Global Trade Analysis Project
https://www.gtap.agecon.purdue.edu/

This paper is from the
GTAP Annual Conference on Global Economic Analysis
https://www.gtap.agecon.purdue.edu/events/conferences/default.asp

The One Belt, One Road Initiative
Impact on Trade and Growth

James Villafuerte*, Erwin Corong**, and Juzhong Zhuang***

June 2016

*Economist, Economic Research and Regional Cooperation Department (ERCD), Asian Development Bank (ADB) jamesvillafuerte@adb.org

**Research Economist, Center for Global Trade Analysis (GTAP), Department of Agricultural Economics, Purdue University

***Deputy Chief Economist and Deputy Director General, ERCD, ADB

Disclaimer:

The views expressed in this paper are those of the authors and do not necessarily reflect the views and policies of the institutions they represent.

The institutions the authors represent do not guarantee the accuracy of the data included in this publication and accept no responsibility for any consequence of their use.

By making any designation of or reference to a particular territory or geographic area, or by using the term “country” in this document, the authors do not intend to make any judgments as to the legal or other status of any territory or area.

Unless otherwise noted, “$” refers to US dollars.

Abstract

This paper investigates the potential economic impact of the People's Republic of China's (PRC) One Belt, One Road (OBOR) development strategy and economic framework across the Eurasia. OBOR comprises a land-based "Silk Road Economic Belt"—largely analogous to the historical Silk Road—and an oceangoing "Maritime Silk Road" linking Southeast Asia, Oceania, and North Africa. With PRC growth moderating as it rebalances sources of growth from exports and investment to greater consumption, OBOR can boost PRC trade relations and diversify exports. It could also contribute to a revival of trade and growth across Asia. As far as we are aware, this is the first quantitative study to explore the potential impact of OBOR on Asia's trade and growth. This paper conducts two policy simulations to assess (i) the impact of OBOR on improvements in international transport services—both road and sea transport modes—to see how physical connectivity can be enhanced through road and port infrastructure improvements; and (ii) its impact on trade—simulated via so-called "iceberg" effect—to capture the potential impact of enhanced trade facilitation measures across OBOR regions. We examine the size of the trade and growth impact nationally, regionally and globally, and attempt to identify the gainers and the losers as a result.

Keywords: XXXXXX

JEL Classification: F15, I32, L91, O19

Contents

Executive Summary

In the aftermath of the global financial crisis, two important trends emerged. First, the growth of global trade decelerated below output growth. Second, the People's Republic of China (PRC) growth moderated on account of cyclical and structural factors. Faced with this twin and inter-related challenges, PRC unveiled a set of domestic and external reforms. Domestically, it has identified hundreds of reforms to address wasteful investment, increase consumption and innovation, and lift productivity growth. Externally, it unveiled the Silk Road Economic Belt and the 21st Century Maritime Silk Road—referred to here as One Belt, One Road (OBOR)—which is meant to strengthen infrastructure on the westward land route through Central Asia and Europe, and the southern maritime route through Southeast Asia, on to South Asia, Africa and Europe. OBOR could help PRC: (i) foster a trade revival; (ii) address overcapacity issues; and (iii) develop the less connected provinces in PRC. For countries in the OBOR route, OBOR gives them access to PRC's overseas direct investment, helps them invest and upgrade their infrastructure. OBOR also strengthens regional integration in the region. The OBOR initiative is a large initiative covering more than 60 countries with a combined population of about 3.2 billion (around 45% of the world's population) and a combined gross domestic product (GDP) of $13 trillion.

The economic and infrastructure developments in countries along the OBOR route are mixed. At present, there are: (i) 9 low-income economies; (ii) 16 lower-middle-income economies; 14 upper-middle-income economies; and 7 high-income economies along OBOR. Thus, alleviating poverty remains a major challenge for countries in the OBOR route. There is also a great diversity among countries in OBOR in terms of physical measure such as land area, population density, road density, paved road, and rail density. Many countries along the OBOR route have poorly developed transport infrastructure networks, relative to their population density. The proportion of paved roads to total roads is also relatively low and there is fairly limited rail access or movement for some of these economies. These gaps in transport infrastructure hampers trade and investment flows to the OBOR region.

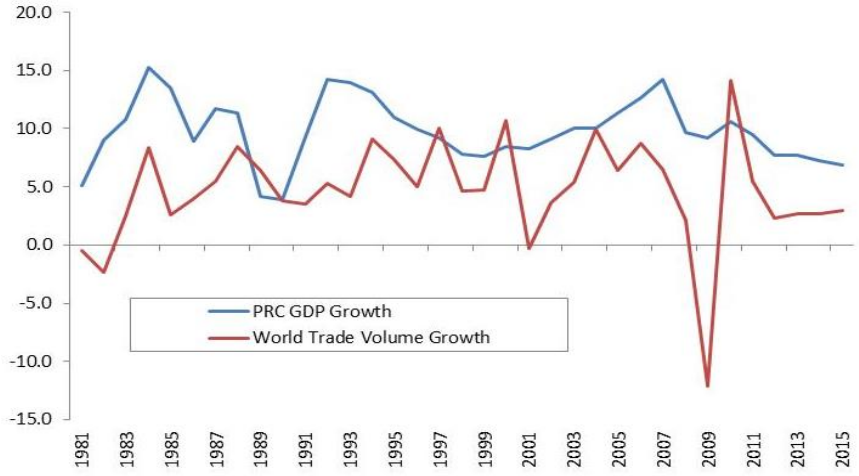
Using the GTAP model, its version 9A database, and comparative static simulations, this study confirms that the OBOR initiative has non-trivial effects on Asia.[1] For instance, improving the transport network and trade facilitation in countries along the OBOR route could raise the GDP growth in Central, West and South Asia ranging from 0.1 to 0.7 percentage points. It could also contribute to an increase in welfare from about $6 billion to about $100 billion. The total exports of countries in the OBOR could also increase by about $5 billion to $135 billion. More importantly, the distribution of benefits arising from OBOR is not equal—with some countries benefitting more than others. Certainly, PRC would gain a lot from the OBOR initiatives, but some countries such as Mongolia or Pakistan; and subregions such as Central Asia and Southeast Asia stand to gain significant benefit as well. However, many factors and challenges could hamper the realization of these potential benefits including the diversity of characteristics and institutional development of countries in the OBOR route. Mismatches in policy framework, legal and regulatory rules, and credit and payment standards could hamper effective cooperation and coordination.

[1] The study covers three simulations that entail: (i) a reduction in international transport margins—25% for roads and 5% for sea—to assess how physical connectivity affects trade and growth; and (ii) a reduction in the foreign market price to capture the ad valorem tariff equivalent of a reduction in the number of days to cross border—arising from trade facilitation.

I. INTRODUCTION

1. Since the 2008/09 global financial crisis, world trade expanded much slower than income growth. In the four years to 2015, world trade grew below 3.0%, compared with 7.1% beforehand (1987–2007). During 2001–2007, a 1% rise in income generated a 1.5% increase in trade. But in 2008–2013, the same income growth brought a 0.7% trade increase. Sluggish gross domestic product (GDP) growth in advanced economies has been associated with lower trade growth and intensity. This coincided with the growth moderation and structural transformation in the People's Republic of China (PRC)—where, since 2011, growth trended 2.6 percentage points downward annually, reaching 6.9% in 2015, its lowest level in 25 years **(Figure 1)**. The PRC moderation has been driven by structural factors: (i) a shrinking working-age population; (ii) convergence and rising labor costs; (iii) a shift to consumption-led growth; and (iv) cyclical factors like continued low external demand and excess capacity in several sectors.

Figure 1: PRC GDP Growth vs World Trade Volume Growth (%)



Source: CEIC Database and World Trade Organization.

2. In response to slowing GDP and trade growth, the PRC embarked on a set of domestic and external reforms. Domestically, it has identified dozens (if not hundreds) of reforms to state-owned enterprises, taxation, land registration, household registration (*hukou*), financial liberalization, and opened services to greater competition. These reforms aim to curb wasteful investment while increasing innovation, productivity growth, services and consumption.

3. Externally, it unveiled the One Belt, One Road (OBOR) initiative, a development strategy to strengthen infrastructure development on the westward land route through Central Asia to Europe; and the southern maritime routes through Southeast Asia, on to South Asia, Africa and Europe. The strategy would connect three continents—Asia, Europe and Africa—covering 3.2 billion people, almost 45% of the world population. If it materializes, OBOR could support a revival of GDP and trade growth in the PRC. It will also spur GDP and trade growth in over 60 countries—through the development of major economic corridors linking the PRC with Mongolia, Russia, Central Asia, South Asia, West Asia, and Europe.

4. The purpose of this study is to quantify the impact of the OBOR development strategy on Asia's trade and growth prospects. Section II discusses OBOR plan and where it stands today. Section III describes the economic and infrastructure developments in the OBOR region to see how the OBOR strategy could fill existing gaps in the region. In Section IV, we introduce a global trade model to gain insight into OBOR's impact on improved trade facilitation and infrastructure development. Section V examines the prospective benefits of three infrastructure development and trade facilitation scenarios. Section VI discusses the results and some critical issues related to the OBOR.

II. ONE BELT, ONE ROAD: PLAN AND PROSPECTIVE BENEFITS

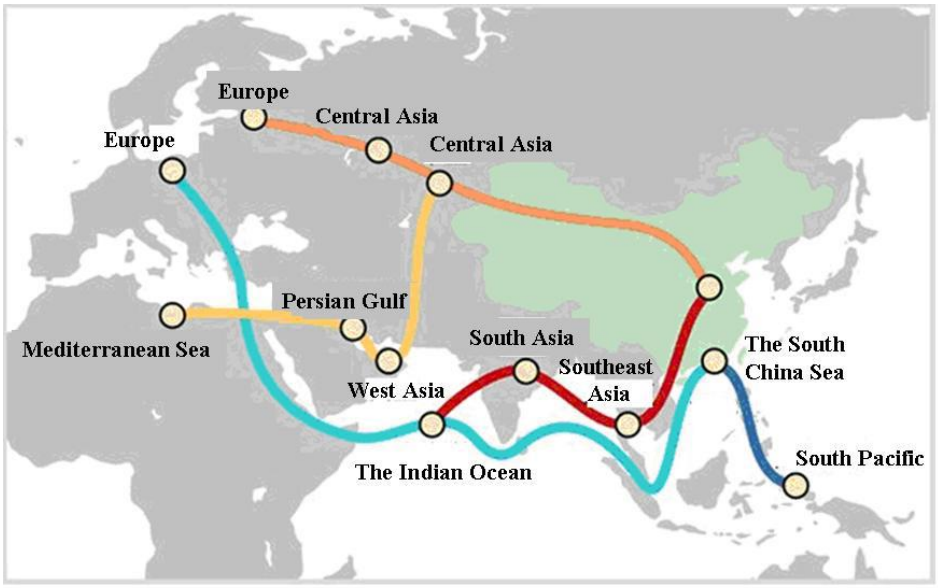
5. In the fall of 2013, President Xi Jinping of the People's Republic of China (PRC) invoked the ancient Silk Road when announcing the One Belt, One Road (OBOR) initiative. OBOR plans to weave Asia, Europe, Africa, and the Middle East closer together by constructing investment and trade networks using hyper-efficient infrastructure and new institutional linkages. As envisioned, the OBOR initiative will promote the orderly free flow of economic factors, highly efficient resource allocation and deep market integration. It will encourage countries along the Belt and Road to coordinate economic policy for broader, deeper, high-standard regional cooperation. Together, countries will jointly create an open, inclusive, and balanced regional economic cooperation architecture that will benefit all. Specifically, OBOR should build institutional linkages and break down barriers to cooperation between the PRC and other regional groups such as the Association of Southeast Asian Nations (ASEAN), the Eurasian Economic Union (EEU), the European Union (EU), the South Asian Association for Regional Cooperation (SAARC), and the Shanghai Cooperation Organisation (SCO).

6. OBOR has two components: (i) the Silk Road Economic Belt (SREB); and (ii) the 21st Century Maritime Silk Road (MSR). The SREB links the PRC by land to Central Asia and Europe **(Figure 2)**, while the MSR would connect the PRC's east coast to Europe through the South China Sea and Indian Ocean to the west, and the southern Pacific Ocean to the east. The two-pronged initiative would connect Asia and the Pacific, Europe and Africa across five routes:

   - SREB will focus on three economic corridors linking the PRC to:
     (i) Europe through Central Asia and Russia;
     (ii) the Middle East through Central Asia; and
     (iii) Southeast Asia, South Asia, and ports in the Indian Ocean.

   - The MSR will focus on linking PRC coastal ports to:
     (iv) Europe through the South China Sea and Indian Ocean; and
     (v) the southern Pacific Ocean through the South China Sea.

Figure 2: Map of One Road, One Belt



Source: Liu Zhongyun, The Economic and Trade Cooperation of China with Countries along the Belt and Road, Xing Zhi College of Xi'an University of Finance and Economics Xi'an, China.

7. OBOR's network of corridors and routes connecting Asia, Europe, Africa, and the Middle East will pass through more than 60 countries—belonging to five regions—with a combined population of 3.2 billion (around 45% of the world's population) and a combined GDP of $13 trillion in 2014. Trade of OBOR nations with the PRC reached around $1 trillion in 2014. **Table 1** below lists subregions and countries that lie along the OBOR route.

Table 1: Economies in the One Belt, One Road Initiative Area

Map plate	Economies along the Belt and Road
Central Asia	Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Turkmenistan
Mongolia and Russian Federation	Mongolia, Russian Federation
Southeast Asia	Viet Nam, Lao PDR, Kampuchea, Thailand, Malaysia, Singapore, Indonesia, Brunei Darussalam, Philippines, Myanmar, East Timor
South Asia	India, Pakistan, Bangladesh, Afghanistan, Nepal, Bhutan, Sri Lanka, Maldives
Middle East and European	Poland, the Czech Republic, Slovakia, Hungary, Slovenia, Croatia, Romania, Bulgaria, Serbia, Montenegro, Macedonia, Bosnia and Herzegovina, Albania, Estonia, Lithuania, Latvia, Ukraine, Belarus, Moldova
West Asia and the Middle East	Turkey, Iran, Syria, Iraq, the United Arab Emirates, Saudi Arabia, Qatar, Bahrain, Kuwait, Lebanon, Oman, Yemen, Jordan, Israel, Armenia, Georgia, Azerbaijan, Egypt

8. As planned, OBOR will use international transport routes and access core cities and key ports to strengthen collaboration and build six "international economic cooperation corridors": the (i) New Eurasia Land Bridge, (ii) PRC-Mongolia-Russia, (iii) PRC-Central Asia-West Asia, (iv) PRC-"Indochina Peninsula", (v) PRC-Pakistan, and (vi) Bangladesh-PRC-India-Myanmar corridors. What follows are short description of these economic corridors:

    - The New Eurasia Land Bridge Economic Corridor: this would be a second Eurasia "land bridge"—involving a railway running from Lianyungang in PRC's Jiangsu province through Alashankou in Xinjiang province, eventually ending at Rotterdam in the Netherlands. Anticipating the corridor, the PRC, has already introduced several new international rail routes offering rail-to-rail freight transfer, and a "one declaration, one inspection, one cargo release" system for cargo moving across borders.

    - The PRC-Mongolia-Russia Economic Corridor: this would involve strengthening rail and highway connectivity that crosses Russia, PRC and Mongolia, including new construction, advance customs clearance and other transport facilitation.

    - The PRC-Central Asia-West Asia Economic Corridor: the corridor includes five Central Asian countries—Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan and Turkmenistan—as well as Iran and Turkey in West Asia. The corridor plan coalesces with national development strategies such as Kazakhstan's "Road to Brightness", Tajikistan's "Energy, Transport and Food", and Turkmenistan's "Strong and Happy Era".

    - PRC-"Indochina Peninsula" Economic Corridor: the linkage will deepen relations between the PRC and five countries in continental southeast Asia—Viet Nam, the Lao Peoples Democratic Republic, Cambodia, Thailand and Myanmar—through (i) joint planning and constructing an extensive transportation network and several industrial cooperation projects; (ii) a new mode for financing cooperation; and (iii) promoting sustainable and coordinated socioeconomic development.

    - PRC-Pakistan Economic Corridor: this would run from Kashgar, Xinjiang, in northern PRC, to Gwadar Port in south Pakistan. The corridor would necessitate building highways, railways, oil and natural gas pipelines and fiber-optic networks.

    - Bangladesh-PRC-India-Myanmar Economic Corridor: this would require consensus for cooperation on transport infrastructure, investment and commerce, and people-to- people connectivity.

9. Through this economic corridor development, OBOR promises huge potential benefits to the PRC and the region at large. PRC President Xi Jinping envisions that PRC's annual trade with other OBOR countries would surpass $2.5 trillion in a decade. It can also help the PRC diversify its trading routes and enhance its ability to export products to many more markets. But the benefits from OBOR will go beyond increased trade.

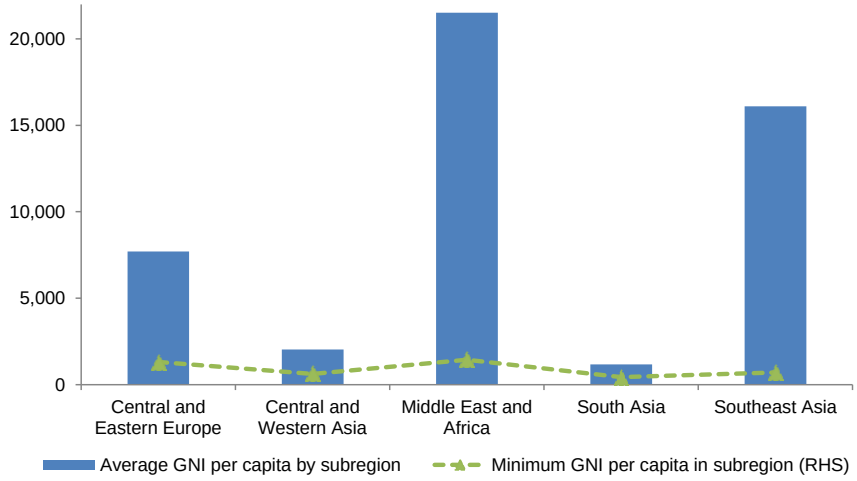
10. OBOR could help the PRC foster greater development in less connected provinces and open them to trade. Given the PRC's large capacity to build large infrastructure projects, OBOR can also help address the overcapacity in certain sectors such as iron, steel, cement, and aluminum production, among others. It would also allow the use of PRC labor and develop additional outlets for its construction industry.

11. Similarly, other OBOR countries could also benefit. They would have greater access to PRC overseas direct investment for developing the needed infrastructure. It is expected that the PRC would spend some $1 trillion to develop this web of infrastructure and trade connectivity. To date, the PRC has allotted $40 billion for its Silk Road fund; $100 billion for the newly established Asia Infrastructure Investment Bank; and the China Development Bank promised to invest $890 billion for OBOR.

III. ONE BELT, ONE ROAD ECONOMIC AND INFRASTRUCTURE DEVELOPMENT

12. Appendix Table A1 presents summary data for the OBOR region. The PRC accounts for about a third of the region's population and about 44% of its GDP. There are large variations in per capita income in OBOR countries, with most countries along the OBOR routes still poor **(Figure 3)**. Nine economies are low income (per capita income below $1,045), 16 economies classified as lower-middle income (per capita income between $1,045 and $4,125), 14 economies upper middle income (per capita income between $4,125 and $12,746) and seven considered high income (per capita income above $12,746).[2] Thus, alleviating poverty remains a major challenge, and developing infrastructure and enhancing trade facilitation could help spur growth and development in these areas.

Figure 3: GNI per Capita by Subregion (constant 2005 US$)

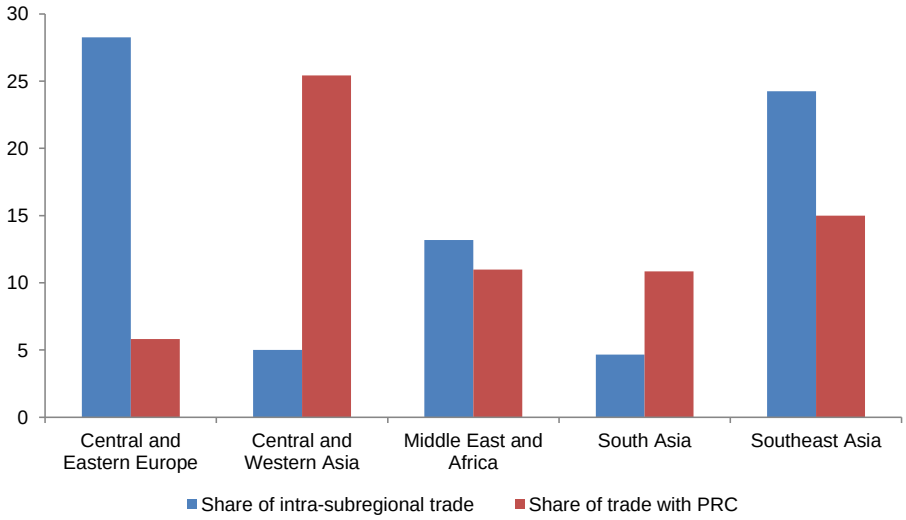


GNI = gross national income, RHS = right hand side.
Source: World Bank and International Monetary Fund.

[2] Eighteen economies in the OBOR region are excluded as no per capita GNI data are available.

13. There are also huge variations in intraregional trade and the PRC's trade share with countries along the OBOR routes **(Figure 4)**. For instance, the degree of intraregional trade for Central and Western Asia, and South Asia is relatively low (5% or below) compared with intraregional trade in Central and Eastern Europe, and Southeast Asia—which ranges from 24% to 28%. More importantly, the PRC plays a significant role in the trade nexus of resource dependent subregions such as Central and Western Asia; or subregions with strong GVC links like Southeast Asia. Country-wise, the PRC has strong trade ties with Kyrgyzstan, Mongolia, Tajikistan, Turkmenistan, Iraq, Oman, the United Arab Emirates (UAE), Myanmar, Nepal, the Lao PDR, Singapore, Thailand and Malaysia, among others (last two columns of Table A1). Expectedly, the close trade links of these economies with the PRC could influence the simulation results in Section V.

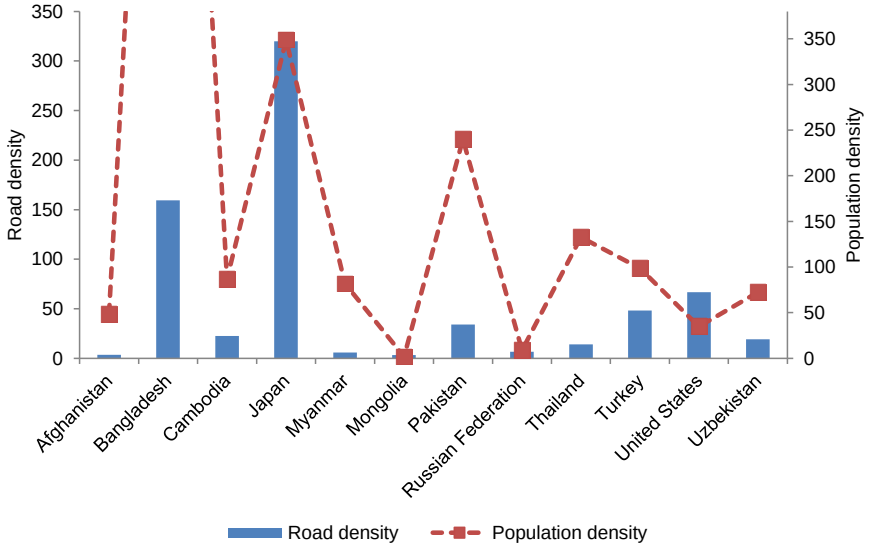
Figure 4: Trade Share, Intra-subregional and with the PRC, 2014 (%)



PRC = People's Republic of China.
Source: World Bank and International Monetary Fund.

14. There is also great diversity in OBOR countries in terms of physical measures such as land area, population density, road density, paved roads, and rail density (see Appendix Table A2). **Figure 5** plots the road density of selected OBOR countries to population density; and the road density for the United States (US) and Japan are included as benchmarks. Going by this measure, the road density of the selected OBOR countries is low—indicating most OBOR countries have limited road networks. There are also many OBOR countries with very low proportions of paved roads to total roads, with rail movement also fairly limited (compared with the benchmark rail movement in Japan or the US. All these facts point to the need to develop transport networks if the OBOR vision is to become reality.

Figure 5: Road Density (km of road per 100 km^2) and Population Density (people per km^2 of land area, Selected Countries, 2014



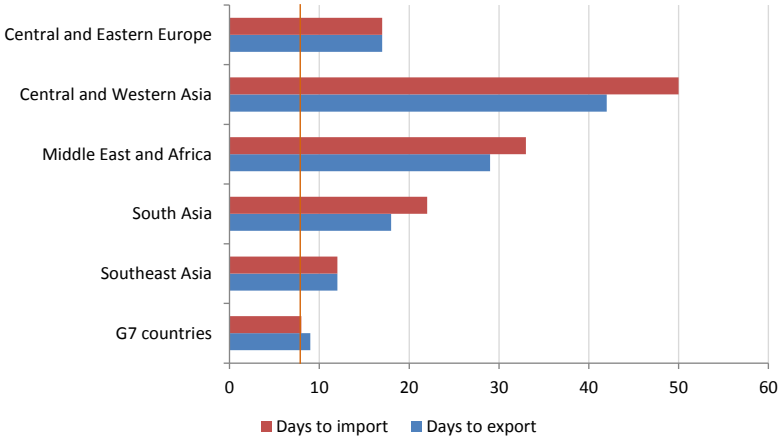
km = kilometer, km^2 = square kilometer.
Note: Population density in Bangladesh is 1222, thus not visible in the chart.
Source: World Bank.

15. To a certain extent, the low intraregional trade shares mentioned above reflect the low connectivity of countries in OBOR which also hampers the development of links to the global value chain (GVC). More so, the nascent development of the road network can also affect OBOR's ability to attract investment. Given the changing nature of global production patterns, the availability and quality of transport infrastructure and services are critical for linking to the GVC. However, given the wide variations in logistics costs —arising from differences in the quality and cost of infrastructure services including customs and institutional quality—expanding opportunities for trade and foreign investment would depend on improving trade facilitation and road transport services in the region.

16. There are several sources of data that can be used to assess the levels of trade facilitation among economies in the OBOR route. The World Bank's *Doing Business* database provides measures on regulatory and other business costs for 178 economies. **Figure 6** compares the number of days to export and import in the OBOR region with the G7 average. From the chart, it is evident that trade costs in OBOR countries are relatively high compared to the G7 average. For instance, while it takes 8 days to export in G7 economies, it takes about 50 days on average to export in Central and Western Asia. In South Asia, it takes about 18 days.

17. More so, the variations in trade costs within the different subregions are also quite wide. In Central and West Asia, for example, it takes 86 days to export from Afghanistan but just 9 days in Georgia. In South Asia, it takes 28 days to export from Bhutan and 16 days from Sri Lanka. In Southeast Asia, it takes only 6 days in Singapore but 22 days in Cambodia. This diversity further highlights the importance of improving trade facilitation—particularly for poorer countries in the OBOR region—to reduce trade costs and spur a revival in trade in countries along the OBOR route.

Figure 6: Number of Days to Export and Import by Subregion, 2014



G7 = Group of 7 consisting of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
Source: World Bank.

18. Aside from the World Bank, the World Economic Forum (WEF) measures the extent to which countries have developed factors and policies to enable trade (WEF, 2014). In particular, their Global Enabling Trade Report 2014 captures several indexes to measure the extent of market access and efficiency of border administration in selected countries. **Table 2** presents OBOR country ranks (out of 138 countries in the sample) in terms of policies to enable trade.

Table 2: Enabling Trade Index by Subregion, 2014

Subregion	Overall Ranking	Market Access	Border Administration
Central and Eastern Europe			
Top Rank	28 (Estonia)	17 (Albania)	8 (Estonia)
Median	56	75	57
Lowest Rank	105 (Russian Federation)	132 (Russian Federation)	116 (Moldova)
Central and Western Asia			
Top Rank	36 (Georgia)	9 (Armenia)	35 (Georgia)
Median	86	87	106
Lowest Rank	131 (Iran)	138 (Iran)	137 (Mongolia)
Middle East and Africa			
Top Rank	16 (UAE)	49 (Israel)	17 (UAE)
Median	43	64	43
Lowest Rank	128 (Yemen)	113 (Kuwait)	124 (Yemen)
South Asia			
Top Rank	84 (Sri Lanka)	57 (Bangladesh)	72 (Pakistan)
Median	111	103	95
Lowest Rank	116 (Nepal)	136 (India)	125 (Nepal)
Southeast Asia			
Top Rank	1 (Singapore)	2 (Singapore)	1 (Singapore)
Median	64	34	71
Lowest Rank	121 (Myanmar)	51 (Thailand)	117 (Myanmar)

UAE = United Arab Emirates.
Source: The Global Enabling Trade Report 2014, World Economic Forum.

19. Of the 138 economies examined in the WEF report, Singapore and Hong Kong, China rank first and second, respectively. Few OBOR countries rank among the top 20.

20. For instance, South Asia ranks poorly in "market access"—with a median rank of 103 out of 138 countries surveyed. Even India—the strongest economy in the subregion—ranked 136 in terms of market access. For "border administration," Central and Western Asia had a median rank of 106. Mongolia ranked a poor 137. Even the PRC, while considered a trade powerhouse, ranks fairly low due to time-consuming border administration, poor transparency, and high tariff and non-tariff market access barriers.

21. The Global Enabling Trade Report 2014 also reports on the quality of infrastructure **(Table 3)**. South Asia, Central and Western Asia, and even Southeast Asia rank poorly in quality of transport infrastructure and services. For South Asia, Nepal ranked worst in both categories. For Central and Western Asia, Mongolia held the lowest rank. In Southeast Asia, Myanmar ranked poorly in both transport infrastructure and services.

Table 3: Enabling Trade Index – Infrastructure Components by Subregion, 2014

Subregion	Total	Availability and Quality of Transport Infrastructure	Availability and Quality of Transport Services
Central and Eastern Europe			
Top Rank	28 (Czech Republic)	25 (Czech Republic)	29 (Czech Republic)
Median	52	73	48
Lowest Rank	90 (Albania)	116 (Albania)	100 (Macedonia)
Central and Western Asia			
Top Rank	36 (PRC)	16 (PRC)	31 (PRC)
Median	72	63	95
Lowest Rank	104 (Kyrgyzstan)	125 (Mongolia)	129 (Mongolia)
Middle East and Africa			
Top Rank	10 (UAE)	1 (UAE)	22 (Qatar)
Median	43	39	51
Lowest Rank	131 (Yemen)	131 (Yemen)	124 (Yemen)
South Asia			
Top Rank	67 (India)	34 (India)	57 (India)
Median	102	79	91
Lowest Rank	123 (Nepal)	121 (Nepal)	116 (Nepal)
Southeast Asia			
Top Rank	1 (Singapore)	2 (Singapore)	1 (Singapore)
Median	64	74	58
Lowest Rank	136 (Myanmar)	138 (Myanmar)	133 (Myanmar)

PRC = People's Republic of China, UAE = United Arab Emirates.
Source: The Global Enabling Trade Report 2014, World Economic Forum.

IV. THE GTAP MODEL, DATABASE, AND POLICY SIMULATION

22. The GTAP model draws on a set of economic accounts for each country/region with detailed inter-industry links. It also accounts for bilateral trade relations for all countries/regions in the world. Using a global CGE model such as GTAP enables interactions between regions and sectors to be captured within a fully consistent framework. Although it is a very comprehensive global trade model, simplifications, and abstractions from the real world still have to be made.

23. The model used for this study is comparative, static, and assumes perfectly competitive markets with constant returns to scale, as in the standard version of the GTAP model (Hertel, 1997). Other standard features of the model are also retained. For example, the behavior of private individuals, firms, and governments is modeled, along with responses to changing resource and market conditions. Consumers maximize welfare, subject to their budget limitations, with a relatively sophisticated representation of consumer demand, allowing for regional differences in the price and income elasticities of demand. Firms maximize profits using the limited resources available in the economy. In particular, five primary factors of production (land, natural resources, physical capital, and skilled and unskilled labor) are combined with intermediate inputs, including imports, to produce final output. Armington elasticities allow differentiation between imports from different countries in the OBOR and elsewhere, specifying the extent to which substitution is possible between imports from various sources, as well as substitution between imports and domestic production. When the impact of the infrastructure improvement is simulated, prices and quantities of marketed commodities, along with impacts on incomes and GDP, are all endogenously determined within the model.

24. For this paper, version 9A of the GTAP database—aggregated to 17 countries/regions and 12 sectors, with a base year of 2011—was used. As shown in **Appendix Table 3**, we have aggregated the GTAP database to explicitly include OBOR countries/regions, as well as non-OBOR regions such as Oceania, EU-28, North America, North Africa, and the Rest of the World.

25. The GTAP model includes international transportation margin services for air, water, and other transportation (which is primarily land transport). **Table 4** shows the share of bilateral OBOR land transport margins as a proportion of the value of exports as calculated from the GTAP database. Cross-border land transport costs are likely to be relatively significant for poorer economies with less-developed infrastructure. This appears to be reflected to some extent in the database, with cross-border land transport margins appearing most significant for the relatively poor countries of the OBOR region.

Table 4: Transport cost as % share of trade at CIF prices

	PRC	MON	SEA	SA	IND	PAK	BAN	CA	WA	RUS	TUR
PRC	0.00	39.20	6.08	0.43	2.95	2.12	0.63	6.30	6.63	5.37	4.16
MON	4.03	0.00	9.47	9.47	2.03	0.02	0.00	45.66	0.29	43.04	30.69
SEA	6.08	0.18	5.36	1.29	2.82	1.38	0.30	5.84	10.76	4.38	1.55
SA	46.28	0.14	26.92	8.68	27.27	61.45	1.58	21.30	15.73	5.76	10.00
IND	10.41	0.08	13.97	1.57	0.00	1.91	2.53	3.36	11.34	7.67	1.47
PAK	22.26	0.00	28.03	1.57	27.82	0.00	2.27	2.95	22.01	2.80	1.47
BAN	55.73	0.00	67.26	15.12	35.36	45.54	0.00	0.00	15.02	5.00	1.04
CA	4.81	0.28	0.89	1.13	2.29	9.81	5.44	10.63	1.48	11.17	4.90
WA	4.19	2.51	1.88	1.68	1.87	1.69	1.60	13.74	7.16	9.81	10.98
RUS	5.82	0.83	3.19	6.47	1.94	20.46	11.19	7.01	1.59	0.00	5.41
TUR	10.08	14.56	0.34	13.40	3.27	29.54	18.59	39.01	4.15	2.68	1.86

PRC=People's Rep. of China; MON=Mongolia; SEA=Southeast Asia; SA=South Asia; IND=India; PAK=Pakistan; BAN=Bangladesh; CA=Central Asia; WA=West Asia; RUS=Russia; TUR=Turkey.
CIF= spell out

V. SCENARIOS AND RESULTS

26. This section presents the results of three scenarios examined in this study.

27. **Scenario 1:** Examine the impact of the weighted improvement in international road and sea transport margins for countries along the OBOR route[3]. There is a dearth of quantitative studies on the likely reduction in transport costs due to the OBOR initiative. One study noted that the OBOR initiative could lower transport cost between the PRC and India by about 30%. Another study noted that with the development of the Chongqing-Sinjiang-Europe International Railway, transit time for goods could be reduced to 16 days compared to 36 days voyage via maritime transport route. Thus, for this study, we assume an un-weighted 25% reduction in road transport margins and 5% reduction in sea transport margins. The highest weighted road transport improvement occurs for Mongolia at 25%; improvements for other OBOR countries/regions range between 5.5% for Turkey and 22.15% for East Asia. For maritime, there is a 5% maximum improvement for East Asia; none for Mongolia because there is no water boarder between the PRC and Mongolia. Other water transport improvements range between 0.70% for Turkey and 1.73% for Bangladesh.

28. **Scenario 2:** Explore the impact of the weighted improvement in international road and sea transport margins plus improvements in trade facilitation. The magnitude of reduction in transport costs described in scenario 1 applies for this scenario as well. In addition, the reduction in time costs via the "iceberg" approach introduced by Hertel, Walmsley and Ikatura (2003) and refined by Minor and Tsigas (2008) was implemented. The approach allows for region-specific shifts in the Armington demand function, which effectively lowers the foreign market price by the percentage "shift" in the import demand curve with a corresponding change in the quantity demanded. It is notable that there are no specific details yet regarding trade facilitation components in the OBOR initiative. Thus, for this study, we looked at other studies on improvement in trade facilitation to infer the order of magnitude in

[3] The weights reflect the distance of the country/region relative to the People's Rep. of China (PRC), which means that the reduction in international road and sea transport margins becomes less as the distance from the PRC increases.

terms of reduction in time to import or export. One study was the GMS study by Stone and Strutt (2009) and the other one is the Central Asia study by Felipe and Kumar (2012). In the GMS study, they consulted various case studies that analyzed the reduction in time to import or export and they found that the time savings ranges from 25% to 50%. In the Central Asia study, Felipe and Kumar followed the approach by Wilson, Mann and Otsuki (2003) where the gap in trade facilitation costs in Central Asia—as measured by the difference between the logistics performance index of a country relative to the average of all countries in the sample—was reduced halfway or by 50 percent. In this study, we use the time to import as the indicator for trade facilitation costs. Generally, time to import represents the time necessary to comply with all procedures required to import goods, including documentary compliance, border compliance and domestic transport—within the overall process of exporting or importing a shipment of goods. Based on these approaches and given the fact that OBOR is a much larger initiative which will likely be implemented in a protracted manner, we used a smaller improvement in trade facilitation costs. Thus, for this study, a 15% reduction in time difference between "the median time to import for each OBOR country/region" and the "average for the G7 countries" was used. Following the Minor and Tsigas (2008) approach, the estimated "time savings" is then multiplied with the average tariff equivalent of time savings per day to generate the ad valorem tariff equivalent of the reduction of the number of days to cross borders.

29. **Scenario 3:** Explore the impact of the un-weighted improvement in international road and sea transport plus improvements in trade facilitation, which cuts the overall trade costs. For this scenario, there is a 25% reduction in international road transport margin and 5% reduction in sea transport margin for all OBOR regions/countries. The same iceberg approach is used to model improvement in trade facilitation costs.

30. It is notable that the estimated cost reductions for transport and trade costs were not based on actual empirical studies, although they fall in the lower bound of potential cost reductions used in other studies. To the extent that the prospective reductions in transport and trade costs are bigger, then this study underestimates the likely impact. It is also likely that there are overlapping benefits between these two scenarios—estimates of cost reductions could include aspects of each process; i.e., improvements in roads or ports could also embody improvements in trade facilitation. Hence, combining the two scenarios could lead to potential redundancies. However, given that there are dynamic effects arising from improvement in transport and trade facilitation, the cost reductions applied could be an understatement of the true effects[4]. Thus, combining the two could provide a better indication of the types of potential benefits from the dynamic changes that are likely to occur in the region.

31. **Table 5** (Scenario 1) presents the results of the weighted 25% reduction in the land transport margin and the weighted 5% reduction in sea transport margin for countries along the OBOR route. As can be gleaned from the table, the GDP impact of improvement in road and maritime transport network is small, ranging from 0.19% percent increase in GDP growth in Mongolia, to 0.01 percent increase for the PRC

[4] The term "dynamic effects" refers to the effects on the rate of economic growth that are manifested over an extended period of time, which includes labor/population and capital accumulation effects. The dynamic effects are in contrast to the concept of static efficiency gains which are often used in comparative statics where we compare the outcome from two simulations.

and Central Asia. In a similar vein, the welfare improvement arising from OBOR is equally small, about $9.5 billion for Asia as a whole, with most of the benefit accruing to the PRC ($3.3 billion), the rest of East Asia ($3.1 billion) and Southeast Asia ($1.6 billion). Mongolia, the closest OBOR country to the PRC also benefits from welfare improvement ($15 million). In terms of exports, reducing the international transport margin only leads to a $6.5 billion increased in export from OBOR countries, of which $3.2 billion are accounted for by increased exports of the PRC and $710 increased exports for India **(Table 6.a)**.

Table 5: Results of GTAP Simulations

Economy	Scenario 1		Scenario 2		Scenario 3	
	GDP (ppts) (Deviation from base)	Welfare ($Bn)	GDP (ppts) (Deviation from base)	Welfare ($Bn)	GDP (ppts) (Deviation from base)	Welfare ($Bn)
Oceania	0.00	-0.22	-0.01	-0.23	-0.02	-1.40
Rest of East Asia	0.00	3.10	0.14	8.10	0.15	18.21
China	0.01	3.26	0.09	15.22	0.12	24.25
Mongolia	0.19	0.15	1.11	0.28	1.41	0.62
South East Asia	0.01	1.56	0.29	7.36	0.34	17.23
South Asia	0.02	0.11	0.53	0.78	0.66	1.40
India	0.01	0.41	0.24	4.91	0.29	8.77
Pakistan	0.01	0.08	0.46	0.80	0.53	1.35
Bangladesh	0.01	0.04	0.34	0.42	0.46	0.93
Central Asia	0.01	0.25	0.25	1.65	0.27	2.51
West Asia	0.00	0.60	0.31	14.79	0.35	23.35
Russia	0.00	0.24	0.10	3.25	0.11	4.76
North America	0.00	-0.88	0.00	-5.22	-0.01	-8.66
EU-28	0.00	-1.42	-0.01	-7.47	-0.02	-14.67
MENA	0.00	-0.03	0.00	0.04	-0.01	-0.11
Turkey	0.00	0.17	0.18	1.33	0.22	2.75
Rest of the World	0.00	-0.47	-0.01	-0.59	-0.02	-2.74

Chnge to PRCPRC= MENA=.

32. These results reflect the small share of land and sea transport margins to the total costs faced by exports coming in these economies. More importantly, while CGE models could capture inter-linkages between countries and between industries within a country, they do not capture the benefits of the dynamic synergies that could arise from investment in transport networks. They also fail to account for possible changes in behavior that these initiatives and investments could trigger. As noted above, our third scenario is an attempt to capture some of this potential benefit.

33. **Table 5**: Scenario 2: presents the combined results of the weighted improvement in transport network and improvement in trade facilitation. As expected, the GDP effects of the combined improvement in transport network and trade facilitation are quite significant ranging from 1.1 percent increase in GDP growth in Mongolia, to 0.5 percent increase for Pakistan and South Asia. The impact on PRC is also relatively much smaller at only 0.09 percent. It is notable to say that a large proportion of the GDP impact comes from the improvement in trade facilitation rather than the improvement in the transport network or hardware. This result is consistent with results from similar studies on regional connectivity which noted that the impact of trade facilitation agreements are much large than the effect of investment in

infrastructure. For this study for instance— for South Asia and Central Asia—almost all of the increase in output are due to trade facilitation (TF) improvements, while for Mongolia TF accounted for 86% of output improvements. Similarly, the welfare effects of the combined improvement in transport network and trade facilitation are equally large. For Asia as a whole, welfare improved by $54 billion, of which $15.2 billion is captured by the PRC, $1.7 billion by Central Asia, and $14.8 billion by the rest of West Asia. In terms of exports, the combined improvement generate additional exports equivalent to $74.8 billion, of which $32 billion accrues to West Asia, $24.5 billion to the PRC, $5.9 billion to India, and $4.6 billion to Central Asia **(Table 6.b)**.

34. **Table 5** (Scenario 3) presents the combined results of the un-weighted improvement in transport network and improvement in trade facilitation. As expected the GDP and welfare effects of this scenario is the largest. The GDP effects range from 1.4 percent increase in GDP growth in Mongolia, to 0.7 percent increase for South Asia, 0.5 percent for Pakistan, 0.4 percent for Bangladesh, 0.35 percent for West Asia, and 0.3 percent for Central Asia. The impact on PRC is also relatively much smaller at only 0.12 percent. The welfare effects of the un-weighted improvement in transport network combined with improvements in trade facilitation are also larger. For Asia as a whole, welfare improved by $98.6 billion, of which $24.2 billion is captured by the PRC, $23.3 billion by West Asia, and $18.2 billion by the rest of East Asia. In terms of exports, exports in the region rose by $135.4 billion, of which $49.3 billion accrues to West Asia, $36.9 billion to the PRC, and $19.1 billion to Southeast Asia. Exports of India and Central Asia also increased by $10.2 billion and $7 billion, respectively **(Table 6.c)**.

Table 6: Change in the value of bilateral exports ($ billion)

a: Scenario 1—Weighted improvements in road transport and maritime transport

	PRC	MON	SEA	SA	IND	PAK	BAN	CA	WA	RUS	TUR	Total
PRC	0.00	0.11	2.05	0.00	0.02	0.04	0.00	0.26	0.20	0.48	-0.01	3.16
MON	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.04
SEA	1.02	0.00	-1.40	0.00	0.13	0.03	0.03	0.00	0.13	-0.01	0.02	-0.03
SA	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
IND	0.40	0.00	0.19	0.04	0.00	0.01	0.02	0.00	0.06	-0.01	0.01	0.71
PAK	0.04	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.16
BAN	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02
CA	0.19	0.00	0.01	0.00	0.00	0.00	0.00	-0.04	0.02	0.08	0.01	0.27
WA	-0.14	0.00	0.77	0.02	0.26	0.02	0.00	0.05	-0.18	0.00	0.07	0.87
RUS	0.48	0.04	0.07	0.00	0.00	0.00	0.00	0.18	0.03	0.00	0.02	0.82
TUR	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.07	0.39	-0.02	0.02	0.49
Total	2.07	0.15	1.73	0.15	0.44	0.11	0.06	0.52	0.67	0.51	0.14	6.54

PRC=People's Rep. of China; MON=Mongolia; SEA=Southeast Asia; SA=South Asia; IND=India; PAK=Pakistan; BAN=Bangladesh; CA=Central Asia; WA=West Asia; RUS=Russia; TUR=Turkey.

b: Scenario 2—Weighted improvements in road transport and maritime transport plus the iceberg cost improvements

	PRC	MON	SEA	SA	IND	PAK	BAN	CA	WA	RUS	TUR	Total
PRC	0.00	0.19	9.93	0.10	2.96	0.17	0.30	1.21	5.27	3.37	0.95	24.46
MON	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.07
SEA	3.88	0.00	-2.25	-0.07	0.13	-0.07	-0.01	0.02	0.58	0.05	0.03	2.28
SA	0.00	0.00	0.01	0.00	0.04	0.00	0.00	0.00	0.01	-0.01	0.00	0.05
IND	1.14	0.00	0.92	0.22	0.00	0.02	0.09	0.03	2.99	0.13	0.39	5.93
PAK	0.19	0.00	0.03	0.16	0.02	0.00	0.02	0.00	0.14	0.01	0.04	0.61
BAN	0.03	0.00	0.01	0.00	0.03	0.00	0.00	0.00	0.02	0.01	0.05	0.14
CA	1.84	0.01	0.06	0.08	0.03	0.00	0.00	0.35	0.64	0.69	0.92	4.62
WA	6.05	0.00	5.03	0.38	5.90	1.53	0.12	0.31	12.09	0.14	1.26	32.81
RUS	1.39	0.05	0.15	0.00	0.09	0.00	0.00	0.51	0.45	0.00	0.30	2.94
TUR	0.09	0.00	0.02	-0.01	0.01	0.00	0.00	0.15	0.88	0.07	-0.30	0.91
Total	14.70	0.25	13.91	0.85	9.20	1.65	0.53	2.57	23.05	4.45	3.65	74.82

PRC=People's Rep. of China; MON=Mongolia; SEA=Southeast Asia; SA=South Asia; IND=India; PAK=Pakistan; BAN=Bangladesh; CA=Central Asia; WA=West Asia; RUS=Russia; TUR=Turkey.

c: Scenario 3—25% transport and maritime transport for all OBOR countries plus the iceberg cost improvements based on the tariff equivalents you calculated

	PRC	MON	SEA	SA	IND	PAK	BAN	CA	WA	RUS	TUR	Total
PRC	0.00	0.27	13.47	0.19	4.75	0.47	0.56	1.71	9.03	4.74	1.70	36.89
MON	0.40	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.04	0.00	0.34
SEA	10.80	0.00	3.72	0.04	2.50	0.11	0.28	0.01	1.24	0.02	0.37	19.10
SA	0.01	0.00	0.01	0.00	0.10	0.02	0.01	0.00	0.02	-0.02	0.00	0.16
IND	2.76	0.00	1.53	0.51	0.00	0.09	0.27	0.02	4.16	0.13	0.75	10.22
PAK	0.35	0.00	0.06	0.38	0.04	0.00	0.05	0.01	0.29	0.02	0.08	1.27
BAN	0.07	0.00	0.02	0.00	0.08	0.02	0.00	0.00	0.03	0.01	0.13	0.36
CA	2.62	0.01	0.16	0.07	0.04	0.00	0.00	0.86	1.06	1.18	1.04	7.02
WA	9.06	0.00	8.42	0.40	9.06	2.06	0.11	0.34	17.85	0.14	1.83	49.29
RUS	3.49	0.08	0.43	0.02	0.20	0.00	0.02	0.84	0.88	0.00	1.10	7.07
TUR	1.11	0.00	0.05	0.00	0.12	0.00	0.00	0.30	2.27	0.22	-0.43	3.66
Total	30.66	0.37	27.86	1.61	16.90	2.78	1.31	4.09	36.82	6.42	6.56	135.39

PRC=People's Rep. of China; MON=Mongolia; SEA=Southeast Asia; SA=South Asia; IND=India; PAK=Pakistan; BAN=Bangladesh; CA=Central Asia; WA=West Asia; RUS=Russia; TUR=Turkey.

VI. CONCLUSION AND POLICY RECOMMENDATIONS

35. This study confirms that the OBOR initiative has a non-trivial effect on Asia. For instance, improving the transport network and trade facilitation in countries along the OBOR route could raise the GDP growth in Central, West, and South Asia ranging from 0.1 to 0.7 percentage points. It could also contribute to an increase in welfare from about $6 billion to about $100 billion. The total exports of countries in the OBOR could also increase from about $5 billion to $135 billion.

36. The distribution of benefits arising from OBOR is not equal—with some countries benefitting more than others. Certainly, PRC would gain a lot from the OBOR initiatives. Other countries such as Mongolia or Pakistan; and subregions such as Central Asia and Southeast Asia stand to gain significant benefit as well from OBOR.

37. However, there are many factors and challenges that could also hamper the realization of potential benefits from OBOR:

    - The diversity among OBOR countries presents a challenge. The rich tapestry of countries along the routes illustrates competing interests or divergent views over how OBOR initiatives should materialize.

    - This diversity also manifests itself in terms of the development and sophistication of organized systems and institutions. There are likely mismatches in policy frameworks, legal and regulatory rules, credit and payment standards, quality control, and labor and environmental concerns could hamper effective cooperation and coordination.

    - The sovereign (security, political, regulatory, and government effectiveness) and credit risk ratings of OBOR countries are also significantly diverse, implying large variations in the quality of governance. For instance, Pakistan, Syria, and Ukraine have very high security risks, while Iraq and Greece show high sovereign debt default risks. Many other countries have varying levels of economic stability, meaning their economic priorities in implementing OBOR projects might be difficult to coordinate.

    - Political and social issues like trade embargoes, political transitions, corruption scandals, social stability, regional rivalries or confrontation could become problematic for OBOR initiatives (even if one of the aims of OBOR is to promote stability).

38. Therefore, it is incumbent upon the PRC to pursue an inclusive and highly consultative process in gradually resolving differences. The PRC has in fact committed itself to five principles in pursuing the OBOR initiative: (i) mutual respect for sovereignty and territorial integrity; (ii) mutual non-aggression; (iii) mutual non-interference in each other's internal affairs; (iv) equality; and (v) mutual benefit and peaceful co-existence. It is imperative that other OBOR countries embrace these principles as well to ensure its success.

REFERENCES

A. Arduino. 2016. China's One Belt One Road: Has the European Union Missed the Train. *Policy Report March 2016*. Singapore: S. Rajaratnam School of International Studies.

A. Strutt, S. Stone, and P. Minor. 2008. Trade Facilitation in the Greater Mekong Subregion: Impacts of Reducing the Time to Trade. *Journal of GMS Development Studies Vol. 4*. pp 1-20. Manila: ADB.

B. Otgonsuren. 2015. Mongolia-China-Russia Economic Corridor Infrastructure Cooperation. *ERINA Report No. 127*. December. Bandaijima: The Economic Research Institute for Northeast Asia.

C.W. Freeman Jr. 2015. China and the Economic Integration of Europe and Asia. Remarks to the summer Roundtable of the Pacific Pension Institute. 23 Jul. California. http://chasfreeman.net/china-eurasia-integration/

D. Dollar. 2015. China's Rise as a Regional and Global Power: The AIIB and the 'One Belt, One Road'. *Horizons Issue No. 4*.

Government of People's Republic of China, National Development and Reform Commission. 2015. Vision and Actions on Jointly Building Silk Road Economic Belt and 21st Century Maritime Silk Road. News release. 28 March. http://en.ndrc.gov.cn/newsrelease/201503/t20150330_669367.html

G. Norris. *Repaving the Silk Road: China hopes Eurasian trade will do the same for its economy.* http://www.amchamchina.org/news/repaving-the-silk-road

J. Bailliu, M. Kruger, A. Toktamyssov, and W. Welbourn. 2016. How Fast Can China Grow? The Middle Kingdom's Prospects to 2030. *Bank of Canada Staff Working Paper 2016-15*. April. Ottawa: Bank of Canada.

L. Chan. 2015. An Overview of Central Asian Markets on the Silk Road Economic Belt. 19 Nov. http://economists-pick-research.hktdc.com/business-news/article/Research-Articles/An-Overview-of-Central-Asian-Markets-on-the-Silk-Road-Economic-Belt/rp/en/1/1X000000/1X0A4C4W.htm

L. Mohammed. 2015. China's 6 Magical Economic Corridors. 20 August. *The Market Mogul*.

L. Zhongyun. 2016. The Economic and Trade Cooperation of China with Countries along the Belt and Road. Paper presented at the International Conference on Education, Management, Computer, and Society. Shenyang. 1-3 January.

M. Meidan and L. Patey. 2016. China's New Global Investment Strategy: The Challenges Facing China's Belt and Road Initiative. *DIIS Policy Brief February 2016*. Copenhagen: Danish Institute for International Studies.

P. Sahoo and A. Bhunia. 2014. BCIM Corridor a game changer for South Asian trade. 18 July. http://www.eastasiaforum.org/2014/07/18/bcim-corridor-a-game-changer-for-south-asian-trade/

The Economist Intelligence Unit. 2015. *Prospects and Challenges on China's 'One Belt, One Road': A Risk Assessment Report.* London: EIU.

V. Ntousas. 2016. Back to the Future: China's 'One Belt, One Road' Initiative. *FEPS Policy Brief March 2016*. Brussels.

W. Tsui. 2015. The ASEAN Link in China's Belt and Road Initiative. *AustCham News Issue 177*. Hong Kong, China: The Australian Chamber of Commerce Hong Kong and Macau.

Z. Minghao. 2015. China's New Silk Road Initiative. *IAI Working Papers 15*. October. Rome: Instituto Affari Internazionali.

APPENDIXES

Table A1. Selected Aggregate Indicators, 2014

Region/Economy	Population (in million)	GDP (US$b)	GNI per capita (constant 2005 US$)	Trade Share (%)	
				With PRC	Intra-subregional
Central and Eastern Europe	**322.2**	**3,625.1**	**7,704.8**	**5.8**	**28.3**
Albania	2.9	13.2	3,853.0	7.8	14.1
Belarus	9.5	76.1	4,788.1	3.9	65.0
Bosnia & Herzogovina	3.8	18.3	..	2.5	49.6
Bulgaria	7.2	56.7	4,922.8	2.9	30.2
Croatia	4.2	57.1	10,187.3	1.8	38.8
Czech Republic	10.5	205.3	13,764.2	3.5	24.6
Estonia	1.3	26.5	12,072.0	2.9	32.6
Hungary	9.9	138.3	11,412.0	3.8	30.2
Latvia	2.0	31.3	9,574.3	1.9	53.1
Lithuania	2.9	48.4	10,583.4	1.5	51.0
Macedonia	2.1	11.3	3,877.8	1.4	31.0
Moldova	3.6	8.0	1,310.6	1.6	62.6
Montenegro	0.6	4.6	4,839.0	6.5	53.5
Poland	38.0	545.0	..	3.8	23.8
Romania	19.9	199.0	6,120.4	2.6	25.7
Russia	143.8	1,860.6	6,552.9	11.3	18.7
Serbia	7.1	43.9	4,067.7	4.5	44.5
Slovakia	5.4	100.2	15,319.2	2.3	40.1
Slovenia	2.1	49.5	19,143.6	2.5	29.5
Ukraine	45.4	131.8	2,054.3	7.5	41.5
Central and Western Asia	**197.2**	**905.8**	**2,026.4**	**25.4**	**5.0**
Afghanistan	31.6	20.0	..	5.2	19.2
Armenia	3.0	11.6	2,461.8	9.9	18.0
Azerbaijan	9.5	75.2	3,273.1	2.1	7.2
Georgia	4.5	16.5	2,698.3	7.2	25.8
Iran	78.1	425.3	..	28.3	29.6
Kazakhstan	17.3	217.9	4,921.6	22.0	27.7
Kyrgyzstan	5.8	7.4	619.8	49.7	65.8
Mongolia	2.9	12.0	1,748.6	65.8	66.5
Tajikistan	8.3	9.2	..	42.6	63.7
Turkmenistan	5.3	47.9	..	43.8	52.0
Uzbekistan	30.8	62.6	1,004.9	21.5	38.7
China, People's Rep. of	1,364.3	10,354.8	3,852.7	...	2.5
Middle East and Africa	**319.5**	**3,330.8**	**21,511.2**	**11.0**	**13.2**
Bahrain	1.4	33.9	..	3.0	16.6
Egypt	89.6	286.5	1,431.7	8.4	20.8
Iraq	34.8	223.5	..	21.1	20.3
Israel	8.2	305.7	24,302.3	6.2	4.3
Jordan	6.6	35.8	2,859.7	8.3	37.3
Kuwait	3.8	163.6	..	10.4	12.0
Lebanon	4.5	45.7	7,307.0	10.3	19.6
Oman	4.2	81.8	..	26.2	27.7
Palestine	..	..	..	...	...
Qatar	2.2	210.1	57,605.6	6.6	10.0
Saudi Arabia	30.9	746.2	..	13.3	9.5
Syrian Arab Republic	22.2	...	..	3.4	74.8
Turkey	75.9	798.4	8,765.6	6.9	10.5
United Arab Emirates	9.1	399.5	27,516.9	10.9	10.2
Yemen	26.2	...	..	20.4	26.6
South Asia	**1,689.4**	**2,568.7**	**1,170.2**	**10.9**	**4.7**
Bangladesh	159.1	172.9	795.5	15.2	10.3
Bhutan	0.8	2.0	1,916.1	...	...
India	1,295.3	2,048.5	1,218.7	9.2	2.9
Maldives	0.4	3.1	..	6.1	14.3
Nepal	28.2	19.8	433.7	27.1	57.9
Pakistan	185.0	243.6	858.4	19.9	4.4
Sri Lanka	20.6	78.8	..	12.3	18.9
Southeast Asia	**624.5**	**2,521.9**	**16,097.4**	**15.0**	**24.2**
Brunei Darussalam	0.4	17.1	..	12.7	31.0
Cambodia	15.3	16.8	702.4	14.4	40.7
Indonesia	254.5	888.5	1,799.7	13.6	25.6
Lao People's Democratic Republic	6.7	12.0	777.6	28.8	56.7
Malaysia	29.9	338.1	7,114.8	14.3	26.9
Myanmar	53.4	64.3	..	52.3	28.3
Philippines	99.1	284.8	2,011.6	14.1	19.7
Singapore	5.5	307.9	37,120.1	12.3	26.2
Thailand	67.7	404.8	3,564.2	14.0	22.0
Timor-Leste	1.2	1.4	..	...	...
Viet Nam	90.7	186.2	1,021.6	20.4	14.6

Source: World Bank and International Monetary Fund.

Table A2: Selected Geographic, Population, and Infrastructure Indicators, 2014

Region/Economy	Land Area (mil km^2)	Population density (per km^2)	Rural Population (% of total)	Roads (mil km)[1]	Paved roads (% of total)[1]	Rail lines (mil km)
Central and Eastern Europe	**18,500,713**	**17.4**	**10.2**	**2,667,266**	**67.2**	**181,902**
Albania	27,400	105.6	43.6	18,000	..	..
Belarus	202,910	46.7	23.7	86,491	86.5	5,470
Bosnia & Herzogovina	51,200	74.6	60.4	22,912	92.1	1,026
Bulgaria	108,560	66.5	26.4	19,512	98.6	4,023
Croatia	55,960	75.7	41.3	29,410	91.1	2,604
Czech Republic	77,230	136.3	27.0	130,661	..	9,456
Estonia	42,390	31.0	32.4	58,487	18.2	792
Hungary	90,530	108.9	29.2	200,961	37.9	7,892
Latvia	62,190	32.1	32.6	69,537	..	1,853
Lithuania	62,675	46.8	33.5	82,911	30.1	1,767
Macedonia	25,220	82.3	43.0	13,983	58.3	699
Moldova	32,880	123.8	55.1	12,845	86.2	1,157
Montenegro	13,450	46.2	36.2	7,905	70.4	..
Poland	306,210	124.1	39.4	412,264	68.0	18,942
Romania	230,030	86.5	45.6	111,584	..	10,770
Russia	16,376,870	8.8	26.1	1,094,000	..	85,266
Serbia	87,460	81.5	44.5	43,758	63.5	3,809
Slovakia	48,088	112.7	46.2	43,366	100.0	3,630
Slovenia	20,140	102.4	50.3	39,042	100.0	1,208
Ukraine	579,320	78.3	30.5	169,637	97.9	21,538
Central and Western Asia	**17,330,590**	**11.4**	**6.3**	**596,051**	**72.9**	**37,524**
Afghanistan	652,860	48.4	73.7	23,133	36.4	..
Armenia	28,470	105.6	37.2	7,749	..	826
Azerbaijan	82,659	115.4	45.6	18,986	55.6	2,068
Georgia	69,490	78.8	46.5	18,854	36.4	1,578
Iran	1,628,550	48.0	27.1	229,057	74.3	8,560
Kazakhstan	2,699,700	6.4	46.7	97,155	88.7	14,329
Kyrgyzstan	191,800	30.4	64.4	18,500	..	417
Mongolia	1,553,560	1.9	28.8	49,250	..	1,818
Tajikistan	139,960	59.3	73.3	27,767	..	621
Turkmenistan	469,930	11.3	50.3	24,000	..	3,115
Uzbekistan	425,400	72.3	63.7	81,600	..	4,192
China	9,388,211	145.3	45.6	..	..	66,989
Middle East and Africa	**5,604,640**	**57.0**	**10.1**	**1,029,285**	**84.1**	**22,673**
Bahrain	770	1,768.7	11.3	4,147	83.7	..
Egypt	995,450	90.0	56.9	137,430	92.2	5,195
Iraq	434,320	80.2	30.6	41,716	..	2,138
Israel	21,640	379.7	7.9	18,566	100.0	1,193
Jordan	88,780	74.4	16.6	7,204	100.0	509
Kuwait	17,820	210.6	1.7	6,996	..	..
Lebanon	10,230	444.5	12.3	6,970	..	..
Oman	309,500	13.7	22.8	60,230	49.3	..
Palestine	..	..	..	..	..	
Qatar	11,610	187.1	0.8	9,125	..	..
Saudi Arabia	2,149,690	14.4	17.1	221,372	..	1,412
Syrian Arab Republic	183,630	120.7	42.7	69,873	64.9	2,139
Turkey	769,630	98.7	27.1	370,276	89.4	10,087
United Arab Emirates	83,600	108.7	14.7	4,080	..	..
Yemen	527,970	49.6	66.0	71,300	..	..
South Asia	**4,118,717**	**410.2**	**53.6**	**5,302,816**	**53.9**	**76,434**
Bangladesh	130,170	1,222.1	66.5	207,485	..	2,835
Bhutan	38,117	20.1	62.1	8,366	34.2	..
India	2,973,190	435.7	67.6	4,690,342	53.8	65,808
Maldives	300	1,336.7	55.5	88	..	..
Nepal	143,350	196.5	81.8	19,875	53.9	..
Pakistan	770,880	240.0	61.7	262,567	72.6	7,791
Sri Lanka	62,710	331.2	81.7	114,093	14.9	..
Southeast Asia	**4,340,497**	**143.9**	**19.8**	**1,266,230**	**59.4**	**14,608**
Brunei	5,270	79.2	23.1	3,127	82.3	..
Cambodia	176,520	86.8	79.5	39,618	..	..
Indonesia	1,811,570	140.5	47.0	496,607	57.0	4,684
Laos	230,800	29.0	62.4	41,029	13.7	..
Malaysia	328,550	91.0	26.0	155,427	80.9	2,250
Myanmar	653,080	81.8	66.4	37,785	45.7	..
Philippines	298,170	332.5	55.5	201,427	..	..
Singapore	707	7,736.5	..	3,412	100.0	..
Thailand	510,890	132.6	50.8	72,170	..	5,327
Timor-Leste	14,870	81.5	67.9	..	..	..
Vietnam	310,070	292.6	67.0	215,628	..	2,347

Source: World Bank
1/ Data is 2011

Table A3. Regional classification and concordance in GTAP

No.	Region	GTAP regions
1	Oceania	Australia, New Zealand, Rest of Oceania
2	People's Republic of China	People's Republic of China
3	Mongolia	Mongolia
4	Rest of East Asia	Hong Kong, Japan, South Korea, Rest of East Asia, Taiwan
5	South East Asia	Brunei, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, Viet Nam, Rest of South East Asia
6	Bangladesh	Bangladesh
7	India	India
8	Pakistan	Pakistan
9	Rest of South Asia	Nepal, Sri Lanka, Rest of South Asia
10	Central Asia	Azerbaijan, Kazakhstan, Kyrgyztan, Rest of former Soviet Union
11	West Asia	Bahrain, Iran, Israel, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates, Rest of West Asia,
12	Russia	Russian federation
13	Turkey	Turkey
14	North Africa	Egypt, Morocco, Tunisia, Rest of North Africa,
15	EU-28	Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom
16	North America	Canada, Mexico, United States of America, Rest of North America
17	Rest of the World	Argentina,, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela, Rest of South America, Costa Rica, Guatemala, Honduras, Nicaragua, Panama, El Salvador, Rest of Central America, Dominican Republic, Jamaica, Puerto Rico, Trinidad and Tobago, Caribbean, Switzerland, Norway, Rest of EFTA, Albania, Belarus, Ukraine, Rest of Eastern Europe, Rest of Europe, Armenia, Georgia, Benin, Burkina Faso, Cameroon, Cote d'Ivoire, Ghana, Guinea, Nigeria, Senegal, Togo, Rest of Western Africa, Central Africa, South Central Africa, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, Tanzania, Uganda, Zambia, Zimbabwe, Rest of Eastern Africa, Botswana, Namibia, South Africa, Rest of South African Customs, Rest of the World

Table A4: Main Indicators for Trading Across Borders, 2014

Region/Economy	Time for export (days)	Cost to export (US$ per container)	Time for import (days)	Cost to import (US$ per container)
Central and Eastern Europe	**17**	**1,531**	**17**	**1,619**
Albania	19	745	18	730
Belarus	15	1,460	30	2,265
Bosnia & Herzogovina	16	1,260	13	1,200
Bulgaria	18	1,375	17	1,365
Croatia	16	1,335	14	1,185
Czech Republic	17	1,240	17	1,215
Estonia	6	765	5	795
Hungary	17	885	19	845
Latvia	10	600	11	801
Lithuania	10	750	9	800
Macedonia	12	1,376	11	1,380
Moldova	23	1,510	27	1,870
Montenegro	14	985	14	985
Poland	15	1,050	14	1,025
Romania	13	1,485	13	1,495
Russia	21	2,401	19	2,595
Serbia	12	1,635	15	1,910
Slovakia	16	1,525	16	1,505
Slovenia	16	745	14	830
Ukraine	29	1,880	28	2,455
Central and Western Asia	**42**	**3,173**	**50**	**3,445**
Afghanistan	86	5,045	91	5,680
Armenia	16	1,885	18	2,175
Azerbaijan	27	3,460	25	3,450
Georgia	9	1,355	10	1,595
Iran	25	1,350	37	1,555
Kazakhstan	79	5,285	67	5,265
Kyrgyzstan	63	4,760	73	6,000
Mongolia	44	2,745	45	2,950
Tajikistan	71	9,050	70	10,650
Turkmenistan	..	..	..	..
Uzbekistan	54	5,090	104	6,452
China	21	823	24	800
Middle East and Africa	**29**	**2,096**	**33**	**2,314**
Bahrain	11	810	15	870
Egypt	12	625	15	790
Iraq	80	3,550	82	3,650
Israel	10	620	10	565
Jordan	12	825	15	1,235
Kuwait	15	1,085	20	1,250
Lebanon	22	1,080	30	1,365
Oman	10	765	9	700
Palestine				
Qatar	15	927	16	1,050
Saudi Arabia	13	1,285	17	1,309
Syrian Arab Republic	18	1,995	24	2,410
Turkey	13	990	14	1,235
United Arab Emirates	7	665	7	625
Yemen	29	1,065	27	1,560
South Asia	**18**	**1,312**	**22**	**1,453**
Bangladesh	28	1,281	34	1,515
Bhutan	38	2,230	37	2,330
India	17	1,332	21	1,462
Maldives	21	1,625	22	1,610
Nepal	40	2,545	39	2,650
Pakistan	21	765	18	1,005
Sri Lanka	16	560	13	690
Southeast Asia	**12**	**547**	**12**	**593**
Brunei	19	705	15	770
Cambodia	22	795	24	930
Indonesia	17	572	26	647
Laos	23	1,950	26	1,910
Malaysia	11	525	8	560
Myanmar	20	620	22	610
Philippines	15	755	15	915
Singapore	6	460	4	440
Thailand	14	595	13	760
Timor-Leste	28	410	26	415
Vietnam	21	610	21	600

Source: World Bank

Table A5: Selected Variables from Enabling Trade Index, 2014

Region/Economy	Overall Ranking	Market Access		Border Administration		Infrastructure	
		Score	Rank	Score	Rank	Score	Rank
Central and Eastern Europe	**56**	**3.4**	**75**	**4.7**	**57**	**4.2**	**52**
Albania	69	4.4	17	4.4	70	3.4	90
Belarus	—	—	—	—	—	—	—
Bosnia & Herzogovina	78	4.0	45	3.9	90	3.4	88
Bulgaria	70	3.4	75	4.7	57	4.1	55
Croatia	56	3.9	50	4.5	65	4.4	42
Czech Republic	39	3.4	75	5.1	37	4.9	28
Estonia	28	3.4	75	5.9	8	4.6	34
Hungary	50	3.4	75	5.1	38	4.4	43
Latvia	41	3.4	75	5.3	30	4.4	41
Lithuania	44	3.4	75	5.2	34	4.5	39
Macedonia	63	4.3	28	4.0	85	3.6	80
Moldova	92	4.3	27	3.3	116	3.5	87
Montenegro	49	4.2	33	4.7	54	3.9	65
Poland	45	3.4	75	5.2	31	4.3	49
Romania	75	3.4	75	4.6	58	3.8	68
Russia	105	2.8	132	3.6	103	4.2	52
Serbia	89	3.2	112	4.2	78	3.8	69
Slovakia	55	3.4	75	4.8	50	4.4	40
Slovenia	38	3.4	75	5.4	28	4.6	35
Ukraine	83	4.1	38	3.6	100	3.9	61
Central and Western Asia	**86**	**3.4**	**87**	**3.5**	**106**	**3.7**	**72**
Afghanistan	—	—	—	—	—	—	—
Armenia	53	4.6	9	4.3	73	3.7	73
Azerbaijan	77	3.6	66	3.8	94	3.9	62
Georgia	36	4.6	13	5.2	35	3.8	71
Iran	131	1.9	138	3.3	119	3.4	92
Kazakhstan	94	3.2	108	3.0	127	4.2	53
Kyrgyzstan	109	4.2	32	3.3	118	3.0	104
Mongolia	130	2.9	126	2.4	137	3.0	103
Tajikistan	—	—	—	—	—	—	—
Turkmenistan	—	—	—	—	—	—	—
Uzbekistan	—	—	—	—	—	—	—
China	54	3.1	119	4.9	48	4.6	36
Middle East and Africa	**43**	**3.7**	**64**	**5.0**	**43**	**4.4**	**43**
Bahrain	33	3.5	72	5.1	41	4.9	29
Egypt	97	3.3	103	3.4	109	4.0	58
Iraq	—	—	—	—	—	—	—
Israel	32	3.9	49	5.4	29	4.8	33
Jordan	40	4.0	43	5.1	39	3.9	59
Kuwait	74	3.2	113	4.5	66	4.1	57
Lebanon	82	3.8	60	4.2	77	3.7	74
Oman	31	3.8	54	5.1	40	4.5	38
Palestine	—	—	—	—	—	—	—
Qatar	19	3.8	59	5.2	36	5.1	24
Saudi Arabia	48	3.3	105	4.7	52	4.5	37
Syrian Arab Republic	—	—	—	—	—	—	—
Turkey	46	3.7	62	4.9	44	4.3	47
United Arab Emirates	16	3.2	109	5.7	17	5.8	10
Yemen	128	3.6	65	3.2	124	2.5	131
South Asia	**111**	**3.3**	**103**	**3.8**	**95**	**3.1**	**102**
Bangladesh	115	3.8	57	3.2	123	2.8	119
Bhutan	107	3.4	102	3.6	102	3.0	109
India	96	2.4	136	4.2	74	3.8	67
Maldives	—	—	—	—	—	—	—
Nepal	116	3.7	61	3.1	125	2.7	123
Pakistan	114	2.7	133	4.3	72	3.3	94
Sri Lanka	84	3.3	104	4.0	87	3.5	83
Southeast Asia	**64**	**4.2**	**34**	**4.3**	**71**	**3.9**	**64**
Brunei	—	—	—	—	—	—	—
Cambodia	93	4.1	36	3.4	108	3.1	101
Indonesia	58	4.4	20	4.4	69	3.9	64
Laos	98	4.1	39	3.4	114	2.9	115
Malaysia	25	4.0	40	5.2	33	5.1	23
Myanmar	121	4.3	25	3.3	117	2.1	136
Philippines	64	4.6	11	4.3	71	3.4	89
Singapore	1	5.5	2	6.3	1	6.1	1
Thailand	57	3.9	51	4.7	56	4.3	46
Timor-Leste	—	—	—	—	—	—	—
Vietnam	72	4.2	34	4.0	86	3.9	60

Source: WEF 2015

Table A6: Infrastructure, 2014

Region/Economy	Infrastructure, Total		Availability and quality of transport infrastructure		Availability and quality of transport services		Availability and use of ICT	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Central and Eastern Europe	**4.2**	**52**	**3.3**	**73**	**4.5**	**48**	**4.9**	**44**
Albania	3.4	90	2.4	116	3.9	74	3.8	74
Belarus	—	—	—	—	—	—	—	—
Bosnia & Herzogovina	3.4	88	2.8	89	3.8	87	3.8	79
Bulgaria	4.1	55	3.3	71	4.4	51	4.7	49
Croatia	4.4	42	3.8	51	4.5	48	5.0	39
Czech Republic	4.9	28	4.5	25	5.0	29	5.2	31
Estonia	4.6	34	3.2	78	4.7	37	6.0	12
Hungary	4.4	43	3.4	66	4.7	35	5.1	34
Latvia	4.4	41	3.3	73	4.8	32	5.2	32
Lithuania	4.5	39	3.6	59	4.6	42	5.2	30
Macedonia	3.6	80	3.0	82	3.6	100	4.3	58
Moldova	3.5	87	2.9	86	3.7	91	3.8	77
Montenegro	3.9	65	3.1	81	4.1	66	4.5	52
Poland	4.3	49	3.3	76	4.7	38	4.9	41
Romania	3.8	68	2.7	99	4.5	47	4.3	59
Russia	4.2	52	3.9	42	3.8	82	4.9	44
Serbia	3.8	69	2.6	103	4.3	55	4.4	54
Slovakia	4.4	40	3.8	52	4.6	41	4.9	43
Slovenia	4.6	35	3.9	43	4.9	30	5.0	35
Ukraine	3.9	61	3.7	55	4.2	61	3.9	70
Central and Western Asia	**3.7**	**72**	**3.5**	**63**	**3.7**	**95**	**3.8**	**75**
Afghanistan	—	—	—	—	—	—	—	—
Armenia	3.7	73	3.4	69	3.9	76	3.8	72
Azerbaijan	3.9	62	3.9	45	3.6	101	4.2	61
Georgia	3.8	71	3.7	56	3.6	99	4.0	68
Iran	3.4	92	3.5	65	3.7	90	2.9	103
Kazakhstan	4.2	53	3.6	61	4.1	65	4.9	42
Kyrgyzstan	3.0	104	2.6	105	3.1	128	3.4	90
Mongolia	3.0	103	2.3	125	3.0	129	3.8	78
Tajikistan	—	—	—	—	—	—	—	—
Turkmenistan	—	—	—	—	—	—	—	—
Uzbekistan	—	—	—	—	—	—	—	—
China	4.6	36	5.1	16	4.8	31	3.7	82
Middle East and Africa	**4.4**	**43**	**4.1**	**39**	**4.4**	**51**	**4.7**	**49**
Bahrain	4.9	29	4.4	32	4.5	46	5.8	17
Egypt	4.0	58	3.8	49	4.0	72	4.2	60
Iraq	—	—	—	—	—	—	—	—
Israel	4.8	33	4.0	40	4.8	33	5.6	24
Jordan	3.9	59	3.7	54	4.2	62	4.0	67
Kuwait	4.1	57	3.6	57	3.9	75	4.6	51
Lebanon	3.7	74	3.8	47	3.6	95	3.6	88
Oman	4.5	38	4.4	27	4.3	56	4.7	47
Palestine	—	—	—	—	—	—	—	—
Qatar	5.1	24	4.4	30	5.3	22	5.6	25
Saudi Arabia	4.5	37	4.1	38	4.5	44	5.0	40
Syrian Arab Republic	—	—	—	—	—	—	—	—
Turkey	4.3	47	4.5	26	4.7	36	3.8	75
United Arab Emirates	5.8	10	6.5	1	5.1	27	5.6	23
Yemen	2.5	131	2.1	131	3.2	124	2.1	126
South Asia	**3.1**	**102**	**3.1**	**79**	**3.7**	**91**	**2.6**	**114**
Bangladesh	2.8	119	2.3	120	3.6	103	2.4	118
Bhutan	3.0	109	2.8	90	3.4	112	2.6	112
India	3.8	67	4.3	34	4.3	57	2.9	104
Maldives	—	—	—	—	—	—	—	—
Nepal	2.7	123	2.3	121	3.4	116	2.3	120
Pakistan	3.3	94	3.4	67	3.9	78	2.5	116
Sri Lanka	3.5	83	3.6	62	3.9	79	3.1	97
Southeast Asia	**3.9**	**64**	**3.3**	**74**	**4.3**	**58**	**3.7**	**81**
Brunei	—	—	—	—	—	—	—	—
Cambodia	3.1	101	2.5	113	3.6	97	3.1	95
Indonesia	3.9	64	3.6	60	4.3	58	3.7	81
Laos	2.9	115	2.8	91	3.5	107	2.3	122
Malaysia	5.1	23	5.3	14	5.1	26	5.0	38
Myanmar	2.1	136	1.8	138	2.9	133	1.6	135
Philippines	3.4	89	2.7	96	3.8	84	3.7	85
Singapore	6.1	1	6.5	2	5.7	1	6.2	8
Thailand	4.3	46	4.4	28	4.7	39	3.9	71
Timor-Leste	—	—	—	—	—	—	—	—
Vietnam	3.9	60	3.3	74	4.4	50	4.1	64

Source: WEF 2015

Table A7: Weighted Transport shock

PRC to OBOR	Road transport	Sea transport
East Asia	22.15	5.00
PRC	0.00	0.00
Mongolia	25.00	0.00
Southeast Asia	13.00	1.65
South Asia	9.66	1.23
India	9.54	1.21
Pakistan	9.08	1.15
Bangladesh	13.63	1.73
Central Asia	8.82	1.12
West Asia	6.25	0.79
Russia	7.29	0.92
Turkey	5.55	0.70
Total	0.00	0.00

OBOR to PRC	1 Other Transport	2 Sea Transport
East Asia	22.15	5.00
PRC	0.00	0.00
Mongolia	25.00	0.00
Southeast Asia	13.00	1.65
South Asia	9.66	1.23
India	9.54	1.21
Pakistan	9.08	1.15
Bangladesh	13.63	1.73
Central Asia	8.82	1.12
West Asia	6.25	0.79
Russia	7.29	0.92
Turkey	5.55	0.70

Table A8: Calculation of Tariff Equivalent Reduction due to Improvement in Trade Facilitation

	Time to export	Time to import	Tariff equivalent	Reduction in days to export	Reduction in days to import	Tariff Equivalent of cut to days to export	Tariff Equivalent of cut of days to import
AGRCOM							
East Asia	7	6	0.1	0.00	0.00	0.00	0.00
PRC	21	24	0.1	1.80	2.40	0.24	0.24
Mongolia	44	45	0.1	5.25	5.55	0.56	0.56
Southeast Asia	12	12	0.1	0.45	0.60	0.06	0.06
South Asia	18	22	0.1	1.35	2.10	0.21	0.21
Central Asia	42	50	0.1	4.95	6.30	0.63	0.63
West Asia	42	50	0.1	4.95	6.30	0.63	0.63
Russia	21	19	0.1	1.80	1.65	0.17	0.17
Turkey	13	14	0.1	0.60	0.90	0.09	0.09
G7	9	8					
MINCOM							
East Asia	7	6	0.1	0.00	0.00	0.00	0.00
PRC	21	24	0.1	1.80	2.40	0.24	0.24
Mongolia	44	45	0.1	5.25	5.55	0.56	0.56
Southeast Asia	12	12	0.1	0.45	0.60	0.06	0.06
South Asia	18	22	0.1	1.35	2.10	0.21	0.21
Central Asia	42	50	0.1	4.95	6.30	0.63	0.63
West Asia	42	50	0.1	4.95	6.30	0.63	0.63
Russia	21	19	0.1	1.80	1.65	0.17	0.17
Turkey	13	14	0.1	0.60	0.90	0.09	0.09
G7	9	8					
FODCOM							
East Asia	7	6	0.1	0.00	0.00	0.00	0.00
PRC	21	24	0.4	1.80	2.40	0.96	0.96
Mongolia	44	45	0.4	5.25	5.55	2.22	2.22
Southeast Asia	12	12	0.4	0.45	0.60	0.24	0.24
South Asia	18	22	0.4	1.35	2.10	0.84	0.84
Central Asia	42	50	0.4	4.95	6.30	2.52	2.52
West Asia	42	50	0.4	4.95	6.30	2.52	2.52
Russia	21	19	0.4	1.80	1.65	0.66	0.66
Turkey	13	14	0.4	0.60	0.90	0.36	0.36
G7	9	8					
MNFCCOM							
East Asia	7	6	0.1	0.00	0.00	0.00	0.00
PRC	21	24	0.7	1.80	2.40	1.68	1.68
Mongolia	44	45	0.7	5.25	5.55	3.89	3.89
Southeast Asia	12	12	0.7	0.45	0.60	0.42	0.42
South Asia	18	22	0.7	1.35	2.10	1.47	1.47
Central Asia	42	50	0.7	4.95	6.30	4.41	4.41
West Asia	42	50	0.7	4.95	6.30	4.41	4.41
Russia	21	19	0.7	1.80	1.65	1.16	1.16
Turkey	13	14	0.7	0.60	0.90	0.63	0.63
G7	9	8					

Notes: The distance of PRC's days to export/import compared to G7 is reduced by 15%. The distance of Mongolia's days to export/import compared tocompared to G7 is reduced by 15%. The distance of Southeast Asia's days to export/import compared to G7 is reduced by 15%. The distance of South Asia's days to export/import compared to G7 is reduced by 15%. The distance of Central Asia's days to export/import compared to compared to G7 is reduced by 15%. The distance of West Asia's days to export/import compared to G7 is reduced by 15%. The distance of Russian Federation's days to export/import compared to G7 is reduced by 15%. The distance of Turkey's days to export/import compared to G7 is reduced by 15%.