Enhancing Infrastructure Development for Thailand’s Future Growth

Thai - Chinese Business Forum 2015
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National Economic and Social Development Board of Thailand (NESDB)
Macro Economic View

Infrastructure Investment Plan
Transport Infrastructure Development Directions
Energy Infrastructure Development Directions
Overall: During the 1st Plan-2013, Thai economy grew by 6.1 percent annually on average. But the growth rate slows down and becomes more volatile over time.

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP (CVM %)</th>
<th>Total investment (CVM %)</th>
<th>Private (CVM %)</th>
<th>Public (CVM %)</th>
<th>Private consumption (CVM %)</th>
<th>Government expenditure (CVM %)</th>
<th>Export value (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991-1996</td>
<td>7.9</td>
<td>9.6</td>
<td>7.4</td>
<td>18.5</td>
<td>7.8</td>
<td>8.7</td>
<td>9.2</td>
</tr>
<tr>
<td>1997-2001</td>
<td>0.4</td>
<td>-13.1</td>
<td>-13.9</td>
<td>-7.8</td>
<td>1.1</td>
<td>3.3</td>
<td>8.7</td>
</tr>
<tr>
<td>2002-2006</td>
<td>5.8</td>
<td>10.3</td>
<td>10.3</td>
<td>3.6</td>
<td>5.6</td>
<td>4.5</td>
<td>8.6</td>
</tr>
<tr>
<td>2007-2011</td>
<td>3.0</td>
<td>1.9</td>
<td>1.9</td>
<td>-0.8</td>
<td>1.9</td>
<td>7.3</td>
<td>5.3</td>
</tr>
<tr>
<td>2012-2014</td>
<td>3.7</td>
<td>2.3</td>
<td>2.3</td>
<td>0.4</td>
<td>2.6</td>
<td>4.6</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Source: NESDB
The Thai economy in 2014 grew only by 0.9 percent.

- Global economic slowdown
- Export price decline (Rice -25.8% Rubber -26.3%)
- Relative cost between regions and exchange rate change
- Export value declined by 0.3 percent

Impact from political situations on
- Tourism sector (From 26.5 to 24.8 mil)
- Household & business confidences
- Investment promotion
- Budget disbursement

- Decline in Agricultural prices
- Low income from export

- Readjustment of domestic car market as the impulses from FTCBS faded out (From 1.29 Mil to 0.78 Mil units)
Nevertheless the economy started to recover in Q2 of 2014.

Thai economy in Q3-Q4 of 2014

Private consumption and private investment expanded.

Industrial and tourism sectors started to grow.

Source: National Accounts

Thai economy in Q1-Q3 of 2015

Export of services and public investment showed robust growths. Private and public consumption expenditure continued to grow.

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Industrial and tourism sectors started to grow.

Source: National Accounts

Export of services and public investment showed robust growths. Private and public consumption expenditure continued to grow.

Source: National Accounts

GDP Growth (%)

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td>GDP (%YoY)</td>
<td>0.9</td>
<td>-0.4</td>
<td>0.9</td>
</tr>
<tr>
<td>GDP (%QoQ sa)</td>
<td>-</td>
<td>-0.7</td>
<td>0.7</td>
</tr>
</tbody>
</table>
Global economy in Q3 of 2015 faced more constrains that led economy and export in many countries slowed down. However, Thai economy expanded well, following higher public disbursement and strong tourist growth.

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP growth (%YoY)</th>
<th>Export growth (%YoY)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td>USA</td>
<td>2.7</td>
<td>2.0</td>
</tr>
<tr>
<td>China</td>
<td>7.0</td>
<td>6.9</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>2.8</td>
<td>2.3</td>
</tr>
<tr>
<td>India</td>
<td>7.0</td>
<td>n.a.</td>
</tr>
<tr>
<td>Indonesia</td>
<td>4.7</td>
<td>4.7</td>
</tr>
<tr>
<td>South Korea</td>
<td>2.2</td>
<td>2.6</td>
</tr>
<tr>
<td>Malaysia</td>
<td>4.9</td>
<td>4.7</td>
</tr>
<tr>
<td>Philippines</td>
<td>5.6</td>
<td>n.a.</td>
</tr>
<tr>
<td>Singapore</td>
<td>2.0</td>
<td>1.4</td>
</tr>
<tr>
<td>Taiwan</td>
<td>0.5</td>
<td>-1.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>2.8</td>
<td>2.9</td>
</tr>
<tr>
<td>Vietnam</td>
<td>6.4</td>
<td>6.8</td>
</tr>
</tbody>
</table>

Source: CEIC, Collected by NESDB
Thai economic outlook for 2015 – 2016

- Thai economy in 2015 is expected to expand by 2.9 percent, improving from 0.9 percent in 2014.
- Thai economy in 2016 is forecasted to grow by 3.0 – 4.0 percent, driven mainly by private consumption and public investment as well as a pick up in exports following a global recovery. Headline inflation is expected to lie between 1.0 – 2.0 percent. Current account balance will be in a surplus of 5.7 percent of GDP.

### Economic Projection for 2015 (Nov 17, 2015)

<table>
<thead>
<tr>
<th>Key Indicators</th>
<th>2013</th>
<th>2014</th>
<th>Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>2015</td>
</tr>
<tr>
<td>GDP (CVM %)</td>
<td>2.8</td>
<td>0.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Investment (CVM %)</td>
<td>-0.8</td>
<td>-2.6</td>
<td>4.6</td>
</tr>
<tr>
<td>- Private (CVM %)</td>
<td>-0.8</td>
<td>-2.0</td>
<td>-1.3</td>
</tr>
<tr>
<td>- Public (CVM %)</td>
<td>-1.0</td>
<td>-4.9</td>
<td>22.6</td>
</tr>
<tr>
<td>Private consumption (CVM %)</td>
<td>0.8</td>
<td>0.6</td>
<td>2.0</td>
</tr>
<tr>
<td>Public consumption (CVM %)</td>
<td>4.7</td>
<td>1.7</td>
<td>2.7</td>
</tr>
<tr>
<td>Exports of goods (%)</td>
<td>-0.1</td>
<td>-0.3</td>
<td>-5.0</td>
</tr>
<tr>
<td>Imports of goods (%)</td>
<td>-0.2</td>
<td>-8.5</td>
<td>-9.8</td>
</tr>
<tr>
<td>Inflation (%)</td>
<td>2.2</td>
<td>1.9</td>
<td>-0.8</td>
</tr>
<tr>
<td>Current account to GDP (%)</td>
<td>-0.8</td>
<td>3.3</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Source: NESDB, released on 17th November 2015
Macro Economic View

Infrastructure Investment Plan
Transport Infrastructure Development Directions
Energy Infrastructure Development Directions
Thailand's Transport Infrastructure Development Master Plan (2015 – 2022)

The new transportation development strategies (2015-2022) consists of 5 key programs, aiming to reduce cost of logistics and transportation, which in turn improve the competitiveness of the economy.

1. Inter-city rail network
   - Upgrade rail infrastructure and overall system
   - Build double-track in 6 main rails with their extension to respective borders

2. Capacity enhancement for highway network to link with key areas in the country and with neighboring countries
   - Develop 4 lane-road networks linking Thailand’s key economic regions and borders areas
   - Construct new motor ways
   - Develop facilities along the main roads such as container yards

3. Public transportation network development plan for Bangkok Metropolitan Region
   - Extend mass transit railway system in Bangkok and vicinity
   - Procure 3,183 NGV buses
   - Improve quality of service and safety of mass transit bus as well as to enhance its environment standard

4. Air transport capacity enhancement
   - Improve seaport on both Thai gulf and Andaman sea
   - Enhance capacity of airports to be the regional center of air transportation
   - Establish the aviation industrial estates

5. Maritime transport development

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- Road network
- Railway
- Mass Transit in BKK & vicinity
- Water and Air transport
Thailand's Infrastructure Development Master Plan (2015 – 2022): Investment Budget

The Master Plan has the total investment budget of 3.38 TB, with 1.796 TB allocation towards the Action Plan for 2016 (53 percent of the total investment budget)

Note: * Investment budget for double track rail projects excludes the investment budget of the standard gauge rail projects.

** Investment budget for air transpiration excludes the development of Suvarnabhumi Airport, but includes that of U Tapao Airport.
Key Transportation Projects Ready for Bidding in 2015-2016

<table>
<thead>
<tr>
<th>No.</th>
<th>Project Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dual-track rail: Jira – Khon Kaen</td>
</tr>
<tr>
<td>2</td>
<td>Intercity Motorway: Pattaya – Map Ta Phut</td>
</tr>
<tr>
<td>3</td>
<td>Intercity Motorway: Bang Pa In – Saraburi – NakhonRatchasima</td>
</tr>
<tr>
<td>4</td>
<td>Coastal port (Port A) at Laem Chabang Port</td>
</tr>
<tr>
<td>5</td>
<td>Container Depot at Laem Chabang: Stage I</td>
</tr>
<tr>
<td>6</td>
<td>Suvarnabhumi Airport: Stage II</td>
</tr>
</tbody>
</table>

- **186,307 Million baht**
  - 6 Projects bidding in Q4 2015 – Q1 2016
  - Meter gauge (1 meter) Rail Development in 4 routes
    - Mab Kabao – Jira
    - Nakhon Pathom – Huahin
    - Prachuab – Chumporn
    - Lopburi – Pak Nam Pho
  - Standard Gauge (1.435 meter) Rail Development in 4 routes
    - Nong Kai – Khon Kaen - Nakhon Ratchasima - Kaeng Khoi - Chachoengsao-Si Racha - Map Ta Phut
    - Bangkok - Phitsanulok – Chiang Mai
    - Bangkok – Hua Hin
    - Bangkok – Rayong
  - Mass Rapid Transit Development in 5 routes
    - Orange Line: Thailand Cultural Centre - Minburi
    - Pink Line: Khao Rai - Minburi
    - Yellow Line: Lat Phrao - Samrong
    - Light Red Line: Bang Sue - Phaya Thai – Makkasan - Hua Mak and Dark Red Line: Bang Sue - Hualampong
    - Purple Line: Tao Pun - Rat Burana

- **1,610,078 Million baht**
  - 14 Projects bidding in 2016
  - Intercity Motorway: Bang Yai-Ban Pong-Kanchanaburi
Thailand’s Key Activities to Support Regional Integration

**Corridor Network**

- Thailand acts as active development partner (470 million USD assistance)
- Fulfill missing links along corridors, especially in Myanmar
- Upgrade road standard to ASEAN class
- Promote road safety
- Cooperate with Mekong countries, aiming to achieve the first GMS railway link within 2020
- Establish Greater Mekong Railway Association in Thailand

**Regional Supply Chain and Production Base**

- Jointly develop Dawei SEZ with Myanmar
- Conduct border development plan with Cambodia
- Review a Master Plan Study for establishment of Special Economic zones in Key border towns in Thailand
Special Economic Zone Development in Thailand

Border SEZs
- Have potential for trade investment, produce connecting with neighboring countries-utilize AEC
- SEZ development improves the livelihood of people

Cluster-Based SEZs
- Focus on potential local economic activities + labor intensive industries and logistics
- Focus on future industry such as research and development, high technology industry, and industry with low labor-intensive activities.
- Link with key players from down stream to upstream producers, supporting industries, academic institutions, government agencies, private sector organizations, and local economies.

Other Potential Clusters
- Super Cluster
10 targeted areas for SEZs are located along the Economic Corridors and will be complementary with SEZs in neighboring countries.
13 Targeted Activities will be offered maximum incentives through BOI

- 8 year corporate income tax exemption,
- import duty exemption on machinery and raw materials,
- an additional 50 per cent reduction on corporate income tax for 5 years.
Cluster-Based SEZ Development: Super Cluster

For High Technology and Future Industry

First S-curve
- Next-Generation Automotive
- Smart Electronics
- Affluent, Medical and Wellness Tourism
- Agriculture and Biotechnology
- Food for the Future

New-S-curve
- Robotics
- Aviation and Logistics
- Biofuels and Biochemicals
- Digital
- Medical Hub

9 Provinces
- Ayutthaya
- Pathumthani
- Chonburi
- Rayong
- Chachoengsao
- Prachinburi
- Nakhonratchasima
- Chiangmai
- Phuket
Macro Economic View

Infrastructure Investment Plan

Transport Infrastructure Development Directions

Energy Infrastructure Development Directions

5 Objectives:
1. Supply security
2. Cost competitiveness
3. Environment
4. Sustainability of Policy
5. Socioeconomic support for the needed

5 Plans:

Power Development Plan (PDP)
- 15-20% REs
- 20-25% Coal
- 30-40% Gas

Gas Plan
- Curb demand
- LNG structure

Alternative Energy Development Plan (AEDP)
- Zoning
- Competitive bidding

Oil Plan
- 20% biofuels
- Subsidy change

Energy Efficiency Plan (EEP)
- 30% energy intensity reduction

Source: MOE
## Energy: PDP & AEDP 2015 - 2036

### Power Development Plan (PDP)

#### Fuel Proportion Target for Electricity Generation in PDP (%)

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>2014</th>
<th>PDP Target</th>
<th>In 2026</th>
<th>In 2036</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imported Hydro</td>
<td>7</td>
<td>10-15</td>
<td>15-20</td>
<td></td>
</tr>
<tr>
<td>Coal and its products</td>
<td>20</td>
<td>20-25</td>
<td>20-25</td>
<td></td>
</tr>
<tr>
<td>Renewable</td>
<td>8</td>
<td>10-20</td>
<td>15-20</td>
<td></td>
</tr>
<tr>
<td>Natural Gas</td>
<td>64</td>
<td>45-50</td>
<td>30-40</td>
<td></td>
</tr>
<tr>
<td>Nuclear</td>
<td>-</td>
<td>-</td>
<td>0-5</td>
<td></td>
</tr>
<tr>
<td>Diesel/ Fuel Oil</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

### Alternative Energy Development Plan (AEDP)

#### Target Electricity Generated by Renewable (MW)

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>2014</th>
<th>AEDP Target (In 2036)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste</td>
<td>66</td>
<td>550</td>
</tr>
<tr>
<td>Biomass</td>
<td>2,452</td>
<td>5,570</td>
</tr>
<tr>
<td>Biogas</td>
<td>312</td>
<td>600</td>
</tr>
<tr>
<td>Energy Crop</td>
<td>-</td>
<td>680</td>
</tr>
<tr>
<td>Small Hydro</td>
<td>110</td>
<td>376</td>
</tr>
<tr>
<td>Wind</td>
<td>220</td>
<td>3,002</td>
</tr>
<tr>
<td>Solar</td>
<td>1,570</td>
<td>6,000</td>
</tr>
</tbody>
</table>
NESDB’s Vision:

“Being the core planning agency responsible for strategy formulation towards balanced and sustainable development, upholding national interests, up-to-date with the latest changes and working with the highest efficiency”

Thank You

www.nesdb.go.th
BACK-UP
The direction of national development towards the middle path on foundations of the dynamic equilibrium of development and readiness to cope with potential changes.

**Goal**
- Economy/society/environment/culture in a balanced, stable and sustainable way

**Outcome**
- Immunity to materialism and social/environmental/cultural changes

**Means**
- The Middle Path
- Moderate
- Sufficiency
- Reasonableness
- Self-Immunity

**Input**
- Knowledge Condition (Prudent and appropriate knowledge)
- Integrity Condition (honesty, diligence, wisdom, sharing, perseverance)

**Sufficiency Economy Philosophy**
- “reasonableness” analyze country situation
- “moderation” decision-making to create a balance
- “self-immunity” built into economic systems
- “all-round knowledge”, moving forward with circumspection
- “integrity”, and morality in the conduct of duty
- “Perseverance” will build a self-immunity system
Various Application of Sufficiency Economy

- Utilized the “New Theory”
  - Guide students to a better understanding of Sufficiency Economy Philosophy through classroom curriculum and activities
- Business Sector
  - disseminating “Best Practices” of the philosophy’s application to inspire Thai people to apply it.
- Agriculture Sector
- Press and Media
  - Law and regulation lead to the principle for government to formulate policy and budget with the concern on effectiveness, reasonable cost, and response to people’s needs.
- Education Institution
- Political Institution
  - implements mega project with reasonableness and concern on risk management. Budget allocation is designed with the focus on balanced investment
- Public Sector

utilize resources efficiently with the concern on risk management ,human resource development, innovation, and create organizational culture (honesty, integrity, and knowledge sharing.)
Key components of GDP growth in the third quarter of 2015

**On the expenditure side:** export of services and public investment showed robust growths. Private and public consumption expenditure continued to grow, while export of goods still declined due to the global economic slowdown.

**On the production side:** hotel and restaurants and construction sectors expanded well. Other service sectors also grew at favorable rates. Moreover, the manufacturing sector started to grow after experiencing contraction in previous quarters. On the other hand, the agricultural sector was impacted by the drought and imposed constraint on growth.

### Expenditure (CVM)

<table>
<thead>
<tr>
<th>Unit: %</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year</td>
<td>H1</td>
</tr>
<tr>
<td>Private consumption</td>
<td>0.6</td>
<td>-1.0</td>
</tr>
<tr>
<td>Public consumption</td>
<td>1.7</td>
<td>2.5</td>
</tr>
<tr>
<td>Investment</td>
<td>-2.6</td>
<td>-7.9</td>
</tr>
<tr>
<td>- Private</td>
<td>-2.0</td>
<td>-7.2</td>
</tr>
<tr>
<td>- public</td>
<td>-4.9</td>
<td>-10.1</td>
</tr>
<tr>
<td>Exports</td>
<td>0.0</td>
<td>-0.3</td>
</tr>
<tr>
<td>- Goods</td>
<td>0.7</td>
<td>-1.6</td>
</tr>
<tr>
<td>- Services</td>
<td>-2.5</td>
<td>-5.4</td>
</tr>
<tr>
<td>Imports</td>
<td>-5.4</td>
<td>-9.9</td>
</tr>
<tr>
<td>- Goods</td>
<td>-6.8</td>
<td>-12.6</td>
</tr>
<tr>
<td>- Services</td>
<td>0.4</td>
<td>1.6</td>
</tr>
<tr>
<td>GDP</td>
<td>0.9</td>
<td>0.2</td>
</tr>
</tbody>
</table>

**Source:** NESDB

### Production (CVM)

<table>
<thead>
<tr>
<th>Unit: %</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year</td>
<td>H1</td>
</tr>
<tr>
<td>Agriculture</td>
<td>0.3</td>
<td>3.0</td>
</tr>
<tr>
<td>Non-agriculture</td>
<td>0.9</td>
<td>-0.2</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-0.4</td>
<td>-1.7</td>
</tr>
<tr>
<td>Electricity, Gas &amp; Water Supply</td>
<td>2.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Construction</td>
<td>-4.4</td>
<td>-7.6</td>
</tr>
<tr>
<td>Wholesale &amp; Retail Trade</td>
<td>0.7</td>
<td>-0.7</td>
</tr>
<tr>
<td>Hotels &amp; Restaurants</td>
<td>-2.9</td>
<td>-4.6</td>
</tr>
<tr>
<td>Transportation, Storage &amp; Communications</td>
<td>3.4</td>
<td>2.1</td>
</tr>
<tr>
<td>Financial Intermediation</td>
<td>6.6</td>
<td>6.4</td>
</tr>
</tbody>
</table>

**Source:** NESDB

**GDP:** 0.9 0.2 1.0 1.6 3.0 2.8 2.9 2.9
### Key macroeconomic development issues

1. Implementing monetary and fiscal policies to stabilize the economy and to support the economic growth and inclusive development

2. Accelerating the investment in both private and public sectors.

3. Developing in science, technology and innovation.

4. Restructuring the production sector including agricultural, manufacturing, and service sectors to strengthen the economic growth.

5. Developing the new manufacturing and service sectors to serve as new growth engines.

6. Strengthening the SMEs.

7. Developing new start-up entrepreneurs and smart farmers.

8. Improving the rules and regulation in order to facilitate on trade and to enhance economic efficiency.
Supporting factors for 2016

- **Acceleration in the disbursement of public expenditure budget**
  - Wider budget deficit under the FY2016 of 390 billion baht, from the FY2015 of 250 billion baht.
  - 6 infrastructure projects in 2015 (about 250 billion baht) and also 12 projects in 2016 (1.5 trillion baht).
  - Water resource management and road transport system project (about 77 billion baht).

- **Economic stimulus package phase III**
  - 6 key economic stimulus measures during Oct-Nov 2015 (Total value of 359 billion baht, loans of 270 billion baht, budget disbursement of 89 billion baht).
  - Loan program and budget were mostly apparent in 2015, the positive impacts will continue to foster the economic growth in 2016.

- **A gradual recovery of global economy and export prices**
  - In 2015, world economic growth is expected to expand by 3.0 percent, crude oil price : 52.5 USD/BBL, export price declined by 2.0 percent and export value contracted by 5.0 percent.
  - In 2016, World economic growth is expected to expand by 3.4 percent, crude oil price :50-60 USD/BBL export price will start to expand and will improve export value.

- **The depreciation of Thai Baht**
  - In H1/15, export value in Thai baht declined by 3.7 percent, slower than in US dollars which declined by 4.9 percent.
  - In Q3/15, export value in Thai baht increased by 4.6 percent due to baht depreciation, although export value in USD declined by 4.7 percent.
  - In 2016, Thai baht will continue to depreciate.
Supporting factors for 2016 (continued)

A gradual increase in the agricultural prices

- Agricultural price index was stabilized as growth rate in third quarter started to expand for the first time in 7 quarters.

- In 2016, agricultural prices tend to gradually expand following a moderate recovery in global economy and a gradual increase in crude oil price.

A gradual recovery of crude oil price but still remaining at the low level

- In 2015, crude oil prices stayed around 52.5 USD:BBL. In 2016, crude oil prices tend to stay 50-60 USD:BBL.

- Low oil price helps real purchasing power of household and business.

- It helps facilitate the implementation of accommodative monetary policy to support the economic recovery.

The expansion of the tourism sector

- Travel cost remains low as well as political situation will improve.

- Depreciation of Thai Baht reduces traveling cost in Thailand.

- Increase of long-haul tourists following the economic recovery of advanced economies.

- In 2016, Inbound tourists are expected to be 32.5 million people and generate income of 1.65 trillion baht, expanding 7.5 and 9.3 percent respectively.
Risk factors and limitations

- The slowdown of the Chinese economy and countries with weak economic fundamental
  - Chinese economy is expected to expand by 6.7 percent, lower than 6.9 percent in 2015, although Chinese economy might slow down a faster pace than expected.
  - Countries with weak fundamental, high external debts, sharp depreciation and highly dependence on primary commodity export.
  - Risk of higher dispute in Middle East.

- Depreciation of trade partners’ and competitors’ currencies
  - ECB tends to expand monetary base to reduce deflation risk.
  - BOJ tends to expand monetary base further for supporting economic growth.
  - Chinese RMB will be depreciated following the economic and financial liberalization policy, a decline in foreign reserves as well as the necessity of domestic liquidity management.

- The drought situation continues to be severe
  - The available water level was recorded at 4,247 million cubic, lower than 4,745 million cubic in previous year.
  - Risk of delay rain.
  - Agricultural base income tends to affect following the draught although agricultural prices tend to gradual expand.
### Economic Projection for 2015 - 2016 (As of 16th November 2015)

<table>
<thead>
<tr>
<th></th>
<th>Actual Data</th>
<th>Projection</th>
<th>17th August 2015</th>
<th>16th November 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013 2014</td>
<td>2015 2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP (at current prices: Bil. Bht)</td>
<td>12,910.0  13,148.6</td>
<td>13,407.7  13,451.0</td>
<td>14,123.6</td>
<td></td>
</tr>
<tr>
<td>GDP Growth (CVM, %)</td>
<td>2.8 0.9</td>
<td>2.7 – 3.2</td>
<td>2.9</td>
<td>3.0 - 4.0</td>
</tr>
<tr>
<td>GDP (at current prices: Bil. USD)</td>
<td>420.1  404.8</td>
<td>396.2  392.2</td>
<td>386.9</td>
<td></td>
</tr>
<tr>
<td>GDP per capita (USD per year)</td>
<td>6,293.0 6,041.1</td>
<td>5,892.6  5,832.6</td>
<td>5,736.4</td>
<td></td>
</tr>
<tr>
<td>Investment (CVM, %)</td>
<td>-0.8 -2.6</td>
<td>7.0  4.6</td>
<td>9.5</td>
<td></td>
</tr>
<tr>
<td>- Private (CVM, %)</td>
<td>-0.8 -2.0</td>
<td>1.8  -1.3</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td>- Public (CVM, %)</td>
<td>-1.0 -4.9</td>
<td>21.8  22.6</td>
<td>11.2</td>
<td></td>
</tr>
<tr>
<td>Private Consumption (CVM, %)</td>
<td>0.8 0.6</td>
<td>1.8  2.0</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>Public Consumption (CVM, %)</td>
<td>4.7 1.7</td>
<td>3.8  2.7</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>Export value of goods (%)</td>
<td>-0.1 -0.3</td>
<td>-3.5  -5.0</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Import value of goods (%)</td>
<td>-0.1 -8.5</td>
<td>-5.5  -9.8</td>
<td>5.4</td>
<td></td>
</tr>
<tr>
<td>Trade balance (Bill. USD)</td>
<td>6.7 24.6</td>
<td>27.7  33.0</td>
<td>29.6</td>
<td></td>
</tr>
<tr>
<td>Current Account balance (Bill. USD)</td>
<td>-5.2  15.4</td>
<td>18.8  24.9</td>
<td>22.2</td>
<td></td>
</tr>
<tr>
<td>Current Account to GDP (%)</td>
<td>-1.1 3.8</td>
<td>4.8  6.3</td>
<td>5.7</td>
<td></td>
</tr>
<tr>
<td>Inflation (%)</td>
<td>2.2 1.9</td>
<td>(-0.7) – (-0.2)</td>
<td>(-0.8)</td>
<td>1.0 – 2.0</td>
</tr>
</tbody>
</table>

Source: NESDB, As of 16th November 2015
A Road to Thailand’s development: Sustainable Development

- **Gold Era of Planning**
  - Plan 1 (1961-66)
  - Plan 2 (1967-71)
  - Plan 3 (1972-76)
  - Plan 4 (1977-81)
  - Plan 5 (1982-86)
  - Plan 6 (1987-91)
  - Plan 7 (1992-96)
  - Plan 8 (1997-2001)

- **Political Fluctuation**
  - crisis

- **Democracy Era**
  - Plan 9 (2002-06)
  - Plan 10 (2007-2011)
  - Plan 11 (2012-2016)

- **Paradigm Shift**
  - People Centred Development Paradigm
  - Participation Approach
  - Sufficiency Economy

- **Economic Growth and Infrastructure Development**
- **and the Beginning of Social Development**

- **Economic Growth Led Development**

- **Economic Stability and Social Development**

- **Community Plan**
Development Target during Plan 12

**Economic Development**

- **5.0%**

GNI per capita: 301,199 baht (8,859 USD)
GDP per capita: 317,051 baht (9,325 USD)

Plan 12’s Targets

<table>
<thead>
<tr>
<th>Needed Investment During Plan 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Private Investment</td>
</tr>
<tr>
<td>Public Investment</td>
</tr>
<tr>
<td>• Government</td>
</tr>
<tr>
<td>• SOEs</td>
</tr>
</tbody>
</table>

1. Export
   - >4.0%

2. Private Investment
   - 7.5%

3. Public Investment
   - 10.0%
Thailand’s Border SEZ Development Framework

Enhance regional cooperation + Lower disparities
+ Strengthen National Security

SEZ

The 1st phase SEZs are located in the border areas.

Designated Area
Incentive & Privilege
Migrant Labor
OSS
Infrastructure & Customs Checkpoint
Agricultural produce Center
<table>
<thead>
<tr>
<th><strong>Incentives &amp; Privileges</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BOI</strong></td>
</tr>
<tr>
<td><strong>Ministry of Finance</strong></td>
</tr>
<tr>
<td><strong>Customs</strong></td>
</tr>
<tr>
<td><strong>BOI-SMEs</strong></td>
</tr>
<tr>
<td><strong>IEAT</strong></td>
</tr>
</tbody>
</table>

* 13 target activities will get 8 year tax holiday, others will get +3

* for projects that are not included in BOI’s investment promotion list
Infrastructure & customs checkpoint are upgrading to better serve economic activities.

Key highlights

1. Development of Border Checkpoint
   - The development includes new customs checkpoint & immigration office, purchase of equipment for animal & phytosanitary inspection.

2. The 2nd bridge crossing Mei River
   - Ground breaking ceremony was held in August 2015.

3. Tak-Mae Sot Highway no. 12 section 3 is under construction
4. Section 4 receives 2016-budget allocation

5. Improvement of Mae Sot airport
   - Purchasing land for taxi-way expansion is underway.

6. Mae Sot industrial estate
   - F/S was completed. The construction will be finished before 2018.

7. Truck terminal
   - F/S is in process.
Cluster-Based SEZ Development: Other Potential Clusters

Ago-Processing Cluster
- Northern region (vegetable-processing, herbal product)
- Northeastern region (livestocks, casava, sugar cane, corn)
- Lower central region (sugar cane, pineapple, rubber)
- Eastern region (fruit processing, rubber)
- Southern region (palm, seafood processing, rubber)

Garment and Textile Cluster
- Western side: Linking with production bases in Myanmar
- Eastern side: Linking with production bases in Cambodia
- Bangkok: Center for Design, Sourcing, Trading
<table>
<thead>
<tr>
<th>Measures (according to Cabinet’s Resolution)</th>
<th>Key characteristic of measures</th>
<th>Amount (million baht)</th>
</tr>
</thead>
</table>
| Assistance measures for low-income earners and stimulus measures of small-scale public investment (1st Sep 15) | - To Grant loan to village fund, not exceed 1 million baht each  
- To Allocate budget to Tambon (Sub district), 5 million baht each  
- The procurement of government units. Each item must not more than 1 million baht. | 60,000 (loan)  
36,275 (budget)  
40,000 (budget) |
| Financial and fiscal urgent measures to encourage SMEs (8th Sep 15) | - To grant low-interest loan to SMEs to secure working capital  
- Streamlining rule and condition of Portfolio Guarantee Scheme, stage 5  
- Reduce corporate income tax rate for SMEs to 10 percent of net profit for two years.  
- Corporate income tax exemption for SMEs who apply for commercial registration between 1st Oct 2015 and 31st Dec 2016 (New Start-up) for years | 100,000 (loan)  
100,000 (guaranteed loan)  
-  
- |
| Financial and fiscal measures to stimulate property sector (13th Oct 15) | - To ease loan approval for low and medium income earners  
- Cut in housing and condominium transfer and mortgage fees to 0.01% of the value  
- Personal income tax exemption for expenses incurred for five years for real estate with building and land or condominium priced no more than three million baht | -  
-  
- |
| Tax measures to promote domestic investment (3rd Nov 15) | - A double corporate income tax deduction for expenses incurred on new investment (Enterprises can choose either this measure or speeding up investment measure) | - |
| Investment promotion stimulation measures by BOI (3rd Nov 15) | - Exemption of corporate income tax, from one to five years and 50% tax reduction for five years, depending on actual investment (excluding land and working capital) but not more than eight years for those approved for investment promotion. | - |
| Supporting measures for rubber farmers (3rd Nov 15) | - To provide rubber farmers 1,500 baht for up to 15 rai per household | 13,132.5 (budget)  
12,750 from BAAC  
382.5 budget for FY2016 |