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Thailand
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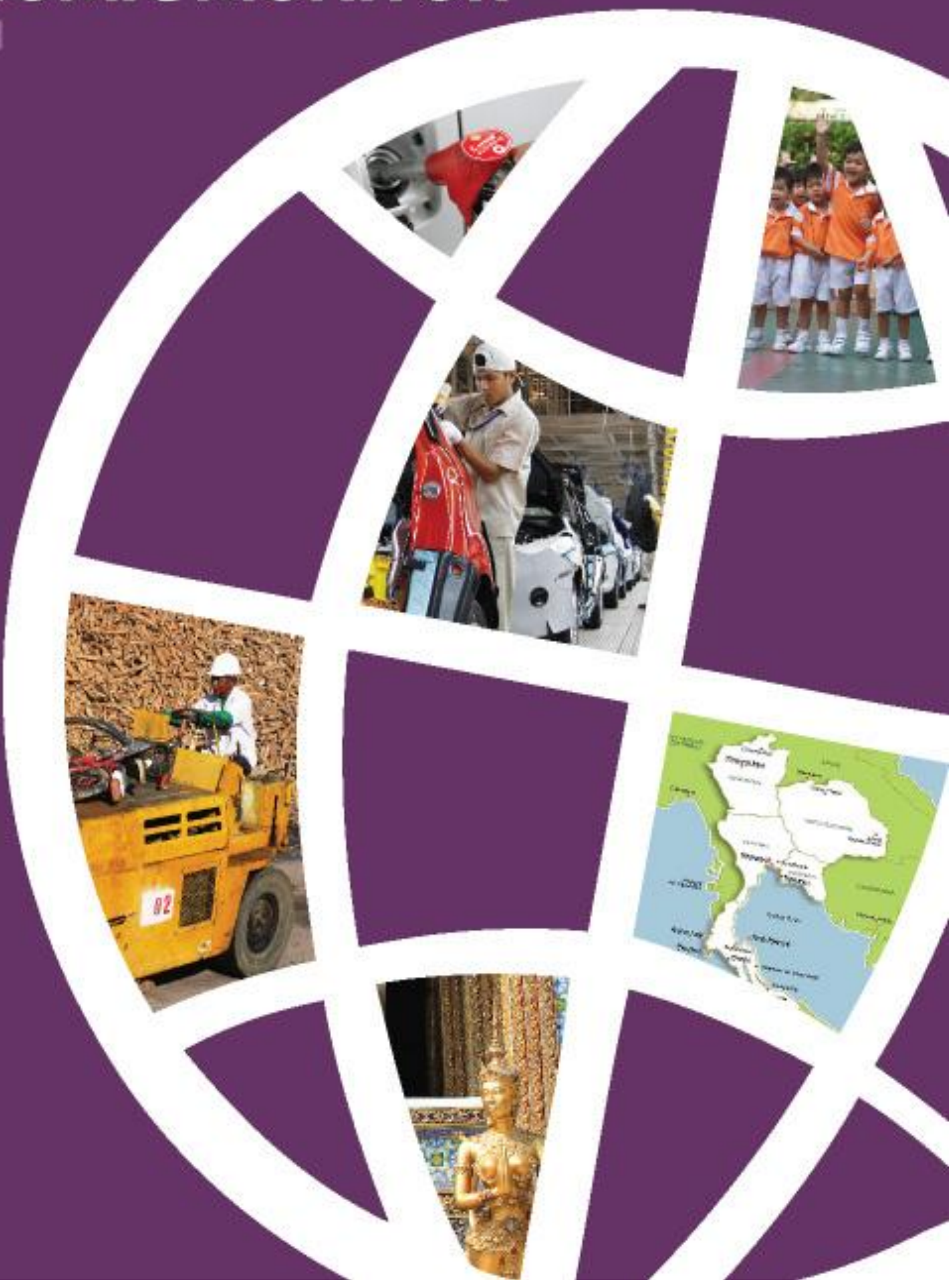

THAILAND ECONOMIC MONITOR
APRIL 2011

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The cover of this report was designed by Tinnakorn Sareenun.

ABBREVIATIONS

ADB	Asian Development Bank
AEC	ASEAN Economic Community
ASEAN	Association of Southeast Asian Nations
B/E	Bill of exchange
BAAC	Bank for Agriculture and Agricultural Cooperatives
BIBOR	Bangkok Interbank Offered Rate
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
BIS	Bank for International Settlements
BMA	Bond Market Association
BOB	Bureau of the Budget
BOI	Board of Investment
BOP	Balance of payments
BoT	Bank of Thailand
cc	Cubic centimeters
CG	Central Government
CMDMP	Capital Market Development Master Plan
CPI	Consumer price index
DECPG	Development Economics Department, Economic Prospects Group
DEDE	Department of Alternative Energy Development and Efficiency
E&E	Electrical and electronics
EBITDA	Earnings before interest, taxes, depreciation and amortization
EC	Electoral Commission
EE	Energy efficiency
EEA	Emerging East Asia
EEU	Energy Efficiency Utility
EGAT	Electricity Generating Authority of Thailand
EPPO	Energy Policy and Planning Office
ESCO	Energy Service Company
ETF	Exchange-traded fund
ENCON	Energy Conservation
EU	European Union
FDI	Foreign direct investment
FIDF	Financial Institutions Development Fund
FRD	Farmers Reconstruction and Development
FSMP	Financial Sector Master Plan
FTA	Free Trade Agreement
FTI	Federation of Thai Industries
FY	Fiscal Year

G3	Group of 3 (US, Japan and the Euro area)
GDP	Gross Domestic Product
GEP	Global Economic Prospects
GNI	Gross National Income
GPF	Government Pension Fund
HEPS	High Energy Performance Standards
IEA	International Energy Agency
IFS	International Financial Statistics
IT	Information technology
JTEPA	Japan-Thailand Economic Partnership Agreement
KTOE	Kilotons of oil-equivalent
MAI	Market for Alternative Investment
MEPS	Minimum Energy Performance Standards
MENA	Middle East and North Africa
MJ	Mega joules
MLR	Minimum lending rate
MNCs	Multinational companies
mnKw	Million Kilowatts
MoC	Ministry of Commerce
MOF	Ministry of Finance
MOT	Ministry of Transport
MOU	Memorandum of Understanding
NCB	National Credit Bureau
NEPC	National Energy Policy Committee
NESDB	National Economic and Social Development Board
NIM	Net interest margin
NPL	Non-performing loan
NSO	National Statistics Office
OCSC	Office of the Civil Service Commission
OECD	Organization for Economic Cooperation and Development
OIE	Office of Industrial Economics
OPDC	Office of Public Sector Development Comission
PDMO	Public Debt Management Office
PPI	Producer price index
PQI	Professional Qualification Institute
R&D	Research and development
RMF	Reliance Mututal Fund
ROA	Return on assets
ROE	Return on equity
SA	Seasonally adjusted

SAAR	Seasonally-adjusted annualized rate
SEC	Securities and Exchange Commission
SET	Stock Exchange of Thailand
SFI	Specialized financial institution
SMEs	Small and medium enterprises
SOEs	State-owned enterprises
SRT	State Railway of Thailand
SSS	Social Security Scheme
TEPCO	Tokyo Electric Power Company
TFEX	Thailand Futures Exchange
THB	Thai baht
THBFIX	Thai Baht Implied Interest Rates
TISI	Thailand Standards institute
TKK	Thai Khem Kaeng
UC	Universal Coverage
UN	United Nations
USD	US dollar
UTCC	University of the Thai Chamber of Commerce
WDI	World Development Indicators
WITS	World Integrated Trade Solution
YoY	Year on Year

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SUMMARY

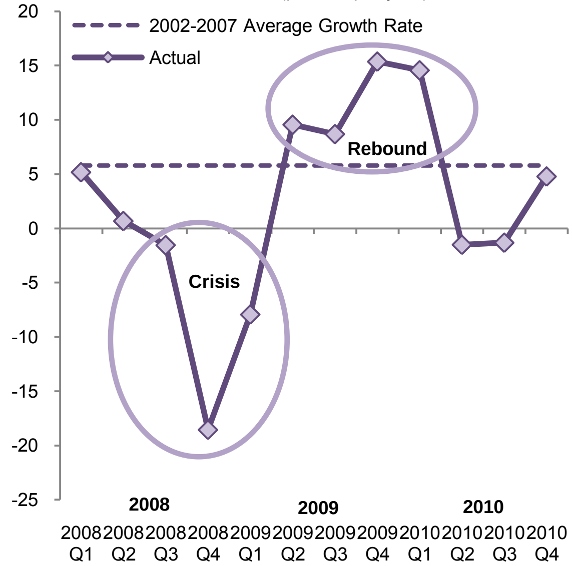
The pace of economic activity is gradually returning to pre-crisis levels. After a roller-coaster of sharp drops, vigorous rebounds and mild contractions, GDP was up 4.8 percent in the last quarter of 2010 on a seasonally-adjusted annualized (SAAR) basis—closer to pre-crisis "normal" levels (Figure 1). For 2010 as a whole, GDP expanded by 7.8 percent from 2009. Growth was broad-based, with significant contributions from external and domestic demands.

Domestic demand accelerated mainly due to higher farm incomes and low interest rates. Consumption and investment of domestically-produced goods and services expanded in 2010 well above the rates registered between 2006 and 2009. This was mainly due to growth in household consumption. Notwithstanding severe weather events and rising consumer prices, agricultural incomes made significant gains (Figure 2). This helped push up real wages in agriculture, which in turn tends to lift wages of unskilled workers more generally. Along with low deposit rates and a renewed appetite for lending on the part of banks, higher household incomes stimulated consumption of durable goods such as vehicles and housing.

External demand picked up in the fourth quarter. Following the post-crisis rebound in the first quarter (when growth was above 30 percent SAAR), external demand contracted in the second and third quarters, first because of the collapse in tourism during the political turmoil, then due to the end of the restocking cycle. By the fourth quarter, a bounce-back in tourism and higher demand for autos and agricultural products supported renewed growth in external demand. As a result, both the number of tourists and the value of merchandise exports reached new all-time highs in December.

Figure 1. Growth rates are returning to "normal" (pre-crisis) levels.

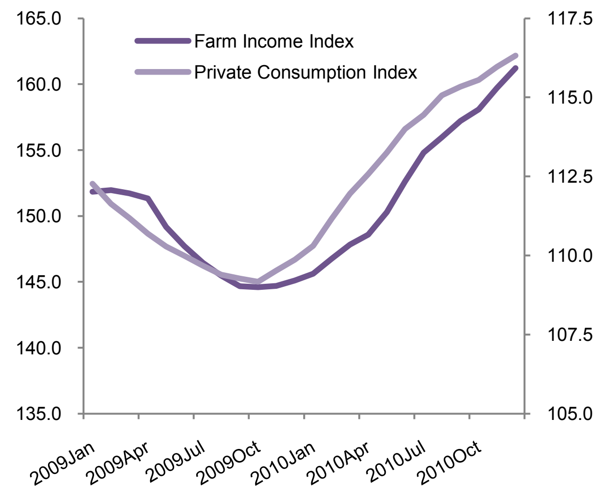
Annual rate of change of GDP, based on quarterly figures adjusted for inflation and seasonal fluctuations (percent per year)



Source: NESDB and World Bank staff calculations.

Figure 2. Rising farm incomes supported domestic demand in 2010.

Indices, 12-month moving averages



Source: BoT and World Bank staff calculations.

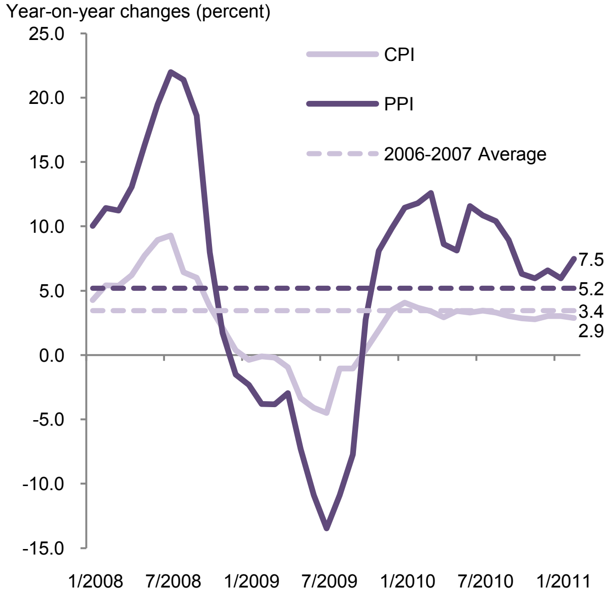
The outlook for 2011 is likely to be dominated by high energy and agricultural commodity prices. The political turmoil in the Middle East and North Africa (MENA) drove oil prices higher in February. While prices stabilized in March, they remain at high levels as the turmoil continued to spread, most recently to Libya and Bahrain. Agricultural prices, especially of food items, moderated recently, but also at relatively high levels: agricultural commodities were up in February for the ninth consecutive month.

Commodity prices have been steadily increasing in the past decade. The turmoil in MENA and supply shocks in agriculture such as last year's floods may be temporary, but commodity prices have trended higher in the past decade. This is due to a combination of rising demand from among fast-growing developing economies, especially China, and frequent supply disruptions amid increasingly unpredictable weather patterns. The implication of this trend is that high (though perhaps not higher) commodity prices are likely to persist into 2011.

Despite high food and energy prices, inflation has remained low. This has been due to subsidies for diesel, energy and transport, and formal and informal price controls. In addition, capacity utilization in domestically-oriented sectors remains below pre-crisis levels, suggesting that demand-pull pressures are currently subdued. As a result, higher producer prices have so far not passed on to consumer prices, which have continued to increase around their 2006-2007 pre-crisis average pace even as producer price inflation climbed (and stayed) above its pre-crisis average (Figure 3).

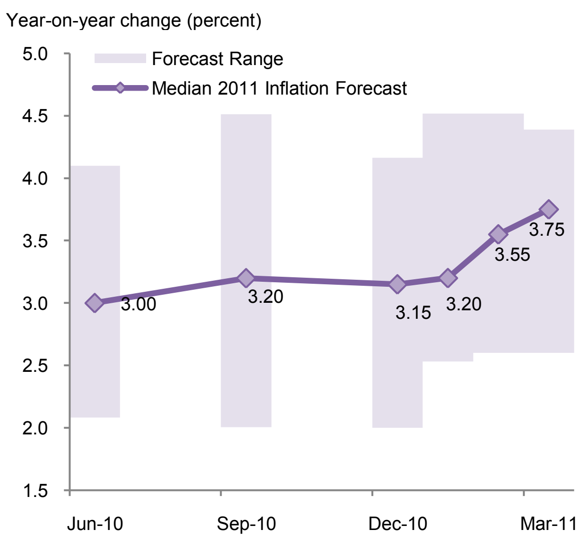
Price pressures are building up, however. Inflation expectations have been on the rise as the lifting of price controls and subsidies has been widely anticipated (Figure 4). The Bank of Thailand has become increasingly concerned that inflationary dynamics could emerge. As a result, the BoT increased the policy rate twice in 2011 and indicated that further hikes are forthcoming.

Figure 3. Higher input costs have yet to show in current inflation readings...



Source: MoC and World Bank staff calculations.

Figure 4. … but inflation expectations have been increasing.



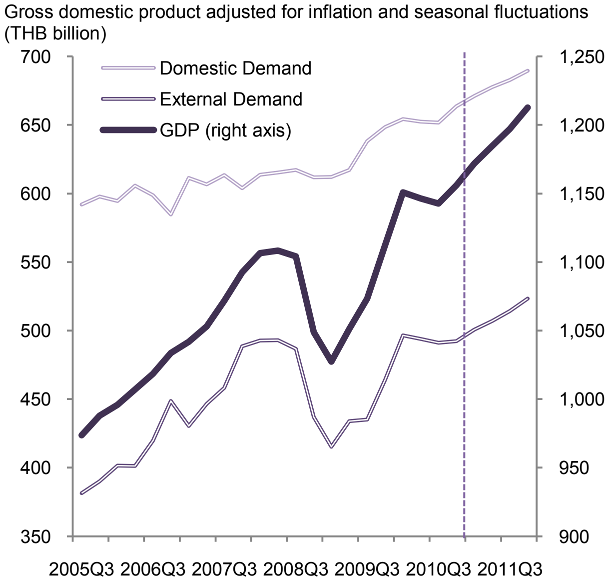
Source: Consensus Forecasts World Bank staff calculations.

Growth in 2011 is expected to be resilient to high food and fuel prices and to move closer to pre-crisis levels. Notwithstanding the jump in oil prices and the earthquake in Japan, the Thai economy maintained the momentum from the fourth quarter of 2010 into early 2011 and is expected to post healthy growth during the year (Figure 5). Domestic demand will continue to perform well, while the growth of external demand is still dragged down by the unfinished recovery in advanced economies and the impact of the earthquake. Due to the high base in 2010, yearly growth comes out at 3.7 percent.

High agricultural prices are a net positive for domestic consumption. Firm agricultural prices, more muted supply shocks from natural disasters and spillovers from agricultural prices to unskilled wages will boost household incomes and consumption. Interest rates, while heading higher, will be accommodative for the year as a whole and the favorable economic prospects suggest bank lending should remain robust. Finally, election-related spending and subsidies to put a (temporary) lid on the cost of living of low-income earners provide further support to consumption.

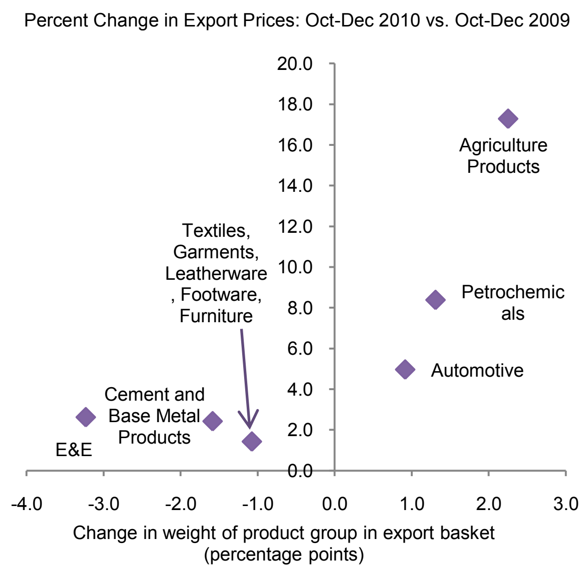
Thailand's changing export mix offers some resilience against higher oil prices and sluggish growth in advanced economies. Thailand's export basket has changed since 2007 towards products that experienced healthy price gains over the past year, partially offsetting higher prices of imported fuel (Figure 6). In part, exporters of these products have been able to raise prices because they are mainly destined to fast-growing emerging economies (for example, most of Thailand's petrochemical exports go to China). The switch in the mix of products and destinations bodes well for the outlook of external demand. On the other hand, E&E items remain Thailand's top exports, and these products are consumed mainly in advanced economies, which are on the mend but not fully recovered. In addition, supply chain constraints arising from the earthquake in Japan may further dampen Thailand's exports.

Figure 5. Domestic demand will continue to underpin growth.



Source: NESDB and World Bank staff calculations and projections.

Figure 6. The composition of Thailand's export mix shows a switch towards products with most favorable price changes.



Source: BoT and World Bank staff calculations

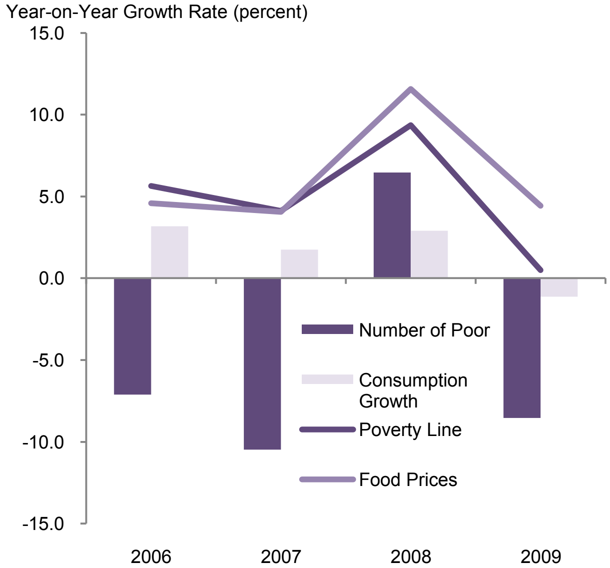
But higher prices also mean higher risks to the outlook. The main risk is a continued increase in oil prices. This could derail the still-fragile recovery of advanced economies, which would severely dampen external demand. Domestic demand would also suffer, as consumers divert their income towards (imported) fuel and farmers' income gains are reversed as they would face a higher cost of living and higher input costs.

Considering the elevated risks, a deliberate pace of fiscal and monetary 'normalization' is warranted. With the economy on its way back to pre-crisis growth, it is natural that fiscal and monetary stimulus be withdrawn, and authorities have signaled that this is the direction they are heading. The pace may be gradual, however, as the direction of policy is likely more important than reaching "normal" levels within a given timeframe.

In the near term, policy needs to shift from broad subsidies to targeted interventions. In 2008, the spike in food prices was correlated with an increase in poverty rates in Thailand for the first time since 1997 (Figure 7). This suggests that higher food prices hurt many of the poorest in society, so the concern with the impact of higher prices on low-income households is warranted. Currently, fiscal efforts to lower the cost of living of these households have focused on subsidies to diesel oil. However, such subsidies are not targeted and may distort incentives for energy conservation. More targeted interventions would pose a lower fiscal burden while better assisting the neediest.

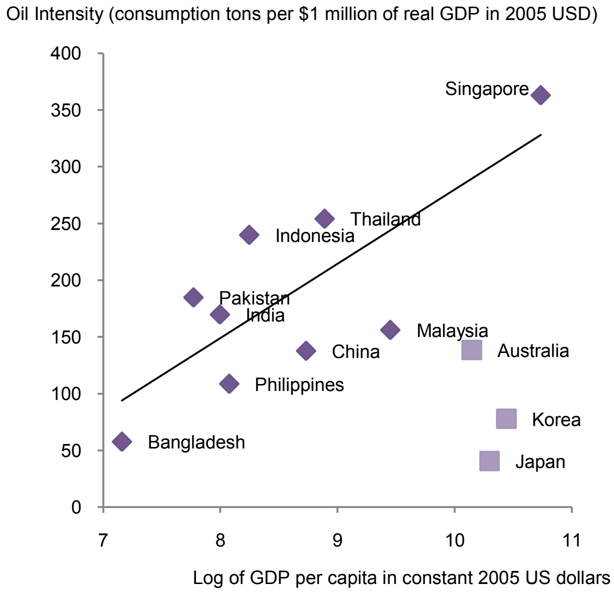
In the long-term, Thailand needs to increase energy efficiency to reduce risks from oil price volatility. Thailand's economy is one of the most energy intensive in the region (Figure 8) because of the large (and growing) share of energy-intensive manufacturing in the economy and high proportion of cargo transported by trucks. Thailand can reduce its vulnerability to oil price shocks by raising fuel standards, improving tax incentives for conservation and relying more on rail for cargo transport.

Figure 7. Higher food prices were associated with the increase in poverty in 2008.



Source: NSO, NESDB, MoC and World Bank staff calculations.

Figure 8. Thailand's oil consumption is above average in the Asia Pacific region, making it more vulnerable to price shocks.



Source: BP Oil, World Development Indicators and World Bank staff calculations.

SECTION 2

MACROECONOMIC DEVELOPMENTS AND OUTLOOK

Growth picked up in the fourth quarter of 2010 and the momentum should continue into 2011. The Thai economy closed 2010 on a strong note, with a large contribution from non-tradable sectors and domestic demand (Figure 9). GDP was up 4.8 percent from the previous quarter on a seasonally-adjusted annualized basis, following two quarters of mild contraction. For 2010 as a whole, GDP expanded by 7.8 percent from 2009. For 2011, the high base set by the rebound leads to year-on-year growth of 3.7 percent, but quarterly growth is expected to accelerate from the average 0.6 percent recorded between the second and fourth quarters of 2010 to 4.9 percent in 2011. Despite tailwinds from domestic and regional demand, growth is not expected to return to potential until 2012 due to the substantial linkages between Thailand and advanced economies, which are still expected to under-perform in 2011 (Table 1).

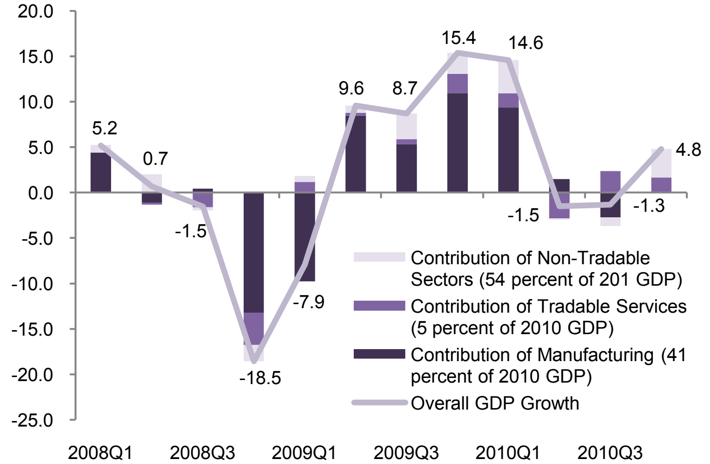
Table 1. Real GDP Growth, 2010-2012
(Percent, year-on-year)

	Share in 2010 GDP	**2010** Year	**2011** Q1p	Q2p	Q3p	Q4p	**2011** Year(p)	**2012** Year(p)
Consumption	61.7	5.0	4.2	5.3	2.7	4.1	4.1	4.5
Private	51.7	4.8	4.3	5.3	2.4	4.3	4.1	4.6
Public	10.0	6.0	3.5	5.1	4.0	3.0	3.9	4.0
Gross Fixed Capital Formation	20.9	9.4	4.4	4.4	5.4	6.0	5.0	6.4
Public	5.2	-2.2	3.0	5.0	5.0	5.5	4.7	7.5
Private	15.8	13.8	4.8	4.2	5.5	6.1	5.1	6.0
Total Domestic Demand	83.5	10.3	2.7	7.5	1.9	3.1	3.8	5.1
Exports	69.5	14.7	5.9	3.4	8.9	9.7	7.0	7.4
Goods	57.3	17.3	6.4	2.1	9.8	10.6	7.3	7.5
Services	12.2	3.9	4.0	12.0	4.0	6.0	6.1	7.0
Imports	52.9	21.5	9.0	10.0	5.4	8.4	8.1	8.8
Goods	43.8	26.5	10.0	11.3	5.9	9.3	9.0	9.5
Services	9.1	1.9	4.5	4.0	3.0	4.0	3.9	5.5
Net Foreign Demand	16.5	-2.7	-2.2	-18.1	22.3	14.0	3.5	2.6
By Sectors:								
Agriculture	*8.3*	*-2.2*	*3.0*	*2.0*	*4.0*	*4.0*	*3.3*	*2.5*
Industry	*43.0*	*12.8*	*1.0*	*2.6*	*4.2*	*4.5*	*3.1*	*5.7*
Services	*48.7*	*4.6*	*2.5*	*4.5*	*5.5*	*5.5*	*4.5*	*4.0*
GDP	**100.0**	**7.8**	**1.8**	**3.4**	**4.8**	**4.9**	**3.7**	**4.7**

Source: NESDB and World Bank staff projections.
Note: p = World Bank projections.

Figure 9. Non-tradable sectors drove growth in the fourth quarter as manufacturing output stabilized.

Annual rate of change based on quarterly figures adjusted for inflation and seasonal fluctuations (percent per year)



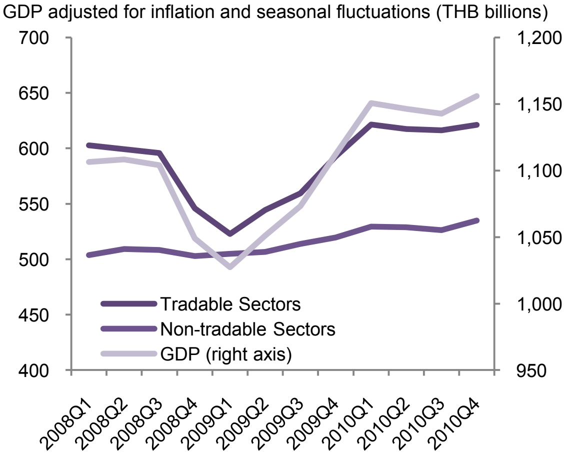
Source: NESDB and World Bank staff calculations.

2.1 Production

Main protagonists of the wild fluctuations experienced by Thailand's economy during the period of crisis and rebound, sectors producing tradable goods and services saw output stabilize since the second quarter. Sectors linked to external demand, primarily manufacturing, accounted for over 80 percent of the fluctuations in economic activity in the six quarters that spanned the global financial crisis and subsequent rebound. This contribution fell to 35 percent in the fourth quarter as growth in non-tradable sectors drove economic activity for the first time in several quarters (Figure 9 and Figure 10). Manufacturing output was virtually flat on the quarter as production stabilized at post-restocking/post-rebound levels that are about 4 percent above those registered in the sector prior to the global financial crisis. Manufacturing output is sensitive to conditions in high-income economies, but the strength in the auto and petrochemical industries, which targets domestic and regional markets, will support a small pick-up in growth into 2011.

Figure 10. Growth in the fourth quarter was led by non-tradable sectors.

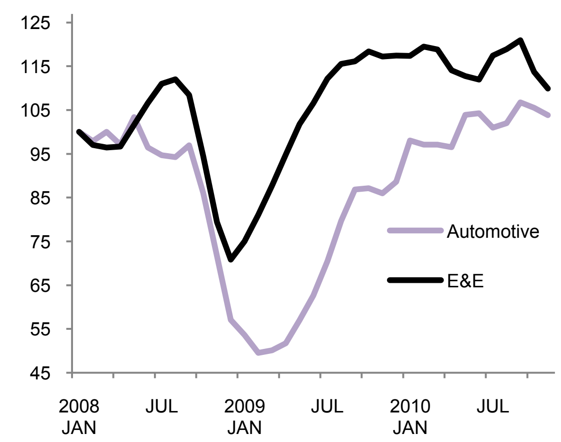
GDP adjusted for inflation and seasonal fluctuations (THB billions)



Source: NESDB and World Bank staff calculations.

Figure 11. The auto industry continued to expand even as E&E slowed down.

Production Index by Sector (March 2008=100)

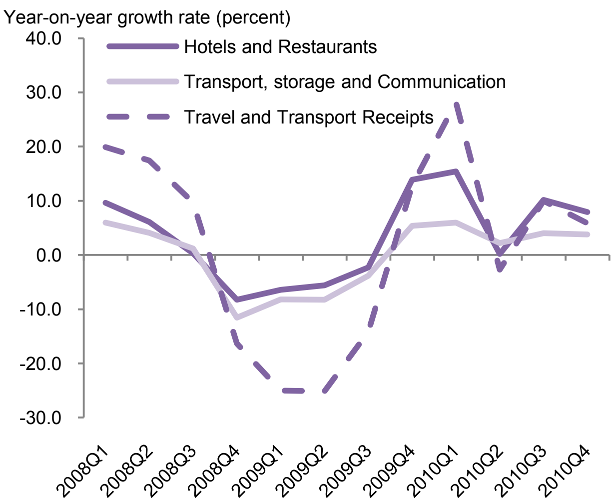


Source: OIE and World Bank staff calculations.

As the E&E sector lagged, the automobile sector emerged as a source of growth in 2010. Within manufacturing, production of electrical and electronic (E&E) items stabilized, while the auto sector expanded, albeit irregularly (Figure 11). Production growth in the automotive sector accelerated to 64.6 percent in 2010, led by strong demand in both domestic and international markets. The Federation of Thai industries (FTI) predicts that the target production volume in 2011 will reach 1.8 million units (9.4 percent year on year growth), with a more diverse line of production models and a continued shift of automobile manufacturers to build completely-built units (CBU), especially small passenger vehicles, which are gaining market share over pick-up trucks. Other private forecasts estimate that production will reach three million units in 2014, which would imply investments in capacity for producing another one million vehicles. The increasing share of passenger vehicles suggests that Thailand is moving up the value chain in the sector, although prospects for greater innovation-related tasks remain limited.

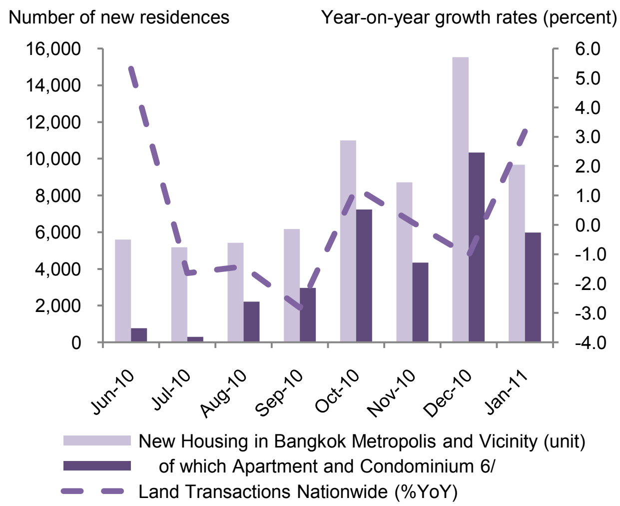
Services sectors saw a strong, broad-based expansion in the fourth quarter. Services sectors grew by 10 percent (SAAR) in the fourth quarter, driven by solid growth in a broad range of sectors. Externally-linked services (transport, communications and hospitality) continued to rebound from the political turmoil of the second quarter and expanded by 12.8 percent (Figure 12). Domestically-focused services posted their best performance since 2005, growing by 8.7 percent in the quarter. Three sectors in particular made significant contributions: financial intermediation (up 18 percent, paralleling the sharp rise in credit growth), government services (up 24 percent) and retail trade (up 5 percent but representing a large share of GDP). With the bounce back in tourism and expected strength in domestic demand, services sectors are expected to post solid growth in 2011, but without structural changes the potential growth will remain closer to the historical average of 3.9 percent.

Figure 12. Tourism-related sectors continued to grow along with tourist receipts.



Source: NESDB, BoT and World Bank staff calculations.

Figure 13. Construction-sector indicators picked up in the fourth quarter.

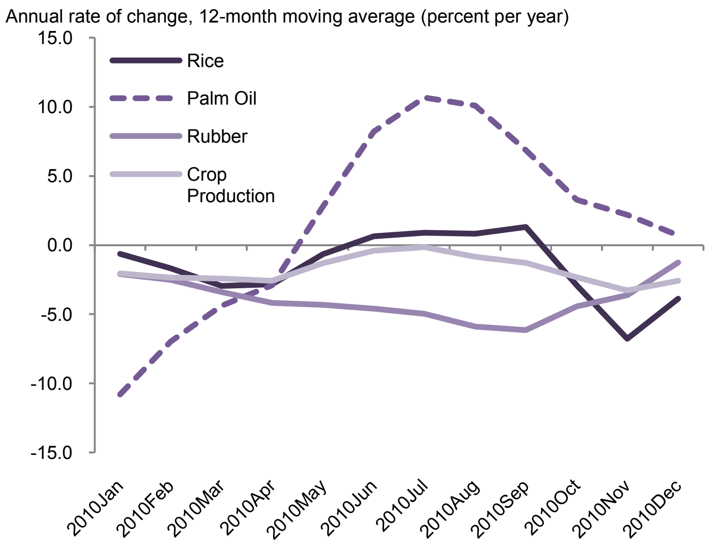


Source: BoT and World Bank staff calculations.

The construction sector returned to expansion in the fourth quarter. Largely due to temporary tax breaks and low interest rates, construction output increased by 16 percent (SAAR) in the second quarter, then contracted in the third quarter as the tax incentives expired in May. The sector returned to a healthy expansion of 12 percent in the fourth quarter driven by continued demand in property markets and the expansion of public investments including mass-transit lines (Purple and Red Lines) and projects under the Thai Khem Kaeng (TKK) scheme. Notwithstanding healthy growth of 7 percent for 2010 as a whole, real construction output is still below levels of the fourth quarter of 2007, when the most recent decline started, and nearly 50 percent below the 'bubble' levels of 1996. Construction indicators signal a healthy outlook for 2011 (Figure 13). In addition, still-low interest rates should help the sector, which has targeted middle-income consumers with small condominium units along the public transportation lines. Despite the strong outlook, the construction sector sees continued risks in rising material prices, particularly cement, steel and mechanical and electrical equipment (which are affected, among others, by higher copper prices).

The agricultural sector contracted sharply in the third and fourth quarters due to widespread floods. In the first half of 2010, Thailand faced the most severe drought in 20 years, affecting over 235 km^2 of farm land across 53 provinces. However, thanks to irrigation and the timing of the drought, the actual decline in agricultural output was limited. In the second half of the year, however, widespread floods led to a 15 to 20 percent decline in Thailand's overall rice production (Figure 14). Farm incomes were preserved by higher agricultural prices: while real agricultural output declined by 3 percent in 2009, nominal output surged 23 percent. In addition, although the floods brought devastation to many farms, they also increased the fertility and yields of the post-flood crops, which could bode well for 2011 outputs. However, Thailand finds itself grappled with renewed flooding, which is now affecting Southern Thailand. Meanwhile the Department of Disaster Prevention and Mitigation has declared 45 potential provinces as drought disaster zones comprising of 1.7 million rai (2720 km^2) of land.

Figure 14. Output of key crops declined in the second half of 2010 due to widespread flooding.



Source: Bank of Thailand and World Bank staff calculations.

2.2 External Demand

External demand returned to a modest expansion in the fourth quarter and the outlook for 2011 continues to improve. Strong exports of agricultural and petrochemical products and continued expansion of tourism offset the sluggishness of E&E exports, leading to a one-percent expansion of the value added of Thai exports in the fourth quarter. This follows two quarters of small contractions (first, due to the turmoil-induced collapse in tourism then due to the inventory cycle-driven slowdown in exports). The composition of external demand has shifted away from advanced economies and towards emerging market economies. As emerging economies face inflation worries and respond with more decisive monetary policy normalization, demand growth is expected cool down somewhat. On the other hand, the recovery in advanced economies appears to be proceeding at a steady pace notwithstanding the impact of the catastrophe in Japan. This more balanced pattern of growth should be supportive of continued (if still below-average) growth in exports of goods and services in 2011.

2.2.1 External Environment

The recovery in advanced economies has been proceeding in line with earlier expectations (Table 2). The recovery of the U.S. economy started to translate into improved labor market outcomes, with unemployment dipping below 9 percent for the first time in two years. If these gains can be sustained amid ongoing fiscal tightening and higher oil prices, the recovery may enter a self-sustaining phase where employment gains drive domestic demand growth. The EU Summit meeting to increase EFSF funding for future 'bailouts' was well received, but a political crisis in Portugal sent yields of debt from European periphery countries soaring again. Overall, import demand and leading indicators for the US and Europe point to a favorable outlook, suggesting advanced economies could be less of a drag on Thai growth than earlier anticipated (Figure 15). Japan's leading indicators also pointed to expansion before the catastrophic 9-point earthquake and tsunami that decimated parts of the country and damaged nuclear facilities, yielding thousands of deaths. Widespread power outages and economic disruptions followed and are likely to have a material impact on Thailand's economy through its effects on the supply chains for autos and electronics (see Box 1 for further details).

Table 2. Growth is firmly in a "new normal" of less volatile but lower rates in advanced economies.

	1998-2007	2008	2009	2010e	2011f old 1/	2011f new	2012f
Global Conditions							
World Trade Volume (GNFS)	9.1	2.7	-11.0	15.7	6.8	8.3	9.6
Consumer Prices							
G-7 Countries	…	3.1	-0.2	1.3	1.6	1.1	1.6
United States	2.7	3.8	-0.4	1.9	2.2	1.5	2.0
Commodity Prices (USD terms)							
Non-oil commodities		21.0	-21.6	26.6	-4.0	-0.1	-4.3
Oil Price (USD per barrel)		97.0	61.8	79.0	74.6	85.0	80.4
Oil price (percent change)		36.4	-36.3	28.0	-4.5	7.6	-5.4
Real GDP growth							
High income	**2.6**	**0.2**	**-3.4**	**2.8**	**2.4**	**2.4**	**2.7**
OECD Countries	2.5	0.1	-3.5	2.7	2.3	2.3	2.6
Euro Area	2.3	0.3	-4.1	1.7	1.3	1.4	2.0
Japan	1.2	-1.2	-6.3	4.4	2.1	1.8	2.0
United States	2.9	0.0	-2.6	2.8	2.9	2.8	2.9
Non-OECD countries	4.5	2.5	-1.8	6.7	4.2	4.4	4.8
Developing countries	**5.5**	**5.7**	**2.0**	**7.0**	**6.0**	**6.0**	**6.1**
East Asia and Pacific	8.1	8.5	7.4	9.3	7.8	8.0	7.8
Dev. countries excl. China and India		4.2	-1.8	5.2	4.4	4.3	4.5

Source: World Bank Global Economic Prospects (GEP) January 2011 and World Development Indicators. Old forecasts from GEP June 2010. Forecasts do not incorporate effects from the Tohoku Earthquake.

Box 1. Impact of the Tohoku Earthquake in Japan on the Thai Economy

The Tohoku earthquake was the most powerful ever registered in Japan. It was followed by a violent tsunami, which caused the Fukushima nuclear power plant to overheat and leak radiation. The economic and human impacts of this tragedy are still unclear, with estimates of damages between 2.5 and 4 percent of GDP. Almost 500,000 people have been left homeless, and more than 15,000 may have lost their lives.

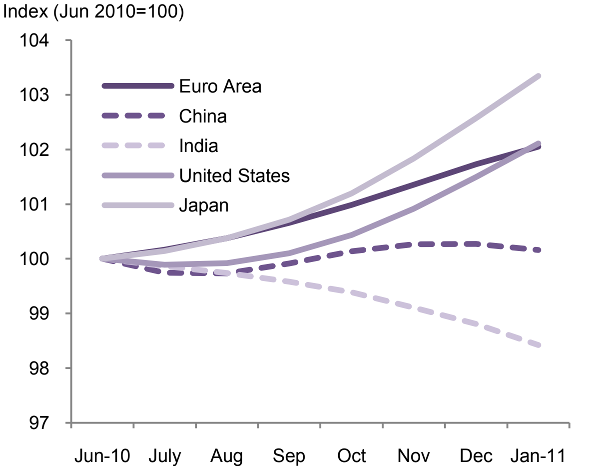
Although large-scale natural disasters such as 1995 Kobe earthquake tend to have only limited and brief impact on the flow of economic activity, the Tohoku earthquake's effects may last longer because of the loss of power generation capacity, which extends the impact well beyond the area directly affected by the earthquake and tsunami. The Fukushima nuclear plant was responsible for 25 percent of total nuclear power, or 8 percent of total Japanese electricity generation capacity. According to the Tokyo Electric Power Company (TEPCO), the current demand for power is 41 – 42 mnKW, which exceeds the supply capacity of 38.5 mnKW. This significant shortage has led to rolling blackouts that have affected the Tokyo metropolitan area, responsible for 40 percent of Japan's GDP. Although the outages are for a maximum of three hours a day, they cause significant disruption to manufacturing, as any interruption in power can cause the shutdown of operations. Although demand is expected to decline in April and May due to milder weather, demand is expected to rise to 55 – 60 mnKW during the summer, depending on the weather, compared to 48.5 mnKW of supply capacity as an additional 10 mnKW from thermal generation comes online.

The implications for the Thai economy are likely to be primarily through three channels:

- **Disruption of the supply chains of autos and E&E.** Although parts imported from Japan represent only a small portion of overall production, these are crucial components and inventory levels tend to be limited given a reliance on just-in-time inventory management. These critical parts are still manufactured in Japan partly for intellectual property protection reasons, and partly because they involve high complexity tasks, which means they cannot easily be sourced from elsewhere. Japanese firms have excellent operational risk management, however, and are likely to have contingency plans.
- **Impact on oil demand.** The nuclear crisis in the Fukushima power plant will lead Japan to switch to fossil fuel sources for 10 – 12 mnKW, which will require about 0.3 percent of the world's oil supply. In addition, the crisis led to a reconsideration of nuclear power in a number of countries. For example, Germany's chancellor convened an ethical review board to discuss the future of nuclear power in that country. A slowdown in nuclear power development or deactivation of nuclear power plants in some cases will likely put additional pressure on oil demand in the medium-term.
- **In the medium-term, reconstruction will have a positive impact.** Notwithstanding concerns about Japan's fiscal position, reconstruction is likely to proceed at a brisk pace once the critical phase of the crisis is overcome. Public and private investment is expected to surge, leading to substantial growth in import demand. One implication that seems less likely is that the earthquake will cause greater transfer of production facilities from Japan to emerging East Asia. Such transfer is part of a secular trend, and is likely more related to yen strength than as a consequence of the earthquake.

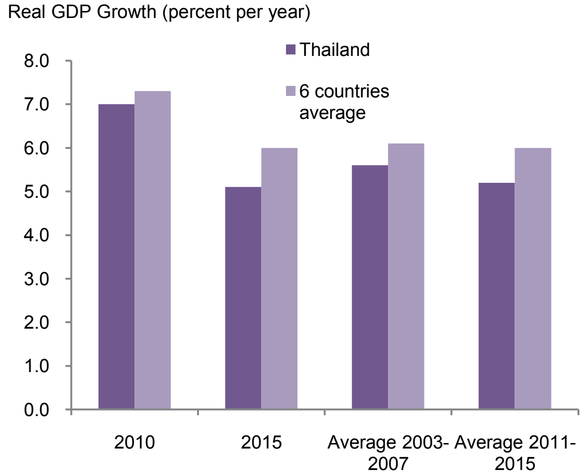
The Japanese people have proven immensely resilient to disasters over the past 100 years and will undoubtedly rebuild the country. The main uncertainties relate to the extent of the disruption to E&E and auto supply chains, as well as how long such disruption may last and before reconstruction begins.

Figure 15. Leading indicators point to expansion in advanced economies.



Note: Amplitude-adjusted standardized index; Source: OECD

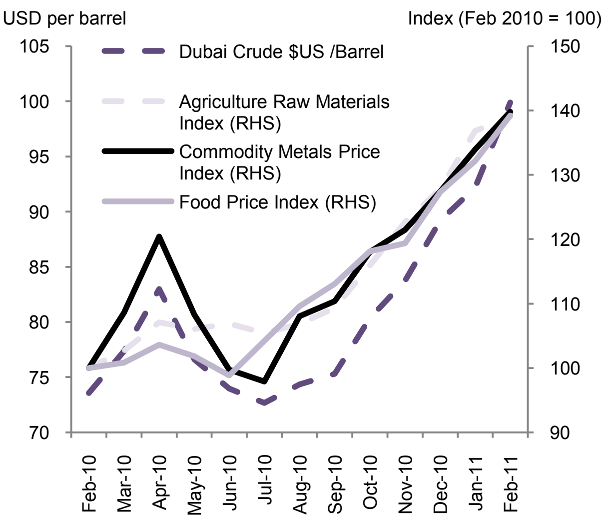
Figure 16. ASEAN is expected to grow on average 6 pct annually over the next 4 years.



Source: OECD

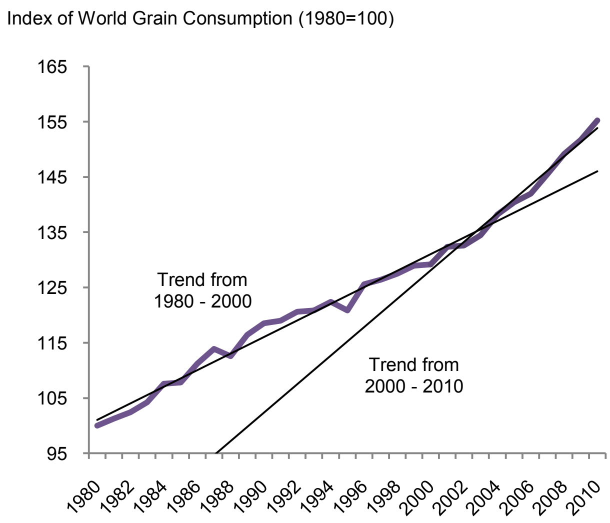
Growth in emerging economies remains robust but is likely to moderate as inflation concerns lead to more decisive policy normalization in 2011. Given China's role as one of the Thailand's main sources of external demand growth since the global financial crisis, efforts to cool its economy and curb inflation through monetary measures and tighter controls on bank lending are likely to moderate import growth. Indeed, Chinese import demand has already slowed and leading indicators have been declining (Figure 15). On the other hand, China's influence in global demand will also help moderate the rise of commodity prices. Growth prospects in ASEAN remain favorable and the region is emerging as an important market for final goods exports from Thailand (Figure 16 and Box 2). However, as a whole the region is dependent on exports, especially to G3 economies and China.

Figure 17. Oil Prices have surged since the beginning of 2011.



Source: DECPG and World Bank staff calculations

Figure 18. World grain consumption has accelerated since 2000.



Source: US Department of Agriculture and staff calculations

Recently the global economic outlook has been dominated by high energy prices. Ongoing political turmoil in the Middle East and North Africa has driven oil prices higher (Figure 17). As Thailand's largest import, the prices of crude oil potentially play the largest factor developing inflationary pressures. Although oil prices are likely to recede following a resolution to the political turmoil, oil prices have been on a secular upward trend since the 2000s reflecting the higher demand from fast-growing emerging economies, a pattern that may have moderated but has not reversed. In addition, fuel prices will be pressured by the medium-term switch away from nuclear power to fossil fuels in Japan and elsewhere following the damage caused by the Japanese tsunami to the Fukushima nuclear plant.

Commodity prices are expected to remain firm and could head higher if oil prices continue to increase. Commodity prices have been increasing since mid-2010 (Figure 17). Although this is partly driven by short-term factors such as investors targeting commodities as an asset class in a low interest rate environment, agricultural commodity prices appear to be in a secular upward trend. Food commodities, for example, are up 60 percent in the second half of the 2000's compared to the previous two decades. Most of this increase can be explained by the three-fold increase in nominal energy prices in the same period. This is due to demand for some food crops for biofuels from the US, Europe and Brazil, but also to oil's role as an input to agricultural production (notably via fertilizers but also logistics). In addition, world consumption of key commodities has accelerated, partly due to secular trends towards greater urbanization and higher growth in developing countries (Figure 18). Furthermore, on the supply side more volatile weather patterns have led to more frequent shocks to commodity supply. These structural changes suggest prices are likely to remain firm.

Box 2. Thailand's Economic Performance in Regional Context[1]

The growth momentum in crisis-affected East Asian economies deteriorated noticeably mid-2010 with Thailand underperformed all others. Average quarter-on-quarter, seasonally-adjusted growth in the six economies that faced a recession during 2008-09 was negative 0.8 percent in the third quarter of 2010, compared to a healthy three percent in the first half of that year (Figure 19). South Korea and Taiwan (China) managed to avoid the contraction in the third quarter, while Thailand suffered another, though much milder, recession mid-year.[a] In all cases, subdued external demand mainly underpinned the slowdown. But in Thailand, modest destocking in the second quarter of 2010 that followed a notable stock accumulation in the first quarter was also a driving force.[b]

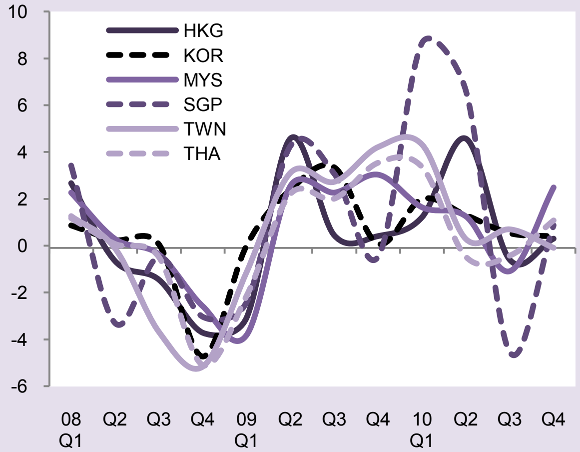
But except for Hong Kong SAR (China), the export slump proved temporary and the subsequent rebound was relatively synchronized and moderate. The standard deviation of sequential growth in the final quarter of 2010 dropped to the lowest level since late 2007. Thailand's sequential growth picked up to 1.2 percent in the fourth quarter of 2010 which was the strongest rebound after Malaysia (Figure 19). But the pace was still below the historical, fourth-quarter growth of 1.8 percent during 2002-07. Revived exports, and to a lesser extent sustained private consumption, fuelled the turnaround.

Comparing current output levels with pre-crisis peaks, Singapore has made the most progress among the economies considered (Figure 20). Cumulative growth over 2010 amounted to 12 percent for Singapore, compared to 4-6 percent in the other five economies. As a result, economies exceed pre-crisis output levels within a range from 3 to 10 percent (4.3 percent for Thailand).

[1] Prepared by Vatcharin Sirimaneetham.

Figure 19. Crisis-affected economies slowed in the third quarter but rebounded afterwards

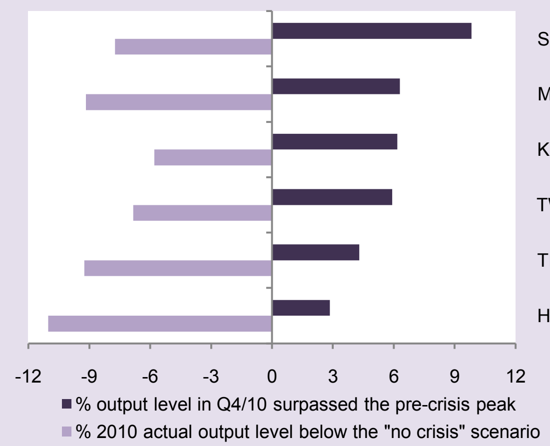
Quarter-on-quarter, seasonally-adjusted GDP growth (percent)



Source: Haver and World Bank staff calculations.

Figure 20. Current output levels are well below the levels that would have been without crisis

Percent change

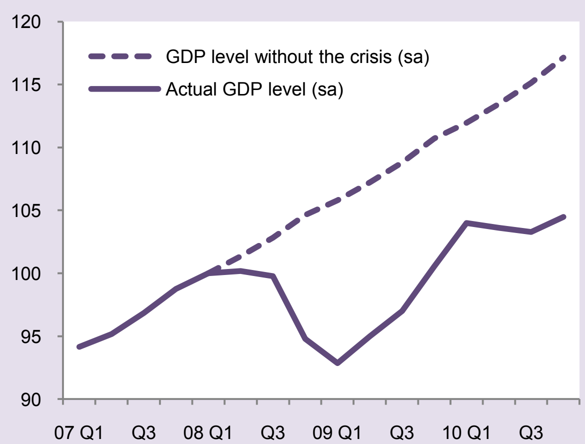


Source: Haver and World Bank staff calculations.

None of the countries, however, has made up for the lost output as a result of the crisis (Figure 20). For all economies, 2010 output levels remained well below counterfactual levels that would have transpired if there had not been a crisis. These levels were approximated by assuming that growth would have been sustained at the average rate observed during 2002-07.[c] For instance, Thailand's GDP level in 2010 was over nine percent below this counterfactual "no-crisis" level—middling relative to regional peers. Delving more deeply into the drivers of Thailand's underperformance relative to counterfactual, we extrapolated what the levels of individual expenditure components would have been in the event of no crisis. Based on this analysis, it appears that the loss in output can be primarily attributed to Thailand's export and fixed investment performance, which each would have been 20-21 percent higher.

Figure 21. The mid-year decline in Thailand was a set-back in recovering lost output during the crisis

Actual and simulated GDP levels (sa) based on "no-crisis" assumption. Q1 2008=100



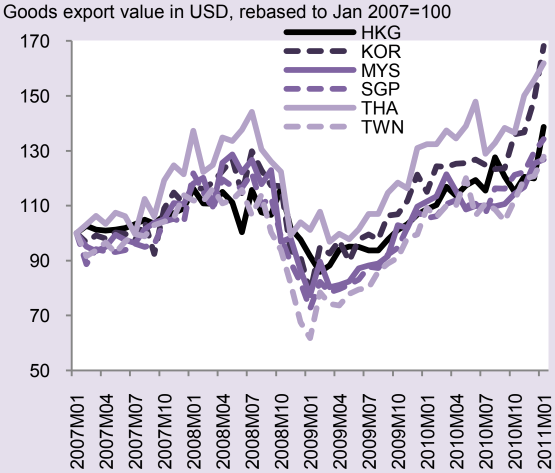
Note: No-crisis scenario shows output levels that would have been had quarterly growth been sustained at the mean rate during 2002-07.
Source: Haver and World Bank staff calculations.

The softness in mid-year 2010 interrupted Thailand's growth momentum, which widened the gap with counterfactual output (Figure 21). Thailand would achieve the hypothetical "no-crisis" output level if future sequential growth outpaces the historical speed for several quarters. This was the case during the final quarter of 2009 and the first quarter of 2010 (by up to 1.9-2.3 percentage points) when the global economy rebounded more forcefully than most analysts had anticipated. The fourth quarter 2010 performance made up for some of this set-back, but not completely. Looking ahead, considering that the world economy may be converging into a 'new normal', achieving pre-crisis growth trends is already challenging. To grow even faster would require a fundamental shift from historical patterns.

Thailand's export performance has generally outperformed other crisis-affected countries along the recovery path mainly due to the price effects (Figure 22). The co-movement of merchandise export volume among the six economies is pronounced (Figure 23) but less so for export values. Thailand's seasonally-adjusted export value in February 2011 was over 70 percent higher than the January 2007 level. This compared to a mean of 35 percent in the other economies. Stronger recovery in Thailand's export value is attributable to favorable export prices since recovery in export volume remains more sluggish than all others except Malaysia. Thailand's overall export prices have generally trended upwards since mid-2009, while being rather stable in other economies. Agricultural prices appear to be the driving force, which jumped close to 60 percent between April 2009 and January 2010 on a seasonally-adjusted term, and another 30 percent between May 2010 and February 2011.

Figure 22. Recovery in Thailand's export value has generally outperformed others…

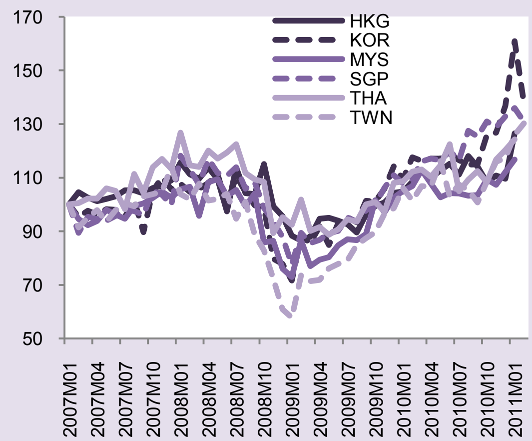
Goods export value in USD, rebased to Jan 2007=100



Source: DECPG and World Bank staff calculations.

Figure 23. …which initially benefited from volume growth and later favorable prices

Goods export volume in USD, rebased to Jan 2007=100



Source: DECPG and World Bank staff calculations.

But stronger export recovery in Thailand did not translate into a narrower gap between the actual and counterfactual output levels due to weaker domestic demand and import dynamics. Although Thailand has so far enjoyed a more powerful export recovery than other crisis economies, Figure 20 above showed that South Korea, Taiwan (China) and Singapore are now closer to their hypothetical 'no-crisis' output levels. This is partly because imports also rose more robustly in Thailand, so net exports contributed more negatively to growth in 2010 relative to others. Net exports indeed supported output growth in South Korea and Taiwan (China) last year. Another factor is a more subdued private domestic demand in Thailand, particularly private consumption and fixed investment. The decline in speeds that these two items grew on a sequential basis since the crisis hit compared to the pre-crisis years is more noticeable in Thailand than in others.[d]

Notes

[a] Cumulative sequential growth in the second and third quarters of 2010 was negative 0.7 percent, compared with negative 7.4 percent between the third quarter of 2008 and the first quarter of 2009.

[b] The role of change in stocks in these six economies, which was particularly pronounced in the crisis, subsided steadily after reaching the peak in Q1/2009. But the inventories-to-GDP ratio of 3.6 percent in the second half of 2010 was still much higher than the pre-crisis trend of 1.4 percent during 2002-07.

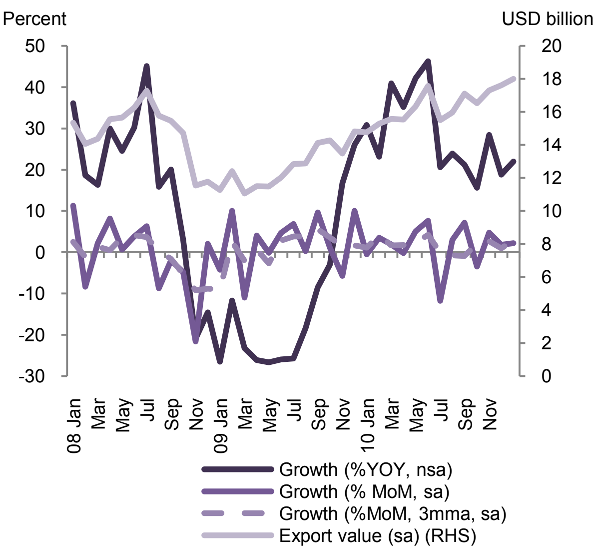
[c] For example, Thailand's sequential growth in Q3/2010 is assumed to be 1.5 percent, which is the mean third-quarter growth during 2002-07. This compares to an actual of -0.3 percent. Using medians rather means does not materially change the estimates, except in the case of Singapore where the gap between the actual and counterfactual output levels rises from 7.7 percent based on means to 10.4 percent based on medians.

[d] The mean sequential growth of private consumption in Thailand dropped from 0.6 percent between Q1/2002-Q2/2008 to 0.3 percent between Q3/2008-Q4/2010. These figures for fixed investment are 0.4 and negative 0.1 percent respectively. In contrast, both components remained largely resilient throughout the turmoil in Taiwan (China) for example. The shares of domestic demand in GDP are not excessively different across these economies.

2.2.2 Merchandise Exports

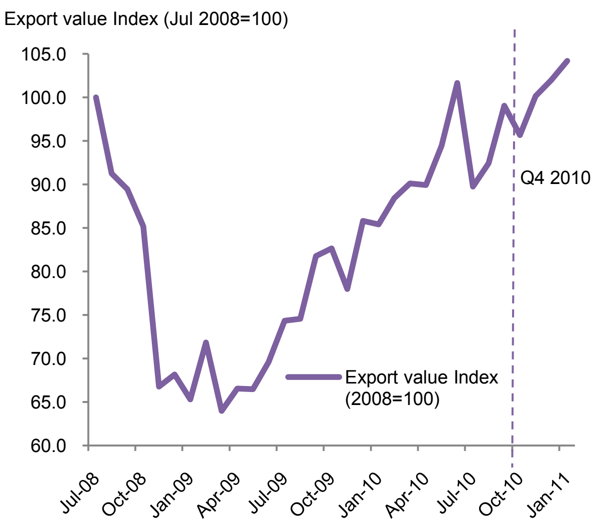
Export growth held up well in the second half of 2010 despite the expected post-rebound slowdown and fears related to currency appreciation. Following the waning of the global inventory restocking cycle, exports declined sharply in July (Figure 24). However, despite concerns about Baht appreciation and floods that reduced agricultural output, exports resumed growth in August, with year-on-year growth staying around 20 percent on average during the second half of the year. Seasonally-adjusted shipment levels surpassed USD 18 billion in December 2010, matching and then later surpassing the June 2011 post-rebound peak (Figure 25). While E&E shipments slowed down markedly with the end of the restocking cycle, auto and agricultural exports supported growth. Export value (excluding volatile jewelry items) remained robust into 2011, growing at 22 percent and 24 percent in January and February, respectively, driven by gains in regional exports, a more diverse export basket of high value goods, and increased export volume across industries.

Figure 24. Exports were volatile in the third quarter, but grew steadily in the fourth quarter.



Source: MoC, BoT, and World Bank staff calculations.

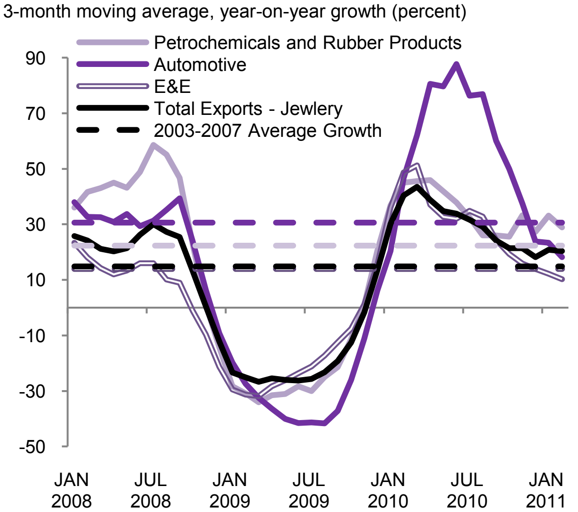
Figure 25. Following a drop in July, export values reached new all-time highs in Q4.



Source: Bank of Thailand and World Bank staff calculations.

Export performance across the petrochemical, E&E and automotive sectors is returning to pre-crisis levels. Growth in these key sectors decelerated toward patterns that are more in line with the average growth in the pre-crisis period of 2002-2007 (Figure 26). Petrochemical exports expanded by 29 percent in December 2010/February 2011 from the previous year, compared to an average of 22 percent during the pre-crisis period. This strong performance is linked to the fact that most exports are directed to East Asia, which accounts for 2/3 of petrochemical exports (Figure 27). E&E, which remains Thailand's main export, saw annual export growth decline to 10 percent, below the pre-crisis average of 14 percent. This partly reflects the role of demand from advanced economies, which remains sub-par. The automotive sector dipped below its high pre-crisis average growth (31 percent) since December (to 18 percent in the December/February period). This slowdown is coming on the heels of breakneck growth, however: auto exports are now 41 percent above the 2007 average compared to 28 percent for overall exports. Similarly to petrochemicals, export markets for the auto sector are focused mainly in ASEAN, but the success of Nissan's initiative to sell to the Japanese market could offer an additional avenue for growth and signals an adequate quality of the vehicles produced in Thailand. The auto and E&E sectors are expected to feel a significant impact of the earthquake in Japan and exports are likely to slow further in the second quarter.

Figure 26. Export growth cooled, but remains above average overall.



Source: Bank of Thailand, and World Bank staff calculations.

Figure 27. A larger share of exports to the region and higher input costs are linked to growth in petrochemical exports.

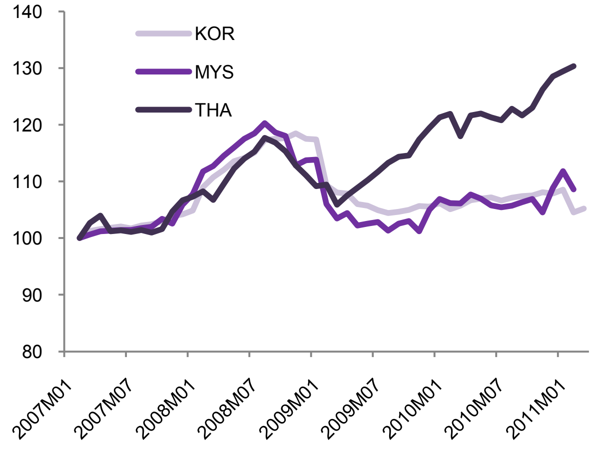
Source: MoC, BoT, and World Bank staff calculations

Export values have been increasing, helped only to a limited extent by higher commodity prices. Thai export prices have been increasing at a faster pace compared to regional peers (Figure 28). This has been in part due to higher global commodity prices, which have risen 32.4 percent (year-on-year) up to January. But because agricultural exports account for only 11.5 percent of export value[2], removing the effect of rising commodity prices still shows export value growing on average 40 percent since the onset of the crisis in November 2008 (Figure 29). This suggests that price gains in other sectors (especially petrochemicals and autos) must account for higher overall export prices. Nevertheless, in recent months gains in agricultural commodity prices have contributed a larger share to export value growth, helping offset the spike in oil prices on Thailand's trade accounts.

[2] As of January 2011

Figure 28. Prices of Thai exports have increased compared to other countries in the region.

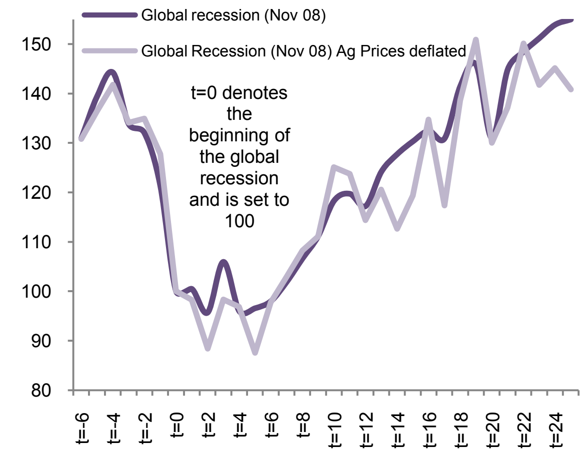
Index of export prices (January 2007 = 100)



Source: DECDG and World Bank staff calculations.

Figure 29. Higher commodity prices supported export value growth only recently.

Index of monthly export value adjusted for seasonal fluctuations.

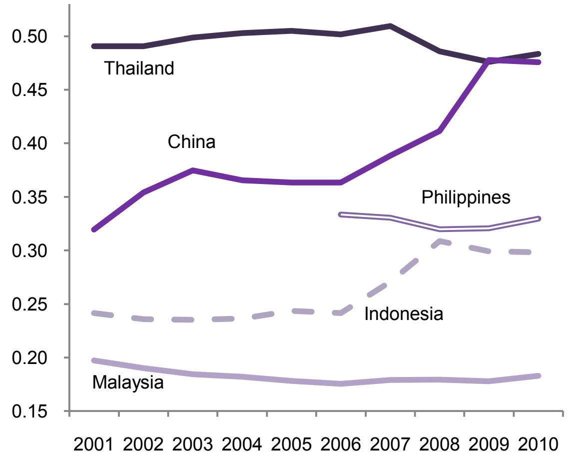


Source: MoC, BoT, and World Bank staff calculations

Higher export prices are mainly linked to export diversification towards goods with favorable price changes. The Thai export basket has displayed some diversification since the onset of the crisis (Figure 30).[3] Regionally, Thailand was the only country to see a measured change towards a more diverse export basket. China and Indonesia, on the other hand, saw increased concentration. Thailand's export mix appears to have shifted towards product categories where pricing power allows higher input costs to be passed through to buyers (Figure 31). In the case of autos, this may also reflect the relative increase in exports of higher-valued passenger vehicles vis-à-vis pick-up trucks. These shifts help explain the earlier finding that Thailand's export prices have had the most favorable dynamics in the region. See also Box 3 for a more detailed view on the contribution of export price changes towards export value changes for a number of product groups.

Figure 30. Thailand's export basket has diversified in the recovery period.

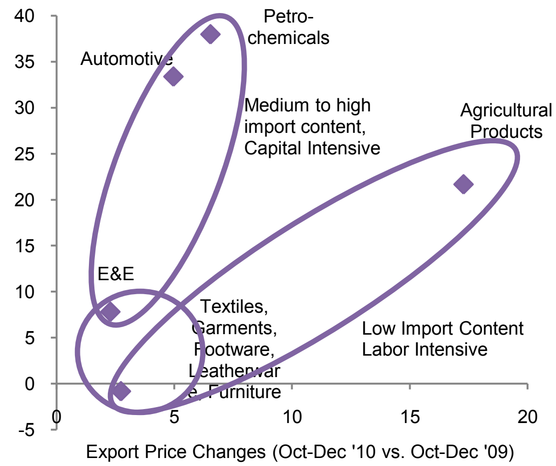
Herfindal Hirshchman Index for selected ASEAN countries



Source: MoC, BoT and World Bank staff calculations.

Figure 31. Thailand's export basket shows switch to goods with favorable price changes.

Nominal THB Export Value Oct-Dec '10 vs. 2007



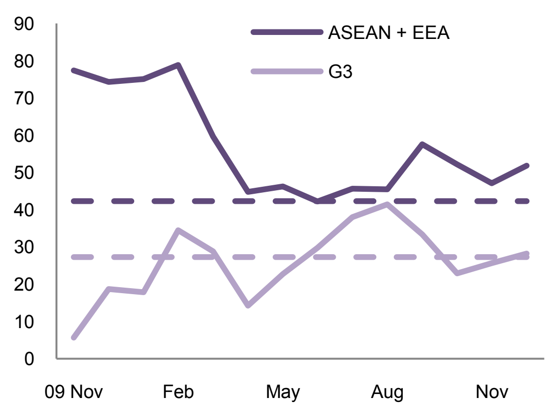
Source: BoT and staff calculations.

[3] An entropic measure of export product diversification where a high relative value indicates that export products are concentrated across fewer sectors.

The favorable performance of export prices is also linked to greater diversification of export destinations towards emerging economies. The contribution of demand from advanced economies to Thailand's export growth returned to its pre-crisis level, while the (higher) contribution from emerging East Asia (EEA) appears to have increased further**.** Demand from regional economies was critical to Thailand's export recovery. As Figure 32 shows, their contribution at the beginning of the recovery in November 2009 was far greater than the pre-crisis trend of around 45 percent during 2005-07. In contrast, orders from G3 economies were unusually weak. The gap shrank after May 2010, and by December levels had converged to their historical average. The contribution from emerging East Asia also converged towards its historical average, but edged up again since August and appears to have found a higher equilibrium level around 50 percent. Mirroring this development, EEA economies continued to gain market share (Figure 33). The growth in export shares to non-traditional markets has been associated with a greater share of final goods in Thailand's export basket, which suggests that the growth in regional trade reflects higher final consumption within the region in addition to buoyant trade within regional supply chains (Figure 34).

Figure 32. The contribution from EEA to Thailand's export growth has increased.

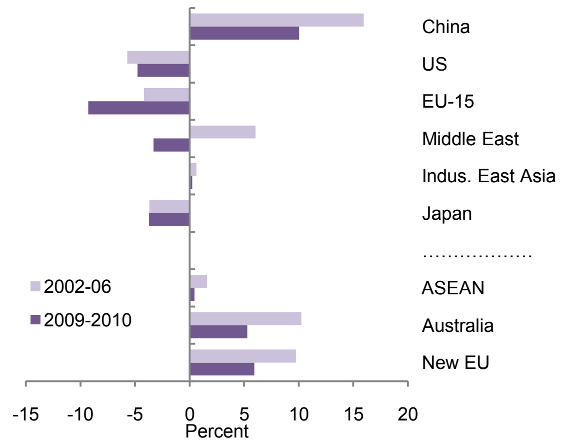
Contribution to year-on-year export growth (percent)



Source: Bank of Thailand and World Bank staff calculations.
Note: EEA (Emerging East Asia) includes China, South Korea, Taiwan (China), and Hong Kong SAR (China).

Figure 33. Australia, new EU members and China continued to gain market share.

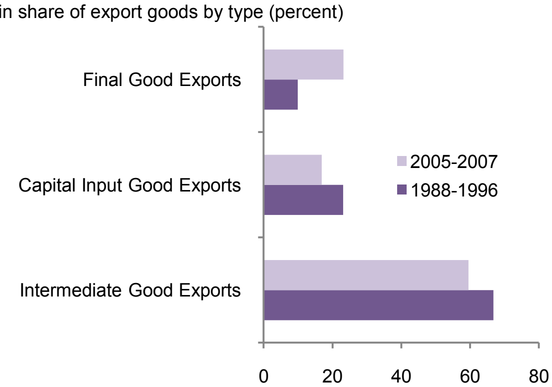
Changes average annual market shares (percent)



Source: Bank of Thailand and World Bank staff calculations
Note: Industrialized East Asia includes South Korea, Taiwan (China), and Hong Kong SAR (China)

Figure 34. The share of final goods exports has increased.

Changes in share of export goods by type (percent)

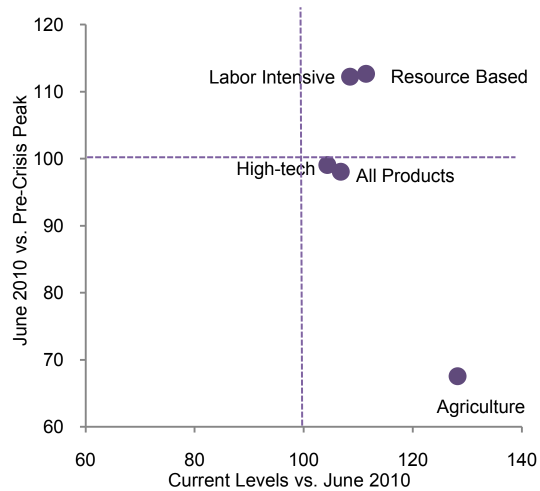


Source: Source: MoC, BoT, and World Bank staff calculations
<u>Note</u>: Broad categories defined by the United Nations Broad Economic Categories (BEC v.2).

At the end of the restocking cycle in June 2010 export volumes had yet to return to pre-crisis levels, but broad-based growth since then led to new peaks for most export categories. After dropping to 70 percent of its pre-crisis peak, export volume recovered most lost ground by the end of the global restocking cycle in June 2010 (Figure 35). Volumes of agricultural exports were particularly low due to the severe drought that affected the country in the first half of the year, whereas exports of labor intensive goods (which include volatile jewelry exports) and resource-based goods such as petrochemicals had already exceeded their pre-crisis peaks thanks to a higher share of exports to emerging economies. High tech exports were dragged down by E&E and despite the rapid growth in auto exports. Although export volumes dropped sharply in July, they continued to grow and by February of 2011 shipments across nearly all categories exceed their pre-crisis peak. High tech exports again have lagged, while agricultural exports recovered strongly from the drought. However, they remain below the pre-crisis peak due to the floods in the second half of 2010.

Figure 35. Export volumes saw broad-based growth following the end of the restocking cycle.

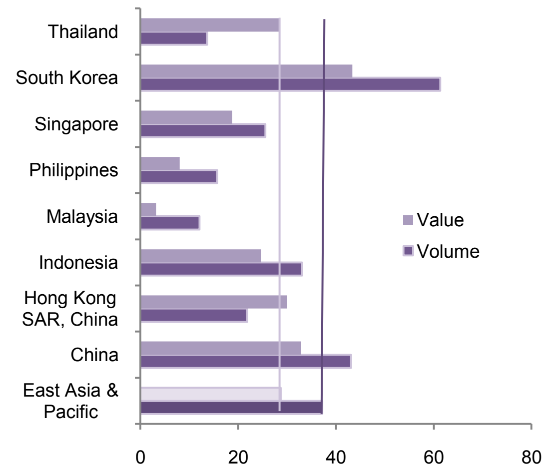
Ratios based on indices of export volume, seasonally-adjusted.



Source: BoT, MoC and World Bank staff calculations.

Figure 36. Growth in export value is in line with the regional average, but volumes lagged.

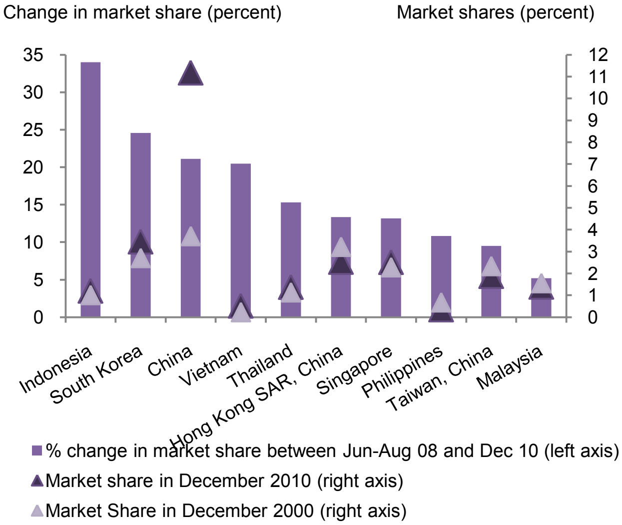
Changes in export value and volume from 9/2008 to 1/2011 (percent)



Source: DECPG and World Bank staff calculations.

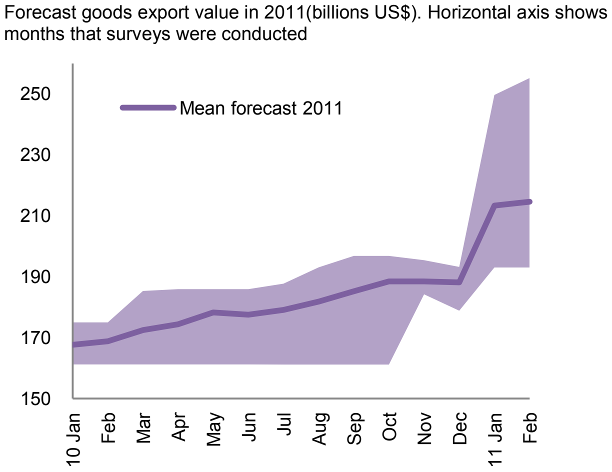
Thailand's export volume growth continues to under-perform neighboring countries but export value growth keeps pace thanks to higher prices, leading to a growing global market share. While all countries have experienced growth in export values and volumes since the recession, Thailand is one of the few economies in the region along with Hong Kong where export value has exceeded the growth of export volume (Figure 36). This is in line with the earlier findings about the shift towards exports with better pricing power, since it also suggests that exporters were better able to pass through the effects of currency appreciation compared to its neighbors. As a result, Thailand increased its share in global exports by 15 percent since the onset of the crisis (Figure 37), about average among neighboring countries, as developing East Asia continues to gain market share in global exports.

Figure 37. ASEAN economies are gaining global market share.



Source: BoT, MoC and World Bank staff calculations.

Figure 38. The outlook for 2011 has improved since December.



Source: Consensus forecasts and World Bank staff calculations.

Export growth will only gradually normalize, but remain below average in 2011 as advanced economies continue to recover. Thailand's export growth will continue to gradually normalize, with exports projected to expand by 7.3 percent for 2011. This is an upgrade from earlier projections, in line with market expectations, which have improved substantially since December reflecting primarily an improved outlook for the U.S. economy (Figure 38). The improved outlook for the US economy means G3 economies will become less of a drag in the global import demand, but the earthquake in Japan is likely to have a negative impact on exports. Growth in demand from emerging economies helps keep the reduction in export growth limited, but cannot yet fully replace it, especially since contribution from emerging East Asia is expected to decelerate, as China begins cool its economy in attempts to curb rising inflationary pressures. One can also point to growth global trade volumes (which Thai exports follow closely) improving but remaining below average to illustrate the drag from the muted outlook for advanced economies. Thailand's exports should however be bolstered by the growth of exports to non-traditional markets in ASEAN and Latin America with the implementation of the Thai-Peru FTA agreement in place. The relative switch of Thailand's export basket towards agricultural, petrochemical, and automotive products will also support export value growth and help mitigate higher oil prices.

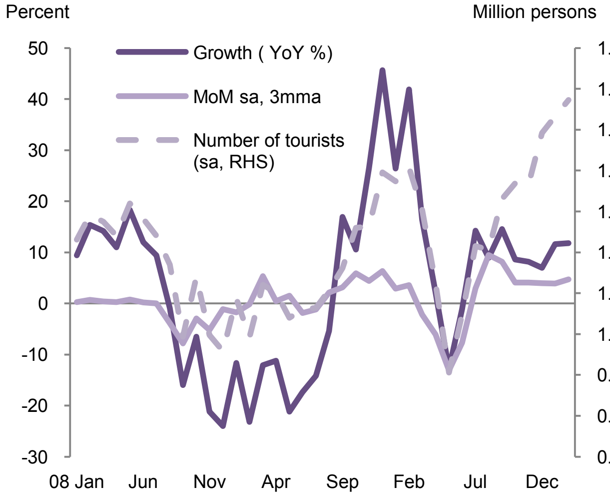
Box 3. A More Detailed Look at Export Price Changes

The sectoral breakdown of the key export sectors by value, volume, and price indices supports the argument that export value in the automobile, petrochemical, and agricultural sectors were driven by a rise in the price index. In the case of petrochemicals and agriculture, increases in the price index are linked to higher global prices for these products. The case of autos is more interesting, as it more likely reflects a relative switch towards higher value passenger cars from pick-up trucks.

2.2.3 Exports of Services

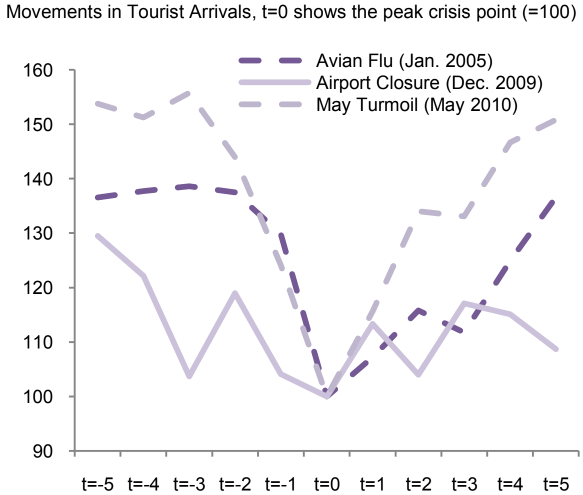
Tourism rebounded in 2010 following the political turmoil of April and May. Tourist arrivals reached a new high of 1.57 million arrivals in February 2011 (Figure 39), up 74 percent from May levels and 12 percent above the peak before the political turmoil. Unlike the impact of the financial crisis and airport closure, which depressed the number of tourist arrivals over nearly a year, the political crisis did not appear to damage the attraction of Thailand as a tourism destination as severely (Figure 40). The pace of growth cooled however, in line with regional trends as international tourist arrivals to Southeast Asia, which grew 12 percent overall. While the political situation in Thailand currently appears to be in a relatively stable position, the sector still has recently suffered from floods in the South that affected major tourist destinations such as Samui Island.

Figure 39. Tourists continue to return to Thailand in record numbers.



Source: Bank of Thailand and World Bank staff calculations.

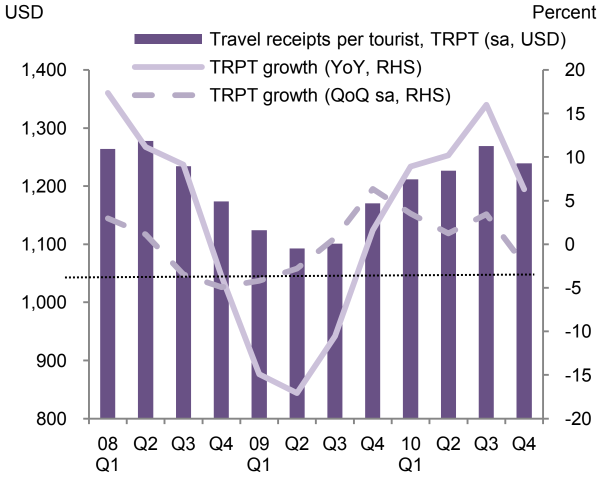
Figure 40. Recovery was faster than in previous shocks that hit the tourism sector.



Source: BoT and World Bank staff calculations.

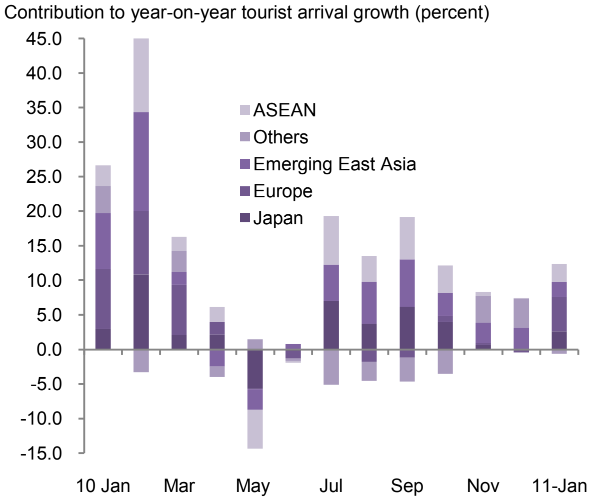
Travel receipts per tourist declined in the fourth quarter and are still below levels observed before the global financial crisis (Figure 41)**.** The decline in revenue per tourist appears to be a secular trend related to the change in the composition of tourists away from OECD economies and towards emerging East Asia. The trend in decreased tourist receipt growth also seems to be in line with noticeable increases of tourism growth of neighboring countries (Laos, Cambodia, Myanmar, and Vietnam) as some tourists opted to spend a larger portion of their time outside of Thailand. In addition, tourists also appear to be spending less time in Bangkok. Foreign guest arrivals at accommodation establishments in Bangkok declined 34 percent in the fourth quarter but were offset by growth in popular southern tourist destinations (Krabi, Phuket, and Koh Phangan) which saw arrivals grow between 15 and 40 percent from the previous year. The demand for rural destinations also seems to have risen as access to destinations outside of Bangkok has become considerably easier with the advent of low cost air carriers and the proliferation of accommodation choices outside of the capital.

Figure 41. Tourist receipts declined in the fourth quarter…



Source: Bank of Thailand and World Bank staff calculations.

Figure 42. …partly as a result of a structural switch in the composition of tourist arrivals.



Source: Bank of Thailand and World Bank staff calculations.

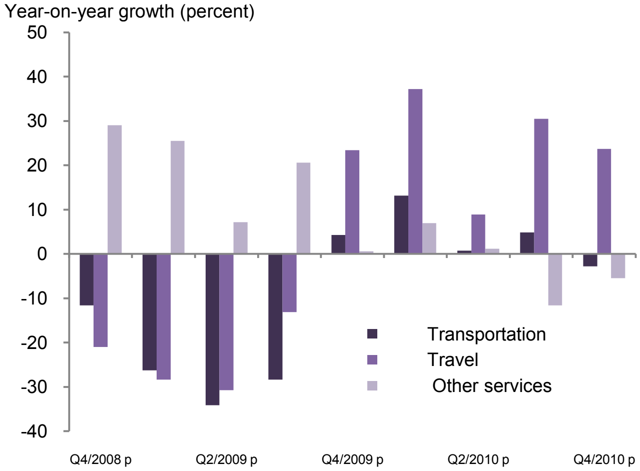
In line with the fall in tourist receipts, traditionally high spending European tourists have contributed less to growth compared to lower-spending East Asian tourists, who tend to have shorter stays and spend less per capita (Figure 42). The decline in the growth of European tourists is linked to the sovereign debt crisis in the EU's periphery, which has led to subdued income growth and a higher volatility of the Euro against East Asian currencies. The decline in European tourists has been offset by a rise in regional tourism from ASEAN (predominantly Malaysia) and East Asia (Japan and Korea) who in January 2011 contributed a share of over 40 percent to tourist arrival growth. Chinese tourists have also become a large market for the Thai tourism sector following a waiver of visa fees for Chinese tourists in early 2009. The number of Chinese tourists rose 45 percent in 2010 from 2009. Although the boost in regional tourism has a boon for the Thai tourism sector, average accommodation costs fell a further 2 percent[4] in 2010 with the rising supply of accommodations.

Despite record number of tourists and higher travel receipts, service exports declined year-on-year in the fourth quarter. Unusually, notwithstanding large volumes of merchandise exports and tourist arrivals, transportation receipts declined in the fourth quarter, perhaps reflecting a relative switch towards low-cost and foreign carriers (Figure 43). In addition, the appreciation of the Thai baht eroded nominal gains (nominal service receipts were up 11 percent in US dollars, but virtually flat in nominal Thai baht). The sector has limited pricing power and is unable to pass through currency appreciation to customers due to the large capacity and elastic demand as tourists from advanced economies also become more price-sensitive. Finally, an 18 percent drop in "other services", which comprise nearly 1/5 of Thailand's service exports, also contributed to the decline. Other services include professional and technical services such as IT outsourcing, legal, architecture, etc.

The creative economy could become a new source of growth for service exports. Royalties and license fees soared 146 percent in the fourth quarter compared to the same period in 2009 and receipts in 2009 and 2010 were 88 percent above levels registered in the 2007-2008 period. In part, this is due to exports of television programs to China, where Thai entertainment has attracted substantial interest recently due to the cultural affinities between the two nations and attractive production values.

[4] Based on the Hotel Price Index survey by Hotels.com

Figure 43. Transportation receipts declined despite growth in exports and travel receipts.



Source: Bank of Thailand and World Bank staff calculations.

The outlook for growth in services exports remains favorable, but competitive pressures in tourism will increase. The outlook for the tourism sector is relatively benign as advanced economies continue to recover, which would support the return of high-spending tourists from those countries. In addition, growth of tourism from the region is expected to continue apace as consumers have more disposable income. However, the improvement in infrastructure and connections to neighboring countries such as Cambodia, Indonesia and Laos, as well as the potential for greater political stability in Myanmar suggests that the trend of “diluting” trips to Southeast Asia across different countries in the region is likely to continue. In addition, environmental concerns are also likely to weigh on the outlook as demonstrated by the recent floods in the South and the closure of marine parks to allow coral reefs to recover. This outlook suggests that Thailand should consider promoting growth of other service exports, including those related to the creative economy such as architecture, music, film and television programming.

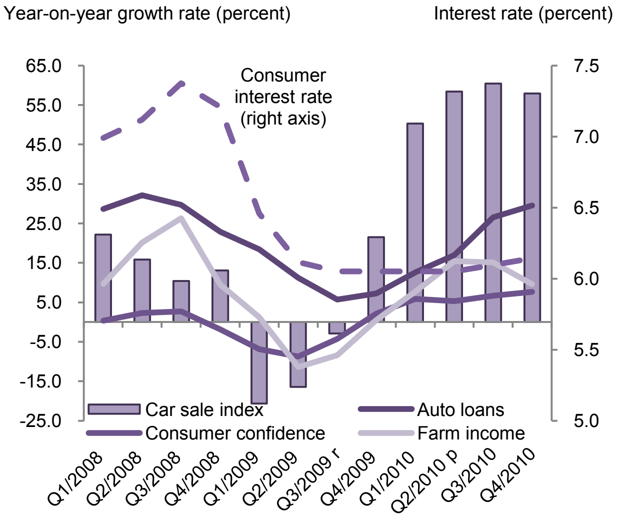
2.3 Domestic Demand

Domestic demand has been a key driver of GDP growth following the end of the post-crisis rebound. Private consumption, net of imports of consumer goods, rose by 3 percent in the fourth quarter. Sales of transport equipment remained buoyant, expanding 18 percent in the quarter. Private investment slowed down from the previous quarter, but the domestic value added increased as import of capital goods slowed more than overall equipment investment. Higher domestic sales of vehicles and capital goods absorbed some of the growth in manufacturing output that previously relied on external demand. Further supporting domestic demand, construction (both public and private) expanded by 10 percent. Overall, domestic value added consumed or invested in Thailand expanded a robust 8 percent in the fourth quarter. In the three quarters since the end of the rebound, domestic demand contributed 180 percent of GDP growth (i.e., it offset a decline in external demand). This compares to 34 percent during the rebound and 21 percent during the 2006-2008 period. Looking forward, domestic demand is expected to carry the positive momentum into 2011 due to firm agricultural prices (and farm incomes) and accommodative fiscal and monetary policies, though higher inflation poses a significant risk.

2.3.1 Household Consumption

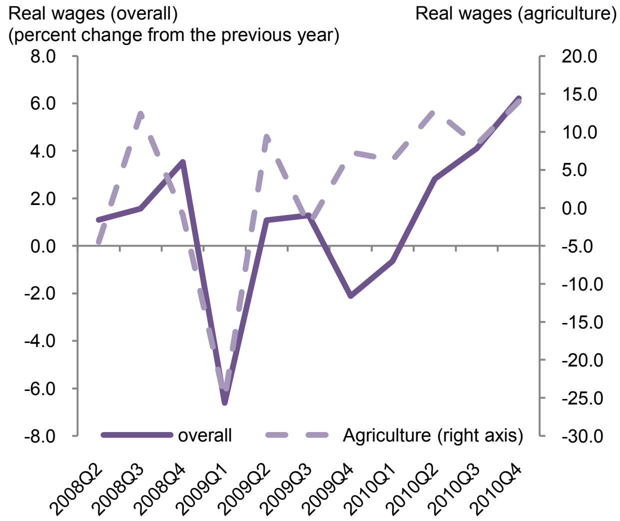
Household consumption continued to expand in the fourth quarter of 2010 driven by solid agricultural incomes, higher consumer confidence and still-low interest rates. The growth in household consumption was linked to record domestic sales of vehicles. In December 2010, the sale of passenger vehicles grew at an unprecedented rate of 76.5 percent year-on-year. Higher agricultural incomes increased the purchasing power for rural buyers, while also raising wages in the sectors which have to compete with agriculture for labor. Together with generally low interest rates and ease for auto loans, the rising purchasing power accounted for the high demand for new passenger vehicles (Figure 44). Higher agricultural prices also increased incentives for rural households to purchase pick-up trucks, which is partially an investment as it helps farmers transport inputs as well as their crops to the market. Sales of other durable goods were also up, leading household electricity consumption to reach new peaks in 2010. Household energy surveys suggest that electricity consumption has grown due to increased usage of electrical appliances, primarily air conditioners and refrigerators in average Thai households.

Figure 44. Consumption growth was the result of higher farm income and low interest rates.



Source: UTCC, BoT, and World Bank staff calculations.

Figure 45. Agricultural wages correlate with overall wages for unskilled workers.



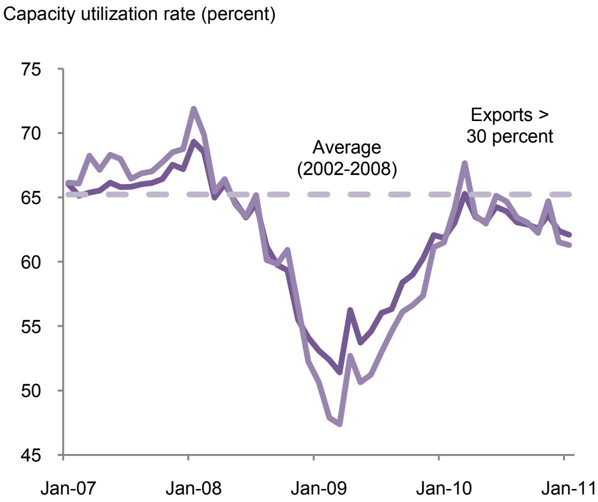
Source: NSO, MoC and World Bank staff calculations.

Firm agricultural prices, rising wages and accommodative fiscal and monetary policies will support growth in household consumption in 2011. Although agricultural output has become increasingly subject to weather shocks, including news of renewed droughts in 2011, farm output is unlikely to decline further considering the large scale of last year's shocks. Meanwhile, prices of agricultural commodities are likely to remain firm (see Section 2.2.1), leading to healthy growth in farm income and wages. In addition, recently-announced increases in guaranteed prices for farmers will further support agricultural incomes. Higher agricultural incomes are linked to higher wages for unskilled labor (Figure 45), and labor markets appear to be relatively tight (See Section 3.1), which bodes well for income gains. While the outlook for 2011 is positive, domestic consumption remains sensitive to the increasing cost of living, which could erode income gains. The consumer confidence index dropped slightly for the first time in February 2011 due to uncertainties resulting from rising fuel prices, the Thai-Cambodian border conflict, and more recently the floods in the South. Consumption may also be hampered by the expected further tightening of monetary policy. Finally, a repeat of last year's extreme weather patterns would also put a dent on consumption.

2.3.2 Private Investment

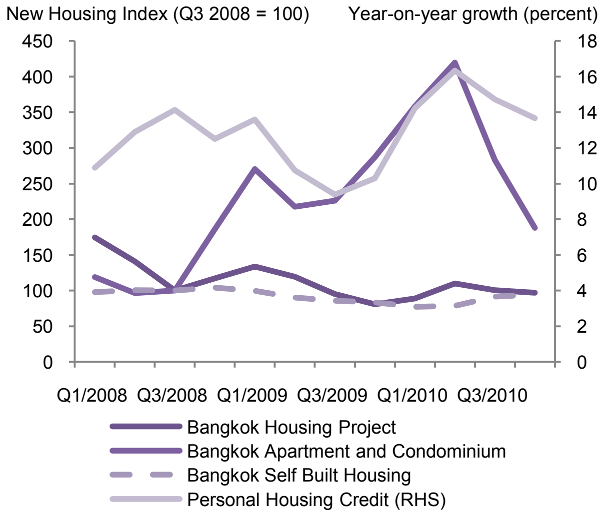
Private investment moderated in the second half of 2010 along with the slowdown in export demand. Private investment growth decelerated further to 9.2 percent in the fourth quarter of 2010 following year-on-year growth rates of 17.8 percent and 14.6 percent in the second and third quarters, respectively. Both equipment and construction investment grew slower in the fourth quarter, to 9.2 percent and 9.4 percent from, respectively, 15.2 percent and 12.8 percent in the third quarter. Private investment is most susceptible to changes in equipment investment which account for 78 percent of total private investment. Investment in equipment slowed down as a result of slower growth in the export of manufactured goods during the fourth quarter of 2010, as reflected in a decline in the capacity utilization rate of equipment in export-oriented sectors (Figure 46). Construction revived during the first half of 2010 before moderating during the third and fourth quarters. While tax incentives boosted demand for property during the first two quarters, revised loan limitations contributed to moderate demand in the second half of the year (Figure 47). Further investment in construction may be slowed by the rise in global raw material prices.

Figure 46. Capacity utilization in export-oriented sectors has trended downward since recovering from the crisis.



Source: OIE and World Bank staff calculations.

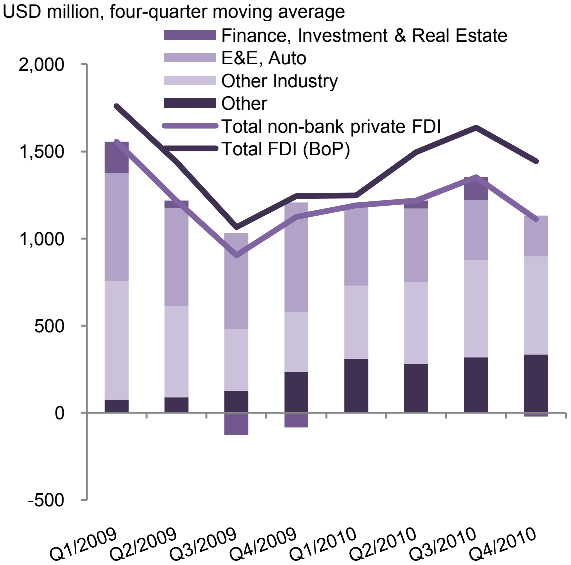
Figure 47. Growth in the property sector moderated in the fourth quarter on revised loan limitations.



Source: Bank of Thailand and World Bank staff calculations.

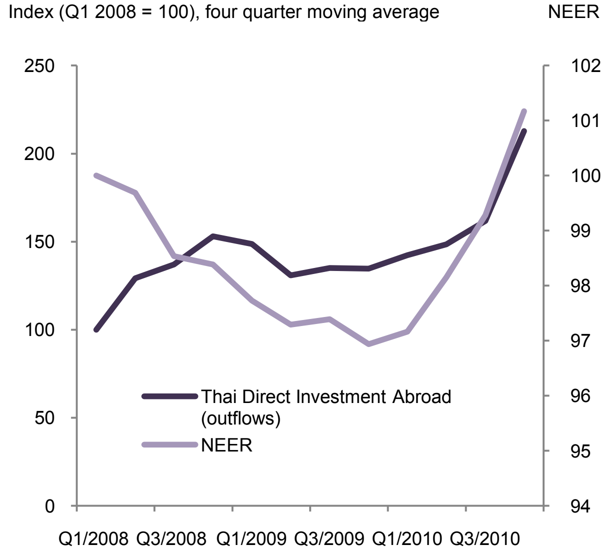
Investment growth is likely to moderate in 2011 but upside potential exists in the second half of the year. High capacity utilization in export-oriented sector and moderate growth of external demand suggest investment growth will moderate in 2011. Additional investments are likely in the auto industry, where a number of new projects have been announced, as well as the food industry, which has seen a surge in applications for BOI incentives. In addition, investment in domestically-oriented industries is likely needed as capacity utilization in those sectors has been tighter compared to the export-oriented industries and domestic consumption is projected to continue to grow during the year. It is possible that some investors remain on the sideline in advance of the upcoming general elections, currently expected for late June or early July. To the extent such pent-up investments exist, election outcomes that signal greater political stability going forward would lead to upside potential for investments in the second half of the year, especially if the global recovery remains on track.

Figure 48. FDI contracted in the fourth quarter…



Source: Bank of Thailand.

Figure 49. … but Thai investments abroad soared.

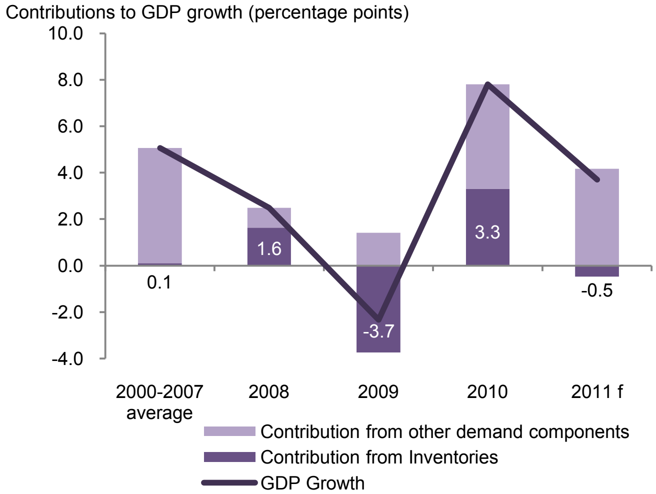


Source: BoT, BIS and World Bank staff calculations.

Private non-bank foreign direct investment (FDI) contracted by 66 percent in the fourth quarter due to large loan repayments in the real estate and financial sector. For the year, private non-bank FDI contracted by 1.1 percent (Figure 48). It is possible that the strong Thai baht and domestic credit conditions may have driven foreign subsidiaries to borrow domestically rather than rely on reinvested earnings or their parent companies. Overall FDI levels (including banks) were USD 1.3 billion higher than private non-bank FDI, supporting the view that investments of foreign companies may have been financed via domestic bank loans, including from foreign bank subsidiaries. On the other hand, Thai investment abroad soared as the strong baht as well as a relaxation of capital outflow regulations by the BoT resulted in foreign purchases by Thai companies exceeding USD 5 billion (Figure 49). Among the key transactions were Thailand PTT's USD 2.3 billion purchase of oil sands in Canada and Banpu's USD 1.68 billion successful bid for Australia's Centennial Coal. FDI inflows in 2011 are likely to be bolstered by large investments in the automobile industry. Investment growth in the automobile sector is expected to come from US and Japanese auto manufacturers who have committed to substantial expansions in anticipation of the ASEAN economic community in 2015. Mitsubishi and Ford have already announced investment plans of Thailand in 2011. On the other hand, investments by Thai companies overseas are expected to rise further in 2011, with large Thai conglomerates such as Siam Cement Group and PTT Chemical poised to expand regionally into Myanmar (see Box 4 on the Dawei Port), Cambodia, and Indonesia.

As growth becomes less volatile, the contribution of inventory investments should decline substantially in 2011. As a reflection of the volatility in GDP over the past three years, restocking contributed 42 percent of the 7.8 percent year-on-year growth rate registered in 2010. This followed oversized contributions in 2008 and 2009 (Figure 50). Historically, inventory makes as small positive contribution to growth since production capacity expansion is usually associated with an increase in the equilibrium level of inventories (although advances in inventory management act in the opposite direction). In 2011, as growth becomes less volatile, inventories are poised to return to this historical pattern of making only a small contribution to growth. The contribution is expected to be negative because in 2010 firms had to make up for massive de-stocking that took place in 2009.

Figure 50. A lower contribution of inventory investments to growth signals decreased volatility.

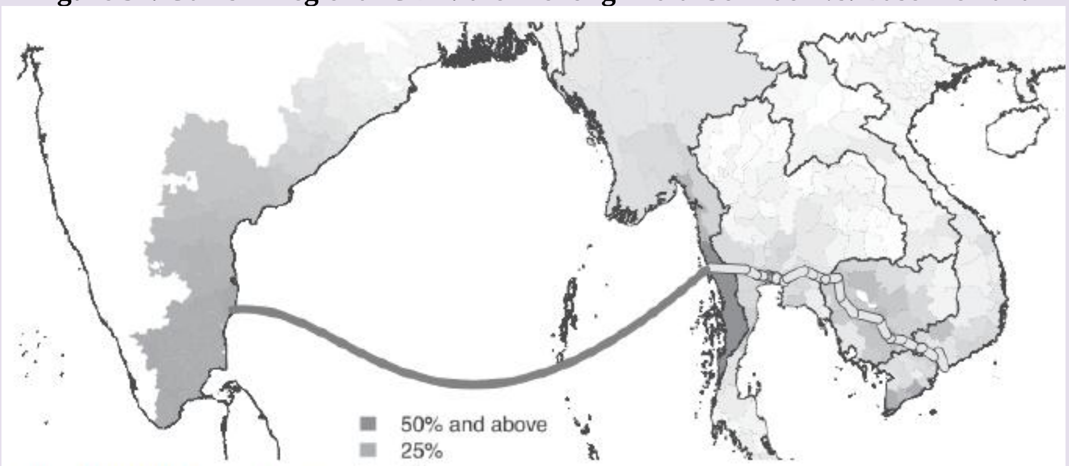


Source: NESDB and World Bank staff calculations and projections.

Box 4. The Port of Dawei

Thai companies have started large investments in a deep sea port in Dawei, Myanmar, as a way to decrease logistical costs of West-bound trade. Current sea trade routes originating in production hubs of Thailand's eastern seaboard and heading West must travel through the Malacca straits, which in recent years has become of increased risk from piracy and over-congestion. The port of Dawei (also known as Tavoy) is focal point of Mekong-India Economic Corridor (Dawei to Ho Chi Minh) situated in Southern Myanmar, less than 500 kilometers from Bangkok. When development of the port is complete in 2020, it will provide production hubs in Thailand with efficient access to markets in South Asia, Africa, and Europe (Figure 51). The port and surrounding special economic zone represents a 10-year project involving Thailand and Myanmar totaling USD 58 billion, with the first phase costing US$ 8 billion.

Figure 51. Gains in regional GDP: the Mekong-India Corridor vs. Baseline 2020



Source: IDE-JETRO GSM team.

The Thai government has prioritized the development of supporting infrastructure to the port with the road and rail links from Khanchanaburi province to the Dawei port set to be complete in 2011. The second phase of development will involve the development of the port itself through an agreement between Italian-Thai and the Myanmar Port Authority in a deal worth USD 6.73 billion. While there has been some doubt in the viability of the project due to political concerns and the lack of support from the world's major shipping companies, the Thai government has remained adamant on the project citing the potential economic impact the port will bring to the ASEAN region.

The construction of the Dawei port also serves as an entry point for Thai investments into Myanmar, as environmental and economic costs have limited potential for the development of heavy industries in Thailand. Thai firms such as PTT Chemical, Siam Cement Group and upstream steel companies have expressed considerable interest in expanding operations to the Dawei port in response to the environmental issues faced in Map Ta Put (Rayong, Thailand) and southern Thailand. The move is driven in part by incentives of greater access to Myanmar's rich resources in natural gas and iron ore in addition to China's commitment to build a rail link from southern China to the Dawei port. On the regional level, the relocation will also help facilitate the pending FTA agreements with India and BIMSTEC providing greater efficiency of Thai trade to South Asia and beyond.

Critics have expressed concern that while the port might make economic sense, it will be important to ensure that environmental and labor standards are adhered to. Environmentalists in the region have raised concerns about how to regulate Thailand's investment. In particular, environmental regulations in Myanmar are not as strict as in Thailand, and details of the environmental, health and social impact assessment tools to be used have not been disclosed. In February, a strike already took place among Myanmar construction workers, who complained about long work hours without overtime and differentiated treatment from Thai workers.

2.3.3 Public Investment

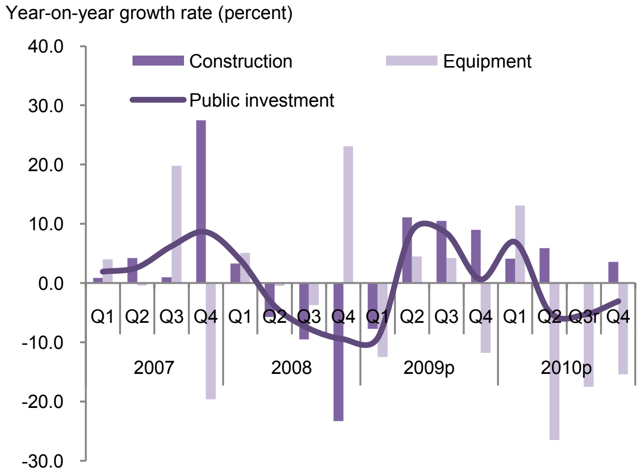
Public investment contracted for the third consecutive quarter between October and December mainly due to a reduction in equipment investment by SOEs. Public investment contracted by 2.2 percent in 2010 following modest growth of 3.7 percent in 2009 (Figure 52). This was driven by a 13.4 percent decline in equipment investment, primarily reflecting lower investments by SOEs. Overall, (nominal) SOE investments plummeted by 16 percent in 2010, likely driven by THAI International and PTT. Together, these two SOEs invested THB 27.1 billion less in 2010 compared to 2009.[5] To put that figure in context, total public equipment investment in nominal baht declined by THB 19.6 billion in 2010. THAI international had to be recapitalized in 2009 due to the global financial crisis and airport closure, and delayed its investment plan to return to profitability. PTT was directly affected by the Map Ta Phut court case: 1/3 of the suspended projects belonged to the PTT group and the PTT parent company had direct investments of THB 25 billion in two affected projects.

The TKK stimulus package compensated for a lower capital budget in 2010 and supported growth in public construction investment. Growth in public construction accelerated to 3.6 percent for the quarter (from 0.1 percent the previous quarter) and expanded 3.2 percent in 2010. The positive growth can be attributed mostly to TKK investment projects such as water resource management and rural road upgrades, as well as mass transit in Bangkok. TKK spending had the highest contribution to the overall

[5] Change in amount spent on "payment of property, plant and equipment," obtained from the financial statements of THAI and PTT.

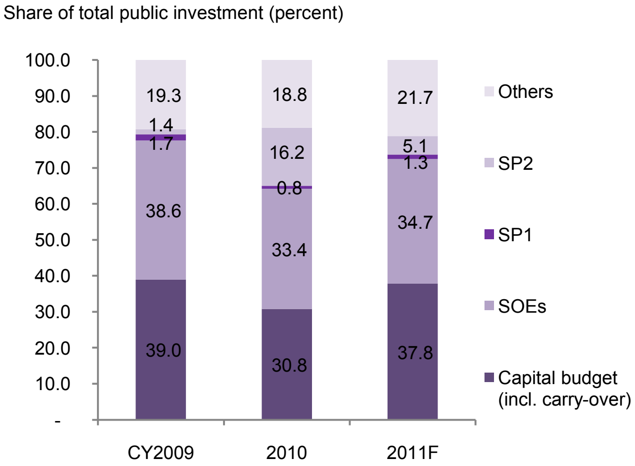
public investment in 2010 (Figure 53). The total approved budget for TKK[6] was THB 350 billion, of which THB 301 billion was approved for projects under seven areas[7] and the remainder was allocated to the agricultural insurance scheme and the central fund. Actual investment spending was approximately 40 percent of the total. As of April 1st, 2011, the disbursement rate stood at 76 percent (229 billion out of 301 billion baht; Figure 54). In 2010, government investment (including local administrations but excluding TKK) contracted by 20 percent from the previous year. Including TKK investments, however, government investment increased by 6 percent, partially offsetting the decline in SOE investments

Figure 52. Equipment investment contracted due to lower investments by SOEs.



Source: NESDB and World Bank staff calculations.

Figure 53. TKK investments offset a reduction in the capital budget in 2010.



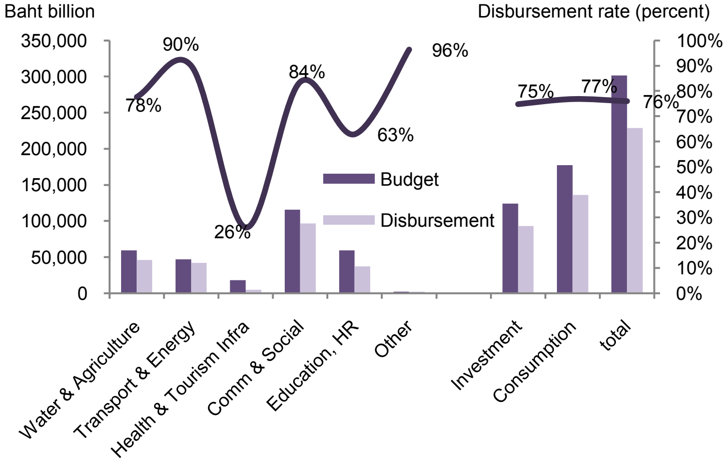
Source: FPO, PDMO, BOB, and World Bank calculations.

Public investment will expand in 2011 as SOE investments pick up. Although the capital budget in FY 2011 (October 2010 – September 2011) has been increased by 75 percent, once TKK is included overall capital expenditures of the central government are expected to be relatively flat and to increase only modestly with the FY 2012 budget. This includes foreign borrowing of USD 300 million for off-budget capital expenditures, which nevertheless would not replace TKK as a major contribution to public investment. Growth is likely to come from investments by local administrations and SOEs, whose budget is expected to increase by 26 percent from 2010. In addition to new investments by THAI and PTT, SOE investment may be bolstered by EGAT, which committed an additional 30 billion baht for construction of a coal power plant in northern Bangkok. The provincial electricity authority (PEA) also committed to a USD 13 billion investment over 15 years for implementation of a smart grid system.

[6] "TKK" refers to projects financed from the Emergency Decree authorizing the PDMO to borrow up to THB 400 billion, net of 50 billion baht allocated for the replenishment of treasury reserves. This does not include TKK projects that are financed from SOEs' retained earnings and budget.

[7] TKK projects are classified into 7 areas/objectives: (i) food and energy security, (ii) basic infrastructure such as transport, energy, communication, environment, (iii) income enhancement from tourist sector, (iv) new sources of income, (v) quality enhancement in education, (vi) quality enhancement in public health and (vii) job creation.

Figure 54. TKK investments offset a capital budget reduction and contributed to public investment growth.

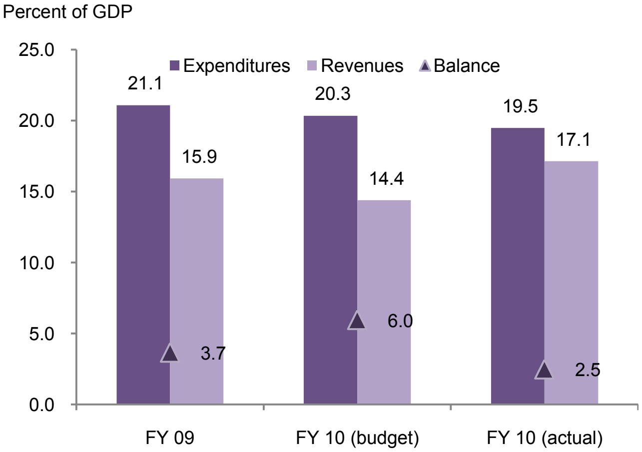


Source: CGD and World Bank staff calculations. (As of April 1, 2011)

2.4 Fiscal Policy

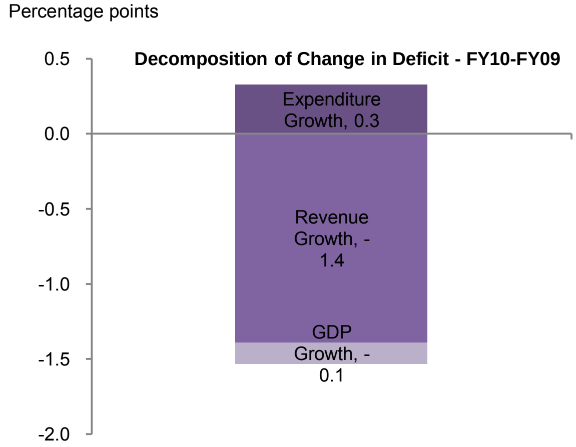
The actual budget deficit in FY 2010 (Oct. 2009 – Sept. 2010) was much lower than forecast (Figure 55)**.** This was primarily due to a surge in revenues but also to slow disbursements under the government's off-budget stimulus package that were only partially offset by improved execution of on-budget items (Figure 56). Government revenues were up nearly 21 percent thanks to the economic recovery (nominal GDP growth was 12 percent between the two fiscal years). Notwithstanding good execution of on-budget expenditures (a 94 percent disbursement rate) and execution a large amount of carry-overs from the previous fiscal year, expenditures grew by only 3.7 percent as disbursements under the stimulus package (TKK) did not fully compensate for the decline in on-budget expenditures. The PDMO Act limited on-budget expenditures based on revenue forecasts of THB 1.35 trillion, but revenues actually came in at THB 1.7 trillion, or nearly 3.5 percent of GDP higher than projected. The net result was that the deficit (feared to be as high as 6 percent of GDP in early 2009 when the budget was prepared) actually came in at 2.5 percent of GDP compared to a 3.7 percent deficit registered in FY09 (a 24 percent contraction).

Figure 55. Fiscal outcomes were better than initially expected due to higher revenue collection.



Source: FPO and World Bank staff calculations.

Figure 56. The reduction in the fiscal deficit was driven primarily by revenue growth.



Source: FPO and World Bank staff calculations.

Given the fiscal space left by lower-than-expected deficits in FY10 and the possibility of elections, the government is planning to increase expenditures in FY11. The deficit is expected to widen in FY 2011 due to an expansion of investment and social programs.[8] Including TKK, expenditures are projected to increase by about 10 – 12 percent in FY11. Although the recently-revised revenue projections of 4 percent growth are again likely to be exceeded, revenue growth is likely to be well below the 21 percent registered in FY10. In addition, the government in January proposed a supplementary budget (already approved by the cabinet) to use some of the higher expected revenues for additional expenditures. The headline figure of the supplementary budget is THB 100 billion, but of that amount THB 84 billion is to be allocated for treasury replenishment (a financing item). Of the remaining amount, THB 6 billion are transfers to Local Authorities and Bt 10 billion is the budget to rehabilitate flood affected areas.[9]

The composition of the FY11 budget suggests a modest shift towards increased social spending (Table 3)**.** Expenditures in health, education and social protection, which comprise about 37 percent of the budget, are expected to increase by 15 percent, slightly above the growth rate of the budget. In some cases, items that were part of the off-budget TKK program have been brought on budget. For example, on-budget expenditures for agriculture and related areas are expected to jump by 51 percent in FY11. However, when consolidating with TKK expenditures on irrigation and the price insurance scheme, the actual increase turns out to be only 11 percent, below the increase in the social sectors. It should be noted that fragmentation in the budget means that analysis of main expenditure categories might be misleading. This can be seen from the large percentage of expenditures under local government (which are not broken down by their ultimate purpose) as well as "others", which could include further social and capital spending, as well as defense or transfers.

Table 3. The FY 2011 budget shows a shift towards increased social spending.

Million baht

	FY2010	*%*	**FY2011**	*%*
Defense, Public Order and Safety	265,882	*13.8*	292,645	*13.4*
Health, Education and Social Protection	706,870	*36.8*	816,182	*37.3*
Agriculture, Fishery, Forestry, Env. Protection	154,697	*8.1*	172,201	*7.9*
Irrigation	*66,728*		*68,306*	
Price Insurance	*39,513*		*52,179*	
Other Agriculture, Fishery, Forestry, Env.	*48,457*		*51,717*	
Transport, Fuel and Energy	101,758	*5.3*	100,841	*4.6*
Local Government	247,080	*12.9*	275,519	*12.6*
Others	443,553	*23.1*	528,132	*24.2*
Total, budget plus TKK actual	**1,919,840**		**2,185,520**	
of which budget envelope	1,700,000		2,070,000	
of which TKK actual / budget	219,840		115,520	

Source: Bureau of the Budget, www.tkk2555.com, World Bank staff calculations.

The extent of debt-financed off-budget disbursements under the TKK program remains the largest question mark in forecasting the overall FY11 deficit, which should come out around 2.6 percent of GDP. As of Feb 18, 2011, the TKK budget allocation amounts to THB 338 billion (97 percent of the total

[8] This estimate does not incorporate the cut in diesel excise taxes announced on April 18, which will increase the deficit further. Some estimates put foregone revenues at THB 1.35 billion per month at current oil prices.

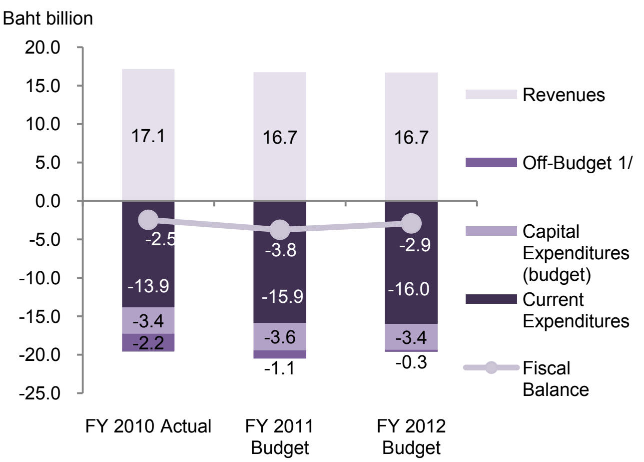
[9] While the government has recently announced a number of initiatives such as the Pracha Wiwat scheme to help low income earners, most of these have not yet been implemented. Others (such as the increase in the insurance prices for rice and extension of cost of living measures such as free transport) had already been included in the higher expenditures planned for FY11.

borrowing authorization of THB 350 billion), of which THB 234 billion have been disbursed in FY09 and FY10, leaving a total of about THB 104 billion that could be disbursed in FY11. Of this amount, THB 30 billion have been disbursed in the first four months of the fiscal year. No disbursements under TKK are expected in FY12, as the government's borrowing authorization has expired in December 2010. However, the government secured about THB 40 billion in foreign loans from the World Bank and the Asian Development Bank; expenditures financed by those loans would not appear on the budget framework. Therefore, in addition to the planned budget deficit of about 2.7 percent of GDP, an additional deficit of 1.1 percent of GDP could be added from off-budget items. All in all, the FY11 budget deficit is likely to range between 1.9 and 3.8 percent of GDP, with a central estimate of 2.6 percent, slightly higher than in FY10.[10] This estimate does not include the recent cut in diesel excise taxes (see Footnote 8 above).

The proposed FY 2012 budget points towards consolidation. The government proposed a budget for FY 12 in January with expenditure growth contained to about 3 percent, which should be easily exceeded by revenue growth. The resulting fiscal balance should come between 1.3 and 2.9 percent. Since no TKK expenditures are expected in FY12, over 98 percent of expenditures will be on budget. The budget was proposed on the moderate assumption that the Thai economy in 2012 would grow by 4.5 percent and inflation would be 3.5 percent. This move towards fiscal consolidation is in line with the MOU signed between the MoF and the Bureau of the Budget to achieve a primary surplus by FY2016.

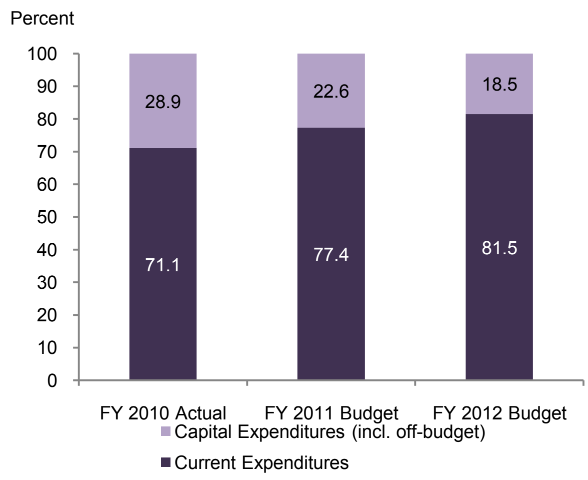
Without additional sources of financing (beyond the capital budget) capital expenditures are likely to decline in FY12 (Figure 57)**.** On-budget capital expenditures (the "capital budget") were 17.6 percent of expenditures in FY10, are projected to be 17.3 percent in FY11 and 17.1 percent in FY12. However, these numbers hide the declining impact of TKK expenditures. Although many of the TKK expenditures were actually current expenditures, some were capital expenditures that increased the percentages of overall spending in FY10 and FY11, and point to a larger reduction relative to overall expenditures in FY12 (Figure 58). This move may be linked to the government's attempts to increase reliance on public-private partnerships for public investments going forward rather than using the government budget.[11]

Figure 57. The FY 2012 budget points towards consolidation.



Source: FPO, CGD and World Bank staff calculations.
1/ Includes TKK and off-budget foreign borrowing.

Figure 58. Current expenditures take up about 80 percent of total expenditures.



Source: FPO, CGD and World Bank staff calculations.

[10] The low-end of the estimate includes (1) revenues-to-GDP of 17.2 percent (vs. 16.7 official forecast); (2) 93 percent execution of the budget, including TKK; and (3) THB 10 billion in foreign loan disbursements.

[11] In March the government submitted the draft PPP Act for public consultations. Among other changes, under the new law state agencies would be forced to first consider PPP before they can request capital budget.

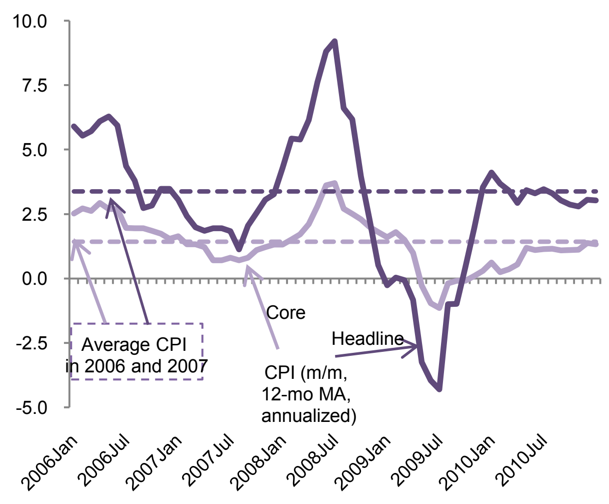
2.5 Monetary Policy and Capital Flows

2.5.1 Inflation and Monetary Policy Stance

Despite higher input prices, current inflation conditions remain benign and demand-pull pressures are modest. Headline inflation was stable at around 3 percent in 2010, while core inflation closed the year at 1.4 percent (Figure 59). The difference between core and headline measures can be explained primarily by the increase in food prices, which were up 6 percent in 2010 (Figure 60), the result of supply shocks as well as a broader global trend. Inflation has remained fairly contained in the first three months of 2011. Although food and energy prices increased close to 6 percent in March, headline and core inflation came in at 3.1 and 1.6 percent, respectively, levels that are within the Bank of Thailand's target of core inflation between 0.5 and 3 percent and also in line with pre-crisis levels. Prices have been contained in part due to efforts by the Ministry of Commerce to limit price increases for many consumer goods. In addition, the government responded to the recent surge in oil prices by using subsidies (and more recently a cut in excise taxes) to cap the price of diesel oil, which affects the prices of a number of goods through its role in transportation. Subsidies to electricity and transportation were also maintained. [12] A somewhat overlooked item, house rental prices (about 15 percent of the CPI basket) have been remarkably stable (up just 1.2 percent y-o-y in March) due to the growing supply. Finally, below-average capacity utilization in domestically-oriented sectors despite some indications of tightness in labor markets (see Section 3.1 below) suggest that demand-pull pressures are still not elevated (Figure 61).

Figure 59. Headline and core inflation have been stable…

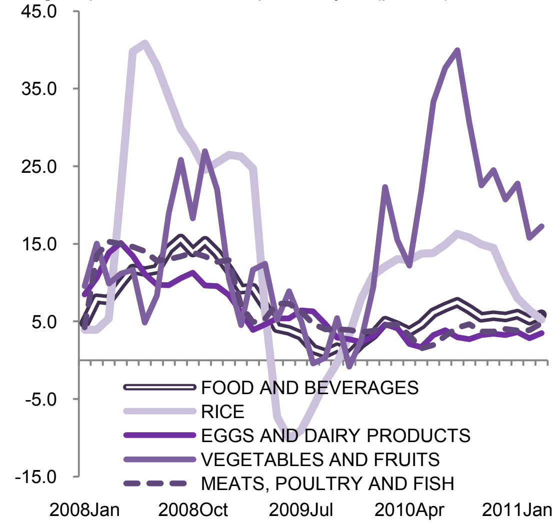
CPI, month-on-month change, 12-m moving average, annualized (percent)



Source: MoC and World Bank staff calculations.

Figure 60. …even as food prices have increased moderately.

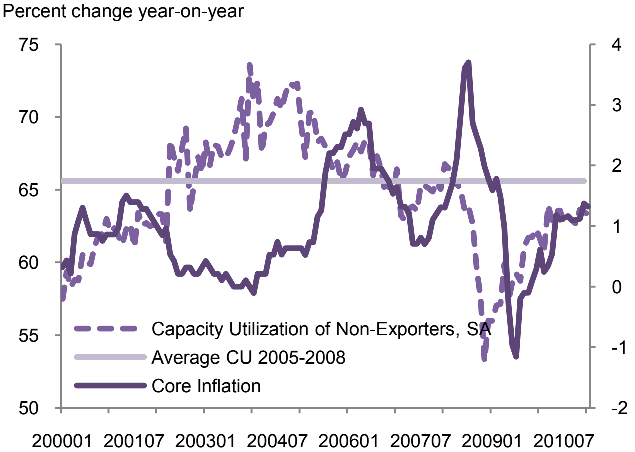
Change in price index from the previous year (percent)



Source: MoC and World Bank staff calculations.

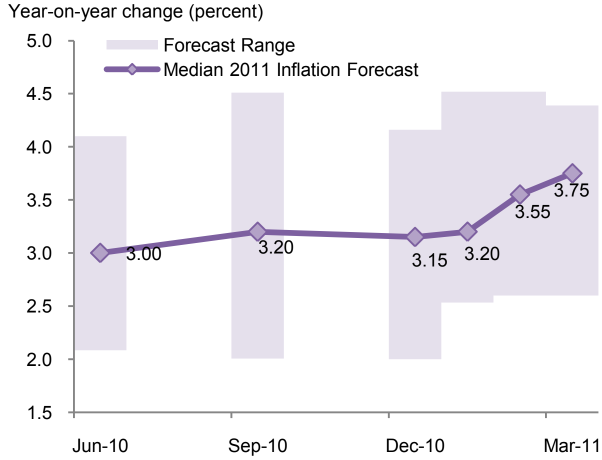
[12] Although a list of indirectly-administered prices is not available, most are food items, which comprise about 1/3 of the CPI basket. In addition, transport and energy prices have been essentially frozen thanks to the free electricity/bus/trains/diesel subsidies. These items represent another 1/3 of the CPI basket. Finally, another 5 percent of the CPI basket is education, which has also been subsidized to a greater extent since 2009. Therefore, as much as 70 percent of the CPI basket is subject to price controls and subsidies to some degree.

Figure 61. Capacity pressures in domestically-oriented sectors remain subdued.



Source: MoC, OIE and World Bank staff calculations.

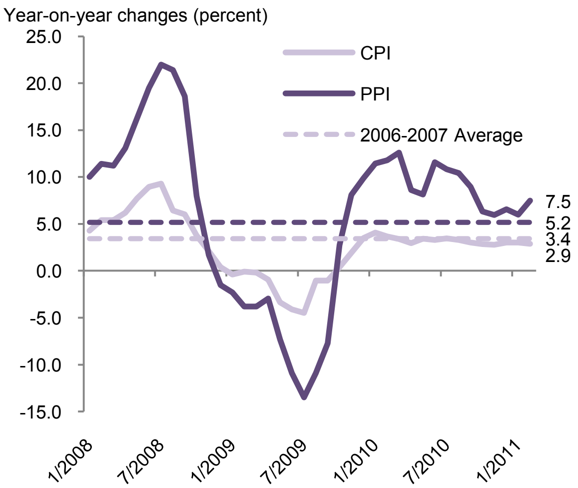
Figure 62. Inflation expectations have been increasing.



Source: Bank of Thailand and Consensus Estimates.

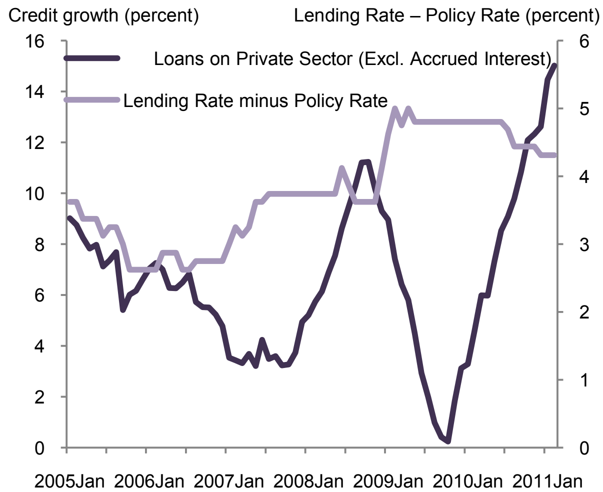
But expectations about future price increases are mounting as many of the factors keeping prices from increasing are seen as temporary. Inflation expectations have increased noticeably in 2011 as actual price increases do not fully reflect cost pressures especially in the aftermath of the surge in oil prices earlier this year (Figure 62). This can be seen in the difference between the growth in producer and consumer prices, which reached 4.6 percentage points in February, more than double the "normal" average of 1.8 percentage points (Figure 63). Expectations have been increasing as consumers realize price controls cannot be sustained for long (and many prices were already increased somewhat at the end of March). In addition, there is also some agreement that the diesel subsidy will eventually have to be lifted or otherwise reduced. The Oil Fund, which is being used to subsidize diesel prices, is being depleted at a fast pace as oil prices have continued to increase in March.[13] Meanwhile, oil prices are likely to remain at levels that would require a subsidy to keep diesel at the target price of 30 baht per liter.

Figure 63. Higher input costs have yet to show in current inflation readings.



Source: MoC and World Bank staff calculations.

Figure 64. Credit growth has soared as banks absorb policy rate increases.



Source: BoT and World Bank staff calculations.

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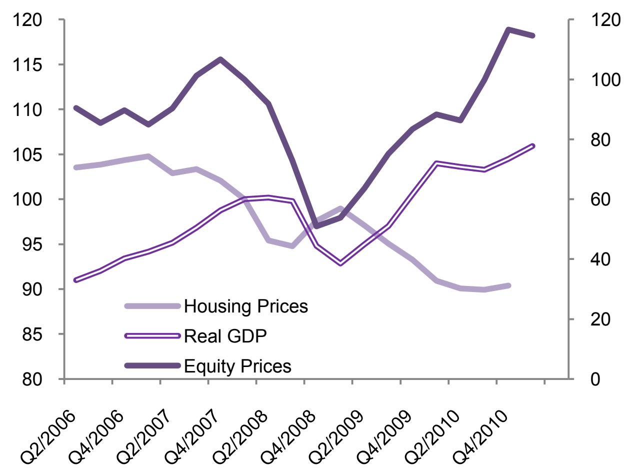
[13] See Box 2 of the November 2009 Thailand Economic Monitor for a brief discussion of the Oil Fund.

Credit growth continues to surge well above pre-crisis levels as banks are slow to raise lending rates. Despite recent rate hikes, year-on-year credit growth continued unabated in February, reaching 15 percent (Figure 64). This compares with a previous peak of less than 12 percent. Because lending rates tend to be sticky on the downside, they are also sticky on the 'upside', potentially leading to a longer lag between monetary policy tightening and credit growth.[14] Meanwhile, high credit growth does not seem to be fueling asset price inflation. Housing and equity prices have been growing in line with the economy, which suggests that the risks of an asset price bubble are limited (Figure 65). Finally, leverage remains moderate, contained by prudential measures that have been recently strengthened, including a maximum loan-to-value ratio. The central bank has indicated that prudential measures could be strengthened further if necessary.

Figure 65. The stock market has soared, but housing prices remain subdued in real terms.

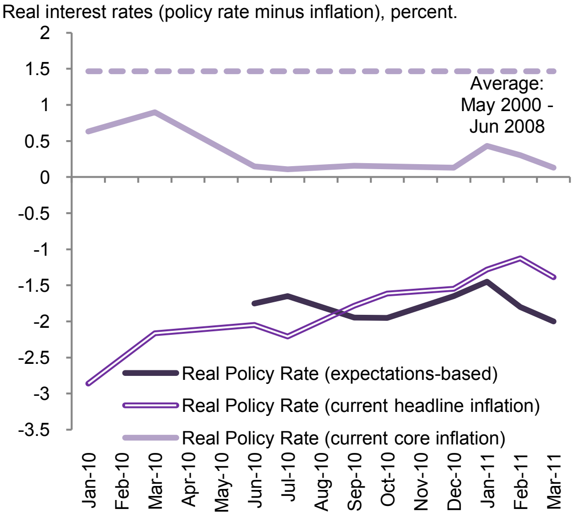
Index of variables in real terms (Q1 2004 = 100)



Source: Bank of Thailand and World Bank staff calculations.

Figure 66. Monetary policy has tightened, but is still accommodative.

Real interest rates (policy rate minus inflation), percent.



Source: Bank of Thailand and World Bank staff calculations.

Concerns about rising inflation expectations have led the Bank of Thailand to continue tightening monetary policy in 2011. Although other countries in the region have made use of instruments such as reserve requirements to manage domestic liquidity, the BoT has indicated that it will continue to implement monetary policy through the policy rate. The BoT raised the policy interest rate by 25 basis points five times since July of 2010, two of which in 2011 (most recently in March), taking it to 2.5 percent. Real policy rates have tightened by as much as 200 bps since January of 2010, but remain negative (Figure 66). Even considering core inflation as the benchmark, real policy rates remain well below the 2000-2008 average of around 1.5 percent, suggesting monetary conditions are still accommodative.

While the normalization of interest rates is appropriate given the normalization of economic activity, the current inflation challenge is especially complex. Inflation has become a central concern to policy makers in the region, and as discussed more fully in Box 5 there are a number of unusual complications with the current episode of inflationary pressure. In particular, the economic recovery of Thailand's open economy depends on robust growth of domestic demand to partly offset still-lagging external demand. Growth in domestic demand, meanwhile, has shown to be sensitive to monetary policy

[14] This can be seen in Figure 64 first as the jump in the margin between lending rates and policy rates when rates were cut in early 2009, then as the decline in the margin since the beginning of the tightening cycle in mid-2010.

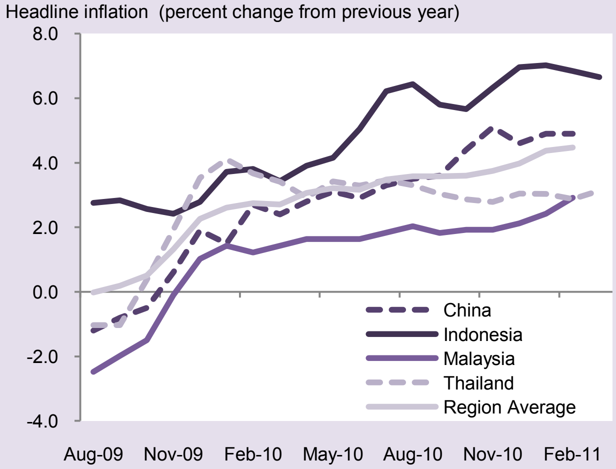
conditions. Therefore, while the direction of interest rate movements towards (higher) levels closer to those observed during normal periods is appropriate to anchor inflation expectations, the pace of rate hikes should carefully consider the impact on the real economy to prevent a premature cooling of the economy before the recovery is complete.

Box 5. Regional Inflation Developments

Consumer prices have been on the rise across the region and inflation has become a central concern for policy makers (Figure 67). There are a number of unusual difficulties in addressing the current challenge. First, both cost-push and demand-pull pressures are at work to varying degrees in different countries. Second, the standard medicine for inflation—higher interest rates—would do little against cost-push inflation, would attract capital inflows and would dent domestic demand at a time when external demand growth still has not returned to pre-crisis levels. Third, given the drawbacks of rising interest rates and generally healthy fiscal positions, much of the recent increase in commodity prices has been absorbed by fiscal authorities through various subsidy schemes. This keeps inflation down temporarily, but feeds inflation expectations as global prices remain high and the cost of subsidies mount.

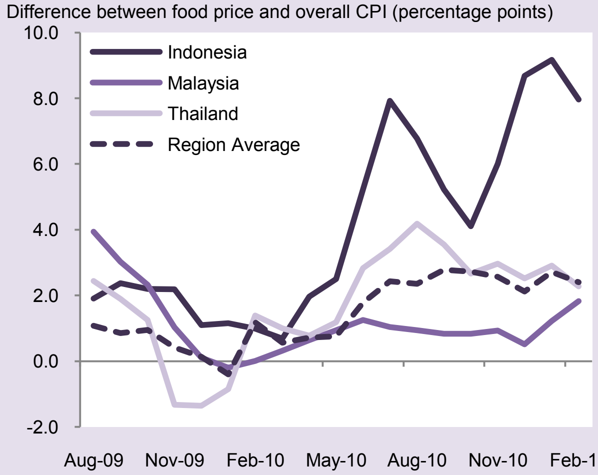
Sustained increases in global commodity prices have been a major driver of inflation. Energy commodities have surged following the political turmoil in the Middle East and North Africa (MENA) and the earthquake in Japan, as that country is expected to replace nuclear capacity with fossil fuels. Notwithstanding some recent moderation, global food prices have surged since mid-2010, driving food price inflation to remain persistently above overall headline inflation over the past year (Figure 68). Wheat prices are up by 67 percent since the middle of 2010 and prospects are uncertain a result of a drought in key wheat-growing provinces in China. Rice prices have been more contained, but with over 50 percent of global rice supplies coming from Thailand and Vietnam, the rice market remains highly exposed. As a result of the cost increases, producer prices have soared (Figure 69). Although some of the increase in commodity prices may be temporary, commodity prices have been on a rising trend over the past ten years due to a combination of rising demand from among fast-growing developing economies, especially China, and more frequent supply disruptions amid increasingly unpredictable weather patterns—a possible reflection of climate change. These underlying factors are likely to persist, suggesting the trend towards higher commodity prices is unlikely to be reversed.

Figure 67. Inflation has been on the rise across East Asia.



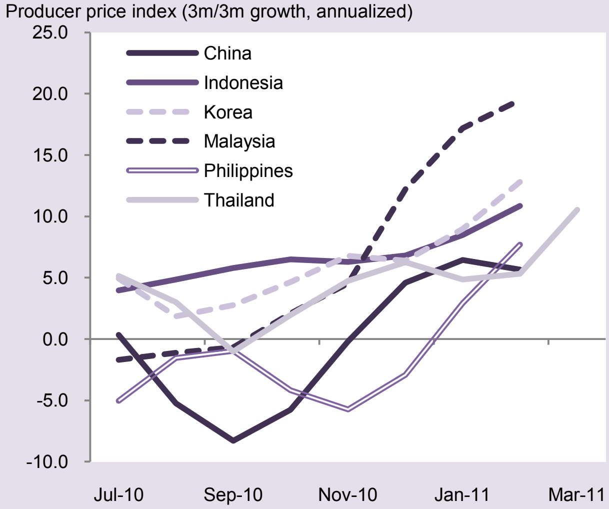
Source: CEIC.

Figure 68. Food price inflation has been higher than overall CPI.



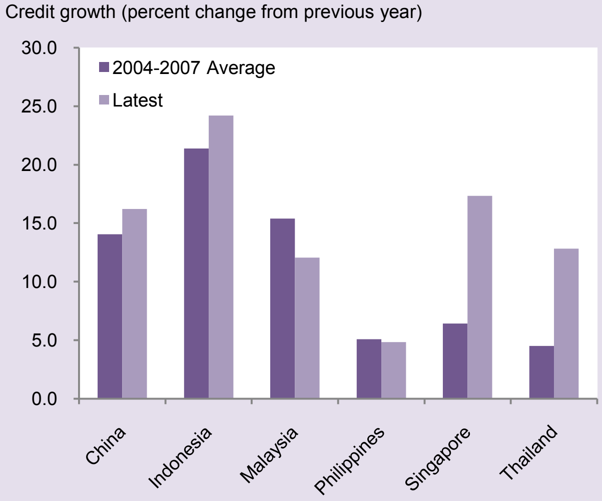
Source: CEIC.

Figure 69. Producer prices have accelerated.



Source: CEIC.

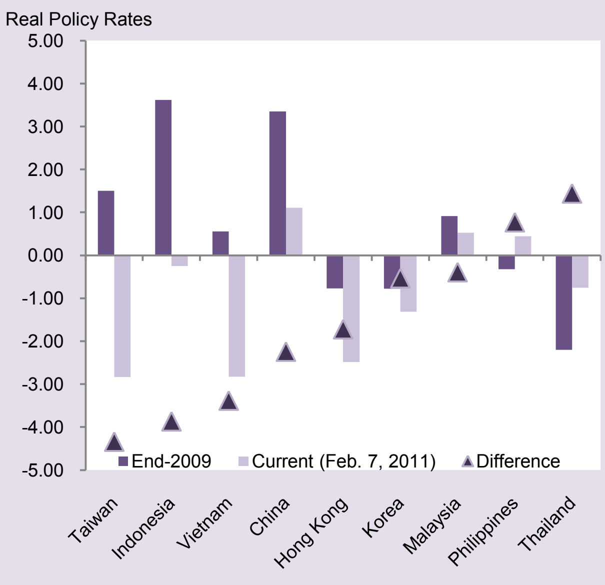
Figure 70. Credit growth remains robust.



Source: CEIC.

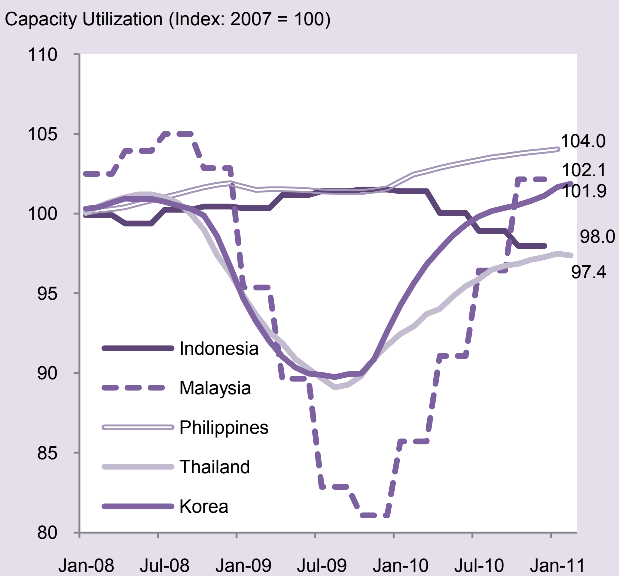
Despite the important role of cost-push factors, demand-pull factors are also at work in many economies, as output gaps close while monetary tightening remains subdued. Credit growth has been slowing down from very high levels in China, but remains above pre-crisis levels. Credit growth in Thailand, Singapore and Indonesia is also above pre-crisis levels and continues to accelerate (Figure 70). Meanwhile, policy rate hikes have lagged the increase in inflation, leading to *lower* real policy rates over the past year (Figure 71). In contrast with the delayed "normalization" in monetary policy, real economic performance has "normalized" in many countries and output gaps have closed in most countries in the region. Reflecting the closing of output gaps, capacity utilization of domestically-oriented industries has trended higher and in most cases exceeded pre-crisis levels (Figure 72).

Figure 71. Most East Asian countries face lower real policy rates in 2011 than a year earlier.



Source: Datastream, CEIC and World Bank Staff calculations.

Figure 72. Capacity utilization in domestically-oriented sectors is back above pre-crisis levels.

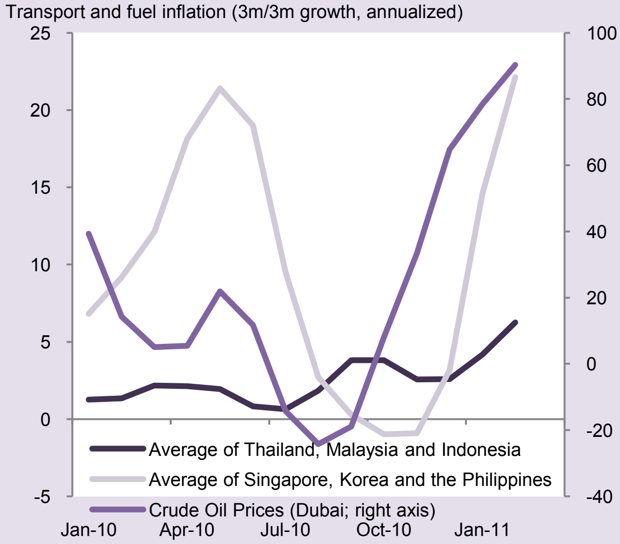


Source: CEIC and World Bank Staff calculations.

The recovery of more open economies of Singapore, Malaysia and Thailand had relied relatively more on stimulus to domestic demand as the recovery of advanced economies—and consequently of external demand growth—remains incomplete. Related to the ongoing recovery of advanced economies, interest rates those countries remain at all-time lows. Consequently, monetary authorities in the region are reluctant to increase interest rate differentials as this would draw further capital inflows, which would put pressure on exchange rates. Low interest rates abroad would reduce the effectiveness monetary tightening at home, as foreign capital bids down yields on government bonds and banks can fund themselves overseas.

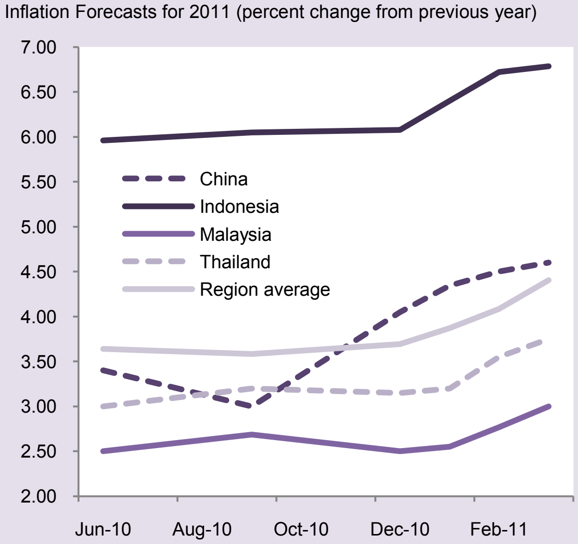
Many East Asian governments have responded to higher food and energy prices by using fiscal policy as a buffer to protect consumers and firms. Thailand extended diesel subsidies and will continue to cap prices on liquefied petroleum gas for household and transport use (55 percent of total usage). China responded to the recent drought in major wheat-producing provinces with direct subsidies to farmers. The Korean government froze electricity and gas prices during the first half of 2011 among other measures. Indonesian policymakers do not intend to raise electricity tariffs in 2011 and there are talks to delay a plan approved last year to reduce the use of subsidized fuel starting in April. Malaysia also subsidizes fuel prices, and there is a risk that the government may not raise domestic fuel prices further. As a result of subsidies, fuel and transportation price in many countries have remained subdued (Figure 73). However, as global prices remain high, inflation expectations have increased on the expectation that price controls and subsidies will not be sustained throughout the year (Figure 74).

Figure 73. Fuel and transportation prices have not followed global energy prices in countries with subsidy programs.



Source: CEIC, US Energy Information Administration.

Figure 74. Inflation expectations have been on the rise in 2011.



Source: Consensus Economics.

2.5.2 Exchange Rate and Capital Flows

A recovery-driven surge in imports led to a narrowing of the current account in 2010. The current account surplus narrowed from 8.3 percent of GDP in 2009 to 4.8 percent in 2010 (Table 4). After plummeting 25 percent in US dollar terms in 2009, imports soared by 37 percent in 2010 on higher exports (which have a high import content) and equipment investment (85 percent of which is imported). Given that a portion of manufacturing firms' inventories is comprised of imported inputs for production, inventory investment also supported import growth. While narrowing, the current account surplus remained sizeable thanks to the relatively high domestic value-added of exports (around 50 percent), which also grew strongly in 2010. The surplus in the services account expanded as tourist receipts picked up despite the political turmoil in May, although that was compensated by a larger deficit in the income account reflecting rising profits of foreign companies. The current account is expected to remain in surplus, but narrow further in 2011, reflecting the domestic-demand-driven nature of growth this year.

Table 4. The current account surplus is projected to continue to narrow.

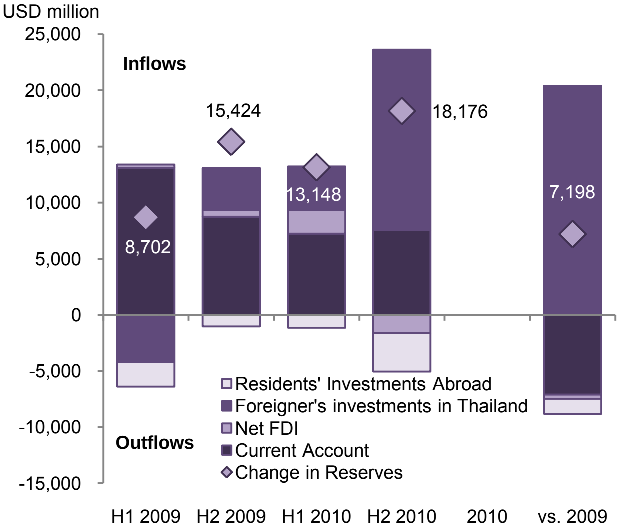
USD million

	2009	2010	2011p	2012p
Exports of Goods	150,743	193,662	216,017	243,829
(percent change)	*-14.0*	*28.5*	*11.5*	*12.9*
Imports of Goods	131,356	179,632	205,645	236,441
(percent change)	*-25.2*	*36.8*	*14.5*	*15.0*
Trade Account	19,387	14,031	10,372	7,388
as percent GDP	*21.4*	*13.9*	*9.6*	*6.3*
Net services income & transfers	2,478	753	932	1,911
Current Account	**21,865**	**14,784**	**11,303**	**9,300**
as percent GDP	***24.2***	***14.6***	***10.4***	***7.9***
Capital and financial account including net errors and omissions	2,261	16,210	9,480	8,839
Balance of payments	**24,126**	**30,993**	**20,783**	**18,138**
Foreign Reserves (year-end)	138,418	172,129	192,912	211,050

Source: Bank of Thailand and World Bank Projections.

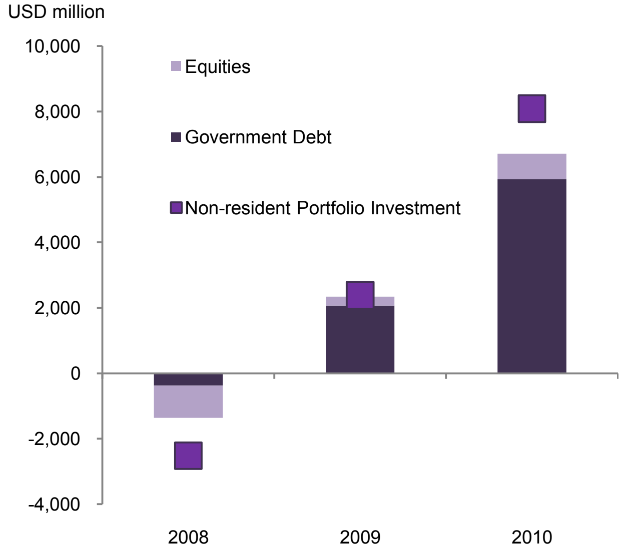
Despite the smaller current account surplus, the balance of payments surplus widened as the financial account turned to a surplus thanks to strong capital inflows. Despite a decline in FDI due to higher Thai investments overseas, capital flows surged to USD 14.7 billion in 2010, the largest level since the Asian financial crisis (Figure 75 and Table 5). Capital inflows in the first half of 2010 were driven in part by Thai residents repatriating investments made in 2009, especially in Korea. In the second half of the year, foreign inflows picked up sharply due to the resolution of the immediate political turmoil, Thailand's favorable growth outlook, and widening interest rate differentials as the Bank of Thailand started raising policy rates in July. Until the government adopted measures to equalize the tax treatment of domestic and foreign bond holders, foreigners bought government bonds, especially in the 5-year tenor, but then switched to shorter-term BoT securities and equities (Figure 76). Net inflows into Thai government bond markets were estimated to have been close to USD 4 billion in 2010, with over USD 1.6 billion of the inflows recorded in the third quarter (Figure 77). In total, foreign ownership in the local government bond market was up to USD 6.2 billion at the end of December, accounting for over 7 percent of the total outstanding local government bonds. In a regional context, inflows into the Thai bond market had lagged its regional peers up until July. In August there appeared to be a significant allocation into Thailand relative to the other two countries (Figure 78).

Figure 75. The current account narrowed, but foreign capital inflows led to higher BoP surplus.



Source: Bank of Thailand and World Bank staff calculations.

Figure 76. Foreign inflows are directed mainly towards government debt instruments.



Source: Bank of Thailand and World Bank staff calculations.

Table 5. Foreign investments in equities have picked up.

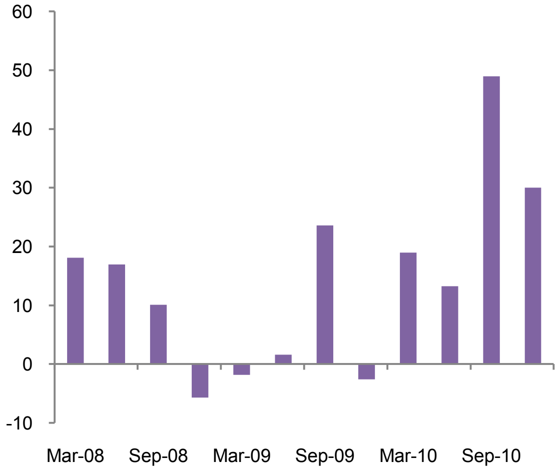
USD million

	2009		2010				2009	2010
	H1	H2	Q1	Q2	Q3	Q4		
1. Monetary authorities	-206	1,687	591	-16	771	1,317	1,481	2,662
2. Government	-198	787	751	387	1,850	291	590	3,279
3. State Enterprises	-740	-1,872	31	452	1,928	440	-2,612	2,851
4. Bank	-1,190	9,036	1,428	2,098	2,870	3,391	7,846	9,788
5. Non-Bank Private	-3,765	-6,317	976	-1,823	535	-2,353	-10,082	-2,664
FDI	2,066	2,429	1,536	909	1,503	497	4,495	4,444
- Equity investment	2,729	2,561	1,763	1,062	1,330	832	5,291	4,988
- Direct loans	-663	-133	-228	-154	173	-335	-796	-544
Portfolio	-3,377	-4,323	1,372	-438	-57	331	-7,700	1,208
- Foreign	441	833	190	-1088	699	753	1,274	554
- Equity	448	581	394	-964	785	1744	1,029	1,959
- Debt securities	-7	252	-204	-124	-86	-991	245	-1405
- Thai	-3,818	-5,156	1,182	650	-756	-422	-8,974	654
Loans (foreign)	-131	-1,141	449	-554	258	-68	-1,272	85
Trade Credits	-1,238	-1723	-2,177	-1,134	-741	63	-2,961	-3,989
Others	-2,323	-3,281	-2,381	-1,740	-1,168	-3,112	-5,604	-8,401
Total capital flows	**-6,099**	**3,322**	**3,777**	**1,098**	**7,953**	**3,087**	**-2,777**	**15,915**

Source: Bank of Thailand

Figure 77. Since August, inflows from foreigners into Thai government bonds accelerated.

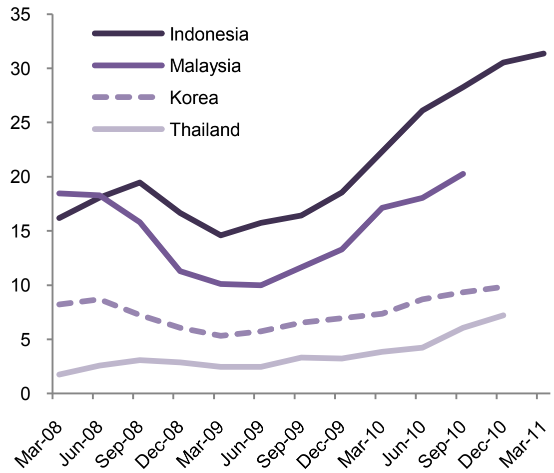
Foreign Inflows into Thai Government bond markets (THB billion)



Source: ADB.

Figure 78. But foreigners' participation in Thailand's bond market is relatively small.

Ownership of government bonds by foreigners (percent)

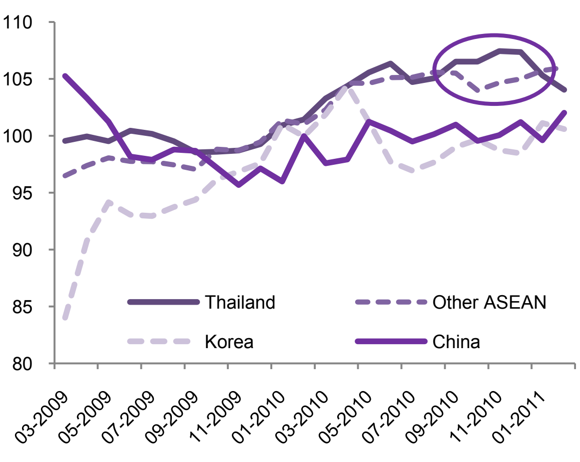


Source: ADB.

The pressure of capital inflows on the exchange rate was a major concern in 2010, prompting a number of countervailing measures. In the third quarter of 2010, strong capital inflows led to an appreciation of the Baht and demands from exporters for mitigating measures, especially as the currency appeared to rise out of line with its ASEAN peers in real terms (Figure 79). The baht appreciated 9 percent against the US dollar between August and its peak in early November, well above the 2 percent average of other countries in the region. The Bank of Thailand responded with new rounds of measures to facilitate capital outflows, notably Thai direct investments overseas, which were up strongly in 2010. The BoT also allowed the Baht to move with market forces, though it intervened to moderate the pace of appreciation. As a result, Thailand closed the year with US$ 172 billion in reserves, which cover nearly all of 2010's imports (US$ 180 billion). Finally, the Ministry of Finance re-imposed a withholding tax on capital gains and interest income on fixed income investments from which foreign holders were previously exempt.

Figure 79. The appreciation of Thailand's real exchange rate has been in line with ASEAN peers.

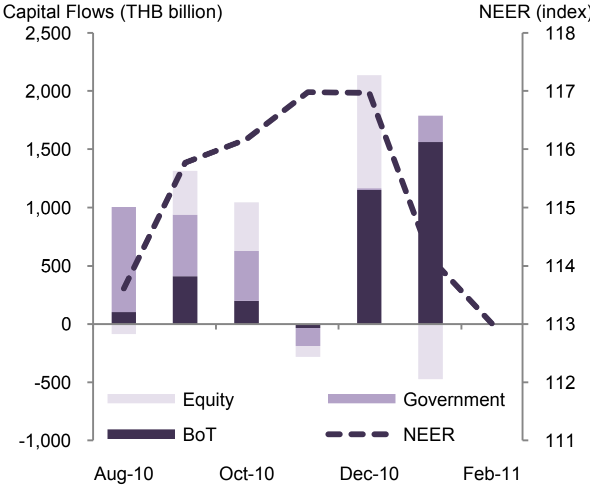
Real Effective Exchange Rate Index (August 2008 = 100)



Source: BIS and World Bank staff calculations.

Figure 80. Strong portfolio inflows in early 2011 were balanced by outflows elsewhere.

Capital Flows (THB billion) NEER (index)



Source: Bank of Thailand and World Bank staff calculations.

Capital flows started retreating in November, leading to a stabilization of the exchange rate. Pressure on the exchange rate began to subside in November, and by end-March of 2011 the Baht had retreated 2 percent from its peak in November 2010 (Figure 80). In January, foreigners sold equities to take profits and large capital outflows were seen elsewhere from a major divestment (the sale of Carrefour to Big C) and higher direct investment overseas by SOEs (for example, PTT's investments in the Dawei port). These developments helped offset continued inflows into bond markets and led to a depreciation of the exchange rate. Because monetary policy in advanced economies remains exceptionally loose, a large pool of liquidity still exists, implying that the risk of renewed volatile capital inflows remains elevated. For example, the recent widening of interest rate differentials following the latest rate hike has been reported to bring a renewed bout of inflows. This volatility is only likely to subside when the recovery in advanced economies proceed to the stage where bond yields start heading higher.

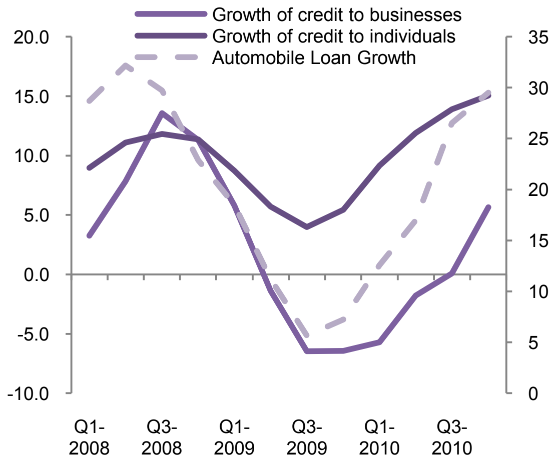
2.6 Financial and Corporate Sector Developments

2.6.1 Financial Sector

Commercial banks extended more loans in 2010 as the economy recovered and consumers took advantage of relatively low borrowing costs. Loan volumes increased 11.8 percent to reach THB 7.8 trillion in 2010. Consumer loans increased by 15.2 percent, led by automobile loans, which grew at 29.5 percent the fourth quarter and offset a decline in real estate loans (Figure 81). Corporate loans grew by 5.7 percent due to higher demand for working capital and investments. In particular, there was greater demand for syndicated loans, which increase in line with investments of large private firms. Loan growth in 2010 also reflected the expansion of credit by commercial banks to small and medium enterprises (SMEs), a strategy supported by strengthened risk management practices. Loan growth is likely to decelerate, but remain robust 2011 despite the expectation of rising interest rates. Along with favorable economic conditions, the transmission mechanism of the policy rate to the minimum lending rate (MLR) has been relatively slow in the current upturn period (Figure 82), suggesting that credit terms are likely to remain attractive in 2011 relatively to the pre-crisis period. In addition, demand for syndicated loans for large-scale investments and loan refinancing will continue to be support loan growth in 2011.

Figure 81. Automobile loans soared in 2010, driving overall loan growth.

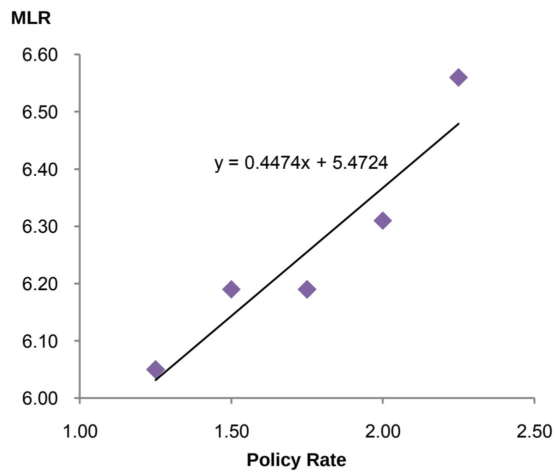
Year-on-year growth (percent)



Source: Bank of Thailand and World Bank staff calculations.

Figure 82 Only half of the policy rate increase has been passed to the MLR.

Percent (both axes)

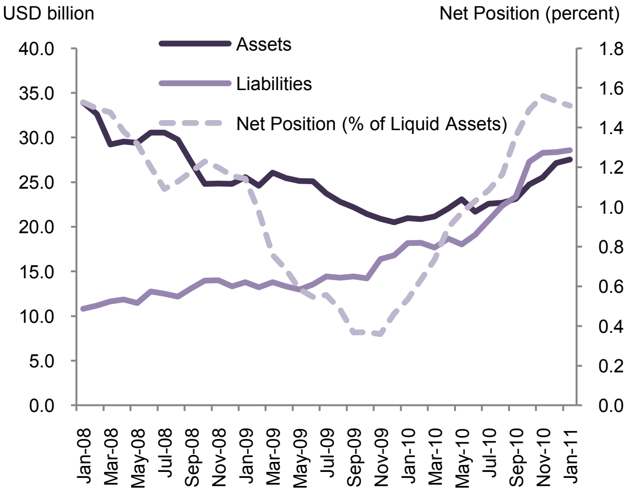


Source: Bank of Thailand and World Bank staff calculations.

Anemic deposit growth was partially compensated by a rapidly growing B/E market, but overall liquidity tightened. Deposits expanded by 4.9 percent in 2010,while issues of bills of exchange (B/E) accelerated 40 percent from THB 699 Billion in 2009 to THB 981 Billion in 2010 reaching a 13 percent share in fund mobilization. Growth in the B/E market was spurred by the simplification of B/E product features and lowered initial investment requirements aimed at attracting retail investors, as well as the implementation of limited deposit insurance.[15] Overall, the ratio of loan to deposits plus B/E increased from 86 percent in 2009 to 88 percent in 2010, suggesting a modest tightening of liquidity. Further evidence that competition for deposits has been increasing can be seen in the faster pass-through of policy rate hikes to the deposit rate: in contrast to the slow pass-through to the MLR, six-month deposit rates more than doubled since the rate hikes started last July.

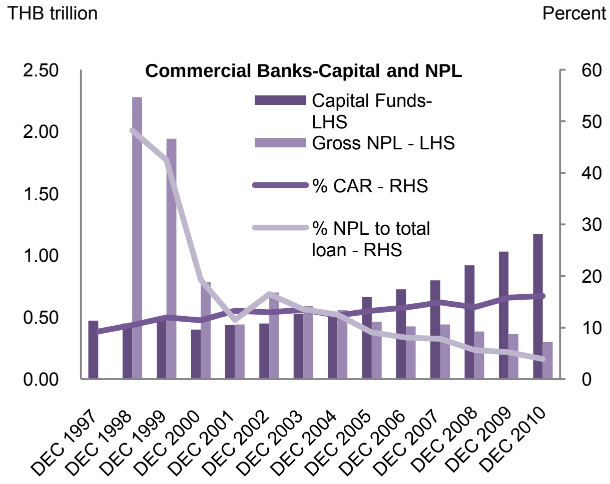
Despite low interest rates abroad and an increase in foreign liabilities, foreign financing has not been an important source of bank funding so far. Banks' foreign liabilities have been rising (Figure 83), although this has been offset by an increase in foreign assets and in the "bought" position in hedges, thus resulting in only a small increase in the net foreign currency exposure.[16] Although the scope and risks of foreign funding are limited by strict foreign exposure ceilings imposed by the Bank of Thailand, current levels of net exposure appear to be relatively low, suggesting the existence of some room for expansion. Widening interest rate differentials may increase incentives for tapping foreign markets, which might further dampen the pass-through to lending rates.

Figure 83. Foreign liabilities of Thai banks have been increasing, but so have assets.



Source: Bank of Thailand and World Bank staff calculations.

Figure 84. NPLs continue to decline while capitalization remains strong.



Source: Bank of Thailand and World Bank staff calculations.

Asset quality returned to historic highs, providing ample room for further credit expansion. The ratio of (gross) NPLs to total loan declined to 3.9 percent, the lowest level since 1997. Similarly, the net NPL to total loan ratio set a new record low at 2.1 percent in 2010 (Figure 84). NPLs declined in all sectors, for both corporate and consumer loans. The continuous decrease in NPLs and steady growth of

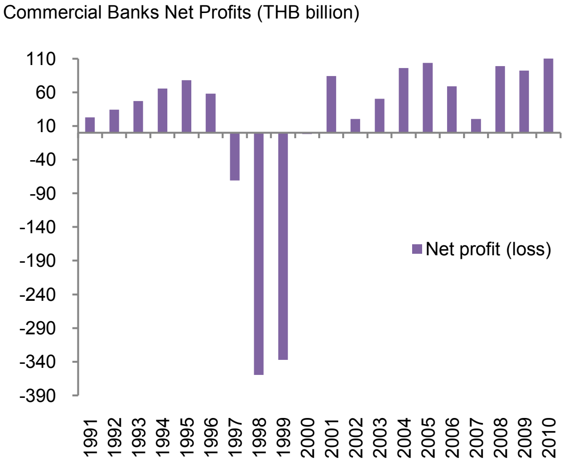
[15] Under the Deposit Protection Agency Act, the guarantee on deposits will be reduced to THB 50 million in August 2011, and then to THB 1 million per financial institution in August 2012. Because B/E products are not insured, banks are able to offer better terms, which become especially attractive for high net worth individuals whose deposits may be only partially insured.

[16] Exporters trying to hedge against future Baht appreciation "sell" future dollar receipts to banks at a fixed rate. Therefore, the net bought position of banks is akin to a foreign asset, which would increase in value in case of a Baht depreciation, thus offsetting the parallel increase in value of the higher foreign liabilities.

net profits raised the capital base of Thai commercial banks to THB 1.17 trillion in 2010, representing an increase from 15.8 to 16.1 percent of total risk assets. As of December 2010, Tier 1 ratio stands at 11.9 percent, suggesting Thai banks will have little trouble to adapt to stricter Basel III standards.

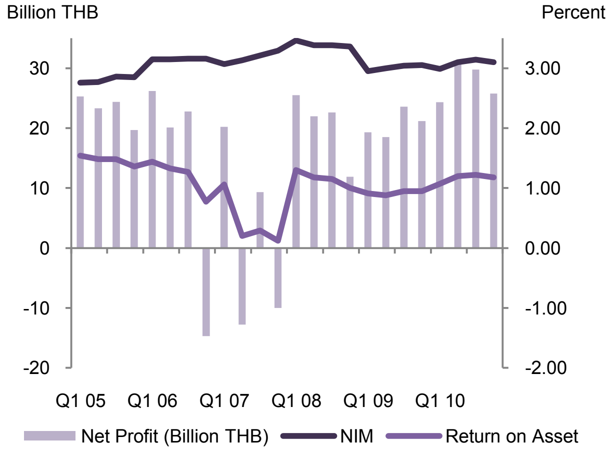
The trend towards improved asset quality has been supported by strong profitability in the banking sector. The banking industry reported a 33.7 percent increase in net profits to THB 123 billion in 2010 (Figure 85). This growth was supported by a 13.7 percent increase in interest income, reflecting the robust loan growth, and a 24.9 percent increase in non-interest income. Banks' Returns on Assets (ROA) rose from 0.95 percent in 2009 to 1.2 percent in 2010 (Figure 86). Banks' fee-based income is expected to moderate thanks to the new electronic fee structure enforced by the BoT. In addition, competition for deposits may affect non-interest revenues since banks have been aggressively promoting "No Fee Savings Accounts".

Figure 85. Banks have posted profits for the past ten consecutive quarters.



Source: Bank of Thailand and World Bank staff calculations.

Figure 86. The net interest margin increased slightly in 2010.

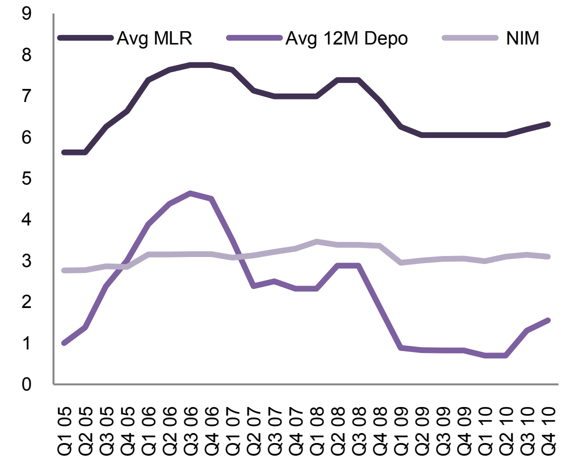


Source: Bank of Thailand and World Bank staff calculations.

The net interest margin (NIM) rose slightly despite the faster increase of deposit rates compared to lending rates. The NIM (the difference between the interest received by banks and what they pay depositors, relative to the amount of their assets) rose slightly from 3.05 percent in 2009 to 3.10 percent in 2010. The NIM widened despite a 47-basis point compression in the interest spread, with the 12 month deposit rate increasing 73 basis points, while the lending rate increased only 26 basis points in the same period (Figure 87). Given the expectation of the further increases in the policy rate by the BoT and the slow pass-through to the MLR, interest spreads should continue to decline, putting pressure in the NIM.

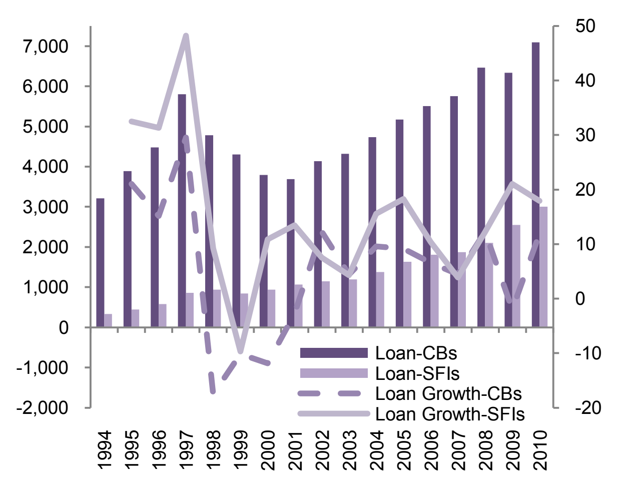
Loan growth of eight specialized financial institutions (SFIs) slowed in 2010 after vigorous growth in the previous year. As part of the normalization of the economy, the difference between loan growth in SFIs and commercial banks declined in 2010 (Figure 88). SFI loan growth dropped to 18 percent in 2010 compared to the growth of 20 percent in 2009. SFIs have also been implementing a number of government schemes to reduce household indebtedness. Under one such scheme targeted at farmers, the government plans to clear half of the outstanding principals owed by farmers if they agree to service the remaining half within a ten year period. The government will shoulder the burden of half of the costs if the borrowers are members of the Farmers Reconstruction and Development (FRD), fund while the remainder will be the responsibility of the Bank of Agriculture and Agricultural Cooperatives (BAAC).

Figure 87. The NIM increased despite a compression in the interest spread.



Source: Bank of Thailand and World Bank staff calculations.

Figure 88. SFI loan growth decelerated in the first half of 2010.



Source: Bank of Thailand and World Bank staff calculations.

Bond markets continued to expand in 2010, but trading volumes are still low by international standards. The value of bonds outstanding grew 15 percent from THB 5.9 trillion in 2009 to THB 6.8 trillion in 2010 as the amount of BoT and government bonds outstanding increased by 33 and 18 percent, respectively (Figure 89). The primary market saw THB 11.6 billion in new issuance in 2011 (Table 6 and Figure 90), mostly in the form of short-term BoT securities, where issuance expanded by 15 percent. The issuance of Treasury bills, which had jumped in 2009 due to the global financial crisis, was cut by almost half in 2010 due to the sharply lower budget deficit and implementation of the government's debt management strategy aimed at extending maturities. Trading volumes increased across all categories, partly reflecting capital inflows (Figure 91). At less than 25 percent of outstanding market value, however, trading volumes remain low in international comparison.

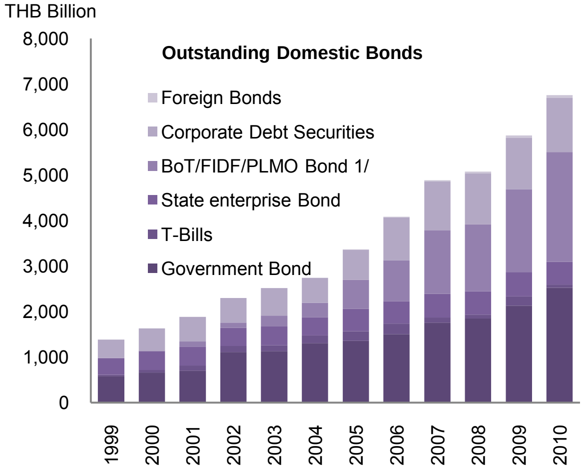
Table 6. Primary issuance in the bond market cooled down in 2010.

Primary issuance (THB billion)

Type of Securities	2008	*% of total*	*% growth*	2009	*% of total*	*% growth*	2010	*% of total*	*% growth*
Government Debt									
Government Bond	228	*2.0*	*-30.9*	502	*4.6*	*120.0*	429	*3.9*	*-14.5*
T-Bills	421	*3.7*	*-23.9*	886	*8.1*	*110.4*	485	*4.5*	*-45.3*
State enterprise bond	123	*1.1*	*91.3*	100	*0.9*	*-18.8*	43	*0.4*	*-57.1*
BoT/FIDF/PLM	9,207	*81.8*	*124.8*	8,419	*77.4*	*-8.6*	9,715	*89.3*	*15.4*
Corporate Debt									
Long-term Bond	261	*2.5*	*32.7*	391	*3.6*	*49.8*	260	*2.4*	*-33.5*
Commercial Paper	979	*8.7*	*1.0*	568	*5.2*	*-42.0*	679	*6.2*	*19.5*
Foreign Bonds	18	*0.2*	*85.2*	12	*0.1*	*-33.7*	12	*0.1*	*0.0*
Total	11,237	*100.0*	*79.2*	10,878	*100.0*	*-3.2*	11,622	*100.0*	*6.8*

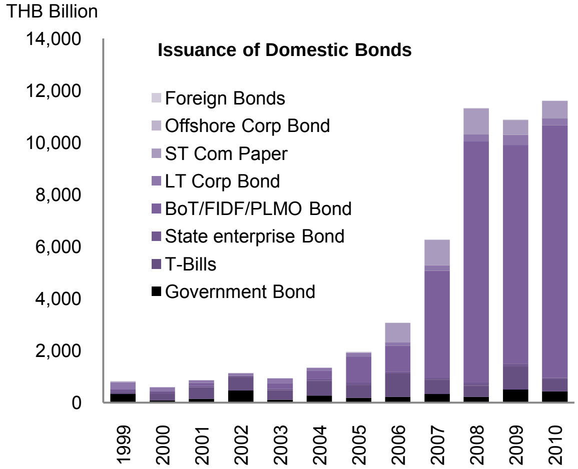
Source: Thai Bond Market Association

Figure 89. Bond markets continued to expand.



Source: Thai Bond Market Association and Bank of Thailand.

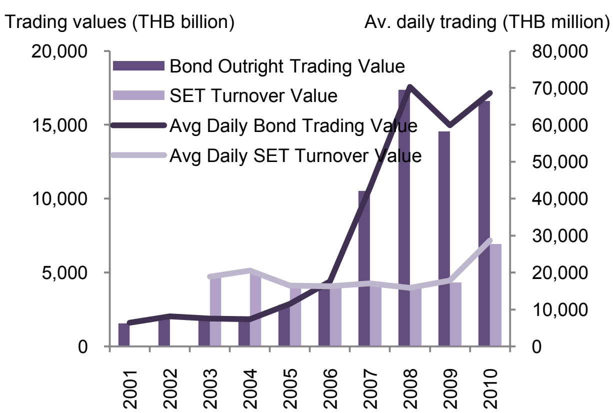
Figure 90. The BoT dominated new issuance.



Source: Thai Bond Market Association and SET

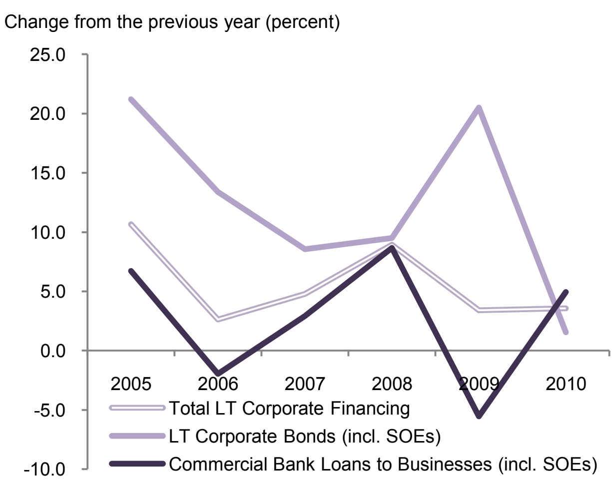
Long-term corporate bond issuance growth declined sharply in 2010 as bank credit expanded. Figure 92 suggests that during normal times businesses tend to diversify their sources of financing between bank loans and bonds. However, as banks withdrew in 2009 due to the global financial crisis, companies substituted bank lending with corporate bond issuance. As banks' once again became eager to lend in 2010, bank loans picked up while bonds lagged. Another reason for the slower pace of corporate bond issuance in 2010 were reduced investments by PTT due to the effects of the Map Ta Phut case, as PTT tends to finance its investments with long-term bonds. The market share of energy sector corporate bonds shrunk accordingly to 13 percent from 33 percent in 2009, with the banking and property sectors expanding. Most (81 percent) of new corporate bond issuance was done through private placements to institutional investors, with the remainder issued via public offerings. This development was linked to new SEC regulations that allow for corporate bonds to be issued with a company rating (as opposed to an issue rating) if the issuance is done through the private placement process. Issuance with a company rating thus accounted for 48 percent of total new corporate bond issuance in 2010. Breaking down by sector, issuance of long term corporate bonds was led by energy and utilities, banking, and construction materials sectors representing 13, 26, and 7 percent respectively.

Figure 91. Trading values increased, but remain low by international standards.



Source: Thai Bond Market Association and Bank of Thailand.

Figure 92. Overall corporate financing was less volatile when bonds and loans are combined.

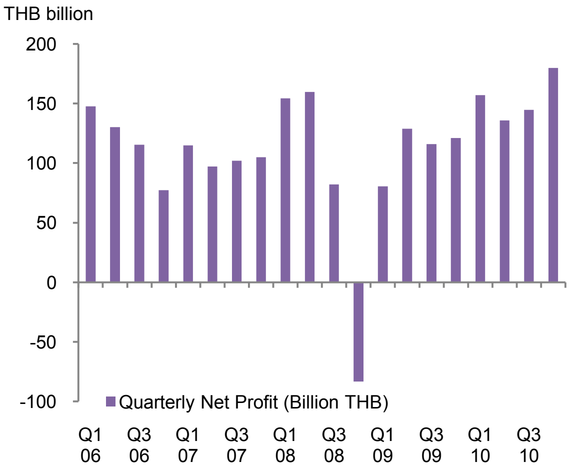


Source: Thai Bond Market Association and SET

2.6.2 Corporate Sector

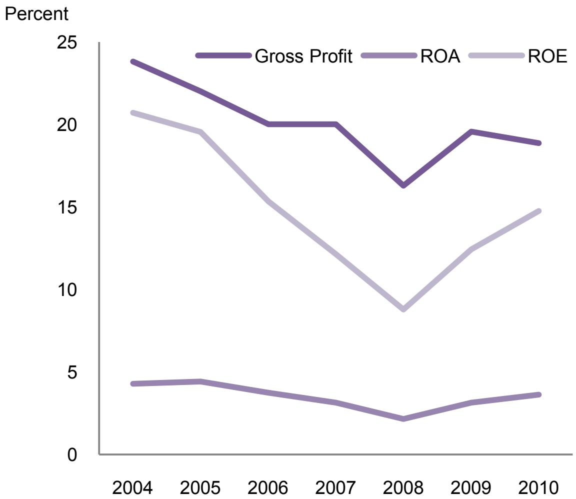
Reflecting the strength in domestic demand, Thai listed companies posted their best performance since 2006 on strong sales and greater efficiency. Yearly earnings of companies listed in the Stock Exchange of Thailand (SET) grew on average 32.6 percent to THB 618 billion in 2010. The fourth quarter of 2010 was especially strong, with profits up 49 percent year on year and reaching the highest level since 2006. Profit growth was broad based, led by the energy, banking and property and construction sectors. Higher profits reflect a substantial jump in sales revenue a slightly increase in corporates' profit margin (Figure 93). Total sales revenues of listed firms reached 7.4 trillion baht in 2010, a 17 percent increase from the previous year. Revenues have followed the performance of the economy, rebounding strongly then slowing but picking up again in the fourth quarter. Despite strong credit growth, the debt to equity ratio increased only slightly from 2.9 to 3.0, a level that has been stable since 2006 (Figure 94).

Figure 93. Listed firms posted profits for the eighth consecutive quarter.



Source: Stock Exchange of Thailand (SET)

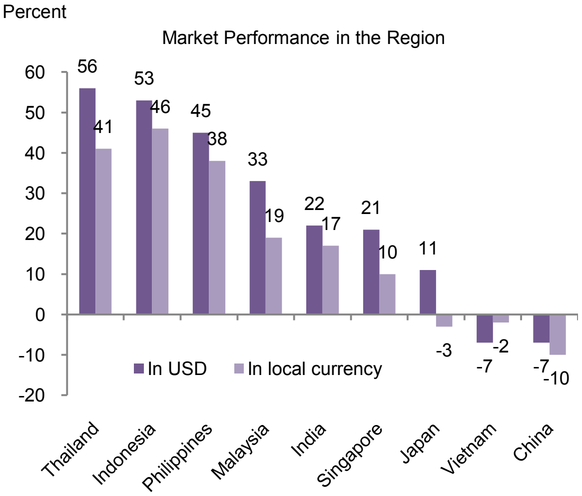
Figure 94. Performance improved across a number of indicators.



Source: SET and World Bank staff calculations.

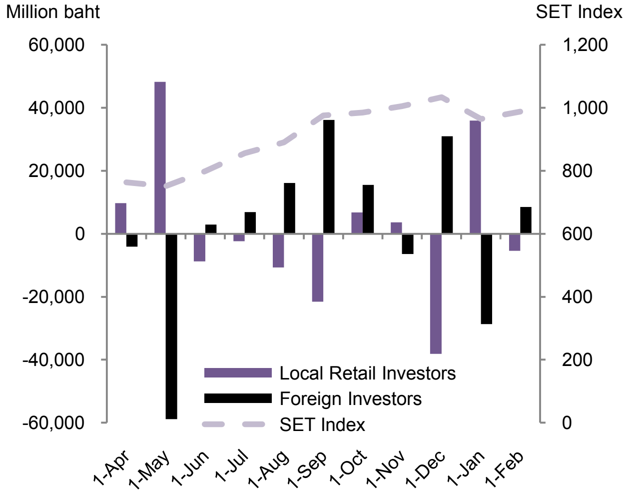
In 2010, the Stock Exchange of Thailand outperformed regional exchanges due to a combination of fundamental and technical factors. In 2010 the SET Index closed at 1,033 points, the highest point in 13 years and up 40.6 percent from the level at end-2009 (Figure 95). The market capitalization closed the year at an all-time high of THB 8.3 trillion. Similarly, daily average turnover set historical record of THB 28.7 billion per day. A number of factors explain this exceptional performance. On the fundamental side, high profitability and the favorable outlook for the Thai economy supported higher valuations. In addition, high liquidity in global financial markets, continued interest from retail investors and relatively low valuations following the political turmoil also supported significant gains for the SET index. Most prominent among these factors has been the increased participation of foreign investors. Cumulative foreign net buy position returned to positive growth, reaching THB 39 billion in 2010 (Figure 96).

Figure 95. Thailand was the top-performing stock market in the region in 2010.



Source: Stock Exchange of Thailand (SET)

Figure 96. Foreign investors took profits in January, but returned in February.



Source: SET and World Bank staff calculations.

SECTION 3

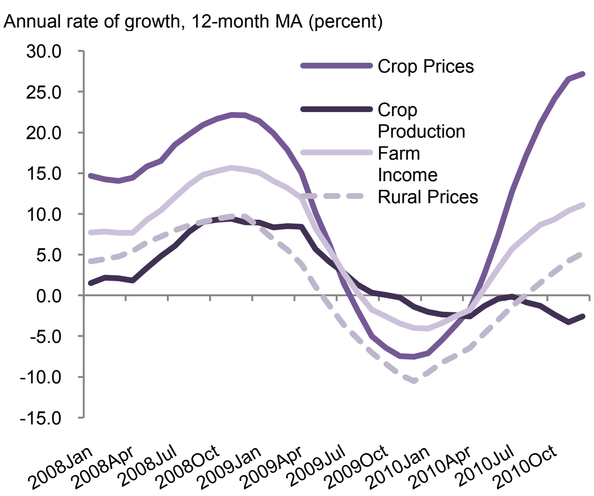
SHARED AND SUSTAINABLE GROWTH

3.1 Developments in Labor Markets and Social Protection

Labor markets and household income

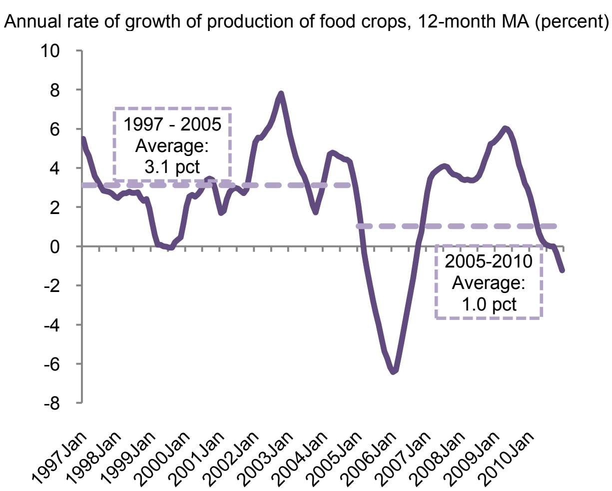
Higher agricultural prices helped raise the incomes of rural households despite drops in production due to volatile weather conditions. Prices of key agricultural products such as cassava and rubber increased sharply in 2010. Cassava was up 52 percent on strong biofuel demand from China, while rubber prices were up 56 percent, also driven by Chinese demand. Rice prices were largely stable, closing 2010 about 6 percent higher than the 2009 average. In addition, the government's price insurance scheme provided additional income to rice farmers, since the government's insured price was above market prices for nearly all of the harvest season. Higher prices offset production declines driven by natural disasters, first droughts then floods. Crop production was 3 percent lower in 2010 compared to 2009, but agricultural incomes were up 11 percent in the same period. Importantly, agricultural incomes continued to rise faster than rural inflation, suggesting that purchasing power of rural households has been increasing (Figure 97). The outlook for 2011 remains solid, although risks are elevated. Recent floods in the South and heightened concerns about increasingly erratic weather patterns raise the risks that production yields may again be volatile (Figure 98). In addition, higher oil prices may erode gains to farming households. Agriculture is energy intensive due to the role of oil in fertilizers, harvesting and transportation. Fertilizer prices have recently increased, while the cap on diesel prices may be removed as early as the first half of this year. Moreover, increased oil prices would eventually pass through to rural consumer prices and erode purchasing power.

Figure 97. Farm income has risen faster than rural prices despite weak output.



Source: BoT, MoC and World Bank staff calculations.

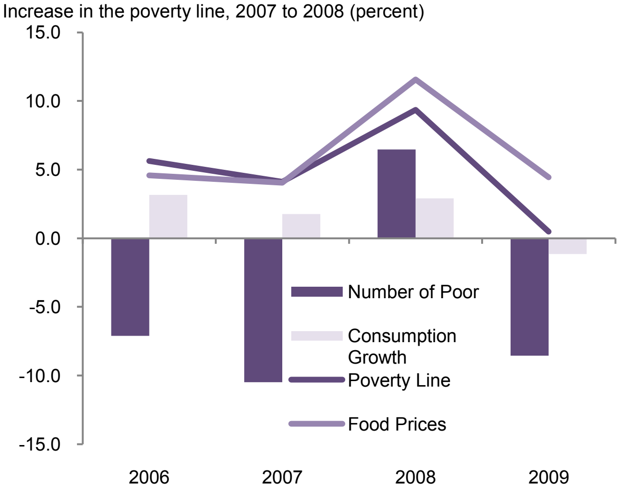
Figure 98. The production of food crops experienced higher volatility since 2005.



Source: BoT and World Bank staff calculations.

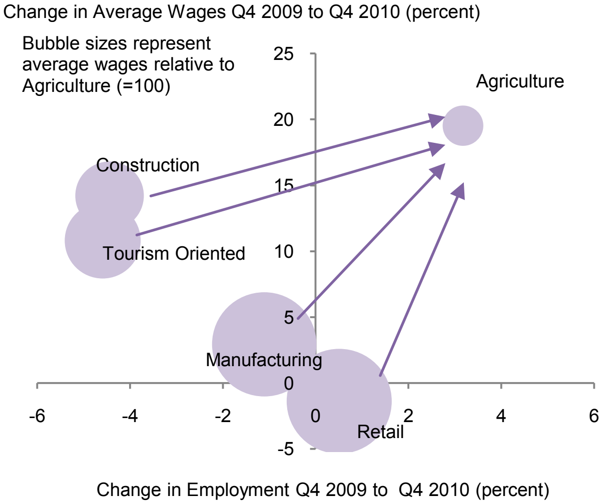
Although most households (including many among the poor) benefit from higher agricultural prices and related effects on wages, some of the most vulnerable are likely suffer through higher food prices. In 2008, Thailand posted its first increase in the number of people living below the poverty line since the 1997 crisis, with 350,000 Thais pushed into poverty (Figure 99). Growth in consumption expenditure in the bottom 20 percent of households was 9.7 percent, but soaring food prices led to a sharp increase in the poverty line (food comprises 56 percent of the consumption basket of the poorest households). Adjusting for the increase in the poverty line, the consumption growth among the poorest 20 percent of households all but disappears. Many vulnerable households (i.e., those just above the poverty line) are net food buyers, and therefore their income gains were surpassed by the higher cost of living, leading to an increase in the number of individuals living below the poverty line. Notwithstanding the global financial crisis and contractions in GDP and private consumption, food prices moderated in 2009, supporting a decline in poverty.[17] In 2009 the poverty rate was 8.1 percent.

Figure 99. Higher food prices are linked to the increase in poverty observed in 2008.



Source: NSO, MoC, and World Bank staff calculations.

Figure 100. Wages and employment in agriculture soared, pulling unskilled wages.



Source: NSO and World Bank staff calculations.

Firm agricultural prices led to an increase in agricultural wages, which helped push all wages upward in 2010. Real agricultural wages increased by 16.5 percent in the fourth quarter of 2010. Faced with higher competition for labor from the agricultural sector, non-agricultural firms had to raise wages in an attempt to reduce turnover to agriculture, pulling real non-agricultural wages higher by 4.3 percent. Figure 100 shows that, excluding agriculture, there is a negative correlation between changes in wages and changes in employment levels among unskilled sectors. Importantly, there is also a correlation between these two variables and the gap between agricultural wages and average wages in other sectors (the size of the bubbles in the chart): the lower the average wages in the sector (the closer they are to agricultural wages), the more likely workers are to go back to agriculture when agricultural wages increase, and the higher are the required wage increases to retain workers. Overall, real wages were up 6.3 percent in the fourth quarter of 2010 from the same period in 2009.

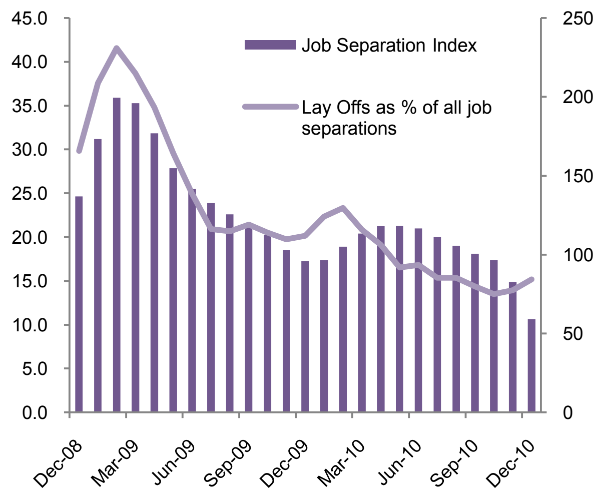
Higher wages are also a sign of a tighter labor market, as corroborated by low level of lay-offs as a share of total job separations. While the unemployment rate in Thailand is structurally low and not necessarily a good indicator of labor market conditions, other indicators suggest job markets are

[17] Lower food prices are only part of the reason poverty declined, since income growth for the poorest 20 percent of the population was also stronger in 2009 than in 2008 despite the crisis.

tightening. In the fourth quarter, a high proportion of job separations were due to resignations rather than layoffs suggests that workers left jobs likely to pursue alternative employment opportunities (Figure 101). Other indicators of labor market conditions also point to greater tightness. The proportion of the labor force that is unemployed or working less than 20 hours per week reached a low of 6.3 percent in October (Figure 102). Meanwhile, the share of the labor force working more than 40 hours per week recovered from the crisis, but remained well below pre-crisis peaks. This category is influenced by sluggish gains in manufacturing employment, where overtime is an important component of overall income.

Figure 101. Job separations declined, along with the share of lay-offs.

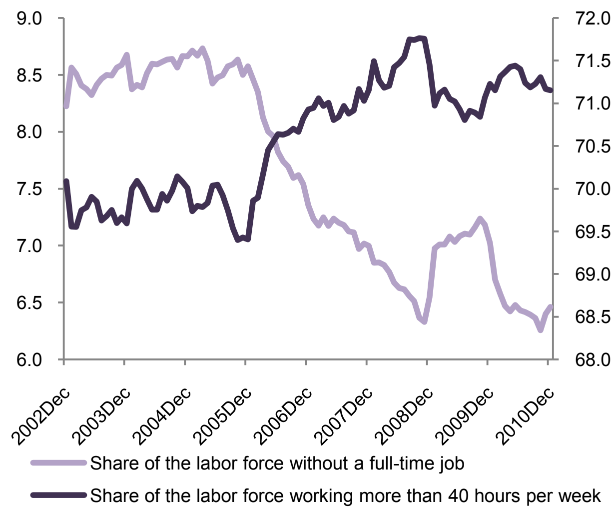
Increase in the poverty line, 2007 to 2008 (percent)



Source: NSO, MoC, and World Bank staff calculations.

Figure 102. The number of people without full-time jobs declined to all-time lows.

Change in Average Wages Q4 2009 to Q4 2010 (percent)

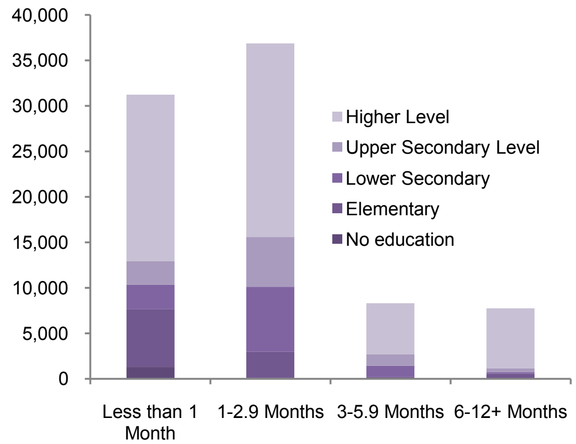


Source: NSO and World Bank staff calculations.

The small number of unemployed workers actively looking for a job is concentrated in high-skilled groups, where matching frictions are more salient in the job search process. Friction may be measured by the average time it takes for unemployed individuals to receive an offer of employment. During the third quarter of 2010, workers with advanced education spent on average three months longer than those with no education to find employment (Figure 103). Such concentration of unemployment in highly-skilled sectors may reflect a mismatch of skills demanded and supplied (many job vacancies were for low-skilled workers) but also normal labor market frictions since low-skilled labor may be easier to match with jobs compared with labor with higher but more specific skills. It also suggests that labor markets for unskilled workers are particularly tight, which is also reflected by greater reliance on migrant workers in low-paid unskilled sectors. In sectors such as construction, agriculture and fishery, strict regulatory measures on employment of migrant workers provided incentives for firms to hire non-registered migrants from Myanmar, Laos, and Cambodia (Figure 104).

Figure 103. Job matching frictions are greater among higher-educated workers.

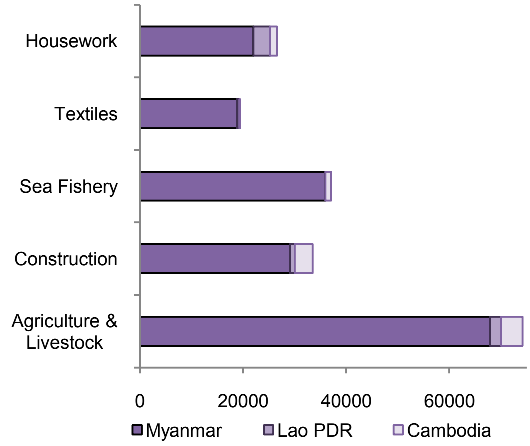
Job seeking duration by educ. level, Q3 2010 (number of job seekers)



Source: NSO, MoC, and World Bank staff calculations.

Figure 104. Migrant labor is prevalent in lower wage areas such as construction and agriculture.

Non-registered Migrant Labor by Sector in February 2011

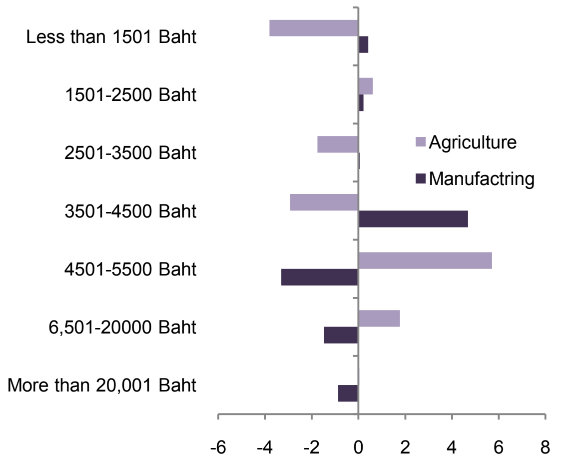


Source: NSO and World Bank staff calculations.

Reflecting the external orientation of the sector and related competitive pressures, manufacturing firms have attempted to control labor costs in a variety of ways. Employment growth in the sector has been limited, suggesting higher output has come from capital deepening. In addition, wage growth has been slow. In contrast with agriculture, where higher average wages were reflected in a higher proportion of workers in higher wage brackets, the manufacturing sector saw a marked decline of its share in high tiered wage groups and shifted towards the median wage group (Figure 105), suggesting an emphasis in hiring low-wage labor. In addition, the composition of labor incomes in manufacturing is more diversified, including a higher proportion of fringe benefits and overtime, which can be cut in face of a shock to demand (Figure 106).

Figure 105. Manufacturing firms hired lower wage workers.

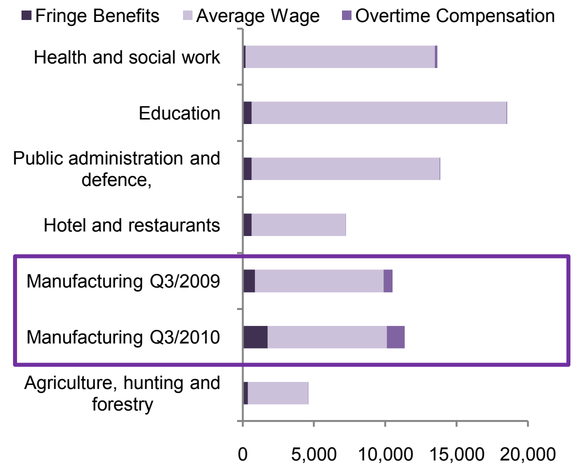
Number of employed by income level, Q3 2008 – Q3 2010 (pct change)



Source: NSO and World Bank staff calculations

Figure 106. Increases in overtime and fringe benefits raised manufacturing labor incomes.

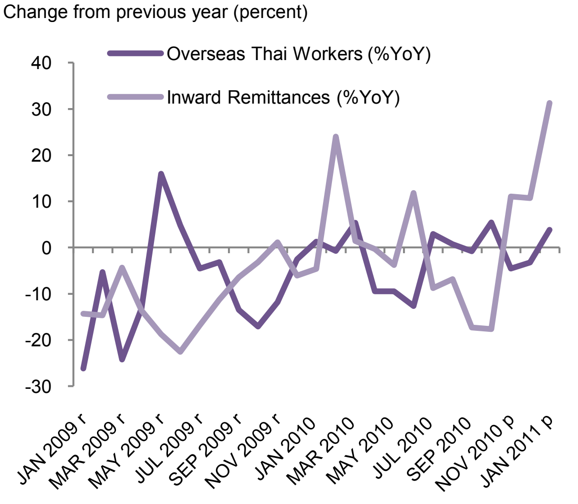
Average Labor Income Breakdown by Sector (THB)



Source: NSO and World Bank staff calculations

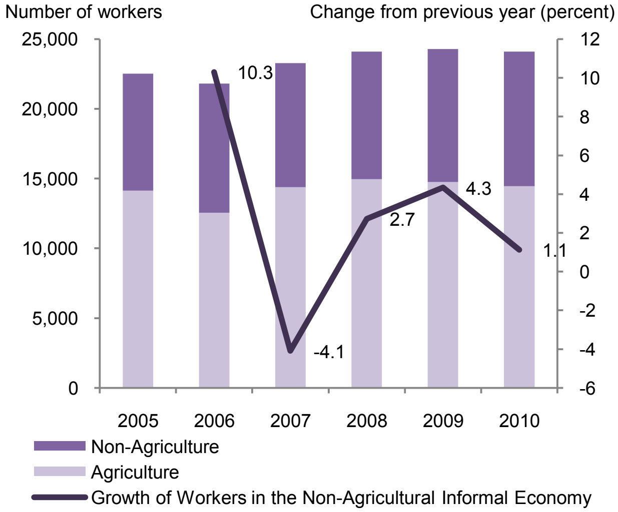
Putting further pressure on labor markets, there was a trend in 2010 for Thai workers to return to employment abroad. In the midst of the global recession in November 2008, a large number of overseas Thai workers returned home as opportunities for employment in the EU, Middle East, and Asia declined. As recovery has begun to take hold in advanced economies, Thai workers regained confidence and started to return abroad in 2010 (Figure 107). Overall, the number of overseas Thai workers grew by 4 percent in January 2011 from the same period of the previous year. The main destinations for Thai workers included Taiwan, Singapore, South Korea, Libya, and Qatar. It is expected that the number of Thai workers abroad will continue to grow as a result of the signing of bilateral agreements to increase quotas for registered Thai workers in South Korea and Taiwan.

Figure 107. Thai workers are returning abroad after the crisis.



Source: NSO and World Bank staff calculations

Figure 108. Informal workers increased in the non-agricultural sector.



Source: NSO and World Bank staff calculations

The number of non-agricultural workers in the informal sector has increased since the global recession. As of 2010, the Thai informal labor market counted 24 million workers, or 62 percent of the combined workforce.[18] The highest share of informal workers is in the agricultural sector, which is characterized by smallholder production. The size of the informal agricultural sector has remained relatively constant since 2007 and stands at 14.4 million workers (Figure 108). On the other hand, the number of workers in the non-agricultural informal sector (primarily retail trade) has increased by over 7 percent since 2007 and represented approximately 9.6 million workers as of 2010.

***Social protection: initiatives in extending pension coverage in Thailand*[19]**

Given the large number of workers in the informal sector and Thailand's ageing society, more emphasis has been placed on increasing the reach of pension schemes. Similarly to other countries, Thailand has gone through a demographic transition from high to low levels of fertility and mortality, resulting in an increase in the elderly population (aged 60 and older). Successful implementation of family planning programs and health system development in Thailand over the past decades are important factors contributing to the decrease of fertility and lengthening of life expectancy at birth. The total

[18] The informal sector in Thailand is defined by the National Statistics Office based on a proxy of qualitative characteristics and the number of employees (less than 9). Because of the issues in definition, it is possible that the size of the informal sector may be overcompensated by the number of registered micro enterprises.

[19] Contributed by Magnus Lindelow, Piriya Pholphirul and Sutayut Osornprasop.

fertility rate dropped from 6.4 in the 1950s to 1.8 in 2008, and is projected to decline to 1.5 during the next 20 years (Table 7).[20] Life expectancy at birth increased from 54 years in 1960 to 69 in 2008. It is projected to increase further to 76.8 years in 2025 and 79.1 years in 2050.[21] As a result of the demographic transition, Thailand's population is rapidly aging. In 1950, with only 5 percent of its population aged 60 years and over, Thailand ranked as the seventh most aged country in Southeast Asia. It has now moved up to Southeast Asia's second most aged country, after Singapore, with elderly people constituting over 10% of the population. The elderly population will increase from the current 6.8 million to 9 million in 2015, 12.9 million in 2025, and is projected to exceed 20 million in 2050.[22] Based on the projected demographic data of the UN World Population Prospect, the dependency ratios[23] of the elderly population in Thailand will increase from 9.6 percent in 2000 to about 26.4 percent in the next 40 years (see Table 8).

Table 7. Fertility Rate in Selected ASEAN Countries

(Percent)

Countries	2000-2005	2010-2020
Thailand	1.8	1.81
Cambodia	3.7	2.96
Lao PDR	3.7	3.54
Malaysia	2.9	2.58
Myanmar	2.3	2.32
Vietnam	2.3	2.08

Source: UN World Population Prospect

The sharp increase in the share of elderly in the population presents a number of challenges. In the short term, the ageing society leads to labor shortages and need of immigration to fill in vacancies (see Box 7). In the long term, it leads to lower growth in productivity, national income and consumption.[24] The question of how to provide old-age income security to a growing elderly population has also become a prominent policy issue.

[20] United Nations, World Population Ageing, 1950-2050; World Development Indicators, 2010; UNFPA, *Population Ageing in*

Thailand: Prognosis and Policy Response, 2006.

[21] United Nations, World Population Ageing, 1950-2050.

[22] UNFPA, *Population Ageing in Thailand: Prognosis and Policy Response*, 2006.

[23] The dependency ratio of the elderly population is the ratio of the population aged 60 or over to the population aged 15-59 (working age).

[24] Due to higher aging population, the number of workers in relation to the population needing support tends to be reduced and the national saving rate lowered, resulting in slower growth in national income and consumption. Due to higher government spending on health care and pensions, those who work may have to pay higher taxes. This could create disincentives to work and for firms to invest, leading to a fall in productivity growth. The shortage of workers may also push up wages causing wage inflation.

Table 8. Dependency Ratios for the Population aged 60 and older

(Percent)

Country	2000	2025	2050
Asia	8.5	14.6	23.6
East Asia			
China	10	19.6	31.1
Hong Kong-China	14.8	30.8	39.5
Japan	23.3	36	44.2
Republic of Korea	11.2	27.1	40.8
South East Asia			
Thailand	9.6	19.1	26.4
Cambodia	4.6	8.3	16.2
Lao PDR	5.4	7.4	14.4
Malaysia	6.2	13.2	22.2
Myanmar	7.7	13	23.6
Singapore	10.6	31.7	39.6
Viet Nam	7.8	15.2	26.6

Source: UN World Population Prospect

Currently, only private employees (formal sector) and civil servants are covered by compulsory and contributory public pension systems. Private sector employees are covered through the Social Security Fund;[25] civil servants through the Government Pension Fund (GPF) Scheme[26]; state enterprise employees through the State-Owned Enterprise (SOE) Scheme[27]; and private school teachers are covered through the Private School Teacher Welfare Fund (PS Scheme).[28] There are also independent public entities that offer voluntary retirement saving opportunities, including (1) Provident Fund; (2) Retirement Mutual Fund, and (3) Private Insurance.[29] Coverage does not extend to the entire population especially those self-employed

[25] This is defined benefit type of old age pension where a member retiree will receive a monthly pension at the rate of 15 per cent of the average salary of the last 60 months before retirement. Under the Social Security Fund, formal private workers and employers each will contribute 3 percent of workers' earnings (up to the ceiling of 15,000 baht per month), and the government add additional 1 percent (all together 7 percent) to be covered for 7 exigencies: 1) Sickness and Injuries, 2) Maternity, 3) Disability, 4) Death, 5) Child Allowance, 6) Unemployment, and 7) Old-age. In order to receive benefits in the old-age provision section, the workers must contribute to the Social Security Fund for not less than 180 months, and that person will have aged at least 55 years and no longer working.

[26] The Government Pension Fund is a defined contribution pension scheme. Public officials contribute 3 percent of their monthly salaries, while government adds another 3 per cent to the Fund in these public officials' names. At retirement, these public officials will have a choice of receiving lump-sum gratuities or monthly pensions. Parts of these payments will come from government's budget, but for those who have made contributions to the Fund will also receive benefits from the investment incomes of the Fund.

[27] The State-Own Enterprise Scheme is a privately managed, voluntary savings, defined contribution type of pension scheme. Employees are required to save a certain rate of monthly wages (at least 3 percent of wages, and not exceeding 15 percent), while employers contribute and equal or greater amount. In terms of benefits, the employees will receive lump-sum payments at the time of their resignation or retirement.

[28] The Private Teachers' Provident Fund system is a mandatory, defined contribution scheme for teachers of private schools under the Private School Act. The current contributions rates are 3 per cent of salaries from teachers, 3 per cent from school owners, and 6 per cent from the government. These private school teachers will receive payment in lump sum when they resign from their employment after 5 years of service.

[29] The Provident Fund was enacted to encourage private sector employees to save for retirement. The fund is a voluntary defined benefit and is arranged upon agreements between employers and employees to set the Fund Committee that oversees the provident fund. The scheme regulatory authority is under the Securities and Exchange Commission (SEC). The concept of the retirement mutual fund (RMF) aims to provide another voluntary retirement savings to those employees who are not in the provident fund or who want to make the additional contributions. But to be able to benefit from the of tax privileges, the investor must invest in the RMF at least once a year for 5 years

and informal workers.[30] The above-mentioned schemes primarily cover formal sector workers and those in the high-income informal sector, and approximately two thirds of the labor force is not covered by any formal old-age income security scheme.

A 500 Baht universal pension scheme was introduced in April 2009.[31] In the first stage, (April-September 2009), the government financed the scheme as part of the economic stimulus package. For the fiscal year 2010 (October 2009-September 2010), the Order of Ministry of Interior on Old-Age Allowance Payment B.E. 2550 (2009), financing will be through the general government budget. Under this scheme, all elderly (over 60 years old), who are not residing in homes for the elderly or other public facilities, and who do not receive a regular income permanently (i.e. government pension recipients, government employed persons), are eligible. In principle, the elderly or the authorized representative must register at the local authorities.[32] As of fiscal year 2010, the number registered 500 baht pension recipients are approximately 77.5 percent of elderly population while the remaining of 1.22 million elderly have not yet registered with the scheme (Sakunphanit and Suwanrada, 2010). Nevertheless, given current (2007) average income of 80,639 Baht per capita per year, or about 6,720 Baht per person per month, 500 baht per month remains a very low amount (7.4 percent of average income). The universal 500 baht pension scheme is expected to be transferred from local authorities to the central government.

The Thai government recently announced a package of assistance measures focusing on the informal sector and including a pension component. In January 2010 the Thai government launched a 9 billion-bath package of assistance measures largely targeting the informal sector. Under the name "Pracha Wiwat" (People's Agenda), the scheme aimed to expand the coverage of social security and improve the well-being of grassroots communities. The funding is allocated to nine "gifts" covering social security reform, credit access, food and energy subsidies, and improved security through crime reduction (Table 9).

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with at least 3 percent of the earnings or at least 5,000 baht whichever is lower, and will not sell or redeem these savings before the age of 55, after maintaining these savings for at least 5 years. The private insurance was supported from the government in term of tax exception. Premiums paid to an insurance policy with a term of at least 10 years at an insurance company incorporated in Thailand are tax exempted for the actual amount paid but cannot exceed 50,000 baht per year. Benefits received from the life insurance policy are also tax exempted.

[30] These schemes were claimed to only target high-income classes in informal sector to voluntarily participate, it has been criticized from not focusing on the medium or low income classes, which are the majority of the population without formal old-age income maintenance tool.

[31] The 500 Baht universal pension scheme is a re-modeled version of the Old Age Living Allowance (OAA) program, initiated in 1993 to provide income for the poor elderly or the disabled elderly. In the first year there were 20,000 older persons that were granted an income of 200 baht per month per head. The number of receivers then increased to 400,000 persons in 2002 while the allowance was increased to 300 baht per month. By 2007, the number of beneficiaries had increased to 1,755,266 persons and the allowance was increased to 500 baht per month. In 2009 starting from April, the government has decided to make the scheme universal.

[32] Beneficiaries can receive payment through one of four means: (1) to receive cash directly at local authority office by himself, (2) to delegate authorized representative to receive cash directly at local authorities office, (3) to have pension be transferred to bank account of the elderly and (4) to have pension be transferred to bank account of the authorized representative.

Table 9. Summary of the Pracha Wiwat (People's Agenda) Scheme

Gift 1: Amendments to the social security law to allow workers in the informal sector to join the social safety net via a co-payment system. The contribution scheme aims to cover costs for healthcare provisions, death, and retirement.
Gift 2: Expanding credit access for taxi drivers, motor-cycle taxi drivers, and street vendors for an unspecified interest rate.
Gift 3: New registration procedure for motorcycle-taxi driver with the purpose of eliminating the influence from the local mafia.
Gift 4: Allocation of new areas of operation to street vendors in Bangkok
Gift 5: Cost controls through subsidization of liquefied petroleum gas (LPG) for households
Gift 6: Free electricity to six million households who consume less than 90 units per month.
Gift 7: Cutting the cost of animal feed aimed to lower the final price of livestock.
Gift 8: Improving the diversity and transparency in the trading system of agricultural product.
Gift 9: Improved security and crime control in Bangkok by 20 percent within six months

"Gift 1" is the most meaningful from a long-term perspective, and is related to three MOF initiatives related to old-age income security:

1) **National Saving Fund Act**: The Thai government (Proposed by the Ministry of Finance), approved, on October 2009, draft on National Saving Fund Act B.E. to establish the defined-contribution national pension system to those who are not covered in any pension schemes. The National Saving Fund aims to allow general people without social welfare services such as farmer and vendor to apply. The new savings program aims to cover around 24 million (or two-third of labor force) workers who currently lack any formal retirement coverage (Government Pension Fund, Social Security Fund, or other voluntary provident funds). Under the program, workers will contribute from 100 to 1,000 baht per month and the government will match the contributions with 50 baht per month for members aged 20 to 30 years, 80 baht per month for members aged 30-50 years, and 100 baht per month for members aged 50 to 60. A worker aged 20 who contributes the minimum 100 baht per month to the fund until retirement at 60 will receive pension benefits of around 3,000 baht per month, including a monthly 500-baht payment already given by the government from the 500 Universal Pension. MOF anticipates membership of around 7 million within 1-2 years. This act is currently with the Council of the State for the pass through the decision making of the parliament

2) **Amendment of Social Security Fund Act:** The Cabinet, on September 1st, 2009, approved an amendment of Social Security Fund Act to extend benefits to spouses and dependents of social security members. Proposed by the Ministry of Labor, approximated 5.88 millions of spouse and children of the social security members will be moved from the Universal Coverage scheme (UC) to Social Security Scheme (SSS) coverage of social security scheme. Four types of benefit compensation (Sickness, Maternity, Disability, and Death) will be covered under the system with additional estimated expense of 2,452 baht per person or 14,416 million Baht in total in the year 2009. Even though old-age pension entitle is not yet included for those spouses and dependents of social security members, this can be another method of increasing household saving from mitigating some risks.

3) **Promotion of Community-based Social Welfare Fund:** In many areas of Thailand, for example Songkhla, Lamphang, Trat or Khonkaen provinces, a large number of communities have initiated their own "Community-based Social Welfare Fund". The objective of such fund is for such community to solve the problem of the inadequacy or the lack of publicly provided social welfare services. These schemes provide various types of welfare through the lifecycle of the community members ranging from family support, maternity fee, educational loan,

community business loan, subsidy for medical expenses, and subsidy for funeral expenses. In some groups, pension is also one of the special-feature benefits.[33]

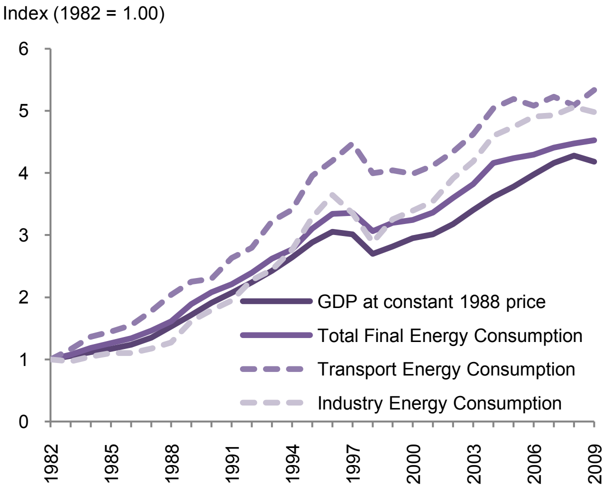
While these initiatives are significant, one of the key features of current old-age security systems in Thailand is the high degree of fragmentation. Currently, there is no coherent vision for how different parts of the pension system will come together over the medium to long term. Questions are also likely to arise regarding the financial sustainability of recent initiatives, which is likely to lead to debates about whether to target public subsidies.

3.2 Boosting Energy Efficiency for Sustainable Growth[34]

Energy intensity of the Thai economy

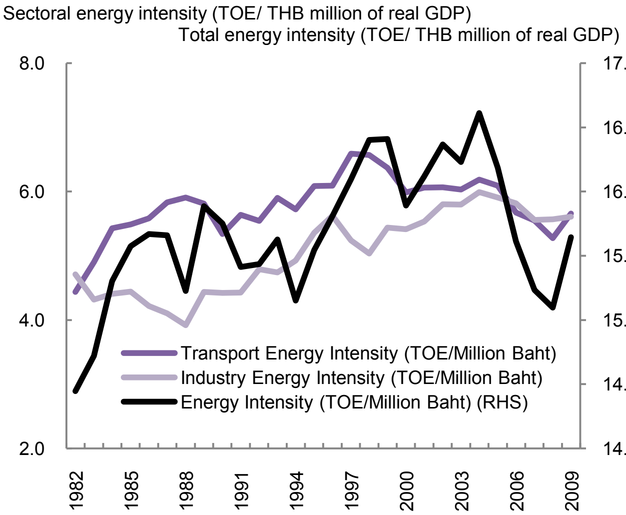
Following years of rapid growth in energy consumption, energy intensity in Thailand started to decline in 2004. Energy consumption in the most energy intensive sectors in the Thai economy—transport and industry—grew faster than GDP between 1982 and 2009 (Figure 109). This resulted in total energy consumption growing faster than GDP and in a pattern of increasing energy intensity (defined as total final energy consumption per unit of GDP). This pattern was reverted in 2004, however, when energy intensity began to steadily decline (Figure 110). Energy consumption of the transport sector grew faster than GDP and total final energy consumption during the period 1982 – 2004, and then slowed down in response to higher oil prices. Industrial energy consumption lagged GDP growth in the early 1980s but picked up in 1988. As with transport, energy consumption in industry flattened since 2004.

Figure 109. Energy consumption has grown in line with patterns of economic growth.



Source: Bank of Thailand, Department of Alternative Energy Development and Efficiency, and staff calculations.

Figure 110. Energy intensity increased since 1994, but entered a decelerating trend since 2004.



Source: CEIC, DEDE, and World Bank staff calculations.

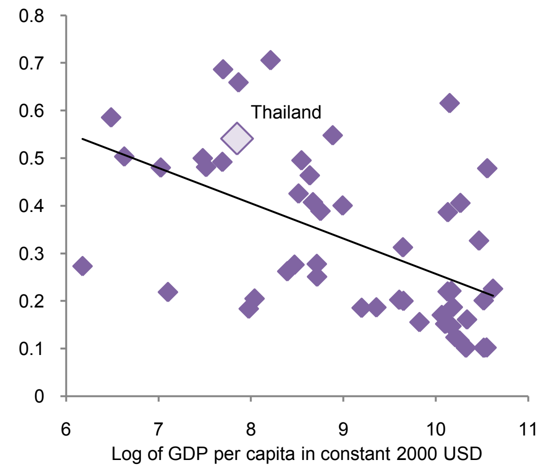
[33] Suwanrada (2009) pointed out some limitations of the community-based social welfare fund, particularly to pension benefits. First, the program has no interregional insurance function but financially independent without any cross-subsidization across communities. Second, financial sustainability of such scheme depends on largely on internal situation which seems to be varied by communities such as number of members, percentage of elderly and dependents, the return of fund, etc.

[34] This section was prepared by Xiadong Wang, Pajnapa Peamsilpakulchorn, Natsuko Toba and Yabei Zhang with contributions from Anthony Burgard.

But levels of energy intensity remain high compared to peers regionally and globally. Despite recent improvements, earlier patterns resulted in energy intensity remaining elevated relative to Thailand's income level (Figure 111). The intensity of energy consumption in the industrial and transport sectors is also apparent on the regional level where Thailand has remained one of the most energy intensive countries in East Asia. In terms of energy intensity, Thailand ranked second highest among its neighbors in East Asia (Japan, South Korea, and Malaysia), lagging closely behind China in 2005.

Figure 111. Energy intensity in Thailand is above average considering its income level.

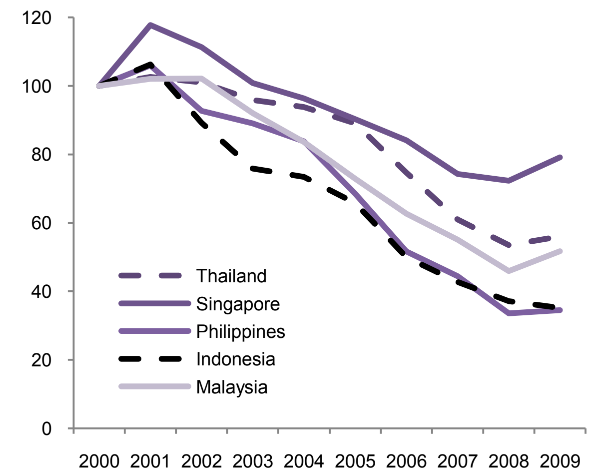
Energy Intensity (tons oil equivalent per USD 1,000 of real GDP)



Source: BP Oil, WDI and World Bank staff calculations
Note: Data is for 2007-2009. Excludes countries in the former Soviet Union as outliers.

Figure 112. Thailand is one of the most oil intensive countries in the region

Oil intensity index (oil consumption tons / real GDP)



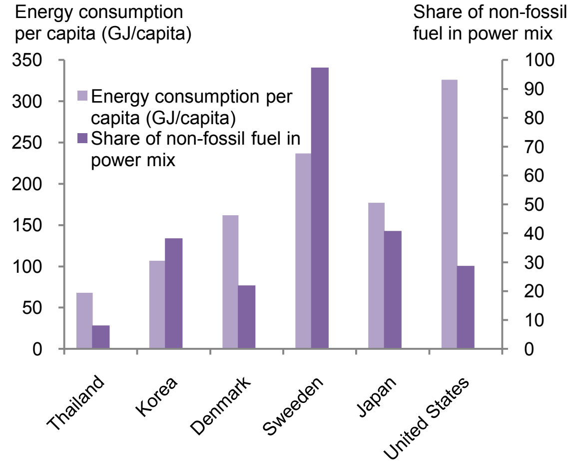
Source: CEIC, BP Oil, and World Bank staff calculations

Oil intensity—and dependence on fossil fuels more generally—is also high but declining. Although oil intensity has been on a downward trend at a national and regional level, Thailand ranks second in ASEAN, behind only Singapore in terms of oil intensity (Figure 112). Thailand's energy consumption per capita is still below that of advanced economies, but its reliance on fossil fuels is comparatively high (Figure 113).[35] Thailand is a net importer of oil, and remains dependent on other foreign sources of fossil fuels, which also include natural gas and coal. While Thailand has begun to move towards use of more diversified sources of energy such as solar and wind, as well as direct imports of hydro electricity from Laos, these sources remain a small share of the total energy mix and imports of crude oil, natural gas, and coal continue to lead energy imports (Figure 114).

Growth in electricity consumption is also declining, but usage patterns vary substantially. Growth in electricity consumption appeared to be on a decelerating (if irregular) trend prior to the global financial crisis (Figure 115). Between January 2008 and January 2011 electricity consumption by households, SMEs, and large enterprises grew by 7.8, 2.6, and 9.0 percent, respectively. The relatively lower growth in usage by SMEs reflects their participation in less energy-intensive sectors of the economy (food processing, textiles, services), whereas the relatively high growth in electricity usage by households may be related to the economic recovery but also to government programs that provide free electricity to households using up to a certain amount of energy.

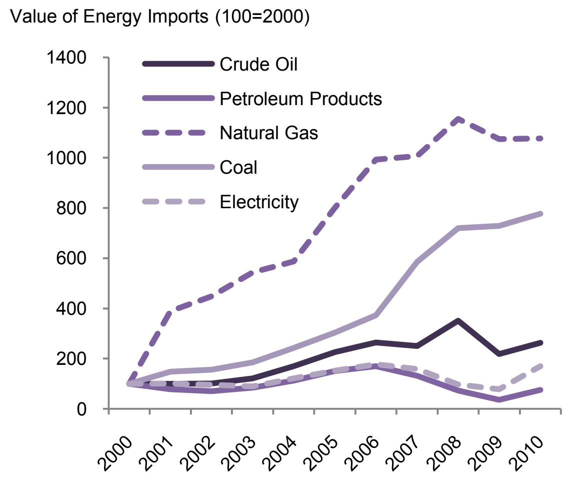
[35] Fossil fuels include petroleum, coal and natural gas.

Figure 113. Despite falling oil intensity, reliance on fossil fuels is still comparatively high.



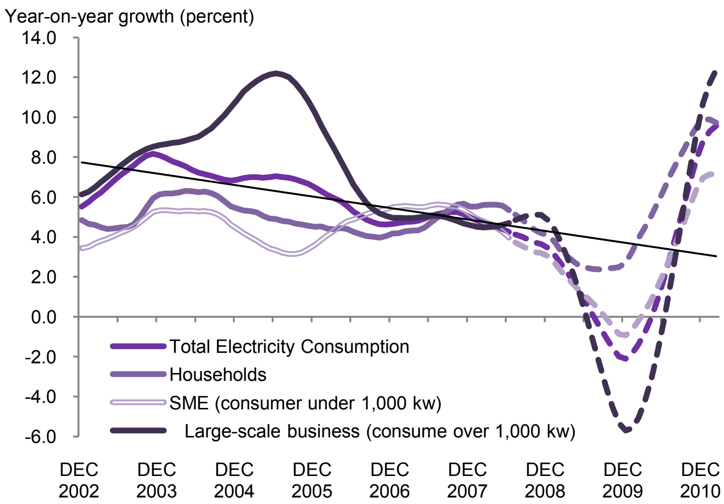
Source: World Bank

Figure 114. Reliance on foreign energy sources continues to rise.



Source: Bank of Thailand, DEDE, and staff calculations

Figure 115. Growth in electricity usage shows a long-term decelerating trend.



Source: EPPO and World Bank staff calculations.

Drivers of energy consumption growth

The industrial sector accounts for the majority of energy consumption growth in the last decade. Energy consumption increased by 49 percent between 2000 and 2010, mainly driven by a 58 percent increase in energy consumption in industry. The industrial sector became the leading energy consumer in the country surpassing the transport sector (Table 10). This increase reflected a higher share of industry in real GDP. Unlike most developing countries (including China), which see the share of services grow relative to manufacturing as they develop, in Thailand the energy-hungry industrial sector grew in real terms vis-à-vis the services sectors.

Table 10. Energy Consumption by Sector in Thailand, 2000 and 2010

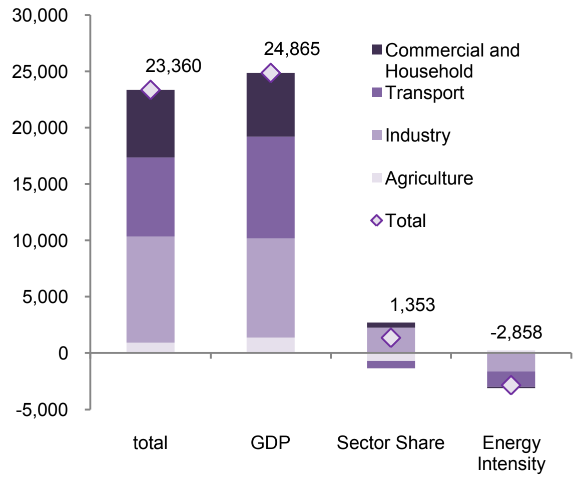
Sector	2000		2010	
	KTOE	%	KTOE	%
Industry & Mining	16,293	34.1	25,989	36.2
Transport	18,022	37.7	25,061	35.2
Household	7,434	15.6	11,013	15.5
Agriculture	2,791	6.5	3,701	7.8
Commercial	3,117	5.8	5,520	5.2
Construction	149	0.3	120	0.2
Total	**47,806**	**100%**	**71,166**	**100%**

Source: Department of Alternative Energy Development and Efficiency

Gains in energy efficiency achieved by switching to more energy-efficient industrial and transportation equipment were partly offset by structural changes in the economy. The total increase in energy consumption between 2000 and 2010 can be decomposed into the contributions from increasing output, the change in the share of the sector in total output, and changes in energy intensity (Figure 116). The decomposition reveals that growth in energy consumption has been driven mostly by output growth. Some gains in energy efficiency were realized, especially in the transport sector, leading to a decline in energy intensiveness. However, these gains were partly offset by the structural change in the economy towards more energy-intensive sectors (especially industry). The transportation sector has become more energy efficient while its share in output declined, leading to slower growth in the sector's energy consumption compared to GDP. In the industrial sector, however, gains in energy efficiency were more than offset by the gain in the sector's share of total output.

Figure 116. The increase in energy consumption was due mainly to GDP growth.

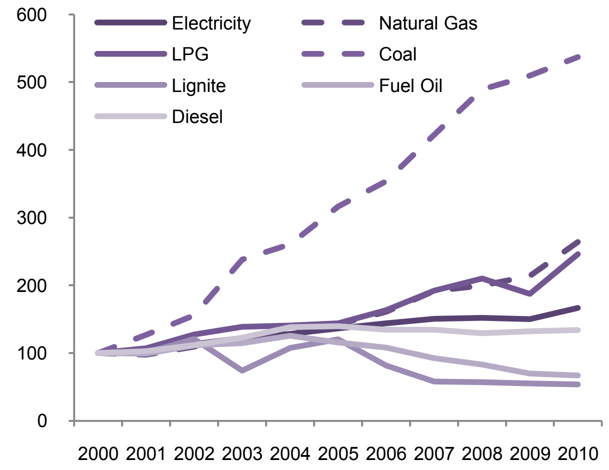
Additive decomposition of the change in energy consumption, 2000-2010 by increases in GDP, sector share and energy intensity (KTOE)



Source: NESDB, DEDE, and World Bank staff calculations.
Note: Decomposition using the LMDI method.

Figure 117. Coal and Diesel remain the most dominant sources of energy for industry.

Industry Energy Consumption Index by Energy Type (100=2000)

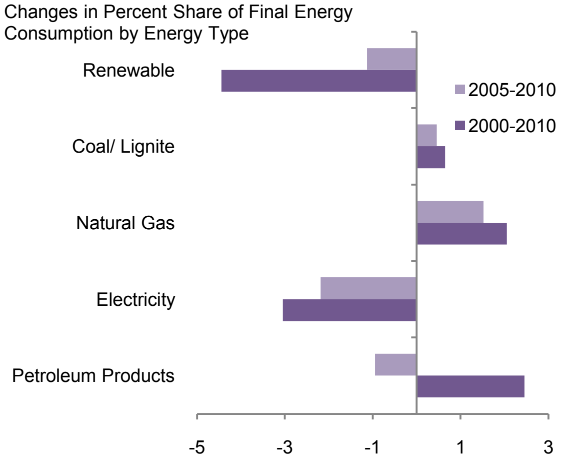


Source: Ministry of Energy, Thailand
Note: Fuel Oil and Diesel Indices are derived figures.

The expansion of the industrial sector has been a key contributor to the growth in energy consumption. Between 2000 and 2010, the share of manufacturing output in real terms increased by four percentage points, supported by the strength of the electronics and automobile sectors but also the lack of dynamism in services sectors. Moreover, Thai industry has changed considerably from textile, garment and agro industries in 2000 to petrochemical, electronics, and automotive industries. These structural moves—towards more energy-intensive sub-sectors—led to higher energy consumption in the economy.

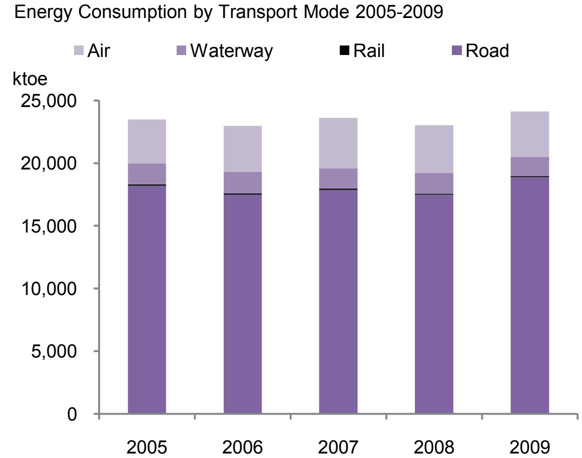
This offset some but not all the gains in energy efficiency achieved by new and more energy efficient equipment, as output still grew faster than energy consumption. On the other hand, the industrial sector has also on average become more reliant on fossil fuels, with diesel and coal remaining the most dominant sources of energy consumption (Figure 117 and Figure 118).

Figure 118. Declining oil intensity may be leading to increased use of coal and natural gas.



Source: DEDE

Figure 119. Road transport continues to be the largest source of energy consumption for the Transport sector

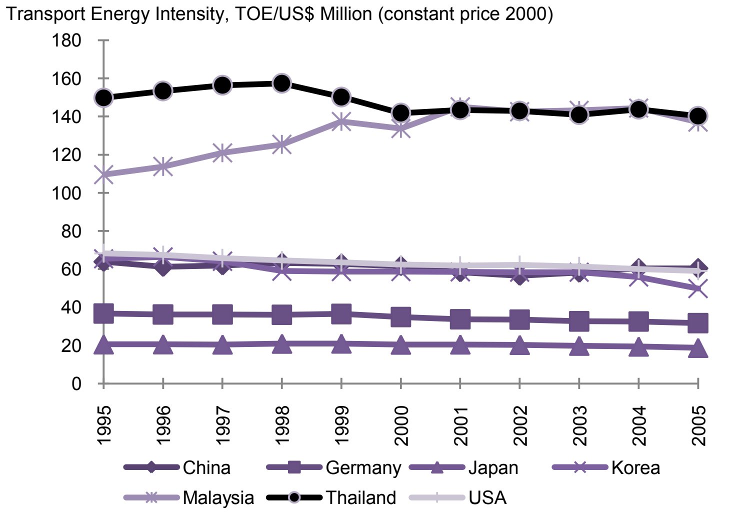


Source: Ministry of Transport, Thailand

The transport sector has reduced its weight on energy consumption growth, but remains energy intensive relative to other countries. The transport sector has historically been a major consumer of energy due to the structure of Thailand's logistics networks. Land transport has been and continues to be the most cost effective methods of shipment for most producers due to the expansiveness of Thailand's highway system and a relative lack of development in its railway networks. In 2009, land transport accounted for 78.6 percent of modal shares of freight transport with rail contributing only 0.4 percent (Figure 119). The marginal modal share of rail is in sharp contrast to what is observed in countries like China (51 percent), Germany (20.7 percent), Japan (6 percent), South Korea (9.1 percent), and the USA (44.8 percent) where rail has played significant role in freight transport[36] (Figure 120). Therefore, although consumption in the transport sector has grown by less than overall GDP due to improvements in energy efficiency of transport equipment and a reduction in the sector's share of GDP, the sector remains comparatively energy intensive.

[36] Data on percentage share of rail from total freight tonne-kilometers for Germany (2006), Japan (2006), Korea (2005) and the USA (2005) are from OECD/ITF (2008). Data for China (2005) is from World Bank (2007a).

Figure 120. Thailand's transport sector is relatively energy intensive



Source: International Energy Agency and staff calculations.

Policies to boost energy efficiency

Boosting energy efficiency is a cost-effective option to reduce Thailand's vulnerabilities to higher oil prices and enhance energy security in the long-term, but implementation of an effective policy package will require substantial coordination. Many EE measures are financially viable for investors at current prices, but are not fully realized, due to many market failures and barriers (Box 6). A mix of compulsory and voluntary measures focused on both the demand and supply side is required to overcome these barriers. Policy instruments will include strengthening regulations and enforcement as well as intensifying the use of price and market incentives (such as fiscal measures) and raising public awareness. The objectives of fiscal measures in this context are often twofold. The first is to influence consumers or producers' resource conservation behavior. Secondly, the revenues collected are sometimes used to remedy negative impacts or to promote activities that will improve the environment performance or reduce energy consumption. However, experience has shown that fiscal measures need to be complemented by enforceable regulations.

Box 6. Energy efficiency faces many market barriers and failures

- **Low or underpriced energy.** Low energy prices undermine incentives to save energy.
- **Regulatory failures.** Consumers who receive unmetered heat lack the incentive to adjust temperatures, and utility rate-setting can reward inefficiency.
- **A lack of institutional champion and weak institutional capacity.** Energy-efficiency measures are fragmented. Without an institutional champion to coordinate and promote energy efficiency, it becomes nobody's priority. Moreover, there are few energy-efficiency service providers, and their capacity will not be established overnight.
- **Absent or misplaced incentives.** Utilities make more profit by generating and selling more electricity rather than by saving energy. For most consumers, the cost of energy is small relative to other expenditures. Because tenants typically pay energy bills, landlords have little or no

incentive to spend on efficient appliances or insulation.

- **Consumer preferences.** Consumer decisions to purchase vehicles are usually based on size, speed, and appearance rather than on efficiency.
- **Higher up-front costs.** Many efficient products have higher up-front costs. Individual consumers usually demand very short payback times and are unwilling to pay higher up-front costs. Preferences aside, low-income customers may not be able to afford efficient products.
- **Financing barriers and high transaction costs.** Many energy-efficiency projects have difficulty obtaining financing. Financial institutions usually are not familiar with or interested in energy efficiency, because of the small size of the deal, high transaction costs, and high perceived risks. Many energy service companies lack collateral.
- **Limited awareness and information.** Consumers have limited information on energy-efficiency costs, benefits, and technologies. Firms are unwilling to pay for energy audits that inform them of savings.

Source: Wang and others 2010.

Assessment of the current policy landscape

Thailand has had energy conservation plans since 1995, but achieving the plans' targets has proven challenging. The Energy Conservation and Promotion Act of 1992 established the Energy Conservation Fund (ENCON) and set the targets for energy savings in different sectors. The plan and targets were revised twice, most recently in 2005. The current implementation has been more successful in integrating support from the private sector with partnerships from established Thai commercial banks, but efficiency gains have been relatively slow and energy intensity remains high (Table 11). Below we analyze current policy initiatives.

Table 11. Targets and Achievement of the Current Energy Conservation Plan (2005-2011)

Areas	**Target 2011 (KTOE)**	**Achieved 2007 (KTOE)**
Energy Efficiency		
Transport	3,413	437
Industries/Commercial/Agriculture	3,190	892
Residential	1,217	225
Total	**7,820**	**1,554**
Alternative Energy		
Renewable Energy	6,688	3,274
NGV	2,170	312
Total	**8,858**	**3,586**

Source: Energy Conservation Plan 2008-2011
Note: Exchange Rate of 30THB/USD

1. Mandatory Regulations

Energy manager programs have not worked well. As part of the implementation of the ENCON Act, an energy management scheme was expected to be implemented. Factories and buildings with more than 1,000 kW of power demand or energy consumption of more than 20 million MJ/year were required to appoint a "Personnel Responsible for Energy", implement energy management, record and report annually their energy data, conduct an energy audit annually, and implement the recommendations. However, a survey by UNIDO indicated that only 18.8 percent of the respondent factories had one person spending full time on energy management. About 44 percent of the factories surveyed spent less than 10 hours per week on energy management. Much of the planned investments in the designated factories and buildings did not materialize mainly because the energy managers program is essentially an input-based, rather than output or performance-based regulation. The designated factories or buildings do not have mandatory targets on energy savings or energy consumption benchmarks, and there is no penalty when they could not meet the target or implement the submitted energy conservation plans.

Building codes have been substantially improved in 2010. Thailand started building code regulation in 1995 to implement the ENCON Act, aiming to improve energy efficiency of the design and construction of the new and existing buildings. The 2007 revision to the ENCON Act requires that each designated building that uses more than 3000 kW of electricity to have two personnel responsible for energy (PRE) in place, while those designated buildings with usage less than 3000kW of electricity need only have one PRE. The 2007 revision also requires that an annual energy audit must take place and the results reported to the DEDE (APERC 2010). However, the past building code in Thailand has achieved limited success, due to (a) a lack of differentiated standards for various types of buildings (public, commercial, etc.); and (b) weak enforcement, resulting in low participation and implementation rates. The new building code implemented in 2010 introduced the idea of designing new buildings with energy efficiency as a cornerstone of the construction. The new code also addressed some of the pitfalls in the past such as including the building system and life cycle cost analysis. Approvals are made during the construction permitting process by the central and local administrative offices and the Ministry of the Interior coordinates with DEDE in enforcement.

Thailand put in place one of the most extensive appliance energy efficiency standards and labeling programs in the region (DEDE 2011). This includes:

1) Minimum Energy Performance Standards (MEPS): This is a mandatory program, where standards are set up by DEDE and regulated by Thai Industrial Standards Institute (TISI) under the Ministry of Industry. The MEPS currently covers six types of products—air-conditioners, refrigerators, motor, ballast, fluorescent lamps and compact fluorescent lamps, and 16 more are under development;
2) High Energy Performance Standards (HEPS): This is a voluntary program, where standards are set up by DEDE and labeling programs responsible by DEDE and EGAT. The HEPS currently covers 8 products, and 27 more are under development; and
3) Labeling for appliances: This program is largely voluntary, and based on a five-star ranking system. It covers both electric appliances (refrigerators, air conditioners, compact fluorescent lamps, electromagnetic ballasts, electric fans, automatic rice cookers, lighting luminaries, T5, electric ballasts, double-oscillating fans, T5 luminaries, exhaust fans, standby 1 Watt televisions, and standby 1 Watt monitors) and non-electric appliances (LPG stoves, variable speed drives, glazing, and insulators).

2. Fiscal measures

Until recently, taxes and levies on fuels have been instrumental in keeping domestic consumption in check and responsive to price signals in the international market. Fiscal measures in the past have been focusing on taxes and levies on fuels. The revenues collected also provide a revenue source for the Oil Fund, the Environment Fund and the ENCON Fund. However, to mitigate the shocks of sharp rising global oil price, the government recently put a price cap on diesel products, which account for half of domestic consumption of petroleum products, at THB 30, or USD 1. The difference between the market price and the price cap was being financed out of the Oil Fund. As the fund was running out of resources, the government recently replaced the subsidy with a removal of the excise tax on diesel. This measure distorts market signals for energy conservation and utilizes substantial fiscal resources could be directed to more targeted interventions towards needy households.

Thailand has a number of tax incentives to encourage investment in energy efficiency, but the policies are not always coordinated and have not yielded the intended results. These include: (i) Pilot Program for Tax Privilege for Energy Conservation was made available for both building and factory owners. This measure provides a tax deduction for 100 percent of the savings generated by an EE investment, up to a cap of THB 2 million (USD 50,000), (ii) Cost-Based Tax Incentives Program is a tax measure which allows companies to receive a 25 percent tax break for investments in projects that result in EE improvements. The tax incentives apply to the first THB 50 million (USD 1.25 million) invested, and can be spread over 5 years, (iii) Import Duty Exemption, administered by the Board of Investment, is an incentive which aims at offering an exemption on import duties for new investments in energy conservation businesses, such as high efficiency machines or equipment and renewable energy equipment and manufacturing, ESCOs, etc. These incentives have not succeeded in substantially increasing EE investments, in part because of lack of coordination. For example, the BOI also offers double-deduction for energy use by certain promoted companies.

Policy options

It is estimated that the largest potential for savings lie in the transport sector followed by industry, commercial buildings and residential sector. The potential energy savings in the transport sector could largely be achieved by improving fuel efficiency of vehicles (e.g. fuel economy standard, car labeling, eco driving), and to a lesser extent through modal shift to public transport and to rail for freight. Within the industry sector, non-metal and food industries are estimated to have the largest potentials. In the building sector, one third of the potential energy savings could come from reduction in electricity uses in large and medium-sized commercial buildings.

But improving energy efficiency faces the following challenges: (1) lack of performance-based mandatory regulations in the industrial and transport sectors; (2) difficulties in access to financing, particularly for small and medium size enterprises (SMEs) and energy service companies (ESCOs)[37]; and (3) institutional fragmentation: as EE involves multiple sectors and ministries, there is a need for a clear institutional champion to coordinate multiple stakeholders and lead EE program implementation. To address these barriers, Thailand needs to (1) strengthen effective mandatory regulations and fiscal measures in the transport and industrial sectors; (2) develop and implement innovative financing mechanisms; and (3) reform institutional arrangements. We look at each of these policy areas in turn.

1. Strengthening EE regulations and fiscal measures

Pricing and fiscal policies should go hand in hand with regulations. Economy-wide energy-intensity targets, appliance standards, building codes, industry performance targets (energy consumption per unit of output), and fuel-efficiency standards are among the most cost-effective measures for boosting EE. However, weak enforcement of regulations is a concern in Thailand and regulations are also vulnerable to rebound effects; this suggests that pricing and fiscal policies must also play an important role.

Fuel taxes have proved to be one of the most cost-effective ways to reduce transport energy demand. In addition, congestion charges and insurance or tax levies on vehicles based on kilometers travelled, and higher taxes on light trucks and SUVs have also proven effective. On other hand, the higher first costs of energy efficient products are usually a barrier for consumers to adopt them, particularly low-income consumers. Financial incentives to offset these up-front costs, such as consumer rebates and

[37] An energy service company is a business providing a broad range of energy solutions including design and implementation of energy savings projects, energy conservation, energy infrastructure outsourcing, power generation and energy supply, and risk management.

energy-efficient mortgages, can change consumer behavior, increase affordability, and overcome barriers to market entry. Revenues raised from tax levies could be used to finance such financial incentives.

The focus of regulatory policies should be on standards for large industries and fuel economy. Given that the transport and industrial sectors are identified to have the largest energy saving potentials, and Thailand has already put in place improved building codes in 2010 and extensive appliance standards and labeling program, it is recommended that the government may consider increasing the use of mandatory regulations in the industrial sector such as industry performance targets for large energy-intensive enterprises, and in the transport sector such as fuel-efficiency standards in the future. A World Bank study shows that improving automobile fuel economy standards to the current EU level would contribute to more than 60 percent of energy savings in the transport sector in Bangkok (Wang and others 2010).

2. Develop and implement innovative financing mechanisms

The existing Energy Efficiency Revolving Fund can be leveraged by targeting it at medium and large-scale industrial enterprises and tying financing to industrial energy performance standards. The Energy Efficiency Revolving Fund is a featured fund under the ENCON Fund that aims to increase access to financing for EE projects through co-financing with local banks. As participating banks become more familiar with the EE business through learning by doing, the Revolving Fund could require more co-financing from participating banks. This financing instrument can serve as the "carrot" and be linked with the industrial energy performance targets recommended above to reduce energy intensity in the industrial sector.

A standard offer approach could be adopted and managed by competitively selected performance-based Energy Efficiency Utilities. The Standard Offer is a mechanism under which a utility or a public agency "purchases" energy and/or demand savings using a pre-determined rate, which is called the "Standard Offer". These rates are based on the value of the energy and demand savings to the utility system. Any energy user or ESCO that can deliver energy and demand savings is paid the fixed amounts upon completion of the project and certification of the achieved savings. The ENCON Fund can provide a standard offer of energy saving subsidies to ESCOs. This approach provides transparency and certainty on subsidies of energy savings to ESCOs, so that it can help them generate EE projects quickly and increase access to commercial financing. To this end, the Energy Efficiency Utility (EEU) concept could be useful for managing the standard offer approach.[38]

The government can also consider providing a partial risk guarantee for ESCOs. Domestic banks usually do not need credit guarantee to their established clients with good credit ranking, nor will they lend to those clients with unacceptable credit ranking even with a credit guarantee. Partial risk guarantees can be effective to enhance credits and mitigate risks for ESCOs, in order to increase the confidence of the banks.

3. Reform institutional arrangements

As with any broad policy area the weakest links in policy design lay in the coordination, efficiency and credibility of implementation. An approach to increasing energy efficiency on the national level

[38] Energy Efficiency Utilities (EEUs) implement the government's main energy conservation programs or key aspects of them. The EEUs prepare comprehensive programs of investment project promotion, targeted subsidies, awareness-building activities, community organizing, and technical assistance, and execute these programs under a comprehensive contract with the government. Entities to operate the EEUs are typically procured through a public bidding process, and the performance contracts provide for a tying of compensation to the energy savings levels validated by the government.

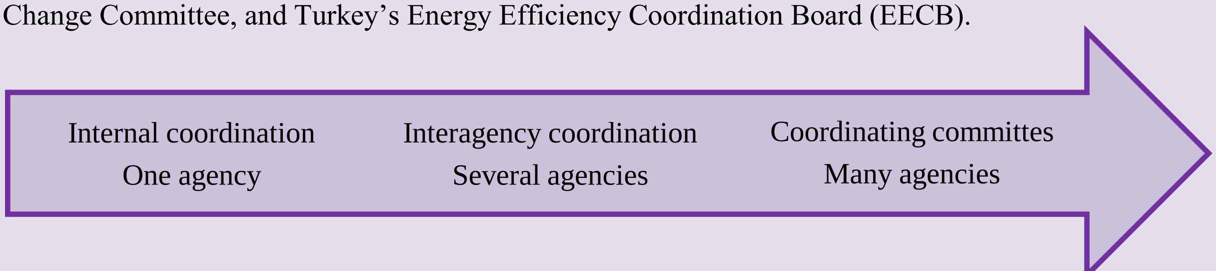
thus requires a coordinated multi-sector approach, with key sectors taking energy, transport, land use, water, waste, and environment into consideration. Given this fragmented nature of energy efficiency measures, a national institutional champion is essential. For example, many countries have established a dedicated energy-efficiency agency in coordinating multiple stakeholders (EPPO, DEDE, Ministry of Industry, Transportation, and others), implementing energy-efficiency programs, and raising public awareness. When comparing different institutional models, a national EE agency that is powerful and has good representation at the cabinet level or directly under the Prime Minister may have the influence and clout needed to obtain the cooperation and coordination from other agencies. Furthermore, the sector and provincial/local levels need to be assigned with clear responsibilities with incentives and penalties to ensure effective implementation (Box 7).

More frequent meetings of the National Energy Policy Committee (NEPC) and a strengthened role for DEDE could help enhance coordination. The Prime Minister and other Ministers who are responsible for EE policies need to closely cooperate on a regular basis. The NEPC was set for this purpose, but it has not frequently met in recent years. In addition, DEDE could be given the authority for developing, coordinating, and overseeing EE policy implementation among all Ministries. For example, there are no clear roles and responsibilities between the Ministry of Energy and Ministry of Transport on EE improvement in the transport sector. Given the large potential for energy efficiency gains in the sector, greater coordination could yield large payoffs. Similarly, DEDE has difficulties in obtaining information on energy use in the industry sector as required by law. Furthermore, DEDE has no authority over buildings in the Provinces, which are under the Ministry of Interior, even though DEDE has a mandate to promote EE in buildings.

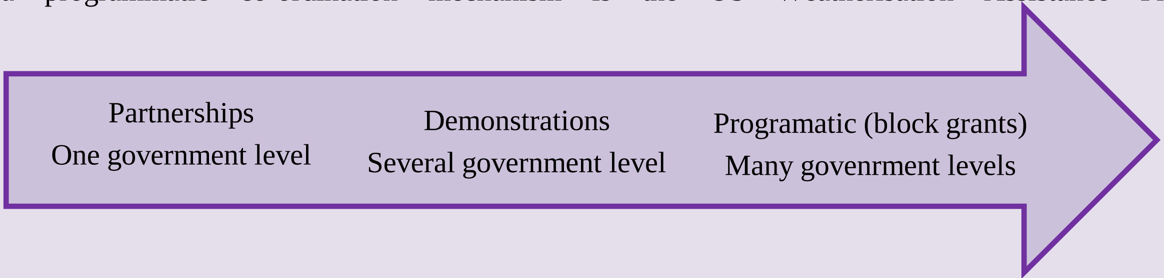
It is important to strengthen EE policy coordination and implementation at the sector and local levels. As actual EE measures will be implemented at the sector and local levels, national EE targets should be disaggregated at the sector and local levels in consultation with sector and local authorities based on their EE improvement potentials. Subsequently, proper incentives for good performers and disincentives for poor performers should be developed.

Box 7. How to improve coordination for EE

Horizontal co-ordination. When two or three institutions have overlapping or shared EE policy responsibilities, an effective approach to co-ordination may be a memorandum of understanding (MOU) or other bilateral intra-governmental agreement, specifying responsibilities, targets, resource flows, etc. The US Department of Energy (DOE) and the US Environmental Protection Agency (US EPA) share responsibility for EE policy in the United States, and have utilized the EPA-DOE MOU to govern their shared implementation responsibilities for activities such as ENERGY STAR Program. When EE is dispersed among many agencies, inter-agency agreements and coordinating committees become important. Examples of coordinating committees include: Australia's Ministerial Council on Energy, Canada's Council of Energy Ministers, Korea's Green Growth Committee, Singapore's National Climate Change Committee, and Turkey's Energy Efficiency Coordination Board (EECB).



Vertical co-ordination. A number of mechanisms are available for national governments to use in coordinating EE implementation with sub-national governments. These mechanisms seem valid for countries with either federal or unitary forms of government. Most vertical co-ordination mechanisms are programmatic approaches in which the national government takes the lead, providing guidelines, assigning tasks and offering funding and technical assistance to sub-national levels. A typical example of a programmatic co-ordination mechanism is the US Weatherisation Assistance Program.



In some countries, the national government has utilized sub-national jurisdictions to demonstrate program innovations which, if successful, can be replicated. Co-operative partnerships between national government and sub-national jurisdictions work well in unitary states with a limited and manageable number of sub-national jurisdictions. This is the case of the SwissEnergy program. Although there is no single approach for improving co-ordination among and between government levels, policy makers should keep in mind the following co-ordination mechanism guidelines.

- **Plan co-ordination early.** To encourage co-operation between policy makers and implementers, co-ordination should take place early in the policy design phase.
- **Build EE capacity as a prerequisite for good co-ordination.** Building EE capacity is a prerequisite to effective co-ordination and co-operation, especially when expansion of EE responsibilities to non-energy agencies. It is important to build capacity within partner institutions commensurate with the work program and co-ordination role.
- **Co-ordinate EE and climate change policy**. Energy efficiency and climate change policies need to be coordinated when responsibility for each falls under different agencies.
- **Identify strengths of each government level.** Policy makers should actively take advantage of the strengths of each government level and co-ordinate to ensure that these are maximized to implement EE.
- **Clearly define objectives and areas of responsibility.** National and sub-national governments should clearly define the objectives and areas of responsibility for any co-ordination effort.
- **Create clear accountability.** Accountability is at the core of co-ordination between inter-agency or intergovernmental. Those policies and programs should ensure that accountability systems are in place from the beginning.

Source: IEA 2010.

Appendix 1: Key Indicators Table

	2009	2010	2010				2011	
	Year	Year	Q1	Q2	Q3	Q4	Jan	Feb
Output, Employment and Prices								
GDP (% change, previous year)	-2.3	7.8	12.0	9.2	6.6	3.8	..	..
Industrial production index (2000=100)	166.1	190.0	191.8	186.4	191.8	190.0	186.9	176.9
(% change, previous year)	*-7.2*	*14.4*	*31.2*	*17.6*	*9.8*	*2.6*	*4.1*	*-3.4*
Unemployment rate (%)	1.5	1.0	1.1	1.3	0.9	0.8	..	..
Real wage growth (%) 1/	-1.6	6.2	-0.6	2.8	4.1	6.2	..	..
Consumer price index (% change, previous year)	-0.8	3.3	3.7	3.2	3.3	2.9	3.0	2.9
Public Sector								
Government balance (% GDP) 2/	-3.0	-2.1	-7.8	5.7	1.3	-7.2	..	..
Public sector debt (% GDP, end-period) 3/	43.6	42.4	43.9	43.4	42.6	42.4	39.3	..
Foreign Trade, BOP and External Debt								
Trade balance (USD billion)	19.4	14.0	2.0	4.6	3.3	4.1	-0.6	2.0
Exports of goods (fob, USD billion)	150.7	193.7	43.9	48.1	49.7	51.8	16.5	18.4
(% change, previous year)	*-14.0*	*28.5*	*32.0*	*41.8*	*22.2*	*21.1*	*21.4*	*29.1*
Key exports: Machinery & mach. appliances (% chg in USD)	-15.2	27.0	57.5	27.2	21.4	11.0	-6.2	5.0
Imports of goods (cif, USD billion)	131.4	179.6	41.9	43.5	46.4	47.8	17.1	16.4
(% change, previous year)	*-25.2*	*36.8*	*63.9*	*44.9*	*30.7*	*18.8*	*26.7*	*33.4*
Current account balance (USD billion)	21.9	14.8	5.5	1.7	2.0	5.5	1.1	3.8
(% GDP)	*8.3*	*4.6*	*7.1*	*2.2*	*2.6*	*6.4*	..	..
Foreign direct investment, net (USD billion) 4/	4.5	4.4	1.5	0.9	1.5	0.5	-0.7	0.5
Total external debt (USD billion) 5/	75.3	96.9	79.1	81.1	90.1	96.9	..	..
(% GDP)	*28.6*	*30.4*	*25.4*	*26.6*	*28.6*	*28.1*	..	..
Short-term external debt (USD billion) 5/	33.1	46.7	35.7	37.2	42.1	46.7	..	..
Debt service ratio (% exports of goods and services) 6/	7.6	4.6	5.7	4.9	4.6	3.5	..	..
Reserves, including gold (USD million)	138.4	172.1	144.1	146.8	163.2	172.1	174.0	179.5
(months of imports of goods)	10.7	10.0	9.0	8.7	9.2	9.3	..	..

	2009	2010	2010				2011	
	Year	Year	Q1	Q2	Q3	Q4	Jan	Feb
Financial Markets								
Domestic credit (% change, previous year) 6/	3.1	12.6	6.0	8.5	10.8	12.6	14.5	15.0
Short-term interest rate (average period) 7/	1.35	1.50	1.25	1.25	1.67	1.83	2.25	2.25
Exchange rate (average period)	34.3	31.7	32.9	32.4	31.6	30.0	30.5	0.0
Real effective exchange rate (2000=100, + = appn) 8/	108.8	114.4	111.1	115.0	115.0	116.8	114.8	113.5
(% change, previous year)	*-3.6*	*5.2*	*1.6*	*4.9*	*6.1*	*8.3*	*1.3*	*-0.4*
Stock market index (SET), end of period	735	1,033	788	797	975	1,033	964	988
Memo Items:								
Nominal GDP (Billion USD)	263.4	318.6	77.8	76.3	78.7	86.1	..	..
Nominal GDP (Billion Baht)	9,041.6	10,103.0	2,560.1	2,471.4	2,490.0	2,581.4	..	..
Real per capita GNI (constant 2000 USD)	2,898.8	3,255.3	..	..	..	..	..	..

1/ Average wage of employed person from Labour Force Survey, National Statistical Office deflated by CPI inflation

2/ Cash balance of central government.

3/ Includes domestic central government (CG) debt, domestic debt of non-financial state enterprise and Financial institutions Development fund (FIDF) debt.

4/ Non-Bank FDI

5/ Source: Bank of Thailand

6/ IFS definition (net credit to the nonfinancial public sector, credit to the private sector, and other accounts).

7/ BoT Policy Rate (end of day liquidity adjustment window, average of borrowing and lending facilities).

8/ Source: Bank for International Settlements

Appendix 2: Monitoring Matrices for Structural Reform Implementation

1. Poverty Reduction
2. Financial and Corporate Sector Reforms
3. Reforms to Improve Business and Investment Environment and Trade Regime
4. Public Sector and Governance Reform
5. Social Protection

1. Poverty Reduction

	Objective	Reform Measures Taken
A.	Improve quality of life for the poor by enhancing self-reliance and creating opportunities in the local economy	***Measures taken over last 6 months and significance*** • **The Cabinet, on February 22nd, 2011, approved the budget to relieve the farmer's land problem.** Proposed by the Prime Minister's Office, the amount of 168 million baht was approved to the Pilot Program for Relieving the Farmer's Land Problem conducted under the Land Bank Fund Project. Since land problems are under cross-governed by different ministries (Ministry of Interior, Ministry of Agriculture and Cooperatives, etc), a public organization, entitled the Institute for Land Bank Management, will be established to be focal point of this land issue. • **The Cabinet, on January 9th, 2009, announced policy packages to tackle with structural socio-economic and income disparity called "Pracha Wiwat"**. The Cabinet approved a 9.1 billion baht for the allocation to a government programs presented by named "Pracha Wiwat" or "People's Agenda". The scheme aims expansion the coverage of social security and its justice to low income people mainly living in urban area. Those benefits include loans for taxi drivers, motorcycle taxi drivers, and street vendors, LPG subsidies, free electricity for households, controlling food prices, especially chicken eggs, etc. • **Corporate Tax relief for flood victims**. All donations or compensation from the government will not be taxed as long as it does not exceed property damage values. Payouts from insurance companies will also enjoy partial tax breaks. Firms with VAT, stamp duty, specific business tax or withholding tax due in October to November were also allowed to delay their payments until December 2010.

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2. Financial and Corporate Sectors Reforms

	Objective	Reform Measures Taken
A.	Enable sharing of credit information among financial institutions	***Measure taken over last 6 months and significance*** • **A national credit-scoring system was launched.** The National Credit Bureau (NCB) launched the Consumer and Commercial Credit Scoring in 2011. Currently both individual and corporate customers are able to request their confidential credit reports from additional channels, including ATM machines. ***Measure to be taken, but delayed*** • **The Government's plan for the submission of credit information by insurance firms will be reconsidered again when the time is appropriate.** The decision on the requirement of insurance companies to report information of customers to the NCB has not yet been finalized.
B.	Formulate and implement a medium-term strategy for Thai financial sector	***Measure taken over last 6 months and significance*** • **The Stock Exchange of Thailand (SET) strengthened its position in Indo-China market.** The SET signed a memorandum of understanding (MOU) in October 2010 with the Lao Securities Exchanges (LSX) to strengthen capital markets in Indo-China region; extending the first 2-year MOU signed on July 7, 2008. Under the new MOU, the SET will train LSX personnel and hold Certified Modern Investment Professional courses for securities professionals. • **Thai bourse able to offer broad range of products and services.** The SET renewed its agreement for NASDAQ OMX Group to provide continued support for the integrated trading and clearing platform, TFEX, for another 5 years. The NASDAQ OMX will support TFEX in providing night trading sessions and provide a wider variety of commodity-based products and services to investors.
C.	Transition from the current blanket government guarantee on deposits to a limited deposit insurance	***Measure to be taken, but delayed*** • **Blanket guarantee on customer deposit is extended until August 2011.** Deposit protection will be limited to THB 50 million per person per financial institution on 11 August 2011 and will be further reduced to THB 1 million on 11 August 2012.
D.	Remove legal impediments and provide a favorable enabling environment.	***Measure taken over last 6 months and significance*** • **Authorities allowed the use of foreign currency as derivative collateral.** The Capital Market Supervisory Board and the Bank of Thailand gave permission to the Thai Clearing House Co. Ltd. (TCH) to receive USD and Euro as collateral for derivatives traded on the TFEX. This measure allows foreign investors to manage collateral more effectively and increase trading flexibility. • **Four ASEAN Exchanges completed technology design study for the ASEAN trading link.** Four ASEAN Exchanges, namely Bursa Malaysia (BM), The Philippine Stock Exchange, Inc. (PSE), Singapore Exchange (SGX) and the SET completed the design study of the technology framework for the ASEAN Trading Link. The trading link aims to electronically interconnect participating markets and facilitate seamless cross border order trading. • **The SEC streamlined regulations on the undertaking of reverse repurchase agreements ("reverse repo") by mutual and private funds.** This in turn enables the funds to seek additional returns from transactions and to further

	Objective	Reform Measures Taken
		support the policies of the Bank of Thailand and the Thai Bond Market Association in increasing liquidity of the Thai bond market. • **Bilateral cooperation with Japan.** The Market for Alternative Investment (MAI) signed a Memorandum of Understanding (MOU) with TOKYO AIM Inc. to explore opportunities for closer cooperation in helping growth companies access capital markets more effectively. • **Regulations on insurance business are principally approved.** The cabinet approved in principle the draft regulation on Life and Non-Life Insurance requiring the identification of shareholder structures, fund management and fund resolutions. • **Establishment of an additional microfinance institution, Post Bank.** The cabinet agreed in principle to the establishment plan of the Post Bank to perform the microfinance business for the underserved population, those who are denied access to other financial sources. Post Bank, to be set up under the state-run Thailand Post Company, will begin start with 10 pilot branches and have an initial registered capital of THB 50 million. ***Measure to be taken in the next 6-12 months*** • **Assessment of investors' risk profiles.** Starting in mid 2011, the SEC has obligated asset management companies and their selling agents to assess the investor's risk profile before allowing investments in any mutual funds; exempting local money market funds categorized as low risk. This ensures that investors are aware of their risk tolerance and are able to make well informed investment decisions suitable to their risk profile.
E.	Development the domestic financial markets, including bond, capital, and money markets	***Measures taken over last 6 months and significance*** • **Creation of the Steel Sector listing under Industrials Group.** The SET has created the steel sector under the Industrials Industry Group to promote the importance of listed companies in the steel business and allow for improved data comparison by investors. 27 listed companies were reorganized under the new Steel sector comprising of 16 from the Industrial sector and 11 from the Construction sector. • **Expanded the role of foreign securities companies.** The SEC allowed foreign securities companies to provide investment advice on both Thai and foreign financial products, including those to Thai institutional investors. In the past, foreign securities companies were only allowed to provide advice on foreign financial products to Thai institutional investors under the condition that such advice was for overseas investment. • **More choice for clients' money under custody.** In addition to the existing deposits with commercial banks or derivative clearing houses, the SEC has allowed securities companies and derivative agents to place deposited money by clients in financial instruments with low or no risks and high liquidity. Such instruments include debt securities whose principle and interest are fully guaranteed by the Finance Ministry, the Bank of Thailand bonds, promissory notes and bills of exchange issued by commercial banks and investment units of money market funds investing exclusively in the domestic market. • **Fit and proper test for capital market personnel.** The SEC revised regulations on prohibited characteristics of capital market personnel to be more in line with those imposed on directors and executives of securities issuers and listed companies. • **More products launched in SET and TFEX to support the Capital Market Development Master Plan.** (1) TFEX launched bond futures worth THB 1 million per contract with 5-year government bonds as their underlying asset.

	Objective	Reform Measures Taken
		TFEX in cooperation with the Thai Bond Market Association will exchange information on trading regulations and distribute information such as indicative yields to investors. (2) TFEX launched two more short-term interest rate futures, 3-month BIBOR Futures and 6-month THBFIX Futures, in addition to the existing 5-year Government Bond Futures. Both new futures worth THB 10 million per contract will require a cash settlement. (3) SET allowed securities in the SET 100 Index to be sold short, whereas the securities in the SET 50 Index, ETF units and ETF-linked funds remain available for short-selling activities. This measure provides risk management tools for investors. • **Under the Capital Market Development Master Plan, more products and services in the pipe line**. (1) the Cabinet has approved the inclusion of silver and platinum on the SEC list of 14 approved goods and variables under the Derivative Act of 2003, (2) the SEC Board approved in principle the establishment of a carbon credit fund to support the development of projects for reduction of greenhouse gas emission by clean development mechanism (CDM), (3) TFEX will begin trading silver futures in June 2011, (4) Starting in June 2011, TFEX plans to extend trading hours for gold and silver future until 22.30 hours, (5) the SEC Board approved the listing of foreign passive-ETFs on the SET. To be eligible for the SET listing, the ETFs must have non-complicated features and investment policies must track commonly accepted securities indices (or price indices) such as those whose underlain by a basket of securities, crude oil, gold or commodities, (6) the SEC Board approved in principle the establishment of infrastructure funds. These funds will be divided into several tranches to serve different risk appetites. (7) the SEC Board has approved in principle the establishment of real estate investment trust (REITs) as an alternative investment channel in the real estate market, and (8) the SEC Board has approved in principle, a revision to the regulations governing issuance and sale offerings of debt securities under securitization projects. The amendment allowed foreign governments to be the originator of both Thai baht- and foreign currency-denominated bonds issued under securitization projects, and allowing such issues to be rated by international credit rating agencies.
F.	Government effort to promote transparency and good corporate governance	***Measures taken over last 6 months and significance*** • **Thai bourse encourages corporate governance of the listed firms.** The SET implemented guidelines for the disclosure of information with a systemic and consistent follow up system. In the case of abnormal events, the SET will coordinate its investigation with the SEC, with clear guidelines on the enforcement of regulations. • **Regulation on public offering to rely more on information disclosure.** The SEC imposed revised rules governing the approval of share issuance for public offerings on January 1, 2011. The amendment included (1) adequate and reliable disclosure of relevant information, (2) professional roles and responsibilities of intermediaries, and (3) promotion of investors' roles in perusing disclosed information before making investment decisions. ***Measures to be taken in the next 6-12 months*** • **Listed firms will implement the International Financial Reporting Standards (IFRS) in phase.** SET 50 companies, those with the largest capitalization in the SET, will start applying IFRS international accounting standards in financial reports for the first-quarter of 2011; followed by SET 100 companies in 2013. By 2015, IFRS will be a mandatory requirement for all companies listed on the SET and the MAI. • **The securities companies and derivative brokers will implement the International Financial Reporting Standards (IFRS) and the International Accounting Standards (IAS).** The Accounting Standards-Setting

	Objective	Reform Measures Taken
		Committee is in the process of revising current Thai accounting standards and laying out new accounting and financial reporting standards in line with the International Financial Report Standards (IFRS) and the International Accounting Standards (IAS). The revised and newly issued standards, which will affect bookkeeping systems of securities business operators in different degrees, are expected to become effective one after another from the year 2011 onwards.

Prepared by Ratchada Anantavrasilpa

3. Reforms to Improve Business and Investment Environment and Trade Regime

	Objective	Reform Measures Taken
A.	Improve competitiveness of business sector	***Measures taken over last 6 months and significance*** • **Implementation of national Single Point e-starting business service.** In October 2010, the Department of Business Development under the Ministry of Commerce implemented the national single point e-starting business service. The service reduces average processing time for business registration from four days to 90 minutes. Waiting time for business owners has also been reduced from 32 days to seven days and four hours. The service aims to reduce waiting times further in 2011 to two days. • **Draft MOU for the construction of a high speed route from Bangkok to Nong Khai province approved.** The high speed rail link will connect Thailand to Beijing via Vientiane, Lao PDR by 2015. The move comes in anticipation of the AEC which should help reduce goods transportation costs and increase regional tourism. An extension of the line has also been proposed to continue the line south into Malaysia and Singapore. • **Establishment of Creative Economy Fund.** The fund, financed by a consortium of EXIM, GSB, SME Bank, Islamic Bank, and the Small Business Credit Guarantee Corp, was established in November 2010 in private public partnership to promote innovation, craftsmanship, and design within the economy. The fund will invest mainly in companies that rely on intellectual property assets in their business operations, production, and services over a seven year term. • **Eight clusters for Tourism Development (2012-2014).** A fund of 6.65 billion baht will be spent on the rehabilitation of eight regional cluster groups across the country through infrastructure development, personnel training, and preservation of natural and historical sites. • **Thailand-US Creative Partnership.** The partnership will promote public and private collaborations in seven sectors encompassing: information technology, design, arts and animation/audio-visual, clean energy and green technology, health, food and agro-technology, and financial sectors. The partnership hopes to promote business opportunities through joint ventures, commercialization and marketing of Thai products in US markets, and capacity building of human resources in creative industries. • **The Board of Investment introduced additional measures to further promote domestic investment.** (i) those affected by the floods will be granted an import duty exemption for machinery until December 2011, (ii) Five to eight years of corporate tax exemption for those who invest in diversified healthcare services including rehabilitation, specialized medical services (Heart, Cancer, and Allergy Centers), and medical technologies (iii) Alleviating the impact of the strong baht with corporate tax exemptions for up to 70% of investment value on machinery replacement investments, (iv) Incentives for SMEs by raising the investment ceiling per application from 20 to 80 million Thai Baht. • **Tax incentives for MNCs setting up International Procurement Centers (IPCs) in Thailand**. As part of the effort to promote the operation on regional headquarters in Thailand, eligible companies would be entitled to a 15 percent corporate income tax rate for five accounting periods for income from selling Thai products to their production facilities abroad. The movement towards a regionally competitive corporate tax rate was welcomed by the ASEAN business community.

	Objective	Reform Measures Taken
		• **BOI increases allowance of unskilled foreign workers.** The policy addresses short term labor shortages in the manufacturing sectors by allowing firms to source foreign employees up to 15% of their total workforce. • **Tax waiver for Carbon credit-related income.** In a move to promote clean energy usage and reduce overall greenhouse gas emissions, a carbon credit tax waiver will be effective for three years from the day that the green projects win endorsement from the Clean Development Mechanism Executive Board; or when the Thailand Greenhouse Gas Management Organization (TGO) issues the voluntary emission reductions certificate to project operators. • **Promotion of Foreign Film Production in Thailand**. In coordination with the Department of Tourism, filming fees for limited locations throughout Thailand will be exempted until December 2011 by the Thai Revenue department.
B.	Reform of legal and judicial regime	***Measure taken over last 6 months and significance*** • **Charter Amendment passes on Section 190**. The non-amended version of Section 190 required broad parliamentary approval for all international agreements encompassing territory, trade, investments and economic interests. The amended version, passed in February 2011, will require an organic law to specify the types of agreements which need parliamentary approval. This will potentially allow for more flexible free trade negotiations. • **Revision of Foreign ownership rules in Logistic Services sector**. A new draft law on logistics services business intends to apply both ownership as well as management structure restrictions in preparation for ASEAN economic community (AEC) in 2015. Thailand raised its 49 percent ceiling on foreign ownership of logistic services to 51 percent in January 2011; in line with the AEC goal to increase foreign ownership ceiling to 100 percent by 2015. The implementation of the revision will allow for greater potential for FDI, technology transfer, and greater competition from foreign companies into the sector.
C.	Improve the skills and quality of labor	***Measure taken over last 6 months and significance*** • **Announcement of 'One Province, One University' project.** With the establishment of at least one university in each province, the government hopes to provide easier access to higher learning, create a local academic environment with community links, and develop academic services for provincial development. • **Establishment of Sub-district learning centers.** The centers aim to promote non-formal education to improve the quality of life among grassroot communities with greater access to internet services and learning activities for community development. • **Establishment of Creative Academies through local universities.** Seven universities throughout the country were selected to provide training programs in ten fields of the creative economy including: performing arts, traditional medicine, cultural tourism, visual arts, handicrafts, architecture, agro industry, and IT software development.The initial list of universities include Mahidol, Rangsit, Silapakorn, Chiang Mai, Thammasart, Kasetsart, Bangkok, and Sripartum universities.

	Objective	Reform Measures Taken
D.	Reduce tariff to improve Thailand's competitiveness	***Measure taken over last 6 months and significance*** • **Establishment of Special Economic Zone in Mae Sot and Tak provinces**. Cross-border trade between Thailand's Mae Sot and Myanmar's Myawaddy has revived significantly following Myanmar's relaxation of border control measures lifted in January 2011 following the closure of the border in August 2010. The move comes in an effort to improve cross border trade and development of the East-West economic corridor. Investors in the economic zone would benefit from incentives provided by the Industry Estate Authority of Thailand, Customs Department and the Board of Investment. The economic zone is designed as tax-free and the use of foreign workers will be allowed. • **Reduction of import tariffs on Eco cars and components**. Beginning January 2012, import tariffs on dual-fuel vehicles with a cylinder capacity below 3,000 cc will be reduced from 80 to 60 percent. The regulation extends to parts and components of these vehicles which may also be imported duty free. • **Rules for re-export production relaxed.** In an effort to balance capital inflows, the MOF revised regulations to allow Thai exporters to make payments of local purchases for re-export production in US dollar.
E.	Promote Thai exports to new markets	***Measure taken over last 6 months and significance*** • **Free Trade Agreements**. (i) Negotiations between Thailand and Japan on the Japan-Thailand Economic Partnership Agreement (JTEPA) will be postponed following the aftermath of the Japanese quake. The focus of the pending partnership was set to discuss of tariff reductions for Thai agricultural goods and Japanese industrial goods. A new date will be set for later this year. (ii) Trade liberalization of over 5,000 goods among the seven members of BIMSTEC (Thailand, India, Myanmar, Bangladesh, Sri Lanka, Nepal and Bhutan) is expected to come into effect in mid 2012. (iii) Thailand is seeking adjustment to the Thai-Australia FTA to relax trade barriers on Thai agricultural products and ease the process for Thai employment in Australia. (iv) The Thai-India FTA is set to conclude in 2011 which will not only spur trade in goods but also services and investment. The pact will focus on expanding the current Early Harvest Scheme launched in 2004 from 82 product lines to 5,244 product lines. The FTA is expected to reduce or eliminate tariffs on about 90 percent of goods traded between both countries. Thailand has been especially interested in expanding its construction services to India given the Indian government's recent commitments to public infrastructure. (v) The Thai-EU FTA talks were reinitiated in November 2010 after talks stalled due to Thailand's opposition to the inclusion of alcohol in the agreement. The EU has recently moved its position in favor of regional FTA with ASEAN to ensure fairness among all partner countries. Thailand however remains keen on a bilateral agreement encompassing liberalization of goods, services, and investment. (vi) The Thai-Peru FTA became effective in November 2010. The Thai-Peru FTA is set to be signed in November 2010 liberalizing 70% of goods trade between both countries. The FTA serves as a launch pad for Thailand's access to the Latin American market. • **Memorandum of Understanding signed between Thailand and Chile.** The signing of the MOU committed each country to exchange information and enhance cooperation between the private sectors. • **Thailand Distribution center for Thai food and products established in Bahrain**. The establishment of the distribution center will focus on food products and hopes increase trade between Thailand and the Middle East.

Prepared by Anthony Burgard

4. Public Sector and Governance Reform[39]

	Objective	Reform Measures Taken
A.	Improving public service quality by streamlining and redesigning work processes and procedures	***Measure taken over last 6 months and significance*** **None**
B.	Changing roles, responsibilities, and rightsizing the government bureaucracy by restructuring public administration and improving intergovernmental relations at all levels	***Measures taken over last 6 months and significance*** • **Royal Decree on Civil Service Union proposed by OCSC was approved in principle on rules, procedure and requirements to form the union by the cabinet in March 28, 2011.** The key content of the draft Royal Decree includes six classifications of constituent make-up and its role as a union, application and registration requirements, OCSC's authority as a regulator and a set up of appeal system. The Royal Decree is referred to the Constitution 2007, section 64 prescribing that government and state officials will be provided with the opportunity to unite and form and association, that could be in forms of Union, League, Co-operative, a Farmer's group, Private organization, a non-governmental organization or any other group equivalent to other non-state employees. The draft Royal Decree will be submitted to State Council for their opinions on the details proposal. Office of the Secretariat to the Cabinet will be providing opinion on the appropriated timing to make the Royal Decree effective.
C.	Enhancing capacity and performance of public sector to efficiently and effectively perform their functions by reforming financial and budgetary system, reviewing system of human resource management and compensation, developing a new mindset, work culture and value, and modernizing government operation.	***Measures taken over last 6 months and significance*** • **On February 22, 2011, cabinet approved on State Railways of Thailand's request on 800 million baht loan extension for one year.** The Ministry of Finance will act as SRT's guarantor under the loan agreement as recommended by the Ministry of Transportation (MOT). In turns, MOT will proceed following to MOF's recommendations on SRT's organization re-structure as well as to increase SRT's operating revenues from commercial transportation, rail freight and improved asset management. In particular, the Bureau of the Budget and the Office of the National Economic and Social Development Board suggested that SRT utilizes land for commercial purposes more efficiently and control and reduce operating costs as stated in investment plan in infrastructure 2010-2014. ***Measures to be taken in the next 6-12 months*** • **The Draft of Public Financial Act is approved by the Cabinet on October 13, 2009 and is in the process of the Council of State consideration before presenting to the Parliament for approval.** The 2007 Constitution mandated the government to develop a new Public Financial Act. The Act aims at imposing fiscal discipline on the while public sector including the medium term fiscal financial plan preparation, revenue collection, budget

[39] The objectives detailed in this matrix are consistent with the Government's Public Sector Development Strategy (2003-2007) and the more recent Public Affairs Management Plan.

	Objective	Reform Measures Taken
		preparation process, cash and asset management, and making the fiscal report publicly available.
D.	Improving governance in public sector through participation, accountability, and transparency	***Measures taken over the last 6 months and their significance*** • **The draft amendments of three organic laws related to the electoral system as proposed by Election Commission (EC) approved by Parliament in April 7, 2011.** The three draft amendments comprises of; (i) Organic law on the election of members of the House of Representatives and senators ; (ii) Organic law on the election commission; and (iii) Organic law on the political parties. The key change to the electoral system is to propose the single-seat constituency, known as one-man, one-vote system, and the propose of 375 constituency-based Member of Parliaments (MPs) and 125 party-list MPs. The draft three laws were passed the first reading (approval in principle) by the Parliament in March 23, 2011. The second and third readings which scrutinizing and discussing in details of proposal are approved together with the majority of parliamentary votes in April 7, 2011, prompting the government for the new general election in may 2011. • **The Prime Minister and pilot government agencies signed an agreement on anti-corruption to public procurement in March 18, 2011.** OPDC has implemented pilot project of integrity pack to prevent government procurement corruption, referred to cabinet resolution in October 12, 2010. The beginning stage is to have memorandum of understanding signed between PM and head of each pilot agencies, comprising of 18 government agencies and 1 state owned enterprise with total 20 candidate projects amounts to Bt 2.7 billion. Lesson learns from pilot project would be enlarged to the stage of full deployment of scheme i.e. information disclosure, public scrutiny, punishment mechanism.

Prepared by Nattaporn Triratanasirikul

5. Social Protection

	Objective	Reform Measures Taken
A.	Develop social insurance mechanisms for the elderly and those affected by unemployment, work-related injuries or other shocks to income.	***Measures to be taken in the last 6 months and their significance*** • **The Cabinet, on February 15th, 2011, acknowledged the Report on Implementation of the Government Policies to Ensure Income Security for the Elderly.** Submitted by the Cabinet Resolution Coordination and Mobilization Committee, the report brings attentions on providing allowance to the elderly who are living below subsistence level. • **The Cabinet, on January 18th, 2011, agreed in principles on Draft Degree to establish rules and contribution scheme expanding the social security to informal workers.** Proposed by the Ministry of Labour, around 24 million of informal workers are non-covered by social security right, the draft degree has specified rules, contribution schemes, benefit types for informal workers who voluntarily apply for the social security rights.
B.	Establish a safe work environment through standards and enforcement and increase labor market efficiency by facilitating job matches and placement.	***Measures taken in the last 6 months and their significance*** • **The Cabinet, on February 22nd, 2011, has endorsed the draft Royal Decree on the Establishment of Professional Qualification Institute (Public Organization)** The Professional Qualification Institute (PQI) aims establishing standard of professional qualification in labor market. The draft was previously reviewed by the Office of the Council of State before the Cabinet to retain all provisions pertaining to the Professional Qualification Institute Management Committee and instruct relevant agencies to proceed with further actions. • **The Cabinet, on December 14th, 2010, approved an increase of the minimum wages for the year 2011,** Proposed by the Ministry of Labour, the cabinet approved the announcement of the Minimum Wage Committee to raise the minimum wage in 2011 ranged from the maximum of 221 Baht per day in Phuket to the minimum of 159 baht per day in Payao province.
C.	Provide effective poverty alleviation and social assistance programs for those with limited or no other means of support	***Measures taken in the last 6 months and their significance*** • **The Cabinet, on January 22nd, 2011, approved the extension of government's subsidies to relieve the cost of living.** Proposed by the Ministry of Finance, the Cabinet agreed to extend the government's subsidy measures for relieving the cost of living until June 30th, 2011. Those subsidies are 1) Free electricity for households usage with no more than 90 units per month, 2) Free 800 public buses covering 73 routes un Bangkok and peripheral areas, and 3) Free 164 third-class trains and 8 long-distance commercial trains. • **The Cabinet, on January 18th, 2011, approved for the measurements to help farmers who are customers of the Bank for Agriculture and Agricultural Cooperatives.** Proposed by the Bank of Agriculture and Agricultural Cooperatives, The Cabinet agreed in principles for assisting measures to approve the budget to compensate the loan interest that the farmers unable to pay to the bank. The budget will also allocated and proceeded by the Cooperatives Promotion Department

	Objective	Reform Measures Taken
		• **The Cabinet, on December 14th, 2010, approved the budget for farmers who experiencing drought.** The Cabinet assigned the Budget Bureau to allocate the budget of 924 million baht to the Bank of Agriculture and Agricultural Cooperatives as the direct funding distributor to farmers affected by drought.

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