4.6</b>	<b>2.5</b>	<b>-2.5</b>	<b>4.7</b>	<b>10.7</b>	<b>-1.0</b>
Imports of goods and services	<b>4.2</b>	<b>3.7</b>	<b>0.0</b>	<b>2.2</b>	<b>10.1</b>	<b>2.4</b>

Source: National Economic and Social Development Board and calculations by Bank of Thailand

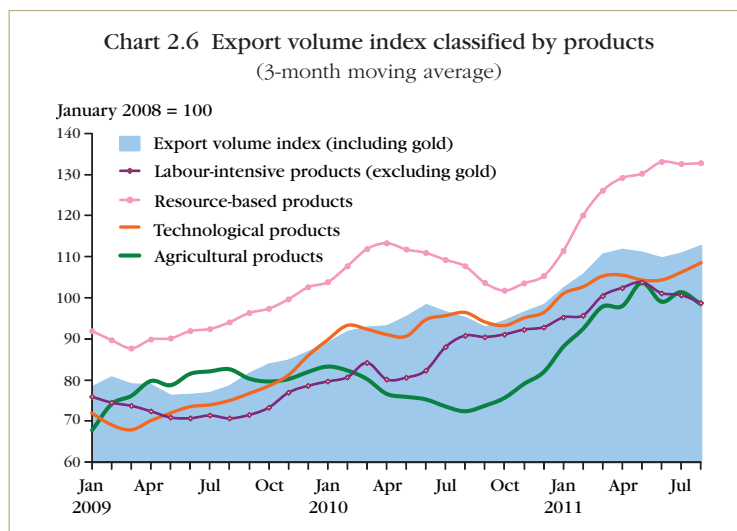
The Thai economy is expected to resume growth in 2011 Q3, propelled by positive developments in both domestic and external demand. On the domestic side, private investment should grow particularly well. In addition, merchandise exports are expected to grow from automobile exports as supply disruption resolves, while services exports benefit from the rising number of tourists especially from Asia.

<sup>1/</sup> Data used in assessing aggregate demand in 2011 Q2 were mainly obtained from the National Economic and Social Development Board. Economic indicators used in assessing the 2011 Q2 developments and the outlook for 2011 Q3 were obtained from the Bank of Thailand, except for data on government expenditure, which originated from the Comptroller General's Department and were compiled by the Fiscal Policy Office.

Nevertheless, domestic floods are likely to affect domestic demand and exports in 2011 Q4, before recovering firmly next year after the floods subside.

Exports of goods and services dropped by 1.0 percent in 2011 Q2 from the previous quarter as automobile exports were affected by Japan's supply disruption. Nevertheless, exports in other product categories continued to grow. Agricultural exports rose favorably thanks to rice exports. Likewise, exports of resource-based products remained robust mainly from exports of sugar, rubber products, and prepared food. In addition, services exports also expanded as reflected by the rising number of inbound tourists, particularly from Asia.

*Exports contracted in 2011 Q2 from the previous quarter, but are poised to resume growth in 2011 Q3, partly as the impacts of Japan's natural disasters subside.*

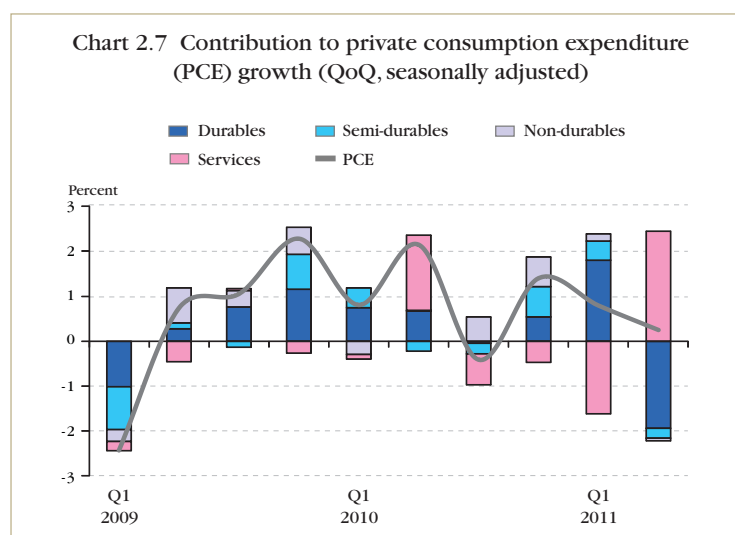


Source: Bank of Thailand

Total exports in 2011 Q3 will likely expand from the previous quarter, as automobile exports resume growth after supply disruption resolves. Furthermore, exports of plastics and plastic products are likely to increase amid rising demand from China and ASEAN. Exports of agricultural products are also expected to expand mainly from exports of rubber and rice. Lastly, exports of services are anticipated to remain firm due to favorable tourism revenue.

*Private consumption in 2011 Q2 moderated from the previous quarter due to the impacts of Japan's supply disruption, and is likely to remain subdued in 2011 Q3.*

**Private consumption** in 2011 Q2 grew by 2.8 percent over the same period last year, after registering 3.3 percent growth in the previous quarter. On a quarter-on-quarter basis, private consumption growth moderated to 0.2 percent mainly due to lower durable goods consumption, particularly for automobiles, as domestic production was adversely affected by Japan's supply disruption. Nevertheless, consumption of services, notably transports and communications, continued to expand favorably.

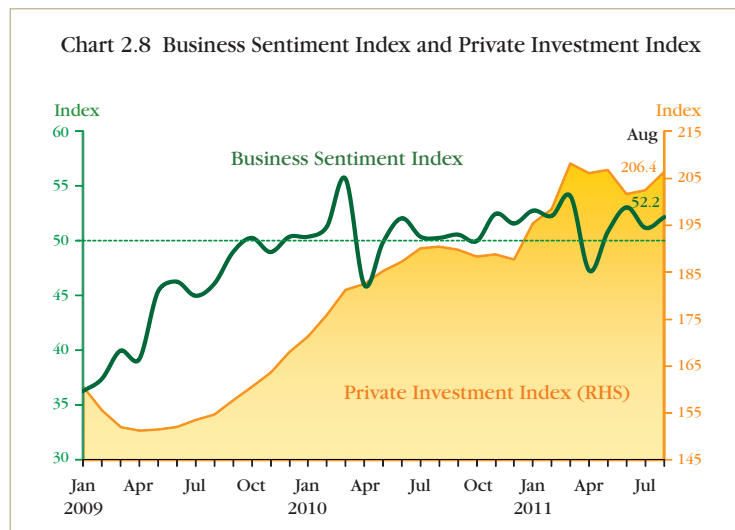


Source: National Economic and Social Development Board and calculations by Bank of Thailand

Private consumption should remain subdued in 2011 Q3 despite favorable income and household credit expansion. This owes mainly to the temporary impacts of domestic floods late in the quarter, as well as consumers' wait-and-see attitude regarding government's stimulus packages, such as the scheme for first-time car and house buyers. Nevertheless, growth momentum should sustain going forward thanks to favorable prospects of income, employment, and household credit, as well as strong support from government stimulus. Private consumption is expected to pick up firmly after the flood situation improves.

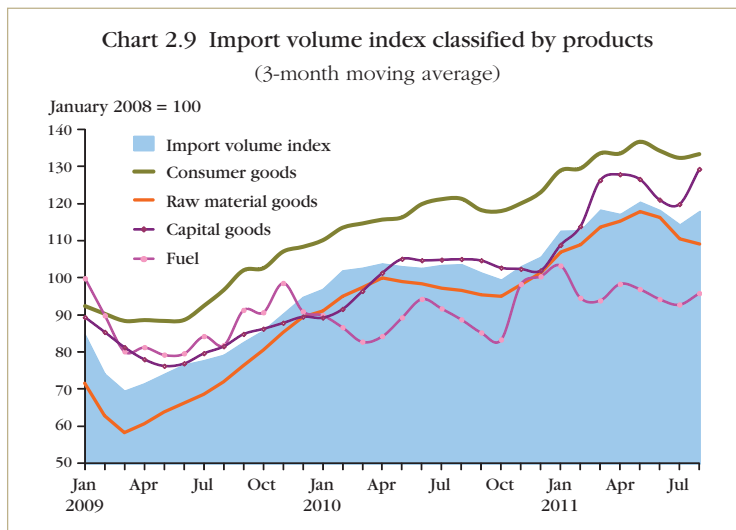
**Private investment** expanded by 8.6 percent in 2011 Q2 over the same period last year, slowing from 12.6 percent in the previous quarter. This translated into a 1.9 percent growth from the first quarter. Overall momentum was supported by investment in the construction sector led by residential and commercial construction in Bangkok, as well as construction in the industrial sector. This was broadly consistent with expansion in construction area permitted in municipal zones and higher domestic cement sales over the preceding quarter. Meanwhile, investment in the machinery and equipment expanded with rising machinery imports in petroleum, iron and steel, and construction industries.

*Private investment decelerated in 2011 Q2 from the previous quarter, but moderate expansion is expected in 2011 Q3.*



Source: Bank of Thailand

Private investment should grow slightly in 2011 Q3 as reflected in up-trending Private Investment Index (PII) on the back of continued investment in machinery and equipment, as well as investment in the construction sector. In particular, investment in machinery and equipment is likely to continue as firms, especially those in automobile industry, accelerate their imports of capital goods to expand their production capacity. Meanwhile, investment in the construction sector is expected to grow further thanks to commercial investment in Bangkok, as well as construction investment in the industrial sector. This strong prospect is also in alignment with favorable Business Sentiment Index (BSI), which remained above 50 during the first two months of this quarter. Nevertheless, factors critical to future investment decisions continued to be difficulties in price adjustments, economic uncertainties, and rising production costs.



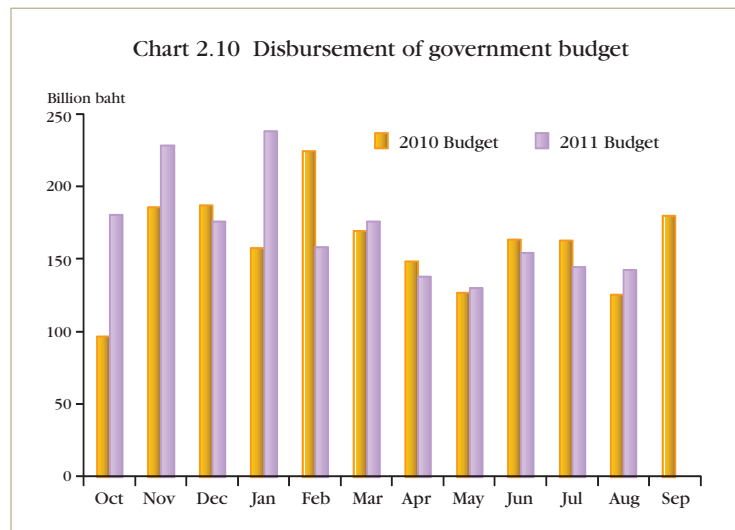
Source: Bank of Thailand

**Imports of goods and services** in 2011 Q2 rose by 2.4 percent from the previous quarter. Merchandise imports expanded in almost all categories, particularly raw materials and intermediate goods such as chemicals and plastic products. However, growth in total imports moderated with slowdown in production especially for automobiles and parts, as well as lower imports of services. In the third quarter, imports are likely to grow in most product categories, especially automobile and parts after supply disruption resolves.

**Government spending** contracted in 2011 Q2, the third quarter of the fiscal year. Government consumption decreased by 0.7 percent from the previous quarter due to accelerated disbursement that already took place in the first half of the fiscal year. Meanwhile, public investment also declined by 8.1 over the preceding period due to lower disbursement of central and local governments.

*Imports expanded in 2011 Q2 and are likely to grow further in 2011 Q3.*

*In 2011 Q2, overall government spending declined from the previous quarter, mainly due to lower public investment, but is likely to pick up in 2011 Q3.*



Note: Excluding principal repayments and replenishments of the treasury reserve.  
 Source: Comptroller General's Department, Ministry of Finance

In 2011 Q3, the last quarter of the fiscal year, government spending should rise as central and local governments are likely to accelerate their disbursement after a deceleration in the last quarter. Nevertheless, state enterprises' investment is likely to remain close to the previous quarter, given accelerated disbursement in the prior period.

*Production and supply in 2011 Q2 and the outlook for 2011 Q3<sup>2/</sup>*

*Production and supply contracted in 2011 Q2 from the previous quarter, but are expected to recover in 2011 Q3.*

Overall production and supply in 2011 Q2 contracted by 0.2 percent from the previous quarter, as manufacturing production was affected by the impacts of natural disasters in Japan. On the other hand, agricultural output expanded slightly from the previous quarter.

<sup>2/</sup> Data used in assessing aggregate supply in 2011 Q2 were obtained from the NESDB. Economic indicators used in assessing the 2011 Q2 developments and the outlook for 2011 Q3 were obtained from the BOT, except for data on government expenditure, which originated from the Comptroller General's Department and were compiled by the Fiscal Policy Office.

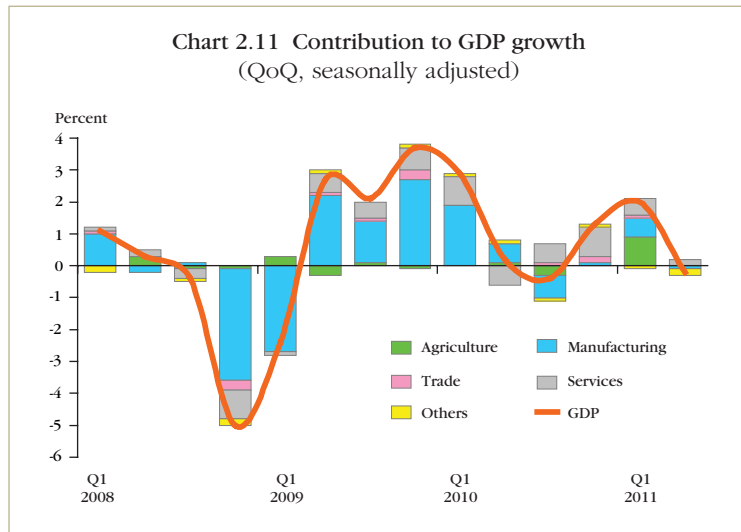
Production and supply in 2011 Q3 are anticipated to expand from the second quarter, with recovery in the automobile industry along with progress in resolving the supply chain disruption. Production in other sectors should also continue to grow firmly.

The ongoing floods should continue to affect agricultural and manufacturing production substantially in 2011 Q4, also with significant impacts on the tourism sector, before firm recovery anticipated for the next year.

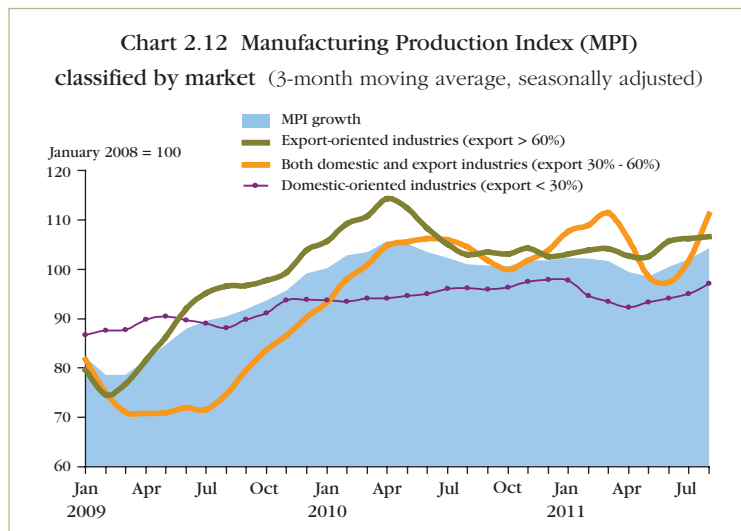
**Manufacturing production** contracted by 0.3 percent in 2011 Q2 over the preceding quarter. Industries that rely on both domestic and export markets contracted from the previous quarter, following contraction in automobile production due to supply chain disruption. Meanwhile, domestic-oriented industries continued to contract in line with lower production of textiles. Export-oriented industry, however, continued to grow from the previous quarter in line with expanding production of hard disk drives after a drop in inventory.

Manufacturing production in 2011 Q3 is likely to expand from the previous quarter. The average level of the seasonally-adjusted manufacturing production of the first two months in 2011 Q3 exceeded the average level of the second quarter, as major car manufacturers are expected to resume their production close to normal levels. Production of hard disk drives is expected to improve given inventory depletion, robust demand from China, and rising production to accommodate the turnover of personal computers.

*Manufacturing production in 2011 Q2 continued to contract from the previous quarter due to supply chain disruption, but should recover in 2011 Q3.*

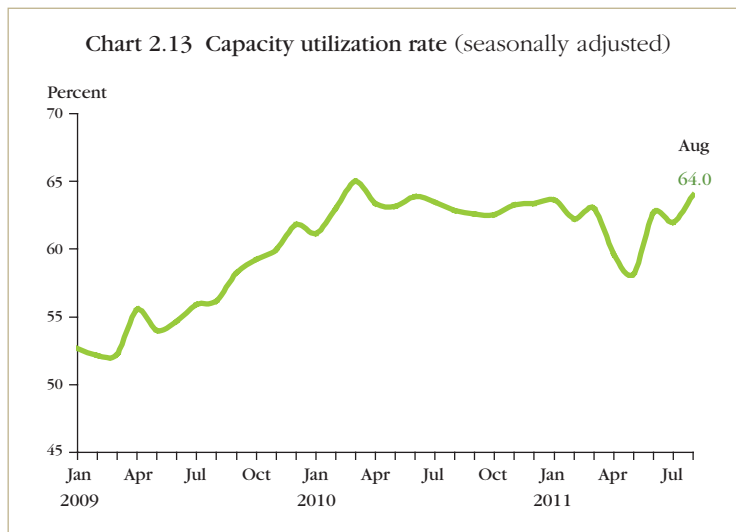


Source: National Economic and Social Development Board



Source: Office of Industrial Economics, Ministry of Industry

Capacity utilization is expected to increase in 2011 Q3 with recovery in automobile production.

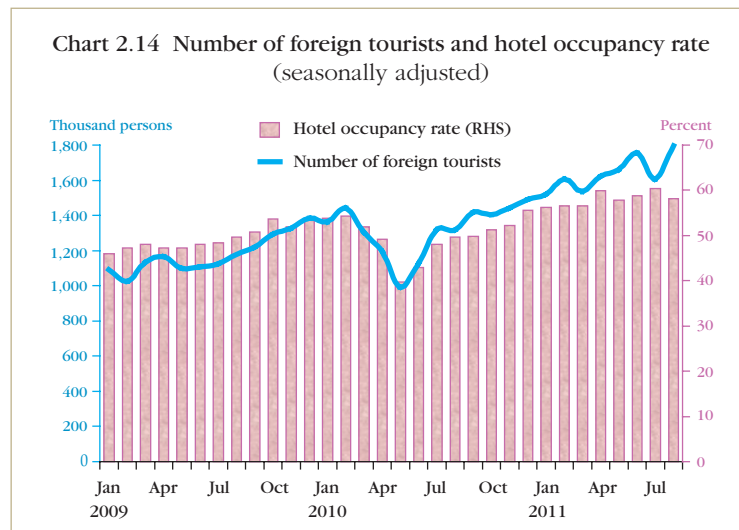


Source: Office of Industrial Economics, Ministry of Industry

Thailand's **services sector** in 2011 Q2 continued to expand from the previous quarter. The hotels and restaurants industry grew by 0.2 percent over the previous quarter in tandem with the rising number of tourists. Meanwhile, the seasonally-adjusted occupancy rate rose to 58.8 percent, up from 56.4 percent in the first quarter. Expansion of the tourism sector also led to a modest growth in logistics and transportation services of 1.5 percent over the previous quarter.

*The services sector expanded in line with the tourism sector as well as logistics and transportation services. This upward trend should continue in 2011 Q3.*

The services sector continued to expand in 2011 Q3 following the rising number of tourists from almost all regions. The year-on-year growth of the number of tourists grew particularly in July and August, as the tourism sector was affected by domestic political turmoil during the same period last year. Nevertheless, the average level of the seasonally-adjusted number of tourists in July and August exceeded the average level of 2011 Q2. In addition, the seasonally-adjusted number of tourists in August was 58.3, comparable to the average level of 2011 Q2.

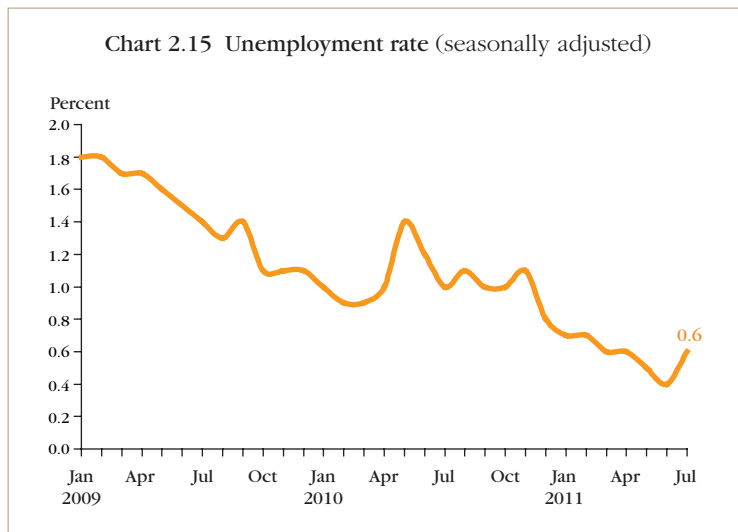


Source: Tourism Authority of Thailand and Bank of Thailand

*Agricultural output slowed from the previous quarter, and is expected to contract in 2011 Q3.*

**Agricultural output** in 2011 Q2 slowed from the previous quarter due to: (1) the public campaign to dissuade the cultivation of second-crop rice together with the high level of rice output from the early harvest in the first quarter; and (2) unfavorable weather conditions and floods in the Southern Region from March to April, which affected fishery and livestock output. Meanwhile, agricultural prices decelerated from the high level in the first quarter. Rubber price, in particular, softened with production in the automobile industry that was affected by natural disasters in Japan.

Agricultural output in 2011 Q3 is then expected to contract from the second quarter mainly due to the decline in rice production caused by the public campaign to dissuade the cultivation of second-crop rice. Meanwhile, the increase in other agricultural products such as fruit, rubber, oil palm, tapioca, and fishery helps ease supply constraints. As a result, prices of agricultural products are likely to moderate.



Source: National Statistical Office, and calculations by Bank of Thailand

Employment conditions continued improve in 2011 Q2 from the previous quarter. In this regard, the seasonally-adjusted unemployment rate was 0.6 percent in July. Moreover, the recruitment difficulty index in August stood at 35.9<sup>3/</sup>, reflecting labor shortages that will likely add to inflation pressures over the period ahead.

*Tight labor market conditions continue to add to inflation pressures going forward.*

<sup>3/</sup> The 50-level indicates no change in recruitment difficulty faced by businesses from the preceding month.

### *3. Monetary Conditions and the Exchange Rates*

Following the release of the previous *Report*, the MPC judged at the meeting on August 24, 2011 that the downside risks to the growth outlook of major advanced economies had increased as the U.S. economic growth decelerated and was likely to remain at a low level for longer than expected. The euro area economy began to slow somewhat. Asia was expected to be able to withstand this negative external environment owing to strong domestic demand and robust exports. As for the Thai economy, a slowdown in the advanced economies would partially weigh on Thai exports. However, sustained growth in intra-regional trade and continuous export diversification to new markets would help mitigate the impact. The expansion of domestic consumption and investment is expected to continue, supported by favorable economic conditions. Inflationary pressure remained elevated and may result in a rise in inflation expectations. The MPC deemed it appropriate to pursue further policy rate normalization to contain inflationary pressure and thus decided with a 5-2 vote to raise the policy rate by 0.25 percent, from 3.25 to 3.50 percent, with two votes in favor of holding the policy rate at 3.25 percent.

At the following meeting on October 19, 2011, the MPC assessed that the global economy had deteriorated further as the euro area's sovereign debt problem started to spillover onto the banking sector and the real economy. The risk that the U.S. economy would fall into recession had increased. Export growth

in some Asian countries moderated in line with the global economic slowdown. Nonetheless, strong domestic demand and government stimulus should, to some extent, help to cushion growth from the global slowdown. As for the Thai economy, signs of moderation in export growth have emerged. Moreover, the widespread flood crisis appeared to have a greater-than-expected impact on the Thai economy as it had already brought some economic activities to a partial halt. Meanwhile, inflationary pressure continued to be sustained. The MPC deemed that the current level of the policy rate was appropriate in addressing the inflationary pressure while supportive of economic adjustments amid heightened uncertainty in the global economy as well as the still-evolving flood situation that continued to affect the overall economy. The MPC therefore voted 6-1 to maintain the policy interest rate at 3.50 percent, with one vote in favor of a 0.25 percent rate cut.

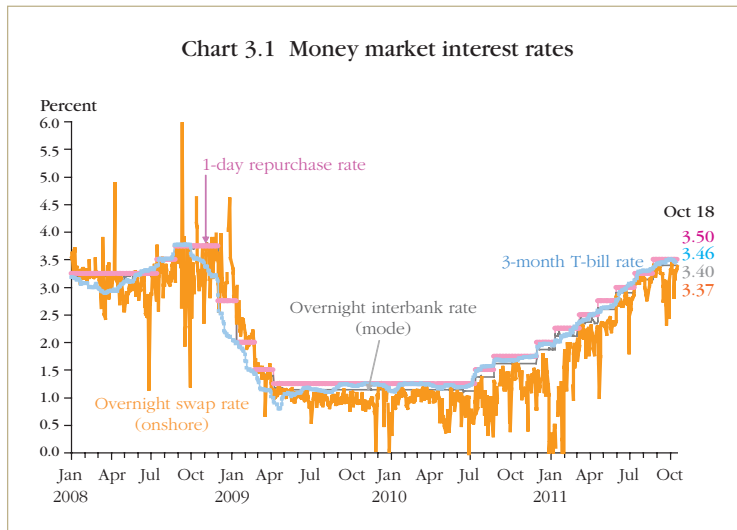
### *Money market conditions*

#### *Money market*

*Short-term money market rates increased in line with the policy interest rate.*

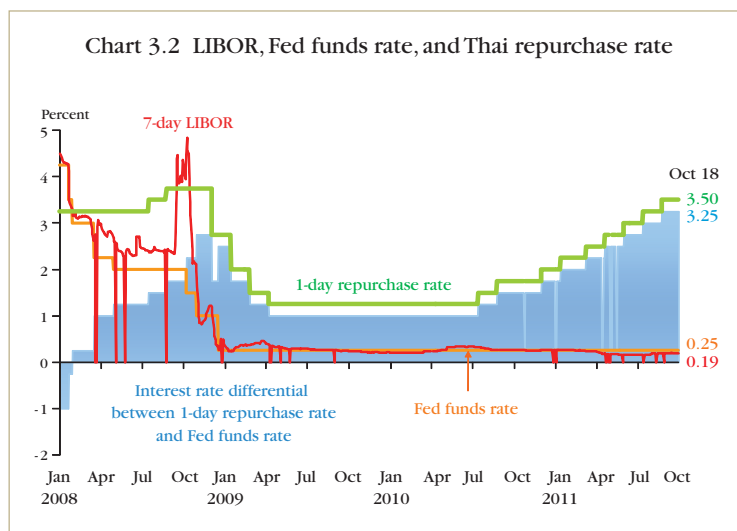
In 2011 Q3, short-term money market interest rates for both collateralized and uncollateralized lending in Thai baht increased in tandem with the policy interest rate. The 1-day repurchase rate and the overnight interbank rate (quarterly average) rose to 3.33 and 3.23 percent per annum, respectively.

The overnight swap rate, which reflects the cost of borrowing in Thai baht using the U.S. dollar as collateral, also increased in line with the policy interest rate to 3.06 percent per annum.



Source: Bank of Thailand

The difference between the Thai and the U.S. policy rates at the end of 2011 Q3 widened to 3.25 percentage points as a result of an increase in the Thai policy rate by a total of 50 basis points during the third quarter of this year. During the same period, the Federal Open Market Committee (FOMC) decided to maintain the federal funds rate at 0-0.25 percent as well as to extend the average maturity of its securities



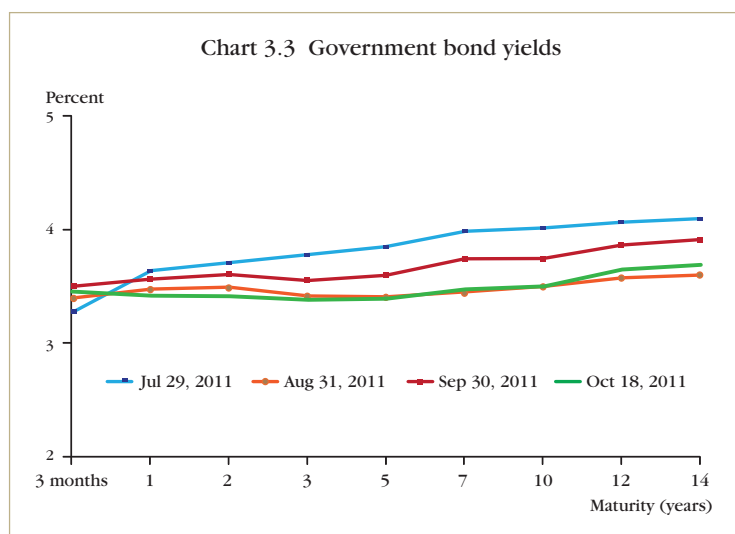
Source: Bank of Thailand

holdings due to concerns over the U.S. economic recovery in the midst of high unemployment rate and weakness in the housing markets.

### Bond market

*Short-term government bond yields edged higher following the policy rate hikes while medium- and long-term yields declined due to an increase in demand from foreign investors.*

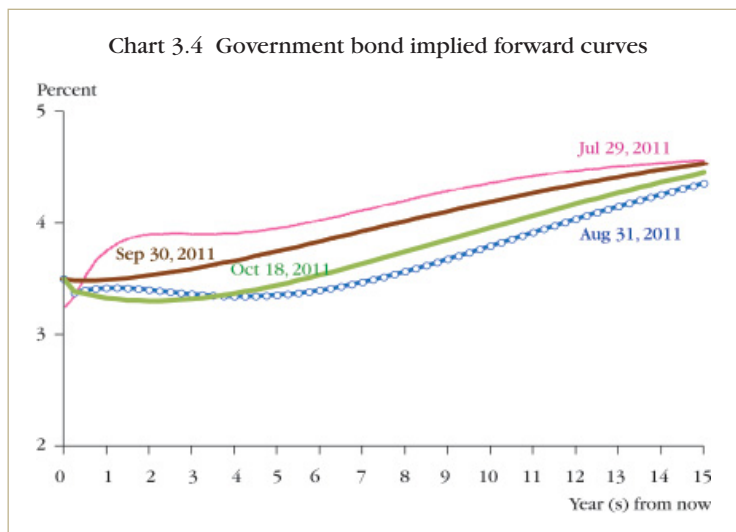
Throughout 2011 Q3, Thai government bond yields for short-term maturity (less than 1 year) edged higher following the policy rate hikes. Meanwhile, medium- and long-term yields partially declined following the decrease in the U.S. government bond yields and partly as a result of an increase in demand from foreign investors driven by concerns over the global economic slowdown that led to a reallocation of their portfolios towards longer-maturity assets.



Source: Bank of Thailand

The short end of the implied forward curve at the end of 2011 Q3 reflected market expectations that the policy rate in the period ahead would not increase significantly. Meanwhile, inflationary pressure, as reflected by expected interest rates over the next ten

years, remained elevated at levels comparable to that at the end of the previous quarter. This could partly be attributed to the government's plans to implement policy measures such as the minimum wage hike and the rice pledging scheme that continued to keep inflation expectations at a high level.

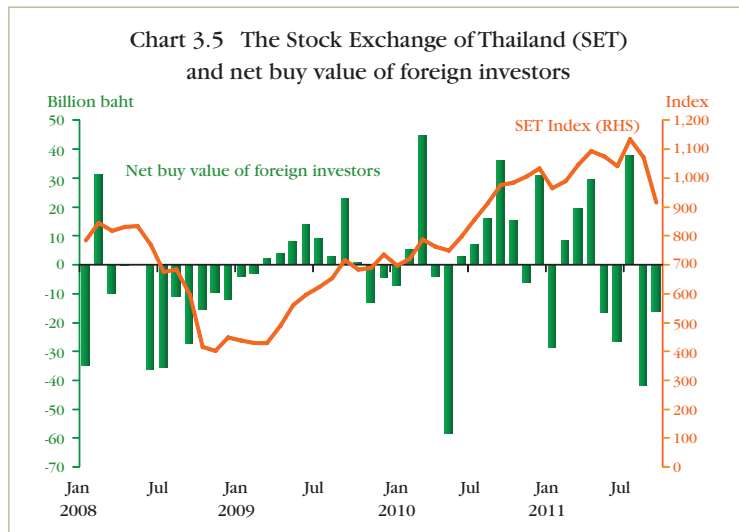


Source: Bank of Thailand

### Equity market

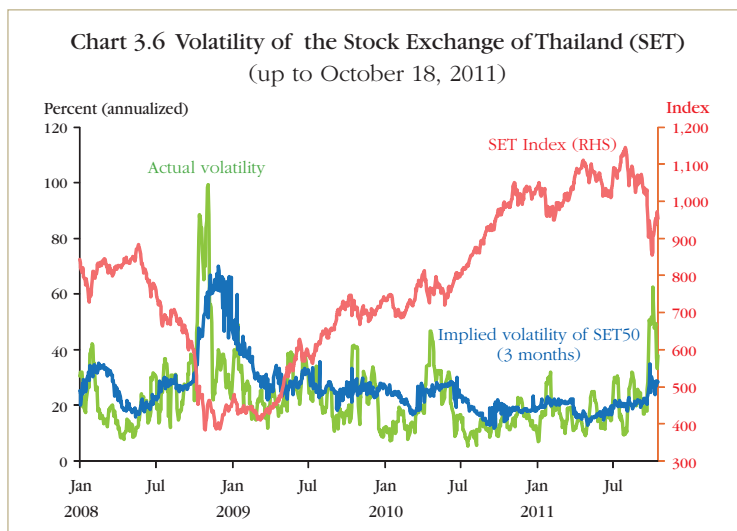
The more pronounced degree of uncertainty in the global economic recovery due to U.S. economic growth that remained sluggish and the euro area's sovereign debt problem that had deepened since the end of 2011 Q3 prompted investors to curtail their holdings of equities which led to a substantial decline in stock market indices across the globe. Thailand's SET index fell by 16.7 percent from the highest level of 1,144.14 at the beginning of August to 952.75 as of 18 October 2011. Cumulative net sales by foreign investors of 58.5 billion baht were recorded during the months of August and September.

*In 2011 Q3, the SET index declined as a result of heightened uncertainty concerning the global economic recovery.*



Source: The Stock Exchange of Thailand

Higher uncertainty surrounding the global economic and financial conditions is likely to result in a greater volatility in the Thai stock market in the period ahead, as reflected by an increase in both the actual and 3-month implied volatility of the SET index.

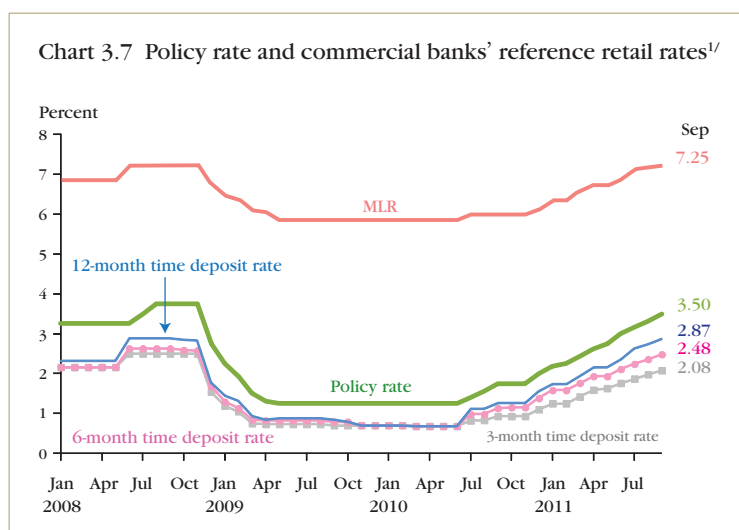


Source: The Stock Exchange of Thailand and Bloomberg

## Banking system

At the end of 2011 Q3, the reference lending rates (MLR) and the 12-month time deposit rate of the four largest commercial banks edged up to 7.25 and 2.87 percent, respectively, in line with the policy rate increases. The 12-month time deposit increased more than the 3- and 6-month time deposit rates in order to attract long-term funds to support the ongoing credit expansion and to manage the funding costs during the interest rate tightening cycle.

*Retail interest rates increased in tandem with the policy rate.*

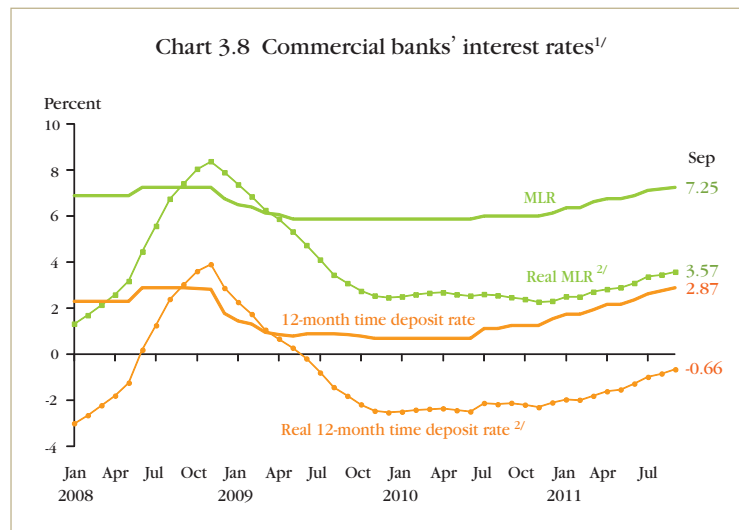


Note: <sup>1/</sup> Average rate of the 4 largest commercial bank at end-period. When a range is posted by a commercial bank, the average of the minimum and maximum rates is used for calculation.

Source: Bank of Thailand

The real MLR and the real 12-month time deposit rate<sup>1/</sup> of the four largest commercial banks at the end of 2011 Q3 rose from the previous quarter to 3.57 and -0.66 percent, respectively, as the increases in both the nominal lending and deposit rates were larger than the expected rate of inflation.

<sup>1/</sup> Minimum lending rate (MLR) and 12-month deposit rate adjusted by expected headline inflation 12 months ahead using compound interest rate calculation method.



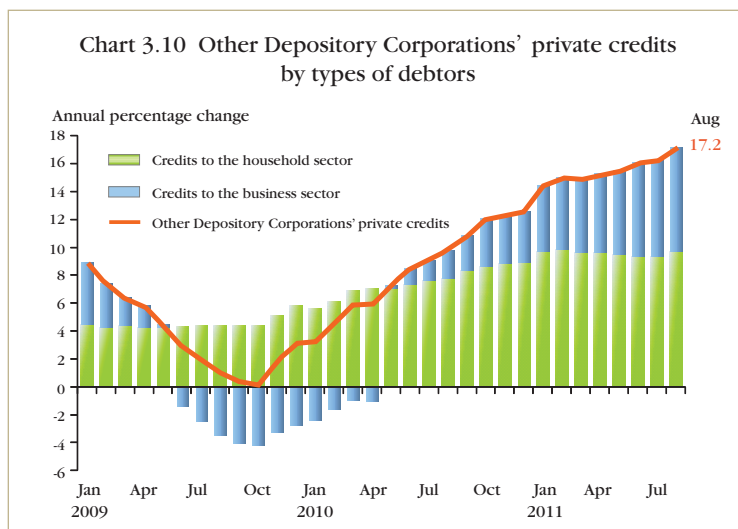
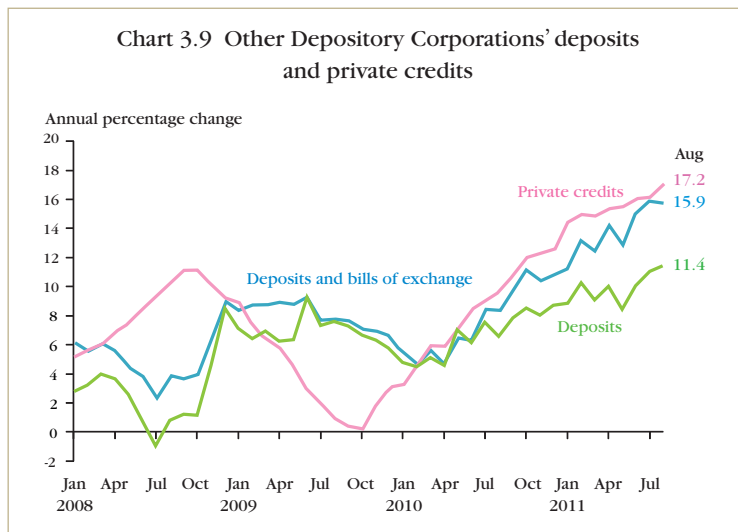
Note: <sup>1/</sup> Average rate of the 4 largest commercial banks  
<sup>2/</sup> Real interest rates are calculated from the compound interest rate formula  
Source: Bank of Thailand

*Deposits of ODCs continued to expand.*

Deposits and bills of exchange at Other Depository Corporations (ODCs)<sup>2/</sup> in July and August 2011 expanded by 16.0 and 15.9 percent, respectively, over the same period last year. The continued acceleration was attributable to deposit mobilization to support credit expansion spurred by sustained economic growth. Mobilization of bills of exchange remained high, although decelerated somewhat due to concerns about imminent supervision measures on issuance of bills of exchange in the period ahead.

Private credits extended by ODCs grew by 16.3 and 17.2 percent in July and August 2011, respectively, from the same period last year. Loans extended to the business sector, particularly in the food and automobile industries, continued to pick up largely driven by an

<sup>2/</sup> ODCs consist of domestically registered commercial banks, branches of foreign banks, international banking facilities, finance companies, Specialized Financial Institutions (including Government Savings Bank, Government Housing Bank, Bank for Agriculture and Agricultural Cooperatives, Export-Import Bank of Thailand, Small and Medium Enterprise Development Bank of Thailand, and Islamic Bank of Thailand), saving cooperatives, and money market mutual funds.



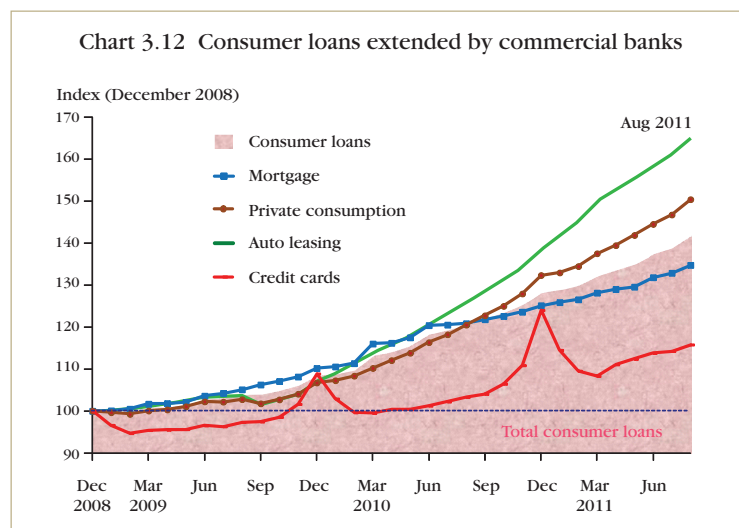
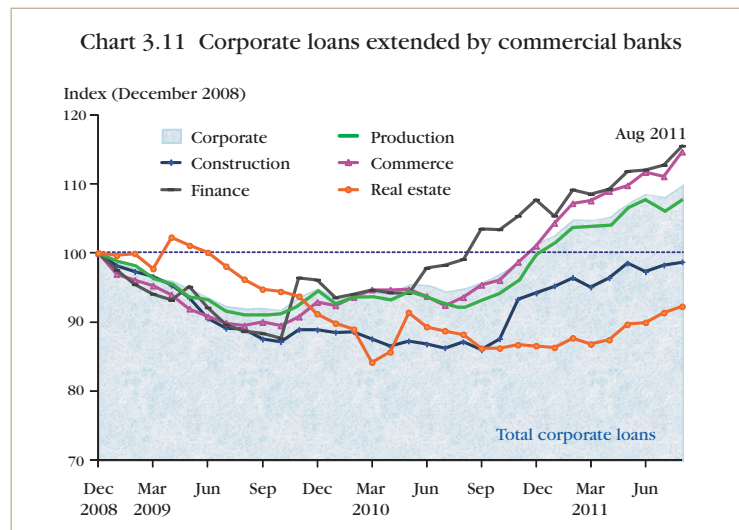
Source: Bank of Thailand

increase in demand for working capital loans<sup>3/</sup>. Meanwhile, credits to household continued to expand robustly owing mainly to the fiscal stimulus measures.

Private credits extended by commercial banks, especially auto leasing and mortgage loans, continued to grow strongly supported by favorable employment and income conditions.

*Private credits continued to grow driven mainly by an expansion of household and business loans.*

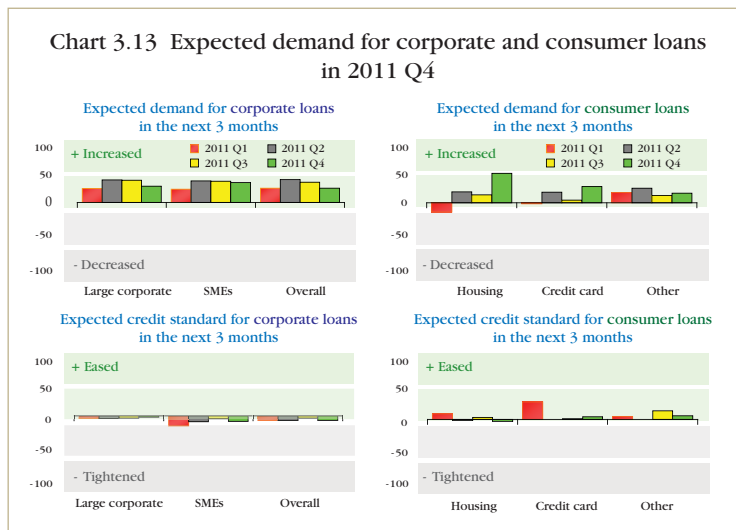
<sup>3/</sup> Credit data from Commercial Banking System



Source: Bank of Thailand

*Demand for loans from both households and firms grew from the previous quarter in line with economic growth.*

According to the Senior Loan Officer Survey conducted at the end of September 2011 for credit condition in Q4, private credit demand in both corporate and household sectors, particularly demand for housing loans, in the fourth quarter continued to rise from the previous quarter.



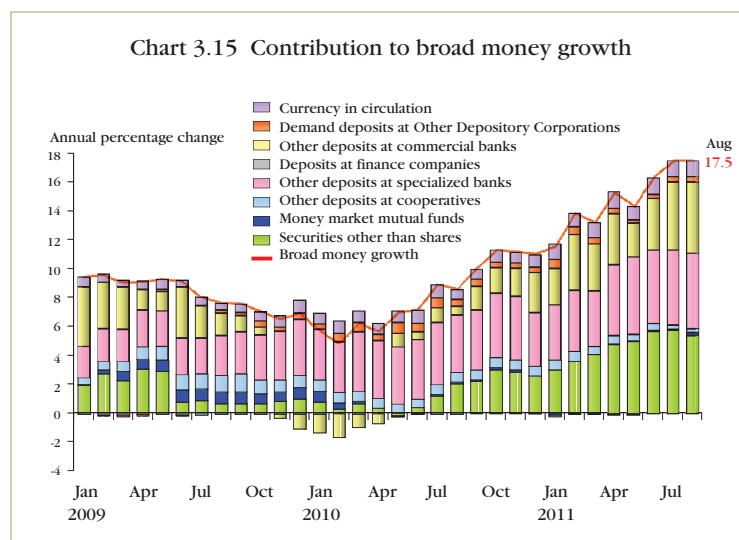
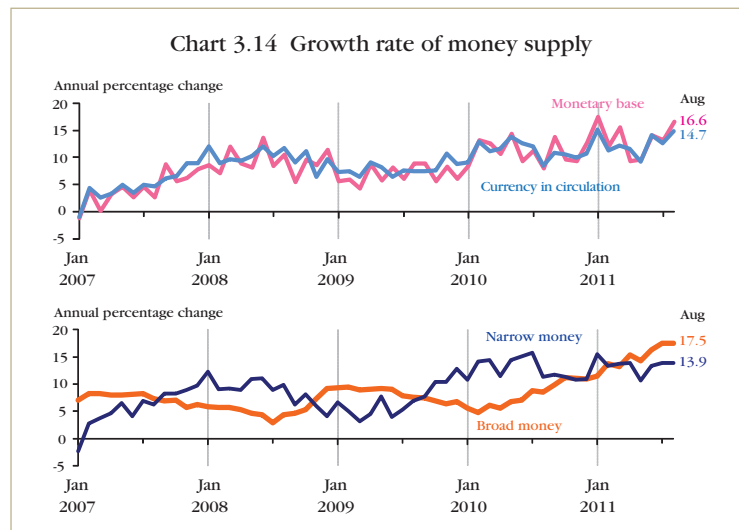
Source: Senior Loan Officer Survey conducted at the end of September 2011

### *Monetary base and money supply*

The monetary base in July and August 2011 expanded by 13.1 and 16.6 percent, respectively, over the same period last year. This was driven mainly by public demand for cash as economic activity continued to grow robustly.

Broad money also expanded by 17.5 percent in both July and August 2011 over the same period last year as a result of deposit mobilization by financial institutions mainly to support ongoing expansion of demand for credits.

*The monetary base expanded in line with demand for cash, while broad money picked up as a result of deposit mobilization.*

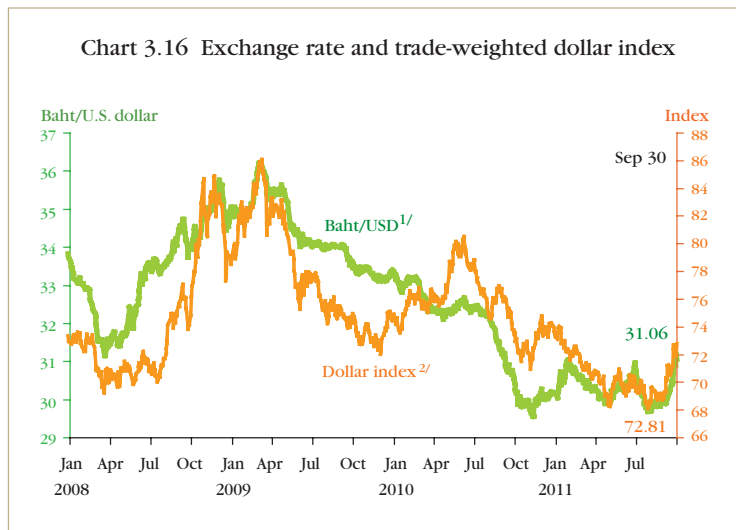


Source: Bank of Thailand

### *Exchange rates*

*On average, the Thai baht appreciated against the U.S. dollar in 2011 Q3 due mainly to strengthening of the baht in July.*

The Thai currency averaged at 30.12 baht per U.S. dollar in 2011 Q3, appreciating by 0.6 percent from the previous quarter. Factors underpinning the baht appreciation in the first month of the quarter included: (1) improving political situation after Thailand's election and (2) decreasing risks in the global financial markets after the EU summit reached an agreement to



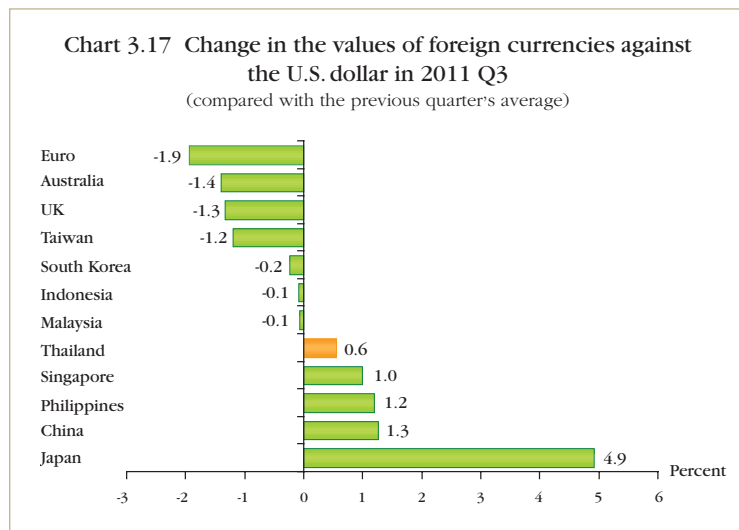
Source: <sup>1/</sup> Bank of Thailand  
<sup>2/</sup> Bloomberg

set up additional financial assistance program for Greece, which prompted foreign investors to return to the stock and bond markets in Thailand.

During the last two months of the third quarter, however, the baht resumed a depreciating trend against the U.S. dollar. This was attributable to increasing risks in the world financial markets after Standard & Poor's (S&P) downgraded the U.S. credit rating with a negative outlook on the U.S. fiscal sustainability, and the impasse over the resolution of the euro area's sovereign debt problem. In addition, rising demand for the U.S. dollar by gold trading dealers, as the gold prices in the global market fell in the latter half of the quarter, also contributed to the baht depreciation. However, the continued reduction of U.S. dollar holding by Thai exporters, particularly exporters of agricultural and electronics products, partly helped slow down the baht depreciation.

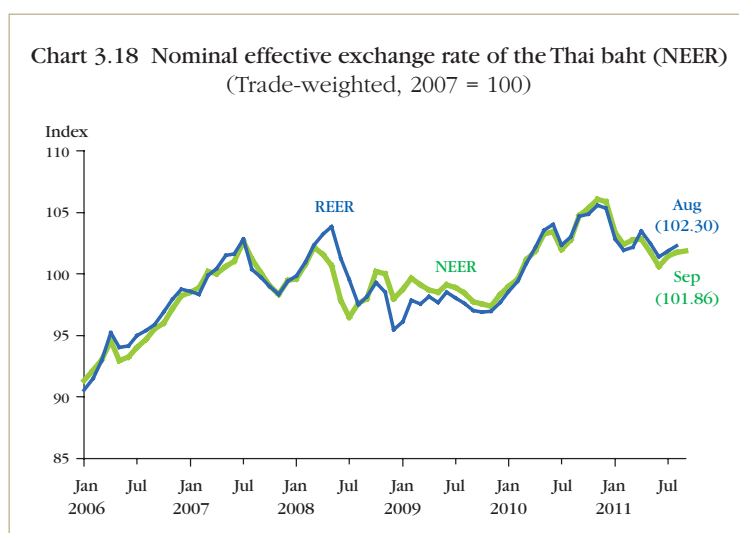
*Most major and regional currencies depreciated against the U.S. dollar.*

Some regional currencies such as the Singapore dollar and the Philippine peso strengthened against the U.S. dollar from the previous quarter. The appreciation was mostly due to a surge of capital inflows to the respective stock and bond markets in July. In the case of the Philippine peso, the strengthening was also caused by market expectations of a policy rate hike in the next period as inflation increased significantly in June. On the other hand, many regional currencies such as the Korean won, the Malaysian ringgit and the Indonesian rupiah depreciated from the previous quarter due to concerns over the sovereign debt problem in Europe and the outlook of the U.S. economic recovery that led foreign investors to curtail their holdings of risky assets and to increase the holdings of safe haven currencies including the yen. Meanwhile, the Chinese RMB appreciated from the previous quarter owing importantly to strong economic fundamentals.



Source: Reuters

Major currencies such as the pound sterling, the Australian dollar and the euro strengthened on average against the U.S. dollar in light of the concerns over the global economic slowdown and the sovereign debt problem in Greece that might spillover to other European countries especially Italy. This triggered an increase in downside risks in the global financial markets and caused investors to continue demanding for safe haven currencies such as the Swiss franc and the Japanese yen.



Source: Bank of Thailand

On overall, the baht appreciated slightly against the U.S. dollar while the Japanese yen and the Chinese RMB, which are Thailand's major trading partners' currencies, strengthened substantially against the U.S. dollar. Consequently, the Nominal Effective Exchange rate<sup>4/</sup> depreciated by 0.05 percent from the previous quarter. The Real Effective Exchange Rate (REER)<sup>5/</sup> over

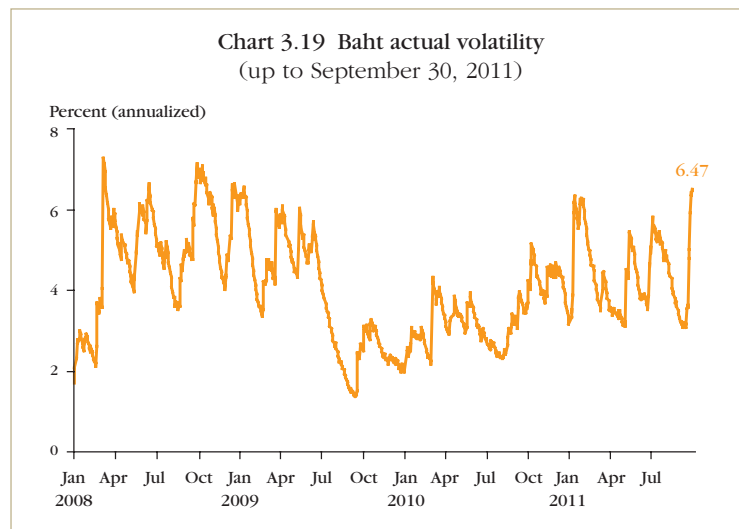
<sup>4/</sup> The Thai baht NEER is calculated as a weighted average of bilateral exchange rate between the baht and major trading partners' currencies (trade-weighted, 2007 = 100)

<sup>5/</sup> The real effective exchange rate (REER) is calculated by deflating the NEER using relative inflation rates to reflect the country's price competitiveness.

the July-August period fell by 0.43 percent from the previous quarter's average level. Given the depreciation of the NEER during 2011 Q3, the average REER for the same quarter is also expected to weaken.

*Average volatility of the baht increased from the previous quarter.*

Average volatility of the baht in 2011 Q3 increased from the previous quarter as a result of the rapid appreciation in July. Although the baht become relatively stable during August, a rapid depreciation picked up toward the end of the quarter as reasoned above.



Source: Bank of Thailand

## Transmission channels of the Euro zone debt crisis to Thailand

As the public debt crisis in Greece spreads to other countries in Europe, risks to financial markets and uncertainty over the recovery of the global economy have risen. Although Thailand possesses strong economic fundamentals and is not directly linked to the ongoing debt crisis, increasing globalization and integration may cause Thailand's economy to be affected via trade or financial linkages.

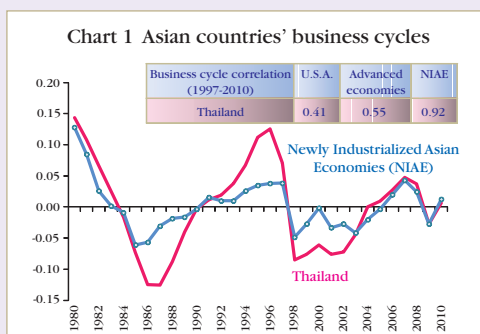
### 1. Trade linkages

Presently, Thailand's economy is closely linked to the global economy as reflected by the export and import of goods and services which accounted for 121.6 percent of GDP in 2010. As such, trade linkages are an important transmission channel for the Euro zone debt crisis to affect Thailand. Fortunately, Greece is not a major direct trade partner for Thailand as exports to Greece for the first eight months of this year accounts for only 0.1 percent of total exports. Moreover, exports from Thailand to PIIGS (Portugal, Italy, Ireland, Greece, and Spain) combine for only 1.7 percent of total exports so a slowdown in those countries should not significantly affect Thailand. However, should the public debt crisis in those countries spread to other countries in Europe, especially the core countries, the effects on Thailand would be much larger since Thai exports to the Euro zone accounts for 10.8 percent of total exports (Table 1), while exports to Europe from Thailand's major trade partners such as China, Malaysia, Singapore, Indonesia, and Philippines average at 16.8 percent of total exports.

Table 1 Thai exports to European countries for the first eight months of 2011

	EU	PIIGS	Portugal	Italy	Ireland	Greece	Spain
Percentage of total exports (%)	10.8	1.7	0.1	0.8	0.1	0.1	0.5
Export value (Millions USD)	17,110	2,618	132	1,330	199	121	836

Source: Ministry of Commerce, BOT calculations



Note: Business cycle correlation is calculated by estimating the deviation from trend using data available in WEO during the period 1980-2010

Source: The Bank of Thailand

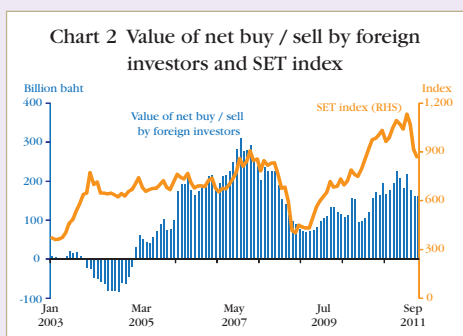
If the public debt crisis in Europe spreads to a point that significantly puts a drag on the global economic recovery, thereby causing Asia's economic growth to also slowdown, Thai exports, an important growth engine for the economy, will also be significantly affected. This is because Thai exports to ASEAN countries and China accounts for over 30 percent of total exports. Moreover, Thailand's business cycle is also highly synchronized with the Newly Industrialized Asian Economies<sup>1/</sup> as reflected by the business cycle correlation coefficient of 0.92 during the period 1997-2010 (Chart 1). Thus, if Asian economic growth decelerates, so too will Thailand's.

### 2. Financial Linkages

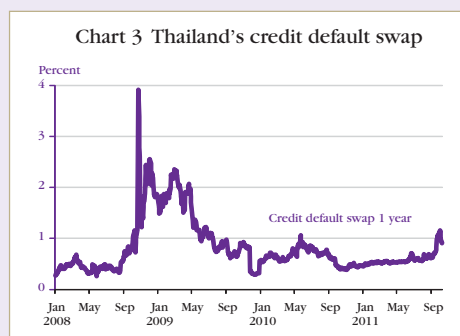
Apart from trade linkages, the Thai economy is also exposed to another transmission channel, namely international financial linkages. In terms of the direct exposure, risks arising from the effects of the Euro zone public debt crisis to Thai financial institutions are low; foreign assets, including deposits, investments in debt securities, and loans account for only 2.81 percent of Thai commercial banks' total assets. Moreover, loans to Greek corporations amount to only 371 million baht. However, the Thai economy may be exposed to additional risks from the indirect effects of deteriorating investors' confidence, which increases global financial market volatility and in turn affects Thailand via the following three sub-channels.

<sup>1/</sup> Newly Industrialized Asian Economies (NIAE) include Hong Kong, Singapore, South Korea, and Taiwan

2.1 Decreases of equity prices in the stock market during the recent period (Chart 2) are partly attributable to the sell-off by foreign investors. This may slow down private consumption for equity holders due to the wealth effect and private investments in which the level of capital accumulation via equity issuance in the stock market becomes lower. Nevertheless, this effect may be limited because the Thai general population does not invest in equities as much as they deposit cash with commercial banks, while the main source of capital for Thai corporations is from commercial banks rather than through equity issuances.



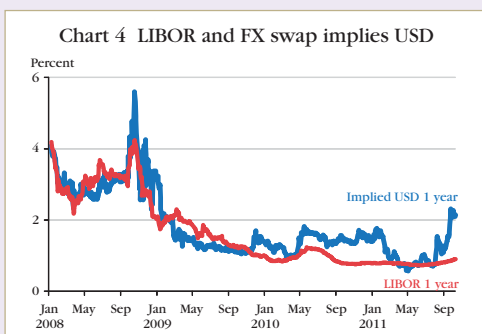
Source: Bloomberg and Stock Exchange of Thailand



Source: Bloomberg

2.2 Rising costs of funding in the debt and money markets due to the risk averse behavior of investors causes risks premium, as reflected by interest rates, to rise. This decreases borrowing incentives for private sectors to undertake economic activities. As such, the risk premium as reflected by the Thai credit default swap has risen (Chart 3) but remained below the levels during the 2008 global financial crisis even after pricing-in all the concomitant risks.

2.3 If the Euro zone public debt crisis spreads to a point that causes the global financial market to experience liquidity shortages, especially in U.S. dollars, the costs of undertaking currency hedging for Thai corporations in the Thai foreign exchange swap market may increase because the said market chiefly depends on U.S. dollar funding and foreign commercial bank branches in Thailand play the key role as chief suppliers. Thus, if foreign commercial banks branches experience a sharp rise in U.S. dollar funding costs or face severe liquidity shortages altogether, there may be a problem for Thai corporations in hedging their currency risks since the foreign exchange swap market is the main conduit through which commercial banks complete transactions on behalf of their customers. The FX swap implied USD rate has risen recently (Chart 4) and exporters have been affected by this because there is currently a high demand for FX hedging.



Source: Bloomberg

The public debt crisis in Europe is an important risk to the Thai economy and requires close monitoring. The proposed crisis resolution mechanism currently lacks clarity and thus adds to high levels of global financial market volatility. Trade linkages will be the main transmission channel that affects Thailand due to the integration of the industrial export sector to the global economy while financial linkages should be limited as it was the case during the 2008 global financial crisis. Nevertheless, the changing global economic landscape may affect the aforementioned transmission channels in

respect to this crisis in ways different from the past. Thus, an important lesson learned from previous crises is especially relevant today: one should be prepared for the unexpected.

#### 4. *Financial Stability Conditions and Outlook*

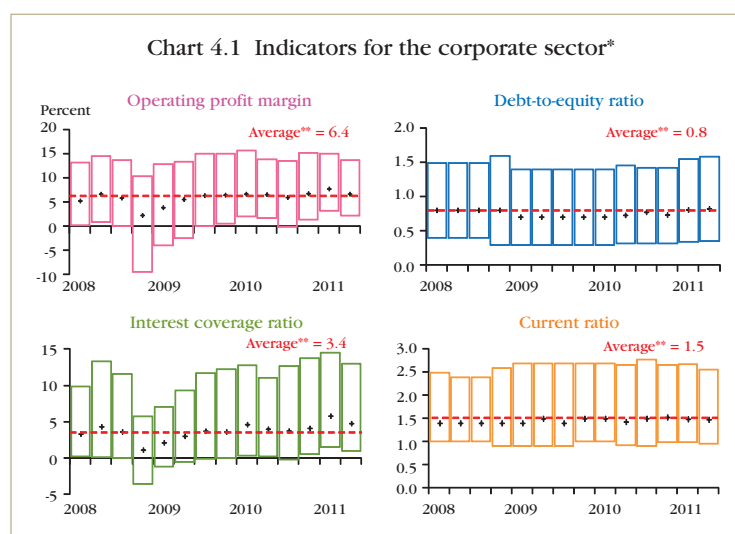
Weaker recovery prospects in advanced economies together with heightened volatilities in the global financial markets due to persistent sovereign debt problems in Europe resulted in higher risks to Thailand's economic and financial stability relative to assessments in the previous *Report*. Despite healthy household and corporate balance sheets, future income prospects are more uncertain owing to increased downside risks to the domestic and global economic outlook. The negative impact of the current floods on households' and corporates' financial conditions is expected to be temporary. Meanwhile, financial institutions' balance sheets continued to be strong. However, risks to the debt-servicing ability of corporates and households, as well as financial institutions' liabilities and liquidity positions that could be affected by volatilities in the global financial markets, should be closely monitored.

In the period ahead, the MPC assessed that factors affecting Thailand's economic and financial stability would mainly come from (1) risks of a slowdown in the global economy especially in advanced economies and the ongoing sovereign debt problems in Europe that could affect households' and corporates' income; (2) volatilities in the global financial markets which could cause the exchange rate and capital flows to be more volatile; (3) the government's stimulus package that could affect households' spending behavior and the country's long-term fiscal sustainability; and (4) the elevated inflationary and cost pressures despite some softening relative to the previous assessment.

## Non-financial corporate sector

*Corporate financial conditions remained sound in 2011 Q2 but going forward, risks to corporate stability are higher.*

Overall corporate financial conditions in 2011 Q2 remained sound. Profitability and debt-servicing ability of non-financial companies listed on the Stock Exchange of Thailand declined from the previous quarter, as reflected by a drop in the median operating profit margin (OPM) from 7.9 percent to 6.8 percent and a decrease in the interest coverage ratio (ICR) from 5.9 to 4.8. However, both indicators were still above their pre-crisis average of 6.4 percent and 3.4, respectively. Meanwhile, corporate liquidity remained strong, reflected by the median debt to equity ratio (D/E) of 0.8 and the current ratio (CR) of 1.5.



Note: \* Each bar depicts an interquartile range, where the upper and lower bounds represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles, respectively. The symbol + indicates the median.

\*\*Average over the 2003 Q1 - 2007 Q4 period.

Source: Stock Exchange of Thailand, calculations by Bank of Thailand.

However, Thai exports and overall economic performance may deteriorate as a result of weaker global economic prospects due to the fragile U.S. economic recovery and high uncertainties in the euro area's sovereign debt problem. In this regard, Thai

exports to the U.S. and Europe during the first eight months of 2011 accounted for approximately 20 percent of the total export value. Furthermore, higher global financial market volatility may also complicate corporate exchange rate risk management.

The impact of the current widespread floods is anticipated to be more severe than the previous year. On top of damages to the agriculture sector, production also slowed down or halted in many manufacturing industries. This implies greater risks to Thai corporates in the short term.



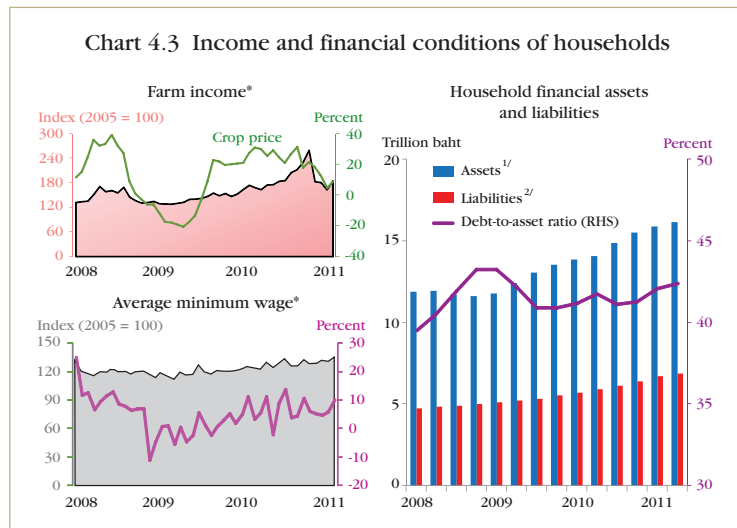
Note: \*Average over the January 2011 to August 2011 period.  
Source: Ministry of Commerce, calculations by Bank of Thailand.

### *Household sector*

Favorable income and employment conditions continued to support households' financial health. Consumer loans accelerated in line with mortgage loans. Other personal loans continued to expand in line with domestic demand. Although the debt-to-asset ratio continued to edge up, it has not raised overall

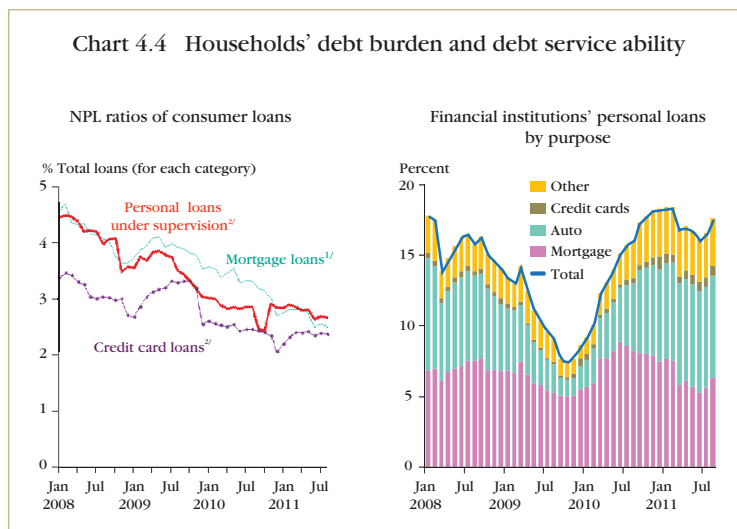
*Favorable income and employment conditions continued to support households' financial health. Though overall indebtedness was not an issue, financial vulnerabilities may exist among low income households.*

concerns. The debt-servicing ability of households remained strong, as reflected by the low non-performing loans ratio. Nevertheless, financial vulnerabilities may exist among low income households.



Note: \* Seasonally adjusted.  
Source: Office of Agricultural Economics, National Statistical Office, calculations by Bank of Thailand.

Note: <sup>1/</sup> Financial institutions' deposits, bonds, equities, and insurances.  
<sup>2/</sup> Total loans from financial institutions and non-banks.  
Source: Calculations by Bank of Thailand.



Note: <sup>1/</sup> Commercial banks' loans  
<sup>2/</sup> Total loans from commercial banks and non-banks  
Source: Bank of Thailand

Looking ahead, household income should continue to be favorable supported by the government's rice pledging scheme and the minimum wage increase that should boost farm income and non-farm income, respectively. However, there remain major risks to households' stability arising from the slower-than-expected global economic recovery that could result in greater income uncertainties for some households. Meanwhile, the current floods would also weigh on income, consumption and debt-servicing ability although the impact is expected to be temporary. In addition, the MPC deemed it necessary to continue with a close monitoring of the impact of various government stimulus measures, especially those that could affect future spending behavior of households.

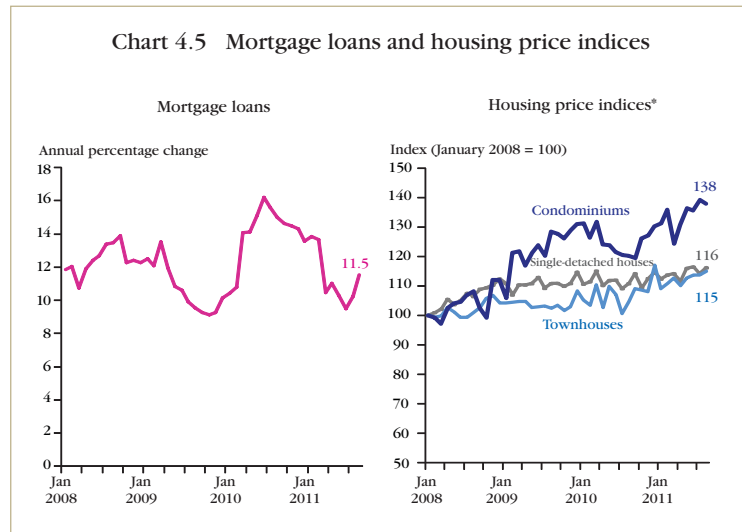
*Risk from the global economic slowdown remained high while the impact of the current floods should be temporary. The impact of various government stimuli on households' financial discipline should continue to be closely monitored.*

### *Real estate sector*

Stability of the real estate market remained sound. Demand continued to expand, as reflected by household mortgage loans that grew robustly at the rate of 11.5 percent from the same period last year. The total number of registrations of transferred residential properties in Bangkok and its vicinity during the first seven months of this year recorded at 88,202 units, which was close to the figure observed before the real estate stimulus policy in 2010. At the same time, supply continued to moderate after a notable expansion in the previous year induced by the implementation of the real estate stimulus policy. The opposing trends in demand and supply thus reduce the risk of an oversupply in the real estate market. Meanwhile, house prices did not diverge significantly from the previous quarter.

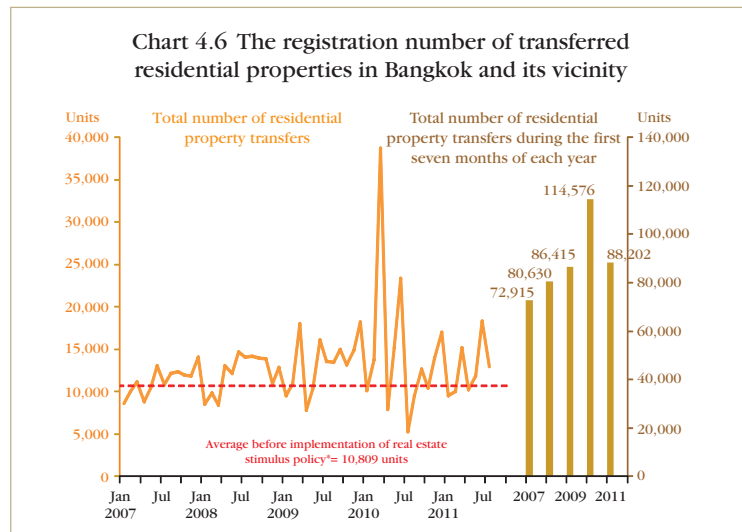
*The real estate market remained sound but with higher risk going forward.*

**Chart 4.5 Mortgage loans and housing price indices**

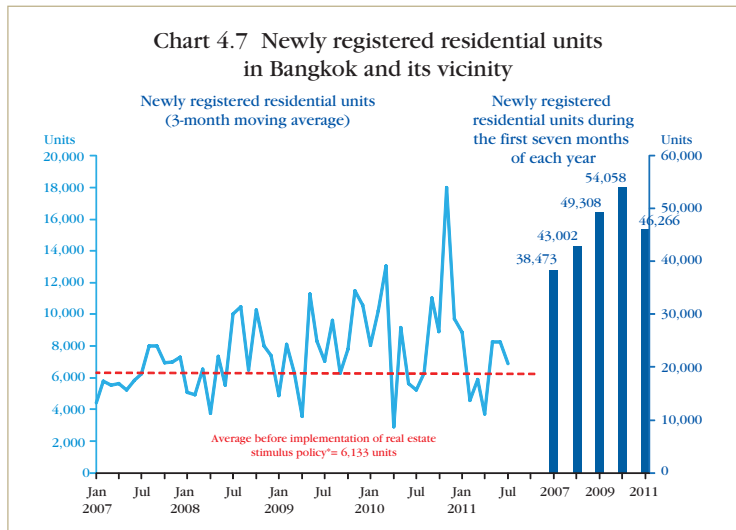


Note: \* New commercial bank mortgage loans, constructed by using hedonic regression method  
Source: Bank of Thailand.

**Chart 4.6 The registration number of transferred residential properties in Bangkok and its vicinity**



Note: \* Average over the January 2007 to March 2008 period  
Source: Real Estate Information Center (REIC), calculations by Bank of Thailand



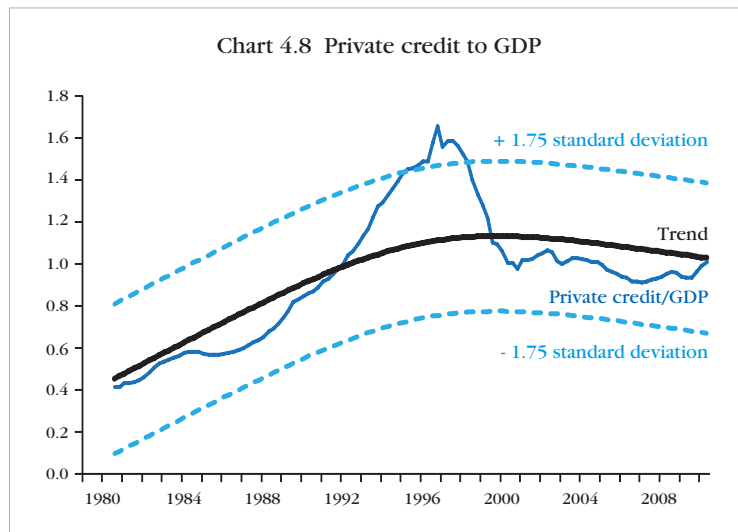
Note: \*Average over the January 2007 to March 2008 period  
 Source: Real Estate Information Center (REIC), calculations by Bank of Thailand

Going forward, higher construction costs as a result of higher costs of materials will be an important risk factor for the real estate sector. Property prices in the latter half of this year thus would tend to rise despite a slowdown in the outlook of housing demand due to higher cost of living. The MPC therefore maintained that close monitoring of market trends and property prices in the next year was warranted amid higher risks to economic growth.

### *Financial institutions*

Financial institutions stability in 2011 Q2 remained sound, thanks to their improved performance relative to the previous quarter. Credits expanded as a result of higher demand for business loans after the supply chain disruptions caused natural the disasters in Japan were resolved, as well as higher demand for consumer loans which continued to grow in line with

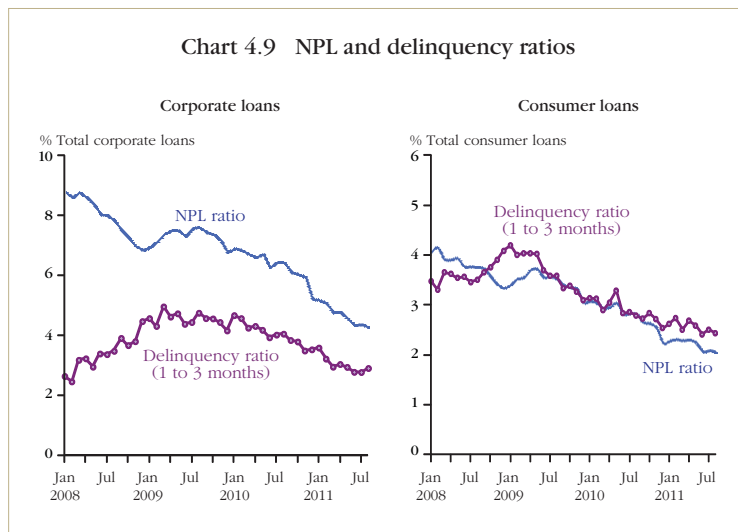
*Financial institutions stability in 2011 Q2 continued to be sound thanks to their improved performance.*



Note: Employing Hodrick-Prescott (HP) filter,  $\lambda = 400,000$  (BIS, Countercyclical Capital Buffer Proposal, 2010) and 1.75 standard deviation to represent 5% probability of credit boom (IMF, World Economic Outlook, 2004)  
 Source: Calculations by Bank of Thailand.

household spending. Although credits have been expanding strongly, the ratio of credit to GDP is not yet indicative of a bubble. Besides, such expansion may partly reflect a post-crisis catch-up process towards the long-term trend and better access to financing.

Financial institutions maintained strong balance sheets. Asset quality continued to be high, as reflected by the continued downtrend in both the ratio of non-performing loans and special mentioned loans (i.e. loans past due for 1-3 months). However, short-term external debt has been on a rising trend. Meanwhile, capital adequacy and liquidity position of the overall financial institution system remained strong, providing support to its intermediary function and indicating the ability to absorb higher risks in the period ahead.



Source: Bank of Thailand

Key indicators (%)	2010			2011	
	Q2	Q3	Q4	Q1	Q2
<b>1. Capital adequacy</b>					
1.1 Regulatory capital to risk-weighted assets (8.50) <sup>2/</sup>	16.7	16.8	16.0	15.5	15.2
1.2 Regulatory Tier-1 capital to risk-weighted assets (4.25) <sup>2/</sup>	12.3	12.4	11.8	11.4	11.3
<b>2. Asset quality</b>					
2.1 Non-performing loans to total loans	4.9	4.6	3.9	3.5	3.3
<b>3. Earning and profitability</b>					
3.1 Return on assets (ROA)	1.2	1.2	1.2	1.2	1.4
3.2 Interest margin <sup>3/</sup> to gross income <sup>4/</sup>	68.7	68.8	68.3	62.9	61.7
3.3 Non-interest expenses to gross income	54.4	53.9	54.8	51.4	49.3
<b>4. Liquidity</b>					
4.1 Liquid assets <sup>5/</sup> to total assets	19.1	18.7	18.5	17.6	17.3
4.2 Liquid assets to short-term liabilities <sup>6/</sup>	26.6	26.8	26.6	26.1	25.9
<b>Number of banks</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>

Note: <sup>1/</sup> Based on "Peer Group" data

<sup>2/</sup> Minimum regulatory capital to risk-weighted assets

<sup>3/</sup> Interest margin = interest income and dividend - interest expenses

<sup>4/</sup> Gross income = interest margin + non-interest income

<sup>5/</sup> Liquid assets = cash and deposits + securities purchased under resale agreements + investment in securities (net)

<sup>6/</sup> Short-term liabilities = deposits (liability side)

Source: Bank of Thailand

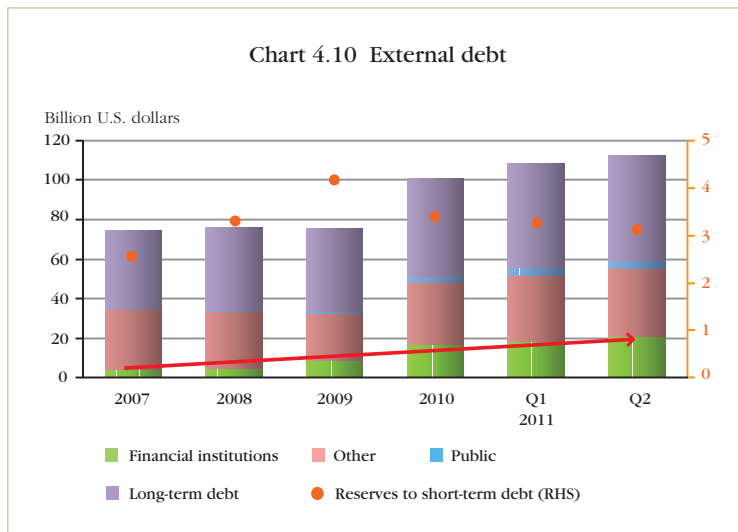
*Major risks to financial institutions stability include credit growth, prospect of growth momentum and volatility in international financial markets.*

Going forward, the MPC will remain vigilant in monitoring developments in following key issues: (1) credit growth, especially in consumer loans; (2) the prospect for the growth momentum which could affect household and corporate income; (3) the volatility in international financial markets, which may affect financial institutions' foreign currency denominated short-term debt burden, particularly from possible maturity mismatches.

### *External sector*

*The risk to external stability has increased due to volatilities in the international financial markets.*

The latest data in August 2011 indicates that the risk to external stability has increased due to volatilities in the international financial markets. Over the past four months, a net outflow of capital was recorded as non-resident investors reduced their holdings of risky assets following the soaring uncertainties in the global economy and financial markets. Nevertheless, the trade balance continued to be in surplus and consequently, the overall balance of payments remained positive during the first eight months of the year. External debt continued to edge higher both in the short and long maturities. As a result, the ratio of reserves to short-term debt continued to decline. The majority of short-term debt was still accounted for by financial institutions' borrowings for the purpose of liquidity management, largely to accommodate the increase in corporate hedging activities.



Source: Bank of Thailand

Key risk factors that are likely to weaken external stability over the next period include greater vulnerability in the global economic recovery and higher volatility in the global financial markets. In this regard, capital flows and the exchange rates could become more volatile, with a risk of spillovers onto the real sector, and thus warrant close monitoring going forward.

## 5. Economic Growth and Inflation Outlook

Thailand's economic growth in 2011 Q2 and Q3 appears softer than previously assessed. The Thai economy expanded by 2.6 percent in the second quarter over the same period last year, and contracted by 0.2 percent from the first quarter. Private consumption and exports decelerated due to supply disruption in April and May following natural disasters in Japan. The growth outlook then turned more positive in the third quarter, thanks to recovery in the automobile industry that benefited exports, as well as the continued growth in investment and tourism. Private consumption, however, moderated as consumers delayed their spending in anticipation of the government's new stimulus measures. The widespread floods starting late in the quarter also disrupted agricultural production in many areas, further dampening the consumption momentum.

Over the period ahead, the global economic outlook remains plagued by the heightened risks to the U.S. economy and the sovereign debt problem in the euro area, while domestic floods should continue to affect agricultural and manufacturing output for some time. These downside factors are likely to weigh heavily on the fourth quarter's growth while driving down annual growth for 2011 below the previous projection. Nonetheless, the MPC expects growth to recover firmly in 2012 with a revival in domestic demand, provided that the flood situation improves by the end of this year. Key support will come from reconstruction spending, together with government's stimulus both through direct spending and additional measures such as the

*Thailand's economic growth in 2011 Q2 and Q3 appears softer than expected.*

*The MPC revises down its growth projection for both 2011 and 2012.*

rice pledging scheme and the minimum wage hike. Accordingly, the MPC projects growth in 2012 to be slightly lower than the previous projection, expecting internal demand strength to make up for some loss in export momentum due to the global demand slowdown.

**Inflationary pressures** should lessen going forward, as cost pressures subside with softened prices of oil and commodities. Reflecting this view, the MPC revises down its headline forecast for 2011 while keeping core inflation unchanged. Without any significant change in demand outlook, the MPC revises up both core and headline forecasts for 2012 to reflect the impact of certain government measures, which may add pressure to inflation but had not previously been incorporated into the baseline projection. These measures include the minimum wage raise, the rice pledging scheme, and the gradual increase in the excise tax on diesel fuel.

### *Forecast assumptions*

In forming economic and inflation forecasts for the next eight quarters, the MPC conditions the projection on the most plausible assumptions on various external factors, including foreign economic activities and financial conditions, global commodity prices, and fiscal conditions. These assumptions are summarized below.

#### **International economic and financial conditions**

Trading partners' growth in 2011 Q2 turned out weaker than expected, particularly for the U.S. and the euro area. Along with the firm recovery of the Japanese economy, Asia's growth prospects remain strong despite some impacts of supply chain disruption due to

natural disasters in Japan. Looking ahead, the MPC views the euro area's sovereign debt crisis to continue to threaten the global economy, especially with the debt's ramifications on the financial sector and the broader economy. The MPC thus revises down its assumption on external demand for Thai exports for this year and the next.

The U.S. economy in 2011 Q2 expanded slower than anticipated, at an annual rate of 1.3 percent over the previous quarter. The U.S. labor market remained weak amid persistently high unemployment. Furthermore, public debt concerns both in the U.S. and the euro area intensified and began to spread widely to the financial sector, affecting business confidence and driving down asset prices. Going forward, the private sector is likely to delay investment, hiring, and consumption, while external demand also dampens with the global economy. The MPC, therefore, lowers its U.S. growth projection throughout the forecast period.

On September 21, 2011, the Federal Open Market Committee (FOMC) decided to hold the federal funds target rate at 0 to 0.25 percent, and reaffirmed its pledge to keep the rate low at least through mid-2013. The FOMC also announced the extension of the average maturity of its securities holdings, known as the Maturity Extension Program or "Operation Twist", with an aim to support domestic recovery. Moreover, the FOMC would reinvest principal payments from its holdings of agency debt and mortgage-backed securities in agency mortgage-backed securities, rather than in U.S. Treasury securities as before. The rationale behind this program is to aid recovery in mortgage markets, given the FOMC's concerns on fragile

*The MPC revises down its U.S. growth projection throughout the forecast period due to sluggish growth.*

*The federal funds rate is anticipated to remain within the target range of 0-0.25 percent throughout the projection period.*

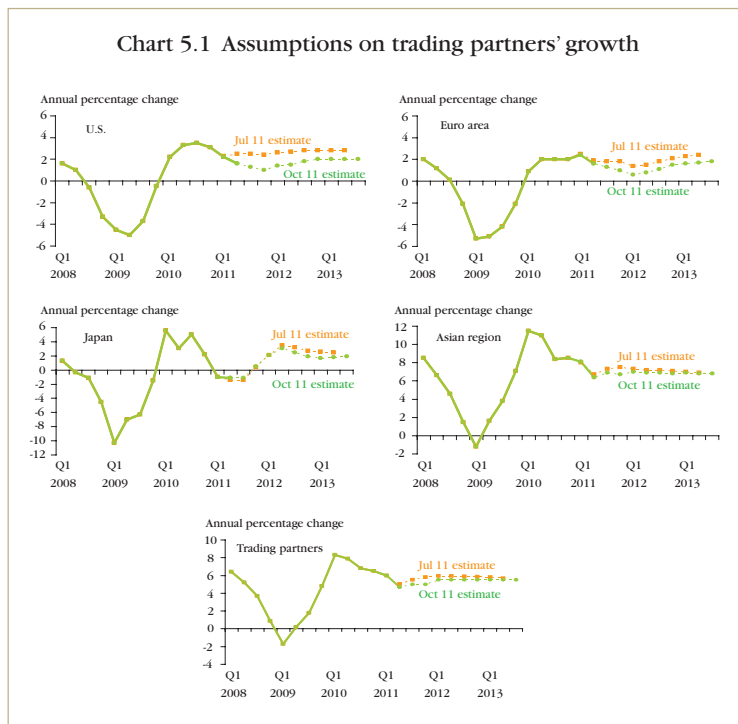
domestic growth, weak labor market, and high unemployment. Accordingly, the MPC expects the federal funds rate to remain within the target range of 0-0.25 percent over the projection horizon.

*The MPC lowers the euro area growth projection, as the public debt crisis has intensified and started to affect the financial sector and the real economy of core countries.*

The **euro area** grew by 0.2 percent in 2011 Q2 from the preceding quarter, lower than projected in the previous *Report*. In the MPC's view, the ongoing debt crisis in Greece, which has intensified and started to spillover onto the financial sector and the real economy of core countries, will likely call for further fiscal consolidation in France, Italy, and Spain in the periods ahead. As a result, business and consumer confidence may plummet further, while financial institutions may tighten their credit standards due to higher costs of funding. Many financial institutions may face higher credit risks due to the funding squeeze. Overall, the euro area still suffers from the uncertainty surrounding Greece's debt restructuring and the lack of decisive steps toward resolution of the region's debt problem. The MPC thus revises down its growth projection for the euro area throughout the projection period.

*Despite the swift recovery from natural disasters, Japan's growth in 2012 will be weighed down by the yen's appreciation and the global growth slowdown.*

The **Japanese** economy contracted in 2011 Q2 by 0.5 percent from the preceding quarter, performing better than previously assessed thanks to the swift recovery from natural disasters. The growth momentum should remain well sustained in the second half of the year, with strong pushes from government's stimulus and reconstruction spending. But at the same time, appreciation in the Japanese yen and trading partners' growth slowdown are likely to weigh on Japan's growth. Hence, the MPC raises the growth projection for 2011 but lowers the forecast for 2012.



Source: Bank of Thailand's projection

**Asian** economies continued to grow firmly on the back of domestic demand. Growth moderated in 2011 Q2 from the previous quarter due to disasters in Japan and a slowdown in exports, which was particularly the case for electronic products due to their strong links to global economic conditions. While supported by intra-regional trade and internal demand, Asian growth prospects will be constrained by the prolonged slowdown in advanced economies. The MPC, therefore, lowers its projection for Asia's growth in 2011 and 2012.

**Regional currencies** appreciated against the U.S. dollar in 2011 Q3 as the MPC had anticipated. Looking ahead, the MPC views heightened uncertainty and risks to global growth, particularly those from the euro area's debt crisis, to pressure regional currencies by triggering capital outflows from Asian stock markets. The MPC

*Asia's growth projection is revised down throughout the forecast period.*

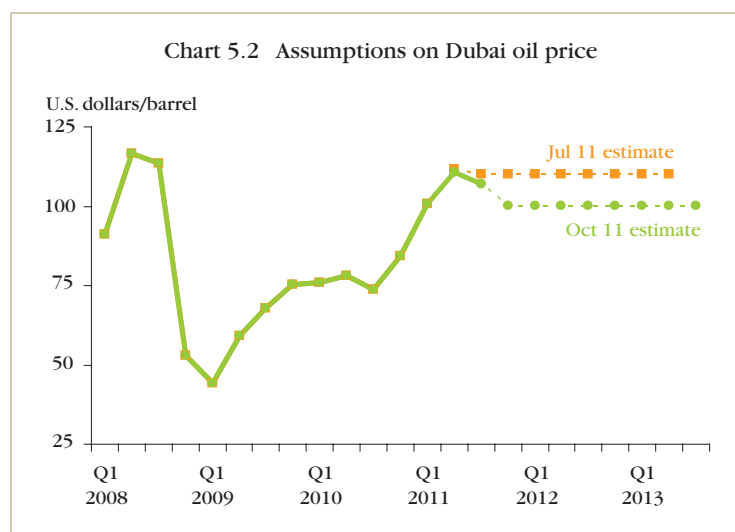
*Regional currencies are expected to appreciate against the U.S. dollar at a pace slower than previously assessed.*

thus expects regional currencies to appreciate against the U.S. dollar at a pace slower than previously assessed.

### World commodity prices

*The MPC lowers its Dubai crude price assumption over the forecast horizon.*

The **Dubai oil price** outlook weakens from that in the previous *Report*, largely owing to subdued global demand given the euro area's debt crisis and the U.S. economic slowdown. However, upside pressures remain significant due to tightening crude supply, as the OPEC spare capacity is currently at a low level and Libya's crude production still needs more time to recover fully. The MPC thus revises down its assumption on Dubai crude price to average at 105 and 100 U.S. dollars per barrel in 2011 and 2012, respectively.



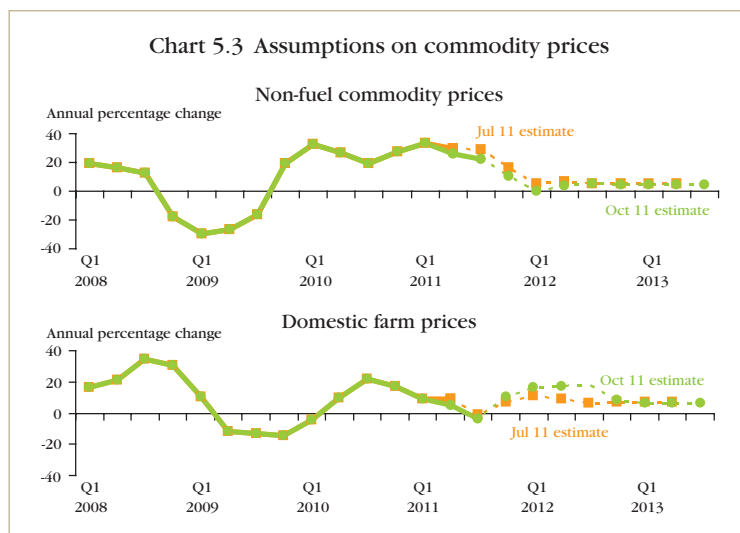
Source: Bank of Thailand's projection

*Non-fuel commodity prices are revised down.*

**Non-fuel commodity prices** are revised down as softened global demand leads to lower commodity prices. However, prices of food and metals should remain elevated due to limited supply expansion in these products, thus driving the price assumption for 2012 to be higher than this year's.

**Domestic farm prices** are revised down for 2011 following the recent drop in prices of vegetables and fruits, given the high quantity of fresh produce during the second and the third quarter. The prices are expected to resume an uptrend in the fourth quarter, as agricultural areas are widely affected by the floods. The MPC thus raises the price assumption for 2012, in line with an expected upswing in rice prices due to the government's pledging scheme for the 2011/12 rice crop.

*Domestic farm prices are revised down for 2011, and then raised in 2012.*



Source: Bank of Thailand's projection

### Fiscal expenditure

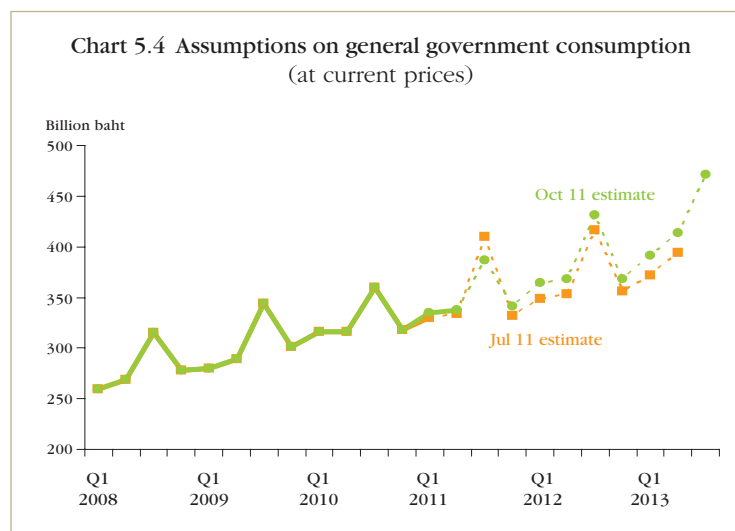
Government spending is revised down for fiscal year 2011 following the actual disbursement that turned out lower than expected, with a decline of 15.5 and 32.2 billion baht for consumption and investment expenditure, respectively.

*Government spending is lowered for fiscal year 2011, and revised up for fiscal year 2012 owing to budget expansion and higher investment by state-owned enterprises.*

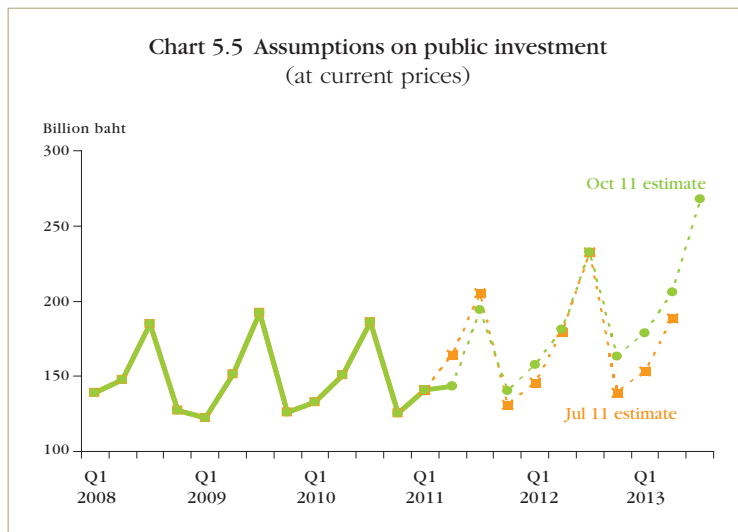
Unit: Billion baht	As of July 2011		As of October 2011		
	FY2011	FY2012	FY2011	FY2012	FY2013
General government consumption	1,392.6	1,450.6	1,377.1	1,504.3	1,644.2
Public investment	635.9	688.7	603.7	704.9	807.0
<b>Total</b>	<b>2,028.5</b>	<b>2,139.3</b>	<b>1,980.8</b>	<b>2,209.2</b>	<b>2,451.2</b>

Note: FY denotes fiscal year.

For fiscal year 2012, the MPC raises its fiscal budget assumption in line with the overall budget expansion given the increase in revenue projection, as well as the carry-over budget from the previous fiscal year. The upward revision also owes to a 40.4 billion baht increase in state-owned enterprises' investment, with key projects including the Red Line Railway System (Bang Sue – Rangsit) and ongoing projects for the Blue Line and the Purple Line mass rapid trains.



Source: Bank of Thailand's projection



Source: Bank of Thailand's projection

On top of the assumption on direct spending as outlined above, the MPC also incorporates additional stimulus measures in the form of transfer expenses starting from 2011 Q4 onward. These measures include the rice pledging scheme, the excise tax rebate for first-time car buyers, the exemption of personal income tax for first-time house buyers, the extension of subsidy on bus and train fares until the end of the forecast period, and the reduction of corporate income tax from the current rate of 30 percent to 23 and 20 percent in 2012 and 2013, respectively.

### Minimum wages

The assumption on the daily minimum wage for the Bangkok Metropolitan Area stays unchanged at 215 baht in 2011, and rises to 279 baht in 2012 in accordance with the National Wage Committee's decision to raise the daily minimum wage to 300 baht starting from 2012 Q2. The MPC then assumes this wage rate throughout the remaining projection period.

*The MPC raises its daily minimum wage assumption to 300 baht starting from 2012 Q2 onward.*

### Inventory accumulation

The MPC anticipates businesses to accumulate inventories to a lesser degree in 2011 given the economic slowdown. Inventory buildup should then resume in 2012 as the economy recovers, in line with the outlook for growth and inflation.

### *Output and inflation projections*

#### Output projection

*The Thai economy in 2011 Q4 is likely to contract from the previous quarter, largely due to the widespread floods.*

**The Thai economy in 2011 Q4** is poised to contract from the previous quarter, largely owing to the flood incidents starting late in the third quarter. The widespread floods have disrupted not only agricultural production in the Northern and the Central Region, but also activity in major industrial estates in Phra Nakhon Si Ayutthaya and Pathum Thani. These industrial areas, in particular, serve as major production bases for automobiles and parts, electronics products, and hard disk drives. The floods, coupled with the slowdown in the global economy, should weigh on consumption and investment this quarter. Exports will fall with the loss in agricultural and manufacturing outputs, while imports will likely edge lower in line with impaired demand and halted production due to the floods.

*The MPC lowers its growth forecast for 2011 to 2.6 percent.*

Accordingly, the MPC revises down its **growth projection for 2011** from 4.1 to 2.6 percent. In addition to the anticipated contraction in the fourth quarter, this revision also reflects actual output in the second quarter and preliminary indicators in the third quarter that turned out softer than expected.

The growth outlook for 2012 should remain favorable provided that the floods start to improve in early December this year. The MPC projects the economy to grow at a rate close to that in the previous *Report* on the back of strong domestic demand, thanks to pushes from reconstruction spending and government's stimulus both through direct spending and measures – including the rice pledging scheme, the minimum wage raise, and the reduction in corporate income tax. Private consumption should rebound firmly as early as the first quarter next year, and investment to regain its firm footing by the second quarter. In particular, investment momentum will benefit from reconstruction and repair of production bases damaged by the floods, and also from businesses' preparation to accommodate the anticipated pick-up in demand after the floods recede. As a result, imports of machinery, raw materials, and parts should also rise accordingly. Exports will subside during the first half of the year, especially for the high-tech sector, with its production bases yet to recover fully from the floods and advanced economies' demand expected to soften with the global economic slowdown. High-tech exports will then rebound firmly in the latter half of the year. Meanwhile, other merchandise exports and tourism should continue to grow but at a pace slower than in 2011 in line with softened global demand. Given these developments, a current account deficit may also result. Overall, the MPC projects economic growth in 2012 to be 4.1 percent, only slightly lower than the previous forecast, as recovery from the preceding year's low level of output will likely offset with the global economic slowdown.

*Economic growth is projected to be 4.1 percent in 2012, owing mainly to the recovery from the previous year's low base.*

*Output growth is projected to be 2.6 and 4.1 percent for 2011 and 2012, respectively.*

Table 5.2 Summary of forecasts		
Percent	2011	2012
GDP growth	2.6	4.1
Domestic demand	3.2	5.4
Private consumption	2.2	3.7
Private investment	9.6	8.8
Government consumption	1.0	4.9
Public investment	-1.6	12.8
Exports of goods and services	13.6	4.0
Imports of goods and services	14.9	7.6
Core inflation	2.4	2.5
Headline inflation	3.8	3.5

### Inflation projection

*Baseline forecasts for headline and core inflation in 2011 are 3.8 and 2.4 percent, respectively.*

**Inflation pressures in 2011 Q4** are likely to lessen thanks to the government's reduction on oil fund levy and the extension of cost-of-living subsidy measures beyond the scheduled termination at the end of October. The MPC, therefore, expects inflation to moderate in late 2011. Although the floods may drive up fresh food prices temporarily, pass-through to core inflation should be limited amid moderate demand pressures. Under the baseline scenario, the MPC projects headline inflation to be 3.8 percent in 2011, slightly lower than the previous projection. Core inflation forecast stays unrevised at 2.4 percent, as pass-through from costs to inflation in 2011 Q3 was greater than expected.

*Headline and core inflation in 2012 are projected to be 3.5 and 2.5 percent, respectively.*

**Inflation pressures in 2012** will remain elevated despite the fact that pressures from oil and commodity prices should subside with the global demand slow-down. Pressures from rising input costs are bound to rise due to a number of factors. First, domestic labor costs will rise with the minimum wage hike at the rate of 39.5 percent starting in April 2012. Second, rice prices

will rise due to the rice pledging scheme. And third, transportation costs should also rise if the government reintroduces the oil fund levy on gasoline and gasohol, as well as the excise tax on diesel fuel (terminated in August 2011). Besides these cost-side factors, demand pressures are also likely to build up amid recovery from the flood, pressuring inflation in 2012 further to the upside.

Despite their impact on inflation, the government measures mentioned above were not incorporated into the previous baseline projection, as some of their key details had not been finalized. With these measures taken into account this time, the MPC raises its headline and core inflation forecasts for 2012 to 3.5 and 2.5 percent, respectively, up from 3.2 and 2.3 percent in the previous *Report*.

### *Assessment of risks*

The above projection for output and inflation is conditioned on the most likely forecast assumptions, which are used under the baseline scenario. Nevertheless, the following external and domestic risks can potentially bring about deviations from the baseline projection.

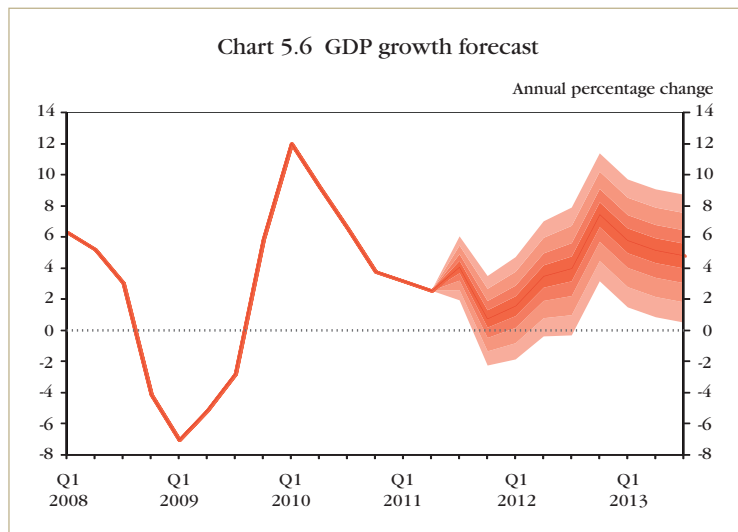
#### **Risk to growth**

**Downside risks** to growth come from both external and domestic factors. First, prolonged floods may continue to affect agricultural and manufacturing production as well as services, particularly tourism. In this case, recovery from the flood may take longer than assessed. Second, trading partners' growth may soften due to weakness in advanced economies. Recessions

in the U.S. and the euro area are possible, which may have significant impacts on the global economy. Altogether, these developments may weigh on Thailand's exports. Third, international capital flows are likely to remain highly volatile, largely due to the unbalanced economic recovery across countries. This may lead to higher uncertainty and exchange rate volatility, further undermining Thailand's economic growth. And lastly, elevated oil prices in the global market, coupled with the resulting increase in domestic oil prices, may restrain consumers and businesses' spending and soften growth.

**Upside risks** to economic growth include the following. First, early recovery from the floods may be possible with strong supports from public and private spending, aiding the manufacturing sector to recover swiftly. Second, government's stimulus measures such as the rice pledging scheme, the minimum wage raise, and the tax benefits for first-time car and house buyers, may revive private demand to an extent greater than expected. And third, trading partners' economies may grow strongly, especially in case of early resolution of problems in the U.S. and the euro area. This will help sustain growth in emerging market economies and give a further boost to Thailand's exports as well.

On the whole, the MPC views the downside risks to growth to dominate the upside ones, with higher uncertainty from both domestic and external front. Accordingly, the fan chart for economic growth is wider and skewed downward throughout the projection period.



*The fan chart for GDP growth is wider and skewed downward over the projection period.*

Note: The fan chart covers 90 percent of the probability distribution.

**Table 5.3 Probability distribution of GDP forecast**

Unit: %	2011		2012				2013		
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
> 9	0	0	0	0	2	25	9	5	4
8 - 9	0	0	0	1	3	14	8	6	5
7 - 8	1	0	0	3	5	16	12	10	9
6 - 7	5	0	1	7	9	15	15	14	12
5 - 6	16	0	3	11	13	12	16	16	15
4 - 5	29	2	6	16	15	8	14	15	16
3 - 4	28	6	12	18	16	5	11	13	14
2 - 3	15	13	18	16	13	3	7	10	11
1 - 2	5	20	20	12	10	1	4	6	7
0 - 1	1	22	17	8	7	0	2	3	4
< (-1)	0	36	24	7	7	0	1	3	4

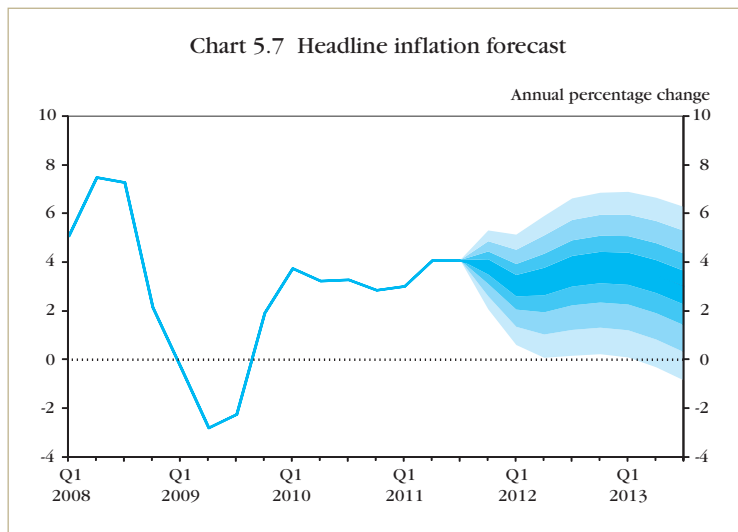
### Risk to inflation

Upside risks that may drive inflation higher than assessed in the baseline are from the following. First, production costs may be pressured substantially by the drastic hike in minimum wage and the increase in domestic rice prices. In addition, transportation costs and oil prices may also rise with the gradual increase in

oil fund levy on gasoline and gasohol, as well as the reintroduction of excise tax on fuel. Pass-through from these pressures to prices may be high amid demand that picks up with flood recovery and inflation expectations that remain elevated. Second, global prices of oil and non-fuel commodities may edge higher due to supply concerns in major producer countries and growing demand especially from China, India, and other emerging market economies. In the high-case scenario (0.5 standard deviation above the baseline assumption), the Dubai crude price is projected to average at 107 and 116 U.S. dollars per barrel in 2011 and 2012, respectively.

**Downside risks** to inflation are from three major risk factors. First, oil and non-fuel commodity prices in the global market may drift lower if global demand continues to be weighed by unresolved structural concerns in advanced economies or slowdown in emerging market countries, particularly China and India. The Dubai crude price may average as low as 100 and 67 U.S. dollars per barrel in 2011 and 2012, respectively, under the low-case scenario (one standard deviation below the baseline assumption). Second, the government may also extend part of its administrative price controls further to aid flood recovery. And third, pass-through from rising production costs to prices may be somewhat moderate if domestic growth remains weak.

The MPC assesses the downside risks to inflation to outweigh the upside ones. Reflecting these risks, the fan charts for headline and core inflation are skewed downward throughout the projection period.



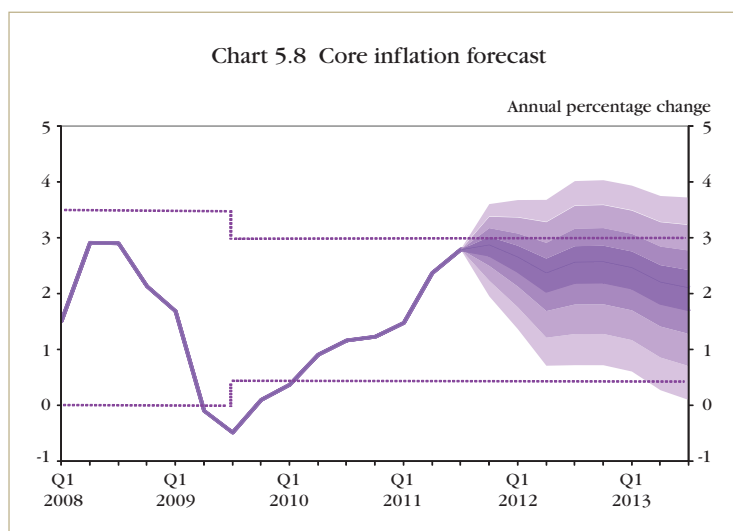
*The fan chart for headline inflation is skewed to the downside.*

Note: The fan chart covers 90 percent of the probability distribution.

**Table 5.4 Probability distribution of headline inflation forecast**

Unit: %	2011	2012				2013		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
> 7	0	0	1	3	4	4	3	2
6 - 7	1	1	3	6	7	7	6	4
5 - 6	9	5	9	12	13	13	11	9
4 - 5	30	15	16	18	18	17	16	14
3 - 4	36	26	21	19	19	19	18	17
2 - 3	19	26	20	17	16	16	17	17
1 - 2	5	17	15	12	11	12	13	15
0 - 1	1	7	8	7	7	7	8	10
(-1) - 0	0	2	4	3	3	3	5	6
< (-1)	0	0	2	2	2	2	3	5

*The fan chart for core inflation is skewed to the downside.*



Note: The fan chart covers 90 percent of the probability distribution.

Table 5.5 Probability distribution of core inflation forecast

Unit: %	2011	2012				2013		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
> 5.0	0	0	0	0	0	0	0	0
4.5 - 5.0	0	0	0	1	1	1	1	1
4.0 - 4.5	1	1	2	3	4	3	2	2
3.5 - 4.0	7	7	5	8	8	7	5	5
3.0 - 3.5	27	18	12	15	15	13	10	9
2.5 - 3.0	37	27	19	19	19	18	16	14
2.0 - 2.5	22	24	21	19	19	19	18	17
1.5 - 2.0	6	15	18	15	15	16	17	17
1.0 - 1.5	1	6	12	10	10	11	13	14
0.5 - 1.0	0	2	6	6	6	6	9	10
< 0.5	0	0	4	4	4	5	9	11

### Forecasts by research houses

Forecasts of output growth for both 2011 and 2012 from various research houses, as polled by Reuters (Thailand) and compiled by the Bank of Thailand, decline on average from the previous poll. However, it is important to note that these projections have not incorporated the impacts of the floods, which started to intensify in October.

	(Jul 12, 2011) <sup>1/</sup>		(Oct 17, 2011) <sup>1/</sup>	
	2011	2012	2011	2012
DBS	5.0	5.0	4.6	5.0
ING	4.1	5.3	3.9	4.9
CIMB	4.5	5.0	3.8	3.8
SCB Economic	4.2	4.5	3.8	4.8
Phatra Securities	3.8	4.5	3.8	4.0
TMB	4.0	4.6	3.4	3.8
Kasikorn Research	4.0	5.0	3.3	4.5
Standard Chartered	4.4	5.8	3.2	4.8
Average	4.3	5.0	3.7	4.5
NESDB	3.5 - 4.5 <sup>2/</sup>	n.a.	3.5 - 4.0 <sup>3/</sup>	n.a.

<sup>1/</sup> Data by Reuters and calculation of average figures by Bank of Thailand.

<sup>2/</sup> Estimated on May 23, 2011, when GDP figures for 2011 Q1 were released.

<sup>3/</sup> Estimated on August 22, 2011, when GDP figures for 2011 Q2 were released.

Averages of headline forecasts remain close to the previous survey for 2011, while subsiding slightly in 2012.

	(Jul 12, 2011) <sup>1/</sup>		(Oct 17, 2011) <sup>1/</sup>	
	2011	2012	2011	2012
DBS	4.0	4.0	4.0	4.0
TMB	3.9	3.6	3.9	3.6
SCB Economic	3.8	3.7	3.9	3.6
Phatra Securities	3.8	3.2	3.9	3.4
CIMB	4.0	3.9	3.8	3.2
Kasikorn Research	4.0	3.7	3.8	3.7
Standard Chartered	3.7	3.8	3.7	3.0
ING	3.5	3.0	3.5	3.0
Average	3.8	3.6	3.8	3.4
NESDB	3.0 - 3.8 <sup>2/</sup>	n.a.	3.6 - 4.0 <sup>3/</sup>	n.a.

<sup>1/</sup> Data by Reuters and calculation of average figures by Bank of Thailand.

<sup>2/</sup> Estimated on May 23, 2011, when GDP figures for 2011 Q1 were released.

<sup>3/</sup> Estimated on August 22, 2011, when GDP figures for 2011 Q2 were released.

## How will government policies affect inflation forecasts?

Inflation forecasts are essential for monetary policy deliberations, and also serve as the MPC's prime communication tool to help anchor the public's inflation expectations. The MPC focuses particularly on "underlying" price pressures that reflect the dynamics of price adjustments largely driven by demand factors and private sector's inflation expectations, both of which respond to monetary policy and thus are of high significance. When considering inflation forecasts, the MPC needs to concentrate on these true underlying pressures by separating out the effects of temporary factors. The MPC also needs to explain these short-lived impacts clearly to ensure sound public understanding of the MPC's policy decisions.

Over the periods ahead, government policies will be key factors affecting inflation forecasts. Some policies would likely lead to a one-time jump in the price level, which could substantially affect the calculation of inflation over the projection period. These policies need to be analyzed carefully to ensure a proper assessment of underlying inflation pressures. Key government policies already incorporated into the baseline projection include:

Chart 1 The effect of an increase in minimum wage and civil servants' salary

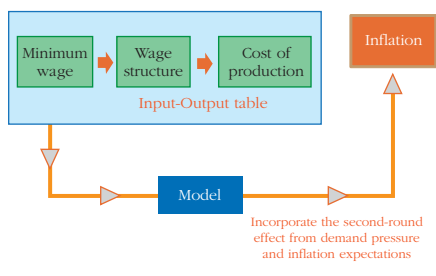
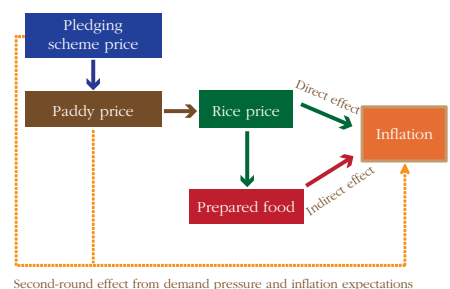


Chart 2 The effect of the rice pledging scheme



**1. Minimum wage and civil servants' salary raise.** A drastic increase in minimum wage and civil servants' salary - roughly by 40 and 30 percent, respectively, will lead to adjustments in the overall wage structure, under the assumption that higher-paid workers receive a lower increase in their wage. Because labor productivity cannot keep up with such an abrupt wage hike, additional cost pressures will result. Based on the input-output table analysis, production costs are expected to rise by 4 percent as a result of this policy.

At the same time, the wage raise will also increase purchasing power, thus stimulating consumption and adding more to demand pressures, with possibly some impacts on short-term inflation expectations as well. Taking all these factors into account, this policy should drive up headline and core inflation in 2012 by about 0.2 and 0.3 percent, respectively.

**2. Rice pledging scheme.** The pledged price has been set to about 50 percent higher than the market price, with possibility that the government will pursue this policy without any quota restriction. The pledging scheme will drive up domestic paddy prices and affect prices of packaged rice directly, which in turn will pressure inflation to the upside through rising costs of prepared food.

Furthermore, the scheme should give rise to greater demand pressures through higher farm income, and also affect inflation expectations in the same manner through the raise of the minimum wage and civil servants' salaries. On the whole, this pledging scheme is expected to drive up headline and core inflation in 2012 roughly by 0.4 and 0.3 percent, respectively.

**3. Energy policy.** While the excise tax on diesel fuel is scheduled to terminate at the end of 2011 and the oil fund levy to end in 2012, the baseline projection assumes that oil fund levy will rise gradually starting from mid-January 2012 onward. The resulting increase in retail oil prices will drive up core inflation indirectly through higher costs of production and transportation, especially public transport fares. This energy policy accounts for 0.7 and 0.2 percent of headline and core inflation forecasts in 2012, respectively, under the baseline scenario.

**4. Free fares for third-class trains and BMTA's non-air-conditioned buses.** In accordance with the cabinet's approval, this measure has been extended to mid-January 2012. However, the baseline projection assumes the measure to be extended throughout the projection period, resulting in a drop of 0.4 and 0.6 percent in headline and core inflation, respectively (compared to the case of no extension).

**Table: The impact of government policies on inflation in 2012**

	Headline inflation	Core inflation
Minimum wage and civil servants' salary raise	0.2	0.3
Rice pledging scheme	0.4	0.3
Diesel tax and gradual increase in oil fund levy	0.7	0.2
Free fares for third-class trains and BMTA's buses	-0.4	-0.6

Taking into account the impacts of these government policies, inflation forecasts for 2012 are higher than previously projected. But barring the effects of these policies, underlying inflation pressures are slightly lower this time because of softened cost pressures, in line with lower commodity prices due to heightened risks from the global economy.

## 6. Conclusion

The Thai economy contracted in 2011 Q2 from the preceding quarter mainly due to a slowdown in exports. The drag in exports owed largely to the automobile industry, which was gravely affected by supply disruption following natural disasters in Japan. Nonetheless, other merchandise exports and the tourism sector continued to expand. Private-sector investment and consumption moderated, partly owing to lower spending on durable goods, notably automobiles. Public investment also dropped in line with actual disbursement of both central and local governments.

Looking ahead, the MPC projects economic growth to resume in 2011 Q3 thanks to strong exports, tourism, and private investment. Government consumption and investment are also likely to play a crucial role in supporting domestic growth, in tandem with budget disbursement that picked up late in the fiscal year. However, the MPC revises down its annual growth forecast for 2011 due to the widespread floods, which is likely to affect agricultural and manufacturing production significantly in 2011 Q4 before subsiding next year once recovery is underway. Heightened global risks, particularly due to the euro area's sovereign debt concern, will also continue to weigh on Thailand's growth outlook. The delay in progresses made so far toward resolution of the debt crisis, and its ramifications on the banking sector and the real economy of core countries such as France, Italy, and Spain are likely to result in further fiscal consolidation in these

countries and hamper the ongoing recovery in the U.S. and Japan. Meanwhile, the MPC expects inflation pressures to remain elevated in 2011 in line with high input costs and inflation expectations, as well as the likely pick-up in fresh food prices due to the floods.

With regard to recent monetary policy decisions, the MPC judged on August 24, 2011 that Thailand's growth momentum remained strong in spite of heightened risks to growth, particularly those coming from the external front. On the other hand, domestic price pressures persisted and would result in rising inflation expectations and higher upside risks to inflation going forward. The MPC, therefore, decided with a 5-2 vote to raise the policy interest rate by 0.25 percent from 3.25 to 3.50 percent, with two votes in favor of keeping the policy rate unchanged. In its subsequent meeting on October 19, 2011, the MPC viewed that the global economic outlook had deteriorated markedly as a result of the euro area's sovereign debt problem and the fragile recovery in the U.S. Despite Thailand's continued growth this period, the MPC noted recent signs of a slowdown in exports, and also the fact that the impact of the floods on the broader economy was still evolving. Meanwhile, inflation pressures remained high due to continued expansion of domestic demand, while inflation expectations started to stabilize. Overall, the MPC deemed the current level of policy rate to be appropriate in addressing upcoming inflation pressures and supporting economic adjustments amid heightened risks from the global economy. The MPC thus voted 6 to 1 to hold the policy rate unchanged at 3.50 percent, with one vote in favor of a 0.25 percent decrease.

## *Business Liason Report*

*As of September 30, 2011*

### **Overall summary**

Overall business activity expanded from the previous quarter following favorable domestic and foreign demand according to the Economic/Business Information Exchange Program between the Bank of Thailand and 316 firms nationwide in 2011 Q3<sup>1/</sup>. Exports of goods and services continued to expand. In particular, vehicle production grew significantly to fulfill the backlog of orders incurred during the supply chain disruption. Domestic consumption and investment remained strong. Looking ahead, industrial production and exports are expected to be affected by the widespread floods but the impact would be temporary. Meanwhile, the downside risk on export growth from the slowdown in the U.S. and the euro area economies increased. Labor shortages and difficulty in price adjustments also remained constraints to businesses.

- **Consumption** remained favorable although consumption in flooded areas from the end of the quarter onward was adversely affected. Factors underlying the consumption growth momentum remained strong. For example, farm income remained high while wages and work hours in the manufacturing sector increased. In addition, financial support from bank and non-bank financial institutions, sale promotion schemes and the government's stimulus package helped maintained the growth momentum for consumption to smooth over the temporary slowdown due to the floods.
- **Real estate** activity slowed down from the previous quarter as developers and home buyers adopted a wait-and-see attitude pending the government's real estate stimulus measure. As a result, the number of newly launched housing projects declined. Most newly launched projects were townhouses. Going forward, developers expect to increase house prices during the rest of this year and next year due to higher costs of land, rising prices of raw material, and wage hikes.
- **Tourism** activity expanded continuously in every region of the country. Asian tourists, especially those from China, India, and ASEAN, increased notably. In contrast, tourists from the U.S. and Europe declined due to economic slowdown in their respective regions. Domestic tourism expanded owing to the expansion of the Meeting, Incentive, Convention, and Exhibition (MICE) activities and promotion schemes. However, accommodation prices were not adjusted upward due to high competition.
- **Production and exports** increased on the back of favorable domestic and foreign demand. Order books from Asian countries such as China, ASEAN, and the Middle East remained healthy. Order books from Japan also increased following its economic recovery. In contrast, order books from the U.S. and Europe declined due to higher downside risk to economic growth. Vehicle production expanded significantly in order to meet the backlog of orders incurred during the supply chain disruption following the Japan crisis. Consequently, tire and auto-parts industries expanded. The hard disk drive industry expanded this quarter as final demand from China increased. Electrical appliances, particularly televisions and air-conditioners, expanded well in line with domestic and external demand for new models. However, going forward, production and exports are expected to decline temporarily due to the widespread floods.

<sup>1/</sup> Including responses from the Business Sentiment Survey (about 700 business firms per month).

- **Investment** expanded from the previous quarter. Businesses invested in order to replace obsolete machinery, expand production capacity, and substitute for labor. Given tightening capacity utilization, the vehicle and parts industry ramped up its investment in order to expand production capacity and upgrade technology to accommodate production of new car models. Regarding the wholesale and retail sectors, investment plans for new warehouses and branches were undertaken. In addition, hotels renovated their conference and functional rooms in order to attract more MICE customers. Going forward, businesses anticipated that both public and private investment would expand following increased investment demand for machinery, plants, and the restoration of buildings damaged by the floods as well as government investment in mega-projects.
- **Employment** remained strong in line with economic expansion. In this quarter, workers migrated from the non-agricultural sector into the agricultural sector due to the growing season. As a result, businesses experienced labor shortages. In anticipation of the 300 baht minimum income policy and higher production costs, firms adjusted themselves by increasing labor productivity, outsourcing some parts of production process, basing remuneration on output, substituting machinery for labor, and converting benefits into wages. In addition, some businesses (e.g. garment, processed food, handicraft, electrical appliance) considered other options such as relocating production to neighbor countries and downsizing.
- **Production costs.** Domestic oil price decreased in this quarter due to the cessation of the oil fund contribution fee. However, raw material prices and overall production costs, especially for agricultural products (e.g. sugar, rubber, rice, pork), remained high. Thus, businesses, particularly food businesses, steadily raised their prices. Nevertheless, price adjustment proved difficult because of intense competition and price controls. As a result, the increase in consumer prices has not compensated for the rise in production costs.
- **Corporate and household credit** continued to grow. As for corporate credit, loans for fixed investment and working capital grew well for both large corporates and SMEs, especially in the manufacturing and trading sectors. Household loans also expanded in line with consumption. Auto loans accelerated after delivery of vehicles returned to normal. Moreover, high farm income continued to support demand for vehicles.
- **Business constraints and risks.** Businesses continued to be constrained by labor shortages and difficulties in price adjustment amid rising production costs. Going forward, businesses expressed greater concerns over how the Thai economy would fare given the slowdown of the U.S. and euro area economies as well as the supply shortage due to the floods.