Jointly Building the Belt and Road towards the Sustainable Development Goals – Thailand update

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Thailand update:

State of play: Thailand’s BRI projects

Macroeconomic accounting of BRI projects

Thailand’s BRI projects alongside SDGs and national strategies
Several projects are under way to improve Thailand’s connectivity

- **Cross-Border Economic Zone**

  - Thai Ministry of Commerce signed an MOU with the Mekong Institute.
  - 4 Chinese-funded projects will promote trade amongst Lancang-Mekong countries.

- **Bangkok - Nong Khai**

  - High-speed rail from Bangkok-Nong Khai
  - Dual track upgrade from Bangkok-Nong Khai

- **Laem Chabang-Qinzhou**

  - Thai and Chinese government MOU: aims to increase the frequency of freight traffic to every day.

- **Denchai-Chiang Khong**

  - Dual track construction, bidding expected in March 2019
  - Budget - 85 bn baht

- **Bang Yai-Kanchanaburi highway**

  - Motorway will potentially connect with Dawei Special Economic Zone in Myanmar
  - Budget - 49.1 bn baht

- **Thailand-Cambodia Railway**

  - Ban Klong Luk Border Station construction is nearly complete and expected to be operational in 2019.
High-speed rail and dual track upgrade may transform Bangkok-Nong Khai route

1) Bangkok-Nakhon Ratchasima (252 km)
   - Budget: 179 bn baht.
   - Bidding: 14 contracts in total - 1 awarded, 1 bidding, - TORs for other 12 contracts expected early 2019.
   - Building: construction for the first contract started on 3.5 km section in Nakhon Ratchasima

2) Nakhon Ratchasima-Nong Khai (350 km)
   - Cabinet approval expected in March 2019

3) Khon Kaen-Nong Khai (167 km)
   - Budget: 26.7 bn Baht
   - Building: Cabinet approval expected in March 2019
Significant investment needed to fund Bangkok-Nong Khai rail projects

179bn baht budget for Bangkok-Nakhon Ratchasima HSR, to be debt financed

Up to 80% of train budget (38.5bn baht) i.e. 31bn baht, to be financed through external debt from China, USD denominated debt

80bn baht budget for Bangkok-Nong Khai Dual Track upgrade

Total: 259bn baht

Source: News articles and Department of Transport
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Bangkok-Nong Khai rail projects will be a significant proportion of infrastructure investment

- Infrastructure investment remains below its peak in 1996
- ADB measure of infrastructure using GFCF data, excludes transport equipment i.e. trains and rolling stock
- High speed rail (Bangkok-Nakhon Ratchasima) and dual track upgrade (Bangkok-Nong Khai) budgets are equivalent to 12% of total infrastructure spend, or 2% of GDP in 2016

Source: NESDC, ADB, Author’s calculations
High speed rail could change Thailand’s FDI profile

- Japan is currently Thailand’s largest inward investor
- In the last 5 years, China’s FDI into Thailand averaged USD1.1bn per year, roughly the same size as the proposed cost of the high-speed train equipment – c. 38.5bn baht/USD1.3bn

Source: Bank of Thailand, Author’s calculations
Public debt likely to remain below limit of 60% of GDP

- Data after 2017 is forecast, and excludes planned infrastructure investment after 2017
- IMF Article IV 2018: ‘Thailand should use...fiscal space...to spur domestic demand and support potential output’

Source: IMF
High-speed rail purchase should have low impact on Thailand’s external debt profile

- Since 2009, Thailand’s official creditors interest rate has been between 0.3-4%. China’s suggested interest rate of 2.3-2.6% is within the range.
- The current purchase price of the high-speed train from China is c. 38.5bn baht/USD1.3bn. Current plans are for 80% of the purchase price to be financed through external debt.

Source: World Bank, IMF Article IV 2018
High passenger uptake needed to finance the investment costs of high speed rail

**Assumptions:**
- total budget, 179bn baht
- interest on debt accumulates for 4 years during construction.
- total debt cost paid off during remaining 16 years of debt schedule, using passenger fees
- inflation rate = 2.5%

**Daily passengers needed to cover investment costs**

<table>
<thead>
<tr>
<th>Daily passengers</th>
<th>5000 baht @5%</th>
<th>5000 baht @3%</th>
<th>5000 baht @1%</th>
<th>1000 baht @5%</th>
<th>1000 baht @3%</th>
<th>1000 baht @1%</th>
<th>500 baht @5%</th>
<th>500 baht @3%</th>
<th>500 baht @1%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8,293</td>
<td>6,523</td>
<td>5,063</td>
<td>41,465</td>
<td>32,614</td>
<td>25,313</td>
<td>82,929</td>
<td>65,228</td>
<td>50,626</td>
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</tbody>
</table>

Source: Author’s calculations
Note: Operational costs not included
Ministry of Transport’s assumptions for high speed rail suggest financial losses.

**Ministry of Transport assumptions:**

<table>
<thead>
<tr>
<th>Daily passenger projection</th>
<th>2021</th>
<th>2031</th>
<th>2041</th>
<th>2051</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>5,310</td>
<td>16,620</td>
<td>22,600</td>
<td>26,830</td>
</tr>
</tbody>
</table>

**Ticket price, baht**

| 533  | +15% every 5 years |

**Inflation rate**

| 2.5% |

**Author’s calculations:**

<table>
<thead>
<tr>
<th>Profit/loss (passenger revenue minus capital cost), bn baht, real</th>
<th>10 years</th>
<th>20 years</th>
<th>30 years</th>
<th>40 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>@1%</td>
<td>-155.29</td>
<td>-122.99</td>
<td>-79.14</td>
<td>-27.41</td>
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<tr>
<td>@3%</td>
<td>-169.06</td>
<td>-136.76</td>
<td>-92.91</td>
<td>-41.18</td>
</tr>
<tr>
<td>@5%</td>
<td>-183.65</td>
<td>-151.35</td>
<td>-107.51</td>
<td>-55.78</td>
</tr>
</tbody>
</table>

Ministry of Transport economic NPV is -59bn baht, suggesting economic benefits will not outweigh financial losses.

Source: Author’s calculations, Ministry of Transport
Jointly Building Belt and Road towards SDGs

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Thailand’s BRI projects are directly relevant to 7 UN Sustainable Development Goals

- **Goal 1** – eliminating poverty: Thailand aims to become a high-income economy by 2036, under the 20-year National Strategy Framework

- **Goal 8** – decent work and economic growth: increased transport connectivity could enable more efficient matching in Thai labour markets

- **Goal 9** – infrastructure: under the 20-year Transportation Development Strategy, 2017-36, the Thai government aims to provide effective, green and safe, inclusive and innovative transport for all, and increase connectivity of the 5 Special Economic Zones along the border

- **Goal 10** – reduced inequalities: affordable public transport could help to reduce inequalities, particularly public service access inequalities
Thailand’s BRI projects are directly relevant to 7 UN Sustainable Development Goals

- **Goal 15** – forestation: Thailand’s 12th National Economic and Social Development Plan aims to increase forest cover area to 40% of total land area

- **Goal 16** – peace, justice and strong institutions: delivery of Thailand’s infrastructure projects involves many public organizations. Good governance and strong institutions will help this process

- **Goal 17** – partnership: delivering Thailand’s BRI projects requires partnership with China and neighbouring countries including Myanmar, Laos, Cambodia
Summary messages

- Thailand has 6 potential BRI projects, with largest budget on **Bangkok-Nong Khai rail route**
- **Macroeconomic data** suggests Thailand has **fiscal space** to invest in infrastructure
- **Economic analysis** of High Speed Rail project needs to be looked at in more detail
- **SDGs framework is important** to understanding impact of High Speed Rail on Thai population, and **ensuring good outcome for all**