The World Bank

# Thailand
## ECONOMIC MONITOR
### November 2010

# THAILAND ECONOMIC MONITOR
# NOVEMBER 2010

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# ABBREVIATIONS

| | |
|---|---|
| **AAT** | Auto Alliance Thailand |
| **ADB** | Asian Development Bank |
| **AFTA** | ASEAN Free Trade Agreement |
| **ARCM** | Asian Research Centre on Migration |
| **ASEAN** | Association of Southeast Asian Nations |
| **ATIGA** | ASEAN Trade in Goods Agreement |
| **B/E** | Bill of exchange |
| **BAAC** | Bank for Agriculture and Agricultural Cooperatives |
| **BAY** | Bank of Ayudhya |
| **BBL** | Bangkok Bank |
| **BIS** | Bank for International Settlements |
| **BOB** | Bureau of the Budget |
| **BOI** | Board of Investment |
| **BOP** | Balance of payments |
| **BOT** | Bank of Thailand |
| **CAR** | Capital adequacy ratio |
| **CDD** | Community-driven development |
| **CDS** | Credit default swap |
| **CGD** | Comptroller's General Department |
| **CODI** | Community Organization and Development Institute |
| **COMTRADE** | Commodity trade statistics database |
| **CPB** | The Crown Property Bureau |
| **CPI** | Consumer price index |
| **CSMBS** | Civil servant medical benefits scheme |
| **DECPG** | Development Economics Department, Economic Prospects Group |
| **E&E** | Electrical and electronics |
| **EAP** | East Asia and the Pacific |
| **EBITDA** | Earnings before interest, taxes, depreciation and amortization |
| **EEA** | Emerging East Asia |
| **ETF** | Exchange-traded fund |
| **EU** | European Union |
| **FDI** | Foreign direct investment |
| **FIDF** | Financial Institutions Development Fund |
| **FSMP** | Financial Sector Master Plan |
| **FTA** | Free Trade Agreement |
| **FY** | Fiscal Year |
| **G3** | Group of 3 (US, Japan and the Euro area) |
| **GDP** | Gross Domestic Product |

| | |
|---|---|
| **GEP** | Global Economic Prospects |
| **GFCF** | Gross fixed capital formation |
| **GNFS** | Goods and non-factor services |
| **ICT** | Information and communication technologies |
| **IMT** | International mobile telecommunication |
| **IT** | Information technology |
| **ITFTA** | India-Thailand Free Trade Agreement |
| **ITU** | International Telecommunications Union |
| **JTEPA** | Japan-Thailand Economic Partnership Agreement |
| **KAM** | Knowledge assessment methodology |
| **Kbank** | Kasikorn Bank |
| **KK** | Kiatnakin Bank |
| **KTB** | Krung Thai Bank |
| **LDR** | Loan-to-deposit ratio |
| **MA** | Moving average |
| **MAI** | Market for Alternative Investment |
| **MLR** | Minimum lending rate |
| **MNCs** | Multinational companies |
| **MOAC** | Ministry of Agriculture and Cooperatives |
| **MOC** | Ministry of Commerce |
| **MOF** | Ministry of Finance |
| **NBC** | National Broadcasting Commission |
| **NBTC** | National Broadcasting and Telecommunications Commission |
| **NCB** | National Credit Bureau |
| **NESDB** | National Economic and Social Development Board |
| **NIM** | Net interest margin |
| **NPL** | Non-performing loan |
| **NSO** | National Statistics Office |
| **NTC** | National Telecommunications Commission |
| **NVDR** | Non-Voting Depository Receipt |
| **OCSC** | Office of the Civil Service Commission |
| **OECD** | Organization for Economic Cooperation and Development |
| **OIE** | Office of Industrial Economics |
| **PDMO** | Public Debt Management Office |
| **PISA** | Programme for International Student Assessment |
| **PPI** | Producer price index |
| **R&D** | Research and development |
| **ROA** | Return on assets |
| **ROE** | Return on equity |
| **ROH** | Regional operating headquarters |

| | |
|---|---|
| **SA** | Seasonally adjusted |
| **SAAR** | Seasonally-adjusted annualized rate |
| **SCB** | Siam Commercial Bank |
| **SCIB** | Siam City Bank |
| **SEC** | Securities and Exchange Commission |
| **SET** | Stock Exchange of Thailand |
| **SFI** | Specialized financial institution |
| **SMEs** | Small and medium enterprises |
| **SOEs** | State-owned enterprises |
| **SP** | Stimulus package |
| **TAFTA** | Thailand-Australia Free Trade Agreement |
| **TAO** | Tambon Authority Office |
| **TCAP** | Thanachart Capital |
| **TDRI** | Thailand Development Research Institute |
| **TFEX** | Thailand Futures Exchange |
| **THB** | Thai baht |
| **TKK** | Thai Khem Kaeng |
| **TMB** | Thai Military Bank |
| **URR** | Unremunerated reserve requirement |
| **USD** | US dollar |
| **UTCC** | University of the Thai Chamber of Commerce |
| **VAT** | Value-added tax |
| **WDI** | World Development Indicators |
| **WITS** | World Integrated Trade Solution |
| **WTO** | World Trade Organization |

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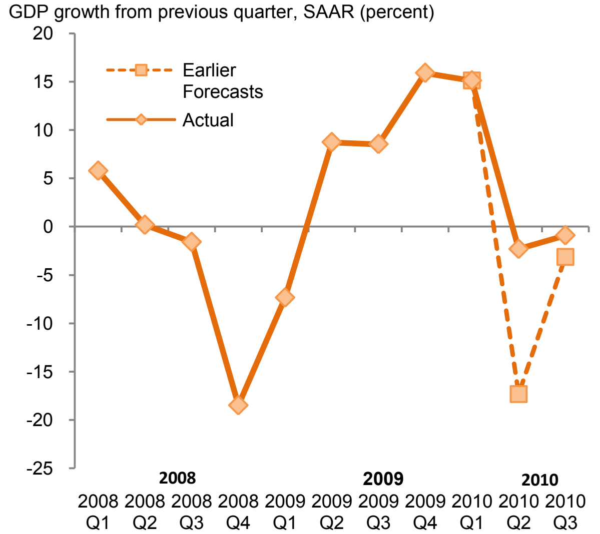
# SUMMARY

**Growth has slowed down since the second quarter, but exceeded expectations.** Considering the (i) political turmoil; (ii) robust growth during the rebound (average of 15 percent on a seasonally-adjusted, annualized rate—SAAR); and (iii) slowdown in advanced economies, the Thai economy was expected to contract by more than it did in the second and third quarters (Figure 1).

**Demand—both foreign and domestic—for Thai manufactures grew in the second quarter, but a nosedive in tourism took overall GDP lower.** The output of the manufacturing sector expanded in the second quarter, led by still-growing exports and robust private consumption (especially of vehicles, up 50 percent from the previous year). Demand indeed appears to have been higher than production, as some orders had to be filled by drawing down on inventories. However, a sharp contraction in tourism (down 17 percent from the previous quarter in real terms) led GDP overall to contract in the quarter.

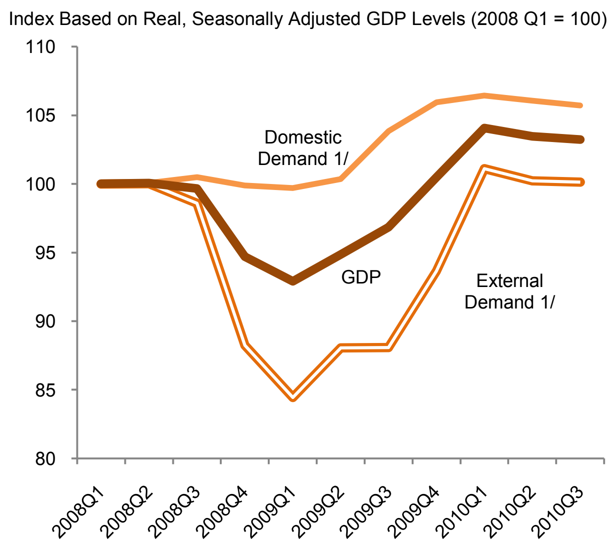
**The pattern of growth was reversed in the third quarter but the result was the same: a small contraction in GDP.** The output of the manufacturing sector declined as exports slowed down as expected. Agriculture contracted in the quarter due to the drought earlier in the year, a development linked to a drop in private consumption (though agricultural incomes continued to rise due to price increases). Partially offsetting these negative developments, firms added to inventories and tourism rebounded strongly (up 13 percent from the previous quarter in real terms). As a result, GDP posted another modest decline (Figure 2) and was practically flat compared to the second quarter.

**Figure 1. Growth slows down, but is better than expected.**




Source: NESDB and World Bank staff projections.

**Figure 2. External demand was hurt by the decline in tourism, but this was compensated by strength in domestic demand.**



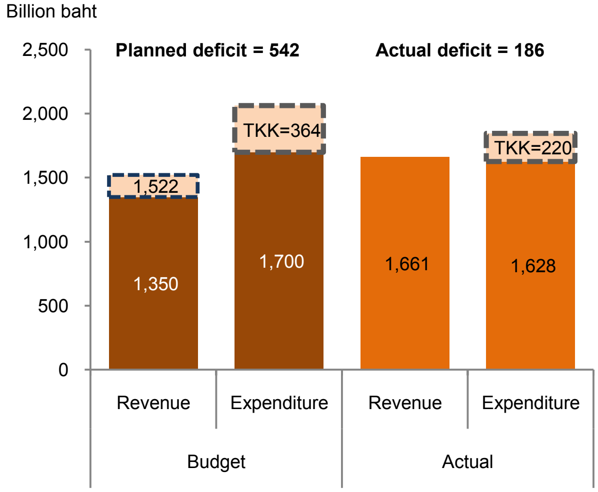

Source: NESDB and World Bank staff calculations.
Note: 1/ Estimate of external and domestic expenditure on Thai domestic value-added.

**Deficits and inflation are manageable, reflecting that accommodative fiscal and monetary policies have not compromised macroeconomic stability.** Domestic demand has been supported by expansionary fiscal and monetary policies. However, deficits and inflation have been lower than expected.

**The FY10 fiscal deficit was much smaller than initially feared when the budget was proposed.** The budget for FY10 was prepared at the trough of the global financial crisis in February 2009 and anticipated only 1.35 trillion baht in revenues. Thanks to Thailand's fiscal rule, on-budget expenditures were severely constrained and even including the off-budget Thai Khem Kaeng ("TKK") stimulus program, the government was authorized to spend 2.06 trillion baht (or about 6 percent more than in FY09). Thanks to the economic recovery and difficulties in disbursing public investment projects, revenues have come at 1.66 trillion baht and expenditures (including TKK) at 1.85 trillion baht, resulting in a modest deficit of 1.9 percent of GDP (Figure 3) and a stable debt-to-GDP ratio.

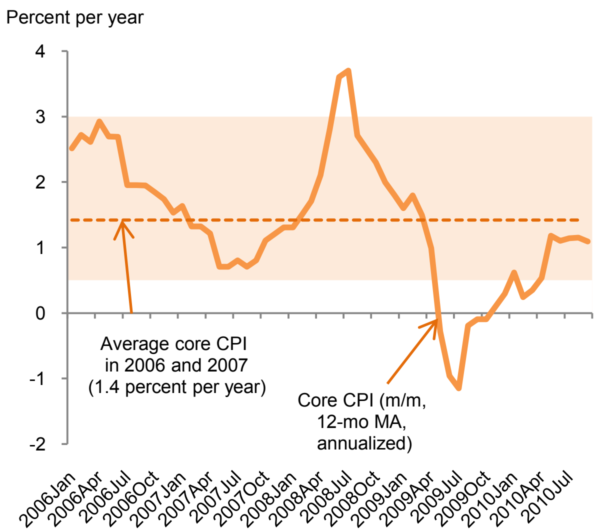
**Inflation levels have been low and stable but persistent increases in food prices could pose risks.** Since the onset of the crisis, core inflation has been closer to the lower bound of the BOT's inflation target of 0.5 to 3 percent (Figure 4) and following an expected rebound from negative territory, year-on-year readings have stabilized around 1.2 percent. Headline inflation has remained above 3 percent, mostly driven by food prices, which have increased because of weather conditions (first a drought, then floods). Although headline inflation decelerated in October, it remains above levels in Malaysia. The BOT has expressed concern that relatively high headline inflation may affect expectations, but the still-low core inflation levels have supported a gradual approach to "normalizing" the policy interest rate. After two 25 bps rate increases, the BOT paused in October, keeping the policy rate at 1.75 percent.

**Figure 3. Fiscal outcomes for FY10 have been much better than had been feared at the height of the crisis when the budget was proposed.**




Source: FPO and World Bank staff calculations.

**Figure 4. Core inflation has been low and stable since April.**



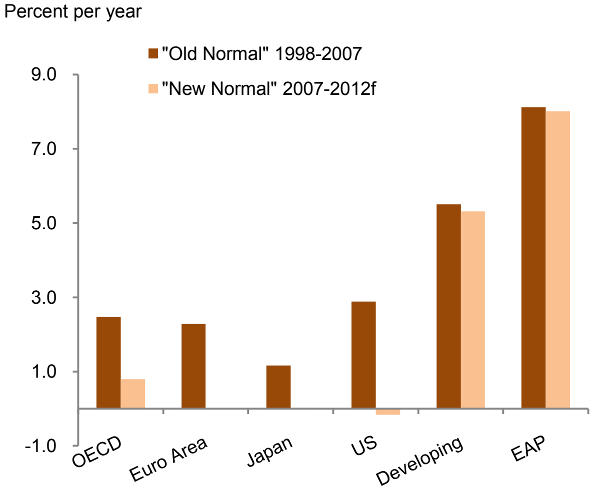

Source: MOC and World Bank staff calculations.

**The medium-term outlook will be marked by an extended period of slower but less volatile growth in advanced economies.** Following a turbulent period of sharp contraction and rebound, advanced economies appear to be settling into a path of below-average growth as unemployment rates stay high and public and private balance sheets are only gradually repaired through higher savings (lower consumption). Emerging economies are expected to continue to grow, but given their linkages with advanced economies growth is also likely to decelerate, albeit only slightly (Figure 5).

**For Thailand, exports to emerging markets and domestic consumption can offset some, but not all, of the weakness in demand from advanced economies.** Exports to emerging economies have been growing and will replace some of the demand from advanced economies (Figure 6). But this growth is also likely to decelerate because (i) most exports to emerging markets still end up in advanced economies and (ii) consumption growth in emerging economies will cool down given their linkages to the global economy and policy-induced moderation. Domestic consumption will also help pick up some of the slack thanks to accommodative fiscal and monetary policies and firm agricultural prices. But in the absence of structural changes, consumption is unlikely to accelerate sustainably from its weak pre-crisis performance. Finally, inventory drawdowns in the second quarter suggest that inventories may contribute to growth in the second half of 2010, but this effect vanishes into 2011.

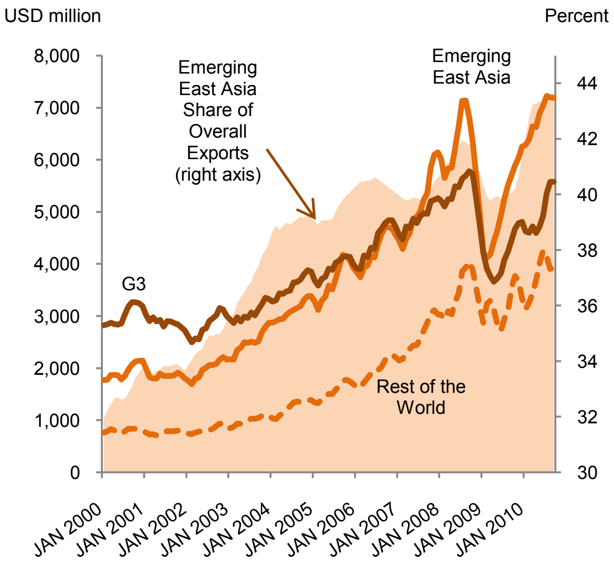
**Overall, slower growth in advanced economies will translate into lower GDP growth Thailand for the next two to three years.** Notwithstanding a deceleration in the second half because of the waning global inventory cycle, year-on-year growth in 2010 is expected at 7.5 percent due to the low base of 2009 and the strong first half. Quarter-to-quarter growth will pick up modestly in 2011 to average over 4 percent, but the relatively high base in 2010 results in a year-on-year growth rate of 3.2 percent for 2011.

**Figure 5. The external environment will be characterized by a "new normal" of slow but steady growth in advanced economies.**




Source: World Bank Global Development Prospects.

**Figure 6. Growing demand from East Asia helps but cannot fully compensate for loss of G3 demand.**




Source: BOT and World Bank staff calculations

**The immediate focus of policy will be on managing higher levels of capital inflows.** As the recovery took hold, emerging economies started to raise interest rates back to pre-crisis levels, increasing the interest rate differential with advanced economies where interest rates remain exceptionally low (Figure 7). This has encouraged capital flows and created appreciation pressures across a range of currencies.

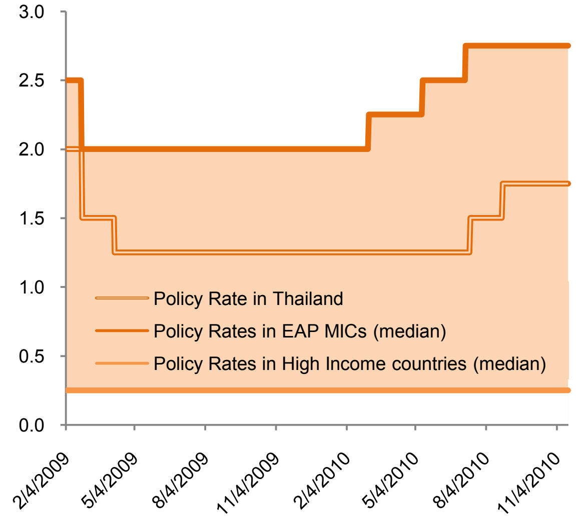
**The Thai Baht has appreciated sharply since August, but the real exchange rate remains broadly in line with other regional currencies** (Figure 8). Appreciation of the exchange rate has raised concerns about export competitiveness, but appreciation pressures have been faced by most countries in the region. In addition, because 85 percent of equipment investment consists of imported machines, a strong exchange rate makes investment more attractive.

**The BOT has taken a number of steps to deal with inflows.** The Thai authorities have passed measures to facilitate capital outflows, pursued sterilized interventions and accumulated reserves, kept interest rates low and removed tax benefits for foreign participation in domestic bond markets. Prudential measures such as a minimum loan-to-value ratio for condo purchases have recently been added.

**In the long-term, structural reforms rather than the exchange rate predominate in determining competitiveness.** Thailand can boost its competitiveness in the long-term by reforming the regulatory environment in the services sectors, boosting the skills in the labor force to take advantage of innovation-led growth, and raising agricultural productivity. Because agriculture serves as a safety net, reforming the sector will also require developing formal safety nets such as retirement pensions. Services sectors carry great potential not only for growth but for employment generation, which along with improved safety nets will also ensure that the benefits of economic growth are shared more widely.

**Figure 7. The interest rate differential between advanced and emerging economies increased.**

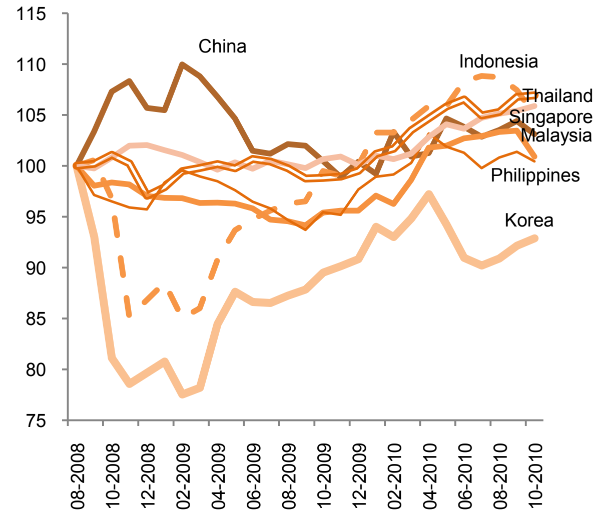
Short-term policy rates (percent) for selected high income countries (Euro Area, Japan, UK, Switzerland, US) and selected EAP middle-income countries (Thailand, Malaysia, Philippines, Indonesia, Korea)




Source: Datastream and World Bank staff calculations.

**Figure 8. Real effective exchange rates have appreciated less than 8 percent since the onset of the crisis.**

Real Effective Exchange Rate Index (Aug 2008 = 100)




Source: BIS and World Bank staff calculations.

## SECTION 2

# MACROECONOMIC DEVELOPMENTS AND OUTLOOK

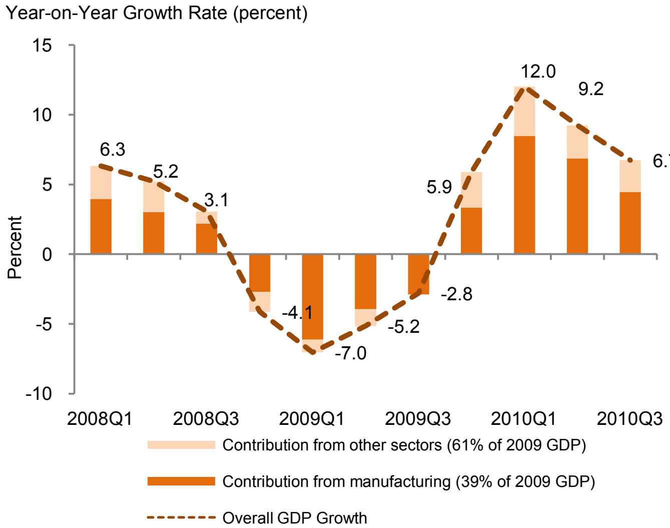
**The rebound from the global financial crisis gave way to slower growth in the second and third quarters of 2010.** GDP returned to pre-crisis levels following four quarters of strong growth (Q2 2009 – Q1 2010). Without the tailwinds of the rebound, growth turned negative, but the economy performed better than expected. In the second quarter, higher-than-expected domestic and foreign consumption led to growth in manufacturing—negative GDP growth was mainly due to the political turmoil, which caused tourism to plummet. Tourists returned in the third quarter, partly offsetting lower foreign and domestic consumption (the latter due to lower rural incomes as agriculture contracted sharply because of dry weather conditions earlier in the year). Going forward, growth is expected to pick up modestly driven by solid domestic demand supported by accommodative fiscal and monetary policies (Table 1 and Figure 9).

**Table 1. Real GDP Growth, 2009-2011**
(Percent, year-on-year)

| | **Share in** | **2009** | | **2010** | | | **2010** | **2011** |
|---|---|---|---|---|---|---|---|---|
| | **2009 GDP** | Year | Q1 | Q2 | Q3 | Q4p | Year(p) | Year(p) |
| Consumption | 63.4 | 0.1 | 5.0 | 6.7 | 4.5 | 0.1 | 4.0 | 4.7 |
| Private | 53.3 | -1.1 | 3.9 | 6.4 | 5.0 | 0.6 | 4.0 | 4.9 |
| Public | 10.1 | 7.5 | 11.0 | 8.4 | 2.0 | -3.0 | 4.4 | 3.6 |
| Gross Fixed Capital Formation | 20.7 | -9.2 | 12.1 | 11.3 | 8.0 | 4.9 | 9.0 | 5.1 |
| Public | 5.7 | 2.7 | 6.9 | -4.9 | -5.2 | 3.5 | -0.8 | 5.0 |
| Private | 15.0 | -13.1 | 13.8 | 17.8 | 14.5 | 5.3 | 12.7 | 5.1 |
| Total Domestic Demand | 81.7 | -6.9 | 19.3 | 8.4 | 11.5 | 0.8 | 9.6 | 4.2 |
| Exports | 65.4 | -12.5 | 16.6 | 22.3 | 11.7 | 7.6 | 14.2 | 4.5 |
| Goods | 52.7 | -13.6 | 16.8 | 28.4 | 13.1 | 8.5 | 16.3 | 4.3 |
| Services | 12.7 | -7.7 | 15.8 | -5.8 | 5.0 | 4.0 | 5.4 | 5.5 |
| Imports | 47.0 | -21.5 | 33.3 | 24.6 | 21.2 | 6.4 | 20.3 | 6.4 |
| Goods | 37.4 | -23.1 | 44.8 | 31.3 | 24.9 | 7.3 | 25.1 | 5.8 |
| Services | 9.7 | -14.6 | -2.3 | 1.3 | 5.4 | 2.5 | 1.7 | 9.7 |
| Net Foreign Demand | 18.3 | 23.9 | -12.1 | 15.3 | -14.2 | 11.2 | -1.6 | -1.7 |
| *By Sectors:* | | | | | | | | |
| *Agriculture* | *9.2* | *1.3* | *-2.2* | *1.5* | *-3.3* | *-3.5* | *-2.1* | *2.0* |
| *Industry* | *44.3* | *-5.0* | *20.9* | *16.1* | *10.5* | *3.5* | *12.5* | *3.5* |
| *Services* | *46.6* | *-0.2* | *6.3* | *3.3* | *4.3* | *3.0* | *4.2* | *3.1* |
| GDP | **100.0** | **-2.3** | **12.0** | **9.2** | **6.7** | **2.5** | **7.5** | **3.2** |

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

**Figure 9. The manufacturing sector continued to drive growth in the Thai economy in 2010.**

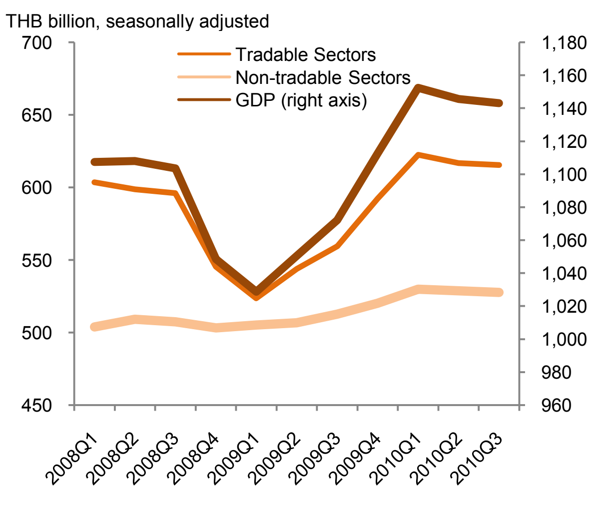



Source: NESDB and World Bank staff calculations.

## 2.1 Production

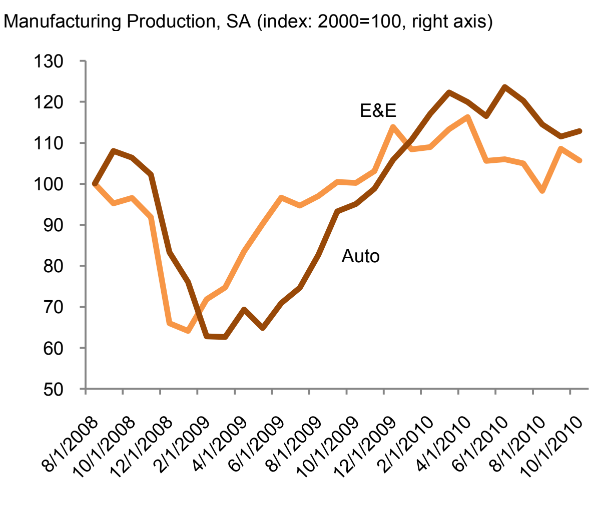
**Sectors producing tradable goods and services would have expanded in the second quarter (and contracted more in the third) but for the sharp contraction and recovery in tourism.** The political turmoil led to volatility in tradable services, with the transport and hospitality sectors down by 22 percent (SAAR) in Q2 and then up 20 percent in Q3. Manufacturing, on the other hand, grew by 3 percent in Q2 before contracting by 7 percent in Q3. This mixed performance led to a small contraction in externally-oriented sectors in both quarters (Figure 10). Within manufacturing, the electrical and electronics (E&E) industry started to slow down in Q2 with global inventory cycle, and production was down 3 percent; meanwhile, the auto industry expanded production by 12 percent (Figure 11). Both industries contracted in Q3 (E&E by 18 percent and autos by 14 percent). The auto industry appears poised to continue to gain over electronics with a number of investments announced since June (see Box 1).

**Figure 10. The slowdown affected both externally- and domestically-oriented sectors.**




Source: NESDB and World Bank staff calculations.

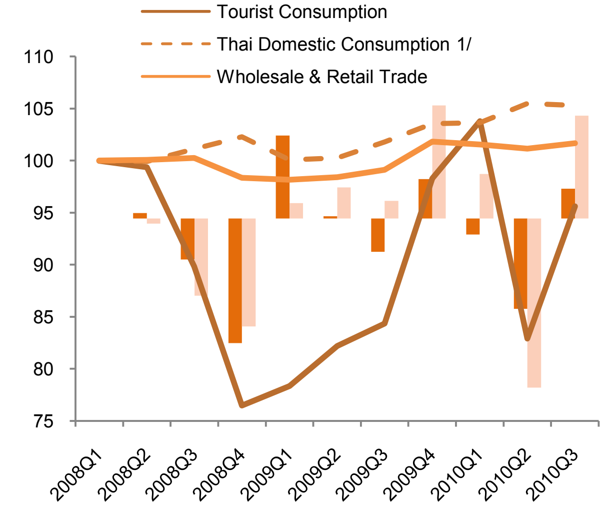
**Figure 11. The auto industry continued to expand even as E&E slowed down.**




Source: BOT and World Bank staff calculations.

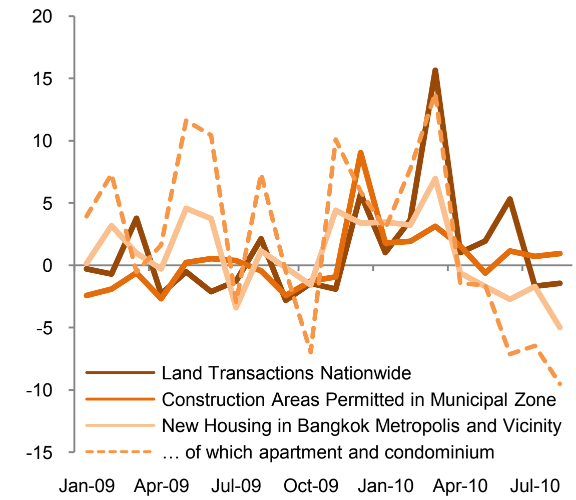
**Figure 12. Thai consumption and retail sector output diverge when tourist consumption drops.**

Index based on seasonally-adjusted levels (2008 Q1 = 1000). Bars compare the changes in tourist consumption with the difference in growth between domestic consumption and the retail sectors.




Source: NESDB, BOT and World Bank staff calculations.
1/: Domestic consumption net of imports of consumer goods.

**Figure 13. There is little evidence of overheating in the construction sector at this time.**




Source: BOT and World Bank staff calculations.

**Services sectors overall followed the lead from tourism, contracting in Q2 and expanding in Q3.** Notwithstanding robust public and private consumption growth, services sectors excluding transport, communications and hospitality contracted by 2.1 percent (SAAR) in the second quarter. Wholesale and retail trade contracted by 2 percent despite buoyant consumption, reflecting the drag from a 58 percent decline in tourist consumption (Figure 12). The pattern was reversed in the third quarter, with consumption down but the retail sector up. With the bounce back in tourism, services sectors are expected to expand moderately during the remainder of 2010 and into 2011, but without structural changes the potential growth will remain closer to the historical average of 3.9 percent. Section 3.3 below discusses some of the obstacles to long-term growth in the services sectors.

**The construction sector accelerated in the second quarter as low interest rates led to increased activity.** Largely due to temporary tax breaks and low interest rates, construction output increased by 15 percent (SAAR) in the second and third quarters from the previous six months (a contraction between Q3 and Q2 may have been linked to the expiration of tax incentives in May—see the spike in Figure 13). Levels are still below 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 slowdown in the remainder of 2010 (Figure 13), although output may expand as projects begun earlier in the year are completed. Although there are currently no signs of a bubble in property prices, the construction sector should be monitored closely as large inflows of foreign capital may cause asset price inflation going forward.

**The agricultural sector contracted sharply in the third quarter due to a drought earlier in the year, and continues to face major challenges, now from widespread floods.** Agriculture contracted 15 percent in the third quarter in real terms due to a drought that affected 53 provinces. Nevertheless, a large increase in agricultural prices led nominal output to increase by 15 percent, which supported rural incomes. Although prices have continued to rise, production could fall further as the country recently grappled with devastating floods, which affected Central and Northeastern Thailand and according to preliminary accounts may have damaged up to 500,000 metric tons of paddy.

## Box 1. The Thai automotive sector: strong recovery from the crisis and positive outlook for the short to medium term[1]

***Background***

**The automotive industry is one of the main manufacturing sectors in Thailand, accounting for 12 percent of GDP.** Contrary to Malaysia and Indonesia, Thailand never developed its own indigenous brands; instead, since the early 1990s it has opted for maintaining a relatively liberal policy environment to attract foreign capital. Just as Thailand was starting to receive significant investment flows from leading international automotive assemblers and part manufacturers, the 1997 Asian Crisis hit the industry hard, dampening production for several years and, more importantly, transforming its structure. The global financial crisis has also brought sharp contractions in Thai automotive output and demand, raising questions about the recovery and possible structural impact. This box analyzes the performance of the Thai automotive industry during the two crises as well as potential opportunities and challenges for the immediate future. Latest production and sales figures indicate a strong recovery that has been accompanied by a frenzy of investment plan announcements. Nevertheless, and although political instability has not deterred investors, policy uncertainty remains a concern and may still impact actual investments. Likewise, while implementation of Free Trade Agreements (FTAs) has expanded markets and procurement opportunities for assemblers it has also increased competitive pressures on indigenous part suppliers. In addition, most of the investment in the sector remains primarily within the assembly-type manufacturing. Although beyond the scope of this box, the limited technological and upgrading capabilities among most local suppliers is an important long-term issue.

***Quick and strong recovery in automotive production and demand***

**As a result of the Asian Crisis, by 1998 production and domestic demand were 74.5 and 75.1 percent lower than in 1996, taking six and eight years, respectively, to regain pre-crisis levels (Figure 14)**. The crisis also reshaped the orientation and structure of the sector. The drastic fall in domestic demand allied to a weaker exchange rate compelled assemblers to redirect production towards overseas markets, accelerating plans to set Thailand as their export base. Local partners in most assembly plants went out of business, leaving their foreign counterparts in full equity control while many bankrupt Thai suppliers were bought up by foreign firms, downgraded to lower tier levels or exited the market. The sector eventually recovered and production grew by 146 percent between 2002 and 2008 as Thailand consolidated its position as the top automotive producer in ASEAN and the world's fourteenth largest, the second for pickup trucks. From being domestically oriented before the crisis, exports of Thai-made vehicles have surpassed domestic sales since 2007 (Figure 15).

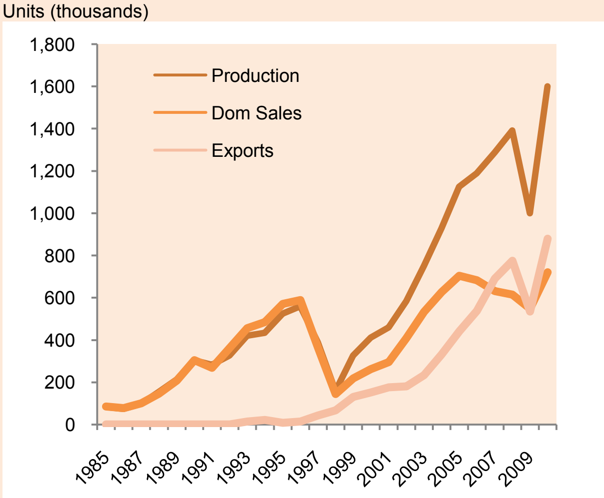
**The current global economic crisis interrupted once again this growth trend.** At the height of the crisis in March 2009 production and domestic sales had plummeted by 51.8 and 37.3 percent year-on-year (y-o-y) respectively. Contrary to 1997, weak local demand could not be substituted by exports and, in fact, the strong export orientation has made the sector more vulnerable to external shocks with exports dropping by 47.1 percent in May 2009 (y-o-y) (Figure 15). Globally, iconic assemblers like General Motors (GM) and Chrysler filed for bankruptcy while Toyota posted its first loss in 70 years; some projections estimated several years of depressed output and demand for the global automotive industry. However, exposure of the Thai auto sector to US and European markets was limited. Modest labor retrenchments also suggested that automotive firms sought to retain their skilled workers in the hope of a prompt recovery.

**Production and demand have indeed rebounded since late 2009 on the back of healthy domestic sales first and especially strong exports later on**. During January-August 2010 vehicle production

[1] Contributed by Antonio Postigo-Angon.

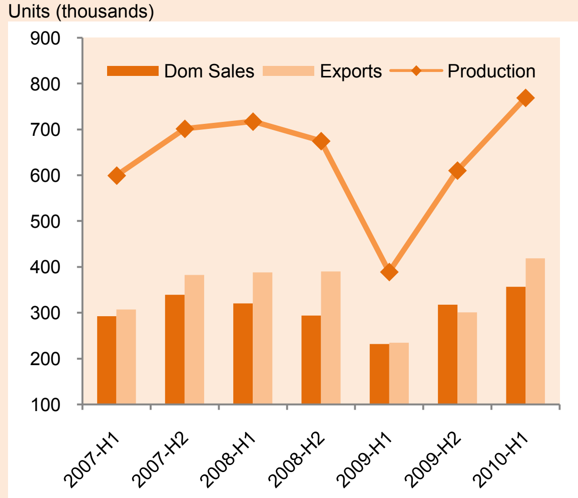
totaled 1.06 million units, up 93.4 percent from the same period last year. Around 68 percent of production corresponds to commercial vehicles, mostly one-ton pickups, although passenger cars are progressively gaining a higher share in the production mix. Domestic sales in the first eight months of 2010 reached 488,088 units, 53.5 percent higher y-o-y. Sluggish recovery in Europe has not prevented external demand from posting robust growth, with 583,533 units exported through August, up 85.5 percent from the previous year. Exports of pickups are destined to over 130 countries worldwide but restrictions imposed by assemblers' principals have so far limited most exports of passenger cars to ASEAN and Australia. The last few years have seen a realignment in export destination shares, with the progressive implementation of FTAs leading to a higher weight of ASEAN and Australia and a reduced weight for Europe (Figure 16).

**Figure 14. Automotive production, domestic sales and exports in Thailand (2007-2010)**




Source: Thailand Automotive Institute.

**Figure 15. Automotive output and demand during the 2007-2010 period**




Source: Thailand Automotive Institute.

**Overall, the Thai auto industry has grown more resilient compared to 1997.** Export orientation has pressured assemblers and auto part producers to achieve higher standards and international competitiveness. Although Thailand still needs to import high-grade steel and some high technology components for passenger cars, the automotive industry has one of the highest levels of local procurement among manufacturing sectors—though this has come through increased foreign ownership at the assembly and much of the first-tier auto part manufacturing. Such transformation had important benefits, however: it allowed the introduction of the latest technologies and models, and reduced the risks that liquidity crunches could disrupt production. On the other hand, indigenous suppliers, while benefiting from the industry's growth, have seen their relative role reduced over time.

***New Investments to Ensure Growth***

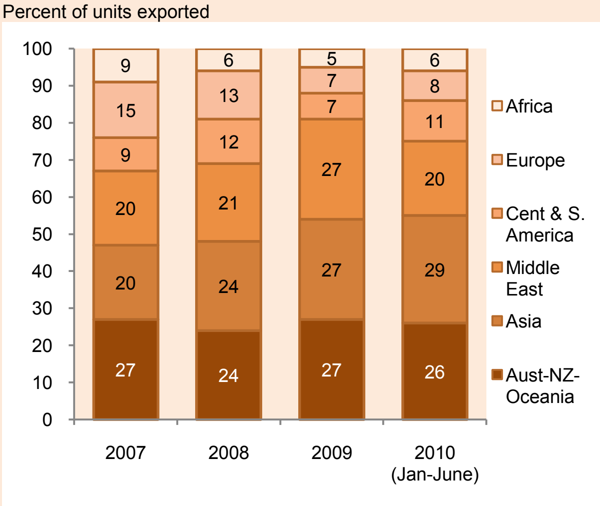
**While the automotive markets in Japan, US and Europe have reached maturity, sales of vehicles in developing Asia are expected to double between 2005 and 2015.** Technical and logistic factors prevent the automotive industry from adopting global sourcing and production models common in the E&E industry, fostering instead the clustering of suppliers around assemblers.[2] Over the last two decades Thailand has developed the strongest auto part supply network in ASEAN, in turn attracting further investment to the point that today almost all leading international assemblers and part manufacturers have

[2] For example, car parts tend to be heavier than electronic components, implying higher transportation costs between different production units.

a presence in the country, in many cases as their regional hub. Appreciation of the yen in 1985 along a number of domestic factors (e.g. high tariffs on imported vehicles, lack of an indigenous car program, liberalization measures in the early 1990s, attractive investment incentives, strong domestic demand, and low production costs) prompted large FDI flows into the Thai auto sector during mid-1990s (Figure 17). Investments were stepped up in the mid-2000s upon the elimination of local content rules in 2000 and the implementation of a network of FTAs linking Thailand with key export destinations.

**Figure 16. Destination markets for Thai-made vehicles (2007-2010).**

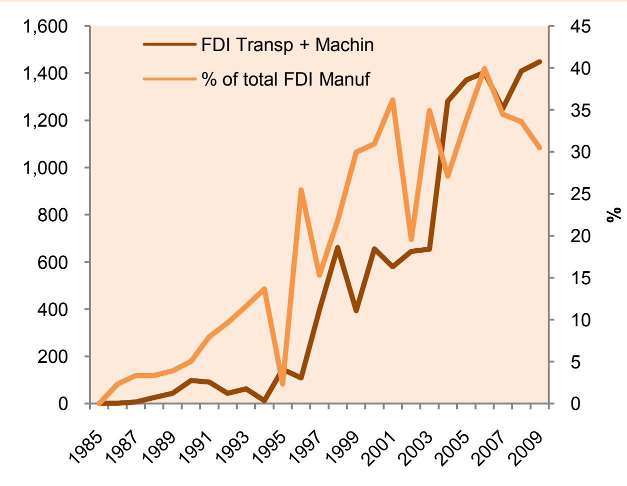
Percent of units exported




Source: Thai Automotive Industry Association.

**Figure 17. FDI inflows in the Transport and Machinery Equipment Sector**

USD million




Source: Bank of Thailand
Note: FDI flows here are referred to "Machinery and Transport Equipment", not only the automotive industry.

**Despite heightened political instability since 2006 the sector remained attractive, with new firms establishing assembly operations in recent years and many of those already present making fresh investments.** In addition to general incentives for strategic sectors, the BOI offers selective benefits for investments into alternative fuel vehicles and high value-added parts. Significant opportunities have also emerged in relation to the so-called "Eco-car Project", launched by the government in 2007 with the goal of promoting Thailand as a production and export hub for environmentally friendly small passenger cars that could create a second product niche beyond pickups. Five Japanese firms remain committed to the project, with Nissan having already rolled out its model in March 2010. Suzuki and Honda invested during 2009 THB 7.1 and 6.2 billion, respectively, in their eco-car factories while Mitsubishi revealed in July 2010 plans for a THB 15 billion plant for eco-car production, the largest of the firm outside Japan. Nevertheless, other carmakers have been hesitant to join—or have dropped from—the project in part because the lack of a stable policy regarding investment incentives and excise duties for vehicles using biofuels, compressed natural gas and hybrid/electric models vis-à-vis eco-cars.

**The Thai automotive industry was barely affected by political turmoil during March-May 2010 with several major investment projects recently unveiled (Table 2).** In June 2010 Ford announced investments of THB 15 billion in a new passenger car plant, the first fully-owned by the American firm in Thailand. This investment comes on top of a THB 17 billion expansion in 2008 of the passenger car plant Ford co-owns with Japanese Mazda as part of the Auto Alliance Thailand (AAT) joint venture. In August 2010 AAT also disclosed plans for an additional THB 11 billion investment to support a new generation of pickups. In late June GM also disclosed the intention to invest THB 15 billion to build a diesel engine plant and expand capacity at its pickup plant. Joining this flurry of fresh investments, Toyota announced in July 2010 plans to invest THB 4 billion to increase its production capacity of pickups. According to a

2010 survey by the Japanese Chamber of Commerce, the automotive industry not only leads others as a target for Japanese investors in Thailand (with 42.8 percent of total investment plans) but it is also the sector posting the highest growth rate since 2009 (almost doubling). Other assemblers considering new investments include BMW and Audi/VW and Tata.

**Table 2. Selected investments by major automotive firms announced during 2010**

| Month | Firm | Category | Estimated Investment | Investment Plan |
|---|---|---|---|---|
| June | Ford | Auto assembler | THB 15 billion over 3 yrs | New passenger car plant |
| June | General Motors | Auto assembler | THB 15 billion | New diesel engine plant<br>Expand production capacity for new line of pickups |
| July | Mitsubishi | Auto assembler | THB 15 billion | Plant for eco-car production |
| July | Toyota | Auto assembler | THB 4 billion | Expanding production capacity for pickups |
| August | Auto Alliance (Ford-Mazda) | Auto assembler | THB 11 billion | Expand production capacity for new line of pickups |
| June | Siam GS Battery | Auto part manufacturer | THB 530 million over 2 yrs<br><br>THB 200 million over 2 yrs | New battery plant and machinery<br><br>Regional R&D center |
| July | Somboon Advanced Technology | Auto part manufacturer | THB 3.5 billion over 3 yrs | Expanding production capacity in existing plants<br>New casting factory |
| August | Continental | Auto part manufacturer | Undisclosed | Expand production capacity for local and export markets |
| August | Denso | Auto part manufacturer | Undisclosed over 2-3 yrs | Expand production capacity for local and export markets |
| September | Bridgestone | Auto part manufacturer | THB 7.5 billion over 3 yrs | Expand production capacity |

Source: Companies' press releases and newspapers (several dates).

**Part suppliers are also planning investments to accommodate increasing demands from assemblers.** For instance, Ford will procure annually over THB 25 billion worth of locally-made components to support its new passenger car facility while GM will increase localization of its models by purchasing in the next three years USD 1.6 billion annually of local components, up from the current USD 100 million.

***Expanding markets and reducing procurement costs through Free Trade Agreements***

**The automotive sector remains one of the most protected industries in many developing, and even developed, countries, making FTAs critically important for the sector.** Assemblers benefit from FTAs through easier market access—as long as there is no competition or need for reciprocation by the partner country—and cheaper procurement of inputs. While multilateral liberalization maximizes economies of scale, assemblers may still favor FTAs because they allow for discrimination against firms outside the FTA. In addition to the ASEAN FTA (AFTA)—replaced in May 2010 by the ASEAN Trade in Goods Agreement (ATIGA)—Thailand is signatory to seven bilateral agreements and five ASEAN+1 regional FTAs, many of them shaped by interests around the automotive sector (Table 3). The elimination in January 2010 of all tariffs among the main ASEAN economies allows carmakers to rationalize their procurement and production strategies on a regional basis. As Thailand has the largest assembly and auto part manufacturing capacity, it stands to benefit the most from ATIGA and, in fact, automotive assemblers and international suppliers based in Thailand are among the highest users of AFTA. By contrast, use of AFTA preferences by Thai-owned suppliers is very low. Automotive firms in Thailand have also sought to integrate other neighboring countries into the Thai/ASEAN automotive network. Under the Thailand-Australia FTA (TAFTA) Australia eliminated from the start all tariffs on Thai-made vehicles and by 2010 on parts (Table 3). Some carmakers have taken advantage of TAFTA to rationalize their production and now serve Australia from their plants in Thailand. Between 2005 and 2008 Thai exports of vehicles to Australia trebled to USD 2.5 billion and are projected to exceed USD 3.2 billion in 2010, also benefiting suppliers based in the Kingdom. In the case of the India-Thailand Free Trade Agreement (ITFTA), assemblers on both sides opposed granting easier access to each other's vehicles but pushed for liberalization of some inputs. Although ITFTA is a sectoral agreement covering just 84 tariff lines, only four of which are automotive items, most utilization of ITFTA by Thai importers concentrates on auto transmissions and engine parts. Most of the benefits from ITFTA have accrued to intra-firm trade among assemblers and international supplier affiliates rather than by indigenous suppliers. In the ASEAN-India FTA, implemented in January 2010, vehicles are also placed in the exclusion list but many parts will be liberalized. Likewise, the ASEAN-China FTA puts vehicles and critical auto parts in the highly sensitive list excluded from liberalization but trade in most parts will become tariff-free in 2012.

**Table 3. Main implications for the Thai automotive sector from selected FTAs**

| **FTA** (implementation date) | **Thai concessions** | **Partner(s)'s concessions** |
|---|---|---|
| **AFTA/ATIGA** (1993) | Since January 2010, 0% tariffs on all automotive items among the six largest ASEAN economies, 2015 for Cambodia, Myanmar, Laos and Vietnam | |
| **India-Thailand FTA (ITFTA)** (2003) | Elimination of tariffs on gear boxes, engine parts, bearings and lighting parts in 2006 under the "early harvest" provision in the agreement. | |
| **Thailand-Australia FTA (TAFTA)** (2005) | Elimination of tariffs on passenger cars, commercial vehicles and auto parts between 2005 and 2010, by 2015 for hot-rolled steel | Elimination of tariffs on passenger cars, commercial vehicles and steel in 2005, between 2005 and 2010 for auto parts |
| **Japan-Thailand Economic Partnership Agreement (JTEPA)** (2007) | Tariff reduction from 80 to 60 percent for passenger cars > 3000 cc by 2011. Unchanged for smaller engine cars. Tariffs on some auto parts reduced at entry be eliminated by 2011, 2013 for engine parts. Quotas on hot-rolled steel, to be eliminated by 2018 | 0% in all the auto sector before the FTA |

Source: FTA text agreements

**Although Japanese assemblers in Thailand manufacture a wide range of vehicles with high levels of localization, Thailand still imports from Japan small numbers of luxury cars and high-technology auto parts and steel that Japan hoped to liberalize through a Japan-Thailand FTA (JTEPA)**. However, fearing that liberalization could make existing investment redundant, the Thai government declined to liberalize the small car segment and only agreed to a small reduction on luxury cars vehicles (Table 3). Liberalization of most auto parts will be completed in 2011 and 2013 for critical engine parts. Contrary to other FTAs, JTEPA did not improve access to the Japanese market as Japan applies zero tariffs to the auto sector. Despite marginal liberalization, JTEPA has reduced procurement costs for assemblers importing Japanese inputs but also increased competition for Thai suppliers.

***Outlook for the Thai Automotive Industry***

**Vehicle production could reach 1.6 million units by year's end, the highest levels since the**

**automotive manufacturing started in Thailand in the 1960s**. Plans for future investment by automotive firms should ensure that recent production growth will be sustained beyond the post-crisis rebound. Within five years the eco-car segment is expected to account for up to 20 percent of total production, providing opportunities for assemblers and suppliers alike. Strong economic growth and easing of the political situation have been critical in lifting consumer confidence, which along with low interest rates should push domestic sales towards a projected record of 720,000 vehicles in 2010. Nevertheless, expected interest rates hikes, the continued economic recovery and the evolution of the political reconciliation process will determine domestic demand in the next year. Domestic sales of pickups should remain sound in light of credit availability, firm agricultural prices and stable oil prices. Passenger cars should keep gaining a larger share of the Thai market as new models of affordable eco-cars are rolled out. Exports have driven much of the recovery and could represent around 55 percent of total demand in 2010. Tenuous growth in Europe over the immediate future will have only a small impact on vehicle demand, counterbalanced by increasing exports to ASEAN where, in addition to the elimination of tariffs in January, implementation of ATIGA has reduced transactions' costs at customs. A move that could significantly expand exports in coming years is the decision by Nissan (and under consideration by other Japanese firms) to sell eco-cars in Japan—reverse imports were until now minimal. A reason for concern in 2011 is the impact of further baht appreciation on auto exports. Although the automotive sector would be less affected than others, the Federation of Thai Industries calculates that every baht of appreciation against the US dollar could translate into a loss of 6 billion baht worth of exports for the auto industry. Parallel appreciation of currencies in other key export markets (Australia, other Asian countries) and limited exposure to the US could help cushion the impact. FTAs will continue supporting the export drive although Thai-based suppliers will face competitive pressure from part producers in China, India and Japan as tariffs are progressively eliminated. Ongoing negotiations for a Thailand-European Union FTA are likely to exclude vehicles and set extended phase out periods for parts.

**Western and Japanese carmakers are likely to continue expanding their operations in developing Asia where there is higher growth potential.** Sustained investment flows despite political uncertainties highlight long-term investors' confidence on the potential of Thailand as an automotive hub not only for pickups but also for small passenger cars. While high sunk investments make the auto industry slower than other sectors in reacting to new incentives Thailand needs to keep strengthening its locational advantages vis-à-vis competing investment destinations. For instance, Malaysia has recently lifted foreign investment restrictions in the production of large engine and hybrid/electric passenger cars. Although Malaysia has a smaller domestic market and labor force, in the context of ATIGA and a tax structure favoring local content, some luxury car firms in Thailand may decide to consolidate operations in Malaysia and VW has recently reached an agreement with DRB-HICOM of Malaysia to assemble passenger cars for the ASEAN market. Indonesia still lags behind Thailand in regard to infrastructure, supply base and human resource development, but with a larger population and lower vehicle penetration it has also attracted significant investment in recent years. Until now foreign carmakers in China and India have focused on the domestic market but this could potentially change in the future.

**The challenge of moving up the value chain looms large in the Thai auto sector.** Current trends towards transferring greater design responsibilities to suppliers have increased technological demands on them and favored the entry of international suppliers while indigenous firms have been downgraded to lower tiers. Most Thai-owned firms, 23 percent of the 648 first-tier suppliers, manufacture labor-intensive parts and need to establish technical agreements or project-specific joint ventures with foreign suppliers to acquire technology. Knowledge-intensive automotive components are mainly manufactured by foreign suppliers in Thailand or directly imported. As Thailand improves its competitiveness in passenger cars, which have higher technological requirements than pickups, the share of foreign suppliers is likely to increase without a structural change in the innovation capabilities of indigenous firms.

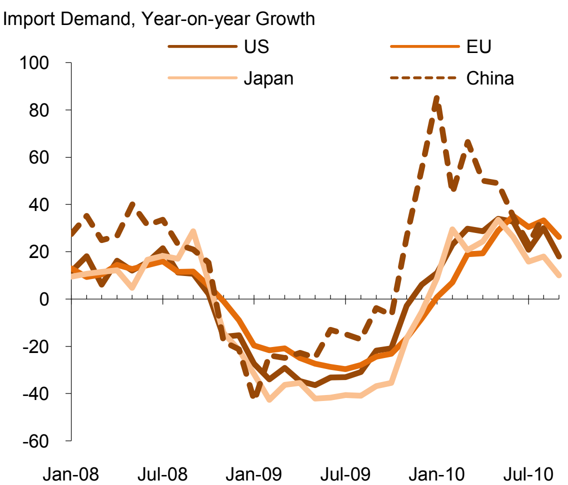
## 2.2 External Demand

**The outlook for external demand will be characterized by a "new normal" of less volatile but below-average growth in advanced economies.** In the second and third quarters of 2010, most major economies completed their rebound from the global financial crisis and settled on a less volatile but slower growth path. Given the outward orientation of Thailand's economy, external demand conditions remain a critical variable for growth. The composition of external demand will continue to shift away from advanced economies and towards emerging market economies—for example, as discussed in Box 1, new investments in the auto sector have eyed primarily the ASEAN market. However, most global consumption takes place in advanced economies, and Thailand's exports eventually depend directly or indirectly (through second-round effects on the economies of Thailand's open regional trading partners) on the health of the "G3" economies of Japan, the US and Europe. Indeed, as the inventory cycles in these economies waned in the second and third quarters and import demand declined, consumption in East Asia slowed down as well. As a result, the ongoing difficulties of G3 economies are likely to keep external demand below potential in the coming year.

### 2.2.1 External Environment

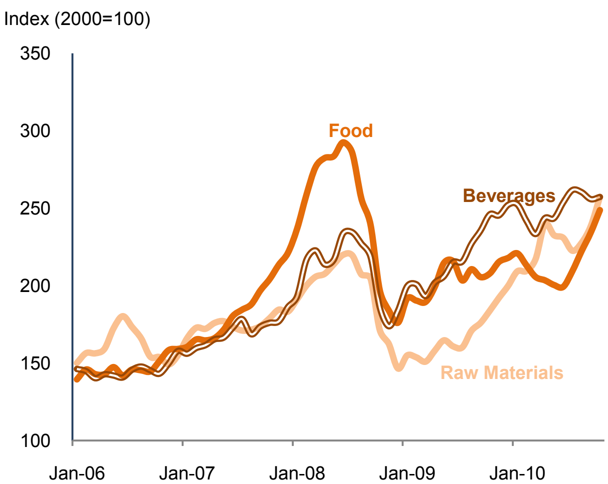
**Advanced economies expanded more than expected in the first half of 2010, supporting demand of imports from emerging economies, but growth has slowed down in the third quarter.** The most notable upside surprise was in the Eurozone, especially Germany. Despite the severe financial turbulence affecting the region's southern economies, the Eurozone grew 4.2 percent in the second quarter of this year. Better-than-expected growth in advanced economies and the tail-end of the restocking cycle led to higher import demand from emerging economies and higher growth. For example, Singapore's growth rebounded by 18.7 percent in the year to Q2 2010. Even with the sharpness of the rebound, many economies' output remains below pre-crisis peaks, and most continue to operate significantly below capacity—with exceptions, most notably of China. Advanced economies settled on lower growth rates in the third quarter (on average 2.5 percentage points below the highs recorded between Q4 2009 and Q2 2010). Import demand has started to decline in tandem (Figure 18), leading to a slowdown in the growth rates of emerging economies.

**Figure 18. Import demand slowed in the third quarter of 2010.**




Source: CEIC and World Bank staff calculations.

**Figure 19. Commodity prices have increased sharply in recent months.**




Source: World Bank (DECPG).

**The consolidation of the rebound, weak US dollar and unusual weather led to higher commodity prices, especially in agricultural commodities.** Crude oil prices traded in a narrow range between about

USD 75 and USD 85 per barrel. Since the end of August, copper prices are up 17 percent to new nominal highs though only 6 percent in euro terms. Unusual weather patterns in various parts of the world (most notably in Russia and China) affected food supplies and drove up agricultural prices, including rice. Food prices have increased sharply in recent months, but remain below their highs from 2008. In contrast, prices of agricultural raw materials are at all-time highs (Figure 19). Rubber prices, for example, jumped 11 percent since August.

**In the coming years, Thailand must be prepared to confront the "new normal" of lower growth in advanced economies and larger capital inflows.** On the real side, export demand from G3 countries will grow below pre-crisis levels due to the need to rebuild public, financial and household balance sheets in those economies. Table 4 suggests that OECD economies, which grew on average of 2.5 percent before the crisis 1998 and 2007, have seen growth slow down to 0.8 percent between 2007 and 2012. At the same time, export demand from emerging economies, especially China, is likely to continue to grow along with private consumption—indeed, differently from OECD economies, the growth rate of East Asia in the 2007 – 2012 crisis period is only slightly lower than the pre-crisis period (8.0 vs. 8.1 percent). However, because most consumption still takes place in the advanced economies, the "new normal" is likely to see a net decline in medium-term growth rates of global trade volumes. Note again in Table 4 that world trade volumes are expected to be below the pre-crisis average in 2011 and 2012. One corollary to the "new normal" will be even tougher competition for investments, as global capacity remains relatively plentiful and new investment destinations catch up in terms of infrastructure, living conditions, regulations, and skills of the labor force.

**Table 4. The rebound gives way to "new normal" of slower growth and lower trade volumes.**

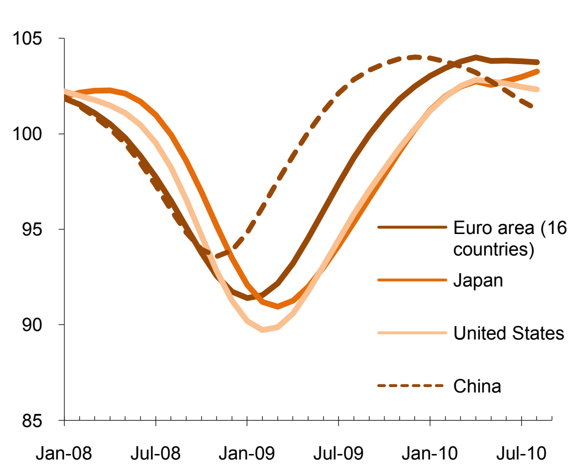
| | 1998-2007 | 2007-2012f | 2008 | 2009e | 2010f | 2011f | 2012f |
|---|---|---|---|---|---|---|---|
| *Global Conditions* | | | | | | | |
| World Trade Volume (GNFS) | 9.1 | 3.0 | 3.2 | -11.6 | 11.2 | 6.8 | 7.2 |
| Consumer Prices | | | | | | | |
| G-7 Countries | … | | 3.1 | -0.2 | 1.5 | 1.6 | 1.8 |
| United States | 2.7 | | 3.8 | -0.3 | 2.0 | 2.2 | 2.4 |
| Commodity Prices (USD terms) | | | | | | | |
| Non-oil commodities | | | 0.0 | -21.6 | 16.8 | -4.0 | -5.4 |
| Oil Price (USD per barrel) | | | 97.0 | 61.8 | 78.1 | 74.6 | 73.9 |
| Oil price (percent change) | | | 36.4 | -36.3 | 26.4 | -4.5 | -0.9 |
| *Real GDP growth* | | | | | | | |
| **High income** | **2.6** | **0.9** | **0.4** | **-3.3** | **2.3** | **2.4** | **2.7** |
| OECD Countries | 2.5 | 0.8 | 0.3 | -3.4 | 2.2 | 2.3 | 2.6 |
| Euro Area | 2.3 | 0.0 | 0.4 | -4.1 | 0.7 | 1.3 | 1.8 |
| Japan | 1.2 | 0.0 | -1.2 | -5.2 | 2.5 | 2.1 | 2.2 |
| United States | 2.9 | -0.2 | 0.4 | -2.4 | 3.3 | 2.9 | 3.0 |
| Non-OECD countries | 4.5 | 2.9 | 3.0 | -1.7 | 4.2 | 4.2 | 4.5 |
| **Developing countries** | **5.5** | **5.3** | **5.7** | **1.7** | **6.2** | **6.0** | **6.0** |
| East Asia and Pacific | 8.1 | 8.0 | 8.5 | 7.1 | 8.7 | 7.8 | 7.7 |
| *Memorandum items* | | | | | | | |
| Developing countries excl. China and India | | | 4.3 | -1.8 | 4.5 | 4.4 | 4.6 |

Source: World Bank Global Economic Prospects (GEP) summer 2010 (June), and World Development Indicators.

**Sustained, albeit moderating, growth in China provides an increasing source of external demand for Thailand.** China became Thailand's largest export destination in 2010. The extent to which this provides important export diversification benefits depends on how much Thailand's exports to China are for domestic demand in China (whether they are final or intermediate goods exports) or destined for final demand in the G3 (See Box 3 of the June 2010 Thailand Economic Monitor for a more thorough discussion). Although recent data suggests that earlier fears of a sizeable slowdown in China are not materializing, leading indicators have moderated, after their much earlier rise relative to the G3 (Figure 20). Growth in China is projected to decelerate in H2 2010 (mainly relating to fixed investments) but set to remain at 9.5 percent for the full year and 8.5 percent in 2011.

**Figure 20. Leading indicators in China and the G3 economies have decelerated.**

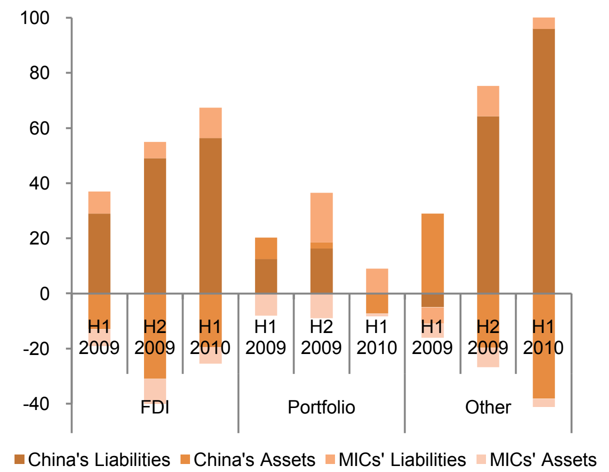
OECD Composite Leading Indicators SA (100=long-term average)




Note: Amplitude-adjusted standardized index.
Source: OECD

**Figure 21. Capital inflows have returned to the middle-income countries of East Asia.**

USD billion




Source: East Asia and Pacific Update, October 2010.

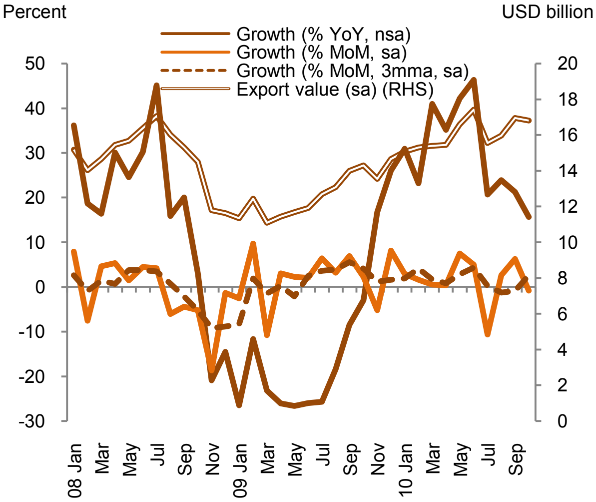
**On the financial side, the slow growth in advanced economies and relatively more robust activity in emerging markets are likely to create a differential in asset returns that is expected to bring capital inflows to East Asia and other emerging regions**. Central banks will be left with a paradox of stemming overheating in asset markets through higher interest rates, but then creating incentives for foreign flows towards financial assets by driving up interest rate differentials. Capital flows to developing economies are projected to recover from their crisis lows in 2010. Private capital flows to the East Asia and Pacific region fell from 6.5 percent of GDP in 2007 to 2.2 percent in 2009. However, in the first nine months of 2010 inflows to the region exceeded the level seen in the comparable period in 2007. With Asian growth prospects remaining considerably more favorable than in the G3 and interest rates correspondingly higher, capital inflows may show further upside (Figure 21). On the back of this, regional exchange rates are likely to see continued strength.

**Commodity prices are expected to remain buoyant, partly because of high levels of global liquidity, and may raise inflation expectations globally.** With some allowance for further US dollar depreciation, oil prices are expected to be relatively stable as advanced economy demand growth remains sub-par in the coming years. In addition, the impact of recent weather catastrophes on food prices is expected to wane and production normalizes. However, high levels of liquidity worldwide pose a risk of supporting rising agricultural and other commodity prices as investors seek higher returns from investments in commodities. A related risk would be that higher commodity prices could feed into higher inflation expectations. Although this risk has not yet materialized due to overall excess capacity, it cannot be ruled out, especially in faster-growing emerging economies.

## 2.2.2 Merchandise Exports

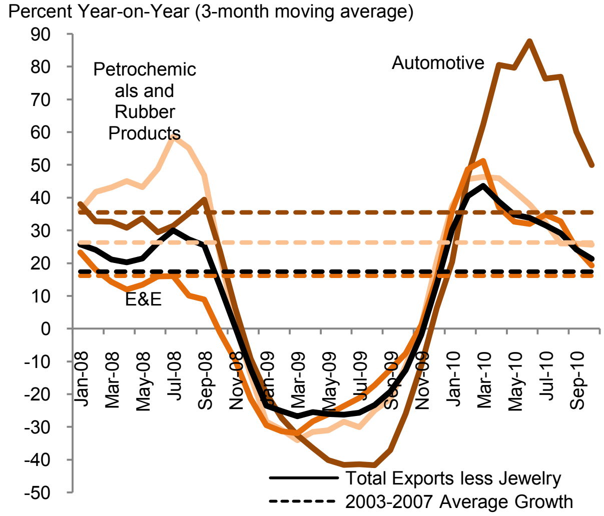
**A robust recovery in the first half of 2010 led to a new record high for Thailand's exports.** The revival of global trade that began in the second half of 2009 lifted Thailand's exports. With the help of the global inventory restocking cycle, cumulative sequential growth (quarter-on-quarter, seasonally adjusted) averaged 18 percent in the first six months of 2010 (Figure 22). Given the low base, year-on-year growth amounted to 36 percent on average. Seasonally adjusted shipment levels reached USD 17.4 billion in June 2010, surpassing the pre-crisis peak in July 2008 by around two percent. Peak-to-peak, the export cycle took two full years to complete. Nonetheless, seasonally-adjusted export levels as of June 2010 are still 24 percent below the levels which would have been seen had monthly growth been sustained at the 2003-07 medians.[3] While all sectors participated in the export recovery, auto exports surged in the first half and continued growing even as other exports started slowing down (Figure 23).

**Figure 22. Export values reached pre-crisis levels in June.**




Source: MOC, BOT, and World Bank staff calculations.

**Figure 23. Automotive exports recovered later but grew more while other exports slowed.**




Source: Bank of Thailand and World Bank staff calculations.

**With the waning of the global restocking cycle, export performance has slowed down across the board.** Cumulative sequential growth contracted by nearly three percent in the period between July and October (Figure 22), although because of the low base, average year-on-year growth still came in at a respectable 20 percent in these four months. Exports slowed down across all sectors. Auto export growth started to slow later in the second quarter, and as of October remains above its historical average. On the other hand, growth rates in other sectors have just about returned to historical growth rates (Figure 23), which are compatible with a return of GDP growth to a more sustainable pace in large emerging economies (where the inventory cycle faded and policy support retreated).

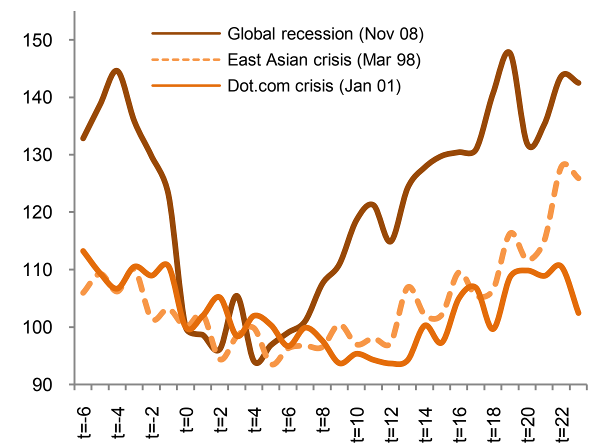
**Although the current crisis featured a stronger rebound, current export levels are relatively low when compared to the recovery from the 1997/98 East Asian crisis.** Thailand's export recovery in this recession has been marked by a more robust, and arguably smoother, transition compared to the Dot.com crisis in 2001 and the East Asian crisis in 1997-98 (Figure 24). But this followed a faster, steeper free-fall to the trough. Two years after the export slump started in November 2008, current shipment levels are only seven percent above the level recorded six months before the decline began (May 2008). In contrast,

[3] For example, sequential growth in November 2008 (when year-on-year export growth turned negative) is assumed to be 2.2 percent, which is the median growth of November during 2003 and 2007, as opposed to the actual of -18.7 percent. The difference between the crisis and no-crisis scenarios is 21 percent if using mean growth.

the same figure is far higher at nearly 20 percent in the East Asian crisis. This is because the recovery from the Asian turmoil was marked by robust demand from advanced economies.[4] The speedy recovery in this crisis has been supported by resilient demand from large developing economies (especially China), timely and large policy stimulus worldwide, and rapid inventory adjustments. But during this recovery, high-income economies have remained fragile, which has prevented Thailand's exports from advancing at a faster pace in the post-crisis years.

**Figure 24. Recovery was stronger compared to other crises, but the decline was also far deeper.**

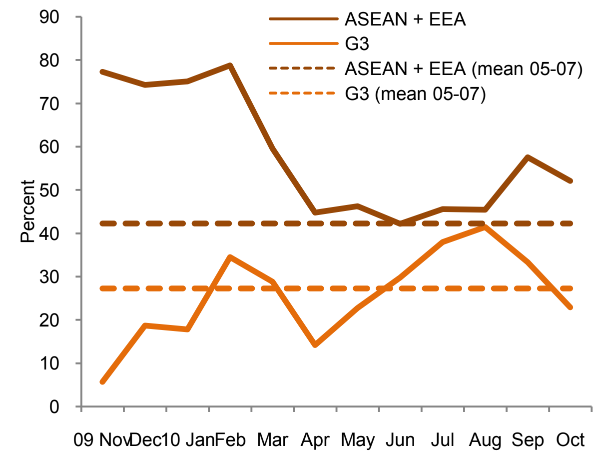
Movements in monthly export value (SA), t=0 shows beginning of export declines (in parentheses), and are set equal to 100




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

**Figure 25. G3 economies contributed more to export growth before slowing down recently.**

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




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

**The export recovery was first driven by emerging regional economies, but contribution from advanced economies picked up in recent months.** When the recovery began in November 2009, regional economies like China, ASEAN, and industrialized East Asian economies helped support Thailand's export performance (Figure 25). Their contribution 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, when contribution by G3 economies particularly the US and Japan edged up steadily while contribution by regional markets returned to the historical level. The latter was underpinned by softer demand from China, as ASEAN and industrialized East Asian economies remained rather solid. This convergence, especially between April and June, was also due to a temporary boost of exports to non-traditional destinations such as Australia (for vehicles and parts) and Switzerland (for gold). Contribution by "other markets" jumped to one-third of total export growth during that period. The rebalancing in sources of Thailand's export growth is in line with a global trend, as import demand from emerging economies already surpassed their pre-crisis levels since late 2009 while this only took place in mid-2010 for the US and Japan. Import demand from Europe is still underperforming.

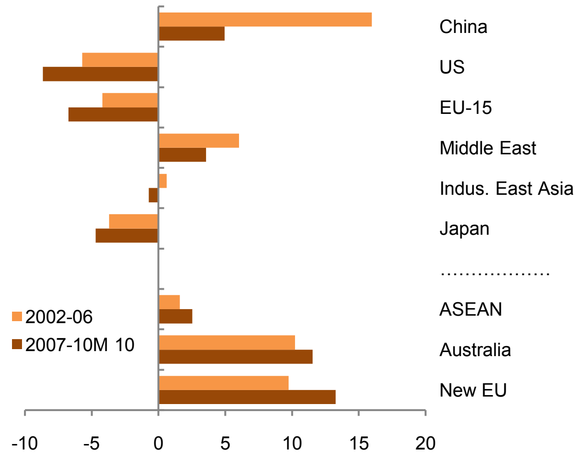
**The growth in the share of exports going to ASEAN and some non-traditional markets accelerated in the crisis years, while the share of G3 economies continued on a downward trend.** An increase in Thailand's export shares to ASEAN (particularly Indonesia, the Philippines, Lao PDR, and Myanmar) and alternative destinations such as Australia, Switzerland, and new EU member countries accelerated during the crisis relative to the pre-crisis period of 2002-06 (Figure 26). In contrast, reliance on US,

[4] The EU and the US economies, for examples, expanded on average 3.3 and 4.3 percent respectively during 1997-2000, compared to -1.2 and -0.2 percent respectively between the third quarters of 2008 and 2010.

Japan, and the original 15 EU members declined. China's market share edged up and exceeded that of the US and Japan for the first time in mid 2010 but the pace of growth is still slower than the pre-crisis years. Over the long run, export shares of the US, Japan, the EU, and China converged to around ten percent each in 2010. This started in 1995 at about 17 percent each for G3 economies and three percent for China, so transitions both ways happened at a comparable pace. Nevertheless, the importance of G3 economies cannot be overlooked. They still account for up to one-third of all shipments, and a large part of exports to China and ASEAN are finally destined to high-income economies.[5]

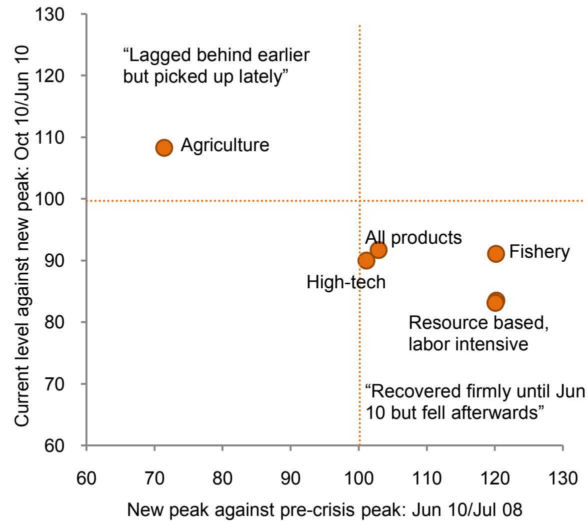
**Figure 26. ASEAN and non-traditional markets' export shares accelerated during the crisis.**

Changes in average annual market shares (percent)




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

**Figure 27 Agricultural and high-tech goods recovered more sluggishly from the crisis**




Source: Bank, Haver, and staff calculations.

**Agricultural and high-tech manufactured products lagged on the recovery path.** In June 2010 when overall shipments reached a new record high, the export volume index of high-tech manufactured items (seasonally-adjusted) was still below the pre-crisis peak in July 2008. This is expected, as demand for high-tech merchandise is more elastic to household incomes and final products are disproportionally destined to advanced economies. Prices of high-tech exports also declined, but they rebounded steadily during late 2009 and early 2010, supporting export values. Export volumes and value for agricultural products in June 2010 were only 75 percent of the level in the July 2008 peak (Figure 27). Agricultural prices also recovered but are still well below peak levels in 2008. Volumes suffered because of a drought, and also because agricultural production and exports were boosted in mid-2008 by the price effect during the global food price spike.[6] At the other end of the spectrum, export volumes were 11-16 percent above the pre-crisis peak for fishery products and resource-based and labor-intensive manufactured items.

**But sectors that lagged earlier seem to have weathered the slowdown since July 2010 more favorably**. The pattern of export growth reversed after the deceleration started in mid-2010. Resource-based and labor-intensive manufactured products have faced a sharper slowdown, with levels in October

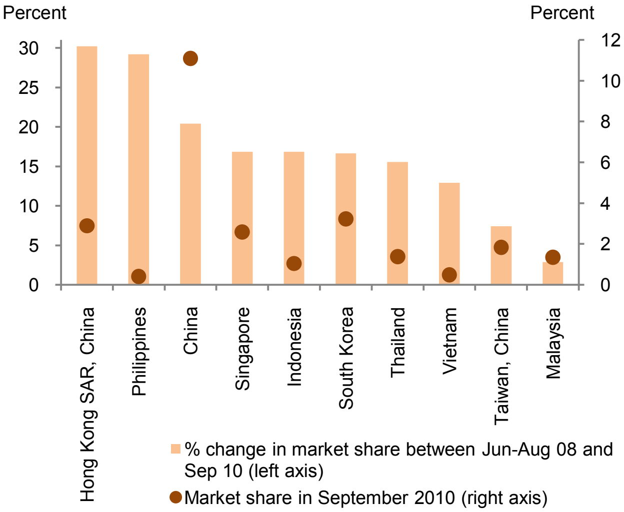
[5] Almost 80 percent of total East Asian exports are finally consumed outside the region (60 percent in G3 economies alone). In terms of primary destinations, exports to other East Asian economies accounted for 40 percent, but half of this was in fact for further processing and later shipped to the rest of the world. See Kim, Soyoung, Jong-Wha Lee and Cyn-Young Park (2010), "The ties that bind Asia, Europe, and United States", ADB Econ. WP No.192.

[6] The export value index (2007=100) in July 2008 rose to 174 for agricultural items relative to only 129 for overall manufacturing sector. The export volume price index registered at 111 and 117 respectively, so the price effect was very supportive for agricultural products.

2010 down to slightly over 80 percent of the June level (Figure 27). This may be due to eroding competitiveness from stronger baht, which has disproportionally affected industries such as canned food, sugar, garments, footwear, and wood products. Agricultural exports, in contrast expanded relatively well in both volume and price, with rice and rubber as the largest gainers. The slowdown has been somewhat more limited for high-tech goods than other manufactured product groups.

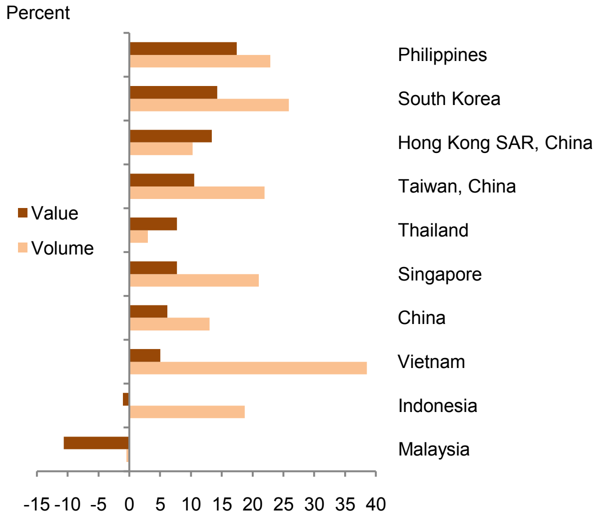
**Thailand's export performance during the crisis years was middling relative to other regional economies.** The country's market share in world exports (seasonally-adjusted) increased from 1.20 percent in the pre-crisis months (mid 2008) to 1.38 percent in September 2010, or about 15 percent higher (Figure 28). Like Thailand, all other major East Asian economies enjoyed higher market shares, partly underpinned by buoyant intra-regional demand. Thailand's performance is average compared to regional peers. Hong Kong SAR (China) and the Philippines gained the most with about 30 percent increase in their market shares, while Taiwan (China) and Malaysia seemed to lag behind. Demand for Thai merchandises in fact grew more sluggishly than all regional peers except Malaysia, as highlighted by export volume (Figure 29), so favorable export prices played a critical role (see Figure 30).

**Figure 28. Thailand's increased share in world exports during crisis was middling in the region**




Source: World Bank, Haver, and staff calculations

**Figure 29. Thailand's export volume under-performed others but supportive prices helped.**

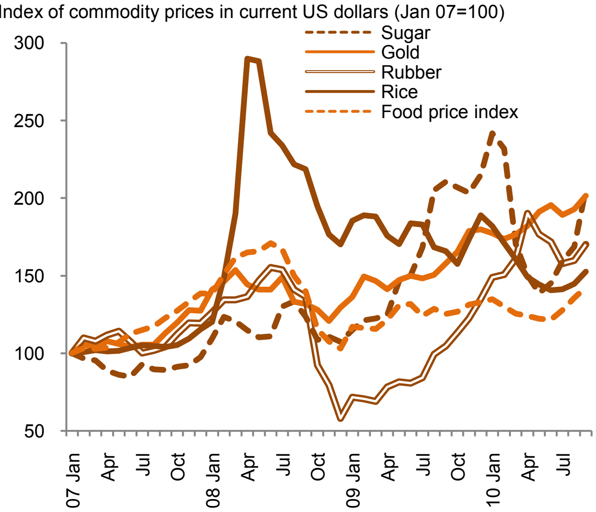



Source: Haver and World Bank staff calculations.

**Market views on the outlook for exports have improved with the recovery, but leading indicators suggest a mixed picture.** The market estimated in November 2010 that gross exports in US dollar terms would post growth rates around 21 to 28 percent in 2010 following a 13-percent decline in 2009. This represents a significant improvement from a forecast of ten percent growth as of January 2010 (Figure 31). Forecasts for growth rates in 2011 are more diverse at 3 to 17 percent. Leading indicators show that export prospects in the coming months are mixed. Singapore's purchasing manager index improved gradually between August and October 2010, but the industrial production index remains volatile. The inventories-to-shipments ratio of US computers and electronic products has risen marginally in the third quarter to around 1.35 times. Although higher figures generally point to a slowdown, it may be premature to interpret these signs as necessarily indicating a weakening of Thai exports, however, as current levels likely reflect a return to the pre-crisis trends following a strong recovery. During the peak of the crisis, this ratio was as high as 1.67 times in January 2009, the highest level in six years. The outlook for export prices is favorable, as agricultural prices are expected to remain firm into 2011.

**Figure 30. Thailand has benefited from rising commodity prices in recent quarters**

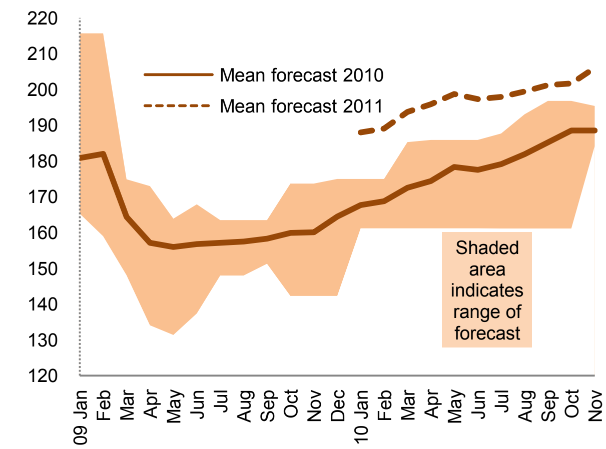
Index of commodity prices in current US dollars (Jan 07=100)




Source: DECPG World Bank and staff calculations.

**Figure 31. Market forecasts on export growth in 2010 and 2011 improved steadily over time.**

Forecast goods export value in 2010 and 2011(USD billion). Horizontal axis shows months that surveys were conducted.

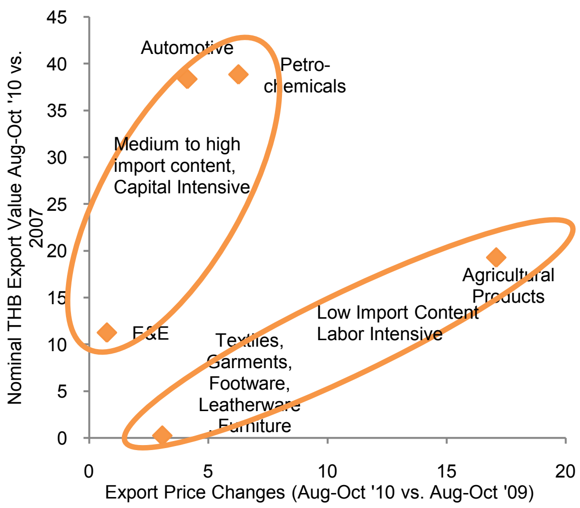



Source: Consensus Forecasts.

**The strength of the baht affects primarily exporters from labor-intensive industries that use high domestic content.** The negative effects of baht appreciation on exporters of primary commodities (such agricultural or fishery products) are mitigated by globally increasing dollar prices for commodities. At the other end of the spectrum, exporters that are part of global supply chains—such as autos and electronics—are capital intensive and import a large share of their inputs. Since the Baht has not appreciated as significantly against most regional currencies on a real effective basis, for those industries, Baht strength is secondary to general US dollar weakness coupled with the lack of pricing power. Exporters that suffer the most from currency appreciation are those that are labor-intensive, with at least 50 percent export share and less than half of import content. This category includes producers of wooden furniture, leatherwear, garments, and footwear (Figure 32). In addition to having their margins squeezed by currency appreciation coupled with limited pricing power, these firms also face stiff competition from Vietnam, whose currency has weakened by 5.5 percent against in US dollar so far this year, compared with close to ten percent appreciation for the baht.

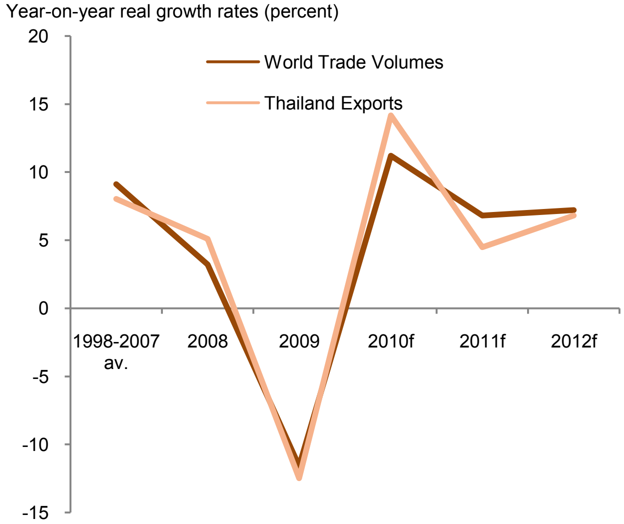
**Export growth will continue to decelerate in the fourth quarter of 2010 and should remain below average in 2011 and 2012 as advanced economies continue to recover.** In the remainder of 2010, export growth is expected to decelerate from the high rebound levels of the first half. For the year as a whole, Thai exports of goods and services are expected to grow by 14.2 percent, above forecasts of world trade volume growth of slightly above 11 percent (Figure 33). On the other hand, this higher base due to a faster recovery in Thailand leads to forecasts of slower growth of 4.5 percent in 2011 compared to an expected 6.8 percent expansion of world trade volumes. It is noteworthy that both Thai exports and world trade volumes are expected to grow below their historical averages in 2011 – 2012, reinforcing the importance of the muted outlook for demand from advanced economies. Growth in demand from emerging economies helps keep the reduction in export growth limited, but cannot yet replace it.

**Figure 32. High import content or higher prices mitigate Baht appreciation in some sectors.**




Source: BOT, MOC and World Bank staff calculations.

**Figure 33. Thai export growth has generally followed world trade volumes.**

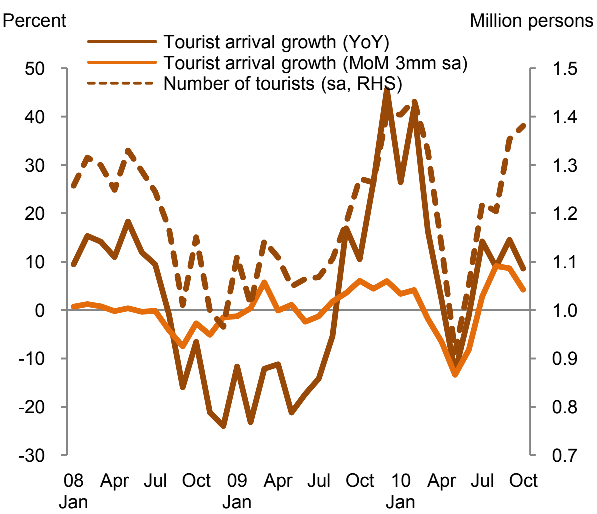



Source: NESDB, DECPG, WDI and World Bank Projections.

## 2.2.3 Exports of Services

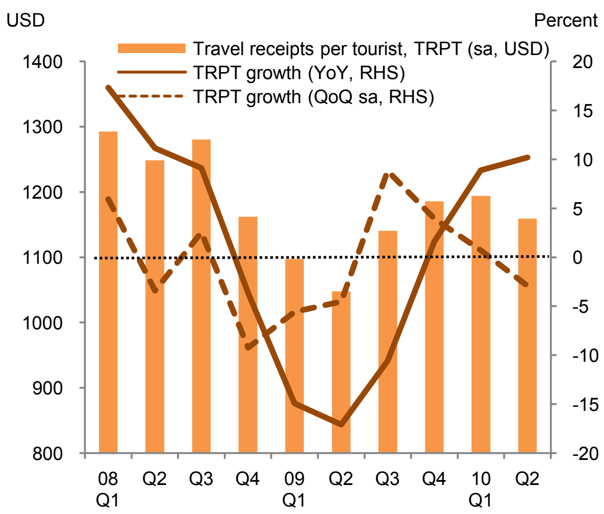
**The political turmoil of April and May had a stronger but shorter-lived impact on tourism compared to the airport closure and economic crisis between November 2008 and July 2009.** Tourist arrivals recovered as of July 2010, reaching 1.2 million after plummeting to less than one million in May 2010 (Figure 34). 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 severely damage the attraction of Thailand as a tourism destination. The number of new arrivals has now returned to levels recorded before the political and the financial crises happened.

**Figure 34. The political turmoil had substantial but shorter-lived impact on tourism.**




Source: Bank of Thailand and World Bank staff calculations.

**Figure 35. Spending per tourist contracted during the political crisis in Q2 2010.**



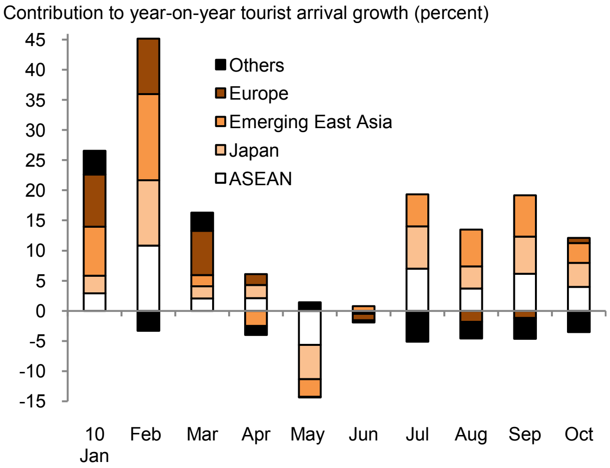

Source: Bank of Thailand and World Bank staff calculations.

**The turmoil of April and May also led to a decline in spending per tourist.** Travel receipts per tourist had yet to recover to pre-crisis levels when the political crisis kept many high-spending European and

American tourists away. As a result, by the second quarter travel receipts per tourist were 8 percent below pre-crisis levels (Figure 35). 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. While the number of tourist arrivals recovered, occupancy rates continued their downward trend from an average of 60 percent in the early 2000s to about 50 percent in 2009 and in the first half of 2010, likely a result of hotel capacity growing faster than tourist arrivals.

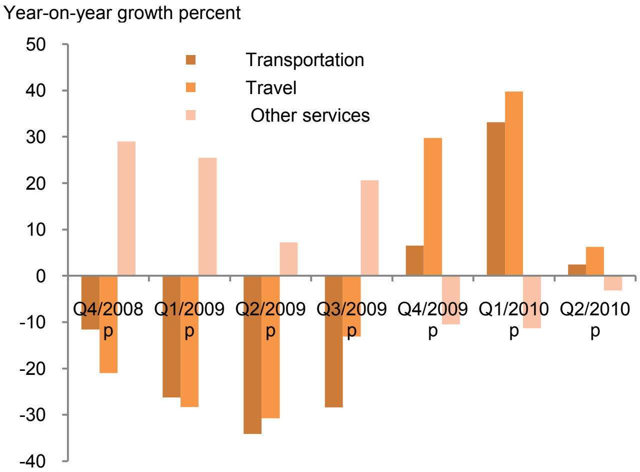
**European travelers have yet to return to Thailand after the political turmoil.** Until March, European tourists were contributing strongly to the overall growth in tourist arrivals (Figure 36). Since the crisis, tourists from East Asia have returned in large numbers. However, perhaps partly due to the strength of the baht against the euro and US dollar, European, North American and Middle-Eastern tourists have not yet returned in the same numbers. Since tourists from these nationalities tend to spend more than tourists from East Asia, this may help explain the continued decline in spending per tourist.

**Figure 36. European travelers still have not returned after the political turmoil.**




Source: Office of Tourism Development and World Bank staff calculations

**Figure 37. Business service exports were more resilient during the crisis.**




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

**Thailand's business services exports were more resilient during the crisis but have not continued to perform as well during the recovery.** While transportation and travel services were greatly disrupted by the financial crisis, exports of business services, which represented about 20 percent of Thailand's services exports in 2008, was more resilient posting positive growth until the fourth quarter of 2009 (Figure 37). This is mostly a reflection of relatively robust demand for business-related professional (e.g., insurance, telecommunications) and technical services (e.g., legal and IT outsourcing). The value of trade in services such as transportation of goods and people and tourism had fallen in line with the merchandise average, but business process outsourcing was registering positive growth rates (albeit much lower than pre-crisis). Growth stalled since the end of 2009, however.

**The outlook for services exports, notably tourism, is relatively favorable.** Thailand remains a competitive destination and the recovery in consumer spending in advanced economies—while slow—will continue to drive growth. Key risks include a new deterioration of sentiment in Europe, as European tourists comprise the largest percentage of visitors from high-income countries, as well as renewed politics-related violence.

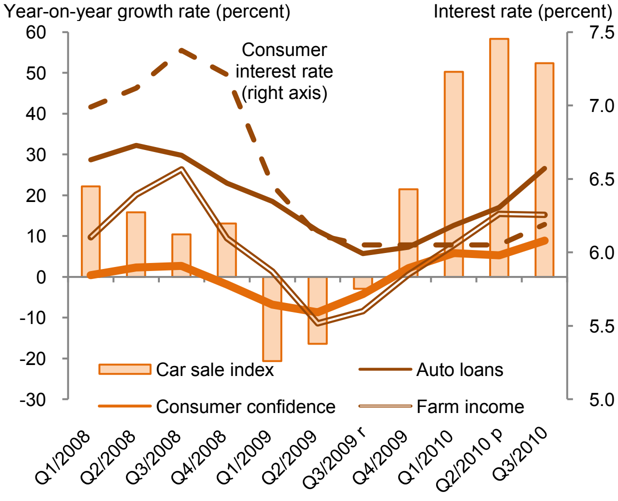
## 2.3 Domestic Demand

**Marking a change from the rebound period, a higher proportion of manufacturing output has been directed towards domestic rather than foreign demand, especially in the second quarter**. Private consumption, net of imports of consumer goods, grew by 6.9 percent in the second quarter mostly due to a 50 percent year-on-year increase in vehicle purchases. Private investment was also robust, but since it consisted primarily of imported equipment, investment represented a net drag on quarterly growth (i.e., the real growth rate of imports of capital goods was higher than the growth in fixed investment). Overall, domestic value added consumed or invested in Thailand contracted 1.4 percent in the second quarter. In the third quarter, consumption remained strong (vehicle sales were still over 40 percent higher compared to the previous year), but given the high base in the second quarter private consumption net of imports contracted 1.1 percent. Private investment remained a drag on near-term growth as imports accounted for 96 percent of equipment investment and construction investment contracted slightly. Overall, domestic expenditure on value added produced in Thailand contracted by 1.3 percent in the third quarter.

### 2.3.1 Household Consumption

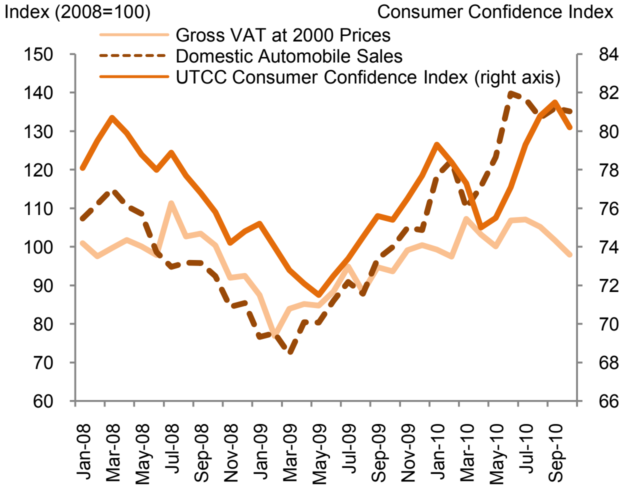
**Household consumption grew strongly in the second quarter driven by firm agricultural prices, higher consumer confidence and low interest rates.** Private consumption grew by 5.4 percent and 4.7 percent in the second and third quarters, respectively, from the same period in 2009. Much of this growth can be attributed to a jump in purchases of vehicles, some of which were actually made before the political turmoil in the first quarter but were delivered (and recorded) in the second and third quarters. As consumer (and bank) confidence returned in early 2010, accommodative monetary policy started to have a greater impact as households took advantage of low interest rates to purchase durable goods, especially cars and motorcycles (Figure 38). In addition, favorable labor market dynamics and firm agricultural prices supported growth of consumption in rural households. Private consumption decelerated in the third quarter, but favorable dynamics remain in place: seasonally-adjusted levels of consumption net of imports in the third quarter stands 6 percent above pre-crisis levels.

**Figure 38. Consumption growth was the result of increased confidence and low interest rates.**




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

**Figure 39. Consumption indicators rebound quickly from the political turmoil.**




Source: UTCC, BOT and World Bank staff calculations.

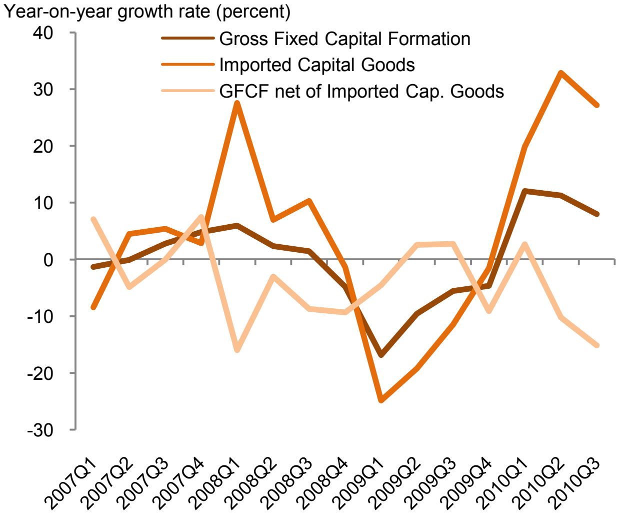
**Firm agricultural prices, tight labor markets and accommodative fiscal and monetary policies will support growth in household consumption in 2011**. Consumer confidence and value-added tax (VAT) receipts picked up since the political turmoil in May but declined in October likely due to the floods

(Figure 39). In the meantime, agricultural prices have continued to increase, although agricultural production is likely to be reduced by floods. Labor markets are relatively tight, and the second quarter saw real wage growth. Importantly, the bias of policy appears to be to err on the side of stimulating domestic demand so that private domestic consumption can mitigate the decline in foreign consumption. Therefore, interest rates are expected to remain low and credit growth will remain robust and support further purchases of durables. Moreover, fiscal policy will be expansionary in 2011. In particular, the Government's farm support scheme and other social policies (discussed in greater detail in Section 3.1 below) have expanded their reach to more individuals, providing additional transfers to a larger number of households.

### 2.3.2 Private Investment

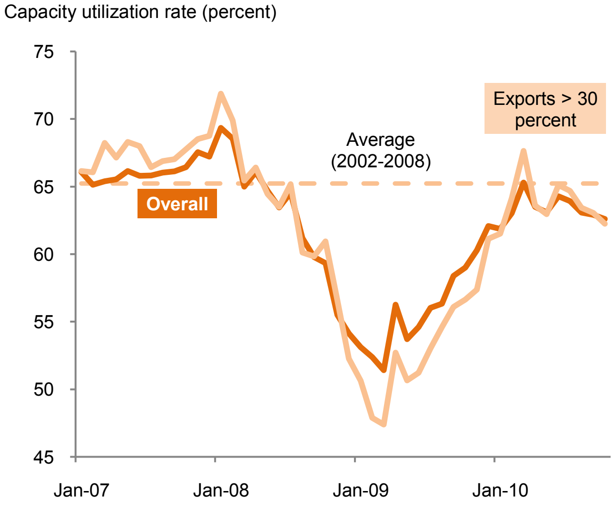
**Private investment growth accelerated in the second quarter as export-oriented manufacturing firms continued to add capacity.** Private investment grew by 14.5 percent year-on-year in the third quarter compared to 17.8 percent and 13.8 percent in the second and first quarters, respectively. Equipment investment continued to dominate, representing nearly 90 percent of the year-on-year growth. Growth in equipment investment was in turn associated with a surge in real imports of capital goods (see Figure 40). Since public investment contracted by 5.2 percent and 4.9 percent in the second and third quarters, respectively, due to slow investments by SOEs, the domestic value-added of fixed investment contracted by 3.8 percent year-on-year on average in the second and third quarters. In other words, while higher investment is crucial for long-term growth, in the short term the high import component of investment is likely to add little to growth. Private construction investment grew by 11 percent in the second and third quarters of 2010 compared to the same period in 2009, but remains at less than half of its 1996 (bubble) levels in real terms and only 69 percent of the *nominal* 1996 average output.

**Figure 40. About 90 percent of equipment investment is imported.**




Source: NESDB, BOT and World Bank staff calculations.

**Figure 41. Capacity utilization in export-oriented sectors dipped below pre-crisis levels.**

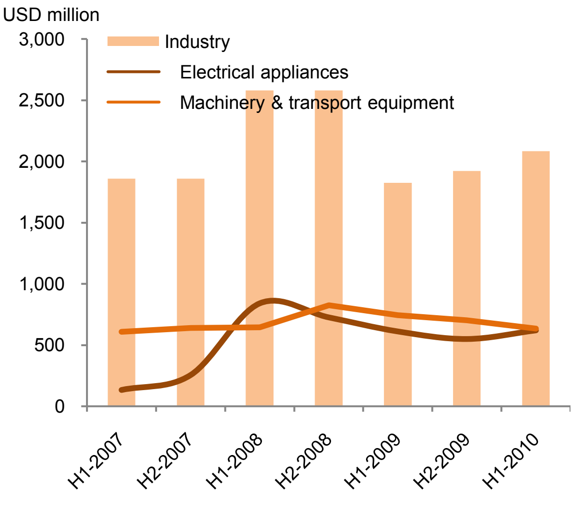



Source: OIE and World Bank staff calculations.

**Investment growth is likely to remain solid into the first half of 2011, but the longer-term outlook is more uncertain given the outlook for global demand.** Investment is likely to decelerate but remain on an upward path as firms complete their investment plans, which are always executed with a lag. Drivers of near-term investments include the strong exchange rate, which lowers the cost of capital goods imports, and the positive outlook for the East Asia. On the other hand, capacity utilization in export-oriented industries has declined recently (Figure 41). Moreover, in the medium term, investment responds to expectations of demand for the output of additional productive capacity. The existing export-led model is stretched due to the slow growth of advanced economies in the medium-term. In addition, the weight of the ongoing political uncertainty, with the possibility of elections in 2011, and regulatory uncertainty from the Map Ta Phut and 3G auction court cases will further limit the potential growth rate of investment in the medium term.[7] Notwithstanding these challenges, it is possible that Thailand may benefit from continued growth in emerging Asia through a "second wind" of the manufacturing-for-exports model, notably in the auto sector focusing on the ASEAN and Pacific market (see the discussion in Box 1). In addition, construction investment is likely to remain robust into 2011 since it is driven more by domestic demand and lower interest rates.

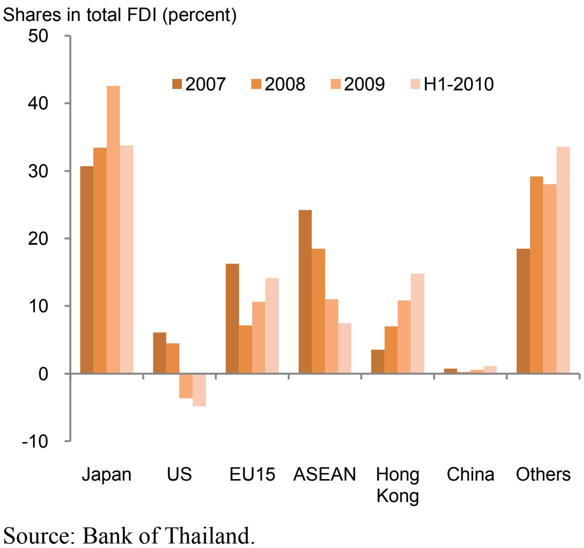
**Foreign direct investment (FDI) contracted modestly in the first half of 2010 due to the political turmoil but picked up again.** Inward foreign direct investment came to a halt in May due to the political turmoil, but excluding that month, average monthly FDI in 2010 is up 22 percent from 2009. While total net inflows of FDI dropped by about half since 2007, inflows to the industry sector were sustained, and even rose during 2008. Their share in total FDI increase as a consequence to about 75 percent in 2009 and first half of 2010 (Figure 42). FDI was directed especially to high tech industries of electrical appliances and machinery and transport equipment, which received around 60 percent of these flows. FDI inflows originate mainly from Japan, which has maintained its share in total FDI in Thailand (Figure 43). Automakers in particular are funneling large amounts into the country to set up factories (see Box 1). Thailand also has drawn investment to its electronics and home appliances industries—Samsung, for example, will invest THB 4 billion in 2010 to expand its Thai production capacity. However, net FDI inflows from ASEAN declined sharply since 2007. As a result, their share in total inflows dropped from 24 percent in 2007 to 7 percent during the first half of 2010.

**Figure 42. FDI in the industrial sector remains robust…**




Source: Bank of Thailand.

**Figure 43. …mainly due to investments from Japan.**

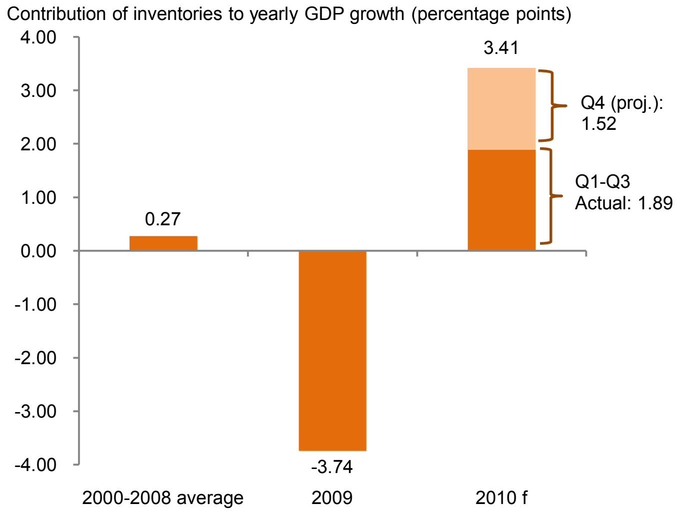



Source: Bank of Thailand.

[7] See Box 2 below regarding the deployment of 3G in Thailand. Regarding the Map Ta Put court case, the Central Administrative Court allowed 74 out of 76 industrial projects previously suspended by a court temporary injunction last September to proceed. Recently, the National Environmental Board (NEB) of the Natural Resources and Environment Ministry approved a list of 11 harmful activities as a guideline to determine exactly which projects would be subject to follow procedures required by Section 67 of the constitution. The procedures include environmental and health impact assessment (EIA and HIA), public hearings and consultation with an independent body on environment and health. The NEB shortened the list from 18 activities proposed by the four-party panel made up of industry, government, NGOs and academics, so further legal challenges are possible.

**Inventory investment remains poised to be a key contributor to growth in 2010 due to the large degree of destocking in 2009 and limited restocking in the first half.** Inventory investment unexpectedly contracted in the second quarter and subtracted 0.5 percent from the year-on-year growth rate. Given the massive draw-downs in 2009 and the historical trend for small but positive contributions, it is likely that production, while buoyant, was actually outpaced by demand in the second quarter, perhaps due to the political turmoil, which (at its height) limited overtime and caused delays in customs clearance. Although firms added to inventories in the third quarter, there is still room for additional production for inventory replenishment in the fourth quarter (see Figure 44). 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. In 2011, as growth becomes less volatile, inventories are poised to return to this historical pattern of making only a small contribution to growth.

**Figure 44. After large drawdowns in 2009, inventory investment is on track to make a positive contribution.**




Source: NESDB and World Bank staff calculations and projections.

## Box 2. Reflecting on 3G and Broadband Development in Thailand

**3G ("3rd Generation") telecommunication systems provide broadband access to the Internet as well as voice telephone services.**[8] In simple terms, one can download files and browse the web at the same time as talking on the phone. The standards of 3G are established by specifications set by the International Telecommunication Union (ITU) called IMT-2000[9] and spectrum allocations are harmonized globally, which allows for international roaming to be technically implementable. The first 3G mobile system was commercially introduced in Japan in 2001. Europe, North America, and Australia rolled out 3G systems not long afterward in the early 2000s. By the end of 2007, more than 190 3G networks were operating in 40 countries. By September 2009, there were more than 570 million high-speed subscriptions using 3G or more advanced systems around the world. Some countries are already looking into "4G" systems, although agreement on standards has not yet been reached.

[8] The 1st Generation (1G) introduced in early 1980s refers to analogue mobile systems, and the 2nd Generation (2G) refers to digital mobile systems which can accommodate simple non-voice services (such as short message services).
[9] IMT-2000 stands for "International Mobile Telecommunication—2000"

**3G can be a key technology for the expansion of access to broadband internet, both in urban as well as less populated areas.** 3G mobile systems can provide high speeds of data transfer, allowing mobile broadband capability, which can be more than 6 times faster than the current 2G systems. While cable-based 'wired' networks offer faster speeds, they are best suited for dense urban areas where the fixed costs of cable deployment can be spread over a large number of subscribers. Radio-based networks (including 3G), on the other hand, have lower fixed costs per unit of area reached, and can therefore bring broadband services further into rural locales. Indeed, mobile data networks have played a significant role in improving broadband penetration rate in many countries, in conjunction with appropriate policies and enhanced competition in the industry. For example, in the case of Korea, which has one of the highest rates of broadband penetration in the world (Figure 1), mobile broadband played a key role in expanding access: as shown in Figure 2, mobile broadband accounts for about 15 to 20 percentage points of Korea's high penetration rates.

**Figure 45: Only six percent of Thai households have broadband access.**

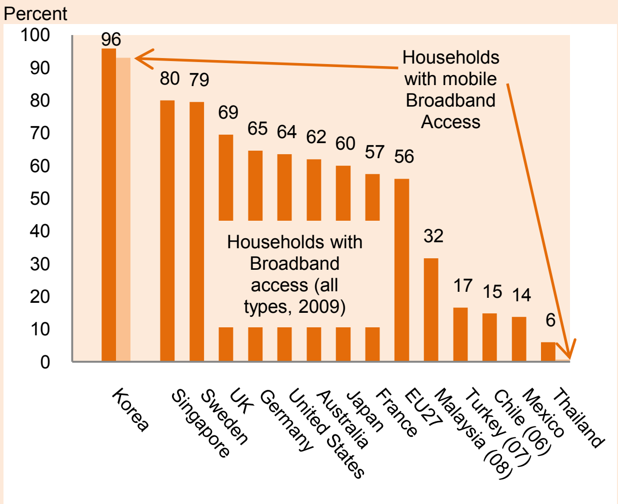
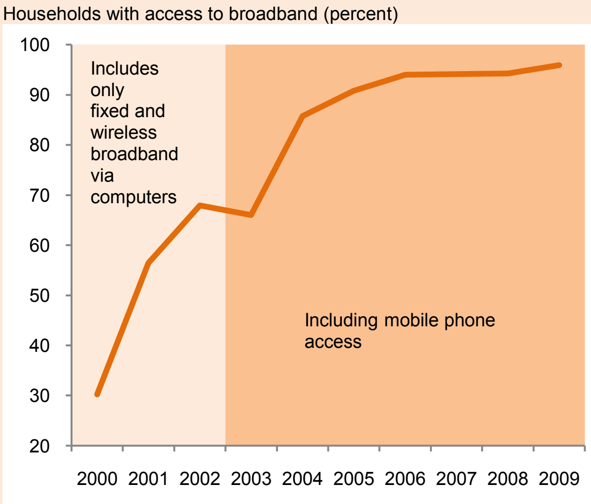



**Figure 46: In Korea, mobile broadband is linked to a sharp increase in penetration.**




Source: OECD, ICT database and Eurostat, Community Survey on ICT usage in households and by individuals, July 2010

**Studies have shown that broadband internet has a significant positive impact on economic growth in developing countries.** A World Bank study[10] found that in low- and middle-income countries, a 10 percent increase in broadband penetration accelerates economic growth by 1.4 percent. A study by McKinsey & Co., in which upstream and downstream businesses are also considered, arrives at a similar figure of 1.4 percent.[11] Mobile internet supports connectivity of lagging regions to growth poles and creates economies of scale in a number of areas such as education and professional services. It also facilitates market access and production, as farmers can learn about market prices, consult weather forecasts, or apply for government price insurance from their mobile phones.

**In the Asia-Pacific region, most countries have already issued 3G licenses.** Two commonly used 3G licenses awarding processes are "Auction" and "Beauty Contest". "Auction" is a selection process whereby the bidder who offers the highest license payment wins, while a "Beauty Contest" awards licenses to bidders that best-fit a set of criteria within a transparent selection process. There are pros and cons to each method. Australia, Hong Kong, Indonesia, New Zealand, and Taiwan chose Auction as their awarding process; while the Republic of Korea, Malaysia, and the Philippines chose the Beauty Contest

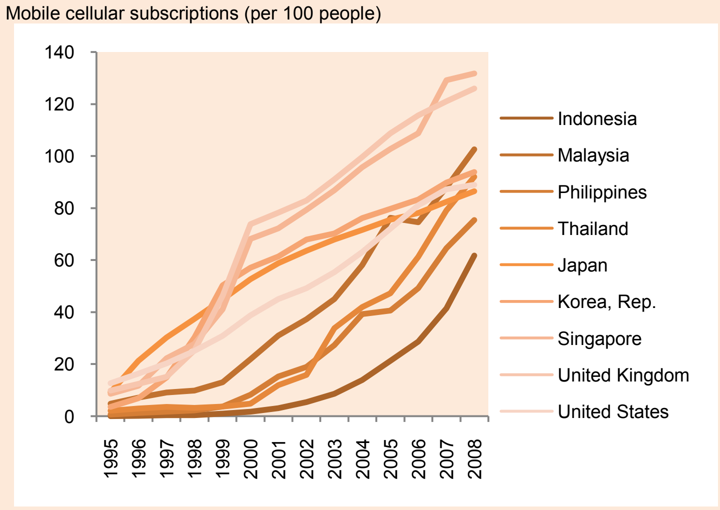
[10] Qiang, Christine Zhen-Wei (2009). *Broadband Infrastructure Investment in Stimulus Packages: Relevance for Developing Countries*. World Bank.
[11] McKinsey & Company (2009). *Mobile Broadband for the Masses: Regulatory levers to make it happen*. February.

method. Singapore chose both, and Japan uses direct awarding. The average license term is around 15 years, with an average of 5 licenses. Most of the 3G license award processes in these countries were completed around mid 2000s[12].

**Growing demand for data usage in Thailand is saturating the 2G infrastructure and underlines the importance of developing 3G networks.** Mobile cellular subscription has been increasing quickly since the recovery from economic crisis in the late 1990s (Figure 47). As of the first quarter of 2010, Thailand has approximately 60 million 2G subscribers—a 99-percent penetration rate. The market appears to be maturing with the slowing down of growth since 2007. Consumers have been using more and more non-voice services, as seen in increasing revenue from data transmission services on the 2G network in the past few years. Despite the limitations of current 2G networks, revenue from data services has increased from under 15 percent in 2008 to 17 percent in 2009.[13] Mobile broadband penetration is low at 0.7 percent of households, a sharp contrast with Korea's 93 percent (Figure 3), contributing to Thailand's relatively low broadband penetration rate. 3G development is also likely to be important to for businesses. In the 2010 World Bank Logistics Performance Index, 40 percent of respondents to a survey on infrastructure quality indicated that they found ICT infrastructure of "low" or "very low" quality, suggesting that 3G deployment could also contribute to an improvement in Thailand's logistics performance.

**In Thailand, the key challenges are not technological but rather the institutional arrangements for granting of the 3G licenses.** Legislation governing radio spectrum licensing in Thailand originally envisaged that these decisions would be made jointly by the National Telecommunications Commission (NTC) and the National Broadcasting Commission (NBC). There has been disagreement over the authority of the NTC to grant radio spectrum licenses. In addition, 3G licensing can have important commercial implications. Existing private mobile network operators operate under concession agreements with either TOT Public Company Limited or CAT Telecom pcl, which in exchange receive a share of the operators' revenue. If existing operators gain 3G licenses, they can be expected to migrate customers from existing 2G to the new 3G networks, which would not be subject to concession fee payments. These concession fee payments are a significant source of revenue for CAT and TOT.

**Figure 47: Cellular subscriptions have been growing rapidly.**




Source: DDP, World Bank

[12] Qualcomm. *Regulatory Consideration: Understanding the Relationship between IMT-2000, IMT-Advanced and BWA.*

[13] National Telecommunication Commission (2010). *Information Memorandum: Spectrum Licensing for IMT Mobile Phone Service in the Frequency Band of 2.1 GHz*. July.

**Following a court decision barring the auction of the 3G licenses, TOT received Cabinet approval to expand its 3G network and license it to private operators.** On September 24 the Supreme Administrative Court found that NTC did not have the authority to grant the 3G licenses and halted the auction that was expected to take place that week. Following this decision, the Cabinet approved a THB 20 billion investment plan for TOT to expand its 3G network. TOT would then auction the rights to deploy the network to third-party providers. In addition, there is a draft legislation to establish a combined National Broadcasting and Telecommunication Commission (NBTC) that would supersede both the NTC and NBC.

**A resolution of the 3G licensing issue would not only spur investments in the near term but also contribute to long-term growth.** While much attention has been paid to technology, speed, and especially the competitive environment, it is useful to keep the focus on how 3G or broadband services are utilized and their potential contribution to Thailand's development. In the near term, upgrading and expanding existing mobile networks to roll out 3G services would involve large investments. The longer-term benefits are likely to be even more meaningful: children in rural areas may be able to access the same lectures from the best schools through video clips; a small eco-tourism home-stay in a remote location may provide on-line booking service for tourists; or a surgeon in Bangkok can guide an operation in a distant province.[14]

### 2.3.3 Public Investment

**At a time GDP was growing by 9.3 percent, public investment contracted by 1.9 percent and has grown at a meager 0.8 percent per year pace since 2006 (Figure 48).** Public investment contracted by 4.9 and 5.2 percent year-on-year in the second and third quarters, respectively, largely due to a reduction in equipment investment (reflecting a lack of deliveries by state-owned enterprises such as Thai International, the State Railway of Thailand and PTT). The political unrest during April and May, as well as the continued stalemate over Map Ta Put in the case of PTT, led to delays in implementation of investment projects from both SOEs and central government agencies. A secondary factor accounting for lower public investment was the reduction in SOEs' investment budget for FY2010 compared to the previous year. In the second quarter of 2010, investment spending from SOEs (including PTT) declined by 31.7 percent year-on-year or 16.8 percent of total investment budget.

**The TKK stimulus package contributed modestly to the public investment growth in FY2010, but most disbursements have been for consumption expenditures.** The total approved budget for TKK[15] was THB 350 billion, of which THB 301 billion was approved for projects under seven areas[16] and the remainder was allocated to the agricultural insurance scheme (see Section 3.1 below) and the central fund. As of September 2010, the disbursement rate stood at 67 percent (234 billion baht). Actual investment spending was approximately 40 percent of the total disbursement (Figure 49). In the first nine months of the FY2010 (October 2009-June 2010), actual investment spending from budget, carry-over and SOEs (excluding TKK investments) contracted by 16.2 percent from the same period of last year. Including

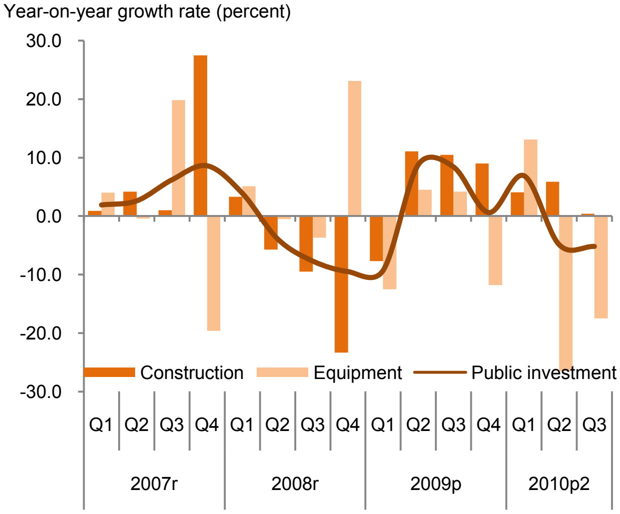
[14] In Japan, for example, in order to assist hospitals without a specialist for children's diseases, by using ICT, specialists in urban areas support diagnoses for children in rural hospitals.

[15] "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.

[16] 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.

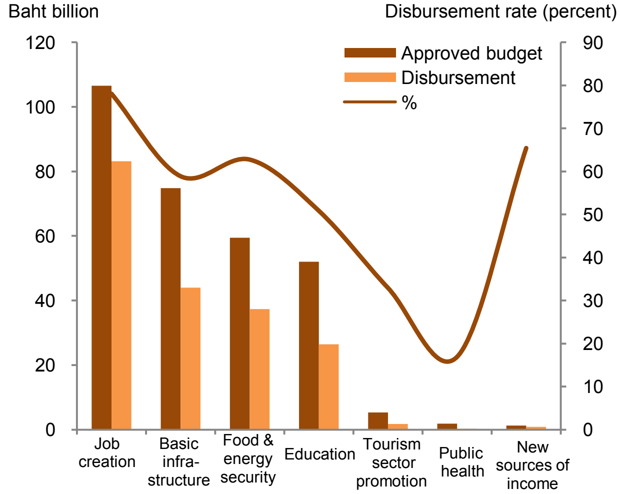
TKK investments, nominal public investment increased by 8 percent (Figure 50), suggesting that TKK not only compensated a reduction of capital budget, but also contributed to public investment growth.

**Figure 48. Public investment contracted primarily due to lower equipment deliveries.**




Source: NESDB and World Bank staff calculations.

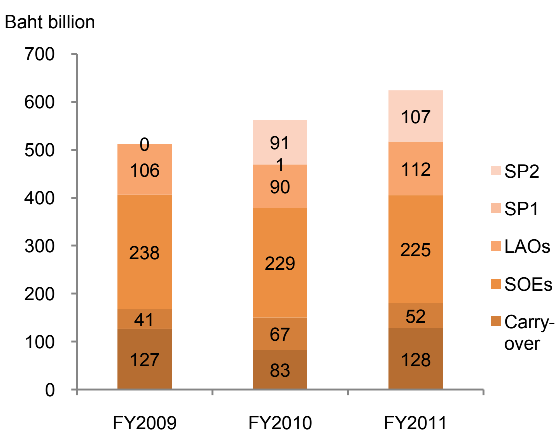
**Figure 49. Disbursements under the TKK program have been generally slow.**




Source: CGD and World Bank staff calculations. (As of September 30, 2010)

**TKK will continue to contribute to public investment growth in FY2011.** Although the capital budget and SOEs investment budget in FY2011 will return to their pre-crisis levels, TKK will also continue its role in contributing to the growth on public investment. The remainder of the TKK budget available to spend in FY2011 is 125 billion baht out of the THB 350 billion borrowing authorization under the Emergency Decree. Taking the fact that investment to consumption expenditures ratio is 60:40, the TKK budget is expected to be 68 billion assuming a high disbursement rate. In addition, FY2011 the capital budget will increase to 344 billion. Assuming a 75 percent disbursement rate (consistent with historical average), the estimated actual spending from the capital budget is expected to be 258 billion baht. Public investment from budget and TKK in FY2011 is expected to come in at approximately 326 billion baht, representing an 11 percent increase from the previous year (see Figure 50).

**Figure 50. TKK investments offset a capital budget reduction and contributed to public investment growth.**



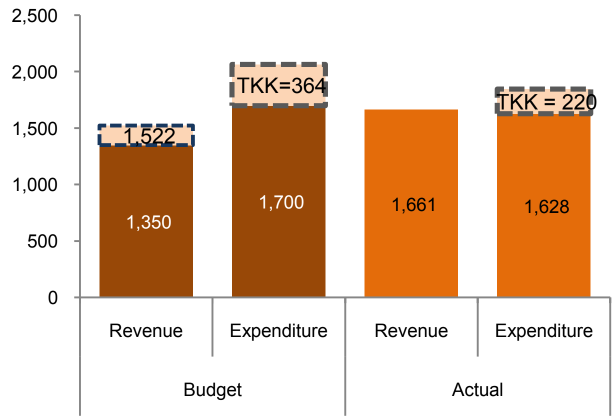

Source: FPO, PDMO, BOB, and World Bank calculations.

## 2.4 Fiscal Policy

**Fiscal outcomes for FY2010 were vastly better than initially expected at the height of crisis when the FY2010 budget was proposed.** The revenue target was estimated at THB 1.35 trillion, taking into account the impact of economic crisis when the budget was proposed; this forecast was later revised upward to 1.5 trillion baht (Figure 51). The FY2010 budget was constrained by the fiscal rule that on-budget expenditures cannot exceed 25 percent of expected revenues plus financing. Hence, the budget deficit was originally expected at around 6 percent of GDP. Fiscal outcomes for FY2010 were better than initially estimated, and revenue collections came in at 1.67 trillion baht or 10 percent higher than the original estimates. On-budget disbursements are at their historical disbursement rate of around 96 percent. TKK disbursements as of September 2010 are slower than expected due to the political turmoil. Consequently, fiscal deficit turns out to be less than projected of 1.9 percent of GDP.

**Figure 51. Fiscal outcomes were better than initially expected due to higher revenue collection.**

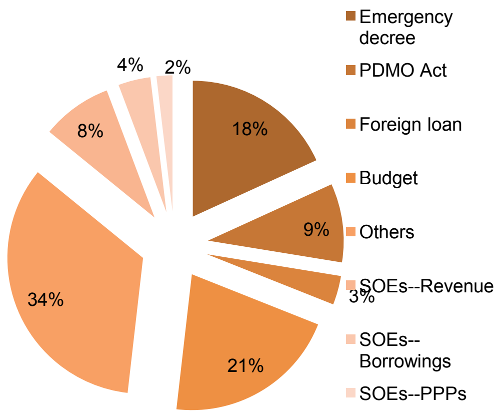
Baht billion




Source: NESDB and World Bank staff calculations.

**Figure 52. In FY2011, TKK expenditures will be financed from the budget and Emergency decree.**

Sources of TKK expenditure (percent)




Source: NESDB and World Bank staff calculations.

**With the space provided by better-than-expected fiscal outcomes in FY 2010 and lingering concerns about the sustainability of growth, fiscal policy will remain expansionary in FY 2011.** Some new social policy initiatives originally included as part of the stimulus package have now become permanent and others have been introduced. These include a new agricultural price insurance scheme, a pension to the elderly not covered by social security, education subsidies and a debt refinancing scheme. These programs have now been integrated in the THB 2.07 trillion (20.4 percent of projected GDP) budget for fiscal year 2011 (October 2010 – September 2011). In addition, the government is trying to boost public investments. Accordingly, the capital budget was increased, and implementation of the off-budget stimulus plan, while winding down, will continue. The capital budget will return to normal levels (as a percent of the overall budget), representing 16.6 percent of overall expenditures, up from 12.6 percent in FY 2010 (Table 5). The investment budget of SOEs will increase by 23 percent from the previous year. As a result of the increase in on-budget expenditures and the wind-down of the off-budget expenditures, overall expenditures are expected to come at 19.8 percent of GDP and the deficit is projected at 3.2 percent of GDP, up from 1.9 percent of GDP in FY 2010.

**The move of TKK investment projects on budget represents the government's exit strategy from fiscal stimulus.** As economic recovery resulting in improving revenue collection, TKK financing is planned to move to on-budget rather than borrowing (Figure 52). Source of finance to TKK program in

FY2011 is largely from budget and undisbursed budget allocation under Emergency decree (THB 350 billion). Foreign borrowings from World Bank, ADB and JICA are expected to be able to disburse within FY2011 with the approved loan amounts to THB 48 billion (USD 1.6 billion). Table 5 below summarizes the government's fiscal framework and borrowing plans for FY10-FY13.

**Table 5. The contribution of the off-budget TKK program is likely to decline sharply as investment projects are moved on-budget.**

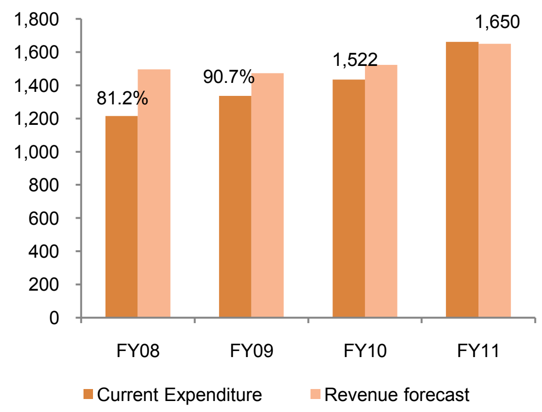
Billion baht

| | FY2010 budget | FY2011 budget | percent change |
|---|---|---|---|
| **Revenue forecast** | **1,350** | **1,650** | **22.2** |
| **Expenditure** | **1,700** | **2,070** | **21.8** |
| - Current | 1,434 | 1,662 | 15.9 |
| - Civil service salaries | 474.5 (28 percent of total exp.) | 496 (24 percent of total exp.) | 4.5 |
| - Capital | 214.4 | 344.5 | 60.7 |
| **Principal repayment** | **50.9** | **32.5** | **-36.1** |
| **Replenish to Treasury** | **-** | **30.34** | |
| **Borrowing** | **350** | **420** | **20** |
| **Budget deficit (percent of GDP)** | **3.4** | **4.0** | |

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

**Figure 53. Current expenditures exceed revenue forecasts for FY2011.**

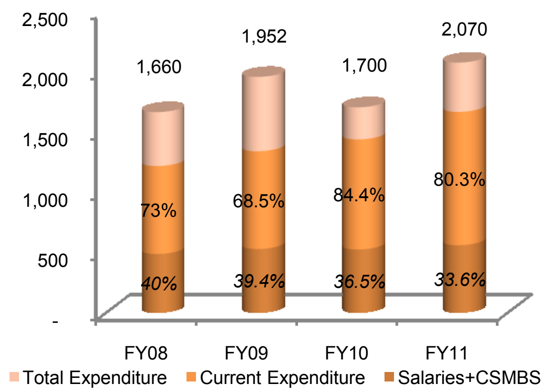
Baht billion




Source: NESDB and World Bank staff calculations.

**Figure 54. Current expenditures take up about 80 percent of total expenditures.**

Baht billion




Source: CGD and World Bank staff calculations.

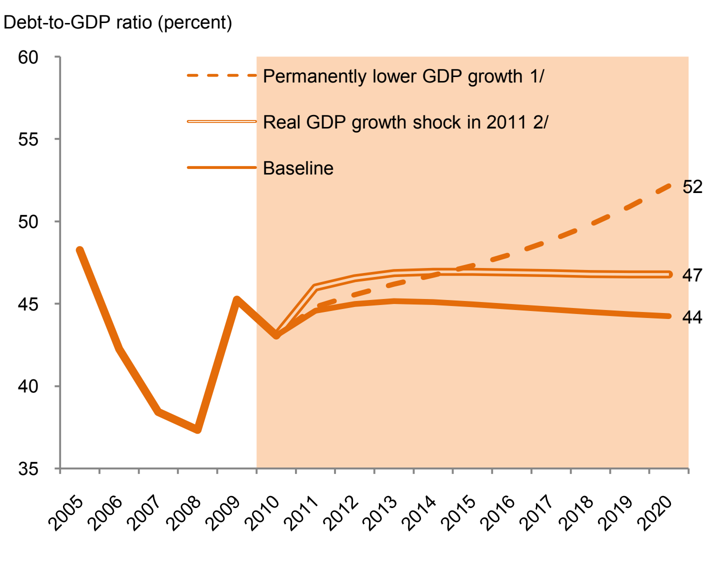
**Thailand's long track record of fiscal prudence underpins the projection that deficits will enter a declining path in FY2012.** This assumption is supported by the Thai Government's consistent pursuit of a conservative fiscal stance of low budget deficits or surpluses. Since 2002, budget deficits were no more than 2 percent of GDP and the primary balance was in surplus twice between 2005 and 2008. More concretely, the government has introduced a plan to achieve a primary surplus within five years.[17] The Ministry of Finance and the Bureau of Budget signed a Memorandum of Understanding agreeing to achieve the goal of a "balanced budget" by FY 2015. Implementation details are under discussion among concerned agencies within MOF and BOB.

[17] The agreement is to balance the overall budget excluding interest payments. However, since the overall budget includes a small portion of principal repayments, the agreement in effect calls for a primary surplus of that amount.

**To achieve a medium-term reduction in the deficit, the government is considering measures on both the revenue as well as the expenditure side.** On revenue side, MOF is studying the possibility to amend the Treasury Reserves Act to receive interest earning from Treasury Reserves, held at the Bank of Thailand. The Treasury Reserves Act of 1948 mandates that Treasury reserves be held in unremunerated accounts at the Bank of Thailand. Currently, the amount of reserves is around THB 400 billion. On the expenditure side, current expenditures have been growing significantly over time. The ratio of current expenditures to revenues has been increasing steadily over the past three years, and in FY2011 it is for the first time expected to exceed 100 percent, suggesting that the capital budget must be entirely debt-financed (Figure 53). Around 35 percent of total current expenditure is allocated for civil service salaries and Civil Service Medical Benefit Plan (CSMBS) (Figure 54). However, actual disbursement on the CSMBS always exceeds its budget allocation, on average by 27 percent. Therefore, the government is looking at measures to improve the management of the CSMBS and reduce its burden on the budget. For example, it is considering allowing members to receive care in private hospitals. Finally, the government has been looking into options to reduce the burden of interest payments on debt of the Financial Institution Development Fund (FIDF).

**Under conservative assumptions of only partial fiscal consolidation, Thailand's public debt-to-GDP ratio does not exceed 46 percent of GDP and ratios start to decline (albeit slowly) in 2015.**[18] After an initial spike due to the substantial financing needs that arise from the fiscal stimulus, debt ratios resume their downward trend (Figure 55). The debt-to-GDP ratio is expected to be approximately 45 percent of GDP by 2020 following a peak of 46.6 percent in 2014. The slow decline under the baseline arises from conservative assumptions on fiscal balances, which remain lower than their post-financial crisis average throughout the projection period. Debt projections are substantially lower compared to April 2009, indicating the magnitude of the recovery.

**Figure 55. Shocks to growth could result in a persistent deterioration of Thailand's debt levels.**




Source: World Bank staff calculations based on data from PDMO, FPO and BOT.

[18] In addition to the projections described in Table 1 above, the baseline scenario assumes that real GDP growth converges to its potential of 5.0 percent by 2014 and the primary public sector balance moderates to a deficit of two percent of GDP – above historical averages of about 0.8 percent of GDP. This permanent increase in the deficit is driven by the government's adoption of new social policies while as a conservative assumption revenues as a share of GDP are only expected to (slowly) return to pre-crisis levels.

**Public debt sustainability continues to be resilient to worse-than-expected outcomes in 2011-2012, but a permanent shock to growth could lead to an upward path of public debt.** The analysis considered the effect on debt ratios of (i) a real GDP contraction of 0.9 percent in FY2011; (ii) a 30 percent nominal depreciation of the Thai baht; (iii) the realization of contingent liabilities adding up to ten percent of GDP; and (iv) a combination of the growth and exchange rate shocks (Table 6). The contingent liability shock is the most severe, leading the debt-to-GDP ratio to peak at 55 percent, but favorable debt dynamics lead to a declining debt path. The greatest risks to debt sustainability come from protracted growth slowdown and lack of fiscal consolidation following the resumption of growth. If primary deficits remain at 1.5 percent of GDP—high for historical standards but almost 1 percentage point of GDP below FY2009 levels—the debt-to-GDP ratio would remain on a rising trend in the longer term and would exceed 50 percent by the end of the projection period. The scenario with permanently low growth also leads to rapidly increasing debt ratios. This emphasizes the importance of taking advantage of the crisis to enhance competitiveness and ensure a return to sustainable growth.

**Table 6. Thailand's debt profile is resilient to one-off shocks, but lower growth rates would lead to increasing levels of debt.**

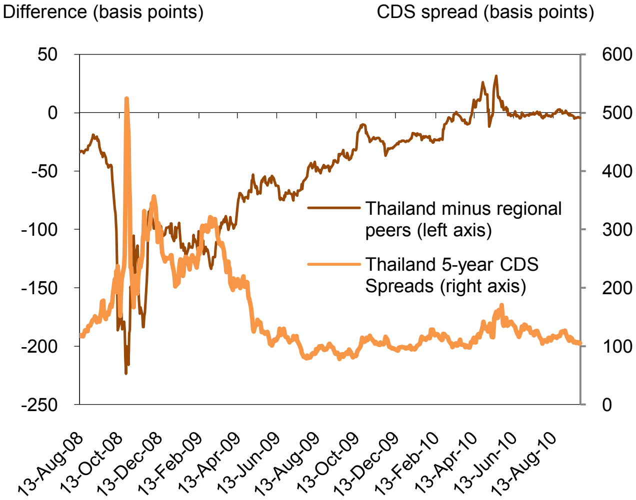
(Fiscal Years)

| | | Projections | | | | | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2020 |
| **Debt-to-GDP Ratio** | | | | | | | |
| **Baseline** | 44 | 46 | 46 | 46 | 46 | 46 | 45 |
| **A. Alternative scenarios** | | | | | | | |
| A1. Real GDP growth and primary balance are at historical averages | 44 | 43 | 42 | 42 | 41 | 41 | 39 |
| A2. Primary balance shock | 44 | 45 | 46 | 47 | 47 | 48 | 51 |
| A3. Permanently lower GDP growth 1/ | 44 | 46 | 47 | 48 | 48 | 49 | 55 |
| **B. Bound tests** | | | | | | | |
| B1. Real GDP growth grows by 0.8 percent in 2012 | 44 | 48 | 48 | 49 | 49 | 49 | 48 |
| B2. One-time 30 percent real depreciation in 2011 | 44 | 47 | 48 | 47 | 47 | 46 | 44 |
| B3. 10 percent of GDP increase in other debt-creating flows in 2011 | 44 | 55 | 55 | 55 | 54 | 53 | 50 |

Source: World Bank staff calculations based on data from PDMO, FPO and BOT.

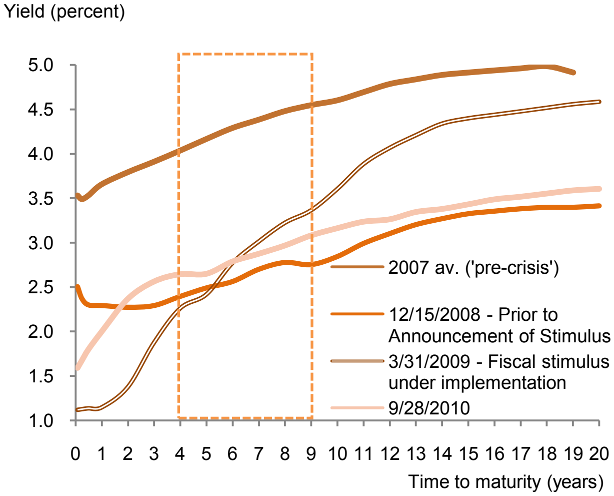
**Market indicators continue to confirm the strength of Thailand's public finances.** When the global financial crisis struck, Thailand was perceived as less risky than some of its regional peers (reflected in Figure 56 as the sharp decline in the third quarter of 2008). As the recovery took hold and financial conditions in Korea and Indonesia normalized, Thailand's credit default swap (CDS) spreads declined less rapidly than in those countries, before rising slightly in April and May 2010 on account of the political turmoil. CDS spreads have declined since May and remained stable at levels well below their peaks during the crisis; spreads are comparable to Korea, 20 – 30 bps higher than China and Malaysia, and about 40 bps lower than the Philippines and Indonesia. Similarly, Thailand's government bond yield curve has been generally stable (especially in the more liquid segment of the curve between 3 and 7 years) and driven primarily by the overall interest rate environment, suggesting that markets have not placed a risk premium on the Government's debt as a result of expansionary fiscal policies (Figure 57).

**Figure 56. CDS spreads suggest markets perceived Thailand was less risky than regional peers at the onset of the global financial crisis.**




Source: Source: Datastream, World Bank staff calculations
Note: Regional currency basket includes China, Malaysia, Indonesia, Philippines, Hong Kong, Singapore and Korea.

**Figure 57. The Thai government's yield curve remains well below pre-crisis levels along with the lower policy rate.**




Source: Thai Bond Market Association.

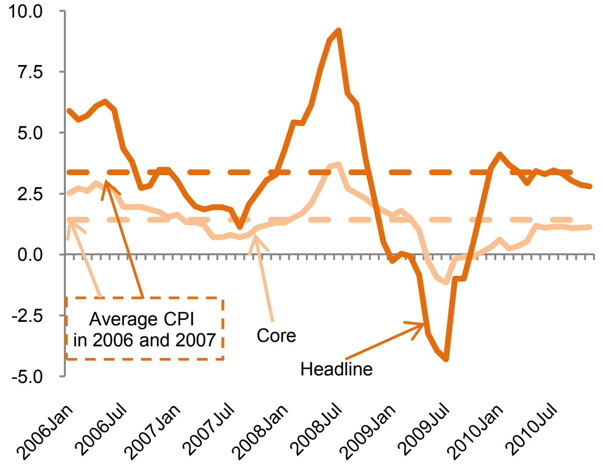
# 2.5 Monetary Policy and Capital Flows

## 2.5.1 Inflation and Monetary Policy Stance

**The pace of inflation remains moderate but price pressures are likely to rise as the output gap closes.** Thailand's headline CPI increased 2.8 percent year-on-year in November whereas the "core" inflation measure rose 1.1 percent in the same period, a slight deceleration from the previous month. The current core inflation reading, as well as the last-twelve-month average (annualized) are both below Thailand's 2006-2007 average (an approximation for 'normal times', see Figure 58 below) and closer to the lower limit of the BOT's inflation target range of 0.5 to 3 percent. Moderate core inflation has been the result of price controls and subsidies (notably to electricity and transport), and a persistent output gap (capacity utilization in domestically-oriented industries remains below pre-crisis levels and virtually unchanged in 2010—see Figure 59). Year-on-year increases in energy prices have moderated to 1.7 percent from a peak of 36 percent in December/January, but food prices rose 5.8 percent (prices of fruits and vegetables rose by 28 percent year-to-date—See Figure 60 below). High food prices and the ongoing closing of the output gap and related tightening of labor markets (real wages were up 3 percent in the second quarter), could increase inflationary expectations going forward.

**Figure 58. Core inflation has been low...**

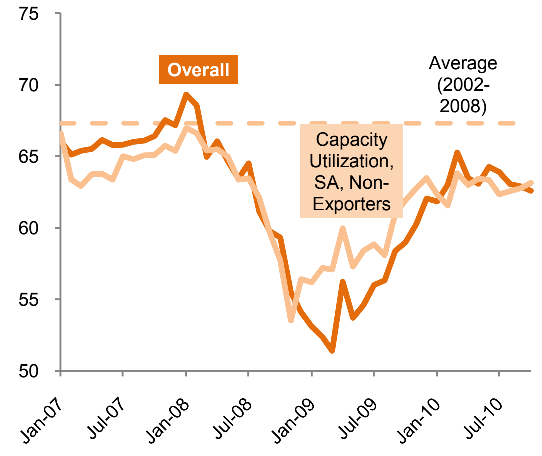
CPI, month-on-month change, 12-m moving average, annualized (percent)




Source: MOC and World Bank staff calculations.

**Figure 59. …as capacity in domestically-oriented sectors remains ample.**

Capacity utilization (percent)

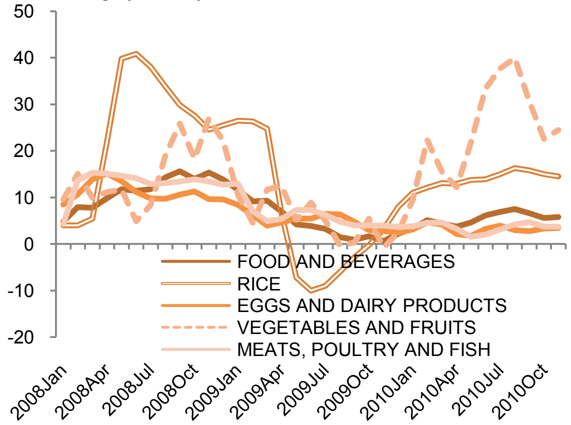



Source: OIE and World Bank staff calculations.

**The strong rebound in output and an increase in inflation and inflation expectations led the central bank to begin raising its key policy interest rate earlier this year.** The central bank raised the key policy rate to 2 percent by a cumulative 75 basis points in three steps in July, August and December. The rate was kept unchanged since April 2009 after a cumulative 250 basis point reduction after December 2008. The recent rate increases notwithstanding, monetary policy remains accommodative and the nominal policy rate is lower than in the other countries in the region and indeed negative relative to current and projected inflation (Figure 61). The central bank has signaled that it will continue with rate increases cautiously, only as evidence confirms the sustained normalization of economic activity. The central bank is also mindful that in addition to price pressures arising from output close to potential, inflation could increase should the authorities liberalize administered or tightly monitored prices.

**Figure 60. The difference between core and headline inflation is due to rising food prices.**

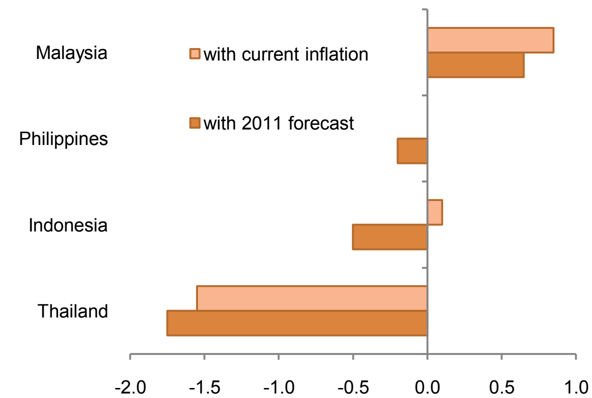
Percent change year-on-year




Source: Ministry of Commerce and World Bank calculations.

**Figure 61. The key policy rate is still lower than inflation.**

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

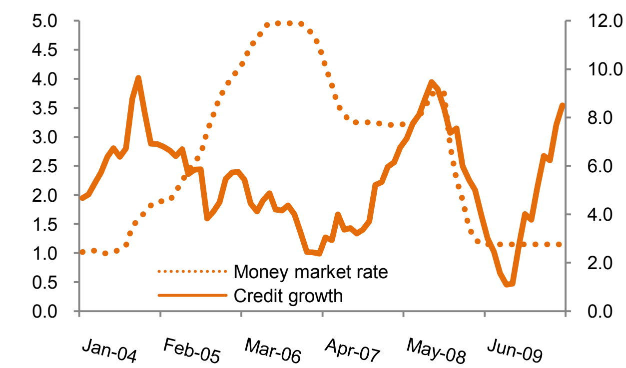



Source: Bank of Thailand and Consensus Estimates.

**The slow pace of normalization of interest rates signals that concerns about economic recovery and capital inflows generally outweigh risks of imprudent risk taking caused by lower-than-optimal**

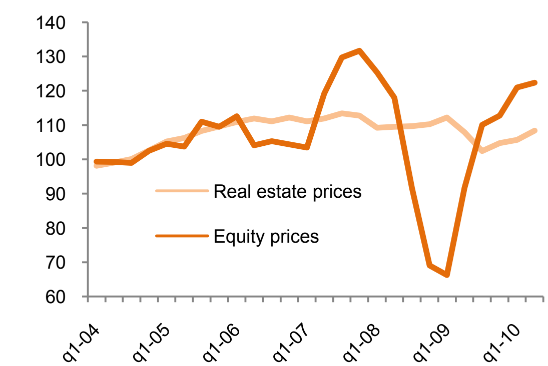
**interest rates.** Credit growth has rebounded with the economic upturn, stimulated by low policy rates (Figure 62). Although the pace is just short of the highs reached before the crisis, increases on the order of 8 percent a year do not appear to be unduly fast. Similarly, both housing and equity prices are on an upswing with the economic recovery, but neither their levels nor the pace of increase suggest evidence of price bubbles building (Figure 63). In addition, leverage is moderate, contained by prudential measures enacted in the past (and strengthened recently), including a maximum loan-to-value ratio. The central bank has indicated that prudential measures could be strengthened further if needed.

**Figure 62. Credit growth has rebounded with economic activity and easy monetary policy.**




Source: Bank of Thailand.

**Figure 63. Housing prices have been largely stable, equity prices are below the pre-crisis peak.**




Source: Bank of Thailand.

## 2.5.2 Exchange Rate and Capital Flows

**A strong rebound in imports is expected to lead to a sharp narrowing of the current account surplus from 7.7 percent of GDP in 2009 to 2.4 percent in 2010 (Table 7).** After plummeting 25 percent in US dollar terms in 2009, imports are on track to jump by over 30 percent in 2010 as exports and equipment investment pick up (imports were up 53 percent in dollar terms in the first half of 2010). Importantly, given that a large portion of manufacturing firms' inventories are comprised of imported inputs for production, a rebuilding of inventories depleted in 2009 is also likely to drive up imports. The result will be a substantial narrowing of the current account from 2009, although a surplus is still expected given the sizeable value added of exports (40 to 50 percent of total export value) and import prices that are still well below than the highs observed in 2008.

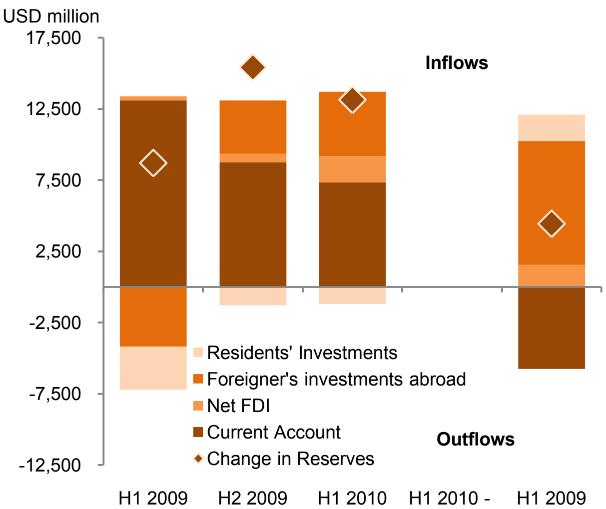
**Table 7. The current account surplus is projected to narrow substantially in 2010.**

| | 2008 | 2009 | 2010p | 2011p |
|---|---|---|---|---|
| Exports of Goods | 175,232 | 150,743 | 178,795 | 193,857 |
| *(percent change)* | *15.9* | *-14.0* | *18.6* | *8.4* |
| Imports of Goods | 175,604 | 131,356 | 174,226 | 193,458 |
| *(percent change)* | *26.8* | *-25.2* | *32.6* | *11.0* |
| Trade Account | -371 | 19,387 | 4,568 | 399 |
| *as percent GDP* | *-0.4* | *21.4* | *4.5* | *0.4* |
| Net services income & transfers | 2,528 | 2,472 | 3,015 | 2,212 |
| **Current Account** | **2,157** | **21,860** | **7,584** | **2,611** |
| *as percent GDP* | *2.4* | *24.2* | *7.5* | *2.4* |
| **Capital and financial account including net errors and omissions** | **22,536** | **4,010** | **13,222** | **7,604** |
| **Balance of payments** | **24,693** | **25,870** | **20,805** | **10,215** |
| Foreign Reserves (year-end) | 111,008 | 136,878 | 157,683 | 167,898 |

Source: Bank of Thailand

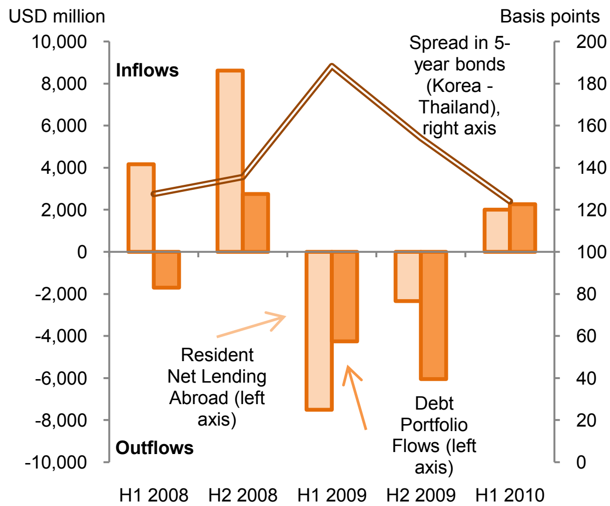
**While the current account narrowed, the financial account surplus widened in the first half of 2010 as Thai residents repatriated assets.** Net capital flows surged to USD 8.5 billion, the largest level since the early 1990s with the exception of the first half of 2008, when the BOT fully removed capital controls that had been introduced in 2006. Capital inflows in the first half of 2010 were driven in part by Thai residents (Figure 64 and Figure 65). In part this was due to the repatriation of investments made in the first half of 2009 in Korea, since at that time there was an unusual interest rate differential between the two countries (note the line on Figure 65) given that Korea's financial sector was more affected by the global financial crisis. Banks have also contributed by taking advantage of low G3 interest rates to fund credit expansion, posting inflows of nearly USD 12 billion in the four quarters (Table 8).

**Figure 64. Capital flows increased even as the current account surplus declined.**




Source: Bank of Thailand and World Bank staff calculations.

**Figure 65. In the first half of 2010, capital flows to Thailand were driven by residents.**




Source: Bank of Thailand and World Bank staff calculations.

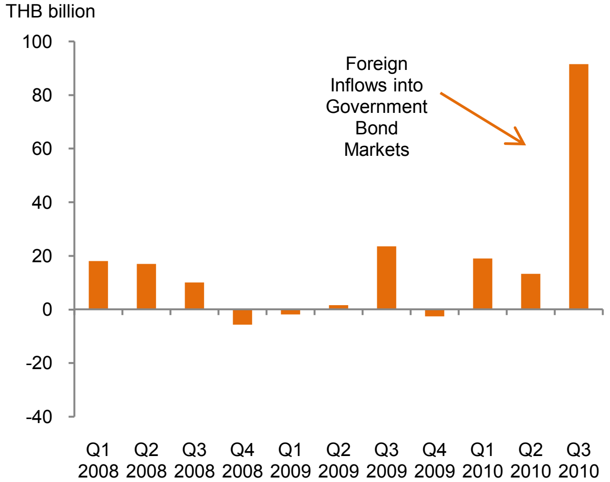
**Table 8. Foreign portfolio flows picked up in Q3.**

| | | 2009 | | | | 2010 | | |
|---|---|---|---|---|---|---|---|---|
| | 2009 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| 1. Monetary authorities | 1,481 | -149 | -56 | 1,736 | -50 | 591 | -16 | 867 |
| 2. Government | 590 | -176 | -22 | 687 | 100 | 751 | 390 | 1,941 |
| 3. State Enterprises | -4,004 | -1,287 | -416 | -1,127 | -1,174 | 31 | 832 | 997 |
| 4. Bank | 7,846 | -2,112 | 922 | 4,323 | 4,712 | 1,428 | 2,095 | 3,069 |
| 5. Non-Bank Private | -9,808 | -64 | -3,581 | -3,794 | -2,370 | 960 | -1,902 | 1,254 |
| FDI | 4,495 | 1,271 | 795 | 968 | 1,461 | 1,536 | 713 | 1,867 |
| - Equity investment | 5,291 | 1,473 | 1,256 | 908 | 1,653 | 1,763 | 930 | 1,575 |
| - Direct loans | -796 | -202 | -461 | 60 | -193 | -228 | -216 | 292 |
| Portfolio | -7,700 | 275 | -3,653 | -2,644 | -1,679 | 1,372 | -264 | 688 |
| - Foreign | 1,274 | 154 | 287 | 883 | -50 | 190 | -919 | 940 |
| - Equity | 1,029 | 224 | 224 | 745 | -164 | 394 | -764 | 492 |
| - Debt securities | 245 | -70 | 63 | 138 | 114 | -204 | -155 | 448 |
| - Thai | -8,974 | 121 | -3,940 | -3,527 | -1,629 | 1,182 | 655 | -252 |
| Loans (foreign) | -1,272 | 26 | -157 | -162 | -979 | 449 | -613 | -212 |
| Trade Credits | -2,687 | -1,283 | 166 | -1,112 | -458 | -2,192 | -1,195 | -772 |
| Others | -5,331 | -1,636 | -566 | -1,956 | -1,173 | -2,396 | -1,738 | -1,089 |
| **Total capital flows** | **-3,896** | **-3,788** | **-3,153** | **1,826** | **1,219** | **3,762** | **1,400** | **8,128** |

Source: Bank of Thailand

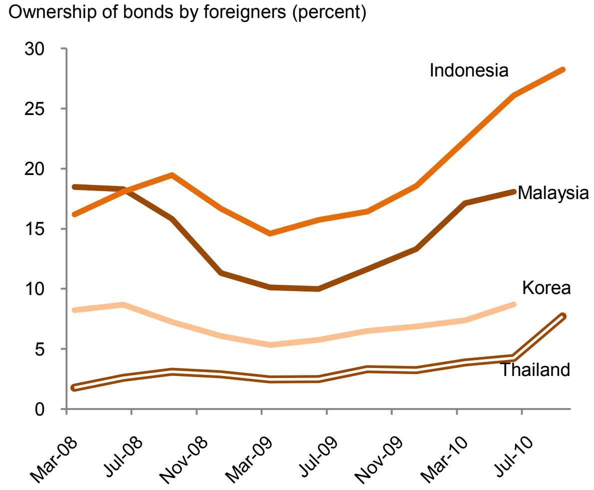
**With the normalization of the political situation since late May, foreign capital returned.** As interest rate differentials with advanced economies started widening in the first half of 2010, capital flows from advanced to emerging economies have accelerated. Thailand had bucked this trend through June because of the political situation, which increased near-term risk perceptions of foreign investors. However, the resolution of the immediate political turmoil and Thailand's favorable growth outlook has led to a resumption of substantial foreign capital inflows. Through September, total bond inflows were estimated to have been close to USD 4 billion, with around USD 2.5 billion of the inflows recorded in August and September alone (Figure 66). In total, foreign ownership in the local government bond market ran around THB 200 billion (USD 6.7 billion) at the end of September, accounting for around 5-6 percent of the total outstanding local government bonds. In a regional context, inflows into the Thai bond market had lagged its regional peers—Malaysia and Indonesia—up until July. In August there appeared to be a significant allocation into Thailand relative to the other two countries (Figure 67).

**Figure 66. Since August, inflows from foreigners have accelerated.**




Source: ADB and Thailand Bond Market Association.

**Figure 67. Inflows into regional bond markets have been high, especially in Indonesia.**




Source: ADB.

**The Bank of Thailand has been employing a number of policy tools to deal with higher capital inflows.** Although the recent jump in foreign inflows—and accompanying strengthening of the baht—have recently brought the issue to the public's attention, the Bank of Thailand has been managing capital flows throughout the year through (i) appreciation of the exchange rate in line with regional currencies; (ii) sterilized interventions in foreign exchange markets; and (iii) measures to facilitate capital outflows (including lifting limits on Thai entities for investing abroad and liberalizing opportunities for companies to hedge foreign exchange exposure[19]). More recently, the BOT announced a second round of measures to facilitate capital outflows (see Table 9), and the government announced the elimination of favorable tax treatment formerly enjoyed by foreign investors in government bonds.

[19] This topic was discussed in detail in the World Bank Thailand Economic Monitor from June 2010, http://siteresources.worldbank.org/THAILANDEXTN/Resources/333295-1280288892663/THM_June2010_fullreport.pdf

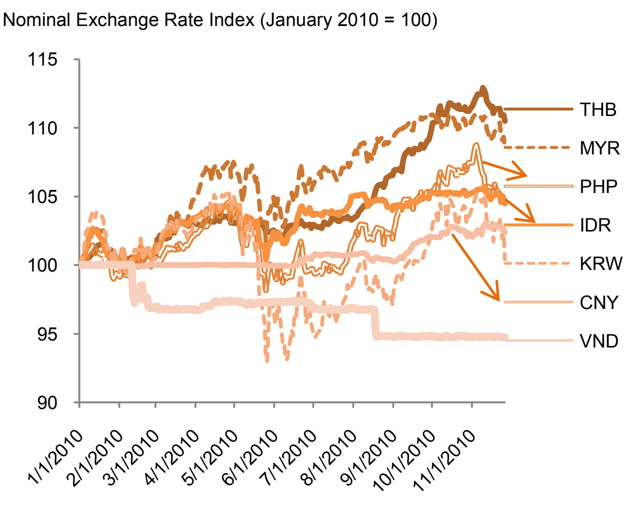
**Table 9. Additional measures to facilitate capital outflows announced in September 2010.**

| Area | Measures |
|---|---|
| 1. Investment abroad | (1) Relaxing regulations on Thai direct investment and lending to affiliated companies overseas; (2) relaxing regulations on lending of Thai companies to non-affiliated companies abroad up to USD 50 million per year; (3) increasing the ceiling for purchase of immovable properties abroad. For instance, Thai companies wishing to undertake direct investment or lending abroad in an amount of USD 10 million or more per year must notify the Bank of Thailand; previously the threshold was USD 5 million. |
| 2. Corporate treasury centers | (1) Increasing the foreign exchange transactions threshold amount for which foreign exchange transaction form must be submitted from USD 20,000 to USD 50,000 and easing the requirement for submission of supporting documents. (2) Raising the outstanding balance limit of foreign currency accounts to USD 500,000 (vs. USD 300,000 earlier). |
| 3. Other measures related to exporters. | (1) Allowing Thai companies having export proceeds in foreign currency to transfer funds from their foreign currency deposit accounts to counterparties in Thailand for payment of goods or services. (2) Relaxing regulations on repatriation of export proceeds of values less than USD 50,000. |

Source: Bank of Thailand.

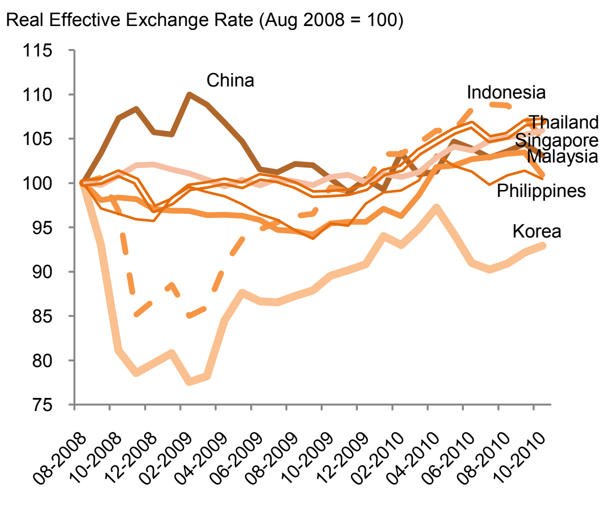
**The exchange rate has appreciated rapidly since August, but in real terms remains in line with regional peers.** The baht appreciated 7 percent against the US dollar since early August, well above the 0.5 percent average of other countries in the region (Figure 68). In real effective terms, however, the exchange rate is up only two percent during the period, 7 percent since the beginning of the year and about 20 percent since mid-2005 (Figure 69). As in Malaysia, however, the currency is still below the levels reached before the 1997-98 Asian financial crisis in real effective terms. In China, by contrast, the real exchange rate is now more appreciated than a decade ago.

**Figure 68. The baht has appreciated over 10 percent against the US dollar in 2010…**




Source: Bank of Thailand and World Bank staff calculations.

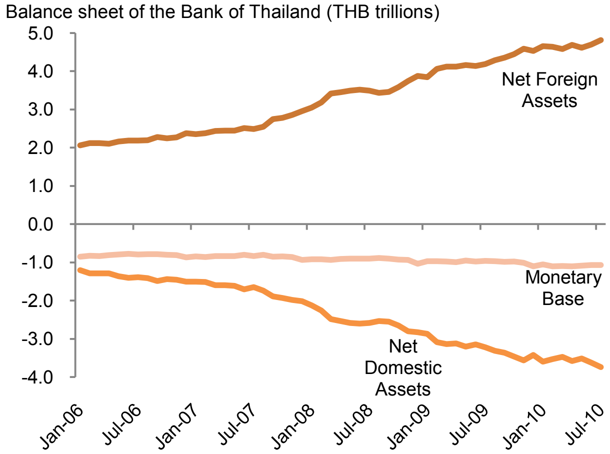
**Figure 69. …but the real exchange rate is in line with ASEAN neighbors.**




Source: BIS and World Bank staff calculations.

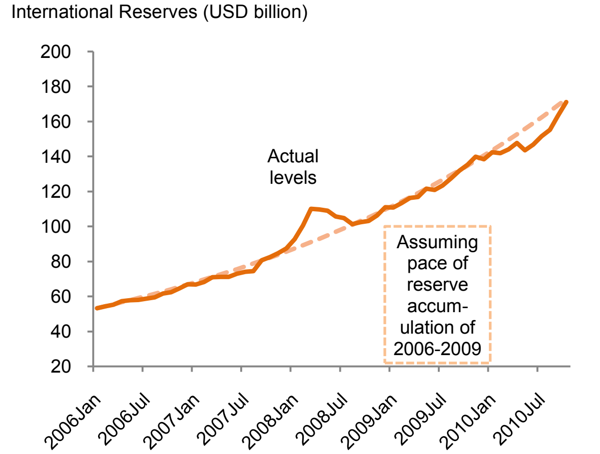
**As a result of sterilized interventions to slow down the pace of exchange rate appreciation, foreign exchange reserves rose by USD 23.6 billion between January and November, reaching a record high.** Reserves are equivalent to 11 months of trailing imports, nearly five times the sum of short-term debt and principal repayments due in 2011, and amount to about three-fourths of the country's gross external liabilities. On all three metrics, reserves are the largest in developing East Asia except China.

**Figure 70. Net foreign assets have been growing as the BOT has accumulated reserves.**




Source: Bank of Thailand and World Bank staff calculations.

**Figure 71. Thailand's international reserves have climbed further in 2010, but the overall pace has not been unusual.**




Source: Bank of Thailand and World Bank staff calculations.

**Thailand recently imposed additional measures to slow down capital inflows.** The BOT had focused on measures to facilitate outflows while allowing currency appreciation but slowing its pace through sterilized intervention. But recently Thailand announced it is imposing a 15 percent withholding tax on interest and capital gains from new acquisitions of government bonds by foreigners. Domestic buyers of government bonds already faced such a tax, therefore, in a sense, Thailand removed a subsidy that favored foreign investment in the bond market vis-à-vis domestic investors and therefore reduced discrimination between domestic and foreign capital. The central bank still has not used outright capital controls following the withdrawal in March 2008 of the unremunerated reserve requirement (URR) and the ban on domestic banks executing offshore forward contracts with foreign banks introduced at the turn of 2007. Although additional measures are likely being considered as capital inflows persist, the BOT is likely to take a gradual approach to new measures.

**Interest rate policy is unlikely to affect the strength of capital flows.** As the central bank proceeds with monetary normalization, it is mindful that policy interest rates in advanced economies are set to remain near nil for an extended period of time. Some observers have argued that delaying interest increases would limit the interest rate differential with advanced economies and dampen capital inflows. However, low interest rates artificially boost the returns of real assets (equities and real estate), thus attracting inflows towards those assets vis-à-vis fixed income assets. Notably, also concomitant to strong capital inflows the SET Index surged 30 percent since the end of 2009 (the highest increase in the region) to set a record high of 957 in September 2010, the highest point since December 1996. In addition, Thai banks have expanded loan growth through borrowing from abroad, limiting the effectiveness of monetary policy in general and towards dampening capital flows in particular.

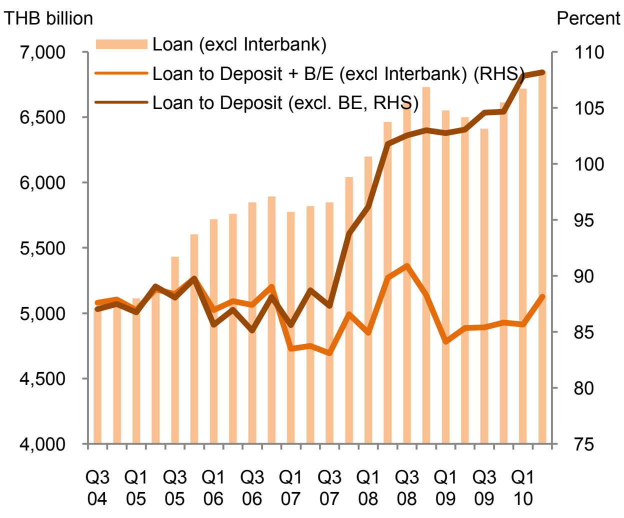
## 2.6 Financial and Corporate Sector Developments

**The financial sector has supported the recovery of domestic demand—including by financing new investments by the corporate sector.** Greater business and consumer confidence was matched by greater "bank confidence" (or reduced "risk aversion" on the part of banks) to lend and a resulting pick-up in credit growth. In 2009, low interest rates were met by negative expectations by business and consumers, leading to "risk aversion" and sluggish credit growth–with the exception of the SFIs, which expanded credit aggressively to promote economic recovery. As confidence returned in 2010 thanks to the consolidation of the global recovery, firms and individuals moved quickly to take advantage of the low interest rate environment (which was not expected to last much longer given optimism about the recovery), resulting in robust credit growth that supported growth in durable goods consumption and investment in the corporate sector. Despite the recent credit growth and gradual normalization of interest rates, the corporate and financial sectors remain under-leveraged and rates are still at historically low levels, which should continue to provide support for credit expansion and investment going forward.

## 2.6.1 Financial Sector

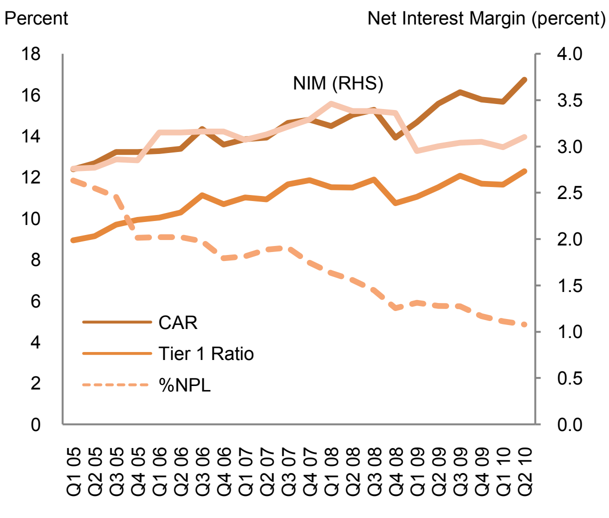
**Lower interest rates and improved "bank confidence" have translated into higher loan volumes in 2010.** Loans expanded by 3.6 percent between the fourth quarter of 2009 and the second quarter of 2010 driven by solid growth in the consumer loan segment. As the economic outlook improved, commercial banks have eased their credit conditions and consumers took advantage of low interest rates to purchase durable goods, especially vehicles. As of June 2010, consumer loans had expanded by 9 percent from December 2009, and by 18 percent from December 2008. Strong growth in consumer finance has been supported by the Government's tax incentives for the property sector as well as low policy rates. The tax incentive scheme for the property sector expired on June 30, but low interest rates should maintain some momentum for credit growth in the sector. Competition in the market for personal, car and credit card loans has been intense and low funding rates are (to some extent) being passed along to consumers in the form of attractive terms such as interest waivers for a certain period of time. Given relatively favorable economic prospects and the continuation of the low interest rate environment, credit growth is expected to continue into 2011.

**Figure 72. Deposit growth has lagged loan growth.**




Source: Bank of Thailand and World Bank staff calculations.

**Figure 73 Asset quality indicators remain on a favorable trend.**



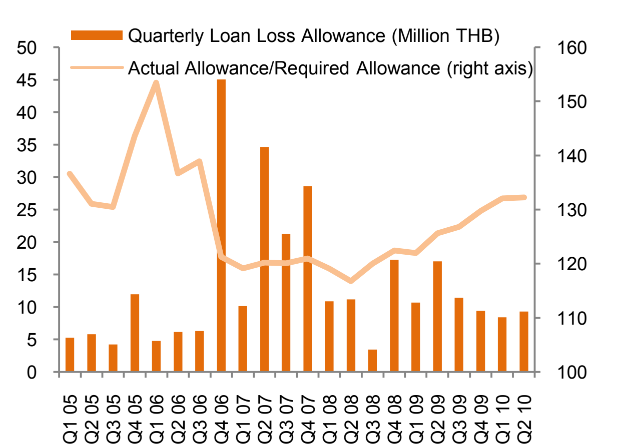

Source: Bank of Thailand and World Bank staff calculations.

**Deposit growth has lagged loan growth as banks keep deposit rates low and take advantage of attractive G3 interest rates by borrowing overseas.** The loan to deposit plus B/E ratio increased from 86 percent in the fourth quarter of 2009 to 88 percent in the second quarter of 2010 while Loan to Deposit Ratio (LDR) of Thai commercial banks increased from 105 percent to 108 percent respectively (Figure 72). Between the second quarter of 2010 and the fourth quarter of 2009, loans of Thai commercial banks increased by 3.6 percent while bank deposits contracted by 0.4 percent. This may be a reflection that lending rates came down only modestly as a response to lower policy rates, while deposit rates fell faster. Banks have instead increased overseas borrowing. Excluding May 2010, when the political turmoil led to generalized outflows, banks brought USD 12.6 billion in the twelve months to August, 2010, representing over 50 percent of the financial account inflows during that period.

**Asset quality remains on an improving trend and provides room for credit expansion.** Asset quality has remained high, with the gross NPL to total loan ratio at 4.5 percent (down from 4.9 percent in December 2009) and net NPLs at 2.4 percent (down from 2.7 percent, see Figure 73). Gross NPLs decreased from 379 billion baht in December 2009 to 356 billion baht in June 2010 (a 6 percent decrease). NPLs declined in all sectors, for both corporate and consumer loans. A continuous decrease in NPL and steady growth in net profits raised the capital base of Thai commercial banks to a record high of 16.7 percent since 2005, of which 12.3 percent is comprised of Tier 1 Capital. In addition, current levels of Tier 1 capital come primarily from common equity as opposed to hybrid instruments, which allied to a reliance on traditional asset classes such as simple loans, should make it relatively easy for Thai banks to comply with new international capital requirements of 7 percent set by the Basel Committee of Banking Supervision. With improved asset quality and declining non-performing loans, Thai banks have been able to set aside much lower provisioning expenses (Figure 74).

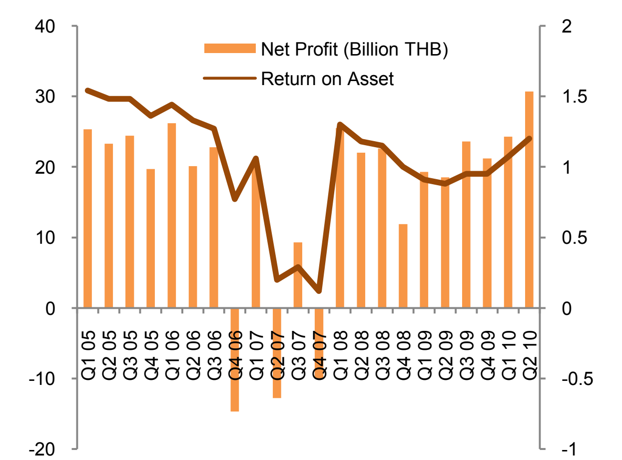
**The sustained increase in asset quality has been supported by robust profitability in the sector.** Bank profitability has improved due to the economic recovery and generally widening interest spread. The banking system recorded quarterly net profits of 30.7 billion baht in the second quarter of 2010, the highest quarterly figure since 2005. The return of assets (ROA) of Thai commercial banks rose from below 1 percent in 2009 to 1.2 percent in June 2010. Profits increased 22.7 percent in the first half of 2010 compared to the second half of 2009 (Figure 75). This increase came from a 6 percent increase in interest income and a 41 percent increase in non-interest income.

**Figure 74. Required loan loss allowances fell faster than actual allowances.**




Source: Bank of Thailand and World Bank staff calculations.

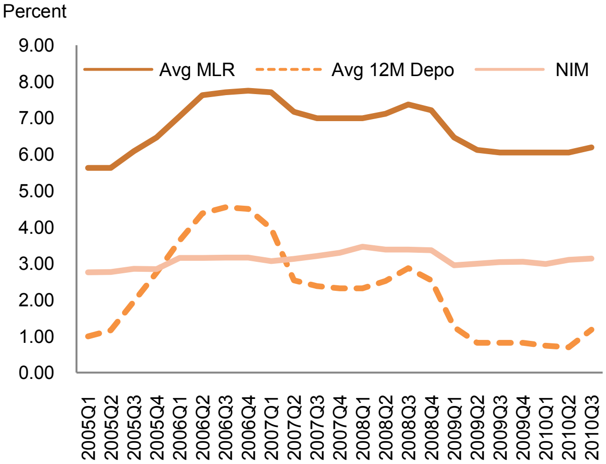
**Figure 75. Banks have posted profits for the past ten consecutive quarters.**




Source: Bank of Thailand and World Bank staff calculations.

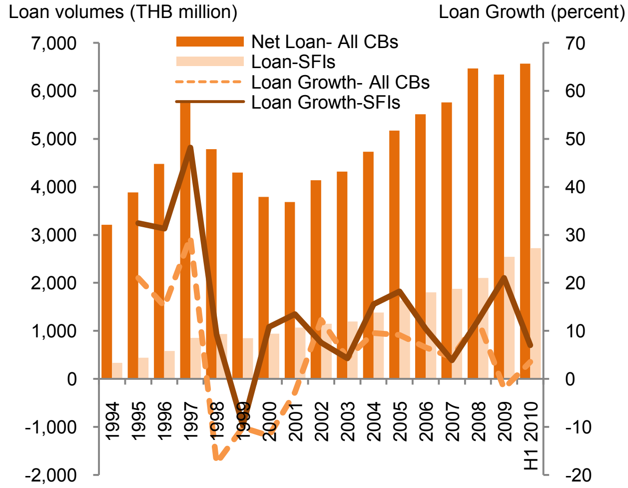
**The net interest margin (NIM) increased slightly in the first three quarters even as interest rate hikes were passed to deposit rates before lending rates.** The NIM (the difference between the interest received by banks and what they pay depositors, relative to the amount of their assets) widened slightly from an average of 305 basis points in December 2009 to 310 basis points in June 2010 (Figure 76). This was partly due to a decline in the 12-month deposit rate from 1.04 percent (January – June 2009 average) to 0.72 percent in the first half of 2010. Depositors shifted their savings to other financial assets, especially stock and bonds, resulting in the decline in deposits noted earlier. Meanwhile, the minimum lending rate (MLR) declined more slowly, from 6.29 percent on average (January to June 2009) to 6.05 percent in the first half of 2010. Following the recent policy rate increases, deposit rates are currently at 1.18 percent (a 46 basis-point increase) and the MLR is up to 6.19 percent (14 basis-point increase). The decline in the MLR from January-June 2009 despite two rate increases is indicative of the greater competition for consumers' business described earlier. Notwithstanding this compression of the interest rate spread in the third quarter, the NIM continued to increase, though it is still below pre-crisis levels.

**Figure 76. The net interest margin increased slightly in 2010.**




Source: Bank of Thailand and World Bank staff calculations.

**Figure 77. SFI loan growth decelerated in the first half of 2010.**

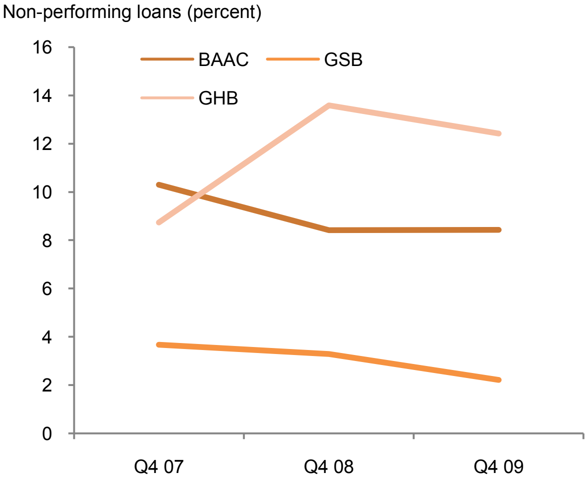



Source: Bank of Thailand and World Bank staff calculations.

**The surge in non-interest income has caught the attention of policymakers.** Since the 1997 financial crisis, commercial banks shifted their focus away from traditional banking services to new business opportunities, especially electronic banking, in order to generate stable non-interest income. Non-interest income has gradually increased and as of the second quarter of 2010 accounted for a third of total revenue. While this ratio is relatively low by international standards, non-interest revenues have grown by more than 14 percent for the past 3 years. Policy makers and the regulator have raised the concern that this growth may be a sign of industry collusion, which could be pushing bank fees well beyond actual costs. In particular, policy makers have been pressuring commercial banks to reduce service fees for electronic services such as electronic fund transfers or inter-provincial transactions. A distorted fee structure may be part of the problem. For long period of time, banks fees do not correlate with their actual costs. For instance, banks don't charge a fee for traditional branch services despite their high operating costs; on the other hand, banks charge high fees for electronic banking transactions despite lower transaction costs. Lack of competition also influences the fee structure. Currently, the BOT fixes and regulates a three-tier fee for electronic transactions to protect individual customers while banks quote at the maximum level. Recently, the Bank of Thailand approved a flat single-tier fee for all electronic interbank fund transfers, to take effect from Dec 15, 2010. This will encourage the electronic-based system from the current cash-based system, in line with BOT policy. However a Thailand Development Research Institute (TDRI) study commissioned by the BOT shows that the fee could decline further if the fees were to be fully deregulated. The central bank is also considering whether to lower the rates for three other types of transactions: interprovincial deposits and withdrawals at branch counters, interprovincial cheque deposits and ATM interbank transfers. Since the reduction in fees will eventually affect commercial banks' revenues, the BOT may consider allowing banks to explore other business opportunities to help raise income to compensate for lower fee income.

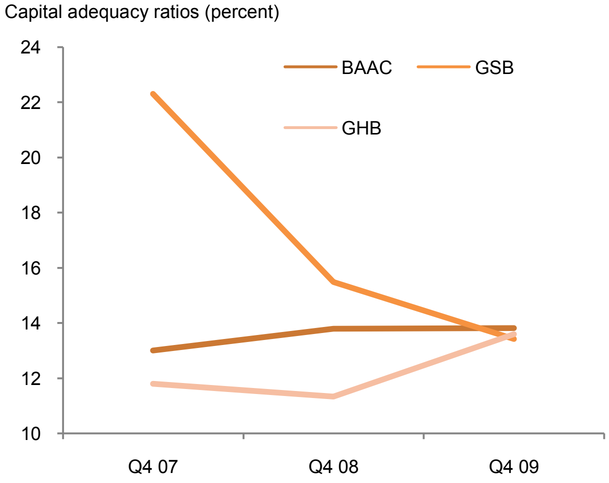
**Following vigorous loan growth in 2009, specialized financial institutions (SFIs) reduced the pace of credit expansion in 2010.** Over the past 15 years, credit growth of SFIs has generally followed that of commercial banks. But in 2009 SFIs recorded credit growth of 20 percent compared to a two-percent decline for commercial banks (Figure 77). Loan growth slowed in 2010 as loans of the eight SFIs increased at a slower rate of 7 percent this half year while the loan growth of commercial banks accelerated to 4 percent. The Government's informal debt refinancing program through SFIs remains in effect this year. The program aims to formalize the informal loan of borrowers at grass-root levels nationwide (see Section 3.1 below for additional details). For instance, Government Saving Bank (GSB) for the past several years has offered micro-finance services through its People's Bank program. GSB now aims to upgrade the village funds nationwide into community banks also offering microfinance services. BAAC is championing community bank schemes where villagers play a direct role in vetting and approving loan requests by residents. In addition, BAAC plans to clear half of the principal amount outstanding if borrowers service the remaining half. BAAC plans to implement this plan soon after the Council of State's ruling on the existing BAAC Act whether BAAC is allowed to write off debt in the above manner. The NPL ratio of deposit-taking SFIs remains very high (Figure 78), and the fast growth in new loans last year raises concern that NPLs may increase further (it takes on average two to three years for loans to become non-performing). SFIs remain well-capitalized, but GSB has seen a steep decline in the capital adequacy ratio, perhaps in part due to the informal debt refinancing scheme (Figure 79).

**Figure 78. NPLs of SFIs remain high and may increase following robust loan growth in 2009.**




Source: Bank of Thailand and World Bank staff calculations.

**Figure 79. Capitalization ratios of GSB declined substantially in 2009.**




Source: Bank of Thailand and World Bank staff calculations.

**Foreign participation in the Thai banking sector is on the rise, and may contribute to increased competitiveness going forward.** Foreign investors have gradually entered in Thai financial sector at different levels. At a first level, there are 15 foreign bank branches, 25 foreign bank representatives and one subsidiary operating in a single office in Thailand. Under the Financial Sector Master Plan II (FSMP II), the BOT will allow greater competition from existing foreign banks by giving foreign bank branches the option of remaining in a branch status with 2 additional branches, or to become a subsidiary that is locally incorporated and with a greater distribution network of up to 20 branches and 20 off-premise ATMs. Foreign investors can also invest directly and indirectly in the fourteen Thai-incorporated commercial banks (Table 10). After the financial crisis in 1997, the limit of direct foreign ownership in Thai commercial banks increased from 25 to 49 percent. Under the Financial Institutions Business Act, Thai commercial banks are allowed to maintain direct foreign shareholding over 49 percent for a maximum period of 10 years under an exemption offered by the Ministry of Finance. In addition, foreign banks may invest in Thai banks indirectly through the Thai NDVR Co.[20] If those investments are included, foreign participation in Thai commercial banks is relatively high (Table 11).

**Table 10. Most Thai commercial banks have substantial foreign ownership, directly and indirectly.**

| Foreign Ownership | Less than or equal 25.00 % | 25.00 – 49.00 % | More than 49.00% |
|---|---|---|---|
| December 2006 | 5 banks (3 are Gov-owned) | 7 banks | 2 banks |
| August 2010 | 3banks (1 is Gov-owned.) | 7 banks | 4 banks |
| August 2010 (Direct and Indirect through Thai NVDR) | 1 bank (=Gov-owned) | 4 banks | 9 banks |

Source: Bank of Thailand Discussion Paper: DP/03/2007 and Stock Exchange of Thailand

**Table 11. Thai-incorporated commercial banks have substantial foreign participation when ownership through NVDR is included.**

| Thai Bank | Top Shareholder (share) | % share of Thai NVDR | % share of Foreign Shareholder | % Foreign Limit |
|---|---|---|---|---|
| StdChart | Std Charter Bank 99.87% | 0 | 99.87 | |
| UOB | UOB Bank Ltd. 99.66% | 0 | 99.66 | |
| ICBC | ICBC Bank Ltd. 97.24% | 0.11 | 97.24 | |
| CIMB | CIMB Bank Berhad 93.15% | 0.43 | 93.15 | |
| TISCO | Thai NVDR 14.24% | 14.24 | 49.00 | 49.00 |
| Kbank | Thai NVDR 23.51% | 23.51 | 48.98 | 48.98 |
| BAY | GE 32.93% | 15.3 | 47.20 | 47.20 |
| KK | Thai NVDR 11.45% | 11.45 | 40.63 | 44.00 |
| BBL | Thai NVDR 25.75% | 25.75 | 25.00 | 25.00 |
| TMB | MOF 26.11% | 6.31 | 38.62 | 50.36 |
| TCAP | MBK 9.75% | 8.72 | 37.89 | 49.00 |
| SCIB | TCAP 99.24% | 0 | 0.18 | 25.00 |
| SCB | CPB 21.31% | 4.24 | 35.17 | 45.81 |
| KTB | FIDF 55.31% | 3.08 | 21.63 | 25.00 |

Source: www.setsmart.com and commercial banks' website
Note: FIDF = Financial Institutions Development Fund
GE = General Electric
CPB = The Crown Property Bureau
Thai NVDR = Thai NVDR Company Limited (NVDR = Non-Voting Depository Receipt)
MBK = MBK Public Company Limited

**Bond issuance has cooled down in 2010 as bank credit expanded.** Government bond issuance is expected to decline as the government switches from t-bills to longer-dated instruments to mitigate interest rate and roll-over risks (Table 12 and Figure 80). The government plans to issue 50-year bonds to institutional investors with the expected yield of 4.25 percent per year. Currently the longest-dated securities in the market are 30-year government bonds with a yield of 3.83 percent. Corporate issuance is declining as well since banks have started lending again at more attractive rates to large corporate, reducing the incentives seen in 2009 for large corporate to access the bond markets. Trading volumes, on the other hand, continue to increase across all categories, partly reflecting capital inflows (Figure 81).

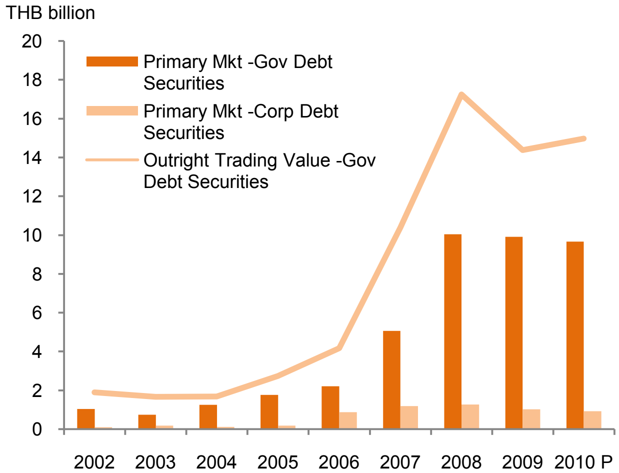
[20] Non-Voting Depository Receipts (NVDR) are trading instruments issued by the Thai NVDR Company Limited. By investing in NVDRs, investors receive the same financial benefits, i.e. dividends, right issues or warrants, as those who invest directly in a company's ordinary shares. The only difference between investing in NVDR and company shares is in regard to voting. Unlike ordinary shareholders, NVDR holders cannot be involved in company decision-making. Foreign investors are believed to be the main holders of NVDRs.

**Table 12. Primary issuance in the bond market cooled down in 2010.**

| Type of Securities | 2007 | % | % G | 2008 | % | % G | 2009 | % | % G | 2010p | % | % G |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Government Debt** | | | | | | | | | | | | |
| Government Bond | 330 | 5.3 | 49.0 | 228 | 2.0 | -30.9 | 502 | 4.6 | 120.0 | 573 | 5.4 | 14.2 |
| T-Bills | 553 | 8.8 | -38.4 | 421 | 3.7 | -23.9 | 886 | 8.1 | 110.4 | 597 | 5.6 | -32.7 |
| State enterprise Bond | 64 | 1.0 | -8.5 | 122 | 1.1 | 91.3 | 100 | 0.9 | -18.4 | 47 | 0.4 | -52.7 |
| BOT/FIDF/PLM | 4125 | 65.8 | 311.8 | 9272 | 81.8 | 124.8 | 8419 | 77.0 | -9.2 | 8449 | 79.7 | 0.3 |
| **Corporate Debt** | | | | | | | | | | | | |
| Long-term Bond | 213 | 3.4 | 49.0 | 282 | 2.5 | 32.7 | 437 | 4.0 | 55.0 | 285 | 2.7 | -34.8 |
| Commercial Paper | 976 | 15.6 | 32.5 | 985 | 8.7 | 1.0 | 561 | 5.1 | -43.1 | 642 | 6.1 | 14.5 |
| Offshore | | | | 5 | 0.0 | | 12 | 0.1 | 150.1 | | 0.0 | |
| **Foreign Bonds** | 10 | 0.2 | 7.4 | 18 | 0.2 | 85.2 | 12 | 0.1 | -33.7 | 6 | 0.1 | |
| **Total** | 6270 | 100.0 | | 11334 | 100.0 | | 10929 | 100.0 | | 10599 | 100.0 | |

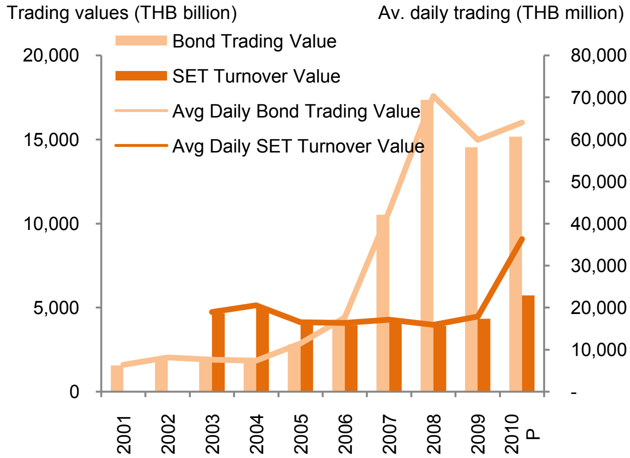
Source: Thai Bond Market Association

**Figure 80. The primary market for bonds has cooled down…**




Source: Thai Bond Market Association.

**Figure 81. …but trading volumes continued to increase.**




Source: Thai Bond Market Association and SET

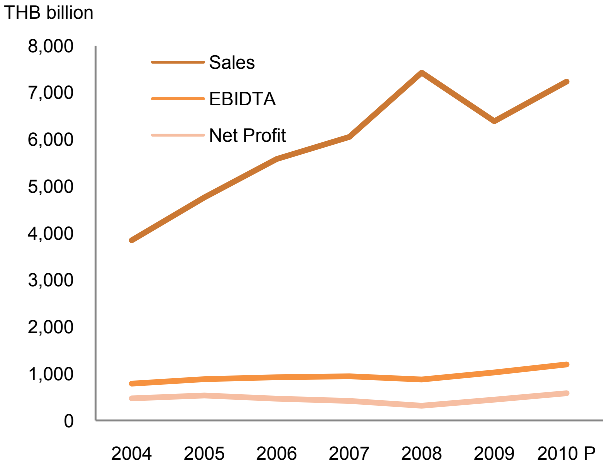
## 2.6.2 Corporate Sector

**The economic recovery has translated into higher sales and profits for the Thai corporate sector.** Notwithstanding the political turmoil in the second quarter, companies reported net profits of 293 billion baht for the first half of this year—an increase of 34 percent from the previous year (Figure 82). This is primarily due to the performance in the first quarter, though, when profits jumped 85 percent, and profits did decline in the second quarter due to the political turmoil. The top performing industry groups were resource-oriented, financials and property and construction. Gross profit margins have hovered around 19 percent since 2009, while return on assets and on equity has increased from 2.2 percent and 8.8 percent in 2008 to 3.6 percent and 14.8 percent in 2010, respectively. Firms are still relatively un-leveraged, with the debt to equity ratio stable at around 3 percent since 2006 (Figure 83). Reflecting the economic recovery, total sales revenues of listed firms reached 3.6 billion baht, a 24 percent increase from the previous year. Revenue has continually risen for the past five consecutive quarters in line with the economic expansion.

**High profitability and the favorable outlook for the Thai economy, combined with high liquidity in global financial markets and greater interest from retail investors, have led to a soaring stock**

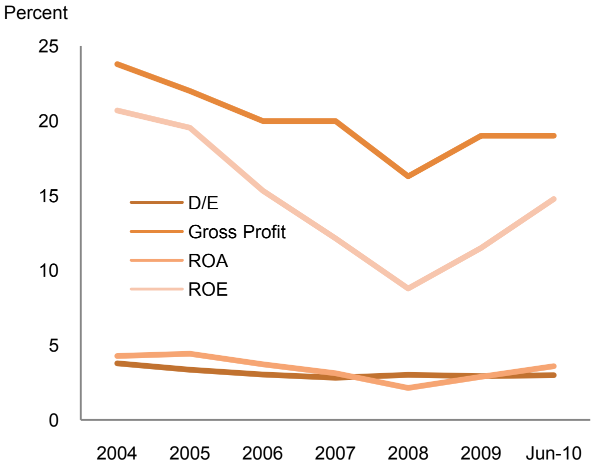
**market.** The market capitalization of the SET and MAI reached 7.63 trillion baht, an increase of 30 percent from end- 2009 the highest since SET's establishment 35 years ago. The role of foreign investors in the SET had actually been on a declining trend as domestic retail investors started to account for a higher proportion in trading value. In addition, the positive performance of the stock market has supported further growth of the domestic mutual fund business, creating a virtuous cycle of demand for stocks. More recently, there have been substantial inflows of foreign capital into Thai stocks, which are expected to continue due to the double effect of capital gains and currency appreciation. The rapid climb in share prices has reinforced the need for prudential regulations to dampen disruptive volatility. In that context, the SEC has finalized an agreement with the Association of Securities Companies to establish industry guidelines for proprietary trade. Day-trading for proprietary portfolios will be limited at 75 percent of shareholders' equity of the brokerage company to limit risk. Brokers must also have a clear risk management policy, including investment criteria, limits and allocation policies.

**Figure 82. Despite lower revenues in 2009, listed firms increased their efficiency and managed to increase profits.**




Source: Stock Exchange of Thailand (SET)

**Figure 83. Debt-to-equity ratios remained on a downward trend, even as profits took a large hit in 2008.**

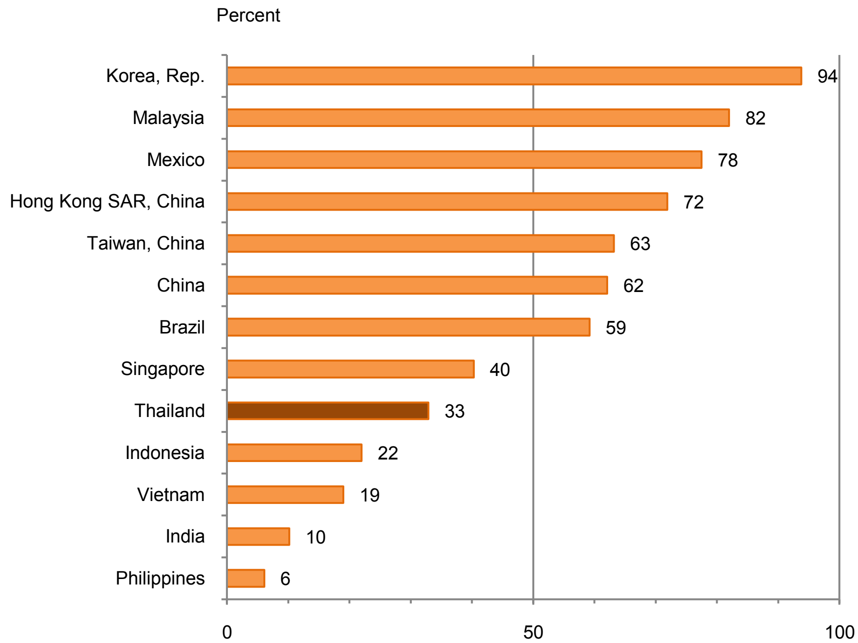



Source: SET and World Bank staff calculations.

**Exchange rate appreciation is a key concern for companies that have high export volumes and high domestic value-added, as well as SMEs that lack hedging tools.** The current strong baht has helped reduce the cost of imports, and many export-oriented industries rely on substantial imported inputs and capital goods. In addition, commodity price increases have partly offset the baht appreciation for commodity exporters. However, the surge in the currency has hit some exporters' profit margin and competitiveness—especially in the agro-industrial, food, textile and furniture business, which use limited imported inputs, are labor-intensive, and face severe price competition from regional competitors. Although large companies in these segments generally were able to mitigate their risk through hedging strategies or by offsetting lower export revenues with cheaper funding or import expenses, smaller companies face greater costs in hedging their foreign exchange exposure.

**SMEs face additional challenges, as the recent credit growth has come primarily from large corporates.** While large companies in Thailand had easier access to bank loans at attractive interest rates, choices were limited for SMEs, which often require government guarantees for their loans because they lack adequate collateral. To improve SMEs access to credit, the government may consider further developing credit information systems and improving the legal and bankruptcy systems. Thailand's credit registry only covers 33 percent of firms, which is at contrast with 62 percent in China and 82 percent in Malaysia (Figure 84).

**Figure 84. Thailand's' coverage by the credit information systems lags behind other middle-income countries.**




Source: Doing Business 2010. Note: The credit registry coverage is the maximum of the public and private credit registry coverage

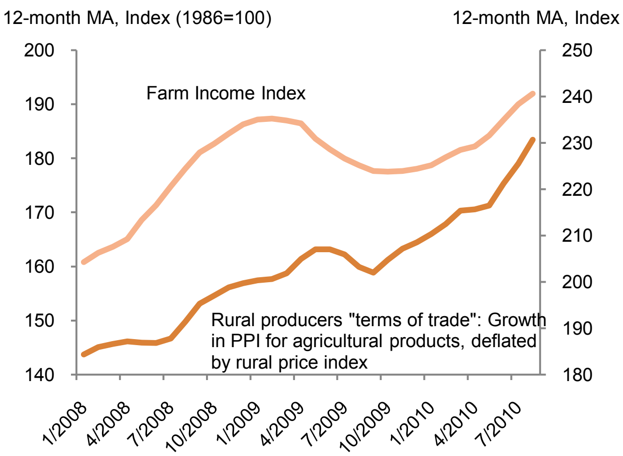
## SECTION 3

# SHARED AND SUSTAINABLE GROWTH

## 3.1 Poverty Developments and Policy Responses

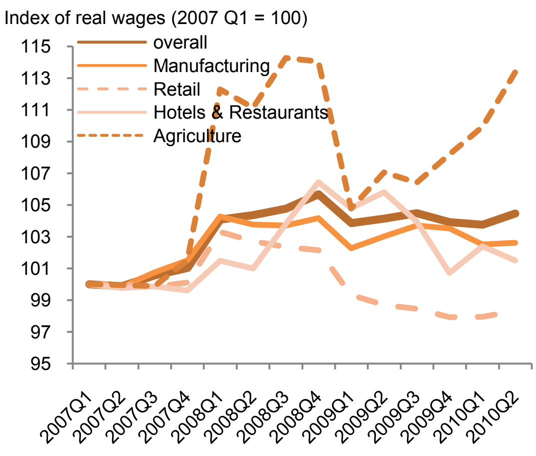
**Incomes of vulnerable households are likely to rise in 2010 as agricultural prices remain firm and tight labor markets lead to modest wage gains.** Vulnerable households suffered from the global financial crisis through two main channels: a decline in agricultural prices and softer labor markets. The economic rebound has seen a parallel rebound in agricultural prices that has raised farm incomes despite reduced production in the second and third quarters of the year due to a severe drought that affected several provinces. Prices received by rural producers have grown sharply faster compared to the prices paid by rural consumers, suggesting a "terms of trade" gain for rural households (Figure 85). Along with farm incomes and producer prices, real agricultural wages are also up. As can be seen in Figure 86, when agricultural wages increase workers spend more time in farming, creating tighter labor markets in other sectors and pushing wages higher. In manufacturing, firms report a shortage of as many as 100,000 workers, prompting the BOI to authorize firms to hire a larger number of migrant workers.

**Figure 85. Farm incomes have rebounded since the fourth quarter of 2009 although production has declined.**




Source: BOT, MOC and World Bank staff calculations.

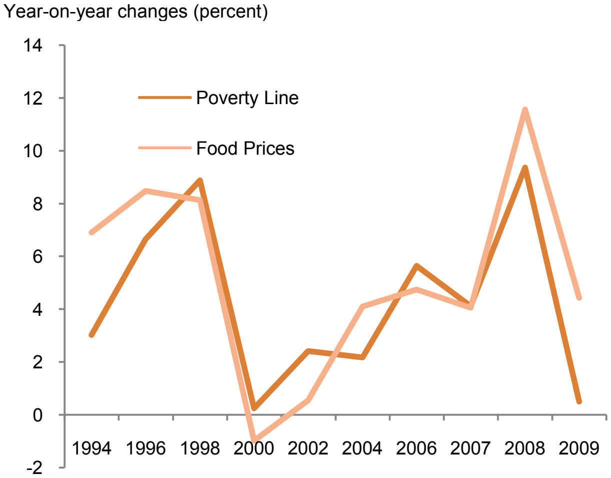
**Figure 86. Except for the hotel sector, which was hit hard by the political turmoil, real wages were firm in the second quarter.**




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

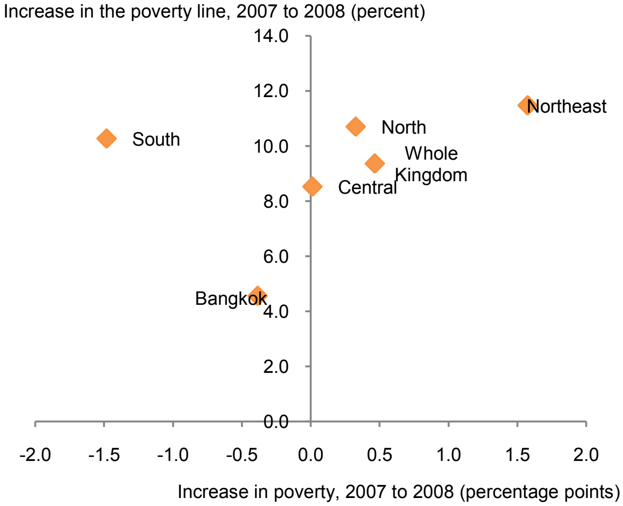
**However, adverse weather conditions pose significant risks to vulnerable households.** Although food prices have complex effects on poverty (many of the poor are in rural areas and are food producers), poverty lines are highly correlated with food prices (Figure 87) and recent data suggest that the spike in food prices in 2008 appear to have led to an increase in poverty (Figure 88). Poverty lines, which are largely based on minimum food consumption, increased by over 9 percent on average between 2007 and 2008, the highest such increase on record and double the average increase over the past 28 years. The increase in poverty was small and concentrated in only two regions (North and Northeast), which already had the country's highest poverty rates. The reason why poverty increased most in provinces that were already poor may be related to the fact that food represents a greater share of the consumption basket in poorer provinces, thus exacerbating the impact of the rise in food prices. In 2010, food prices, especially raw fruits and vegetables but also rice, have been increasing steadily, placing additional stress on households that are net food consumers and raising a warning that many households may be pushed back into poverty as incomes rise more slowly. In addition, food prices increases in 2010 have to a large extent been driven by extreme weather: first due to a severe drought followed by severe floods in October. As a result of weather disruptions, households that are normally net food producers may become net consumers and suffer from both loss of income and higher prices.

**Figure 87. There is a high correlation between food prices and the poverty line.**




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

**Figure 88. Higher poverty lines are linked to the increase in poverty observed in 2008.**




Source: NSO and World Bank staff calculations.

**Social safety net programs can help mitigate future shocks and will become increasingly important as the population ages and the government pursues a strategy towards more inclusive growth.** Building effective social safety nets will become increasingly important for at least three reasons: first, Thailand is fast becoming an ageing society (according to a 2006 study, Thailand's elderly will represent 17.5 percent of the population by 2020, with a dependency ratio above 23 percent), but currently most of the elderly are not covered by a pension scheme. The consequences of this have been a higher rate of poverty among the elderly compared to the general population, and relatively high labor force participation of older Thais, especially in agriculture.[21] This issue is only likely to grow as the population ages. A related second reason is that agriculture is currently Thailand's major safety net. Transforming Thai agriculture towards a more commercially-oriented sector with substantially higher productivity will involve greater urbanization and require effective formal safety nets that citizens feel confident to rely upon in cases of economic shocks. Building social safety nets today prepares Thailand for the next shock with less reliance on return to agriculture. Finally, safety nets can also play a role in ensuring that the benefits of high growth are shared more equally across the population by providing a minimum standard of living for those at the bottom of the income distribution.

**The government has used its response to the global financial crisis as an opportunity to boost spending on social safety nets.** The government's plan for expanding social safety nets has been implemented in two phases: the urgent phase to mitigate the impact of the global financial crisis, and the

[21] Indeed, this is a plausible explanation why migrant workers are needed in agriculture during harvest time although about 40 percent of the Thai labor force reportedly works in agriculture.

second phase to ensure sustained improvements in a number of areas. This section intends to provide a preliminary assessment of four government social policy initiatives, namely the government guaranteed 15 years of free education for all, income insurance for the elderly, refinancing informal debt and agricultural crop-price support to farmers. In addition, Box 3 below looks into social programs implemented specifically in the conflict-ridden Southern-border provinces.

**This initial assessment is primarily qualitative in nature and intended to provide initial feedback on the initiatives rather than a rigorous evaluation**. The findings of the initial assessment are based upon the results from a series of rapid assessments conducted by the World Bank in Bangkok and the Asian Research Centre on Migration (ARCM) as part of an effort to track the impact of the economic crisis. The rapid assessments were conducted in March 2009 and January 2010 among people in both the formal and informal economies in the cities of Bangkok and Ayutthaya and the provinces of Samut Sakhon (Central) and Nakhon Ratchasima (Northeast). Additional interviews followed in Bangkok, Chiangmai (North), Nakornratchasrima and the southern border provinces of Pattani and Yala in September 2010. These rapid assessments sought public feedback on the impact of the government's crisis-responding social policies. The following highlights the findings.

*"15-Year of Free and Quality Education for All"*

**The Ministry of Education launched a "15-Year Free Education with Quality" policy in 2009 to reduce the financial burden of households and improve children's access to education.** The government support comprises on funds that go directly to schools and those that are provided to parents. The former covers tuition fees, textbook and expenses on other activities that promote quality improvements, while the latter covers uniforms and learning materials and is disbursed to each family according to a standard amount per grade level (Table 13). In the first year, 18.5 billion baht was distributed across 40,000 schools, benefitting 12.3 million students.

**Table 13. Standardized support per pupil, by grade level** (baht per person)

| Level | Textbooks | School tuition fees | Learning materials | Uniforms | Activities to promote quality improvement among students |
|---|---|---|---|---|---|
| Pre-school | 200 | 1,700 | 100 | 300 | 215 |
| Primary school | 347.20–580 | 1,900 | 195 | 360 | 240 |
| Lower secondary | 560–739.20 | 3,500 | 210 | 450 | 440 |
| Upper secondary | 763.20–1,160.80 | 3,800 | 230 | 500 | 475 |
| Vocational college | 1,000 | 4,900–11,900 | 230 | 900 | 475 |

Source: "Implementation of the 15-Year Free Education with Quality Policy", Bureau of International Cooperation, Ministry of Education, March 2009.

**In general, the interviewed focus group respondents claimed that the government's program had cut their education burden by half per child.** In particular, respondents from Muslim families in southern Thailand who have an average of four to five children said that the program significantly helped lessen burdens. The reduction in financial burden is also supported by less reliance on pawn shops. Before the program, low-income parents often borrowed money or pawned possessions at the beginning of each school year to cover costs. But at the start of the 2009/2010 school semester, the Ministry of Social Development and Human Security reported a drastic reduction of people using pawnshops from 210,673 persons to 8,627 persons (in 33 pawnshops).

**However, the government's program did not result in making education entirely free as the title of the program may have suggested**. Although appreciating the reduction in expenses, the focus group respondents were skeptical of the government's use of the term "free education" as parents still have pay for many costs associated with sending children to school. These include, for example, the costs of additional student uniforms (since the 450 baht government's allowance for uniforms per secondary school student is not adequate for buying more than one set), Boy Scout or Girl Guide uniform, socks, shoes etc. Parents also receive periodic notices from the school to pay for extra activities to promote quality improvements which cover academic activities (such as computer class, language class etc.), activities to boost ethics and morals (such as Boy Scout and Girl Guide camps etc.), and other activities or services such study visits and computer technology services by the school. It is not clear to parents how each school calculates the costs of these educational quality promotion activities and there appears to be some flexibility, according to the implementation guidelines of the government's program, for the school to set the charges. Some parents mentioned that the price of textbooks has increased due to inflation and the set subsidy does not cover most of the needed materials. Additionally, many parents complained about the distribution of used textbooks by the school which are often damaged due to missing pages or handwritten notes on pages. Therefore, parents end up buying new books out of pocket for their children.

**While the program helps improve equal opportunity for education, especially for low-income families, it does not guarantee the equal quality of education.** Respondents living in rural areas complained about the unequal distribution of funds between rural and urban areas; they think the government's support is biased towards good schools in urban areas and thus contributes to lower quality of education in rural areas, especially with regards to equipment and teachers. To ensure a quality education for their children, respondents from rural families in the northeast said that they would need to send them to an urban school or pay for extra tutoring courses which are also available only in urban areas. In addition to the extra costs incurred, rural parents are also concerned that the time that children spend traveling to an urban school would limit time for other quality-of-life activities, such as play.

**Many of the respondents recommended that the Ministry of Education review and adjust the budget and implementation strategy of the program to reflect these realities.** The "free education" program title is likely to mislead parents into thinking that they do not need to pay for anything, and while the policy is highly appreciated, there is a degree of dissatisfaction when parents are asked to pay for something. In addition, a monitoring system should be put in place to observe how each school manages the program and how charges are calculated for other expenses paid by parents. An improved communication strategy is also needed to provide a better understanding of the program.

***Income support for the elderly***

**As a response of the impact of the global crisis, the government introduced in 2009 a safety net program for the elderly, who are among the most vulnerable groups in Thai society.** A similar policy was introduced earlier in Thailand during the economic crisis of 1997 and focused on targeting the poor and vulnerable elderly persons who were unable to work and help themselves. But under the new program, a stipend of 500 baht is provided for all citizens who are above 60 and do not receive any other assistance from the government or other agencies such as social security or other pensions. The new program is administered by the Ministry of Interior, while the previous one was administered by the Ministry of Social Development and Human Security (The former Social Welfare Department) and was part of the social welfare program. As of September 30, 2010, 7,618,702 elderly persons were eligible for the new program, according to the Ministry of Interior.

**Most eligible elderly have registered for the program.** To qualify for support under the 2009 income support program, senior citizens would have to register at their local municipality or sub-district office depending on where the household registration is located. The Ministry of Interior then verifies the background of the registered senior citizens. In 2009/2010, there were 5,173,141 registered persons who received cash from the government, with the total amount of 31,038 million baht transferred countrywide.

**Most respondents seemed to be satisfied overall with the new elderly income support program.** Respondents from all regions confirmed that they received the monthly payment. They also feel that the registration process has been very easy and simple. The elderly recipients could collect the cash themselves or ask the government to transfer funds to their accounts. Local governments in many areas provide extra services to the elderly with complicated health problems or otherwise incapacitated. Staffs of municipalities or sub-district offices could also deliver the cash to their homes. Key program benefits identified by the respondent program recipients included the freedom from having to rely solely on their children or relatives, financial support to the elderly who had already transferred assets to children, ability to use the money for an enjoyable lifestyle, including through merit making (religious expenditures), buying food, providing small gifts to grandchildren, and buying lottery tickets.

**However, a number of respondents expressed a more skeptical opinion about the new program based on the fact that it was not means tested.** Some of these respondents favored reinstating the previous system that was in place in 1997, which targeted only the vulnerable and poor elderly. Those respondents preferred the previous program because it allowed communities to identify the poor and the needy as eligible for a government subsidy, rather than distributing funds across the board. Those respondents thought that this earlier program was not only more targeted but also helped strengthen community participation.

**As the program enters into its second year, the government needed to provide clarity to qualified elders who were not registered in 2009 and thus are entering the program for the first time.**[22] While the first group of registered elders from 2009 continues to receive their income support, some respondents who registered for the first time in 2010 said that they were told to wait until the end of the year to receive their first payment. They are not sure whether the government will provide a retroactive payment for them. In addition, the government also needs to prepare to administer the increasing size and cost of the program in the second year. There are 6,233,893 people registered for the second year's program with an expected fund of 37,403 million baht to be distributed. The Ministry of Interior is in the process of requesting additional funds to cover this new batch of registrations.

**The ultimate success of this program depends on its incorporation into a broader effort to provide pensions to the majority of Thai workers who lack formal retirement coverage**. Proposals have been under consideration to incorporate the 500-baht program into bringing retirement benefits to some 24 million workers who currently lack any formal retirement coverage (the Government Pension Fund, the Social Security Fund or voluntary provident funds). Under one government proposal, workers would contribute from 100 to 1,000 baht per month to a fund; contributions would be matched by the government with 50 baht per month for members aged 20 to 30 years and 100 baht per month for members aged 31 to 60. A worker aged 20 who contributes the minimum would receive pension benefits of 3,000 baht per month, including the 500-baht stipend implemented under the current program.

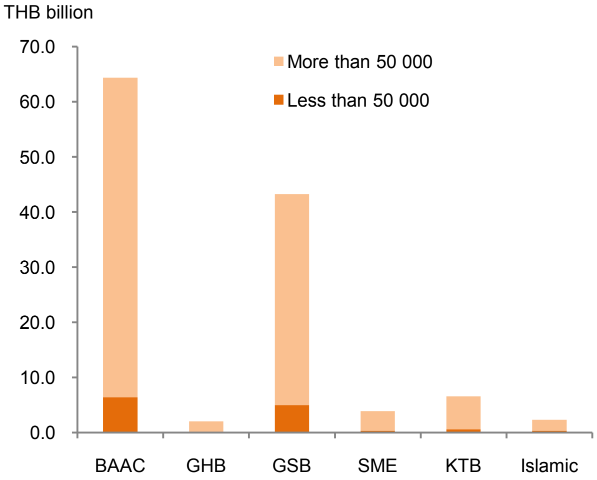
### *Refinancing informal debt*

**At the end of 2009, the government launched a program to refinance informal debts.** The policy targets farmers and low-income earners, with an aim to reduce the high interest burden that these people pay to loan sharks and to help them enter into the formal financial system. The refinancing program provides soft loans of up to 200,000 baht per debtor. The debtors can then use the fund to pay off the informal lenders and instead become borrowers of formal financial institutions. Six state-run banks participate in the implementation of this program, namely the Bank for Agriculture and Agricultural Cooperatives (BAAC), Government Savings Bank, Krung Thai Bank, SME Bank, Islamic Bank and the Government Housing Bank.

[22] Includes mainly persons who turned 60 in 2010 and entered the program for the first time.

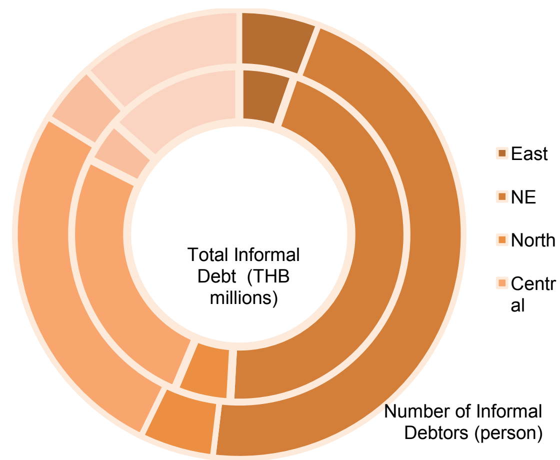
**The debtor registration process was organized during the month of December 2009 and resulted in a sizable amount of informal debts being registered for negotiation.** Data from the Comptroller's General Department, Ministry of Finance shows that there were a total of 1,183,335 persons registered for the program with a total debt value of about 122 billion baht. Debts registered at BAAC and GSB accounted for over 80 percent of the amount registered (Figure 89).The average debt per person was approximately 100,000 baht. This amount is equivalent to about 1.8 percent of total loans outstanding in the banking system, or about 1.2 percent of the country's GDP. Registered informal debtors are concentrated mostly in the Northeast and Central regions (Figure 90). The accumulated amount of the informal debts from ten provinces of these two regions alone account for 40 percent of the total registered debts. These provinces include Nakornrachasrima, Surin, Buriram, Ubonrachathani, Roi-Ed, Bangkok, Nakornsawan, and Petchaboon. Following registration, information on the registered debtors was distributed to the participating banks to prepare for negotiation. Actual negotiations between the debtors, creditors and the banks were then conducted during the period of February 1 – April 30, 2010.

**Figure 89. Most of the debt was registered in BAAC and GSB.**



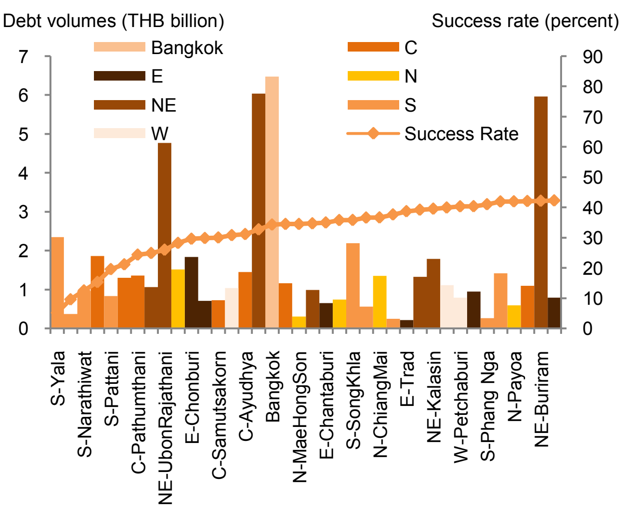

Source: Comptroller General Department.

**Figure 90. The Northeast accounts for almost half the number of program registrants.**



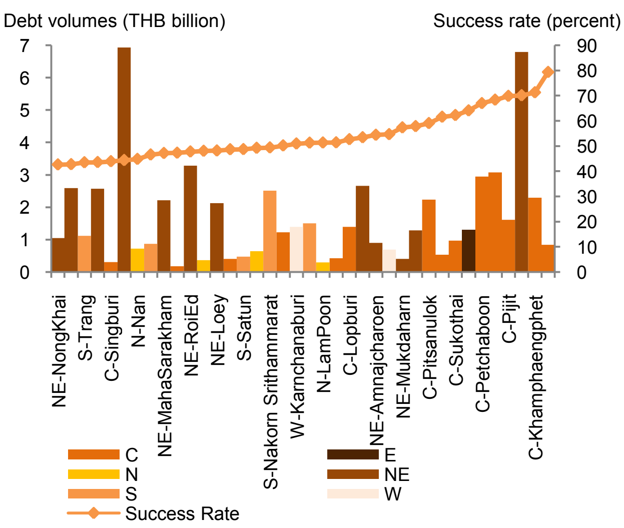

Source: Comptroller's General Department.

**Figure 91. The amounts registered varied…**




Source: : Comptroller's General Department

**Figure 92. …as did the success rate.**




Source: Comptroller's General Department.

**Despite the high level of interest from registered debtors, the actual result of the debt refinancing program from the first year is mixed.** Data from the Comptroller General Department show that less than half of the registered debtors, or 556,518 cases, were able to successfully negotiate repayments with their creditors, with total refinanced debts amounting to about 58 billion baht (out of the total registered debt of 122 billion baht). There is also discrepancy in the program's success between different regions of the country. The central region has the highest successful rate of debt refinancing, while the southern border provinces namely Yala, Narathiwas and Pattani have the lowest rate of less than 20 percent. (Figure 91 and Figure 92).

**Respondents resorted to loan sharks because they required funds quickly and did not believe formal financial institutions would grant them credit due to their low income-earning ability.** To gain a preliminary understanding of factors affecting the program's performance, the World Bank and ARCM conducted a rapid assessment through focus group discussions with people working in the informal sector in the Klong Toey areas of Bangkok and along the railway tracks in Nakornrachasrima province. The respondents represented people who earn about 200-300 baht per day and reported to have debts under 50,000 baht per person. Respondents cited limited work options and lack of flexibility to change jobs due to low education as a main reason for their low income. They believe that because they are poor and have limited education, they cannot access legal credit or obtain quick cash from a formal institution when needed, thus forcing them to rely on borrowing from loan sharks. Different strategies are being used by poor households to pay back the informal creditors. Some of the respondents said they are using small long-term savings in a cooperative group to prevent their house from being confiscated by a loan shark. Managers of savings and cooperative groups said they were afraid that if they do not allow poor members to draw down their savings the members would lose their homes. But as a cost of the individual draw downs, the long-term savings funds of the cooperative become at risk of evaporating because there are less revolving funds left in the system.

**Despite the need to refinance the expensive informal credit, the rapid assessment suggested that many respondents who comprise the poorest of the poor still cannot or decided not to access the government scheme.** The respondents, most of who work in the informal economy, cited two main reasons for non-participation. First, while the government required that debtors reveal the names of their informal lenders when registering for further negotiation, some informal lenders are influential people within the community and debtors are thus reluctant to reveal their names for fear of putting their family in danger. Such a fear is heightened in some cases when the loan sharks had asked the debtors to engage on their behalf in illegal activities, such as selling drugs, as a compensating favor when the debtors were unable to pay back the loan. In addition, these lenders are usually the only source of quick loans that poor families could get access to when faced with an economic shock. Therefore, the debtors have a disincentive to reveal their names in order to maintain the relationship.

**In addition, respondents claimed that requirements for participating in the government's program are not flexible enough for the very poor.** For example, BAAC and the Government Savings Bank require that each borrower provide one or more guarantors, which can be a government official, a private enterprise or someone with a salary pay slip representing up to 10 percent of the loan amount. In addition, the bank's loan officer has discretion to decide how many guarantors a debtor must provide. To respondents working in the informal economy, it is very difficult to find guarantors because they lack relationships with people in a higher income group.

**Fear of government reprisal was cited as a primary concern on side of the informal creditors considering participation in the scheme.** During the initial stage of the program, the government asked the police department to help encourage people indebted to loan sharks and their creditors to register, and to take action against loan sharks that use threats against their borrowers. Loan sharks said they are afraid to register as creditors because the police was involved, and indeed there were reports of police arresting some loan sharks in the process. They also fear that in the future the government may decide to prosecute them for illegal lending money and/or demand tax payments.

**To deal with the problem of informal indebtedness in a sustainable way, the government wants to boost microfinance, but it should also consider strengthening existing financial initiatives.** In order to assist the low-income earners further, the government is planning to set up a microfinance program under the state-run banks, starting first with the Government Savings Bank. While welcoming the additional initiative, respondents to the rapid assessment suggested that the government should also consider strengthening many existing financial initiatives that facilitate the participation of the poorest of the poor. For example, the government could help strengthen the capital base and management capacity of existing community savings and cooperative groups. In addition, there is a need for further research to understand the underlying purpose of these informal loans and their terms and conditions, so that programs are designed to tackle the roots of the problem.

***Crop price insurance scheme***

**In 2009, the government announced a new crop price insurance program to replace the long-standing crop mortgage scheme.**[23] Under the new program, the government established guaranteed prices that target a profit margin of about 30 – 40 percent (i.e., the guaranteed prices are based on estimated input costs, plus a profit margin). The program pays farmers the difference between the benchmark price (approximately the market price faced by farmers in the market) and the guaranteed price. Benchmark prices are announced every week, and are based on the average wholesale price during the previous week in Bangkok.

**Registration requires several steps to prevent fraud, resulting in a process that some participants criticized as overly complex.** To participate, farmers must first register at a local office of the Ministry of Agriculture and Cooperatives (MOAC) in a process which is, according to some respondents, "somewhat cumbersome." After registration, the MOAC staff conducts a survey and maintains a database of registered farmers that includes the size of the areas under cultivation, the types of crops, the estimated output per rai, and crop prices. A public meeting is then organized in the area to verify all registered farmers and their information. Once verified, each registered farmer is issued a certified letter detailing the land they cultivate, the specified crops to produce, harvesting dates, and the date that the farmer can collect the insurance payment. Each household is also allocated an insured quota—a set quantity of crop that can be insured within the scheme. For instance, a farmer is entitled to the price subsidy for 14 tons of jasmine rice; this limit is higher for other varieties of rice or a combination of rice varieties, up to 25 tons per farming household. Finally, the farmers use that the certified letter issued by MOAC to establish a contract with BAAC. At the harvest date specified in the registration, the farmers' account at BAAC is automatically credited with the difference in price (i.e. the difference between the guaranteed price and the benchmark price, if any) times the cultivated area.

**Over four million farmers registered for the price insurance scheme in its first year.** From an assessment conducted by BAAC, a total of 4.35 million eligible farmers of main crops registered with the bank for the program year 2009, consisting of 3.5 million rice farmers, 447,306 tapioca farmers, and 400,328 corn farmers. This participation level represents of a leap from the enrollment level in the previous crop mortgage scheme in 2008/2009, when only 554,067 households participated. From the World Bank rapid assessment, small-scale rice farmers in the Northeast reported satisfaction with the scheme and expect that as farmers learn more about benefits of the program, many more will likely join next year.

[23] See Box 5 of the June, 2010 Thailand Economic Monitor for more details on the crop price insurance scheme.

**In terms of the program's effect on farm income security, respondents commented that the scheme allowed them to better manage risks resulting both from post-harvest liquidity and storage constraints.** Due to liquidity constraints, farmers usually had to sell their crops immediately after the harvest, typically at a low price, to get the needed cash to pay for production costs, repay debts and manage household expenses. Most farmers also lack a storage facility and are therefore unable to store the products for sales later a higher price. Under the new crop price insurance scheme, respondents said they are able to time the sales of the crops better. Farmers could sell crops at the market price any time and still collect the difference between that price and the government-guaranteed price. In addition, the scheme also indirectly protects farmers in situations such as flood or other events which can cause physical losses to their crops while waiting for to be sold. This is because the scheme allows the farmers to recover the guaranteed price even after the crops were damaged from an unexpected circumstance. On the production side, rice farmers reported that this insurance scheme provides more incentive for small-scale farmers (10–20 rai) to work harder and produce more yield so that they can reach the quota of 25 tons per household.

**The new scheme represents an improvement over the earlier crop mortgage scheme.** In the previous crop mortgage scheme, the government allowed farmers to mortgage their crops at a government-set price. Registered farmers took their crops to the government warehouses where the Marketing Organization for Agriculture and the Public Warehouse Organization reviewed the quality and the amount and issued a 'loan petition ticket'. The farmer would then enter into a loan agreement with BAAC using the ticket as collateral and receive the money within three days. By repaying the loan to BAAC within the next three to four months, farmers could redeem the pledged produce and sell it at the market price (which was supposed to have appreciated following the immediate post harvest season). In reality, the scheme did not function as expected. The majority of small-scale farmers were not able sell their crops to the government warehouses because they tended to sell to nearby rice mills or middlemen at a much lower price as they needed the immediate cash. Most problematic was the trend in recent years for farmers to leave the crops at the warehouses because the government's mortgage prices were set well above the prevailing market prices, thus creating an incentive for farmers to effectively sell to the state instead of redeeming their pledged crops and selling them to the market. Another unintended outcome of the previous scheme was that medium and large-scale farmers ended up being the major beneficiaries because they have more capacity to increase crop yield and to purchase crops from small-scale farmers. As a result of these distorted incentives, the government ended up using a large amount of funds per year—up to 100 billion baht—for the upfront payment and storage costs, while it also has to manage the inventory and sale of the pledged commodities. The resale value of the pledged commodities is highly uncertain (especially since government sales tend to be highly political as they are perceived to depress current prices), exposing the government to large fiscal risks. The new crop price insurance scheme cost the government 43 billion baht but by getting out of the physical crop storage and sale activities it is relieved of the storage and sale burden (and associated price risks) while reaching a larger number of farming households.

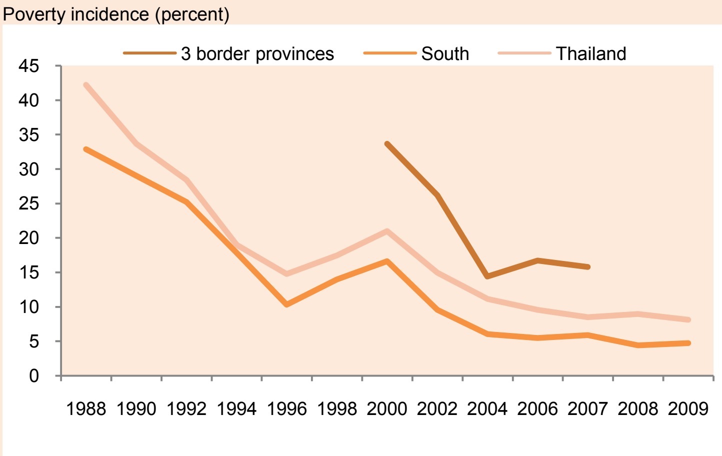
**Despite improvements under the new scheme, respondents highlighted some loopholes due to limited monitoring.** For example, the new scheme does not prevent a registered farmer who did not actually produce anything to claim benefits. To prevent this, the respondents suggested that the Ministry of Agriculture and Cooperatives initiate a strengthened monitoring process which incorporate peer-to-peer monitoring among farmers within the same community. Another concern is about the process for calculating benchmark prices, which determines the compensation farmers receive. Most respondents believed the government had an appropriate calculation system and gave them a fair price. A small number of respondents however reported that benchmark prices do not closely match the prices they face. For example, when a farmer is close to a single rice mill, prices are lower than when they are in proximity of multiple mills that must bid up the price. Cheating and potential miscalculations of the insurance benefits can still result in possible leakages of the government funds under the new scheme. However, said one tapioca trader, "Before there were many leaks within the system, the middlemen were the ones who benefited the most, but this new system, even if there is a leak, it goes directly to the farmers".

### Box 3. Improving income opportunities and quality of life in southern Thailand

**Violence and conflict undermine an already weak economy.** The resurgence of violence in the southernmost provinces of Thailand is pegged to January 2004, although the area has been troubled with conflict for decades. The conflict stems from various factors, key among them the lack of sufficient sensitivity towards Malay ethnic and religious identity and language and limited political integration, including underrepresentation of Malay Muslims in local political and government structures. Relative economic deprivation as well as government policies and approaches since 2004 contribute to the sense of injustice. This explanation, of course, is only one facet of a complex situation. But the day-to-day impact is shortchanging the well-being and aspirations of nearly two million people. Between January 2004 and January 2010, there were at least 9,446 violent incidents, resulting in approximately 4,100 deaths and 6,509 injuries and leaving 2,188 widows and 5,111 children orphaned or with only one parent.[24]

**Poverty incidence in Thailand's three Southern border provinces is higher than in other Southern provinces and the country as a whole**. In 2000, for example, the poverty rate was 35.6 percent for those three southern-most provinces, while it was 16.6 percent in the southern region and 21 percent for Thailand. The southern-most rate significantly dropped to 15.1 percent in 2004, just when the violence re-ignited. As the incidents and casualties increased over the next two years, the poverty rate returned to a higher level of 18.4 percent in 2006. The poverty rate stabilized at 16–17 percent since 2007, but an estimated 300,000 people still lived under the poverty line as of 2009 due to the conflict-related deterioration of the social and economic conditions.

**Figure 93: Poverty incidence in Thailand's three Southern border provinces is higher than in other Southern provinces and the country as a whole.**



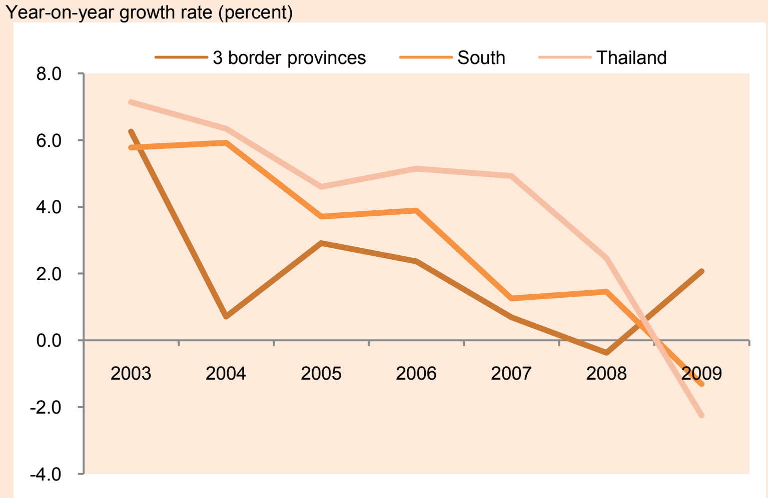

Source: National Economic and Social Development Board

**The growth performance of the three Southern border provinces has also lagged.** Unlike the rest of the southern region, households in the three southern-most provinces are less diversified, relying mostly on agriculture or fishing. Compared with the rest of the southern region, the average annual economic

[24] Jitpiromsri, Srisompop, 10 March 2010, "*Six Years of the Southern Fire: Dynamics of Insurgency and Formation of the New Imagined Violence"*, Isranews and Panpetch, Sumet, 28 September 2010, "Jet Pee Fai Tai Dek Kampra Namta Tum 5,111 children, 2,188 widows, Isranews. Both available at:www.deepsouthwatch.org and www.south.isranews.org

growth rate of the three provinces has been low: in 2004, it was 0.7 percent, compared with 5.9 percent for the southern region and 6.3 percent for Thailand. But it fell even further in 2008, to an all-time low of negative 0.4 percent. The economy of the three southern-most-provinces managed to grow in 2009 due to the pay-off from the increased government investment in the agricultural sector; in 2009, the agriculture output (rice, rubber, coconuts and fruits) accounted for 44 percent of output. The non-agricultural sectors also expanded strongly, underpinned by growth in the construction as well as public administration and defense sectors (Figure 94).

**Figure 94: Growth has been lower in the three border provinces.**




Source: National Economic and Social Development Board

**Despite recent economic improvements, remarkable challenges remain, especially for vulnerable groups.** Fear for individual safety remains widespread and constrains people's freedom of movement for work, school or daily needs. People feel unsafe to travel outside their villages to work or access government services. Government officials also feel too insecure to travel to local communities to deliver services. Productive time for many economic activities has been curtailed. Villagers used to go to work in the rubber plantations around 2 or 3 a.m., but now they wait until after the sun rises, which heavily reduces their work hours. Small fishing piers that typically operated almost 24 hours for small-scale fisher folk selling their catch now open late and close early. This situation compounds the existing struggle of poor fisher folk whose income has also been affected by the reduction of fish stock and illegal fishing.

**The government has increased its efforts to improve livelihood conditions in the South through new programs specifically targeted at the region.** In 2007, the government imposed harsh security measures to combat the violence. More troops were deployed in the southern-most provinces, which resulted in a decrease of incidents. At the same time, government investment to improve livelihood conditions for the southern region increased. In 2009, the Cabinet approved a request for 73.5 billion baht for the three-year Five Southern Border Provinces Special Areas Development Plan (2009 – 2012). The overall plan includes six components, each with its own plan: i) upgrade people's income and quality of life; ii) restore justice and security; iii) standardize social services; iv) boost the economy and investment; v) develop economic links with Malaysia; and vi) improve local administrative effectiveness. Many line agencies and security units are involved in carrying out the goals of the government's vision for restoring peace and order and hope in the future for the southern-most provinces

**This box provides a preliminary assessment of the program component on upgrading people's income and quality of life.** The Ministry of Agriculture and Cooperatives and the Community Organization and Development Institute (CODI) play key roles in the implementation of the first sub-plan aiming to improve people's income and quality of life. A network of volunteers have been recruited by the different agencies also involved to reach out to the targeted beneficiaries to explain and help organize the process, such as graduate volunteers, health volunteers and agriculture volunteers. In September 2010, the World Bank conducted three focus group discussions with villagers from the targeted villages in the three provinces regarding their experience after the first year of the government's plan for improving household income and conditions.

**The program has the ambitious goal to double household income of poor households in nearly 3,000 villages by 2012.** The plan aims to double the earnings of low-income people through project-related grant and loans and through a "people-centered approach": households will decide what projects would work for them. The goal is to target households with annual earnings of around 64,000 baht and help them earn 120,000 baht per year by 2012. The government has targeted 2,901 villages to be reached over the three-year period: 901 villages in the first year (2010) and an additional 1,000 villages each for 2011 and 2012. Of the 901 first-year villages, 696 were classified into three groups: poor villages, small-scale fisher folk villages and *serm sarng santisuk* villages, or those associated with security risk. The remaining 205 villages were perceived as having the potential to help nearby poor villages once they were given an economic boost.

**The project consists of grants for livelihood projects and loans for making household improvements.** Each agency involved in executing the plan has a degree of autonomy in how it chooses to distribute the grants and loans. Households can request the assistance they want and the type of livelihood help they need. The request is made through the volunteer network. As explained by one villager, a graduate volunteer living in the village conducts a survey in each household, asking about their income, their housing conditions and their requirements. The volunteer then creates a "wish list" for each household targeted. Some households made only one request while others had multiple requests, such as making repairs to the house and acquiring cows. It was the graduate volunteers' responsibility to inform the targeted villagers of a forthcoming public forum with the village head and other government agency officials to explain the income and quality of life improvement project. At the meeting, the village head verified the names and the requests of each household. A team of government officials and agriculture volunteers later screened the requests before submitting them to a local community committee set up to make the final decision on whether each household received its request. The committee, called the Four Pillars, consists of a Tambon Authority Office (TAO) representative, an Imam, the village head and an informal leader. Only the people who attended the public forum would receive the support.

**Respondents had mixed reactions to the outcomes of the first-year program.** The three focus group discussions engaged a total of 20 villagers and religious and community leaders from targeted communities in Pattani, Yala and Narathiwas provinces to gather their perceptions of the initial year of the program. In general, their experiences reflected several perceived weaknesses:

1) *Villagers were often confused about the different projects and their objectives.* Several villagers did not know about the overall development plan or the plan to improve people's income and quality of life. They had heard of many projects in their area, some as part of another economic stimulus program targeting the country and some specifically for the southern-most provinces. At the village level, people generally cannot differentiate between those. To them, it was a blur of project activity without any clear information of the programs.

2) *Villagers familiar with the southern provinces development plan were puzzled by the selection of certain villages*. They argued that many targeted villages should not be included in the "poor" category. These villages, they said, are quite well off and have already received many development projects from the government.

3) *Many villagers said they are not accustomed to telling the authorities what they want.* They are accustomed to authorities telling them what they would get or not get. When the local government asked them about what they needed at the community forum, they copied one another's responses without really thinking through their own household situation. Several villagers also explained that the copying of the wish list reflects their shortsighted awareness of livelihood options as well as their own resources and potential. Some people do not have land but asked for a cow, for example.

4) *Many villagers remain skeptical that the program will be able to double their income (reach 120,000 baht) in three years time*. One man said that he has received four small goats from the government-funded project. But they were quite weak and require much attention from him. His current annual income is around 70,000 baht. Selling the four goats will earn him, if he is lucky, about 16,000 baht. He doesn't know if he can sustain that level of additional income. If he does not get more support, he won't be able to increase his income significantly. Villagers who received support for their housing think they will improve their quality of living but because they have to replay loan, their income might actually reduce. They are not sure how the program to improve quality of life and the program for increasing income link and support one another.

**The experiences of different types of villages with the program were also mixed.** Participants in the focus group discussions represented the three types of targeted villages: poor villages, small-scale fisher folk villages and *serm sarng santisuk* villages.

**Participants in Poor villages in Yala seemed generally satisfied.** The participants represented five of the targeted "poor" villages and all expressed satisfaction with the program. All respondents said they were so far earning around 70,000–75,000 baht per year –They explained that they were included in the participatory process at the end of 2009 in which the program was explained and all had received the support they had requested. One respondent recalled initial skepticism. "We did not believe that the support will come because there are so many government agencies collecting information but they have never returned to help us. We were so happy when we actually received what we requested." Another respondent noted that "this is the first program that the voices of the poor were heard and responded to. We had expected the benefits of the program would go only to the elites and their clans." One elderly man explained that people who are poor have never had their voices heard. If they raise their voice, he said, they are not invited to participate in the next event. Now that villagers have actually received something that was offered from the government, they expect that in the next round of public consultation, even the poorest of the poor will also participate.

**Many of the participants from fisher villages in Pattani appeared uninformed about the program.** Villagers from two of the targeted fisher folk villages of Pattani province said that they had never heard about the program and had never been invited to participate in any of the public forums. A few villagers from a third targeted village said that a public forum was organized at the end of 2009. During that forum, villagers requested many types of support. Two other participants noted that they initially participated but then withdrew their project requests because their annual income was greater than 64,000 baht and they thought there were other families more in need.

**Participants in the *serm sarng santisuk* village in Narathiwas felt there was an unfair targeting of beneficiaries.** A villager from Narathiwas reflected that not many people had heard about the public forum to introduce the program. One respondent recalled, "I accidentally walked past the meeting and people asked me to join. The village head chaired the meeting and announced that only 20 people would receive funds to repair or build their houses." The villager remembered someone asking why the poor were not included in the household repair list because they were the ones most in need. They were told that people with a low income and would not be able to repay the loan, as required.

**Participants in the focus groups suggested possible directions for improving the program going forward.** During the focus group discussions, the following recommendations emerged for introducing the program in other villages:

1) *The second-year program should include villages close to the ones targeted in the first year.* Some nearby villagers, whose socioeconomic background are similar to the households that received support in the first year, already participated in the public forum and are familiar with the program. Therefore, they have raised expectations that they are next in line to receive support. If they are not included, there is potential for conflict among villagers.

2) *The TAO representative and the village head should only serve as program advisors, leaving the program to empower local communities*. Some participants expressed discomfort with the TAO representative and the village head having a say in the final selection of which households received project assistance. Those participants would prefer that only the religious and other respected community leaders managed the decision-making process. The villagers explained that because local people are so used to government agencies making decisions for them, when they see that government officials are in the decision committee, they are reluctant to raise issues.

3) *A good monitoring and evaluation system should be put in place.* There needs to be a responsible agency working in close cooperation with the local communities that acts as a monitor to ensure transparency and accountability.

4) *The government should provide more training to improve the capacity of the graduate volunteers.* The graduate volunteers are critical to the success of the government's development plan, but they need to fully understand the program, the challenges of including the targeted population and the perseverance required to reach out to them. Local communities need to receive information on the overall program and process clearly and promptly. The government should consider providing training to volunteers and increase ways to inform villagers about the projects, such as community announcements and community boards.

5) *Additional support should be extended to small-scale fisher folk.* Small-scale fisher folk think their income indeed would double (to nearly 120,000 baht per year) if the government could provide support for fishing equipment, protection of illegal fishing, improving resources in the sea, and cash support during the monsoon period of November and December.

6) *Special assistance should be extended to widows and wives of suspected insurgents in police custody in all villages.* Widows and wives of jailed insurgents are directly affected by the violence and among the poor and vulnerable groups. They have lost the primary household income earner and are left with several young children and little opportunity to earn income. But they often live outside the targeted villages. Participants from this group could benefit from grant support for training and income-generating activities such as subcontracting work that they could do at home while taking care of children.

**The main implication for development projects in conflict-affected areas is that clear information about the development projects, the process and outcomes need to be provided in a simplified and timely manner.** Mechanisms need to be put in place for (i) fostering cooperation among agencies with responsibility for the government projects, (ii) coordinating funding; (iii) avoiding duplication; and (iv) documenting lessons learned. Additionally, to build trust and ensure ownership and sustainability of the development projects, local people need to play an instrumental role in the decision-making and monitoring processes. A capacity-building program operating in conjunction with the development program is a necessity.

**The World Bank has helped pilot a community-driven development approach in the South that may also provide insights for future program implementation.** The World Bank provided a two million baht grant to support the Royal Thai Government based on its request to find alternative community approaches to local development which will create "space" and opportunity for increased interaction within and among communities and between communities and the state apparatus in the effort to promote trust building in the conflict-affected areas. The grant agreement was signed in April, 2009 for a three-year pilot project. Due to the complexity of the conflict in various areas of the three southern-most provinces, one of the piloted approaches is community-driven development (CDD). This area-based CDD approach focuses on inclusive participation that helps empower people to define their development priorities and to expand their capacity to manage and monitor development projects that address their priorities. The pilot project provides grants and technical assistance to implement activities. Several lessons have emerged already from the first year of the project's implementation:

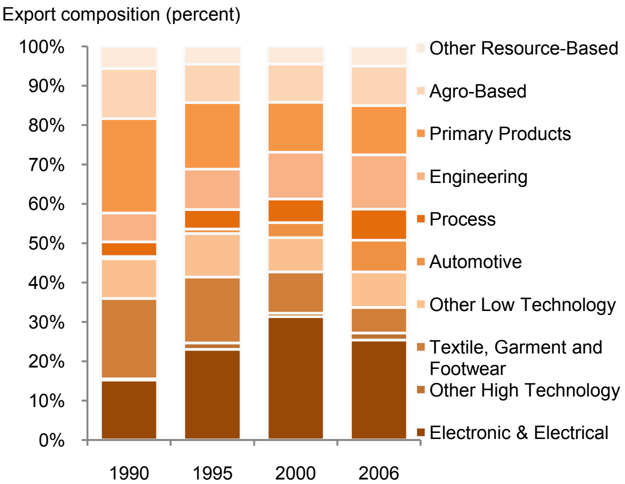
- The creation of space for constructive interaction and the building of trust and empowerment are crucial in conflict-afflicted areas, and can be promoted through a facilitating process to encourage people's involvement in the identifying, preparing, implementing and monitoring their own community project activities.
- It is important that the project links closely with government agencies, especially during the initial stage of the project, to help create transparency, avoid misunderstanding and ensure buy-in and sustainability.
- Village and Tambon facilitators who know and understand the local context and culture play an important role in promoting the project and ensuring the inclusion of all groups within the communities. Information regarding the project's objectives and processes needs to be broadly disseminated. Capacity building to equip the facilitators with the tools and skills to work in conflict areas is needed.
- The participatory community assessment process conducted by trained facilitators and community volunteers prior to the distribution of grants proved vital for helping the local community understand their resources, potential and needs.
- A coordination mechanism needs to be established so that the development partners can easily communicate with each other and especially with local government. Without such a mechanism, there is a risk of duplication or losing out on synergies and sharing of lessons learned.
- To ensure that the community feels ownership of the project, they need to be the managers of the activities and resources. The grants are transferred to a local community bank account according to the approved subprojects. It is also important that additional training on procurement and financial management, as well as other technical and skills development support specifically for different subprojects is provided.
- A participatory monitoring framework needs to be put in place to ensure that the project is on track to achieve its objectives. At the community level, villagers, facilitators and the project management team must work closely together and meet frequently to first identify project achievement indicators and then to monitor the progress of the activities.
- Due to limited capacity and experience of the local community in managing their own projects and resources, activities to promote sharing and learning across geographic areas and across issues are crucial to the overall development in the conflict-affected areas.

## 3.2 Innovation for Sustainable Growth[25]

*Complex products, simple tasks*

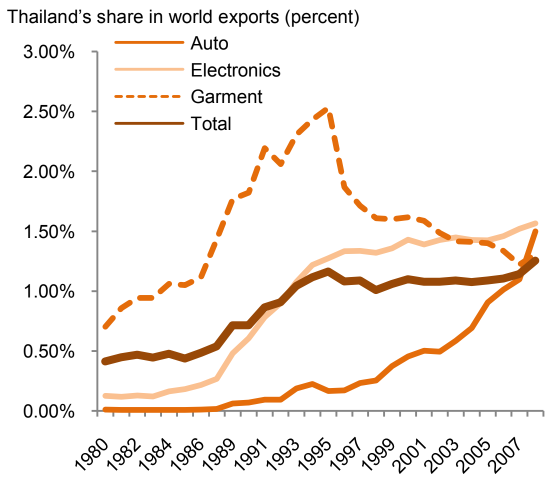
**Thailand has made impressive progress in terms of increasing sophistication and diversification of its exports since the 1970s.** The share of primary products in exports fell by 70 percentage points, while textile, engineering, electronics, other technologically sophisticated products, and automotive products grew by a combined 57 percentage points (Figure 95). Thailand has remained a competitive production base for manufactured products, as reflected by the fact that Thailand's market share in world exports increased over the past 10 years, largely driven by an exponential increase in exports from the auto industry (Figure 96). This is in contrast to other ASEAN countries that saw their market shares contract as China's surged followed WTO accession. During this period, a number of industrial clusters have formed around Bangkok. Auto parts and auto assembly, electronics, food processing, textiles, metal working and jewelry industries are present in and around the metro area, whereas business services have concentrated in the core areas of the municipality

**Figure 95. The share of primary products in exports has declined while the share of technologically sophisticated products increased.**




Source: UN COMTRADE.

**Figure 96. Thailand's share in world exports has increased slightly over the past ten years.**




Source: UN COMTRADE.

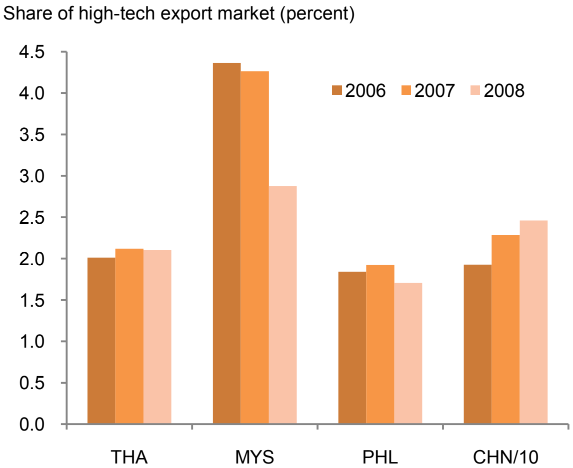
**However, there seems to a large disparity between Thailand's "product space" (what products the country produces and exports) and its "task space" (the tasks within the production process that are performed in the country).** Although the products exported by Thailand have grown more sophisticated over time, the nature of the tasks performed in Thailand has remained relatively non-complex (and consequently low value-added), concentrating primarily in assembly manufacturing. The research, design, development and branding of these sophisticated export products are still done outside of Thailand. It is informative that as value-added in manufacturing has increased, average wages and employment in the sector have stagnated, suggesting growth has come primarily from physical capital deepening and productivity growth rather than increases in human capital inputs.

**This can be demonstrated with an example from electronics industry.** Thailand's share in the world high-tech electronic export market grew at the same time when other countries' share declined as they

[25] Ekaterina Vostroknutova is the main author of this section, which also draws from Shahid Yussuf and Kaoru Nabeshima, *Industrial Change in the Bangkok Urban Region*, mimeo, 2010.

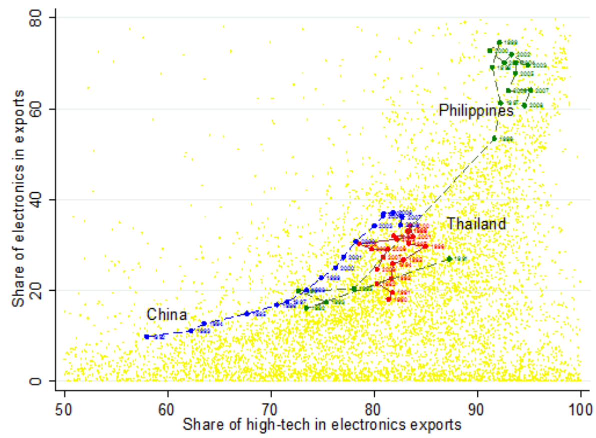
competed with China (Figure 97). But the nature of tasks performed by the Thai electronics industry—assembling, testing and packaging standardized products based on codified technologies—has changed little over the past two decades. Reflecting this stagnation, Thailand has failed to increase the share of high-tech products[26] in its electronics exports, while other countries, such as China, steadily advanced in both the volume as well as share of higher high-tech products (Figure 98). While Thailand exports large volumes of high-technology products such as plasma TVs, hard disk drives and integrated circuits, the high value-added components (such as the plasma screens and chip wafers) are still produced outside of Thailand, and the design, engineering and branding of these products are also generally not done in Thailand. Increases in the level of technology of export products reflect technology embodied in imported production equipment, and transfers of technology to indigenous firms have been limited.

**Figure 97. Thailand was competitive in the world high-tech electronic export market…**




Source: WITS.

**Figure 98. …but share of high tech in total electronics exports stagnated.**




Source: WITS.

**Sustaining high rates of growth going forward will require that Thailand take advantage of innovation-led growth.** In the aftermath of the global financial crisis, and bleak prospects for growth in G-3 countries in the near term, competition between countries for export markets will intensify. Some observers note that middle-income countries, like Thailand, are reaching the limits of exploiting the assembly-manufacturing-for-exports model and need to "move up value chain"—meaning performing tasks with higher domestic value-added. Increasing the number of such tasks performed in Thailand means firms must innovate, that is, they must become more skilled at introducing new or improved goods, services, production processes and better modes of business operation. Innovation may involve improvements that are "new to the world" but also "new to the firm."

### *Falling behind in R&D*

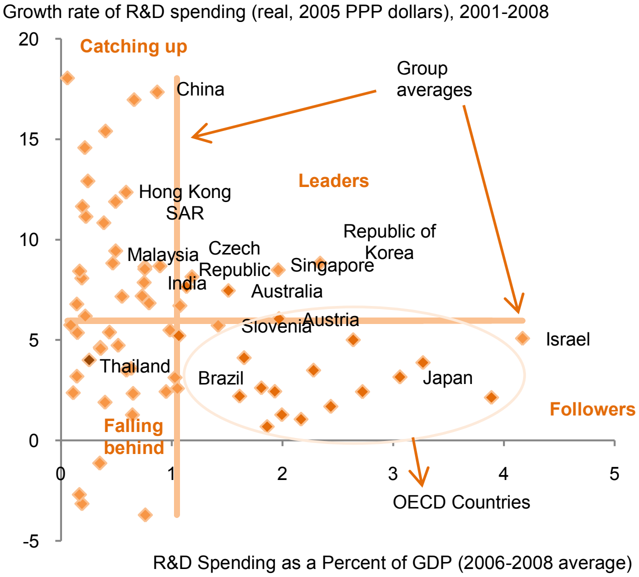
**An important example of a 'complex task' performed within the manufacturing production process, and a key aspect of innovation, is research and development (R&D).** In addition to the conventional role of generating innovations that are "new to the world", R&D is also important to enhance the transfer of technology (absorptive capacity) and generate innovations that are "new-to-the-firm". For example, Griffith, Redding, and Van Reenen (2004) find that R&D is statistically and

[26] We divide electronics into medium- and high-tech depending on low or high technological content and sophistication, following SITC3 category 77 classification and as in S. Leduc, M. Marazzi and B.A.Wilson. 2007. The role of China in Asia: Engine, Conduit, or Steamroller?, Board of Governors of the Federal Reserve System International Finance Discussion Papers, #904, September.

economically important in both technological catch-up and innovation in a sample of OECD countries.[27] The authors point out that much knowledge is acquired through 'learning-by-doing,' and argue that the further a country lies from the technological frontier, the greater the potential for R&D to generate growth in total factor productivity through technology transfers from countries closer to the frontier.

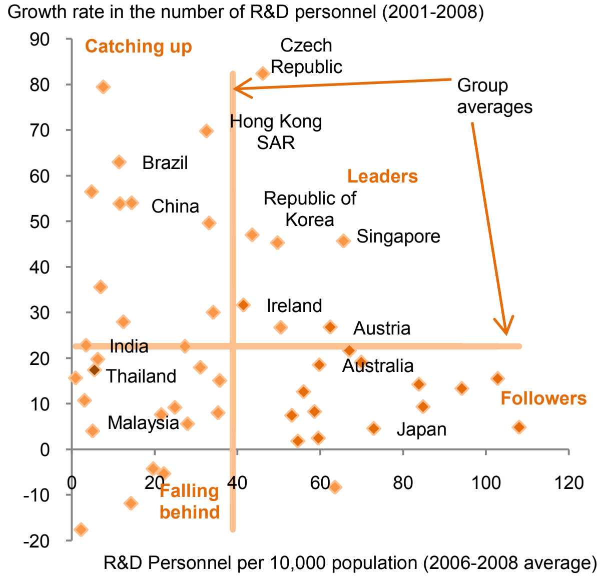
**Thailand has one of the lowest levels of R&D spending and R&D workers in the region, and with below-average growth it is falling further behind.** Figure 99 and Figure 100 suggest that Thailand is falling behind its income group, in particular Malaysia and China, with respect to R&D. Thailand currently spends less on R&D than China and Malaysia, and growth in the past decade has been substantially lower. China is investing heavily in research and development in advanced areas such as nanotechnologies, which is reflected not only in one of the highest growth rates in R&D spending in the world, but also in growth of R&D personnel. In Thailand, the number of R&D personnel (relative to population size) has grown well below the average of the sample of countries—in particular below other dynamic middle income countries like Brazil, Korea and the Czech Republic. Partly as a result of low R&D intensity, Thailand has the lowest patents per capita ratio in the region: half that of Malaysia and just above a quarter of that of Korea.

**Figure 99. Thailand is falling behind in terms of R&D spending…**




Source: UNESCO and World Bank staff calculations.

**Figure 100. ...and professionals working on R&D.**




Source: UNESCO and World Bank staff calculations.

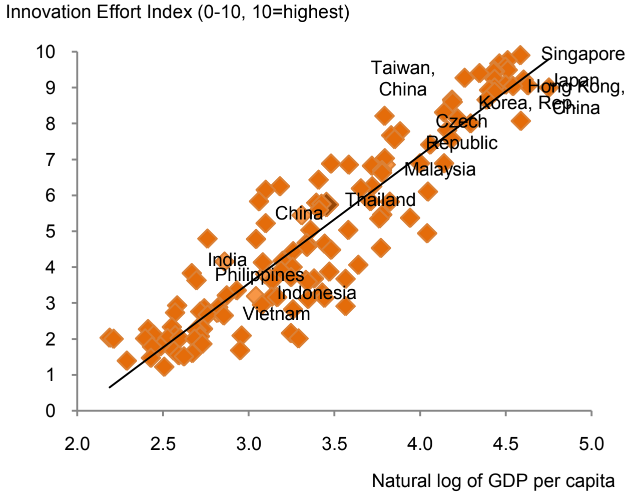
**Despite the weaknesses in R&D, there are some positive signs in Thailand's innovation landscape.** By some output-focused measures of innovation, Thailand currently appears at the same level as China. According to the World Bank's knowledge economy indicators, the innovation effort index (which focuses on outcomes such as royalty payments, patents and journal publications) is at similar levels as China when controlling for GDP per capita, though it still trails Malaysia and the NIEs (Figure 101). Thailand has also shown some success in terms of increasing firms' capabilities to produce more diversified and sophisticated products (Figure 102).[28] Thailand has improved the number of tasks and

[27] Griffith, R., S. Redding and J. Van Reenen. "Mapping the Two Faces of R&D: Productivity Growth in a Panel of OECD Industries," *Review of Economics and Statistics*, November 2004, Vol. 86, No. 4, Pages 883-895.

[28] The capabilities index (introduced by Hidalgo, César A., 2009, *The Dynamics of Economic Complexity and the Product Space over a 42 year period*, CID Working Paper No. 189, December 2009) calculates the number of tasks that economy is capable of doing and ranks all economies from the largest to the smallest number of tasks (or

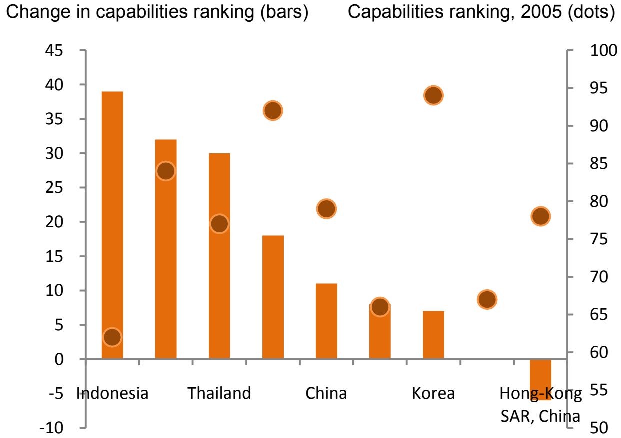
capabilities to produce more complex products more than average, but it is still lagging behind Malaysia, China and NIEs on tasks. Firms also seem to be motivated to introduce new products and production processes. However, an increase in the number of tasks that companies in an economy can perform does not always imply an immediate move up the value chain, if there are constraints that prevent firms from using the capabilities to perform more tasks properly.

**Figure 101. Thailand's innovation efforts are currently on par with China, but lag behind those of Malaysia.**




*Source*: World Bank Knowledge Assessment Methodology Innovation Index (KAM) 2009.
*Note:* The innovation effort index is the simple average of the normalized scores of three variables: total royalty payments and receipts; patent applications granted by the US Patent and Trademark Office; and scientific/technical journal articles.

**Figure 102. Capabilities improved, but Thailand is still behind Malaysia, China and NIEs.**




*Source*: Staff calculations based on Hidalgo, 2009.
*Note*: Capabilities refer to the level of sophistication of companies in a country to perform more tasks so as to produce a greater variety of products. Original indicator is normalized so that higher number reflects more capabilities, Japan=100.

### *What is constraining innovation?*

**The constraints to innovation will be somewhat different depending on the type of firms**. Innovative activities in Thailand are likely to be performed by (i) MNCs moving higher value-added tasks to Thailand; and (ii) indigenous firms, which will be mostly SMEs that have "start-up" characteristics, and which are likely to be plugged into production networks. MNCs operate in a very competitive global environment and have strong incentives to innovate; the main challenge is to convince these firms to bring innovative tasks to Thailand. In addition, MNCs play a role in transferring knowledge and skills to local firms; indeed capacity to innovate in East Asia is mostly transmitted vertically through FDI by MNCs.[29] In this case, the obstacles will be related to these firms' capacity to absorb new technologies (technological learning) so that they can themselves innovate. Cross-cutting obstacles include the availability of skilled labor and the efficiency of information transmission channels, such as the use of information and communication technologies (ICT). Access to finance is likely to be a greater constraint to indigenous "start-ups" compared to MNCs or firms within their supply chains. Finally, the competitive environment may not be fostering innovation within indigenous firms.

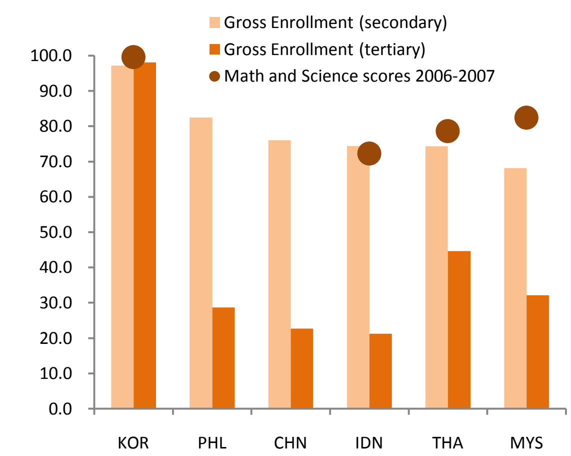
**The cross-cutting constraint is the presence of a skilled workforce.** Thailand does very well on access to primary and (lower) secondary education, where enrollment rates are very high. In addition,

capabilities). The original index was normalized, so that the higher the ranking the higher the number of capabilities, with Japan and US ranked 100, and most unsophisticated economies are closer to zero.
[29] Gill, I. and H. Kharas, 2007, *The East Asian Renaissance*, The World Bank, Washington DC.

expenditures on education and access to higher secondary and tertiary education are adequate, and in line with, or better than, regional peers. However, this does not appear to translate into outcomes: Thailand is lagging behind Malaysia (and is well behind Korea) in math and science scores (Figure 103). Moreover, according to the World Economic Forum, Thailand innovates less than countries with comparable higher education ratings (Figure 104). Most importantly, however, the lack of skilled workers has been amongst the three top constraints in Enterprise Surveys during the last decade (Figure 105).[30] In particular, more than half of firms indicated that English language, information technology (IT), numerical and creativity and innovation skills of their workers were either poor or very poor. Over 42 percent of firms indicated that lack of knowledgeable and trained personnel was the reason for them not engaging in innovative activities (this tied with finance which was indicated by another 43 percent of firms).

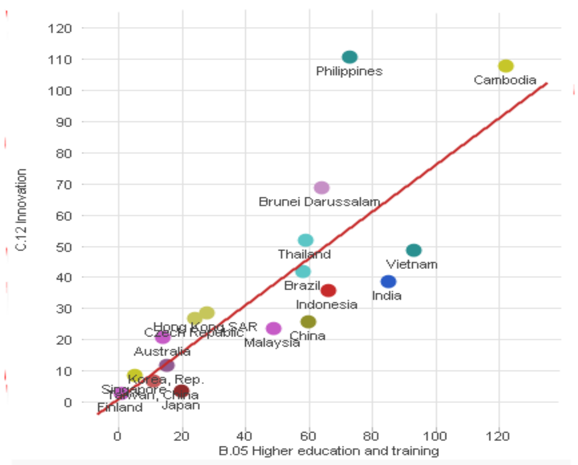
**Figure 103. Quality rather than quantity of education appears to be the key constraint.**

Percent




Source: EdStats.
Note: Math and science PISA scores, normalized with Korea=100

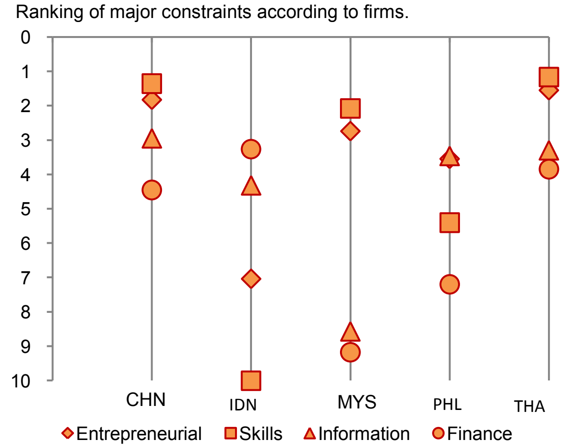
**Figure 104. Thailand innovates less than countries with similar higher education rankings.**




Source: World Economic Forum.

**Figure 105. Skills including those in entrepreneurship are the largest constraint to Thai firms.**

Ranking of major constraints according to firms.




Source: World Bank staff calculations using World Bank Enterprise Surveys (latest available) and Connectivity Scorecard 2010.
Note: Index is scaled by maximum and minimum in the region.

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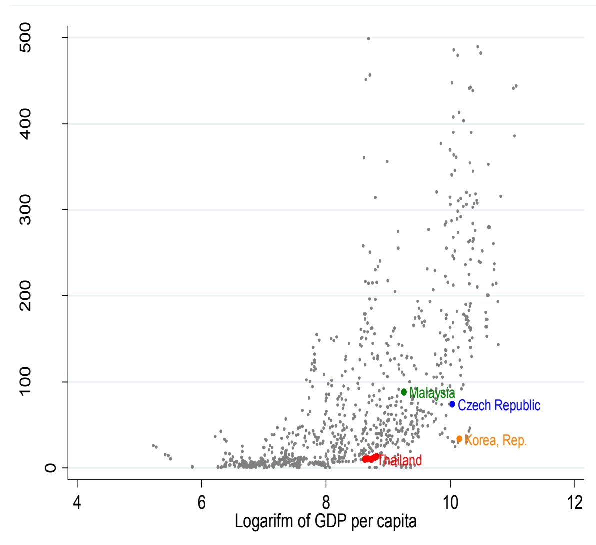
[30] World Bank, 2008, *Thailand Investment Climate Assessment Update*, Report No 44248-TH, Washington DC.

**Limited interactions between universities and industry exacerbate the skills problem**. University-industry linkages, when operating properly, can serve as catalysts for innovation. But a strengthening such linkages requires a systematic collaborative effort to remedy what firms see as the shortcomings of university graduates through a redesigning of programs, a reform of the curricula, revising of textbooks, investment in the latest lab equipment and an emphasis on practical skills. It is the persistent weakness in the quality of the universities in Thailand, especially when it comes to R&D capacity, and the location of the leading institutions in core urban area that has made it difficult for universities to serve as nuclei for true technological (as opposed to logistical) clusters.

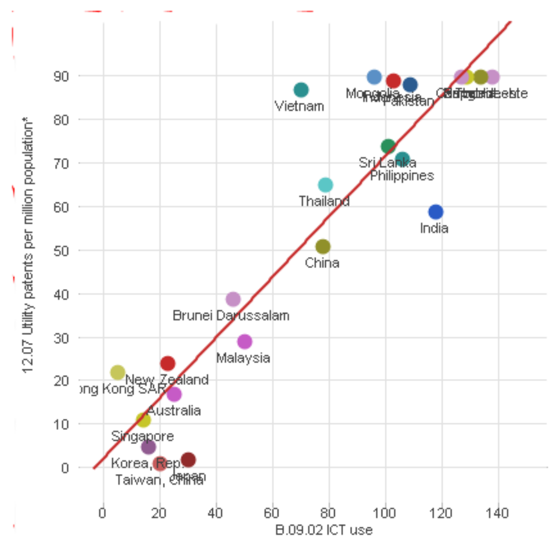
**Thailand lags behind other countries with similar income levels on use and penetration of the information and communication technology (ICT).** ICT is an important factor when it comes to transmission of knowledge and facilitating innovation. Thailand's levels of broadband penetration and ICT use by businesses are dismal in general, in comparison to other countries at the same level of income and even to Vietnam. Voice traffic has been found to be one of the best indicators of ICT impact on growth, and Thailand is at the lowest level for its income group (Figure 106), indicating that Thailand is lagging behind on facilitating knowledge transmission through this important channel. This has a negative impact on the ability to innovate (Figure 107). See also Box 2 on the potential for expanding broadband access in Thailand through deployment of a 3rd Generation (3G) wireless network.

**Figure 106. Voice traffic, indicative of knowledge penetration, is low for Thailand's GDP per capita.**




Source: WDI.

**Figure 107. ICT use is dismal and it discourages frontier innovation.**

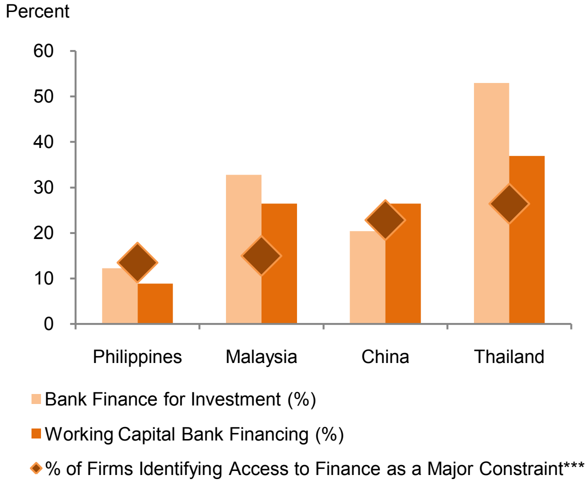



Source: World Economic Forum

**More than 40 percent of firms operating in Thailand indicated lack of affordable financing as the reason they did not innovate.**[31] This finding however contrasts with the availability and affordability of financing in Thailand in comparison to other countries in the region (Figure 108). Venture capital investments in percent of GDP in Thailand are also almost at par with the industrialized nations (Figure 109).[32]

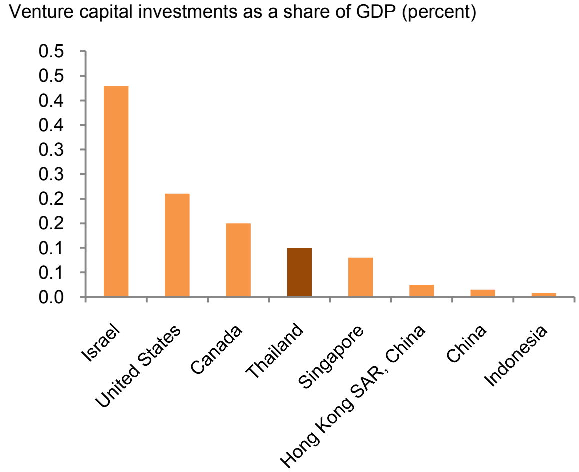
[31] World Bank, 2008, *Thailand Investment Climate Assessment Update*, Report No 44248-TH, Washington DC.
[32] Lerner J., 2009, *Boulevard of broken dreams: Why public efforts to boost entrepreneurship and venture capital have failed -- and what to do about it*, Princeton University Press, Princeton, NJ, USA

**Figure 108. Finance availability appears to be less of a problem than in other countries.**




Source: WB Enterprise Surveys, various years.

**Figure 109. Venture capital investments are almost at par with industrialized countries.**




Source: Lerner, 2009.

**Thailand's business sector finances a low proportion of R&D and SME access to financing could be improved.** Thailand has much lower share of R&D financed by the private sector than other middle-income countries in the region (just over 40 percent as compared to over 50 percent in Malaysia and the Philippines, and over 60 percent in China). The share of business sector financing in R&D generally increases with per capita income. Also, financing for innovation is usually an especially acute problem for SMEs that might be interested in grass-roots innovation such as in adopting existing technologies to suit their needs or to reduce production costs.[33]

**The increased participation of foreign suppliers in production network poses challenges to innovation by indigenous firms.** Foreign firms subcontract for certain lower tech categories of products with local suppliers but they do so sparingly. For reasons of convenience, they make an effort to minimize the number of suppliers they deal with and their preference is for suppliers that can meet their requirements worldwide and not just in a single country. Hence, there is a tendency to use suppliers from their home countries, many of which are persuaded to set up a subsidiary or a joint venture in Thailand (see Box 1 for a discussion of this phenomenon in the automotive industry). This makes for a lean supply chain and minimizes the subcontracting relationships among firms in and around estates. It also raises the entry barriers for domestic suppliers that would contribute to the ripening of a cluster.

***Policy responses and options***

**The Thai government has introduced various initiatives to improve the quality of the labor force.** At the secondary education level, it has allowed privatization, encouraged integration of ICT and foreign languages in curricula, and adopted measures to upgrade teacher standards and vocational schools. However, instructional resources and teaching aids remain in short supply, and measures that strengthen and decentralize authority to schools; better targeting of student loan schemes, as well as raising the profile of vocational schools are still needed. Tertiary education level is where the main challenge lies. The cabinet has approved a 15-year tertiary education framework (2008-2022) focusing on knowledge and innovation. Focusing on the implementation of this program would result in improvements in

[33] World Bank, 2010, *East Asia and Pacific Economic Update: Robust Recovery, Rising Risks*, www.worldbank.org/eapupdate.

collaboration of universities with industry, and encouraging entrepreneurial endeavors from faculty to attract external funding.

**Another important policy that facilitates transmission and absorption of knowledge is the development of science and technology.** The recent efforts included the proposal to reform the national research system; approval of a draft law on science and technology; and approval of a promotion plan for 2007-2011 for small and medium-sized enterprises (SMEs) to provide incentives to move toward knowledge-based business; adoption of a five-year strategy to develop robotic technology and automation systems; and establishment of an excellence centre in physics, and set up a project to enhance technological capabilities in the electronics industry. Further improvements are needed, specifically in the institutional arrangements for the coordination of the national technology policies; greater involvement of the private sector in policy formulation. In addition, fiscal incentives for enterprises to engage in innovative activities need to be streamlined and better coordinated.

**Adopting experience from countries that have built successful innovation frameworks is essential, especially for R&D.** In particular, the Finnish and South Korean systems for coordination of science and technology policy would best suit Thailand's circumstances. In Finland, the government clearly stated that it would fund basic and applied research while the private sector should be more involved at the commercialization stage. R&D was first developed through government institutes; the aim was to adapt imported technology to local needs. More R&D is performed by the business sector as the industrial sector expands. Experience in building institutions that promote innovation would also be useful. The government may also wish to follow the Finnish model of offering matching funds for universities and companies that work together on specific research and technology projects.

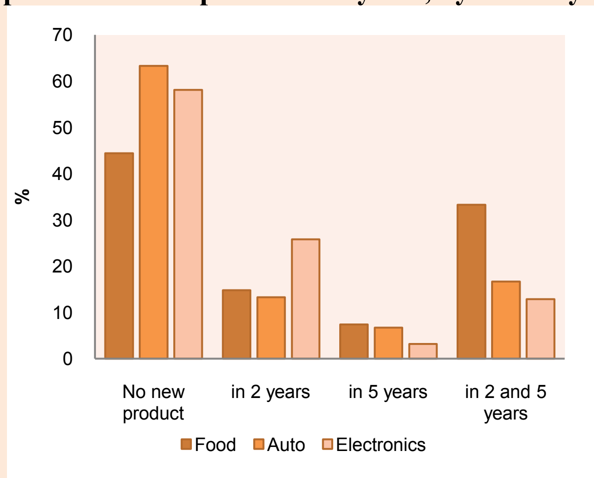
### Box 4. Innovation in Thailand—Results of a TDRI Survey[34]

**Many firms in Thailand engage in incremental innovation, even though "new" products introduced are usually variants of existing products with a few cosmetic changes.** Among the surveyed firms, more than 50 percent of firms in food processing and 40 percent of firms in auto and electronics industries have introduced new products in the last five years, indicating that firms are beginning to acquire internal technological capacity (see Figure 110). Relative to other firms, those in the food industry have more developmental capabilities (see Figure 111). Firms in the auto industry rely on customers (the final assembler and higher tier parts suppliers) for their designs as do electronics firms.[35] This is to be expected because many of the buyers are major MNCs. However, because 'relational clustering' is weak, very few Thai subcontractors are involved in the design phase of product development, making it harder to introduce new products and designs and in the process acquire the skills and expertise that could lead to movement up the supply chain. There are exceptions however, such as AAPICO Hitech, a producer of jigs and dies, fuel tanks and chassis frames, and the Summit Group.

[34] As part of the study on "Industrial Change in the Bangkok Region" Yussuf and Nabeshima (2010) commissioned a survey of manufacturing firms, services providers and developers active in the Bangkok metro area. The group of 88 industrial producers included 27 from the food industry, 30 from the automotive industry and 31 from the electronics industry. The size of the firms in the surveys varied, from those earning less than 50 million Baht annually to those earning more than 2,000 million Baht. The companies in the food industry were mostly 100-percent Thai-owned, electronics companies were mainly owned either wholly or partially by multinational companies, and the automotive industry was split equally between Thai and foreign ownership (TDRI 2009).

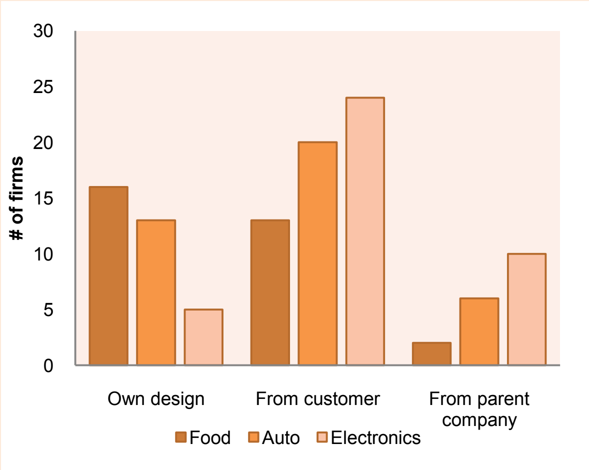
[35] Half of the sampled 100%-foreign-owned firms in the automobile sector design or upgrade their products with their buyers, while only 10 percent do with their suppliers

**Figure 110. Proportion firms introducing new products in the past 2 and 5 years, by industry**




Source: TDRI 2009

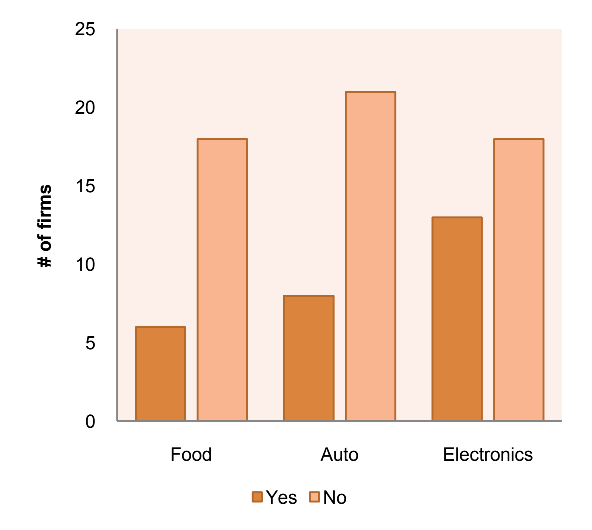
**Figure 111. Sources of Product Design**




Source: TDRI 2009

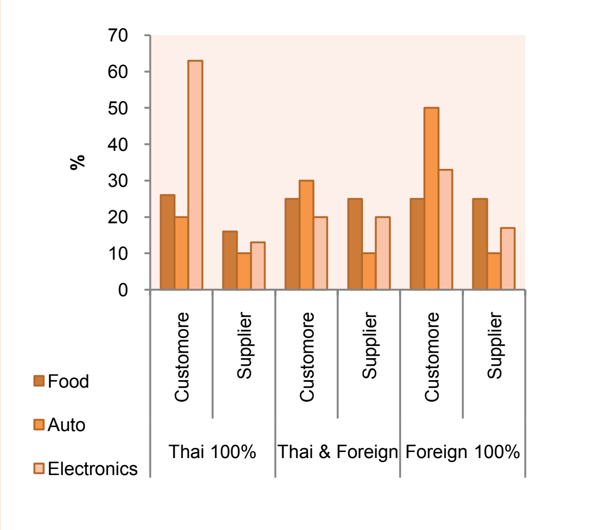
**Limited linkages with local firms and the wide dispersal of firms within and outside of the industrial parks have constrained technological spillovers**. This tends to attenuate as the distance from a source such as an MNC production facility, increases. As the survey results show, few firms engage as yet in the co-creation, design and development of products with suppliers (see Figure 112). The MNCs and their subsidiaries rely on their own research and on R&D conducted by facilities in their home countries. They can work with buyers but rarely work with suppliers across different ownership types (see Figure 113). The sparseness of technology spillovers has a dampening effect on the clustering impulse. Local firms have to struggle to upgrade and to find pathways to diversification. An essential dynamic which arises from the active collaboration among firms to design and refine products or processes and to develop new ones, and which also derives from a multiplicity of buyer-supplier relationships, is still weak or missing entirely.

**Figure 112: Responses by firms to the question "Has your company ever designed or upgraded products with customers or suppliers?"**




Source: TDRI 2009

**Figure 113: Collaboration with customers and/or suppliers by ownership**




Source: TDRI 2009

**Inadequate human capital represents a key constraint to innovation.** Technological upgrading and product development which could serve as the springboard for relationships with MNCs and the emergence of dynamic clusters in industries with clustering tendencies, are hamstrung by the low quality of the human capital and the level of entrepreneurship. Second, few domestic firms have displayed a readiness to invest in a steady enhancement of the manufacturing capabilities and in R&D. In fact, R&D in Thailand has remained unusually low—and MNCs continue to conduct most of their R&D elsewhere.[36] Third the survey reinforces other qualitative evidence pointing to few linkages between firms and universities. In 1999-2003, firms did not regard universities were an important source of technical information (see Table 14). This assessment did not change in the survey conducted in 2008. Universities are low on the scale of sources for technology and, in general firms do not engage in research or product development with academic researchers (see Table 15).[37]

**Table 14: Sources of information and knowledge: 1999-2003**
**(0- not know, 1-not important, 5- very important)**

| Source of Information | 1999 | | 2001 | | 2003 | |
|---|---|---|---|---|---|---|
| | R&D Firms | Inno Firms | R&D firms | Inno Firms | R&D Firms | Inno Firms |
| Sources within the enterprise | 3.33 | 2.71 | 4.27 | 4.08 | 2.55 | 3.66 |
| Parent/associate companies | 2.51 | 2.11 | 3.38 | 3.22 | 1.75 | 2.68 |
| Clients | 3.40 | 2.91 | 4.08 | 3.73 | 2.48 | 3.76 |
| Locally-owned suppliers | 2.58 | 2.18 | 3.39 | 3.05 | 2.00 | 2.97 |
| Foreign-owned suppliers | 2.69 | 2.15 | 3.10 | 3.05 | 1.92 | 2.75 |
| Universities or higher education institutes | 1.99 | 1.64 | 2.46 | 2.13 | 1.56 | 2.03 |
| Government or private non-profit research institutes | 1.92 | 1.63 | 2.14 | 1.95 | 1.51* | 2.08* |
| | | | | | 1.05** | 1.59** |
| Business service providers | 1.65 | 1.54 | 2.18 | 1.95 | 1.20 | 1.79 |
| Technical service providers | 1.97 | 1.80 | 2.59 | 2.39 | 1.44 | 2.24 |
| Competitors | 2.48 | 2.22 | 2.71 | 2.59 | 1.83 | 2.84 |
| Patent disclosures | 1.44 | 1.39 | 2.17 | 2.07 | 1.26 | 1.75 |
| Fairs and exhibitions | 2.40 | 2.11 | 3.12 | 3.10 | 2.00 | 2.85 |
| Professional conference & meeting | 2.47 | 2.09 | 3.16 | 2.68 | 1.88 | 2.70 |
| Specialist literature | 2.73 | 2.23 | 3.25 | 2.73 | 1.92 | 2.69 |
| Internet | 2.42 | 2.04 | 3.54 | 3.45 | 2.32 | 3.34 |

Remark: *Public research institutes
**Private non-profit

Source: Doner and others (2010: 34)

[36] Nevertheless, Toyota established the Toyota Technical Center Asia Pacific (TTC-AP) near Bangkok in 2005 to conduct development work on upper car bodies and specifications for Asian markets based on the platform and base models developed in Japan. TTC-AP later merged with Toyota Motor Asia Pacific Co. to establish Toyota Motor Asia Pacific engineering and Manufacturing Co. in April 2007 to support procurement of all Toyota plants in Asia-Pacific with an aim to increase local procurements. (See references in Yussuf and Nabeshima, 2010).

[37] See also similar findings reported in *Towards a Knowledge Economy in Thailand*. Bangkok: World Bank (2008).

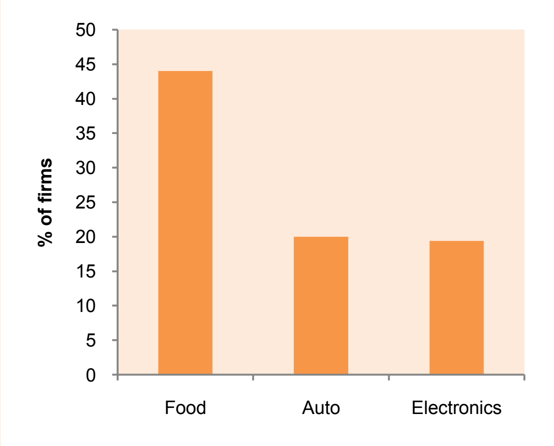
**Table 15: Sources of information and technology**

| Sources of information | Food | | Automobile | | Electronics | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| Product fair/ exhibition | 8 | 17.8 | 2 | 3.6 | 1 | 1.9 |
| Own company (Thai) | 7 | 15.6 | 4 | 7.3 | 6 | 11.5 |
| Suppliers | 6 | 13.3 | 4 | 7.3 | 5 | 9.6 |
| Website | 6 | 13.3 | 2 | 3.6 | 2 | 3.8 |
| Customers' firms | 4 | 8.9 | 12 | 21.8 | 14 | 26.9 |
| Parent company (foreign) | 3 | 6.7 | 15 | 27.3 | 12 | 23.1 |
| Conference with other firms | 2 | 4.4 | 1 | 1.8 | 0 | 0.0 |
| Machinery | 2 | 4.4 | 2 | 3.6 | 1 | 1.9 |
| University | 2 | 4.4 | 1 | 1.8 | 3 | 5.8 |
| Consult/visit/ training inside or outside the country | 0 | 0.0 | 3 | 5.5 | 3 | 5.8 |
| Others | 5 | 11.1 | 9 | 16.4 | 5 | 9.6 |
| Total | 45 | 100.0 | 55 | 100.0 | 52 | 100.0 |

Source: TDRI 2009

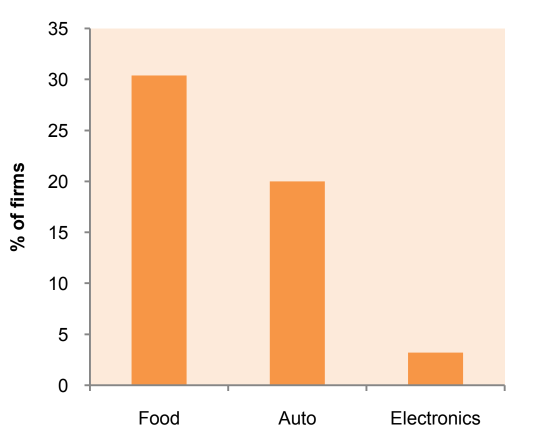
**The relative ranking of importance that firms attach to the collaborators have varied little between product and process innovation.** Customers/buyers have been ranked the highest consistently, followed by suppliers (domestic and foreign). But attitudes are changing as competition intensifies and forces firms to confront technological challenges. Firms in food processing (30 percent) and auto parts (20 percent) industries have begun interacting more with universities in the past five years, but those in electronics are less likely to engage with universities (see Figure 114). Across industries, firms in the food processing industry collaborate the most with tertiary level institutions followed by autos (see Figure 115).[38] Wholly Thai owned firms have increased collaboration with universities and research institutes in the last five years especially those in food processing (see Figure 116 and Figure 117). These figures suggest that firms in subsectors dominated by MNCs maintain fewer contacts with local universities and research institutes, because MNCs rely more on technology developed elsewhere and they are the principal sources of technology for suppliers.

**Figure 114: Share of firms seeking technical assistance or research support from universities and research institutes**




Source: TDRI 2009

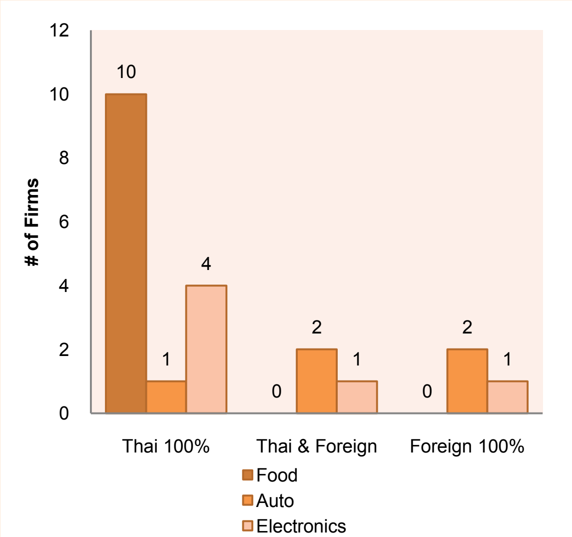
**Figure 115: Share of firms indicating an increase in collaboration with universities and research institutes in the past five years**




Source: TDRI 2009

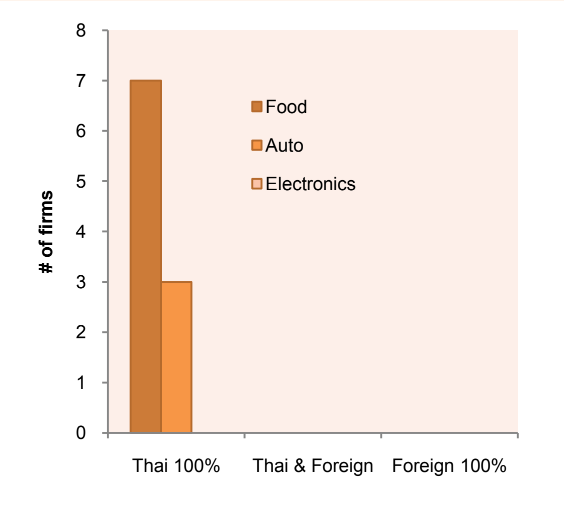
[38] One example involving the shrimp industry is described in Brimble, P. and R. F. Doner, 2007. "University-Industry Linkages and Economic Development: The Case of Thailand." *World Development* 35(6): 1021-1036.

**Figure 116: Firms receiving technical assistance from universities or research institutes**




Source: TDRI 2009

**Figure 117: Number of firms that increased collaboration with universities or research institutes**




Source*:* TDRI 2009

## 3.3 Accelerating Growth of Services Sectors[39]

***The service sector supported employment in Thailand during the recent crisis period…***

**Trade, including in services, was the primary transmission channel through which the global crisis hit the economies of East Asia.** Manufacturing-for-exports industries were particularly affected, with Thailand's goods exports and manufacturing GDP contracting sharply through 2008 (Figure 118). While one of the features of the global trade response was the resilience of services trade,[40] this was not the case for Thailand. Although, as mentioned above, business services exports proved more resilient, with travel receipts making up over 50 percent of service exports, service receipts overall deteriorated sharply with the impact of the political unrest of early 2010 on tourism. Nevertheless, services activity as a whole still provided considerable support to economic performance during the crisis, reflecting their lower tradability in general and hence exposure to the external shock. A marked gap in performance between services and manufacturing GDP was also seen in Korea and Malaysia which are similarly plugged into global manufacturing production networks. On the employment-side, service sector jobs continued to rise through the crisis, with retail and wholesale trade showing strong contributions over recent quarters—partly as they served as a safety net for workers displaced from manufacturing.

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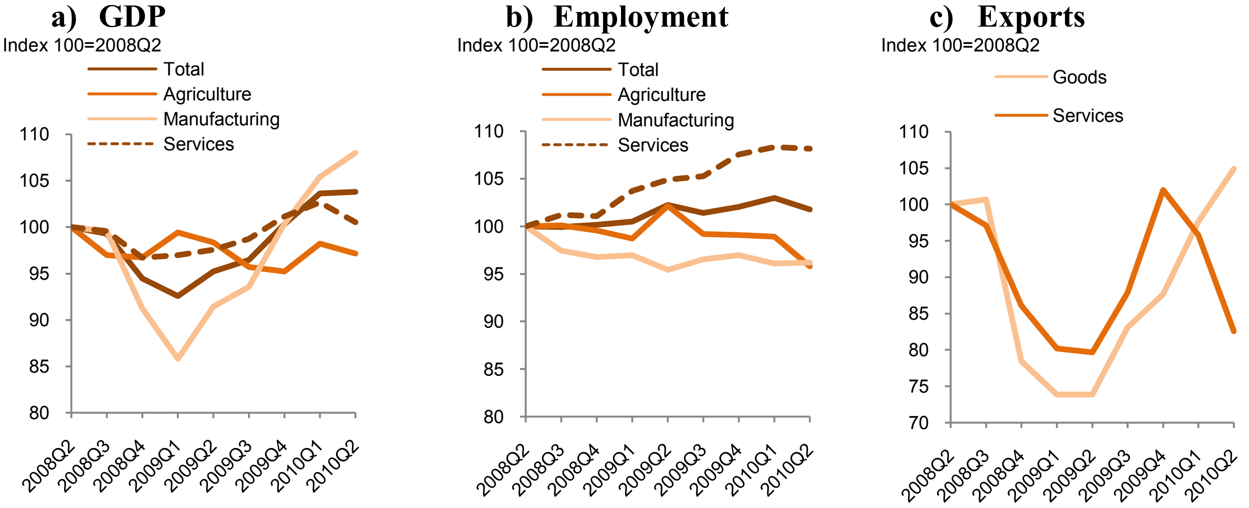
[39] Prepared by Ashley Taylor.

[40] See, Borchert, I. & Mattoo, A. (2009), "Services trade – The collapse that wasn't", http://www.voxeu.org/index.php?q=node/4281.

**Figure 118. Recent sectoral growth and employment dynamics**




Note: Seasonally adjusted quarterly data.
Source: Haver Analytics, World Bank staff calculations.

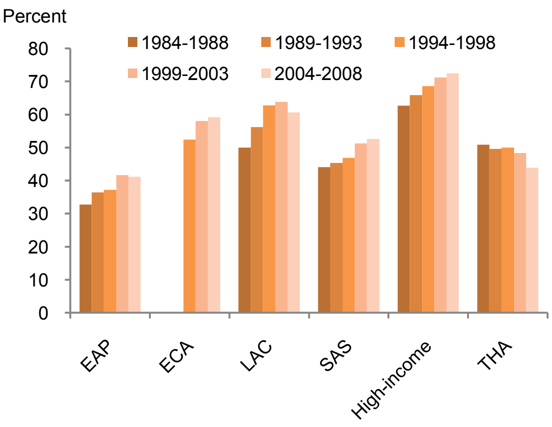
Note: Seasonal adjustment using x-12 arima package. Quarterly employment is average of monthly figures.
Source: CEIC, World Bank staff calculations.

Note: Seasonal adjustment using x-12 arima package by World Bank staff.
Source: Bank of Thailand, World Bank staff calculations.

***…but services development has shown relatively weak dynamics relative to the rest of the region…***

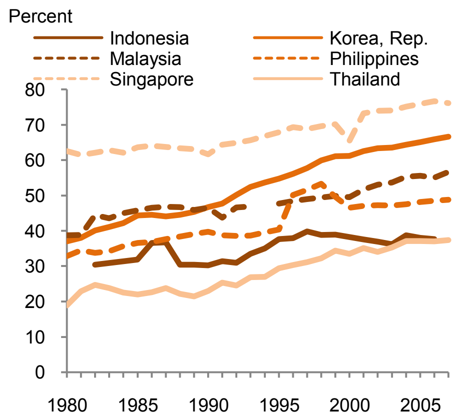
**Notwithstanding the support that services provided to employment in Thailand during the crisis period, the recent development of the sector has been relatively muted.** In fact, the share of services in GDP has declined substantially over the past two decades, from 51 percent in 1984-88 to 44 percent of GDP in 2004-08, as the share of manufacturing has risen. This trend is in sharp contrast with the rising share of services in East Asia and the Pacific and other regions (Figure 119). Thailand's relative low share of services in GDP remains the case when controlling for income per capita, as for other regional economies such as China and Malaysia. While trending upwards, the share of labor in the service sector is also low relative to regional comparators (Figure 120).

**Figure 119. Share of services has declined in Thailand, contrasting with the regional trend**




Source: WDI.
Note: Ratio of nominal GDP. Final observation for high-income average is 2004-2006, for ECA 2004-2007.

**Figure 120. Services employment is rising in Thailand, but still relatively low,**



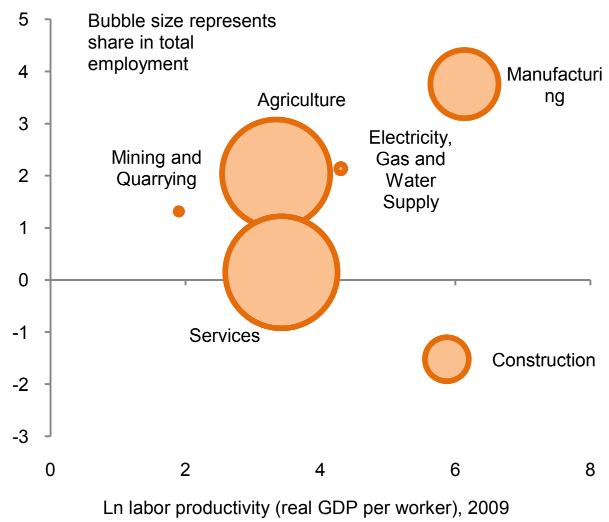

Source: WDI.
Note: Sample varies across years.

*…with weak growth in service sector labor productivity.*

**In the recent years, labor productivity in services in Thailand has been stagnant.** Over 2002-09, labor productivity in Thailand, as measured by GDP per worker, was broadly unchanged (Figure 121). It also fell relative to the overall productivity level in the economy and the gap with manufacturing productivity increased. In 2002 labor productivity in services was 24 percent higher than that of the whole economy (53 percent of the level in manufacturing), falling to 8 percent higher in 2009 (41 percent of manufacturing). While labor productivity is a relatively crude measure of a sector's productivity, as it does not take into account variations across sectors in other inputs such as capital and materials, these trends appear notable.

**Figure 121. Labor productivity growth in services has been weak in recent years…**

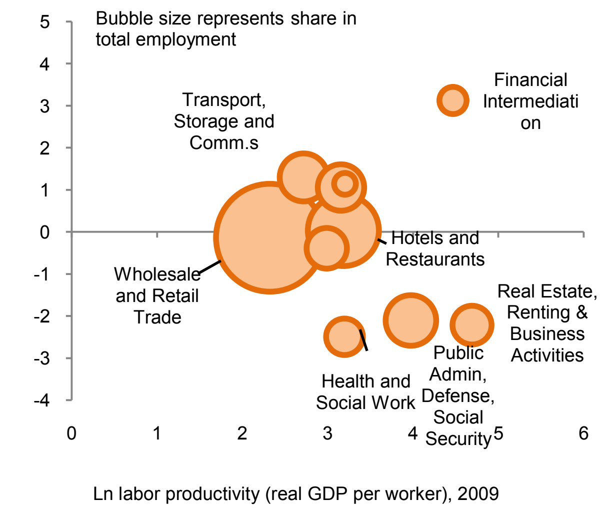
Average annual growth in real GDP per worker, 2002-2009, percent




Source: CEIC, Haver Analytics and World Bank staff calculations.
Note: Real GDP in 1988 prices (sa). Growth in real GDP per worker calculated using ln difference.

**Figure 122. … but with marked divergence in performance across service sub-sectors**

Average annual growth in real GDP per worker, 2002-2009, percent




Source: CEIC, Haver Analytics and World Bank staff calculations.
Note: Real GDP in 1988 prices (sa). Growth in real GDP per worker calculated using ln difference.

**Within services sub-sectors the dispersion in productivity levels and growth rates is significant** (Figure 122). The largest service sub-sector by GDP and employment share, namely wholesale and retail trade (Table 16), showed little productivity change over 2002-2009. The labor productivity in wholesale and retail trade in 2009 was less than one quarter of that of financial intermediation. Along with real estate, financial intermediation was one sector with relatively high initial productivity which showed strong employment growth over 2002-09. However, on the whole the relationship between initial log productivity and employment growth has not been tight (with a correlation between the two of around 55 percent).

**Table 16. Share of services has declined slightly in Thailand, in contrast with upward regional trend**

| | GDP | | Employment | |
|---|---|---|---|---|
| | Share of total, 2009 | Growth rate 2002-2009 | Share of total, 2009 | Growth rate 2002-2009 |
| Wholesale and Retail Trade | 13.73% | 3.14% | 16.08% | 3.31% |
| Hotels and Restaurants | 3.75% | 4.16% | 6.99% | 4.12% |
| Transport, Storage and Communications | 9.87% | 3.89% | 3.20% | 2.32% |
| Financial Intermediation | 3.91% | 10.60% | 1.01% | 5.71% |
| Real Estate, Renting & Business Activities | 3.94% | 4.42% | 2.09% | 7.56% |
| Public Admin, Defense, Social Security | 2.94% | 2.76% | 3.54% | 5.46% |
| Education | 2.57% | 3.93% | 2.97% | 2.63% |
| Health and Social Work | 1.30% | 3.50% | 1.84% | 6.90% |
| Other Community/ Social/ Personal Service Activities | 1.96% | 4.49% | 2.25% | 5.01% |
| Private HH with Employed Persons | 0.09% | 1.59% | 0.65% | 0.38% |
| *Memo:* | | | | |
| Services | 44.06% | 4.08% | 40.70% | 3.90% |
| Manufacturing | 39.04% | 5.68% | 14.96% | 1.07% |

Source: CEIC, Haver Analytics and World Bank staff calculations.

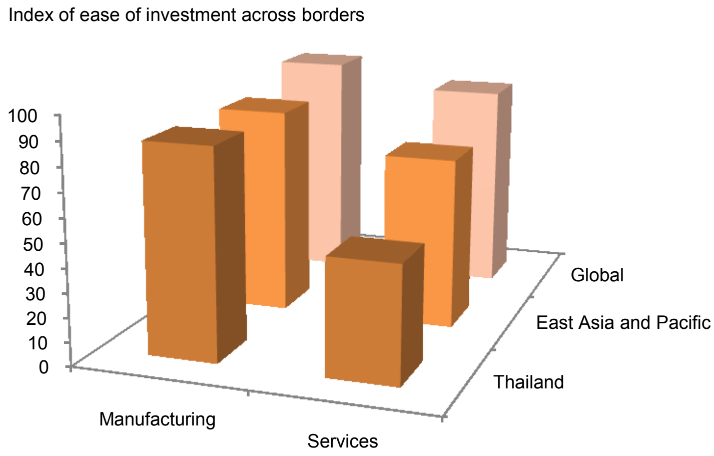
**Country-specific factors, such as demographics or income levels, can account for much of the dispersion in service sector activity across countries.** Thus, in of itself, a relatively low share of employment or activity in services may not reflect constraints on its development. But, the increasing share of employment in services in Thailand has been accompanied by weak productivity performance. This may raise concerns for the inclusivity of growth—productivity improvements are the underlying driver of real wages for the rising share of the labor force employed in services. Weak productivity performance in services can also pose as a drag on the performance of other sectors, such as manufacturing, which use services as intermediate inputs.

**Weak productivity performance may also be linked to barriers to innovation specific to the services sectors in Thailand.** The lack of competition in Thailand's services sector appears to be an important barrier to innovation: anecdotal evidence suggests that firms would rather defend their status quo status than innovate. Entry into many services sectors is protected by the Foreign Business Services Act and therefore the incumbent firms do not have strong incentives to innovate. The liberalization of services trade is an ongoing agenda. One anchor for this process is, for example, Thailand's regional commitments under the ASEAN 1995 Framework Agreement on Trade in Services and the ASEAN Economic Community Blueprint signed in 2007. This blueprint includes a range of actions on services trade liberalization, including to substantially removing all restrictions on trade in services by 2015.[41] Recent survey evidence suggests that sizeable restrictions remain on the various modes of services trade provision both for Thailand and other regional economies (see, for example, Dee, 2010 on health and

[41] See http://www.aseansec.org/publications/AFAS-2009.pdf

financial services and the restrictions on foreign equity investment in services documented in the Investing Across Borders analysis of the IFC, Figure 123).[42]

**Figure 123. Although investing in manufacturing is easy, services sectors in Thailand are more protected compared to the East Asian and global averages.**




Source:IFC Investing Across Borders, 2010
Note: Higher indices indicate greater openness to foreign investment.

**Services sectors are important for innovation and productivity growth, especially when they develop alongside the manufacturing production networks.** This is because services, such as telecommunications and education, facilitate transmission of information and knowledge. Lack of competition in the services sectors therefore constrains the competitiveness of Thai manufacturers who are competing globally. It also limits the attractiveness of the country for MNCs considering moving higher value-added tasks to Thailand.

[42] Philippa Dee (2010), "Services Liberalization toward the ASEAN Economic Community", ERIA Research Project 2009 No. 3, Tracing the Progress toward the ASEAN Economic Community, http://www.eria.org/research/y2009-no3.html.

# Appendix 1: Key Indicators Table

| | 2008 | 2009 | 2009 | | 2010 | | 2010 | |
|---|---|---|---|---|---|---|---|---|
| | Year | Year | Q4 | Q1 | Q2 | Q3 | Aug | Sep |
| **Output, Employment and Prices** | | | | | | | | |
| GDP (% change, previous year) | 2.5 | -2.3 | 5.9 | 12.0 | 9.2 | 6.7 | .. | .. |
| Industrial production index (2000=100) | 178.9 | 166.1 | 185.2 | 191.8 | 186.4 | 191.8 | 183.7 | 201.5 |
| *(% change, previous year)* | *3.9* | *-7.2* | *11.6* | *31.2* | *17.6* | *9.8* | *8.4* | *8.1* |
| Unemployment rate (%) | 1.4 | 1.5 | 1.0 | 1.1 | 1.3 | 0.9 | 0.9 | 0.9 |
| Real wage growth (%) 1/ | 4.8 | -1.6 | -2.1 | -0.6 | 2.8 | 4.1 | .. | .. |
| Consumer price index (% change, previous year) | 5.5 | -0.8 | 1.9 | 3.7 | 3.2 | 3.3 | 3.3 | 3.0 |
| **Public Sector** | | | | | | | | |
| Government balance (% GDP) 2/ | -1.9 | -3.8 | -7.3 | -5.7 | 6.4 | 2.7 | .. | .. |
| Public sector debt (% GDP, end-period) 3/ | 38.2 | 43.9 | 43.9 | 43.9 | 43.4 | 42.6 | 42.4 | 42.1 |
| **Foreign Trade, BOP and External Debt** | | | | | | | | |
| Trade balance (USD million) | -0.4 | 19.4 | 2.6 | 2.1 | 4.6 | 3.3 | 0.9 | 3.2 |
| Exports of goods (fob, USD million) | 175.2 | 150.7 | 42.8 | 44.0 | 48.1 | 49.7 | 16.3 | 18.0 |
| *(% change, previous year)* | *15.9* | *-14.0* | *12.0* | *32.1* | *41.8* | *22.2* | *23.6* | *21.8* |
| Key exports: Machinery & mach. appliances (% chg in USD) | 7.6 | -15.2 | 12.8 | 57.5 | 27.2 | 21.4 | 25.2 | 11.9 |
| Imports of goods (cif, USD million) | 175.6 | 131.4 | 40.2 | 41.8 | 43.5 | 46.4 | 15.4 | 14.7 |
| *(% change, previous year)* | *26.8* | *-25.2* | *1.5* | *63.6* | *44.8* | *30.7* | *49.7* | *41.1* |
| Current account balance (USD million) | 2.2 | 21.9 | 4.6 | 5.7 | 1.7 | 2.0 | 0.3 | 2.8 |
| *(% GDP)* | *0.8* | *8.3* | *6.4* | *7.3* | *2.2* | *2.6* | .. | .. |
| Foreign direct investment, net (USD million) 4/ | 7.5 | 4.5 | 1.5 | 1.5 | 0.7 | 1.7 | 0.7 | 0.5 |
| Total external debt (USD million) 5/ | 65.2 | 69.5 | 69.5 | 73.7 | 81.1 | .. | .. | .. |
| *(% GDP)* | *24.0* | *26.4* | *24.1* | *23.7* | *26.6* | .. | .. | .. |
| Short-term external debt (USD million) 5/ | 24.2 | 27.4 | 27.4 | 30.0 | 37.2 | .. | .. | .. |
| Debt service ratio (% exports of goods and services) 6/ | 7.1 | 6.7 | 6.1 | 5.2 | 5.5 | .. | .. | .. |
| Reserves, including gold (USD million) | 111.0 | 138.4 | 138.4 | 144.1 | 146.8 | 163.2 | 155.2 | 163.2 |
| (months of imports of goods) | 7.9 | 13.2 | 8.9 | 9.0 | 8.7 | 9.2 | 10.0 | 10.5 |

| | 2008 | 2009 | 2009 | | 2010 | | 2010 | |
|---|---|---|---|---|---|---|---|---|
| | Year | Year | Q4 | Q1 | Q2 | Q3 | Aug | Sep |
| **Financial Markets** | | | | | | | | |
| Domestic credit (% change, previous year) 6/ | 9.3 | 3.1 | 3.1 | 6.0 | 8.5 | 10.8 | 9.8 | 10.8 |
| Short-term interest rate (average period) 7/ | 3.40 | 1.35 | 1.25 | 1.25 | 1.25 | 1.67 | 1.75 | 1.75 |
| Exchange rate (average period) | 33.4 | 34.3 | 33.3 | 32.9 | 32.4 | 31.9 | 31.7 | 31.2 |
| Real effective exchange rate (2000=100, + = appn) 8/ | 112.8 | 108.8 | 107.8 | 111.1 | 115.0 | 115.0 | 114.6 | 116.3 |
| *(% change, previous year)* | *0.5* | *-3.6* | *-1.9* | *1.6* | *4.9* | *6.1* | *2.6* | *5.1* |
| Stock market index (SET), end of period | 450 | 735 | 735 | 759 | 797 | 979 | 913 | 979 |
| ***Memo Items:*** | | | | | | | | |
| Nominal GDP (Billion baht) | 272.2 | 263.4 | 72.0 | 77.8 | 76.3 | 78.0 | .. | .. |
| Nominal GDP (Billion USD) | 9,080.5 | 9,041.6 | 2,399.5 | 2,560.1 | 2,471.4 | 2,492.6 | .. | .. |
| Real per capita GNI (constant 2000 USD) | 3,084.8 | 2,895.8 | .. | .. | .. | .. | .. | .. |

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***<br>• **The Royal Thai Government announced to launch the Thailand Reform Plan.** On October 19, 2010, The Royal Thai Government determined the strategy "reform Thailand for the future of equality and fairness of Thai people," excluding in four aspects: 1) Creating an equal and fair economy, 2) Improving the people's quality of life and expanding the coverage of social welfare, 3) Reforming judiciary process and social justice, and 4) Developing people and children for long-term future. The government aims to promote this reform as a paradigm shift of the Thai's economic and social structure. |

Prepared by Piriya Pholphirul.

## 2. Financial and Corporate Sectors Reforms

| | Objective | Reform Measures Taken |
|---|---|---|
| A. | Enable sharing of credit information among financial institutions | ***Measure to be taken in the next 6-12 months***<br>• **A national credit-scoring system is planned.** The National Credit Bureau (NCB) launches the Consumer Credit Scoring and Bureau Statistic Report in 2010. In addition, the NCB also plans to test-run the Commercial Credit Scoring for 10 months before the official launch in 2011.<br>***Measure to be taken, but delayed***<br>• **The Government's plan on submission of credit information by insurance firms will be reconsidered again when the time is appropriate.** The decision on whether insurance companies are required to report their 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***<br>• **Measures to promote capital outflow in order to tame the baht.** Ministry of Finance introduced 5 measures to promote foreign investment and capital outflow; allowing juristic persons to invest in or lend to other companies within a group with no limit, allowing juristic persons to lend to non-group companies up to a limit of USD 50 million per year, raising the maximum for foreign property investment to USD 10 million a year from USD 5 million, increasing the maximum for foreign currency deposits held by Thai companies and individuals with no underlying transactions to USD 500,000, and increasing the minimum amount requiring mandatory repatriation of export earning to USD 50,000 from USD 20,000. On top of these five measures, Bank of Thailand (BOT) allow exporters to transfer foreign currency deposits to Thai counterparties for payment of goods or services and also increase the foreign exchange transaction threshold requiring BOT approval from USD 20,000 to USD 50,000. Latest relaxation has helped business flexibly manage their foreign exchange risk.<br>• **The Financial Sector Master Plan (FSMP) Phase II is implemented as planned**. On November 4, 2009 the Economic Cabinet approved the second phase of the FSMP. The plan aims in setting the goals and strategic direction for continuous development of financial sector. The master plan is implemented during 2010 – 2014.<br>• **Three strategies listed in the Specialized Financial Institutions Master plan.** Under the plan presented to the cabinet in September 2010, the Ministry of Finance (MOF) sets a policy and direction to develop the Specialized Financial Institutions (SFIs). Acting as Government's mechanism in fulfilling a financial gap, existing eight SFIs operate in various sectors of the economy, including agriculture, housing, SME sector, export-import sector and saving. The proposed plan consists of 3 strategies; (1) develop the role of SFIs to efficiently fulfill the gaps within the financial system, (2) develop an efficient supervision and assessment mechanism and (3) develop infrastructure of SFIs including IT, risk management, human resources and legal.<br>• **Insurance industry continues to develop after the completion of Insurance Development Plan 1.** The Office of Insurance Commission set up the sub-committee to draft the 5 years Insurance Development Plan Volume 2 (2010 – 2014). The plan aims to develop insurance business to meet the international standards and to promote competitions. Four main measures in this plan are (1) build confidence and awareness of insurance industry and also increase accessibility, (2) promote stability in insurance industry, (3) improve service standard and insurance coverage and (4) improve infrastructure in insurance industry. |

| | Objective | Reform Measures Taken |
|---|---|---|
| C. | Transition from the current blanket government guarantee on deposits to a limited deposit insurance | ***Measure to be taken, but delayed***<br>• **Blanket guarantee on customer deposit is extended until 2011.** The deposit protection will be limited to THB 50 million and THB 1 million per person per financial institution on 11 August 2011 and 2012 respectively. |
| D. | Remove legal impediments and provide a favorable enabling environment. | ***Measure taken over last 6 months and significance***<br>• **Relaxation on foreign currency bond.** The Securities Exchange Commission (SEC) allowed Thai and foreign juristic persons to issue foreign currency bonds for sale to retail and non-retail investors in the local market. The relaxation will increase project varieties and investment alternative for Thai investors whose current choices are limited to foreign currency bonds issued abroad.<br>• **Primary listing of foreign firms in Stock Exchange of Thailand (SET).** The SEC Board approved the policy to allow foreign companies that have never been listed on any stock market to offer securities for sale in Thailand and have them listed on the SET (primary listing). The criteria for approval are as follow: (1) foreign issuer must be an entity established in the jurisdictions whose standards of laws and regulations are recognized in the areas of investor protection, corporate governance and enforcement, and their regulatory agencies must have bilateral agreements on enforcement cooperation and exchange of information or mutual legal assistance treaty to enforce international criminal cases, (2) foreign issuer must be a sizable company (large market capitalization) but approval may be extended to a smaller company with its government as a major shareholder and supervised by the state regulator, or a joint venture with Thai companies and (3) the size of cross border fund mobilization is subject to the BOT's offshore investment quota. |
| E. | Development the domestic financial markets, including bond, capital, and money markets | ***Measures taken over last 6 months and significance***<br>• **Establishment of Thai ETFs on foreign ETFs.** The Capital Market Supervisory Board approved the principle for establishment of Thai Exchange Traded Fund (ETF) that feed their investments in foreign ETF (Thai ETFs on foreign ETFs). The investible foreign ETFs must track widely accepted securities indices or commodity group indices and must be managed with passive investment strategies and traded in the markets of World Federation of Exchanges' members.<br>• **Introduction of Gold ETF.** The Capital Market Supervisory Board approved in principle the establishment of Gold ETF with an aim to provide more investment alternatives for Thai investors. Gold ETF will be available in two types; (1) Gold ETF which is a feeder fund investing in overseas mutual funds that invest in gold, in which case the central bank's permission for offshore investment quota is required and (2) Gold ETF that invests directly in domestic gold bullions, in which case gold quality assurers and qualified safe keepers of gold are required to ensure gold quality standard and safety.<br>• **Gold futures traded in TFEX.** In addition to the existing 50-baht-weight gold futures, the Thailand Futures Exchange PCL (TFEX) officially launched its 10-baht-weight (151.6 gram) gold futures on August 2, 2010. The smaller contracts with a relatively low margin structure are expected to attract many retail investors seeking to diversify their investment portfolio.<br>• **The first interest rate futures in TFEX.** TFEX starts trading 5-year bond futures on October 18, 2010 with 5-year Thai Government Bond with 5% semi-annual coupon as an underlying asset. With contract size of THB 1 million, clearing will be in cash, with no delivery of actual bonds. These instruments aid investors and businesses in managing interest rate risk. Both futures will be settled in cash. Besides, the TFEX plan to introduce 6-month THBFIX futures |

| | Objective | Reform Measures Taken |
|---|---|---|
| | | and 3-month BIBOR futures in late November.<br>• **The Capital Market Development Master Plan (CMDMP) implemented as planned.** The Capital Market Development Master Plan (2010-2014) has been implemented and planned to be completed in 2014. The goal is to perform the key functions efficiently in order to increase overall competitiveness of Thai capital market.<br><br>***Measures to be taken in the next 6-12 months***<br>• **The SEC Strategic Plan 2010 will be implemented which is in line with the objective of the CMDMP.** In December 2009, the SEC announced the SEC Strategic Plan 2010 which emphasizes five measures to strengthen competitiveness of the Thai capital market, enhance investor accessibility to investment products and risk diversification tools, facilitate fund mobilization, and increase effectiveness of market supervision and enforcement. The five measures are; 1) integration with foreign markets, 2) promoting competition/abolishing monopoly, 3) facilitating product innovation, 4) increasing effectiveness of market supervision and enforcement and 5) promoting investor education.<br>• **Sukuk is one of the financial innovations under the CMDMP to offer variety of investment choices and fund-raising alternatives based on Shariah Law (Islamic Law).** The SEC Board has approved in principle the introduction of Sukuk. The SEC is drafting relevant regulations expected to come into force in 2010. The regulations for issuance and offering of Sukuk and information disclosure will be in line with those of conventional bonds as both products have similar characteristics.<br>• **Steel Sector listing under Industrials Group.** The SET has created the Steel Sector under the Industrials Industry Group to reflect the importance of listed companies in the steel business. The SET will move 27 listed companies to this new Sector, starting on January 4, 2011. Sixteen companies are from the Industrials Sector and 11 companies from the Construction Sector. The change would allow easier data comparison for investors and reflect the significance of steel companies as they are supporting infrastructure development. |
| F. | Government effort to promote transparency and good corporate governance | ***Measure to be taken in the next 6-12 months***<br>• **A national credit-scoring system is planned.** The National Credit Bureau (NCB) launches the Consumer Credit Scoring and Bureau Statistic Report in 2010. In addition, the NCB also plans to test-run the Commercial Credit Scoring for 10 months before the official launch in 2011.<br><br>***Measure to be taken, but delayed***<br>• **The Government's plan on submission of credit information by insurance firms will be reconsidered again when the time is appropriate.** The decision on whether insurance companies are required to report their information of customers to the NCB has not yet been finalized. |

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***<br>• **National Broadband Policy**. The National Broadband Policy seeks to ensure adequate public access to ICT facilities at reasonable prices. Competition will be open and fair. The National Broadcasting and Telecommunications Commission is tasked to restore working groups represented by public sector and private sector to design operating plans, define key performance indicators, propose responsible agencies, and conduct progress report. The Policy plans to provide broadband services to at least 80 percent of total population by 2015 and at least 95 by percent 2020. In particular, schools at the tambon-level and local hospitals and health services centers should enjoy good access to broadband services by 2015. E-government services at the tambon-level should also available by 2015.<br>• **Establishing the Plastic Institute**. Thailand's plastics industry generates output value of over 220 billion baht and employs around 3.5 million workers. The Plastics Institute will be an independent agency that is responsible for driving the plastics industry. The strategy covers three pillars: technology and management, marketing, and database development. The short-term, five-year plan focuses on enhancing products, human resources, markets, and in-depth analysis with the budget of 720 million baht.<br>• **Tax incentives to promote more reading in Thailand**. Import duty for paper pulp has already been set at zero percent. Value-added tax for imported paper pulp is now also exempted. In addition, the government allows income tax deductions for individuals and corporations up to 200 percent of the value that individuals/corporations spent on books or other tools to promote reading that are given to academic institutions. The deduction would be 100 percent for the amount spent on libraries owned and managed by corporations themselves.<br>• **Pineapple Strategy (2010-2014)**. The strategy seeks to maintain Thailand's leading position as a producer and exporter of pineapples. Productivity target is set at six ton per rai by 2014, up from 3.9 ton per rai in 2008. Export value should rise to 30 billion baht. To achieve these objectives, the plan focus on searching suitable land pieces for growing pineapple, R&D, deepening production knowledge among farm workers, strengthening farmer institutes, enhancing linkages among farmers and institutions within the pineapple industry, and product processing.<br>• **Managing agricultural development in a more sustainable manner**. Proposed by NESDB, there will be a new committee that will draft an act on sustainable agricultural development, set up a fund to promote learning on alternative agriculture theory, and invite participation from all sectors. The concept of sustainable agricultural development emphasizes the balance among economic, societal, and environmental aspects of development.<br>• **Tax incentives to promote international movie production in Thailand.** This involves (i) 100-percent tax rebate for value-added tax, (ii) 15-20 percent rebates of other taxes, (iii) all taxes payable by foreign actors/actresses will be waived, and (iv) lower import duties on movie production equipments. In addition, the application form for temporary employment permit is simplified and reflects the nature of movie production industry.<br>• **Strategy on standard and safety of agricultural and food products (2010-2013).** A new committee will be set up whose overall objective is to enhance Thailand's food standards and safety. Targets include higher number of certified agricultural farms especially smaller-sized ones, food products that are more diverse and have higher value-added, and more effective market channels. The government will encourage farmers to follow Good Agricultural Practice. |

| | Objective | Reform Measures Taken |
|---|---|---|
| | | • **Tax incentives to promote the operation on regional operating headquarters in Thailand.** The incentives include (i) tax exemption on incomes generated by ROHs on services provided to businesses outside Thailand, (ii) a reduced ten-percent corporate income tax rate for incomes generated on services provided to businesses within Thailand, (iii) tax exemption on dividends gained from other subsidiary firms, and (iv) reduced individual income tax rate of ten percent for personnel employed by ROHs.<br>• **Development and operational plan for pig industry (2010-2014).** The plan mainly aims to enhance Thailand's pig product quality, ranging from pig farm management, quality control of feeds and other materials, carving, and transportation of live pigs and related products. Prevention and control of contagious animal diseases and environmental management are also key.<br>• **The Board of Investment introduced additional measures to further promote foreign investment in Thailand.** (i) Adding data center business as one of business types eligible for special promotion. The incentives include eight-year corporate income tax exemption and waiving of import duties on machinery, irrespective of location/zone. Examples of data centers are centers that host servers, large data processing machines, and telecommunication equipment. (ii) One Start One Stop Investment Center now offers a single point for all government services on starting a business. Applications for business registration, tax identification number, and employer number can be done in a single form, which tends to cut time required from 4 days to 90 minutes. In addition, the Industrial Estate Authority of Thailand desk in the one-stop center can now approve the hiring of foreign experts and technicians and their families. Previously, only advices were provided.<br>• **Memorandum of Understanding on agricultural cooperation between Thailand and South Africa**, to promote science, technological transfers, and trade on agriculture. A joint working group will be set up, which also works on agricultural biodiversity. The collaboration will be in forms of training, exchange of researchers and information, and technical assistance.<br>• **Collaboration agreement on science and technology between Thailand and Turkey.** The agreement defines the collaboration framework on joint research and development projects, as well as protection of intellectual property rights. The modalities of cooperation include meetings, exchange of information and researchers, exhibitions, and a new working committee.<br>• **The second joint operational plan between Thailand and France (2010-2014).** The plan covers various areas such as human rights, energy, sustainable development, climate change, trade and investment facilitation, and business networks (especially SMEs).<br>• **Memorandum of Understanding on tourism between Thailand and Bahrain**, to boost the number of tourists between the two countries. The MoU covers information exchange, exhibitions, media visits, investment in tourism sectors, and technical meetings. There will be new committees to mobilize these initiatives. |
| B. | Reform of legal and judicial regime | ***Measure taken over last 6 months and significance***<br>• No major reform measure taken. |

| | Objective | Reform Measures Taken |
|---|---|---|
| C. | Improve the skills and quality of labor | ***Measure taken over last 6 months and significance***<br>• **Community ICT learning centers.** Ministry of Information and Communication Technology will introduce 1,000 community ICT learning centers nationwide with the budget of 578 million baht for fiscal year 2011. These centers will enhance local residents' ability to gain information and knowledge through lifelong learning, and should reduce gap on accessing to ICT. National Telecommunication Committee will finance the cost of satellite connection for areas where internet access is not available.<br>• **Memorandum of Understanding on university education between Thailand and Malaysia**, to (i) introduce exchange programs for students, researchers, and faculty members, (ii) co-design curriculums, and (iii) allow credit transfers. The collaboration also includes joint academic seminars, meetings, and exhibitions.<br>• **Collaboration framework between Thailand and China on Chinese language teaching and learning in Thailand's higher education institutions.** The framework aims to upgrade Thai faculty members' ability to teach Chinese in higher education institutions. The collaboration will bring Chinese advisors to work with the Office of the Higher Education Commission to develop Chinese language textbooks and other multi-media learning tools. |
| D. | Reduce tariff to improve Thailand's competitiveness | ***Measure taken over last 6 months and significance***<br>• **Exemption of excise taxes on imported batteries.** Imported batteries that are used as a part or component of other export items, such as household electrical appliances, now enjoy zero percent excise tax rate. Previously, this was charged at 30 percent.<br>• **Cancellation of import duties on automotive parts.** The Cabinet approved the exemption of import duties on automotive parts that cannot be produced domestically and are used to manufacture export products. Examples include metal and iron items and seat belts. Duties for these items were previously charged between 5-10 percent. This tends to enhance export competitiveness of Thailand's vehicles and parts.<br>• **Import duty exemption on hybrid parts and components.** Parts and components used to produce hybrid electric vehicles are exempted for three years from October 2010 onwards. This includes among others gearing system, batteries, and electric converters. |
| E. | Promote Thai exports to new markets | ***Measure taken over last 6 months and significance***<br>• **Free trade agreements that involve Thailand demonstrated some progress in the past six months**. Unlike early 2010 when three trade agreements became effective (see below), there have been few major progresses in recent months. (i) In August 2010, the parliament approved negotiation framework with Peru to amend rules of origin signed in 2005. The next steps are discussion on remaining goods trade agreement, and negotiations on services trade and investment that has been on hold since late 2008. (ii) Negotiation framework on FTA between Thailand and India is also approved by the Cabinet. The framework covers ten areas such as goods trade, rules of origin, customs, technical obstacles to trade, services trade, and investment. (iii) Collaboration framework on trade between Thailand and Hong Kong, SAR China. The framework covers cooperation in the areas of goods and services trade and investment such as trade facilitation, logistics, and trade promotions. |

| | Objective | Reform Measures Taken |
|---|---|---|
| | | • **The three FTAs became effective in January 2010**: (i) The ASEAN-Australia-New Zealand FTA for most ASEAN countries (March 2010 for Thailand). Tariff rates under the normal track for the six ASEAN foundation members will be cancelled in 2013 for most products. (ii) ASEAN signed goods and services trade agreements with South Korea in February 2009 and on investment in June. Korea and Thailand will cancel around 90 and 80 of all tariff lines that are being traded, respectively. (v) The pact between ASEAN and India. The approach and scope for agreements on services trade and investment are under negotiations. |

Prepared by Vatcharin Sirimaneetham

## 4. Public Sector and Governance Reform[43]

| 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***<br>**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***<br>• **The Civil Service regulation draft on civil service's payroll is approved by the cabinet in August 16, 2010.** Prime Minister Abhisit Vejjajiva initiated the measure to attract and retain capable and decent civil servants in the government sector by allocating FY 2011 budget for remuneration increase. In this regards, the Civil Service Regulation has to be amended to support that measure. The importance of regulation amendment is to lift a ceiling of salary of senior management and senior advisor. Those who are senior management shall receive a salary of no more than THB 37,830 and those who are senior advisors shall receive a salary of no more than THB 67,560, except some career positions within these 2 groups who are allowed to receive salaries in according to the maximum salary standard. The new payroll is expected to be effective in April 1, 2011.<br><br>• **The Civil Service regulation draft on civil service's working extension beyond the age of 60 years is approved by the cabinet in August 16, 2010.** By Civil Service Act (2008), section 108 mandates Civil Service Commission (CSC) to announce the Civil Service Regulation on civil service's working extension beyond the age of 60 years. The importance of this draft regulation is to support the agencies that intended positions to extend have not been approved yet by the OCSC. Agencies shall prepare information by indicating positions and person in charge and then submit to either Ministerial or Departmental sub-committee of CSC for further consideration by June in that fiscal year. |
| 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***<br>• **MOU between the Ministry of Finance and the Bureau of Budget to balance the budget in the next 5 years was announced in August 2010.** The MOU demonstrates the government's determination to enhance fiscal discipline under the fiscal sustainability framework. Fiscal measures will be to cut expenditure, seek new sources of revenues and manage public debt to minimize burden on government budget in which the details of each measure are under preparation.<br><br>***Measures to be taken in the next 6-12 months***<br>• **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 preparation process, cash and asset management, and making the fiscal report publicly available. |

[43] 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 |
|---|---|---|
| D. | Improving governance in public sector through participation, accountability, and transparency | ***Measures taken over the last 6 months and their significance***<br>• **The cabinet agreed on the transparency and accountability measurement tool proposed by OCSC.** The tool shall be applied to the interested public agencies on voluntarily basis for the purpose of better human resource management in public service. OCSC in collaboration with NIDA (National Institution of Development and Public Administration) develop the transparency and accountability measurement tool in order to provide a basis standard on self evaluation to public agencies. The pilot project focuses only the service function and the tool was later on furthered developed to cover all functions in public services. The tool comprises of 2 main components, transparency standard and criteria on transparency key indicators.<br><br>The standard consists of 4 dimensions; (i) Policy/ executives and efforts/ initiatives of agencies in improving transparency within the organization; (ii) information disclosure to the public and this relates to internal audit and people participation; (iii) discretionary power of government officers and HR officers as well as to consider transparency risk management; and (iv) complaint mechanism that should assign responsible persons as well as to provide a clear rule/ regulation on steps taken in pursuing complaints.<br><br>• **A tripartite joint declaration on anti-corruption in public procurement is agreed upon amongst the Royal Thai Government, Thai Chamber of Commerce and the National Anti Corruption Commission (NACC) in November 2010.** All parties have recognized the importance of transparency and corruption free public procurement for promoting ethics, morality and integrity. The following agreements are jointly declared;<br><br>1. To promote by all means transparency, equity and corruption free public procurement processes in accordance with the principles of ethics, morality and integrity.<br>2. To enhance collaboration among the undersigned in fighting against practices leading to corruption in public procurement.<br>3. To make effort in expanding the anti-corruption impact on any form and any level of public procurement across the country. |

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***<br>• **The Cabinet, on October 26th, 2010, approved the budget to compensate household who are flood victims.** Proposed by the Ministry of Interior, the cabinet has agreed to pay 5,000 baht to each of the 500,000 to 600,000 households affected by the flood not less than 7 days. The Ministry of Finance was assigned to propose the method of disbursement on November 1st, 2010.<br>• **The Cabinet, on September 21st, 2010, approved an adjusted compensation to state-enterprise employees in the Metropolitan Electricity Authority.** Proposed by the Ministry of Interior, those state-enterprise employees under the Metropolitan Electricity Authority will receive higher compensation to case of work injury from 60 percent of current salary but not over 9,000 Baht to 60 percent of current salary without maximum threshold.<br>• **The cabinet, on September 14th, 2010, approved the budget to guarantee rice yield to farmers in the year 2010-2011.** The rice price will be guaranteed for the maximum of 15,300 Baht/Ton with an amount of not exceeding 25 tons per household.<br>• **The Cabinet, on August 10th, 2010, approved the measure to assist farmer who were affected by the outbreak of brown plant hoppers in 2009.** Proposed by the Bank for Agriculture and Agricultural Cooperatives (BAAC), the cabinet approved the extension of the loan repayment for 2 years with loan interest compensation to BAAC at the rate of 5 percent per year for loan taken before disaster. |
| 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***<br>• **The Cabinet, on October 26th, 2010, acknowledged and approved the response measures proposed by the Ministry of Labor to flood victims**. **P**roposed by the Ministry of Labor, response measures to flood victims will be 1) Survey need of labor who would like to participate the "Urgent Employment Program" who are affected by flood, 2) Launching 2 newly employment programs (i) Direct Home Service Career with around 75,000 target groups and (ii) Newly skill development program for labors who are unemployed due to flood with around 15,000 target groups.<br>• **The Cabinet, on September 14th, 2010, acknowledged and approved the Labor Relation Act.** Proposed by the Ministry of Labor, the cabinet acknowledged the consideration for the Labor Relations Act and the industrial conflict in which the Ministry of Industry and relevant agencies are a party involved. The Draft of the Labor Relation Act has already been scrutinized by the Council of State and to be forwarded to the coordinating committee of the National Assembly in order to be presented to the House of Representatives for consideration.<br>• **The Cabinet, on August 17th, 2010, passed the draft of Bill of Civil Service Commission to pay salary for civil servants.** Proposed by the Office of Civil Commission, the budget for fiscal year 2011 was approved to higher scale salary to government officials in order to increase motivation, and thus, to retain good and able personnel to work for civil service and to heighten income and life standard of government employees. |

| Objective | | Reform Measures Taken |
|---|---|---|
| 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***<br>• **The Cabinet, on October 12th, 2010, approved the amendment of the Disabled Persons Promotion and Development Life Quality Act to enhance right to disabled persons.** Proposed by the Ministry of Social Development and Human Security, the amendment aims to acknowledge disabled person 1) to know their basic right in order to access the benefits provided by the government, 2) to increase the role of the representatives of those disabled persons, 3) improve the capacity of the National Office for Employment of Persons with Disability (NEP), and 4) improve the efficiency of the Disabled Persons Promotion and Development Life Quality Welfare Fund. |

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