Regional Workshop on “Understanding and Assessing the Potential Macroeconomic Impact of the Belt and Road Initiative on Asian Economies”

A Preliminary Conjecture on Bangladesh Economy

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BRI and Bangladesh

With 17 SDGs and 169 targets, the 2030 Agenda is an ambitious, but overarching, and transformative action plan.

There is no denying the fact that, greater regional connectivity, sustained trade relationships, and strengthened global partnership will be of vital importance in the coming days as far as SDGs are concerned.

With a view to strengthening regional connectivity and broadening the scopes of inter-country trade and development partnerships, the Belt and Road Initiative (BRI) was launched in 2013 under the leadership of the People’s Republic of China (PRC).
BCIM Economic Corridor

Among the 6 silk routes, Bangladesh connects to the BRI initiative through the BCIM economic corridor which is a 2800 km long corridor starting from Kolkata (India), and passing through Bangladesh and Myanmar ending in Kunming in China.

The corridor envisages a network of modern road, railway, ports, and stronger communication and trade connectivity. The BCIM aims to promote and integrate trade, transport and tourism.

These advantages are envisaged to accrue from greater market access for goods, services and energy, elimination of non-tariff barriers, better trade facilitation, investment in infrastructure development, joint exploration and development of mineral, water, and other natural resources, development of value and supply chains based on comparative advantages, by translating comparative advantages into competitive advantages, and through closer people to people contact.
Recent updates

As a part of the belt and road connectivity projects, the **BCIM was formally endorsed by the four countries in December 2013.**

Bangladesh signed the **Instrument of Accession for Intergovernmental Agreement on Dry Ports on 25 September 2014.** The agreement outlined several principles as guidelines for the development and operation of dry ports in terms of their basic functions, regulatory framework, infrastructure design and equipment facilities. **The proposed BCIM initiative covers 8 dry ports including two from Bangladesh (Benapole and Sheola, respectively).**

- Dhaka and Beijing have signed eight projects worth over USD 9.45 billion funded by China in 2016, including
  - Padma Bridge rail link worth $3.3 billion: The bridge will reduce the distance between Dhaka and Kolkata by 213 km and the journey time by 6-8 hours.
  - the power plant in Payra worth $1.9 billion,
  - establishing digital connectivity worth $1 billion,
  - power grid network strengthening project worth $1.32 billion,
In total PRC promised $38 billion investment in Bangladesh, including:
- $24.45 billion in bilateral assistance for infrastructure projects
And - $13.6 billion in joint ventures.
In addition, it agreed for $20 billion in loan agreements.
Recent updates

- **Dhaka-Chottogram High-speed railway feasibility study** is currently being undertaken by the China Railway Design Corporation and will be completed by 2019. The proposed rail link will connect Dhaka-Chottogram (320 km) where the train will run at a speed of 200 km per hour.

- **A 750-acre industrial park/SEZ is currently being Developed for Chinese investment** in Bangladesh. State-run China Harbour Engineering Company holds 70% share in the joint venture.

- Agreement has been reached between the DSE and the Shanghai and Shenzhen stock exchange: **DSE will sell 25 per cent stake to the Shanghai and Shenzhen stock exchanges for $119m.**

- **There is also a proposal of investing $5 bn for heavy industry** in Chittagong, including establishing a 2.6 GW power plant.
All of these were placed under the broader umbrella of BRI.
How does BRI go into the Macroeconomy: A snapshot

- Purchases of goods and services
- Imports
- Exports
- Savings
- Financial Sector
- Wages, dividends, interest, profits and rent
- Govt purchases
- Taxes
- Social Transfers
- Business investment
- FDI
- Foreign Assistance/Aid/Soft loans easing investment

Business investment
How does BRI is linked to SDG implementation of Bangladesh

The Belt and Road have five priority areas for cooperation.

For finding out the potential linkages between the SDGs and BRI in the context of Bangladesh, we do a mapping exercise based on the country experience.
Let’s start with B&R 2: Facilitate connectivity

B&R2: Facilitate connectivity

- Improving the connectivity of infrastructure construction plans and technical standard systems among countries along the Belt and Road;
- Forming regional infrastructure network;
- and promoting green and low carbon infrastructure construction by taking into full account the impact of climate change.
In terms of infrastructure connectivity, Bangladesh performs poorly

A recent index on global connectedness by Ghemawat and Altman (2016) shows that, Bangladesh performs poorly in comparison to its South Asian and East Asian comparators.

Bangladesh ranks 118 among 140 countries in 2015. In fact, the countries global position in terms of connectedness did not improve much over the years.

Source: Ghemawat and Altman (2016)
The overall connectivity in the Country has not increased enough

**Air transport, freight (million tons km)**

**Bangladesh Railways, goods transported (million ton-km)**

Data source: WDI
Common observations:

- The total Railway goods transport in China in 2014 was 2,308,669 million ton-km.
- For India this was 665,810 million ton-km.
- For Bangladesh, this value fell over the years. And the value remains only within 700-900 million tons-km.
- Even normalizing for the size of the GDP (assuming that, a higher income country will have higher level of G&S transactions), the amount of railway goods transport in India and China were 80 times and 54 times higher than Bangladesh.
- In particular, it can be argued that, if BRI is implemented, better connectivity will increase the volume of goods transported compared to the present scenario.
The quality of infrastructure in Bangladesh is also big concern

However, the quantity of roads is not the only issue.

In terms of quality of infrastructures, Bangladesh lags behind most of the countries.

The WEF ranks countries (roughly 140 countries each year) based on their quality of infrastructure.

If the quality of the BRI projects are stringently followed, this may improve.

- Broadly, this will cover SDG goal 9 (Industry, Innovation and Infrastructure), and 11 (Sustainable Cities and Communities).

Data source: WEF
Such poor infrastructure status leaves us the impression that, investment in infrastructures is needed.

However, how much investment is needed?
B&R3: Unimpeded trade
B&R3: Unimpeded trade

- improving investment and trade facilitation,

- removing investment and trade barriers and ensuring the implementation of the WTO Trade Facilitation Agreement;

- expanding mutual investment in such areas as agriculture, both conventional and renewable energy, information technology, biotechnology, new materials and other emerging industries.
Government investment in Infrastructure

On an average, Bangladesh’s total ADP’s 15% has been spent after Power generation over the last 2 decades.

Nearly 19 percent has been spent after transport (17%) and communication per annum (approximately 2%).

Data source: Bangladesh Bureau of Statistics
### Private Investment in Bangladesh (1997-2018)

- Most of the Private investments in the infrastructure is basically in the energy (electricity) sector.

- Out of 69 projects, 56 were in the Electricity

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number of projects</th>
<th>Total investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airports</td>
<td>1</td>
<td>--</td>
</tr>
<tr>
<td>Electricity</td>
<td>56</td>
<td>4,816.417</td>
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<tr>
<td>ICT</td>
<td>6</td>
<td>130</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>2</td>
<td>31</td>
</tr>
<tr>
<td>Ports</td>
<td>3</td>
<td>179.5</td>
</tr>
<tr>
<td>Water and sewerage</td>
<td>1</td>
<td>327</td>
</tr>
<tr>
<td>Combined investment</td>
<td>69</td>
<td>5,483.92</td>
</tr>
</tbody>
</table>

Data source: The World Bank
FDI in Bangladesh

FDI from China has remarkably increased since 2013.

In the last fiscal year (FY2017-18), China invested $506.13 million in Bangladesh (nearly 20% of Bangladesh’s total FDI inflow).

Data source: Bangladesh Bank
Chinese FDI in Bangladesh by Sectors

Chinese FDI (net) Inflow in Bangladesh in 2018 (million, $)

- Textile and wearing
- Food
- Leather and Leather Products
- Computer Software and IT
- Trading
- Power
- Other Sectors
- Chemicals and Pharmaceuticals
- Construction

FDI STOCK BY MAJOR SECTORS (FROM CHINA IN TILL THE END OF FY2018)

- Construction
- Telecommunication
- Agriculture and Fishing
- Power
- Banking
- Textile and wearing
- Chemicals and Pharmaceuticals
- Gas & Petroleum

Data source: Bangladesh Bank
However, access to electricity is still lower

- Despite such investments, the access to electricity is still lower than the global average.
Despite of lower energy consumption, Bangladesh exports were remarkable.

- Despite being energy deficient, Bangladesh thrived for high exports.
Bangladesh’s Export Performance: Some challenges

Changing shares of RMG and non-RMG exports in total exports (%)

Bangladesh’s Export concentrated over the years
The Export-GDP ratio has been falling since 2011

- The country is expected to graduate from the LDC category by 2024.

- The Export has become highly uni-directional

- Both in terms of product, as well as market, the country became more & more concentrated.

- In this respect, if BRI is established, Bangladesh can take this as a mean to diversify its market in the East Asia.

Data source: EPB, Bangladesh
Bangladesh and Regional Integration

- As you can see, Bangladesh ranks below most of the countries in the global ladder in terms of regional integration.

Data source: ADB
There are untapped potentials for higher export in the Neighborhood!

Bangladesh’s Potential Exports are much higher than actual exports when the regional partners like India, or China are considered.

A simple gravity model exercise reveals that, Bangladesh’s actual export is only 8.8 percent of its potential exports (predicted by the gravity model).

In case of China, Bangladesh’s actual export is only 47 percent of its potential/predicted exports.

Both these results suggest scopes for greater regional connectivity between the countries.
- All these indicates, the huge needs for further infrastructure developments

- But how large is the need?
  ◦ Wait till we get to the Financial integration
Infrastructure Investment needed in Bangladesh over the coming decade:

**Annual Infrastructure Investment Need ($, billion)**
- Energy: 9.0
- Telecomm.: 3.6
- Ports: 0.1
- Rail: 0.9
- Road: 5.1
- Water: 3.0
- Airport: 0.3
- Total: 22.0

**Total Infrastructure Investment Needs ($, billion)**
- Energy: 107.6
- Telecomm.: 43.2
- Ports: 1.2
- Rail: 11.3
- Road: 61.2
- Water: 35.7
- Airport: 3.3
- Total: 263.6

Source: Global infrastructure outlook data, Global Infrastructure Hub
One dollar of infrastructure investment can raise GDP by 20 cents in the long run (MGI, 2016).

These economic effects stem mostly from making a given region more productive through means such as reduced travel time and costs, access to reliable electricity, and broadband connectivity that allows individuals and businesses to plug into the digital global economy.

If properly used, Bangladesh can earn a high return from it.

However, we need more Financial supports (in terms of loans/grants) in this regard.
B&R4: Financial integration
B&R4: Financial integration

- Building a currency stability system,
- investment and financing system and credit information system in Asia;
- establishing the Asian Infrastructure Investment Bank and BRICS New Development Bank (which are already in operation);
- strengthening financial regulation cooperation and coordination;
- improving mechanism of addressing cross-border risks and crisis;
- and encouraging commercial equity investment funds and private funds to participate in the construction of key projects under the Belt and Road.
Recent developments:

- Ant Financial Services Group ("Ant Financial"), operator of China's Alipay, and bKash Limited ("bKash"), the leading mobile financial services provider of Bangladesh, announced a strategic partnership in April 2018, in a bid to provide convenient and safe digital financial service for local consumers by jointly creating a local version of Alipay in Bangladesh.

- The Chinese consortium comprising the Shenzhen Stock Exchange (SZSE) and the Shanghai Stock Exchange (SSE) in May 2018 signed an agreement with Bangladesh's Dhaka Stock Exchange (DSE) to become the latter's strategic investor.

- In November 2018, UnionPay International, a subsidiary of the Chinese bank card organization China UnionPay, officially launched card issuance and mobile payment cooperation with the Mutual Trust Bank (MTB) of Bangladesh to provide diversified payment services for Bangladeshi consumers.
Foreign Assistance from China has only been mobilized since the BRI inception.
Now, the question is: CAN BANGLADESH AFFORD SUCH LARGE INFRASTRUCTURE INVESTMENTS?
The foreign reserve has been on the rise

- The country receives more than $15 billion as remittances per year.
- The country earns more than $36 billion from exports.
- The debt service payment per year is less than 3 percent of total export earnings at this point.
Bangladesh did a good job in managing debts

- The outstanding debt (as % of GDP) stands at around 11 percent at the end of FY2016.
However, it could not increase its Tax GDP ratio over the years:
We cover three alternative scenarios:

- The Tax-GDP ratio remains constant current level: earns $60 billion by 2030.

- The Tax-GDP ratio increases by 5 percent per year: earns $101.8 billion by 2030. Given the recent experience, this is doable. At the end of the period the Tax GDP ratio stands at 17.6 percent.

- The Tax GDP ratio increases by 10 percent per year: Giving $169 billion (29 percent of the GDP)
Any hope?

Given the context, it will not be difficult for Bangladesh to invest $20 billions+ per year.
B&R5: People-to-people bond

- including promoting cultural and academic exchanges,
- personnel exchanges,
- media cooperation,
- youth and women exchanges and volunteer services;
- expanding tourism;
- sharing epidemic information and exchanging of prevention and treatment technologies;
- increasing cooperation in science and technology by establishing joint labs,
- international technology transfer centers;
B&R5: People-to-people bond

- and advancing cooperation on youth employment,
- entrepreneurship training, vocational skill development,
- social security management,
- public administration and management
Medical Service Inadequacy

Medical service adequacy (per 100,000 population)

Births attended by skilled health staff (% of total)

- Red: No. of beds in govt. hospitals & dispensaries
- Black: Number of registered doctors
- Yellow: Number of registered nurses

Bangladesh  China  India  Myanmar  South Asia  World
Medical Tourism can be an Avenue

- India, Thailand, South Korea, Singapore, and Malaysia, are the popular medical tourism destinations in Asia-Pacific.

-- Each year thousands of Bangladeshi’s travel to India, Thailand and Singapore for Medical Treatment.

- It is estimated that the Thailand market was the highest contributor to the Asia-Pacific medical tourism market and is expected to grow at a CAGR of 13.7% during the forecast period (2018-2025).
- On an average 1,000 Bangladeshis go to India daily to take treatment [Daily Star, 2018]

- In 2015-16, more than 165,000 patients from Bangladesh visited India (which is, nearly one third of India’s total Medical Tourists in that year). [Dhaka Tribune, 2017]

- More than, 63,000 Patients went to Thailand in 2015

-- The present trade in medical services can be categorised as Mode 2 (Consumption Abroad).

-- With Successful B&R connectivity, there is a chance that Mode 3 (Commercial presence) as well as Mode 4 (Movement of natural persons) can be increased.

- These can be linked to SDG 3
Tourism: Context of Bangladesh

Travel & Tourism Contribution to Employment

Travel & Tourism Impacts on GDP
How can the country benefit from it?

- The sector currently holds (including direct and induced employments) nearly 3.8 percent of total employment (WTTC, 2018).

- The Foreign visitors exports (as % of total exports) in the Tourism remained as low as 0.7 percent of total exports.

- The total contribution of the Tourism sector to the Economy is estimated to be around 4.5% in 2018.

- Even a moderate (10%) increase in employment due to the BRI can help increase the Jobs by 280,000 by 2028.

- In case of GDP, a 10% increase will increase the sector’s contribution to the GDP by $3.5 billion (including direct, indirect, and induced effects).

- It links SDG 8, and 12.
P2P engagements

- In 2017, the (Chinese) embassy issued nearly fifty thousand visas, an increase of 22 percent on a year-on-year basis.

- More scholarships are being provided to the Bangladeshi students in recent years.
B&R 1: Policy Coordination:
B&R 1: Policy Coordination:

- Coordinating economic development strategies and policies;
- multilevel intergovernmental macro policy exchange and communication mechanism;
- working out plans and measures for regional cooperation;
- providing joint policy support for the implementation of practical cooperation and largescale projects.
- This is broadly linked to Goal 17.
How does BRI go into the Macroeconomy: Explanation

- Purchases of goods and services
  - Taxes
  - Social Transfers
- Govt purchases
  - Taxes
- Wages, dividends, interest, profits and rent
- Business investment

Financial Sector
- Savings
- Financial Sector

Exports
- Imports

Business investment
- Foreign Assistance/Aid
  - Soft loans
  - easing investment
- FDI
But this is not all....

- With higher economic transactions, you can expect higher economic growth.

- If the growth is redistributive and inclusive in nature, you can expect further fall in poverty.

- There can be some labour market implications as well.

Let’s explore
The country has added 1 percentage point GDP growth rate each decade

Bangladesh added nearly 1 percentage point additional growth each decade

It achieved a stable economic growth as well
Stable high economic growth for two decades

Average economic growth rate vs. Stability of economic growth
Impact of BRI on Growth:

According to Hahm and Raihan (2018), if the BRI is implemented properly, the output in Bangladesh will increase in the range of 5 to 10 percent.

Their estimation showed that, Bangladesh will be the most benefitted country in the BCIM corridor in terms output growth.
The increased growth might have lower influence over poverty reduction compared to the past.

**Poverty reduction in Bangladesh**

- National
- Rural
- Urban

**Poverty elasticity to growth has declined**

- Periodic fall in poverty rate (%)
- Average GDP growth rate (%)
- Poverty elasticity to economic growth
Some challenges:

Employment by Sectors in Bangladesh

UNEMPLOYMENT BY AGE GROUP (%)

- 2000
- 2006
- 2010
- 2013
- 2016

Agriculture  Industry  Service

TOTAL  MALE  FEMALE


0.9  2.4  2.5  2.8  1.1  1.6  2.2  1.6  1.1  1.6  2.8  3.3  3.3  5.4

Some challenges:

Employment by Sectors in Bangladesh

UNEMPLOYMENT BY AGE GROUP (%)

- 2000
- 2006
- 2010
- 2013
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Agriculture  Industry  Service

TOTAL  MALE  FEMALE


0.9  2.4  2.5  2.8  1.1  1.6  2.2  1.6  1.1  1.6  2.8  3.3  3.3  5.4
Elasticities are falling and Gap is widening
Against such chronic Labour Market challenges, the role of investments creating more jobs cannot be overstated. Thus, if properly implemented, the BRI might help attain SDG 4, 5, and 8.

Through the labour market channel and higher income redistributive mechanisms (like better and wider SSPs), the poverty situation can be improved as well. Hence, attain SDG 1, 2, and 3.
Challenges.....

There are several economic risks:

1) Deterioration in the trade balance can severely affect the BoP stability of the country if the debts are not properly managed.

In this respect, domestic governments and financial markets may step in mobilizing the additional required funds.

- PPP can be utilized in this respect.

2) There is also the risk of price stability. Due to increased economic activities, there can be demand-pull inflation.

- Vigilant monetary policy and targeted price management measures are desirable (Hahm & Raihan, 2018)
3) Of course, improving railway connectivity faces many challenges and will take time to realize. This is because the existing railways have so far been unreliable and have been losing traffic. For instance, the existing network in Bangladesh is in a bad state and has been losing traffic and money for several years.

Differences in gauge within Bangladesh and between Bangladesh and India are also a major constraint to seamless movement of traffic. The network is made up of a mixture of narrow and broad-gauge systems with several interchange points for bilateral traffic.

4) There are also geo-political tensions. (Between India-China, Bangladesh-Myanmar over Rohingya, etc.)
Challenges

5) Displacement of local and marginalized communities

6) In the short-term, there is no denying the fact that, the environment will be largely affected due to massive amount of constructions.

There are also threats to the protection and restoration of biodiversity and natural resources.

- To cope up with the social and enviromnetal risks, the benefits should be more distributive.
- To ensure the buy-in of the local people, participation of the local people in the discussion should be encouraged.
- Local job creations should be given more emphasis.