BANK OF THAILAND

Monetary Policy Group

Thailand's Economic Conditions in 2011

Vision: To be an organization of vision and principles that engages with stakeholders in pursuit of Thailand's sustainable economic well-being.

Contents

The Year 2011 at a Glance and Outlook for 2012

The Thai economy expanded well in the first three quarters of 2011, despite Japan's natural disasters and global growth slowdown. However, the worst floods in 70 years in Q4 brought down the year's growth to 0.1 percent.

- **The historic floods hit the heart of Thailand's manufacturing sector, halting production and disrupting supply chains and transportation.** Merchandise exports, consumption, and investment suffered from supply constraints. Once production recovers to normal level, pent-up demand should help sustain growth momentum in the periods ahead.
- **Inflation picked up from last year** due to production costs that rose with global oil and commodity prices, as well as higher domestic raw food prices caused by supply constraints. Robust demand in the first three quarters also allowed a continued pass-through from costs to prices.
- **Labor market continued to tighten, although some workers were temporarily affected by the impact of the floods on the manufacturing sector.**
- **External stability remained sound.** Current account continued to be in surplus, while short-term external debt declined. Financial account recorded a net outflow due mainly to Thai businesses' investment abroad.
- **Greater two-way movements were observed in the baht exchange rate.** The result of general election in the middle of the year helped reduce uncertainty and supported the baht. However, global financial risks escalated from the euro area's debt crisis and pressured the baht to depreciate overall.
- **Fiscal stimulus tapered off.** Better economic conditions prompted the government to set a lower fiscal deficit (i.e. budget deficit plus spending under the Stimulus Package 2). Nonetheless, delayed enactment of the new Budget Act limited the role of fiscal policy in mitigating the floods' impact.
- **Economic growth in 2012 will hinge on recovery in the manufacturing sector, government's water management plans, and global economic conditions that still depend on developments in the euro area's debt crisis. Upside risks to inflation will likely remain from global oil prices, together with demand pressure that will rise with post-flood recovery and government measures such as the minimum wage hike and the rice pledging program.**

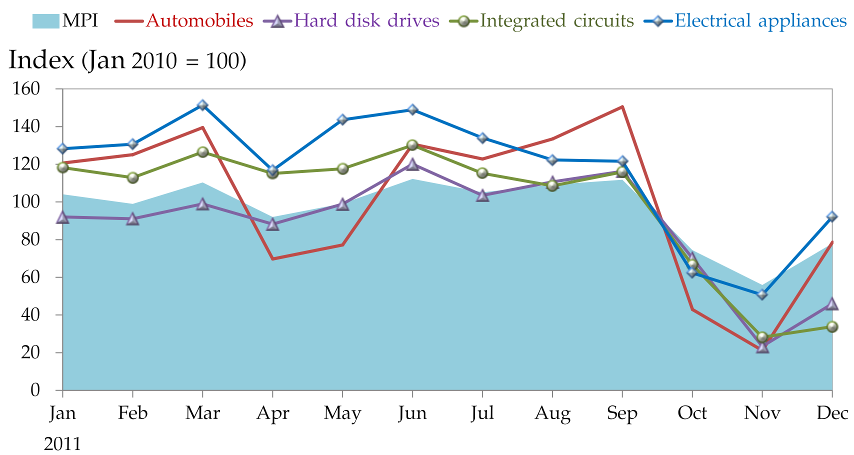
The Thai Economy in 2011

The historic floods interrupted domestic growth.

The manufacturing sector suffered severely from both natural disasters in Japan and domestic floods. Japan's disasters weighed down the automobile industry heavily in Q2, but the industry rebounded quickly to normal in Q3. Subsequently, the historic floods in Q4 hit seven industrial estates (17 percent of total manufacturing production) where major producers and complex production networks resided, especially for the automobile, electronics, hard disk drives, and electrical appliances industries. The incidents caused damage directly through production halt and indirectly through disruptions in supply chains and transportation. Meanwhile, **the agricultural sector** remained resilient despite damage to rice crops in the central region. Besides rice, other major products still increased with expanded farming areas, while agricultural prices also edged higher. As a result, farm income continued to grow from the previous year.

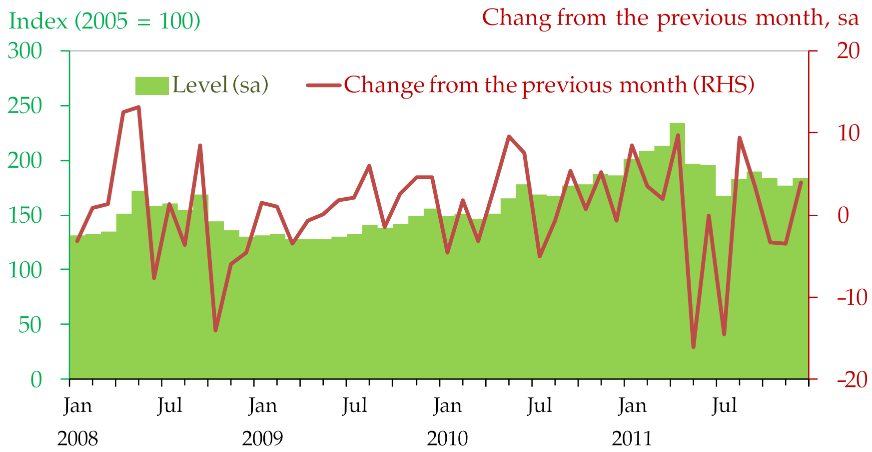
The floods' impact on the labor market was relatively benign, as most businesses retained their employees to ensure a prompt post-flood operation. Although some workers were laid-off, they should easily be reemployed as soon as businesses start to recover given tight labor market conditions.

Manufacturing Production Index



Source: Office of Industrial Economics

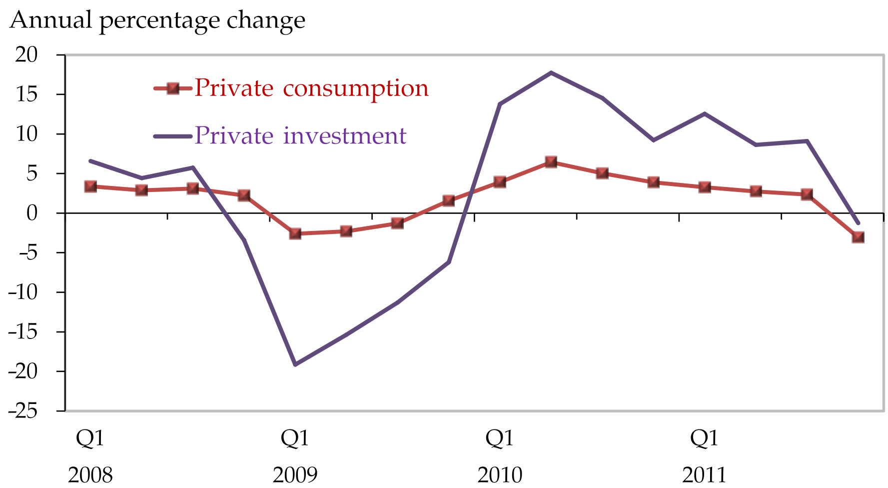
Farm Income



Sources: Office of Agricultural Economics and Bank of Thailand's calculations

Production problems led to a severe shortage of goods, which interrupted consumption and investment momentum despite supportive farm and non-farm income, improved consumer and business confidence, as well as conducive monetary conditions.

Private Consumption and Investment



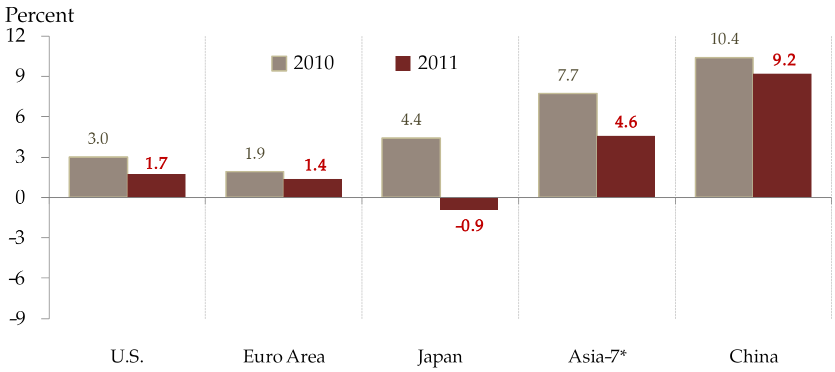
Source: Office of the National Economic and Social Development Board

Global growth slowdown affected Thailand only moderately.

Global economic growth softened mainly from advanced economies. In particular, some fragility remained in the U.S. economy, while the euro area's debt crisis intensified and spread beyond Greece, Ireland, and Portugal to core countries including

Italy and Spain in the second half of the year. The debt crisis also started to affect emerging market economies through international trade and financial market volatility. Also, in the second quarter, supply disruptions following Japan's natural disasters disrupted production of automobiles and electronics products in several countries.

Global Economic Growth in 2010 and 2011

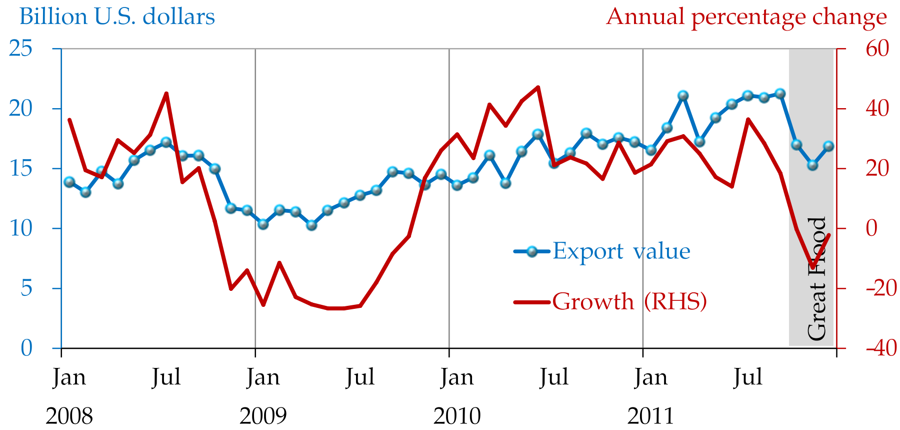


Note: * GDP-PPP weighted average of seven Asian countries: Indonesia, Malaysia, Philippines, South Korea, Taiwan, Singapore, and Hong Kong

Sources: Bureau of Economic Analysis (U.S. Department of Commerce), Cabinet Office of Japan, CEIC, Eurostat, and Bank of Thailand's calculations

Weaker global demand did not weigh on Thai exports heavily, as seen from strong export value growth during the first three quarters. Part of this was attributable to Thai exporters' success in diversifying markets and products. Nevertheless, the severe shortage in merchandise exports and transportation problems caused exports to plunge deeply in the last quarter.

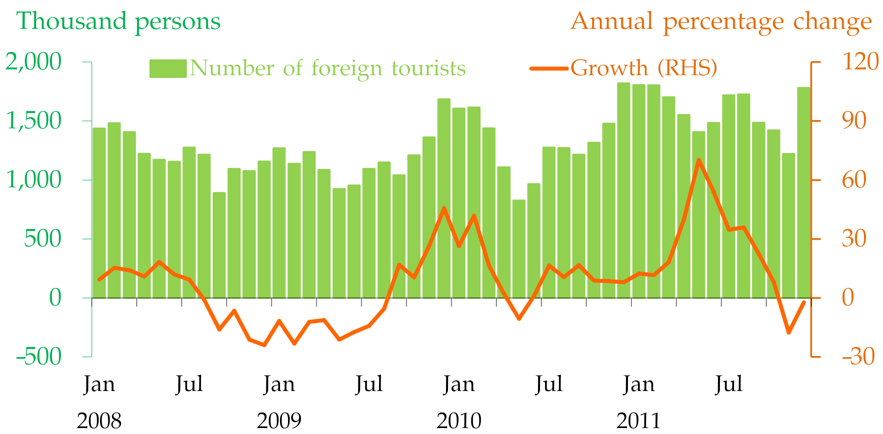
Export Value and Export Value Growth



Source: Customs Department

The tourism sector was also resilient in light of global demand slowdown, thanks to Thailand's attractiveness and diversified tourist markets. The sector suffered only temporarily from the floods and rebounded swiftly after the situation improved.

Number of Foreign Tourists

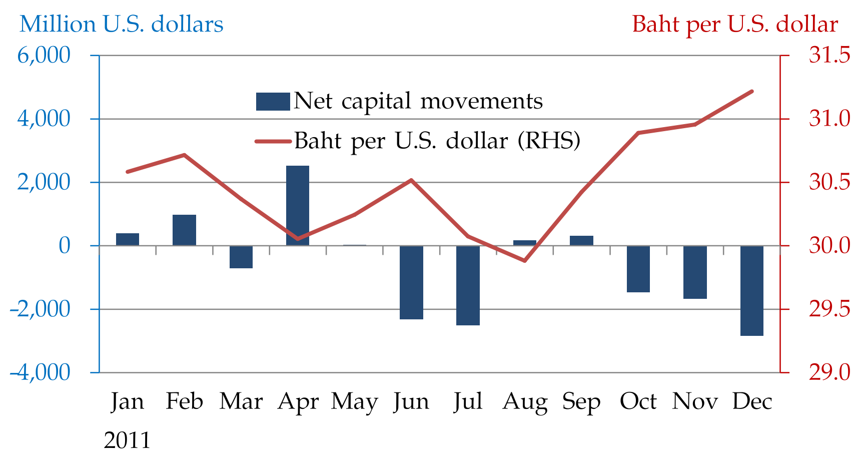


Source: Department of Tourism

Volatile capital flows year-round led to greater two-way movements in Thai baht.

In the first half, a net capital inflow was recorded given robust growth in Thailand and the region. But as the euro area's debt crisis aggravated in the second half, foreign investors cut their holdings of assets in the region including Thailand, while Thai businesses also invested abroad directly. On the whole, a net financial outflow was recorded for the year. Year-round volatility and the net outflow caused two-way movements in the baht and led to an overall depreciation from the end of 2010.

Net Capital Movements and Exchange Rates



Source: Bank of Thailand

Domestic and external stability remained sound.

Headline and core inflation picked up from last year to 3.81 and 2.36 percent, respectively. An acceleration in the first three quarters was evident due to: (1) buoyant production costs in line with global oil and commodity prices, as well as domestic raw food prices; and (2) robust domestic demand and tight labor market conditions, which allowed a pass-through to prices especially for food and beverage. However, inflation subsided in Q4 with deceleration in global oil and commodity prices.

Consumer Price Index

(Annual percentage change)

	Weight (percent)	2010	2011*				
			Year	Q1	Q2	Q3	Q4
Headline Consumer Price Index	**100.0**	**3.3**	**3.81**	**3.01**	**4.10**	**4.13**	**3.97**
- Core Consumer Price Index	75.5	1.0	2.36	1.46	2.37	2.79	2.82
- Raw food	14.6	10.3	8.66	8.27	9.04	7.08	10.22
- Energy	9.9	9.7	5.59	5.21	7.90	8.67	0.66

Note: * The Ministry of Commerce began to publish two-digit inflation figures this year upon the request of the Public Debt Management Office, starting with the January 2011 figures released on February 1, 2011.

Source: Bureau of Trade and Economic Indices, Ministry of Commerce

External stability continued to remain solid as reflected in: (1) current account surplus, while financial account recorded a net outflow due to Thai businesses' direct investment abroad; (2) high level of international reserves; and (3) lower ratio of short-term external debts.

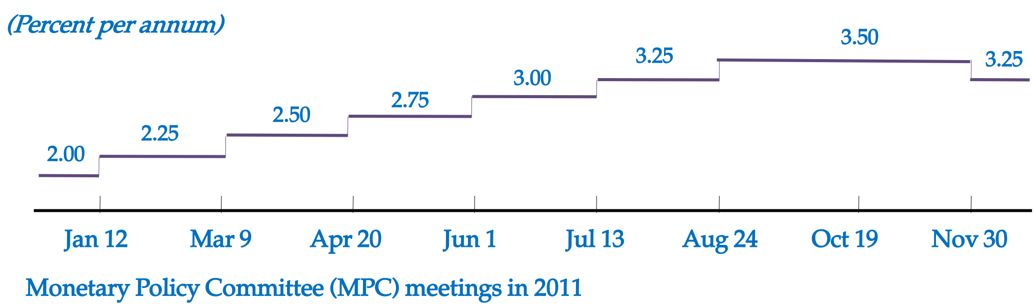
External Stability

	2010	2011				
		Year	Q1	Q2	Q3	Q4
Current account balance (billion U.S. dollars)	**13.2**	**11.9**	**5.9**	**0.9**	**3.1**	**1.8**
Gross reserves at end of period (billion U.S. dollars)	**172.1**	**175.1**	**181.6**	**184.9**	**180.1**	**175.1**
Short-term debt to external debt at end of period (percent)	**50.4**	**46.4**	**51.5**	**52.6**	**50.8**	**46.4**

Source: Bank of Thailand

Stimulus through fiscal and monetary policies became less necessary given strong growth in the first three quarters and rising inflationary pressure. With regard to monetary policy, the MPC raised the policy rate six consecutive times to maintain economic balance and overall stability. But given the floods' impact and softer global growth, the MPC held and decreased the policy rate in the last two meetings to support recovery.

Policy Interest Rate



Sources: BOT News No. 1/2011, 8/2011, 11/2011, 19/2011, 25/2011, 33/2011, 42/2011, and 55/2011

On the fiscal side, the government set up a lower fiscal deficit (i.e. budget deficit and spending under the Stimulus Package 2), while revenue collection also exceeded target. As a result, cash deficit for fiscal year 2011 fell to 157 billion baht from 200 billion baht in the preceding fiscal year. This reflected softer stimulus given to the economy in line with robust growth in the first three quarters of the year. Nonetheless, delayed enactment of the new Budget Act limited the role of fiscal stimulus in mitigating the floods' impact.

Budget Balance

Fiscal year

Billion baht	2008	2009	2010	2011	2012
Budget balance	-165	-347	-350	-400	-400
Percent to GDP	-1.8	-3.9	-3.5	-3.7	-3.5
Budget balance + Stimulus Package 2	-165	-362	-568	-461	-438
Percent to GDP	-1.8	-4.1	-5.7	-4.3	-3.9

Sources: Budget Document and Bank of Thailand's projection of disbursement under the Stimulus Package 2

Growth will accelerate in 2012 while inflation moderates.

Economic growth in 2012 is projected to rise from the previous year with the production sector's return to normal in early Q3. Domestic demand will help cushion the impact of global growth slowdown, and also serve as the main engine for growth. Consumption will rebound with damage replacement and pent-up demand, while investment is likely to pick up with reconstruction efforts, flood prevention and risk diversification, as well as businesses' return to their original investment plans.

Positive factors for growth going forward include favorable employment prospects, sound consumer and business confidence, as well as supportive financial conditions given low interest rates and credit expansion. Fiscal deficit will rise with higher direct spending and additional spending according to the emergency decree, which empowers the Ministry of Finance to borrow for implementing water management systems and programs for Thailand's future. This higher spending overall is aimed to support post-flood reconstruction and boost the economy.

Meanwhile, inflation is likely to remain stable in the near term, with possible upside risks from global oil prices and the minimum wage increase. In addition, acceleration in private demand and government spending may also add more pressure to inflation, especially in the second half of this year when the Thai economy recovers closer to its full potential.

Thailand's Economic Conditions in 2010-2011

	2010	2011				
		Year	Q1	Q2	Q3	Q4
(Annual percentage change, unless specified otherwise)						
Gross Domestic Product [1/]	**7.8**	**0.1**	3.2	2.7	3.7	-9.0
Demand (expenditure)						
Private consumption expenditure	**4.8**	**1.3**	3.3	2.7	2.4	-3.0
General government consumption expenditure	**6.4**	**1.4**	1.8	1.0	4.9	-3.1
Gross fixed capital formation	**9.4**	**3.3**	9.3	4.1	3.3	-3.6
- Private	**13.8**	**7.2**	12.6	8.6	9.1	-1.3
- Public	**-2.2**	**-8.7**	-1.4	-9.9	-10.9	-12.1
Exports of goods and services	**14.7**	**9.5**	16.0	12.0	17.3	-6.5
Imports of goods and services	**21.5**	**13.6**	16.8	15.1	20.1	2.9
Supply (production)						
Agriculture	**-2.3**	**3.8**	7.6	6.7	0.5	0.7
Manufacturing	**13.9**	**-4.3**	1.7	-0.1	3.1	-21.8
Construction	**6.8**	**-5.1**	-1.3	-7.6	-5.4	-5.9
Services and others	**5.0**	**3.3**	3.8	5.0	5.1	-0.6
Domestic stability						
Headline Consumer Price Index	**3.3**	**3.81**	3.01	4.10	4.13	3.97
Core Consumer Price Index (excluding raw food and energy)	**1.0**	**2.36**	1.46	2.37	2.79	2.82
Unemployment rate (percent)	**1.0**	**0.7**	0.8	0.6	0.7	0.6
Public debt (end of period, billion baht)	**4,282**	**4,297**	4,246	4,264	4,448	4,297
Share of GDP (end of period, percent)	**42.4**	**40.3**	41.3	40.7	42.3	40.3
External stability [2/] **(billion U.S. dollars)**						
Trade balance	**31.8**	**23.5**	8.0	6.8	7.7	1.0
Current account balance	**13.2**	**11.9**	5.9	0.9	3.1	1.8
Capital and financial account balance	**24.2**	**-7.2**	0.7	0.2	-2.0	-6.0
Balance of payments	**31.3**	**1.2**	7.3	0.0	-1.7	-4.4
Gross international reserves (end of period)	**172.1**	**175.1**	181.6	184.9	180.1	175.1
External debt (end of period)	**100.6**	**106.6**	108.4	112.0	115.6	106.6
Internation reserves to short-term debt (percent)	**3.4**	**3.5**	3.3	3.1	3.1	3.5
External debt to GDP (percent)	**35.2**	**34.4**	37.1	37.6	38.0	34.4
External debt to export value (percent)	**48.9**	**47.4**	51.3	52.0	52.4	47.4
Short-term debt to external debt (percent)	**50.4**	**46.4**	51.5	52.6	50.8	46.4
Monetary statistics (end of period) *(billion baht)*						
Monetary base	**1,243.3**	**1,365.5**	1,267.9	1,223.4	1,229.5	1,365.5
△ %	**12.7**	**9.8**	15.5	14.1	10.0	9.8
Narrow money	**1,302.4**	**1,414.3**	1,345.6	1,336.6	1,328.0	1,414.3
△ %	**10.9**	**8.6**	13.8	13.3	13.0	8.6
Broad money	**11,778.8**	**13,566.0**	12,284.4	12,614.4	12,912.3	13,566.0
△ %	**10.9**	**15.2**	13.2	16.3	16.2	15.2
ODC's deposits including bills of exchange [3/]	**11,564.3**	**13,206.5**	12,094.1	12,375.2	12,608.7	13,206.5
△ %	**10.8**	**14.2**	12.5	15.2	14.5	14.2
ODC's private credit [3/]	**9,947.0**	**11,558.9**	10,308.2	10,679.1	11,081.1	11,558.9
△ %	**12.6**	**16.2**	14.9	16.1	17.5	16.2
Interest rates *(percent per annum)*						
Repurchase rate, one-day (average of daily closing rates)	**1.48**	**2.95**	2.29	2.79	3.33	3.41
Overnight interbank rates (average of daily modes)	**1.36**	**2.84**	2.17	2.67	3.23	3.32
Time deposit rate, one year [4/] (end of period)	**1.55**	**2.87**	1.93	2.35	2.87	2.87
Prime rate (MLR) [4/] (end of period)	**6.12**	**7.25**	6.62	6.87	7.25	7.25
Average exchange rate *(baht per U.S. dollar)*	**31.69**	**30.49**	30.54	30.29	30.12	31.00

Notes: [1/] At constant prices

[2/] Balance of Payments statistics has been revised in accordance with the IMF's Balance of Payments Manual, 6th edition (BPM6) (details at http://www.bot.or.th/Thai/Statistics/EconomicAnd_Financial/ExternalSector/Pages/Newtable.aspx)

[3/] Other Depository Corporations (ODCs) consist of all deposit-taking institutions except the Bank of Thailand

[4/] Average rate of four largest commercial banks

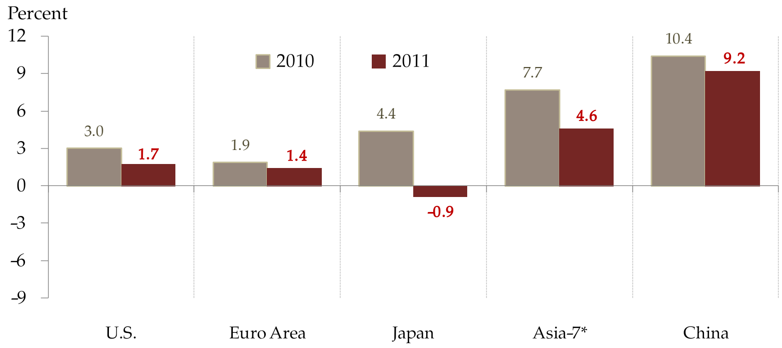
Sources: Office of the National Economic and Social Development Board, Ministry of Commerce, National Statistical Office, Public Debt Management Office, and Bank of Thailand

1. International Economies

Global economic growth was driven by emerging market economies.

Global economic growth in 2011 was propelled mainly by emerging market economies. Signs of slowdown appeared in the second half of the year, as the euro area's debt crisis intensified and continued to weigh on advanced economies. Besides, the Japanese economy contracted from natural disasters in March.

Global Economic Growth in 2010 and 2011



Note: * GDP-PPP weighted average of seven Asian countries: Indonesia, Malaysia, Philippines, South Korea, Taiwan, Singapore, and Hong Kong

Sources: Bureau of Economic Analysis (U.S. Department of Commerce), Cabinet Office of Japan, CEIC, Eurostat, and Bank of Thailand's calculations

G3 economies remained weak due to the euro area's intensified debt crisis.

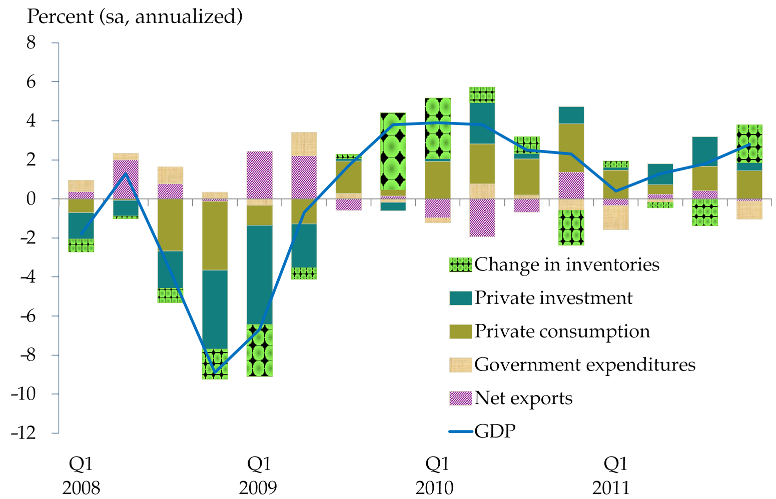
Major Industrialized Economies (G3)

The U.S. economy recovered modestly in the face of risks at home and abroad.

The U.S. economy grew by 1.7 percent in 2011, slowing down from 3.0 percent last year. Growth stalled in the first nine months of the year as a result of the following developments. (1) Oil prices rose continually since late 2010 amid political unrests in the Middle East, thus undermining private sector's spending power. (2) Japan's natural disasters disrupted production notably in the automobile industry. Moreover, (3) consumer and investor confidence worsened with the cut in budgetary spending, uncertainty from the debt ceiling negotiation processes, and the U.S. sovereign credit rating downgrade by Standard & Poor's in August.

Positive developments began in Q4 as producer and consumer confidence improved with decelerating oil prices and firm recovery in automobile production. Economic growth during the period rose accordingly to 2.8 percent (first estimate) from 1.8 percent in the preceding quarter. However, the Federal Reserve continued its easing stance by indicating to maintain the Federal funds rate at 0-0.25 percent per annum at least through mid-2013[1], which reflected that concerns on recovery remained.

Contribution to U.S. GDP Growth (QoQ)



Source: Bureau of Economic Analysis (U.S. Department of Commerce)

[1] During the FOMC meeting in August 2011

Looking ahead, the U.S. economy may face protracted recovery and sub-potential growth due to: (1) high and sustained unemployment, with the number of employed persons far below the pre-crisis figure in 2008; (2) excess supply of housing and falling house prices; (3) the euro area's sovereign debt crisis, which has not been resolved; and (4) the tendency that fiscal policies will need to become more disciplined.

Euro area's growth momentum subsided as the public debt crisis intensified and spread out.

Euro area's growth decelerated to 1.4 percent in 2011 amid negative shocks year-round. Higher inflation and oil prices in the first half of the year undermined consumer spending and drove up production costs. In the second half, the sovereign debt problems started to spread beyond Greece, Ireland, and Portugal[2] to core member countries including Italy, Spain, and France[3]. Government bond yields soared accordingly despite various efforts from European governments to improve the situation.

Both financial and real sectors were affected by the debt crisis through: (1) liquidity squeeze and surging costs of funding in the financial market, which weakened financial institutions' balance sheets and prompted banks to deleverage by curtailing private credits and holdings of risky assets; (2) deteriorated business and consumer confidence; and (3) further fiscal consolidation aiming to reduce budget deficit and public debt outstanding, which may dampen domestic demand and overall demand in the euro area[4] while increasing risks of recession over the period ahead.

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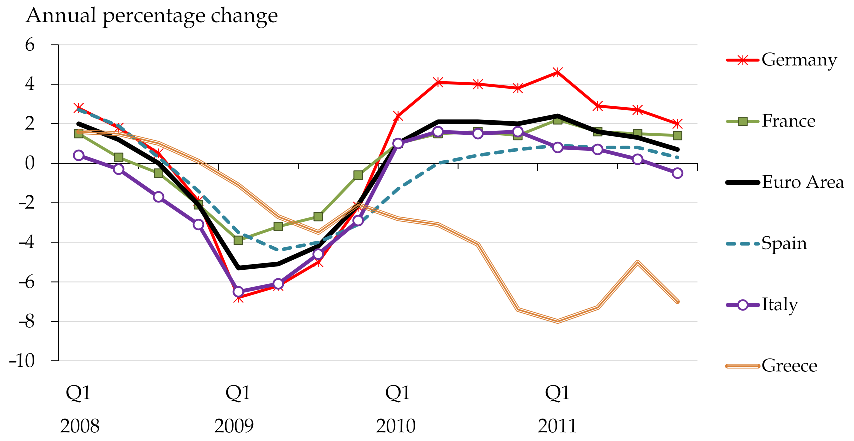
[2] Greece, Ireland and Portugal could not finance from the money market at reasonable interest rates, so they requested for liquidity support from the European Commission and the International Monetary Fund in May and December 2010 and April 2011, respectively.

[3] Italy, Spain, and France account for 17, 12 and 21 percent of euro area's GDP, respectively; in contrast, Greece, Ireland, and Portugal account for only six percent in total.

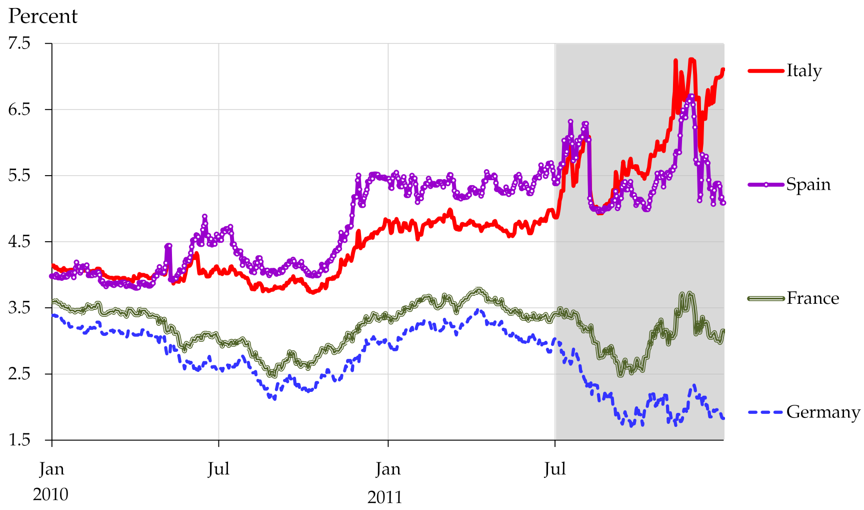
[4] Exports within the euro area account for about 50 percent of total exports.

Euro Area's GDP growth



Sources: Bloomberg and Eurostat

10-Year Government Bond Yields

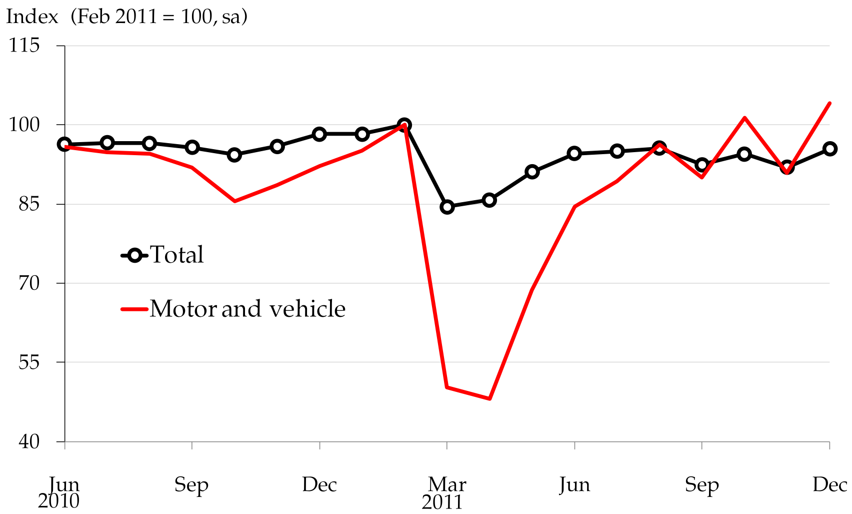


Source: Bloomberg

The Japanese economy contracted from natural disasters, appreciation of the yen, and global economic slowdown.

Earthquakes, tsunamis, and the nuclear plant crisis in March disrupted economic recovery in Japan. The ramifications of these incidents spread nationwide through supply disruptions particularly in the automobile and electronics industries, as well as electricity shortage in the Eastern part of Japan. As a result, industrial production plunged deeply in March, notably for the automobile industry[5]. But after these disasters passed, the manufacturing sector rebounded swiftly and continually, with industrial output in Q3 already close to the pre-disaster level. Additionally, the Japanese economy was also boosted by government's supplementary spending on post-disaster relief and reconstruction worth 6 trillion yen, or about 1.3 percent of GDP[6].

Japan's Industrial Production



Source: Ministry of Economy, Trade, and Industry (Japan)

As production problems eased, Japan's recovery then had to face with global growth slowdown and a sustained yen's appreciation. Fiscal concerns in the euro area and the U.S. led to a surge in capital flows into Japan given the yen's safe-haven status, causing the yen to appreciate to a record rate of 75.8 yen per U.S. dollar in October. This prompted Japan's Ministry of Finance to intervene using a historical amount of 9.09 trillion yen (117 billion U.S. dollars) in November. Over the period ahead, uncertainties from the euro area's debt crisis, coupled with the yen appreciation, will remain major risk factors to Japan's economic growth.

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[5] The automobile industry accounts for 16 percent of domestic industrial output.

[6] This consists of two supplementary budgets worth four and two trillion yen, which were approved by the parliament in May and July, respectively. The third one worth 12.1 trillion yen, or 2.5 percent of GDP, was later approved in December. These will provide support for the Japanese economy in 2012.

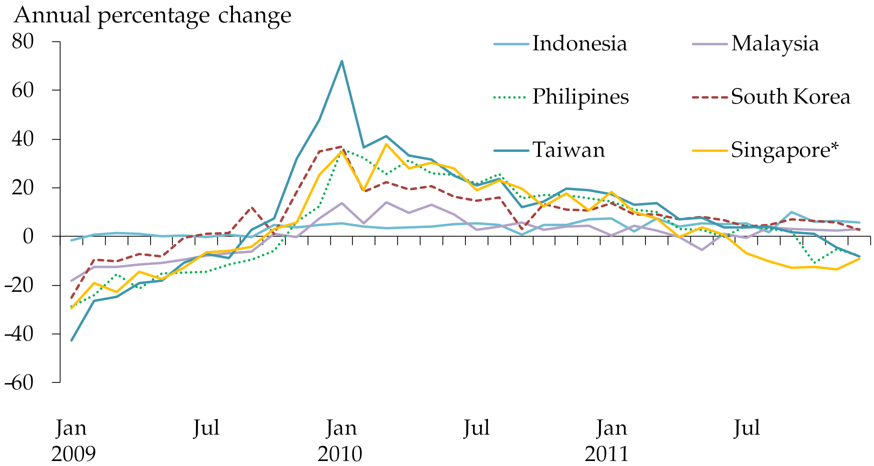
Asia's expansion moderated from last year but remained the engine for global growth.

Asia's growth moderated but remained resilient in the face of natural disasters and the euro area's debt crisis.

Asian economies slowed down in 2011 but remained robust overall on the back of strong domestic demand, both consumption and investment. Natural disasters, however, hit Asia's production sector intermittently during the year. In the first half, earthquakes and tsunamis in Japan disrupted Asia's manufacturing supply chains, particularly for the automobile and electronics industries. Overall production rebounded close to normal in Q3, but then Thailand's flood devastation in October delayed Asia's recovery further.

Serious supply shocks following major disasters, in conjunction with global demand weakness from the euro area's debt concerns, led to a continued slowdown in Asian exports from Q2 onward. Asia's economic growth in 2011 moderated accordingly from the previous year, and will likely soften further going forward as the global economy remains plagued by the unresolved debt crisis in the euro area.

Asia's Industrial Production Index



Note: * Excluding the bio-medical sector

Source: CEIC

Meanwhile, Asia continued to face substantial inflation pressure in 2011, with inflation in the first half accelerating in line with rising prices of consumer goods. But in the second half, inflation rates softened as global oil and commodity prices fell with weak global economic conditions and heightened risks overall. In response to these developments, many central banks in Asia eased their monetary policy stance after several rate hikes earlier in the year.

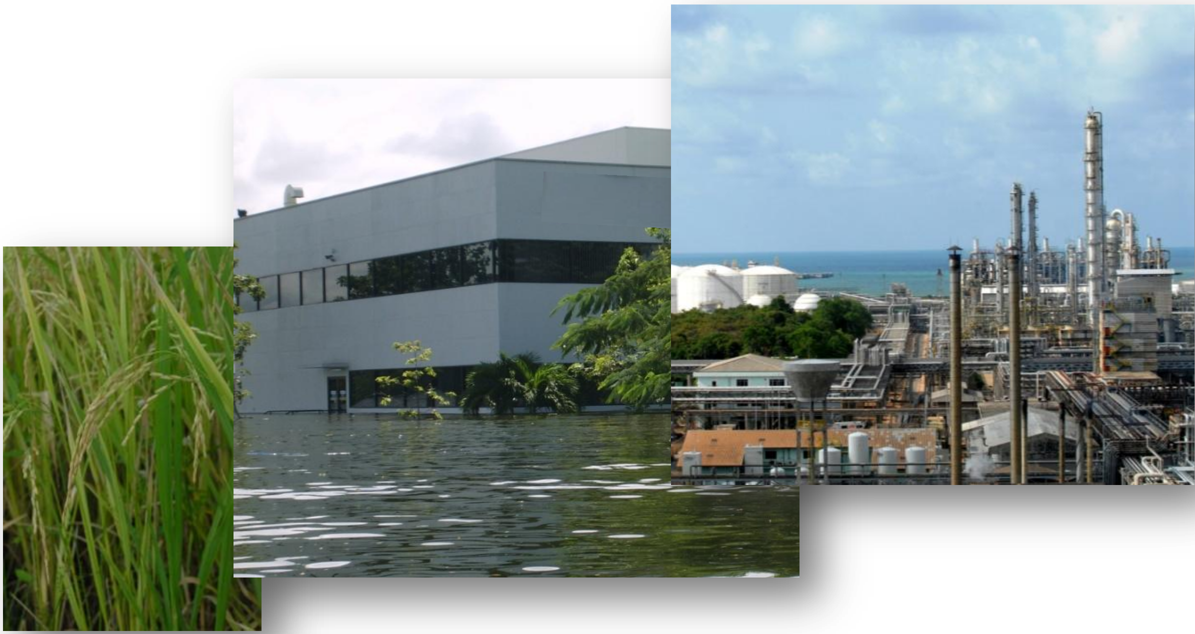
Global Economic Indicators

(Percent)

Countries	GDP growth		Inflation	
	2010	2011	2010	2011
G3				
U.S.	3.0	1.7	1.5	3.0
Euro Area	1.9	1.4	1.6	2.7
Japan	4.4	-0.9	-0.7	-0.3
Asian economies				
China	10.4	9.2	3.3	5.4
India*	8.7	n.a.	9.6	9.4
Hong Kong	7.0	5.0	2.3	5.3
South Korea	6.2	3.6	3.0	5.4
Taiwan	10.7	4.0	1.0	1.4
Indonesia	6.2	6.5	5.1	5.4
Malaysia	7.2	5.1	1.7	3.2
Philippines	7.6	3.7	3.8	4.8
Singapore	14.5	4.9	2.8	5.2

Note: * GDP growth on a calendar year basis; inflation calculated from Wholesale Price Index (WPI)

Sources: Bloomberg, CEIC, Reuters, and official statistics



2. Supply Side

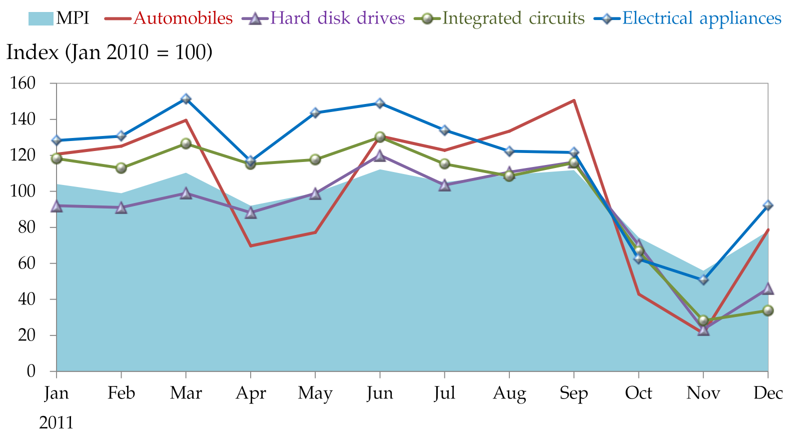
2.1 Manufacturing Sector

Manufacturing production plunged due to the widespread floods in Q4, on top of global growth slowdown and Japan's natural disasters in March.

Production contracted due to flood damage in the central region.

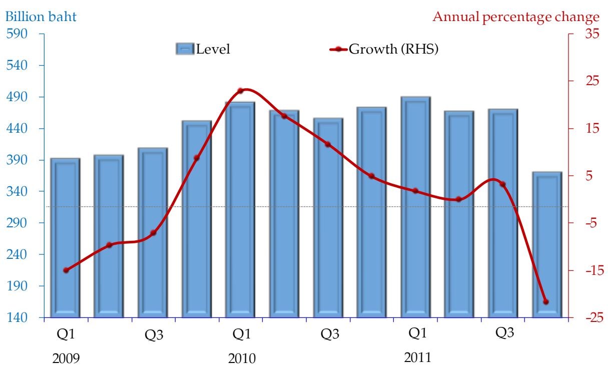
Manufacturing production suffered from the global economic slowdown, which led to softer export demand for electronic products, electrical appliances, hard disk drive, as well as textile and garment. Natural disasters in Japan, which took place in March, also disrupted supply chains for automobiles and parts in Q2. Subsequently, the historic floods in Q4 hit key production hubs where complex production networks were located, forcing many industries notably hard disk drives, automobiles, electronics, and electrical appliances to suspend production due to serious damage to supply chains and transportation network. As a result, the Manufacturing Production Index (MPI) in Q4 fell by 21.8 percent (qoq) and the capacity utilization rate to 46.2 percent, respectively. For the year, the MPI declined by 4.3 percent, in line with a drop in capacity utilization to 58.1 percent from 63.2 percent last year.

Manufacturing Production Index



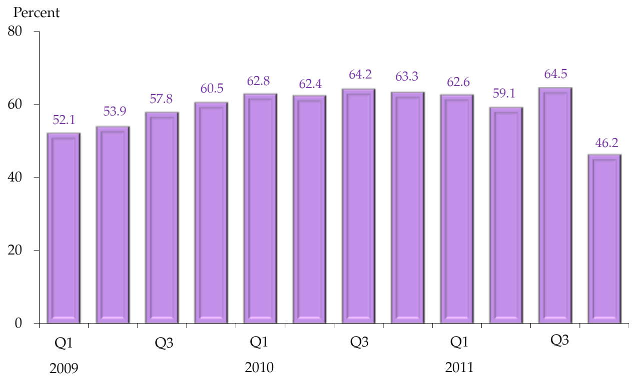
Source: Office of Industrial Economics

Manufacturing Production at 1988 Prices



Source: Office of the National Economic and Social Development Board

Capacity Utilization



Source: Office of Industrial Economics

Major industries severely hit by the floods are as follows:

- *Automobiles:* Production in 2011 fell short of the target of 1.8 million units by 340,000 units, with total output in Q4 contracting by 61.1 percent from the year-earlier period. Facing the shortage in parts and inputs, producers failed to accommodate sustained demand both at home and abroad. Given Thailand's role as a major supplier of automotive parts, the domestic floods' impact also caused car assembly plants in other countries to scale down or even halt production temporarily.
- *Hard disk drives:* Thailand was the world's largest producer of hard disk drives, and home for major component makers. As Thailand's output tanked in Q4 by 55 percent from

the same period last year, global output also plunged by 30 percent while global prices soared by 28 percent during the period. The widespread supply constraints also led to shortages of downstream products such as computers and drove up their prices.

- *Electronics:* Most plants were located in flooded areas and had to halt production immediately. So, total output in Q4 plummeted by 60 percent from the year-earlier period. Recovery in this sector will take longer than others, given high precision and cleanliness required for the installation and restoration processes of machinery and equipment.
- *Electrical appliances:* Most plants suffered indirectly from flood-hit suppliers. This led to a 43 percent drop in production from the same period last year.

Meanwhile, other industries faced additional setbacks:

- *Textiles and garments:* Production declined with softer demand from slowdown in the U.S. and Europe. In addition, volatile cotton prices also prompted buyers and downstream producers to delay their orders.
- *Petroleum:* Although the industry remained intact from the floods, total output dropped by four percent due to the scheduled maintenance and upgrades of some refineries to comply with the EURO IV Standard effective on January 1, 2012.

Problems in the above-mentioned industries, in turn, put constraints on production in related industries outside the flooded areas— including the *steel, chemical, rubber products, and pulp and paper* industries. In contrast, certain industries such as *food and beverage, rubber and plastic, and construction materials* (accounting for a total weight of 27.7 percent in the MPI) continued to grow undeterred by flood damage thanks to scattered plant locations across Thailand.

The manufacturing sector should return normal in 2012 Q3.

Looking ahead, manufacturing production will improve gradually and finally return normal in Q3, as many plants still need to wait for insurance companies' damage assessment to be completed. Moreover, serious damage to main machines in many industrial estates forces firms to import these machines anew, thus causing further delay due to the importing and installation processes. In the meantime, firms indirectly affected through supply constraints will need to seek for alternative suppliers in Thailand or abroad.

2.2 Agricultural Sector

Farm income in 2011 improved with rising output and prices.

Agricultural output grew by 3.2 percent from the previous year thanks to favorable weather conditions. Although the severe floods late in the year caused considerable damage to rice crops in the central region, other major products including sugar cane and oil palm benefitted from heavier rainfall this year. Furthermore, output expansion also owed to larger planting areas. Sugar cane plantations, in particular, was encouraged by high sugar price in the global market, while rubber output also rose given the expansion in farming areas over the past several years. At the same time, cassava produce soared as the pest outbreak eased.

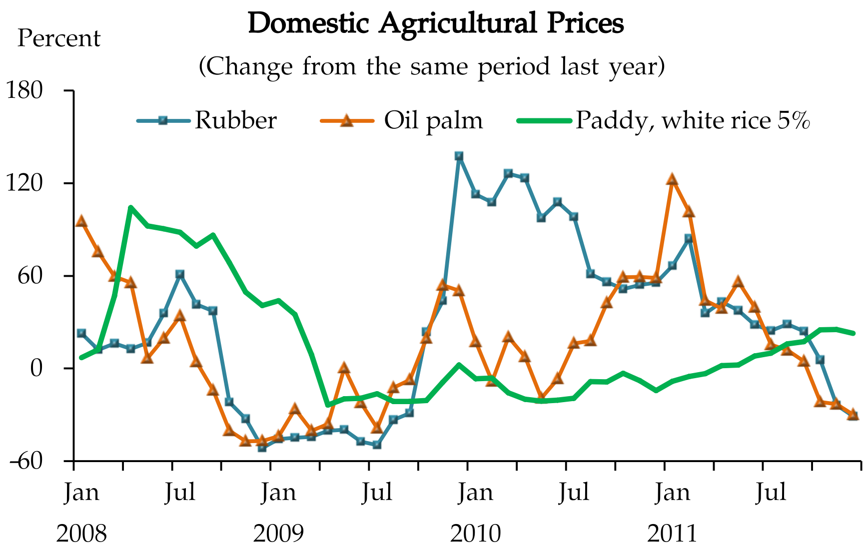
Indicators for the Agricultural Sector

%Δ	2010	2011				
		Year	Q1	Q2	Q3	Q4
Farm income	22.7	15.8	40.1	26.2	5.3	-1.7
Crop production P	-2.0	3.2	11.4	7.0	-2.2	-1.1
Crop price	25.2	12.2	25.8	17.9	7.7	-0.6

Note: Farm income does not include government transfers, which consist of farmers' price compensation under the income guarantee scheme and compensation for production costs for farmers affected by natural disasters.

P = Preliminary data

Sources: Office of Agricultural Economics and Bank of Thailand



Sources: Office of Agricultural Economics and Bank of Thailand

Domestic agricultural prices continued to rise by 12.2 percent from last year due to: (1) strong external demand, notably from China, as the country's robust growth led to increased demand for rubber products and cassava; (2) tight rubber supply given natural disasters in 2010 and the floods in the southern region in March and April; (3) rising livestock prices following epidemics in swine and layer parent stock; and (4) an increase in the prices of energy crops including oil palm, sugar cane, and cassava, as crude oil price surged in the first half of the year due to political unrests in the Middle East and North Africa. Nonetheless, prices of rubber and oil palm moderated toward year's end with concerns for the U.S. and European economic slowdown.

Crop prices in 2012 are likely to moderate with global economic conditions.

Going forward, agricultural prices will moderate in 2012 following lower rubber price, as demand from China softens with global economic concerns stemming from the euro area's debt crisis. On top of this, tight supply conditions for livestock and fishery should also ease. Rice price, however, is poised to rise given the continued impact of the rice pledging scheme.

Domestic output is projected to expand partly from rice plantations that will benefit from high retention water level in dams. Also, sugar cane and oil palm are anticipated to give a higher yield during the post-flood period. Given these positive factors, farm income should continue to rise from 2011.

Thai Agricultural Prices

(Unit: Baht per ton)

	2010	2011	2011					
			H1	H2	Q1	Q2	Q3	Q4
Agricultural Price Index (1995 =100)	**151.1**	**169.6**	**176.0**	**163.3**	**178.7**	**173.2**	**166.2**	**160.3**
Δ%	25.2	12.2	21.8	3.4	25.8	17.9	7.7	-0.6
1. Crop Price Index (1995 =100)	**168.5**	**188.4**	**196.8**	**180.0**	**200.7**	**192.8**	**183.1**	**176.9**
Δ%	30.3	12.3	22.9	1.7	27.9	18.2	6.5	-2.9
Hom Mali paddy	13,552	13,035	12,206	13,863	12,212	12,201	12,896	14,829
Δ%	0.3	-3.8	-10.7	3.1	-13.7	-7.5	-4.6	11.0
Paddy Class 1 (5%)	8,400	9,145	8,405	9,885	8,610	8,200	9,488	10,281
Δ%	-13.0	8.9	-2.7	19.3	-8.4	4.0	14.3	24.2
Rubber	102,699	127,958	147,138	108,777	151,637	142,640	124,007	93,547
Δ%	82.2	24.6	47.2	2.5	59.2	36.4	25.7	-17.7
Maize	7,972	8,161	8,428	7,893	8,317	8,540	7,557	8,230
Δ%	29.9	2.4	9.5	-3.3	17.3	2.7	-9.9	3.6
Cassava	2,328	2,381	2,705	2,057	2,903	2,507	1,980	2,133
Δ%	86.0	2.3	31.4	-21.9	50.6	15.0	-26.8	-16.9
Oil palm	4,438	5,391	6,042	4,740	6,943	5,140	4,943	4,537
Δ%	21.6	21.5	57.2	-10.2	69.4	44.7	10.3	-25.3
2. Livestock Price Index (1995 =100)	**115.1**	**128.3**	**127.4**	**129.1**	**123.4**	**131.5**	**133.9**	**124.2**
Δ%	8.0	10.3	10.7	12.2	8.4	12.8	13.7	10.6
3. Fishery Price Index (1995 =100)	**85.6**	**99.5**	**101.0**	**98.0**	**100.6**	**101.4**	**96.2**	**99.9**
Δ%	6.0	16.0	26.0	7.7	24.8	27.2	9.6	6.0

Note: Δ% indicates percentage change from the year-earlier period.

Sources: Office of Agricultural Economics , Bureau of Trade and Economic Indices, Fish Marketing Organization, and Department of Fisheries.

2.3 Tourism Sector

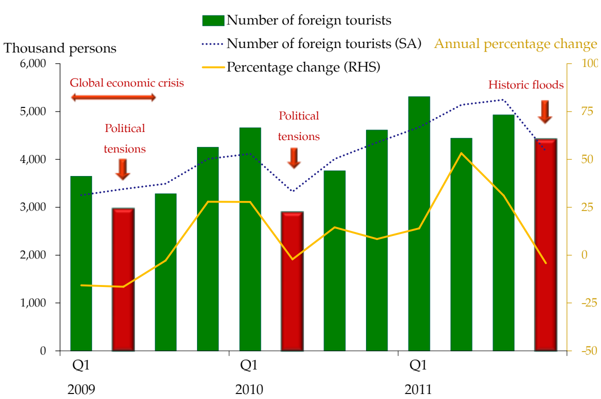
The number of foreign tourists continued to rise this year despite concerns over the flooding in central Thailand in Q4.

The number of foreign tourists totaled 19.1 million persons in 2011, growing by 19.9 percent from the previous year. This was in line with higher occupancy rates across all regions, particularly for the central and the southern regions, as inbound tourists from China, Russia, and India rose markedly given these countries' strong growth. On the contrary, the share of foreign tourists from G3 countries dropped from 31.1 percent last year to 28.0 percent, reflecting problems in advanced economies.

Tourism recovered rapidly after the floods.

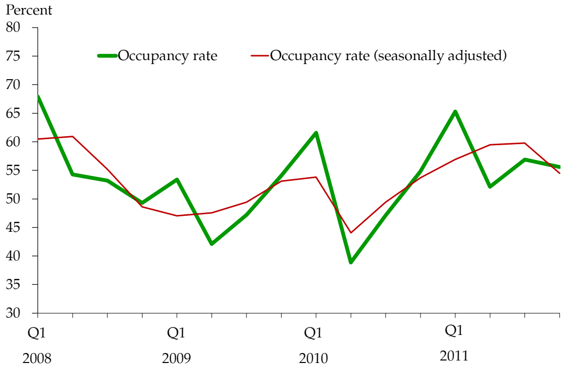
Late in the year, the severe floods in central Thailand including Bangkok led foreign inbounds to decline. But the number of tourists rebounded quickly after the floods receded last December, pointing to the resiliency of the tourism sector.

Number of Foreign Tourists



Source: Department of Tourism

Occupancy Rate



Source: Bank of Thailand's survey data

Tourism revenue recorded 800.6 billion baht, or a 26.0 percent rise from the preceding year. In addition to the greater number of tourists, daily spending per person also rose with higher hotel room's rates, as promotions in the aftermath of domestic political unrests in the past few years came to an end.

Tourism prospects remain strong in 2012.

Tourism will continue to grow in 2012, as Thailand's diversified tourist markets and high competitiveness should help cushion the impact of global demand slowdown to some degree.

Tourism Indicators

	2010	2011P				
		Year	Q1	Q2	Q3	Q4
1. Number of foreign tourists (million persons)	15.9	19.1	5.3	4.4	4.9	4.4
Δ%	12.6	19.9	14.0	53.3	31.1	-4.2
2. Tourism income (billion baht)	635.5	800.6	235.3	179.4	197.8	188.1
3. Occupancy rate (percent)	50.6	57.4	65.3	52.1	56.9	55.6

Note: P = Preliminary data

Δ% indicates percentage change from the year-earlier period

Sources: Department of Tourism and Bank of Thailand

International Tourists Classified by Nationality

Country	Change (%)		Market share (%)	
	2010	2011	2010	2011
East Asia	15.4	24.2	51.2	53.7
- Malaysia*	17.1	13.9	12.9	12.4
- China	44.3	51.8	7.0	9.0
- Japan	-1.1	14.2	6.2	6.0
- Korea	30.3	24.7	5.1	5.3
- Laos*	9.2	23.3	4.5	4.7
- Singapore*	7.1	11.6	3.8	3.6
Europe	9.4	11.1	27.9	26.1
- Russia	91.3	52.1	4.0	5.2
- United Kingdom	-3.6	4.4	5.1	4.5
Americas	-1.0	12.6	5.3	5.0
South Asia	20.4	17.0	6.2	6.2
- India	23.7	20.7	4.8	4.9
Oceania	7.1	18.9	5.0	5.0
Middle East	17.6	6.1	3.6	3.2
Africa	13.8	8.7	0.8	0.7

Note: * According to Department of Tourism's region classification

Source: Department of Tourism

2.4 Real Estate Sector

Thailand's real estate market slowed down in 2011.

The real estate sector slowed down from the previous year given the end of real estate stimulus measures and the floods' impact.

The real estate sector decelerated this year, as the government's real estate stimulus measures ended in the middle of 2010 and the floods in 2011 Q4 further reduced activities and delayed new projects' construction and launching toward year's end. The slowdown was reflected in the number of new housing projects launched and home sales in the Bangkok Metropolitan Area, which fell from the previous year by 30 and 52 percent, respectively.

Given the floods' impact and market slowdown, the Bank of Thailand through the Financial Institutions Policy Committee (FIPC) decided to ease regulatory measures on housing loans by: (1) postponing the enforcement of the loan-to-value (LTV) measure for low-rise residential purchases with property prices less than 10 million baht by one year to January 1, 2013; and (2) reducing the risk weight requirement for housing repair loans to 35 percent (lower than the standard weight of 75 percent for small debtors) until December 31, 2012. These measures were aimed to alleviate flood-related burden on financial institutions, developers, and households.

Prospects for the real estate market in 2012 will depend on post-flood domestic recovery. However, the real estate sector will remain supported by households' healthy financial conditions, strong corporate balance sheets, solid economic fundamentals, as well as the anticipated recovery in the second half of the year.

Real Estate Indicators

	2010	2011	2011			
			Q1	Q2	Q3	Q4
1.Demand-side indicators						
1.1 Registration of transferred residential properties in Bangkok and its vicinity (units, REIC)	178,128 (10.5)	147,196 (-17.4)	34,751 (-44.6)	40,644 (-12.5)	43,761 (58.9)	28,039 (-32.3)
- Single detached house and duplex house	36,436	30,159	7,506	8,525	8,949	5,179
- Townhouse and shophouse	68,779	57,113	14,113	16,166	16,842	9,992
- Condominium	72,913	59,923	13,132	15,953	17,970	12,868
1.2 The number of home sales in Bangkok and its vicinity (units, AREA)	56,432 (104.2)	27,135 (-51.9)	12,549 (-32.6)	6,527 (-21.5)	3,182 (-79.7)	4,877 (-64.7)
- Single detached house and duplex house	4,493	2,860	1,523	646	462	229
- Townhouse and shophouse	13,228	4,826	2,459	1,031	1,018	318
- Condominium	38,711	19,449	8,567	4,850	1,702	4,330
1.3 Outstanding loan for personal consumption in real estate property 1/ (million baht, BOT)	1,092,407 (13.6)	1,201,715 (10.0)	1,118,828 (10.46)	1,150,814 (9.5)	1,190,821 (12.0)	1,201,715 (10.0)
2.Supply-side indicators						
2.1 New housing registrations in Bangkok and its vicinity (units, REIC)	106,893 (12.6)	81,521 (-23.7)	22,661 (-24.8)	20,568 (18.5)	24,633 (9.0)	13,659 (-62.9)
- Single detached house and duplex house	33,207	33,078	10,358	7,559	9,549	5,612
- Townhouse and shophouse	13,767	14,392	3,720	3,128	4,426	3,118
- Condominium	59,919	34,051	8,583	9,881	10,658	4,929
2.2 The number of new housing launched (units, AREA)	116,674 (102.6)	81,581 (-30.1)	31,515 (20.7)	22,615 (20.5)	14,239 (-54.1)	13,212 (-67.6)
- Single detached house and duplex house	20,278	19,104	8,318	4,349	3,583	2,854
- Townhouse and shophouse	35,424	22,343	9,072	5,932	4,794	2,545
- Condominium	60,972	40,134	14,125	12,334	5,862	7,813
2.3 Outstanding loan for real estate developers 1/ (million baht, BOT)	360,860 (-5.1)	409,209 (13.4)	361,834 (3.15)	374,954 (0.7)	395,085 (9.96)	409,209 (13.4)
3. Housing price indicators						
3.1 Housing Price Index 2/ (Jan 2009 = 100, BOT)						
- Single-detached house (including land)	101.4 (1.0)	104.5 (3.1)	102.8 (0.9)	104.1 (3.0)	105.5 (4.0)	105.7 (4.6)
- Town house (including land)	103.7 (3.2)	109.8 (5.8)	107.3 (4.4)	109.1 (5.4)	112.3 (9.2)	110.3 (4.4)
- Condominium	115.9 (2.0)	127.0 (9.5)	119.1 (0.4)	124.6 (8.9)	129.0 (14.3)	135.2 (14.75)
- Land	113.1 (4.4)	121.7 (7.6)	121.6 (9.0)	121.4 (7.9)	120.3 (8.7)	123.4 (5.0)

Notes: 1/ Outstanding credit extended by commercial banks (excluding foreign branches of Thai commercial banks) at end-period

2/ Index calculation by hedonic regression method using commercial banks' mortgage loan data

Figures in ( ) are year-on-year growth rates.

Sources: Department of Lands, Bank of Thailand (BOT), and Real Estate Information Center (REIC)

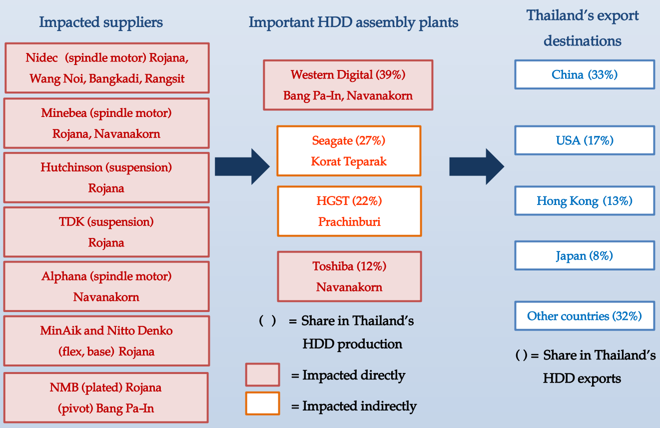
Thailand's Supply Chains and the Global Economy

Thailand's flood devastation extended its impact beyond domestic manufacturing sector to production worldwide including Asia, America, and South Africa. This reflected Thailand's important role as the world's major production base, particularly for hard disk drives (HDD) and automobiles.

Many producers and component suppliers for the HDD and automobile industries were concentrated in Ayutthaya and Pathum Thani. In normal times, concentration of plants and suppliers helped facilitate transportation and product development, and also allowed the use of "lean management system" — in which firms reduced storage costs for products and raw materials by keeping inventories at minimum levels and producing just enough to meet orders. As the severe floods hit the mentioned areas, however, such concentration turned into a disadvantage as a large number of assembly plants and suppliers had to suspend production immediately. As a result, non-flooded factories also had to scale down or cease production due to shortages of intermediate inputs.

Hard Disk Drive Industry

As the world's largest HDD manufacturer, Thailand served as a production base for four out of five major HDD assembly companies — namely, Western Digital, Seagate, Hitachi Global Storage Technologies (HGST), and Toshiba. Thailand's HDD production accounted for 41 percent of global production, surpassing China's share of 25 percent. About 90 percent of Thailand's output was exported to China, U.S., Hong Kong, and Japan for production of downstream products such as computers and storage devices.



Source: Compiled by Bank of Thailand

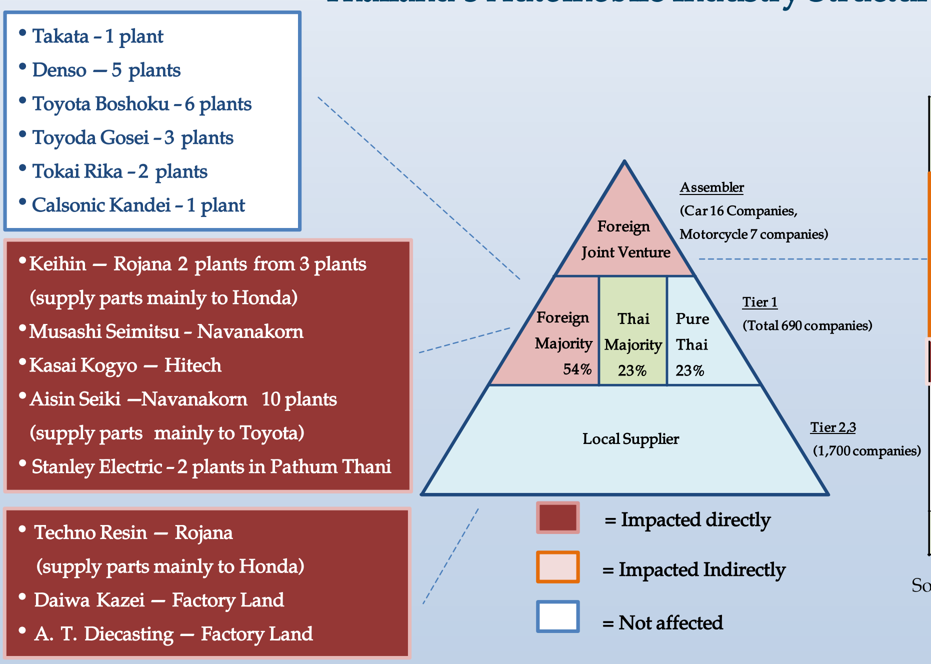
Thailand also served as a production base for major component makers, and this made HDD production in Thailand cost- and time-efficient. For instance, three major producers of spindle motors namely Nidec, Minebea, and Alphana Technology, had their production in Thailand alone accounting for 66 percent of global output. Moreover, many multinational companies related to the HDD industry also set up their plants in Ayutthaya and Pathum Thani - including TDK, Hutchinson, and NHK Spring (suspension producers), as well as AGC (substrate producer).

Nevertheless, these plants' concentration made them vulnerable in crisis times. During the historic floods in 2011 when HDD assembly plants and component plants were flooded simultaneously. Non-flooded HDD factories in Thailand and abroad also had to suspend production, as their inventories of raw materials could sustain production for only one to two weeks[1]. As a result, Thailand's HDD production plunged in October and November by 32.4 and 77.2 percent, respectively, over the same period last year. The severity of the situation also caused global HDD shipment in Q4 to plummet by 26 percent[2], and drove up HDD prices by 28 percent. These developments also resulted in tighter supply and higher prices of downstream products using HDD as components. HDD production, however, started to recover since last December, and is projected to return to full capacity in 2012 Q3.

Automobile Industry

Thailand was ranked the 12th largest car producer in the world[3]. About 80 percent of cars produced in Thailand belonged to Japanese makes[4] such as Honda, Toyota, and Nissan. Besides, Thailand also served as a production base for one-ton pickup trucks, and was capable of producing most parts and components needed. This made Thailand one of the world's major producers of cars and pickups as well as automotive parts.

Thailand's Automobile Industry Structure



2011 Car Production Share

Production share	(percent)
Toyota	29.2
Auto Alliance	14.6
Mitsubishi	12.5
Nissan	11.9
Honda	10.0
Isuzu	9.2
GM	6.7
Others	5.8
Total	100.0

Source: Thailand Automotive Institute

[1] Estimated by Credit Suisse

[2] Source: iSuppli

[3] Or about two percent of global car production

[4] Car and pickup production in Thailand accounted for about seven percent of Japanese car companies' production worldwide.

Although not ranked as one of the world's top car manufacturers, Thailand played a crucial role in supplying automotive parts. As producers in Thailand halted production abruptly during the floods, many assembly plants at home and abroad also had to scale down or even suspend production temporarily. Japan's car production in November, for example, declined by 7.3 percent from the previous month. This led Japan's Industrial Production Index in November to fall by 2.6 percent from October, larger than the expected contraction of 0.7 percent. In addition, launches of new car models using local parts were also delayed. Honda, for instance, had to postpone its launch of Life Diva in Malaysia due to shortage of aluminum wheels from Thailand.

In response to supply disruptions, many car producers had to make adjustments including:

(1) Scaling back production: Honda's assembly plants in Japan and North America scaled down their production to 50-70 percent of normal levels. Toyota's assembly plants in Indonesia, Phillippines, and Vietnam, as well as Ford's assembly plants in South Africa, also had to reduce production.

(2) Fewer working days: Mitsubishi's plants in Indonesia and Phillippines reduced the number of working days from five to three days per week. Such adjustment was common in October and November, before the situation improved gradually in December.

Thailand's automobile industry will steadily recover over the period ahead, as firms import parts to ease supply constraints and start the restoration process. A swift rebound in domestic production of automobiles and parts, in turn, will help speed up recovery in the global automotive industry as well. After all, the worldwide implications of Thailand's floods as discussed above reaffirm the country's prime importance in the global production network.

In summary, the historic floods showed that Thailand's HDD and automobile industries held a significant place in the global supply chains. The incidents also showed how the impact of supply disruptions could spread worldwide, as witnessed earlier after Japan's natural disasters in March. Both devastating disasters should force Thai and multinational companies to reconsider the pressing need for risk diversification, both on production and investment fronts, because damage will be magnified if supply chains are too concentrated in a particular area. Looking ahead, reasonable and concrete plans on disaster prevention will therefore be essential in restoring Thai and foreign investors' confidence. These preventive plans along with upgrading in other fundamentals - including labor skills, logistics, as well as research and development — will continue to make Thailand an attractive destination for businesses to invest and base their production.

Economic Assessment during the Floods in Late 2011[1]

Thailand's worst floods in 70 years caused widespread damage to the economy, and presented a shock so massive that economic assessment based solely on econometric models became inadequate. It was therefore necessary for the Bank of Thailand to also exchange information and views with the private sector, and incorporated these inputs into the Bank's assessment of post-flood recovery prospects. Key results of the assessment are summarized as follows.

Manufacturing production: Flood-hit industries were projected to recover gradually and finally resume their normal conditions by 2012 Q3. Meanwhile, businesses that were indirectly affected through supply chains started to resume operation already since late November 2011. These businesses adapted to the situation by obtaining inputs from alternative domestic and foreign suppliers, boosting production in affiliated plants located elsewhere, relocating workers and machines temporarily to other production sites, as well as importing finished goods to accommodate existing demand and post-flood purchases particularly for automobiles and electrical appliances.

To shorten their rehabilitation process, several businesses salvaged machines early before the floods receded, while some also collaborated with insurance companies to relocate machines in order to start the repair work while damage assessment was still in progress. The interim payment of the claims would be made to businesses in early January 2012, to be followed by a full negotiation thereafter. At the same time, domestic financial institutions were also ready to provide credit facilities and guarantee schemes to support post-flood rehabilitation especially for SMEs.

According to survey responses, the electrical appliances industry was expected to resume its normal conditions in early Q2, as many firms were not directly impacted and intermediate inputs for production could be obtained from other sources. On the other hand, the automotive industry was likely to return normal in late Q2, given serious damage incurred to key manufacturers. But for those indirectly affected through supply chain disruption, production was bound to pick up faster, with a return to full capacity expected in late Q1. Meanwhile, the semiconductor and hard disk drives industries would

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[1] BOT acquired information directly from the business sector during October-November 2011 through these means:-

- Special Business Survey: "Impact from the floods and export outlook" (273 firms responded)
- Special Loan Officer Survey: "The outlook and quality of credits given the floods' impact" (20 commercial banks responded)
- Business Sentiment Survey in October 2011 (510 firms responded)
- Meeting and phone conversation with 61 business executives (conducted by the Bank of Thailand's headquarters)

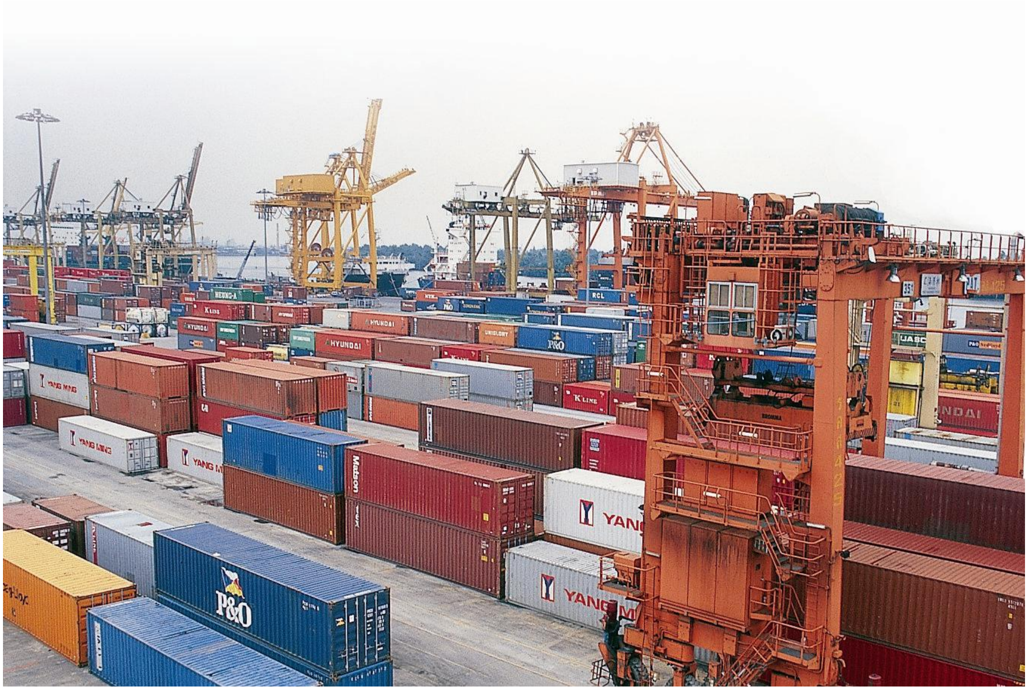
take longer to recover given their concentration in flooded areas. Additional delay might also arise from the time-consuming importing and installation processes of new machines, as well as the high level of precision and cleanliness required in production facilities. Hence, these industries were anticipated to return normal later in 2012 Q3.

Employment: Given the prevailing labor shortages, most businesses retained their employees to ensure a prompt reoperation after the floods receded. While some SMEs might need to shut down and lay off workers, high labor demand in several industries to accommodate accelerated post-flood production, coupled with rising labor demand from large businesses would easily absorb these workers. Moreover, demand for technicians and workers in the construction sector would tend to increase with post-flood reconstruction efforts. Regarding wage payment, most businesses continued to pay workers fully or 75 percent of normal rates as stipulated in labor laws in the event of temporary shutdown. Some businesses that did not suspend operation even paid extra as incentives for workers to come to work and cut wages only for absentees.

Investment: Looking ahead, private investment was expected to pick up with growth recovery and flood rehabilitation. This expansion would owe mainly to machine replacement, flood prevention, and business expansion to get ahead of competitors. Part of the expansion might also come from investment in machinery for labor substitution and capacity expansion under current business plans. This was broadly in line with Bank of Thailand's Business Sentiment Survey conducted in October and November 2011, which showed that the Investment Intention index for the next three months was above the neutral level of 50, reflecting businesses' overall confidence to invest further.

Relocation of production bases was not viewed as a serious concern in the near term, as foreign investors remained confident in using Thailand as their production and export bases. Additionally, these businesses already invested substantially in Thailand according to their long-term plans, giving rise to a complex and already well-established production network. Thailand's other advantages would continue to lie in its infrastructure quality, supply of skilled labor, and strategic location in the Greater Mekong Subregion. However, businesses' relocation decision in the future would depend greatly on their confidence in government's water management plans.

In conclusion, the business sector already started the rehabilitation process and would return to normal by Q3, with varying paces of recovery given each industry's conditions and adaptability. Thai and foreign investors, however, still anticipated comprehensive water management plans from the government, which would be essential to their business operation and further investment plans in Thailand. Positive developments in this regard would prove critical to growth and investor confidence in the long run.



3. International Trade and Balance of Payments[1]

Exports

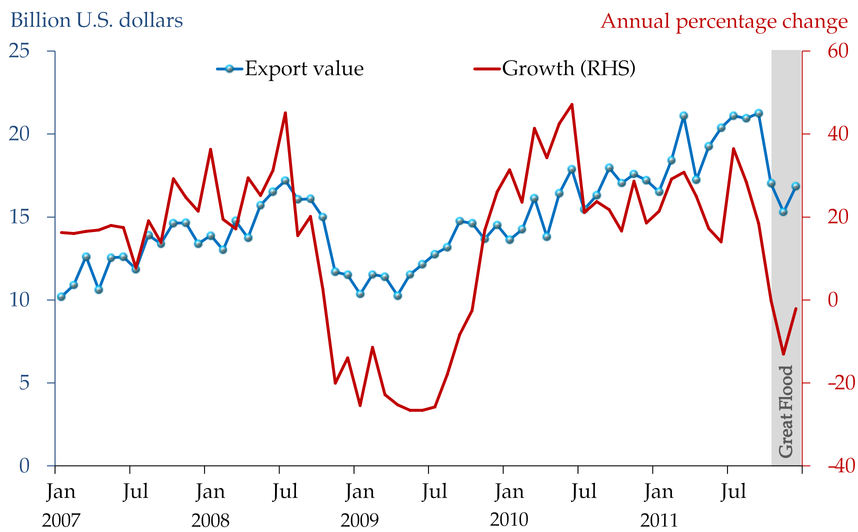
Exports decelerated in 2011 from flood devastation in Q4 and global growth slowdown.

Before the floods intensified in Q4, export value in the first nine months grew by 24.3 percent from the same period last year. The strength was in the face of softer global growth and dampened automobile exports in Q2 following natural disasters in Japan, thanks to exporters' success in diversifying products and markets. Nevertheless as global demand weakened further in the second half of the year, export prices edged lower especially for prices of agricultural products. In addition, the historic floods in Q4 disrupted production activity and transportation network, resulting in a shortage of merchandise

[1] Since September 30, 2011, the Bank of Thailand has revised Balance of Payment, External Debt, International Investment Position, and relevant statistics in accordance with the IMF's Balance of Payments Manual, 6th Edition (BMP6).

exports. This led to a 5.2 percent contraction in export value in Q4, weighing down the whole year's growth to only 16.4 percent from 28.4 percent in the previous year.

Export Value and Export Value Growth



Source: Customs Department

Manufacturing exports were hardest hit by the floods, particularly for high-tech exports including electronics products, vehicles and parts, and electrical appliances. Labor-intensive manufacturing exports such as textiles, garments, and jewelry and gems, also contracted. In contrast, agricultural and resource-based exports continued to grow on account of Asia's robust demand, especially for rubber, sugar, and rice.

Export Value Classified by Product

Annual percentage change	2010	2011				
		Year	Q1	Q2	Q3	Q4
Manufacturing products	**27.8**	**14.4**	**25.4**	**15.3**	**25.9**	**-7.1**
Labor-intensive	16.4	5.9	66.3	-17.7	27.5	-21.7
High-tech	31.0	11.1	18.9	15.2	20.3	-9.1
- Electronics	18.8	-6.3	-3.9	5.3	10.3	-36.4
- Vehicles and parts	55.0	-2.2	22.0	-11.0	10.8	-31.4
- Electrical appliances	29.7	8.1	27.4	16.8	14.1	-23.3
Resource-based products	**19.8**	**26.3**	**16.3**	**32.1**	**36.2**	**20.5**
Agricultural products	**36.2**	**44.2**	**51.4**	**54.7**	**68.6**	**11.3**
Total exports	**28.4**	**16.4**	**27.4**	**18.3**	**27.3**	**-5.2**
Total exports (excluding gold)	**28.9**	**17.3**	**24.1**	**23.6**	**26.4**	**-3.4**

Sources: Ministry of Commerce and Bank of Thailand

Imports

Imports slowed down due to the floods in line with production and exports.

The floods caused import value to decelerate in 2011 in line with production and exports despite high growth earlier in the year. The slowdown appeared in almost every category except energy and fuel, which picked up with elevated price of crude oil and imports of liquefied natural gas in the first three quarters as part of Thailand's electricity capacity expansion plan.

Import Value Classified by Product

Annual percentage change	2010	2011				
		Year	Q1	Q2	Q3	Q4
Raw materials and intermediate goods	**41.8**	**15.9**	**24.1**	**26.7**	**19.8**	**-5.1**
Capital goods	**26.8**	**19.2**	**30.5**	**14.3**	**24.6**	**8.2**
Consumer goods	**26.2**	**16.9**	**20.7**	**16.8**	**21.0**	**9.7**
Non-durable goods	23.1	23.0	24.1	24.4	29.2	15.3
Durable goods	30.5	9.2	16.3	8.1	11.0	2.1
Other imports	**43.7**	**44.2**	**26.1**	**44.2**	**64.8**	**41.4**
Vehicles and parts	73.3	12.7	30.6	3.7	9.2	9.4
Fuel and lubricants	28.5	35.0	35.4	34.7	65.1	11.2
Total imports	**37.0**	**24.7**	**26.4**	**27.4**	**33.4**	**12.2**
Total imports (excluding gold)	**34.6**	**20.4**	**29.2**	**23.4**	**28.1**	**2.9**

Sources: Ministry of Commerce and Bank of Thailand

Current Account

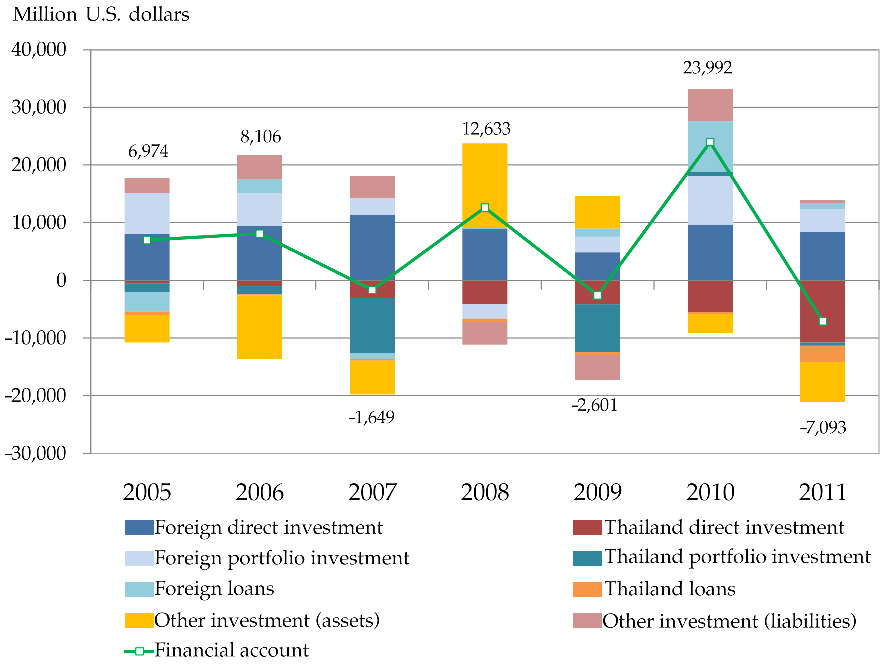
Trade balance recorded a smaller surplus this year mainly due to exports' fall in Q4. Service, incomes, and transfer balance, on the other hand, posted a smaller deficit thanks to travel receipts and flood insurance claims late in the year. Given the smaller surplus in trade balance and the service account still in deficit, current account surplus dropped from last year.

Financial Account and Balance of Payments

Financial account registered a deficit mainly from Thai Direct Investment outflows.

Capital flows were volatile throughout the year. During the first half of the year, financial account registered a net inflow due to portfolio investment and foreign direct investment. But in the second half, net capital movement registered net outflow due to three major reasons. (1) Heightened risks from the worsening debt crisis in the euro area prompted investors to curtail their holdings of risky assets including equity securities in the region and Thailand. (2) Banks continued to receive foreign currency from exporters as previous hedging transactions matured, whereas new transactions fell as exports contracted in Q4. This led to an excess amount of foreign currency, which allowed banks to repay short-term loans and increase their assets abroad. (3) Bank of Thailand's liberalization of Thai Direct Investment since late 2010 also contributed to the outflow. Overall, net financial outflow and lower current account surplus resulted in lower balance of payments surplus.

Financial Flows Classified by Type



In 2012, exports will remain constrained by recovery in the production sector and global economic slowdown, while imports likely pick up with replacement of machineries damaged by floods and substitutions for domestic supply short fall.

Export outlook in 2012 will be determined by the pace of recovery in the production sector. Exports are projected to recover slower than domestic demand, partly due to producers' priority placed on domestic consumer demand over demand from abroad. Also, softer growth in trading partners' economies will lead to lower external demand and export prices.

Meanwhile, imports are viewed to outpace exports due to imports of parts and raw materials to substitute for disrupted production in the first half of 2012, together with imports of capital goods for machine replacement.

Balance of Payments

(Unit: Million U.S. dollars)

	2010 P			2011 P		
	H1	H2	Year	H1	H2	Year
Exports, f.o.b.	92,091	101,564	193,656	112,908	112,458	225,366
Δ %	*36.8*	*21.6*	*28.4*	*22.6*	*10.7*	*16.4*
Imports, f.o.b.	77,276	84,621	161,897	98,075	103,789	201,864
Δ %	*54.4*	*24.2*	*37.0*	*26.9*	*22.7*	*24.7*
Trade balance	14,816	16,944	31,759	14,833	8,669	23,502
Net services income and transfers	-8,658	-9,925	-18,583	-7,952	-3,681	-11,633
Current account balance	6,157	7,019	13,176	6,881	4,989	11,869
Capital movements (net)	12,140	12,097	24,237	831	-7,248	-6,418
Government	1,384	2,180	3,564	1,505	2,179	3,684
Monetary authorities	622	2,087	2,709	1,049	-1,192	-143
Bank	6,482	3,838	10,320	1,536	-9,241	-7,706
of which: Off-shore borrowing	2,048	6,366	8,414	5,395	-5,017	378
Other sectors	3,531	3,868	7,399	-3,207	1,012	-2,195
Foreign direct investment	3,724	3,909	7,633	3,460	4,521	7,982
Equity investment and reinvested earnings	4,218	4,147	8,365	3,314	5,327	8,641
Direct loans	-381	-116	-497	49	-747	-698
Debt instruments	-112	-122	-234	97	-59	38
Portfolio investment	1,908	1,704	3,611	783	181	964
Foreign	557	2,262	2,819	1,025	-814	211
Equity securities	1,152	2,503	3,655	1,135	-164	971
Debt securities	-595	-241	-835	-110	-650	-760
Thai	1,350	-558	792	-242	995	753
Other loans (foreign)	29	351	380	630	405	1,035
Others	-255	1,819	1,564	-2,453	697	-1,756
of which: Trade credits	-706	1,975	1,269	-598	66	-532
Net errors and omissions	-5,149	-939	-6,089	-388	-3,850	-4,238
Overall balance	13,148	18,176	31,324	7,324	-6,110	1,214

Note: Δ % indicates percentage change from the year-earlier period

P indicates preliminary data

Sources: Customs Department and Bank of Thailand

4. Domestic Demand

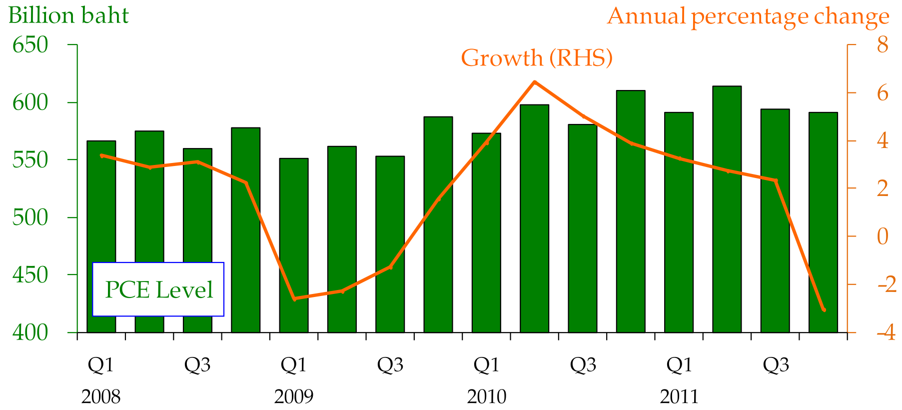
4.1 Private Consumption

Private consumption moderated due to supply constraints following natural disasters in Japan and domestic floods.

Private consumption suffered from supply constraints despite sustained demand.

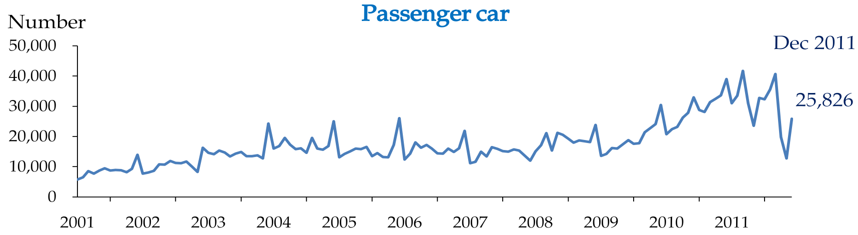
Private consumption in 2011 softened from the previous year for both durable and non-durable goods despite households' continued willingness to spend. This owed to a temporary shortfall in consumption goods following natural disasters in Japan and severe domestic floods. The historic floods, in particular, had a negative impact on workers' income, employment in flood-hit areas, as well as consumer confidence. Moreover, decelerating farm income and high inflation also undermined consumers' spending in the second half of the year.

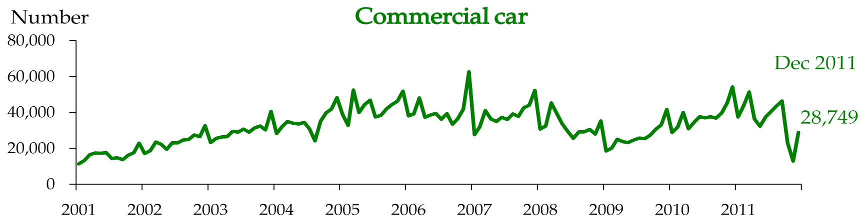
Private Consumption Expenditures at 1988 Prices



Source : Office of the National Economic and Social Development Board

Domestic Vehicle Sales





Source: The Federation of Thai Industries

Consumption will serve as the key driver for growth in 2012, with a full recovery expected in late Q1 on the back of replacement spending on durable goods such as electrical appliances and furniture, along with pent-up demand for automobiles. Key supporting factors over the period ahead include: (1) favorable employment prospects in both farm and non-farm sectors; (2) government's stimulus measures including the schemes for first-time car and house buyers, the rice pledging program, and the increase in the minimum wage and civil servants' salary; and (3) conducive financial conditions given financial institutions' credit lines and low interest rates. However, global economic uncertainties may affect consumers' confidence and spending decision going forward.

4.2 Private Investment

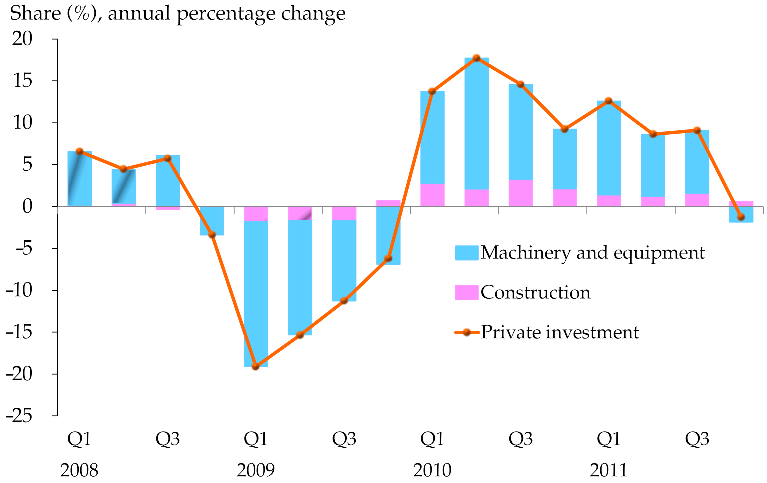
Investment momentum sustained well in the first three quarters before being disrupted by the historic floods.

Investment grew favorably before hit by the floods.

Private investment in 2011 decelerated mainly from the floods' impact. In the first three quarters of the year, investment continued to grow thanks to capacity expansion in the manufacturing sector, sound investor confidence, and financial institutions' credit support. The situation was reversed in the last quarter, as the floods disrupted supply chains and deteriorated confidence. As a result, investment in machinery and equipment plunged, while construction investment also stalled due to postponed projects in flood-hit areas and rising construction material prices.

Private Investment at 1988 Prices

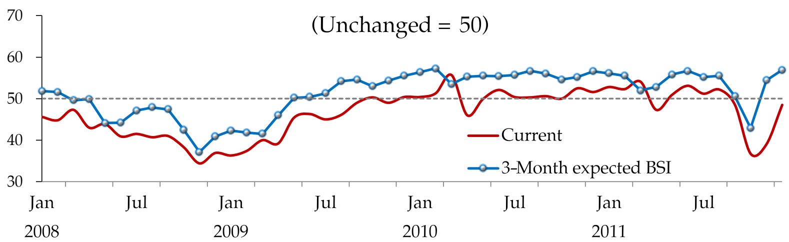
(Contribution to growth)



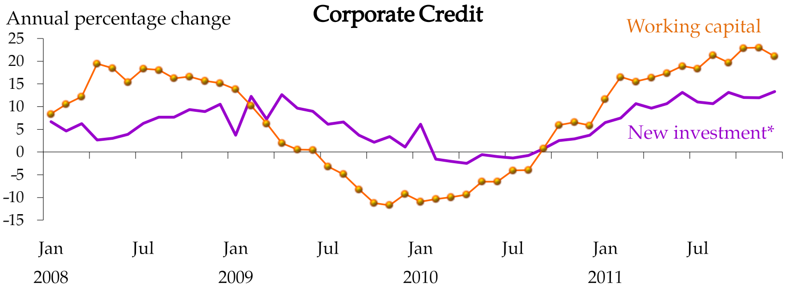
Source: Office of the National Economic and Social Development Board

Business Sentiment Index (BSI)

(Unchanged = 50)



Corporate Credit



Note: *New investment includes land, property, as well as machinery purchases.

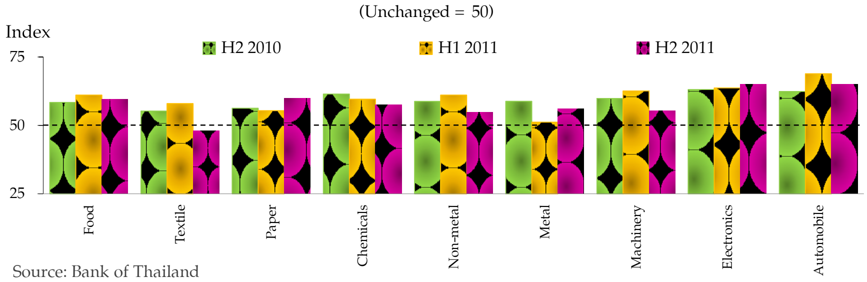
Source: Bank of Thailand

Looking ahead, private investment is poised to rebound on the back of reconstruction and flood-prevention efforts, along with new investment in non-flooded areas aiming to diversify risks. Government's relief measures will also lend support for businesses, on top of insurance companies' claim payouts.

In addition to flood-related spending, businesses are also expected to resume their investment plans as confidence starts to improve. New investment demand is also present as reflected in the rising number and volume of requests for promotion from the Board of Investment (BOI). Downside risks remain, however, from government's water management plans and risks from the global economy.

Investment Intention in the Next 3 Months

(Unchanged = 50)



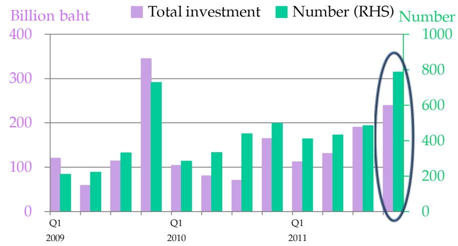
Source: Bank of Thailand

Net Applications Submitted for Investment Promotion*

(Total Investment)

Billion baht	2009	2010	2011
Agricultural products	71.3	64.2	72.1
Minerals and ceramics	19.5	37.5	31.4
Light industry	6.7	11.7	15.6
Metal processing	56.8	56.7	132.9
Electronics and electrical	84.5	65.4	87.7
Chemical, plastic, paper	23.0	40.5	87.1
Service and infrastructure	376.3	136.3	246.0
Total	638.1	412.3	672.8

Net Applications Submitted for Investment Promotion *



Note: * Net application statistics do not include applications that are returned to applicants (data as of January 2012)
Source: Board of Investment (BOI)

4.3 Fiscal Sector

Fiscal stimulus softened in line with solid growth in the first three quarters of the year.

Fiscal impetus became less needed as the economy expanded well. Accordingly, the government set up a fiscal deficit of 461 billion baht (i.e. budget deficit plus additional spending under the Stimulus Package 2), less than 568 billion baht in the previous fiscal year. A large portion of the budget was allocated for social welfare and cost-of-living measures, including energy price pegging and subsidy on utility costs.

This, combined with other current expenditures, amounted to a total disbursement of 2,065 billion baht, a 7.1 percent increase from the preceding fiscal year.

Government's revenue rose despite the reduction in diesel excise tax, as improved economic conditions and businesses' strong performance led the tax collection to exceed the projection by 241 billion baht. Thus, the government incurred a cash deficit of only 157 billion baht compared to 200 billion baht in the previous fiscal year, reflecting less fiscal stimulus given to the economy.

Budget Balance

Fiscal year

Billion baht	2008	2009	2010	2011	2012
Budget balance	-165	-347	-350	-400	-400
Percent to GDP	*-1.8*	*-3.9*	*-3.5*	*-3.7*	*-3.5*
Budget balance + Stimulus Package 2	-165	-362	-568	-461	-438
Percent to GDP	*-1.8*	*-4.1*	*-5.7*	*-4.3*	*-3.9*

Sources: Budget Document and Bank of Thailand's projection of disbursement under the Stimulus Package 2

The Treasury balance, however, did not fall with the budget deficit, but increased given the large amount of Treasury bills issued in the last month of the fiscal year. This issuance was aimed to retain the Treasury balance high enough to facilitate cash management in the following fiscal year.

For fiscal year 2012, budget deficit was set to 400 billion baht, or 3.5 percent of GDP, in line with post-flood recovery and stimulus. However, delayed enactment of the new Budget Act affected disbursement in the first quarter of the fiscal year, which prompted the authority to rely instead on the previous fiscal year's budget framework.

Nonetheless, disbursement is bound to pick up once the new Budget Act is endorsed. The government will also provide stimulus through measures including the rice pledging program, the tax schemes of first-time car and house buyers, the reduction in corporate income tax, and the increase in the minimum wage and civil servants' salary. On top of this, the government also plans to borrow an additional sum of 350 billion baht to invest in long-term water management plan and flood prevention. Higher spending from budget and loans, coupled with revenue loss due to stimulus measures, will likely result in higher cash deficit compared to the previous fiscal year.

Government Revenue

(Unit: Billion baht)

Fiscal year

	2008	2009	2010	2011 P
Total revenue	**1,837.6**	**1,684.3**	**2,003.0**	**2,224.4**
Δ%	7.9	-8.3	18.9	11.0
Taxes	**1,654.0**	**1,510.1**	**1,767.6**	**2,018.3**
Δ%	10.5	-8.7	17.1	14.2
- Income base	**739.5**	**681.0**	**730.5**	**891.8**
Δ%	15.0	-7.9	7.3	22.1
Personal income tax	204.8	198.1	208.4	236.3
Δ%	6.3	-3.3	5.2	13.4
Corporate income tax	460.7	392.2	454.6	574.1
Δ%	19.8	-14.9	15.9	26.3
Petroleum income tax	74.0	90.7	67.6	81.4
Δ%	12.6	22.5	-25.5	20.5
- Consumption base	**806.9**	**741.1**	**930.9**	**1013.0**
Δ%	6.7	-8.2	25.6	8.8
Value added tax	503.4	431.8	502.2	577.6
Δ%	15.9	-14.2	16.3	15.0
Specific business tax	25.1	18.1	22.9	35.6
Δ%	-27.0	-28.0	26.5	55.6
Excise tax	278.3	291.2	405.9	399.8
(Annual percentage change)	-3.1	4.6	39.4	-1.5
- International trade base	**97.4**	**77.6**	**93.7**	**100.2**
Δ%	10.1	-20.4	20.7	7.0
Other income (non-tax income)	**183.7**	**174.2**	**235.5**	**206.1**
Δ%	-11.2	-5.1	35.1	-12.5

Note: P = Preliminary data

Δ% = Annual percentage change

Sources: Fiscal Policy Office, Ministry of Finance, and Bank of Thailand

Fiscal Position[1/]

(Unit: Billion baht)

Fiscal year

	2009 P	2010 P	2011 P
Cash receipts from operating activities [2/]	1,409.7	1,708.6	1,892.0
Δ%	n.a.	21.2	10.7
Cash payments for operating activities[3/]	1,609.1	1,564.9	1,801.8
Δ%	n.a.	-2.7	15.1
Net cash inflow from operating activities	-199.4	143.7	90.2
Net cash outflow: investment in non-financial assets	190.7	147.0	201.5
Budget cash balance	-390.1	-3.3	-111.3
Non-budget cash balance	-27.0	197.2	-45.7
: of which Stimulus Package 2	-14.9	-218.8	-61.4
Overall cash balance	-417.1	-200.4	-157.0
Net incurrence of liabilities	481.8	345.1	238.9
Use of Treasury cash balance	-64.7	-144.7	-82.0
Treasury cash balance (end of period)	294.6	439.3	521.3

Notes: [1/] These data were based on a cash basis (compliant with Government Finance Statistics Manual: GFSM 2001 of the International Monetary Fund)

[2/] Revenue data in this table is on a cash basis received from Fiscal Policy Office since October 2005, thus different from the previous table

[3/] Excluding principle repayment

P = Preliminary data

Δ% = Annual percentage change

Sources: Fiscal Policy Office, Ministry of Finance, and Bank of Thailand

Lessons Learned from the Euro Area's Sovereign Debt Crisis for Thailand's Public Sector

The euro area's sovereign debt crisis, which intensified since mid-2011 and began to spread out to the global economy at large, traced its origin Greece – an economy worth only two percent of the euro area but with public debt outstanding as high as 161 percent of GDP. Unable to meet its financial obligations, Greece eventually sought financial assistance from the International Monetary Fund (IMF) and the European Union (EU). Problems then began to spread to other euro area members in late 2010 including Ireland, Portugal, Spain, and Italy (35 percent of euro area's GDP in total). These countries shared some common traits, such as unsustainable fiscal positions and deteriorated confidence due to sovereign default risks. Nonetheless, root causes for each country's problems varied as follows:

Lack of fiscal discipline and high fiscal burden from social welfare spending in Greece: Greece's budget deficit averaged at 5.8 percent over the 2001-2007 period. Robust domestic growth allowed for high revenue collection at 39.4 percent of GDP on average, but this was outpaced by expenditure. Part of Greece's overspending owed to the fact that Greece could finance its debt at unrealistically low interest rates as a euro area member state. Furthermore, burdensome spending on social welfare also added to the problems. For instance, retirement age in Greece is substantially lower than Europe's average, so welfare spending will surge as Greece becomes an aging society. According to a European Commission study[1], Greece's social welfare expenditure is projected to spike up to 37.9 percent of GDP in the next 50 years, highest among the EU member states and far above EU's average at 27.8 percent of GDP.

High public debt accumulation in Italy: Italy's fiscal discipline has been impressive recently, as reflected in its primary balance surplus throughout the last decade. But debt accumulation in the 1970-1991 period continued to keep Italy's public debt elevated; at the end of 2010, the debt level stood at 118 percent of GDP (1.6 trillion euros). As the Greek debt crisis escalated and undermined market confidence, costs of funding through Italian government bonds surged accordingly. This increased debt-servicing burden on the budget, thus deteriorating Italy's fiscal positions even further.

Instability in other sectors in Ireland: The Irish economy overheated prior to the 2008 crisis, partly due to bubbles in the real estate sector. In particular, this sector's share of credit to total credit soared from 38 percent in 1998 to 62.6 percent in 2001. After the

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[1] Source: Aging Report (2009) defines welfare spending to cover expenditure on pension, health care and long-term care, unemployment benefits, and education.

bubbles burst and the economy fell into a recession, the non-performing loan (NPL) ratio of the banking system shot from 0.75 percent at end-2007 to nine percent at end-2009. In response, the Irish government had to step in to recapitalize troubled financial institutions. This drove up budget deficit to 32 percent of GDP in 2010, and also resulted in a surge in public debt to 95 percent of GDP from 65.5 percent in 2009.

Failure to step up potential output in Portugal: After joining the euro area in 1999, Portugal's economy barely grew at an average rate of 1.2 percent a year. This owed largely to low productivity growth and competitiveness loss, which resulted from delays in implementing structural reforms and relaxing regulations. Accordingly, the economy subsided and government revenue also suffered, which led to chronic fiscal deficit despite moderate expenditure growth. This left Portugal prone to a "crisis of confidence" and forced the country to seek financial assistance from the EU and the IMF.

The sovereign debt crisis, which stemmed from various root causes as outlined above, posed major threats to euro area's growth and destabilized the sixty-year-old economic unification at its very foundations. Lessons learned from the crisis should prompt us to reassess our fiscal positions, fiscal structure, and future fiscal burden, in an attempt not to follow euro area's examples.

Thailand's case

Thailand's public debt outstanding stood at 40.3 percent of GDP at the end of December 2011, under the medium-term fiscal sustainability threshold at 60 percent of GDP and well below Greece's figure of 161 percent of GDP. But without early preparation, Thailand may possibly run into a public debt crisis in the future, given its current fiscal structure and up-trending fiscal burden. Major risk factors are as follows:

(1) **Unbalanced revenue and expenditure lead to inflexible fiscal structure.** Average revenue growth was about two times lower than expenditure growth. Revenue collection, in particular, averaged at only 17.7 percent of GDP, much lower than 22.9 percent[2], which should be achieved given Thailand's economic and demographic structure. Meanwhile, expenditure rose in line with spending on social welfare and education,

Growth in Revenue, Expenditure, and GDP
(percent, average per fiscal year)

Fiscal Year	1997-2006	2007-2011
Expenditure	4.9	8.8
-Social welfare[1/]	7.0	12.5
-Education	5.8	11.3
-Other expenses[2/] (excluding principal and Treasury repayment)	4.5	6.6
Net revenue	4.7	4.2
Nominal GDP	6.3	6.5

Notes: [1/] Including health care benefits, social security benefits, and spending on housing
[2/] Including economic, administrative, defensive, environmental, religion, cultural, and recreational expenditures
Source: The Budget Document, Bureau of the Budget

[2] Laksanasut et al. (2010), "Toward fiscal sustainability and long-term economic growth: what are the challenges ahead?", Bank of Thailand Symposium Papers

which accounted for more than 40 percent of total budget and almost reached one trillion baht or 8.2 percent of GDP. This may seem low compared with European welfare states' average of 20.8 percent of GDP for welfare spending. However, this portion of the budget increased almost three times over the past decade alone, and is likely to rise further with Thailand's transition into an aging society. In addition, investment expenditure will also increase especially for infrastructure and long-term water management projects.

(2) **Government initiatives tend to increase the fiscal burden** both in terms of direct and contingent implicit liabilities. For instance, cost-of-living subsidy measures starting in August 2008 and the reduction in diesel excise tax since April 2011 led to an increase in fiscal burden of around 100 billion baht. These measures, if extended, will create even more burden on the fiscal side. Moreover, government's initiatives on giving low-interest loans through Special Financial Institutions (SFIs) may pose contingent risks. In other words, while such activity does not create liabilities immediately, it may add to fiscal burden later if SFIs suffers through losses and needs recapitalization from the government. Over the past seven years, credit outstanding of SFIs rose six times from 0.2 trillion baht in 2004 to 1.2 trillion baht in 2011. SFIs' ratio of gross non-performing loans (gross NPLs) to total loans declined on average, but remained above the banking system's ratio.

(3) **Risks from global economic uncertainties** may affect revenue collection, whereas fiscal spending may need to increase to support and stimulate the economy. Therefore, the government should keep its fiscal policy space available to accommodate risks, as economic stimulus under tight fiscal constraints may lead to higher budget deficit and eventually a public debt crisis like in Greece and Italy. This will dampen confidence, drive up costs of financing, and also add heavily to the fiscal burden – as a one percent increase in financing costs translates into an interest payment of 44,000 million baht per year.

Therefore, fiscal reform on both the revenue and the expenditure fronts, together with fiscal consolidation, poses challenges amid greater constraints nowadays. Despite the prime importance of fiscal spending on reconstruction and confidence, the government needs to prioritize – with a shift in focus away from current expenditure and quasi-fiscal activities to public investment or public-private partnerships (PPPs) projects aiming to improve productivity and competitiveness. This will create conducive environment for the private sector to invest and drive the economy in the longer term. And once domestic growth resumes, the government can step back and reduce its role accordingly.

5. Monetary Conditions

5.1 Monetary Conditions and Exchange Rates

Monetary conditions remained supportive for growth.

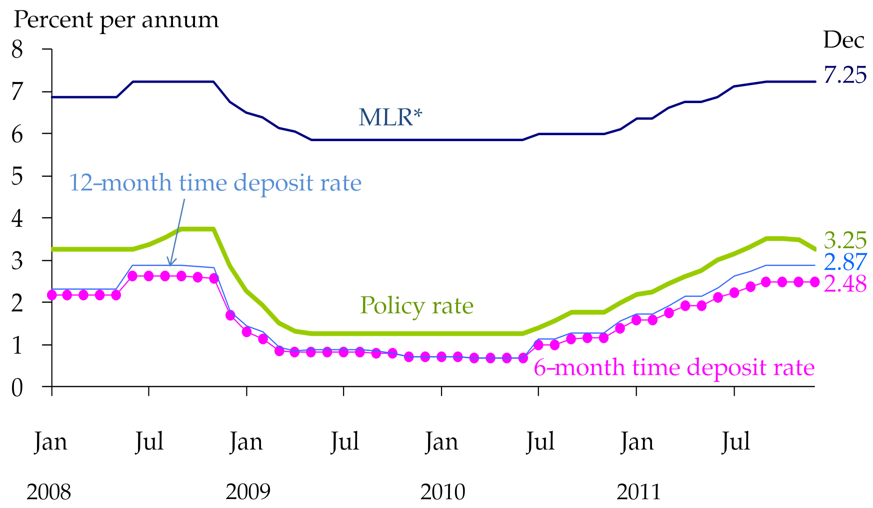
From the beginning of 2011, the MPC raised the policy interest rate six consecutive times for a total of 1.50 percent per annum to maintain economic balance and overall stability. But in the last quarter, downside risks escalated with the historic floods and headwinds from the global economy. The MPC thus maintained and then decreased the policy rate by 0.25 percent per annum in the last two meetings, aiming to cushion downside risks and lend support for recovery and investment over the period ahead.

As the policy rate increased from 2.00 to 3.25 percent per annum at the end of 2011, the one-day repurchase rate and the overnight interbank rate (quarterly averaged) rose accordingly to 2.95 and 2.84 percent per annum, respectively.

Government bond yields at all maturities rose continually in the first half of the year with the policy rate. Risk aversion then picked up mid-year as the euro area's debt crisis aggravated, prompting investors to reallocate their portfolios toward government bonds. As a result, the medium and long-term maturity bond yields dropped markedly. In the last quarter, lower yields were observed for all maturities in tandem with the policy rate, with yields for government bonds with remaining maturity of one to five years plunging below long-term yields. This reflected market's expectations for future cuts in the policy rate.

Commercial banks' reference retail lending rates were raised following the policy rate hikes. The minimum lending rate (MLR) and the 12-month time deposit rate of the four largest commercial banks[1] increased by 1.13 and 1.32 percent, to 7.25 and 2.87 percent per annum, respectively, at the end of the year.

Policy Rate and Commercial Banks' Reference Retail Rates*



Note: * Average between minimum and maximum rates of the four largest commercial banks at end-period
Source: Bank of Thailand

Despite the overall policy rate increase in 2011, monetary conditions remained accommodative. This was reflected in a buoyant growth in private credit of 16.2 percent from last year, in line with robust demand in the first three quarters. The credit expansion, however, decelerated in the last quarter as the floods disrupted economic activity.

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[1] The four largest commercial banks consisted of Bangkok Bank, Kasikorn Bank, Krungthai Bank, and Siam Commercial Bank.

Broad money expanded by 15.2 percent from the previous year. The increase owed to accelerated mobilization of deposits and bills of exchange by Other Depository Corporations (ODCs) throughout the year in order to accommodate robust credit expansion. Additionally, inflows from redemption of Foreign Investment Funds (FIF) that reached maturity also contributed to the broad money expansion.

Monetary base expanded with rising economic activity.

Monetary base continued to expand in 2011 along with economic improvements in the first three quarters. Acceleration was observed in the last quarter due to high precautionary demand for cash caused by the floods. Such demand later subsided as the flood situation eased, with an overall expansion in monetary base of 9.8 percent noted at year-end.

Developments at home and abroad resulted in greater two-way movements of Thai baht relative to the U.S. dollar.

The Thai baht stood at 31.55 baht per U.S. dollar at the end of 2011, depreciating by 4.4 percent from the end of the previous year. Early in 2011, the baht depreciated as investment funds reallocated away from Thai assets, given strong outturns in the U.S. and concerns on regional inflation. The baht then resumed its appreciating trend after Thailand's general election, which helped clear out domestic uncertainty.

However, risks in the global financial market mounted in the second half – with Standard & Poor's (S&P) downgrade of the U.S. credit rating and the impasse over the euro area's debt crisis. Domestic flood devastation, also, added significantly to downside concerns. In light of these developments, foreign investors reduced their holdings of risky assets while demanding safe haven currencies such as the U.S. dollar and the Japanese yen, pressuring the baht to depreciate toward year's end.

The Nominal Effective Exchange Rate (NEER) depreciated by 1.02 percent from the previous year on a yearly average basis. This owed to weakness in the baht against major trading partners' currencies except the euro, which depreciated markedly against the U.S. dollar due to the sovereign debt crisis and its ramifications on the financial sector of core countries. The Real

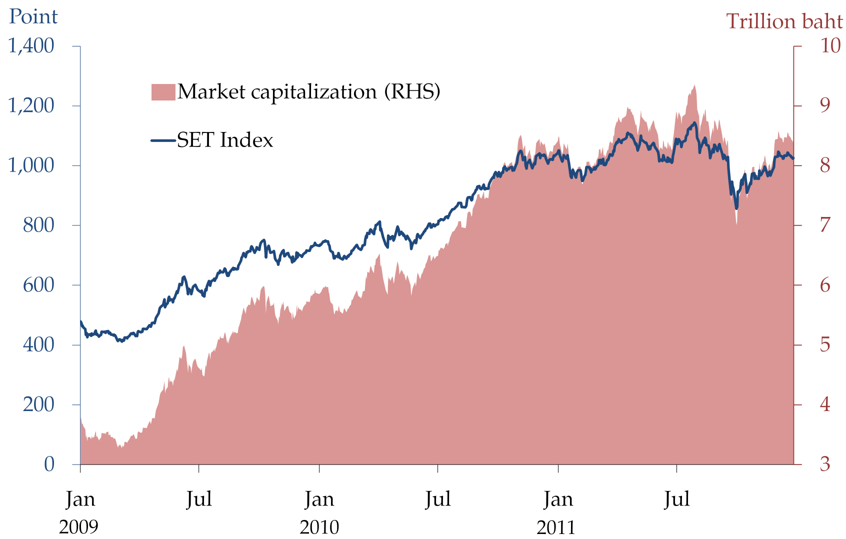
Effective Exchange Rate (REER)[2] also depreciated by 0.83 percent, in line with the NEER depreciation. At the same time, Thailand's Consumer Price Index continued to move in line with regional countries.

5.2 Equity and Bond Markets

Stock market capitalization and corporate bond outstanding remained close to the previous year. Fluctuations were in line with global economic conditions.

Heightened risks in the global economy especially from the euro area's debt concerns contributed to fluctuations in Thailand's stock market. At the end of 2011, the Stock Exchange of Thailand (SET) index closed at 1,025.32 points, nearly unchanged from the previous year's close at 1,032.76 points. Market capitalization stood at 8.41 trillion baht at the end of the year, close to 8.33 trillion baht in the previous year.

SET Index and Market Capitalization



Source: Stock Exchange of Thailand

With regard to the bond market, the year-end outstanding amount of corporate bonds rose to 1.37 trillion baht from 1.25 trillion baht in 2010. Government bond outstanding also increased to 6.0 trillion baht from 5.6 trillion baht at the end of 2010, as a result of government's borrowing to finance budget

[2] The Real Effective Exchange Rate (REER) is calculated by deflating the NEER using relative inflation rates to reflect the country's price competitiveness.

deficit and Bank of Thailand's sterilization process. Overall, high market volatility year-round discouraged businesses' fund raising through stock and bond markets, as shown in the volume of newly-issued equities and bonds that barely grew from the previous year.

5.3 Banking System Performance

Profits of the banking system rose in 2011 with growing credits and deposits.

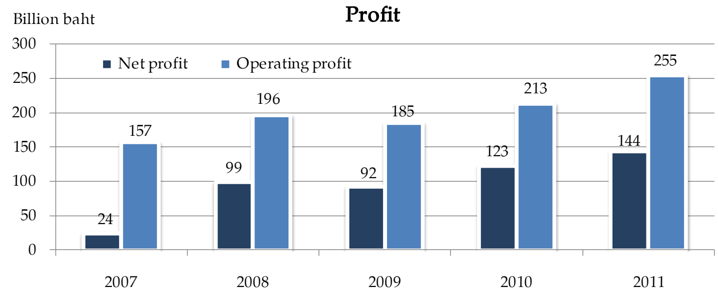
The banking system[3] recorded higher operating profit this year. While performance was affected by slowdown in corporate lending (manufacturing and trade) due to the floods, strong growth and robust demand in the first three quarters gave rise to higher interest and non-interest income. As a result, the net interest margin (NIM) increased to 2.9 percent from 2.8 percent last year. However, commercial banks had increased their provisions against doubtful debts as a cushion for the floods' impact, so the return on assets (ROA) held steady at 1.1 percent.

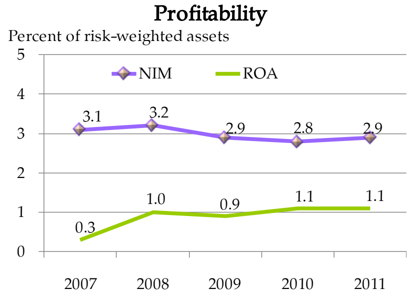
The ratio of gross non-performing loans (gross NPL) to total loans of the banking system decreased continually, both for corporate and consumer loans. Similarly, special mentioned loans (i.e. loans past due for one to three months, so-called delinquent loans) also declined except in Q4 given the floods' impact. Nonetheless, the increase is viewed as temporary and will be resolved by the first half of 2012.

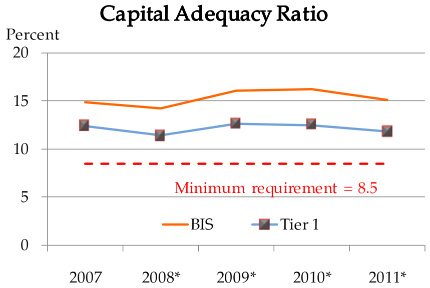
Overall financial position of the banking system remained strong, as reflected by the capital adequacy ratio and the ratio of Tier-1 capital that stayed well above the international standards.

[3] This includes 32 commercial banks in total - 17 local banks and 15 foreign bank branches.

Performance and Important Financial Indicators of the Banking System







Source: Bank of Thailand

Note: * Basel II

6. Assessments of Thailand's Economic Stability

Thailand's economic and financial stability remained satisfactory overall, despite the floods and downside risks to global growth.

6.1 Internal Stability

6.1.1 Price Stability and Inflationary Pressure

Inflation accelerated from last year.

Headline and core inflation picked up from last year to 3.81 and 2.36 percent, respectively, driven by the following cost and demand pressures. (1) Raw food prices increased as fresh produce dropped due to unfavorable weather and the historic floods. (2) Domestic retail oil prices picked up with high oil prices in the global market, despite government's reduction of oil fund levy and excise tax on diesel fuel. In addition, (3) robust domestic demand in the first three quarters led to high resource utilization, as reflected in tight labor market conditions. These pressures allowed for a sustained pass-through from costs to consumer prices from the beginning of the year, especially for seasonings and condiments as well as prepared food.

Inflation pressure will continue to persist in 2012 on the back of private sector's flood recovery and government measures — including the increase in the minimum wage and civil servants' salary, the rice pledging scheme, and the gradual lift in energy price subsidy. In addition, upside risks will also remain from elevated prices of oil and commodities.

Consumer Price Index

(Annual percentage change)

	Weight (percent)	2010	2011				
			Year	Q1	Q2	Q3	Q4
Headline Consumer Price Index	**100.0**	**3.3**	**3.81**	**3.01**	**4.10**	**4.13**	**3.97**
- Core Consumer Price Index	75.5	1.0	2.36	1.46	2.37	2.79	2.82
- Raw food	14.6	10.3	8.66	8.27	9.04	7.08	10.22
- Energy	9.9	9.7	5.59	5.21	7.90	8.67	0.66

Note: The Ministry of Commerce began to publish two-digit inflation figures this year upon the request of the Public Debt Management Office, starting with the January 2011 figures released on February 1, 2011.

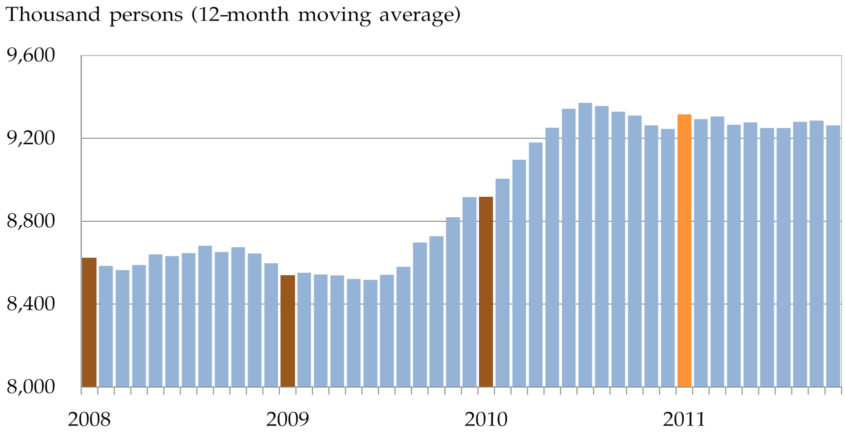
Source: Bureau of Trade and Economic Indices, Ministry of Commerce

6.1.2 Labor Market Stability

Labor market tightened further as employment rose with domestic growth. In particular, labor shortage and movement across sectors led to extended working hours and higher wages.

Employment conditions improved with robust growth in the first three quarters of the year. For the agricultural sector, employment rose with wage increases supported by high crop prices year-round. Meanwhile, non-agricultural businesses had to cope with labor movement between economic sectors amid low unemployment. In response to such difficulties in recruiting workers, these businesses adjusted by extending working hours, as evident from the higher number of workers who worked more than 50 hours per week. These factors, also, gave upward pressure to wages in the non-agricultural sector. Subsequently, the widespread floods caused the number of unemployed persons in the manufacturing sector and the overall underemployment rate to rise in Q4. But this increase should prove to be temporary and will not affect overall labor market conditions as workers can migrate to unaffected sectors.

Non-Agriculture Employed Persons who Work more than 50 Hours per Week



Source: National Statistical Office

Labor Market Indicators

Annual percentage change	2010	2011	2011			
			Q1	Q2	Q3	Q4
Employment	0.9	1.1	0.6	1.4	1.6	0.9
Agriculture	-1.0	2.3	2.1	6.4	2.3	-1.0
Non-agriculture	2.1	0.4	-0.3	-1.5	1.1	2.3
Manufacturing	-0.5	-0.9	-2.0	-2.1	0.9	-0.3
Others	2.8	0.8	0.3	-1.3	1.2	3.1
Unemployment (thousand persons)	402.2	264.3	317.9	231.1	262.4	245.9
Unemployment rate (percent)	1.0	0.7	0.8	0.6	0.7	0.6
Underemployed persons (thousand persons)	520.8	383.6	430.2	411.1	278.2	414.8
Underemployment rate (percent)	1.3	1.0	1.1	1.1	0.7	1.1

Source: National Statistical Office

6.1.3 Stability of Other Sectors

Stability remained sound overall, but with signs of greater risks from public debt accumulation.

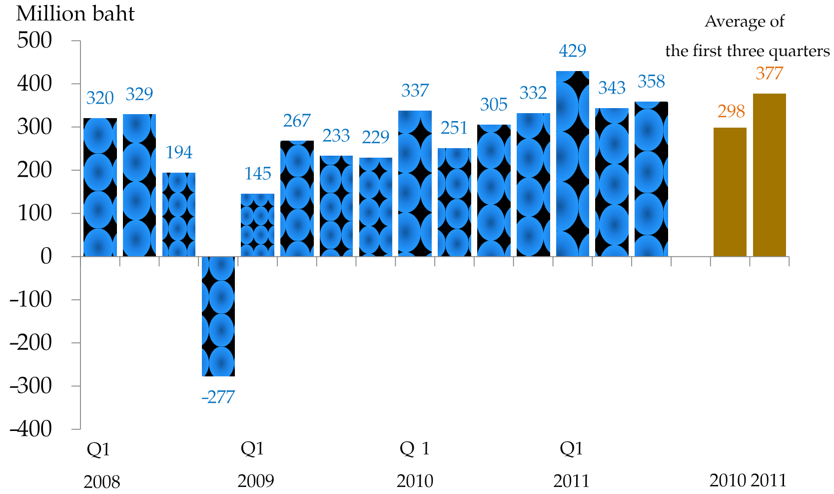
Corporate sector stability (non-financial institution)

Financial positions of the corporate sector remained strong.

Corporate sector stability remained solid, as reflected in higher average net profit of non-financial companies listed on the Stock Exchange of Thailand. The average net profit for the first three quarters rose to 377 million baht, up from 298 million baht recorded in the year-earlier period.

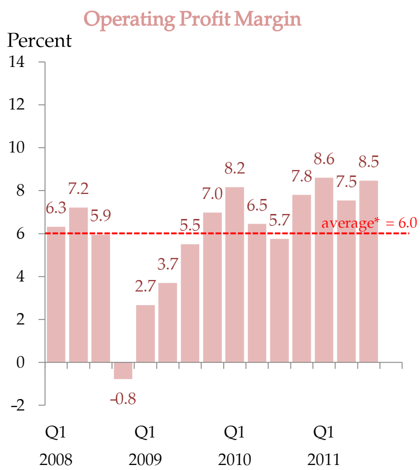
Financial positions of the corporate sector weakened in Q4 as the floods disrupted production and supply chains. However, the impact is likely to be temporary because overall potential production remains intact. In addition, strong corporate balance sheets and debt-servicing ability will also help accommodate risks, with SMEs expected to suffer more and longer than large firms.

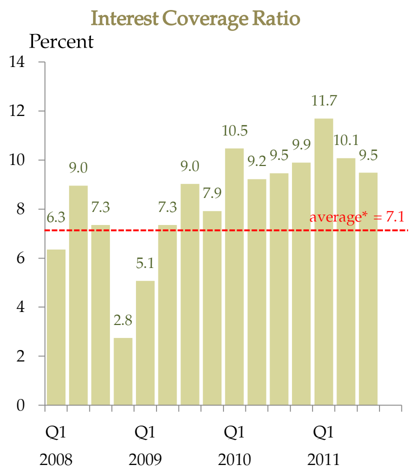
Average Net Profit of Non-Financial Companies Listed on the Stock Exchange of Thailand



Sources: Stock Exchange of Thailand and Bank of Thailand's calculations

Corporate Sector Vulnerability Indicators





Note: * Average over the 2000 Q1 - 2011 Q3 period
Sources: Stock Exchange of Thailand and Bank of Thailand's calculations

Looking ahead, global growth slowdown due to the euro area's debt crisis will continue to be a major risk to Thailand's economy and corporate stability.

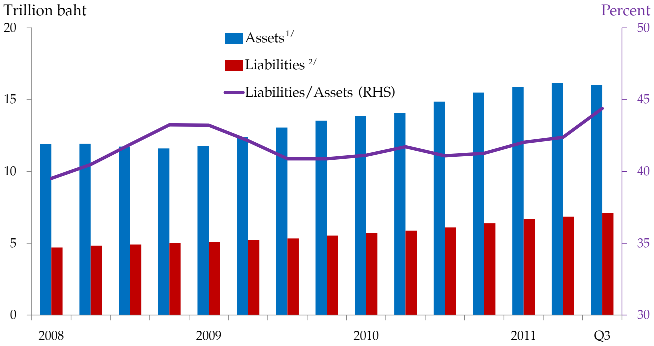
Household sector stability

Households' income and debt servicing ability were satisfactory.

Household sector stability was sound. High income and favorable growth prospects contributed to strong growth in households' spending and consumer credits. And as a result, households' debt-to-asset ratio continued to rise but still remained at an acceptable level. Besides, households' debt servicing ability was strong, as reflected by a low NPL ratio for consumer loans. While the floods in Q4 affected the debt servicing ability to some degree, as seen from higher ratio of special mentioned loans (i.e. loans past due for one to three months), the impact should be transient given strong employment prospects.

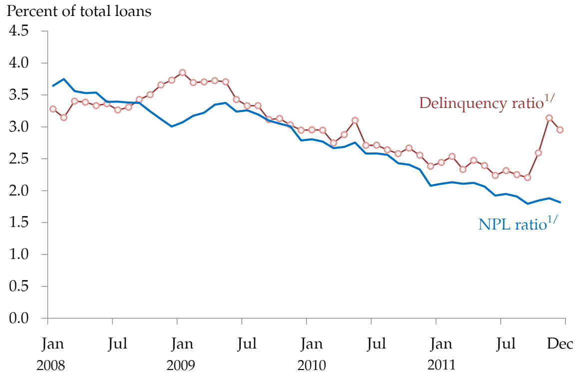
Major risks to households' stability going forward include: (1) global economic uncertainties, which may weigh on domestic growth; and (2) greater households' indebtedness due in part to stimulus measures such as the low-interest household credits, which may undermine financial discipline – especially for low-income households who are already financially weak.

Households' Financial Assets and Liabilities



Note: 1/ Financial institutions' deposits, bonds, equities and insurance
2/ Total loans from financial institutions and non-banks
Source: Bank of Thailand's calculations

Households' Debt Servicing Ability



Note: 1/ Total consumer loans from commercial banks and non-banks
Source: Bank of Thailand

Government sector stability

The public debt to GDP stood at 40.5 percent at the end of November 2011, well below the fiscal sustainability threshold of 60 percent. Nonetheless, fiscal risks may escalate with government's spending on stimulus and post-flood support – especially when accounting for contingent liabilities that increased with policy implementation through Special Financial Institutions (SFIs). Meanwhile, government's unsettled borrowing plans, coupled with constraints on raising revenue and trimming off unnecessary spending, may threaten Thailand's fiscal position and fiscal discipline over the period ahead.

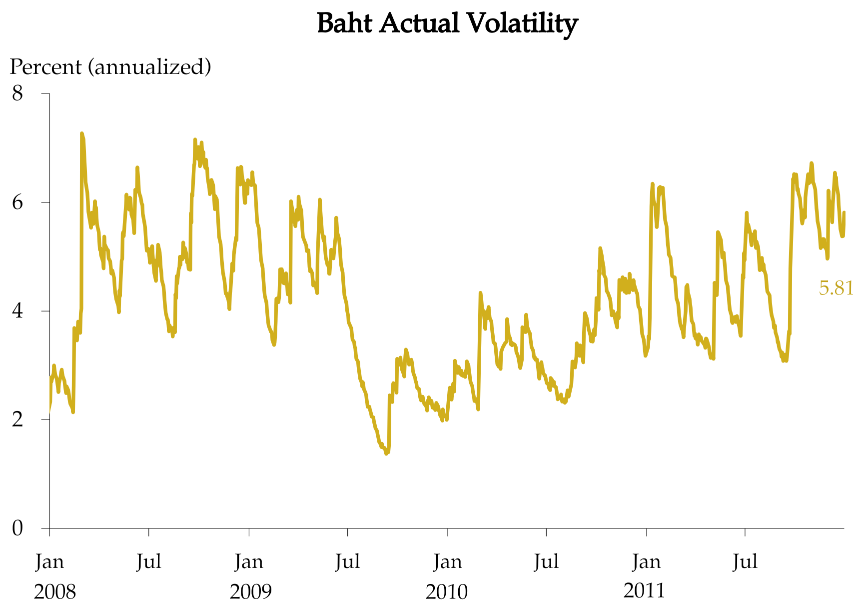
Real estate sector stability

Real estate stability remained sound. While the widespread floods hit the sector directly, demand and supply conditions continued to move in alignment. Housing prices, at the same time, rose from last year in line with production costs.

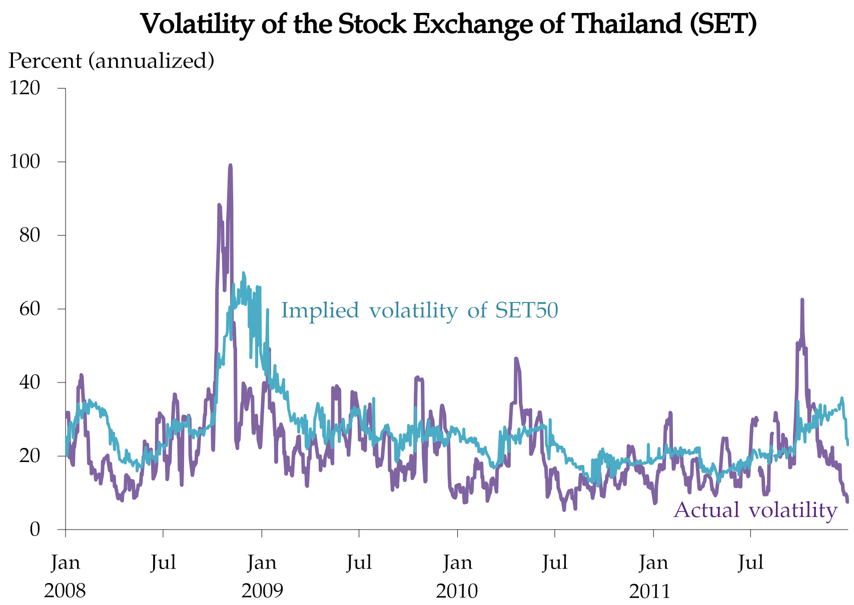
The floods' impact on the sector will be temporary, thanks to strong financial health of real estate developers listed on the Stock Exchange of Thailand. In addition, Thailand's solid economic fundamentals will also lend support for recovery in the second half of 2012, which in turn will benefit the real estate sector going forward.

Financial market stability

Volatility increased from last year in both equity and foreign exchange markets, reflecting high uncertainty in the global economy. Financial market movements were relatively stable in the first half of 2011, thanks to Thailand's strong fundamentals and risks to global growth that were still moderate at the time. But in the second half, global economic risks mounted with prolonged debt crisis in the euro area and fragile recovery in the global economy. These developments prompted investors to curtail their holdings of risky assets in emerging market economies including Thailand, resulting in higher volatility especially in the foreign exchange market.



Source: Bank of Thailand



Source: Bloomberg

Financial institutions stability

Financial institutions' stability remained solid as reflected in their strong financial positions and performance. While sustained growth in private credit raised concerns about overheating, the trend remained in line with economic activity (more details in Box: *Is Private Credit Overheating?*) At the same time, corporate and households' strong financial health also implied low risks to financial institutions stability.

Looking ahead, risks to financial institutions stability will likely come from the following factors. (1) Global growth slowdown may affect Thai exports, the manufacturing sector, and credit quality. (2) Volatile capital flows can potentially affect commercial banks' liquidity and financial positions. Lastly, (3) financial institutions will have to make adjustments in response to the reduction in deposit insurance coverage to one million baht per depositor per bank (effective on August 11, 2012), and also to the increasing role of SFIs, which may lead to an unleveled playing field.

6.2 External Stability

Thailand's external stability was strong. The current account surplus, coupled with lower short-term external debt, led to improvements in external stability indicators. The ratio of international reserves to imports fell with lower international reserves, but was still well above the international benchmark.

External Stability Indicators

	International benchmark	2010	2011			
			Q1	Q2	Q3	Q4
Indicators of debt servicing ability (percent)						
- Current account[1/] to GDP	n.a.	4.2	6.6	1.1	3.5	2.3
- External debt to GDP[2/]	48-80 [3/]	35.2	37.1	37.6	38.0	34.4
- External debt to export value [1/ 2/]	132-220 [3/]	48.9	51.3	52.0	52.4	47.4
- Debt service ratio	< 20	4.6	3.9	3.0	2.4	3.4
Indicators of liquidity						
- Gross reserves to short-term external debt	> 1	3.4	3.3	3.1	3.1	3.5
- Gross reserves to import value (months)	> 3-4 months	12.8	12.7	12.1	11.0	10.4
- Short-term external debt to external debt (percent)	n.a.	50.4	51.5	52.6	50.8	46.4

Notes: [1/] Since October 2006, "Reinvested Earnings" has been recorded as part of direct investment in the financial account and its contra entry recorded as "Investment Income" in the current account.

[2/] Using the averaged quarterly GDP for the last three years starting from the quarter considered

[3/] Benchmark for middle income countries, i.e. with GDP per capita of 756 - 9,265 U.S. dollars per year

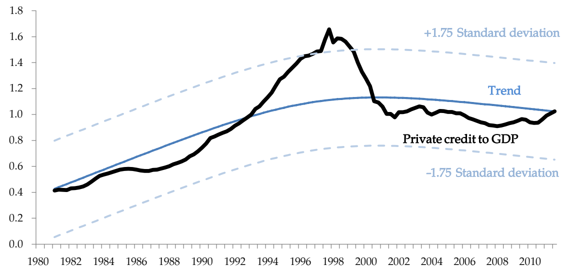
Source: Bank of Thailand

Is Private Credit Overheating?

Thailand's private credit growth has been strong since investment and consumption gained traction in 2010. But amid heightened risks to global growth, rising credit demand for post-flood restoration and government's continued stimulus raise concerns whether growth in private credit starts to overheat.

The ratio of private credit to Gross Domestic Product (GDP) is one of the indicators commonly used to detect credit overheating. This ratio is compared with a "benchmark" such as (1) its own long-term trend (Figure 1) and (2) the fundamental-based ratio of private credit to GDP derived from an econometric relationship among key determinants of private credit (Figure 2). The second benchmark uses variables such as GDP to represent economic activity, real interest rate to reflect financing cost, and the ratio of bond and stock market capitalization to GDP to reflect the role of the capital market in private sector's financing.

Figure 1: Private Credit to GDP and Long-Term Trend

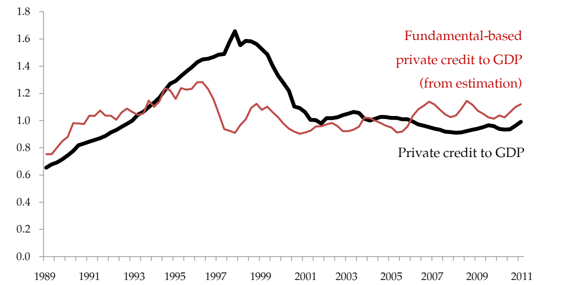


Note: (1) Private credit includes claims in non-bank private sectors, households, non-profit organizations of Depository Corporations

(2) Trend is estimated using Hodrick-Prescott (HP) filter, lamda = 400,000 (BIS, Countercyclical Capital Buffer Proposal, 2010); 1.75 standard deviation is used to reflect the likelihood of a credit boom of 5% (IMF, World Economic Outlook, 2004)

Source: Bank of Thailand's calculations

Figure 2: Private Credit to GDP and Fundamental-Based Ratio



Note: (1) Private credit includes claims in non-bank private sectors, households, non-profit organizations of Depository Corporations

(2) Using data from 1989 Q1 to 2011 Q3

Source: Bank of Thailand's calculations

The findings show that the ratio of private credit to GDP has been trending upward but stays below both benchmarks. This result suggests that the recent pick-up in private credit growth largely reflect adjustments toward a long-term trend, rather than an overheating. The pick-up also appears to be in line with domestic demand recovery, especially private investment, which has been contributing to growth rather weakly since the 1997 crisis. Nevertheless, the Bank of Thailand will closely monitor the risk of credit overheating over the period ahead in order to maintain financial sector's stability.

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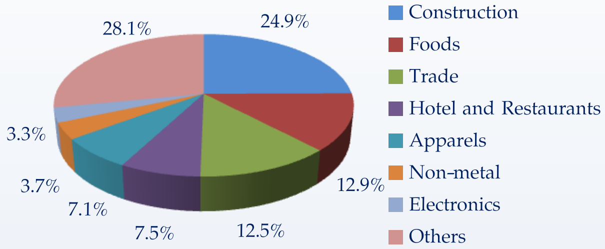
Minimum Wage Increase to 300 Baht per Day: Impact on Production

Minimum wage legislation was first enforced in Thailand in 1972. And since 1997, the National Wage Committee (NWC) can set the minimum wage to vary across provinces according to workers' cost of living, employers' ability to pay, and other economic and social conditions. However, Ministry of Labor's survey in 2011 showed that the minimum wage for unskilled labor was not enough for subsistence and quality-adjusted expenses.[1]

Workers Paid below 2012's Minimum Wage by Production Sector



Source: Labor Force Survey as of 2011 Q3, National Statistical Office

In line with government's policy, the Committee decided to raise the daily minimum wage to 300 baht in seven provinces including Bangkok, Nakhon Pathom, Nonthaburi, Pathum Thani, Phuket, Samut Prakan, and Samut Sakhon. For the other 70 provinces, the minimum wage will be raised by 39.5 percent. This new wage scheme, effective on April 1, 2012, will directly benefit 3.2 million workers currently paid below the minimum wage, or 29.3 percent of private sector's employees in the manufacturing and services sectors. Most of these workers are employed in small businesses with an average daily wage of 257 baht. Almost one-fourth or 0.8 million workers are in the construction sector followed by the food products, trade, food and beverage, and garment production sectors.

For businesses, the minimum wage hike will also drive up related expenses[2], which will lead to higher production costs and force some adjustments. In this regard, the industry-level impact is assessed by (1) each industry's **dependence on minimum wage**, as reflected by the ratio of minimum wage workers to total workers and the ratio of labor costs to total costs, and (2) each industry's **net profit margin**. Industries that are likely to suffer severely are found to be those with heavy dependence on minimum wage workers and low net profit margin - including the trade, rubber products and plastic, construction, and garment sectors. So, it is necessary for firms and employees to collaborate in order to enhance production efficiency and labor productivity amid greater challenges at home and from abroad. The impact of the wage increase on businesses, however, will be cushioned in part by the reduction of corporate income tax rates, effective on January 1, 2012.

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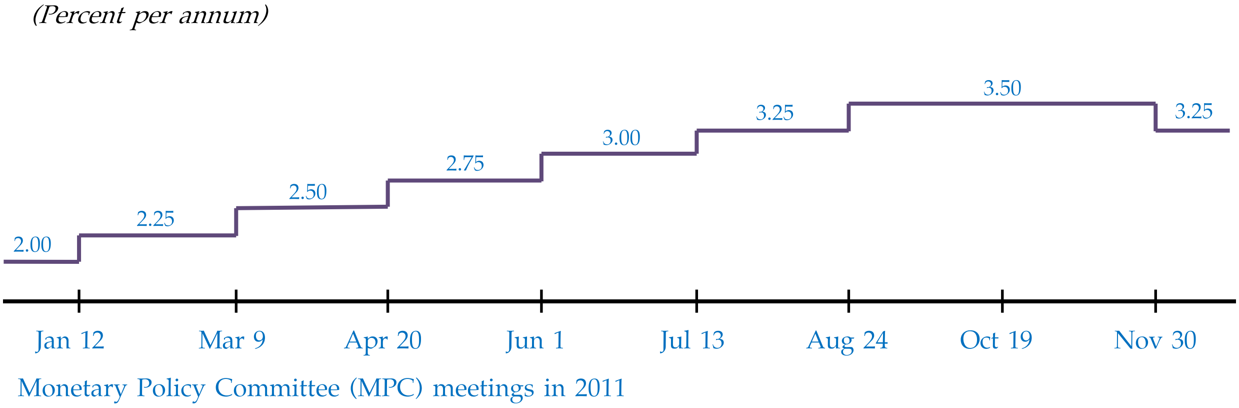
[1] Subsistence expenses include expenses on (1) food, (2) beverage, (3) home rental, (4) utilities, (5) health care (excluding social security), (6) personal allowance, and (7) transportation. Quality-adjusted expenses include subsistence expenses plus expenses on (1) home installment, (2) merit making, and (3) recreational activities.

[2] Cost burden for businesses will also increase with the overall restructuring in the wage system, overtime payment, contribution to the Social Security Fund, as well as other benefits calculated from wage base.

7. Important Policies and Measures

Interest Rate Policy

Policy Interest Rate



Sources: BOT News No. 1/2011, 8/2011, 11/2011, 19/2011, 25/2011, 33/2011, 42/2011, and 55/2011

- From the beginning of 2011, the MPC raised the policy rate six consecutive times in total of 1.50 percent per annum, based on the assessment that the Thai economy continued to expand. Meanwhile, inflation pressure and inflation expectations rose gradually following elevated oil and commodity prices that were passed on to domestic prices. The MPC deemed the policy rate normalization appropriate for containing inflationary pressure while still accommodating economic growth.

- In its meeting on October 19, 2011, the MPC assessed that global recovery was slower than anticipated and the floods' widespread impact could be prolonged. However, government stimulus measures could help limit downside risks to growth to some extent, while inflation pressure persisted from strong domestic demand. The MPC, therefore, decided to maintain the policy rate awaiting the assessment of the floods' impact and to contain inflation pressure without compromising on economic stability.

- In its last meeting on November 30, 2011, the MPC voted to reduce the policy rate by 0.25 percent per annum due to risks from weakened global growth prospects and the floods' severe impact. The policy rate cut was in an attempt to help restore investor confidence. With inflation pressure leveling off in line with global commodity prices, the MPC did not view inflation as an immediate threat to stability and shift more weight toward growth.

Monetary Measures

1. Transactions in Money Market

Measures	Main Points	Effective Date
Allowing Japanese treasury bills and government bonds to be securities that the BOT may purchase under BOT's regulations on repurchase agreement for liquidity management	The BOT cooperated with BOJ in the preparation process to support the usage of Japanese government securities as collaterals for baht borrowing, in an attempt to increase baht liquidity for businesses.	November 28, 2011

Source: BOT News No. 90/2011

2. Foreign Exchange Controls

Measures	Main Points	Effective Date
Submission of reports on Yuan transactions in Hong Kong (Offshore CNY or CNH)	Following the Chinese government's permission for Yuan transactions in the Hong Kong market (Offshore CNY or CNH), the BOT sought cooperation from authorized juristic persons to submit reports on CNH transactions in addition to reports on CNY transactions, so that the BOT could monitor and analyze the volume of these transactions in the foreign exchange market.	July 4, 2011

Source: BOT News No. ECD. (21) Wor. 3/2554

Credit Measures

Measures	Main Points	Effective Date
1) Microfinance credit policies of commercial banks	The BOT specified commercial banks' loan regulations for individuals and/or firms, in line with the policy to "promote competition and enhance access to financial services" in the second phase of the Financial Sector Master Plan, as follows: 1) limited borrowing by an individual or juristic person to 200,000 baht; 2) limited interest collection from outstanding debts and other collectable fees to 28 percent per annum in total; and 3) prepared quarterly reports on microfinance credit.	June 1, 2011
2) Revision of regulations on the extension of potentially irrecoverable credit	The BOT revised its regulations on the extension of potentially irrecoverable credit by allowing commercial banks to approve such credit prudently while considering potential risks. The BOT dismissed its earlier prohibition of such loans.	September 10, 2011

Measures	Main Points	Effective Date
3) Relaxation of regulations on credit-risk weighted asset calculation for housing loans affected by the floods	The BOT relaxed its guidelines on the calculation of credit-risk weighted assets for mortgage loans, as stipulated in its guidelines for commercial banks on the calculation of credit-risk weighted asset using the Standardized Approach. This relaxation was aimed to mitigate financial burden of commercial banks, real estate entrepreneurs, and those who were affected by the floods, as follows: 1. Postponed the implementation of the loan to value ratio (LTV) for low-rise collateral housing loans with market value below 10 million baht from January 1, 2012 to January 1, 2013 2. Classified loans for housing repair approved from July 25, 2011 to December 31, 2012, as housing loan with 35 percent risk weight.	November 25, 2011
4) Relaxation of guidelines related to personal credits under supervision and credit cards for debtors affected by the floods	The BOT allowed <u>the credit line for personal loans</u> under supervision and credit cards to exceed the limit specified by the BOT for debtors affected by the floods. This would apply for loans approved no later than June 30, 2012, with the credit amount to be determined by creditors based on debtors' ability to pay off debts.	November 28, 2011
5) Guidelines for credits under the Portfolio Guarantee Scheme by the Thai Credit Guarantee Corporation (TCG)	The BOT allowed the calculation of credit-risk weighted asset and provision for credits that the Thai Credit Guarantee Corporation (TCG) received partial guarantee from the government to be treated as fully guaranteed by the government indirectly.	December 24, 2011

Sources: 1) BOT Circular No. FFD. (12) Wor. 782/2554 dated May 25, 2011
2) BOT Circular No. PPD. (23) Wor. 1364/2554 dated August 31, 2011
3) BOT Circular No. PPD. (21) Wor. 1715/2554 dated November 25, 2011
4) BOT Circular No. PPD. (23) Wor. 1727/2554 dated November 28, 2011
5) BOT Circular No. PPD. (23) Wor. 110/2554 dated December 23, 2011

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