CAREC Regional Integration Index (CRII): Interpretation and Policy Implications

Working Paper

December 2019

Disclaimer

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Table of Contents

List of Figures and Tables

Abbreviations

ABEC	Almaty-Bishkek Economic Corridor
ADB	Asian Development Bank
ADBI	Asian Development Bank Institute
AIIB	Asian Infrastructure Investment Bank
ARCII	Asia-Pacific Regional Cooperation and Integration Index
ASEAN	Association of Southeast Asian Nations
BIMP EAGA	Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area
BRI	Belt and Road Initiative
BTC	Baku-Tbilisi-Ceyhan
CAPS	Central Asian Power System Project
CAREC	Central Asia Regional Economic Cooperation
CCC	Customs Cooperation Committee
CIS	Commonwealth of Independent States
CPEC	China-Pakistan Economic Corridor
CRII	CAREC Regional Integration Index
CWC	CAREC with CAREC
EDB	Eurasia Development Bank
EEU	European Economic Union
EFTA	European Free Trade Association
FDI	Foreign Direct Investment
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GMS	Greater Mekong Subregion
GNI	Gross National Income
HDI	Human Development Index
IMAR	Inner Mongolia Autonomous Region
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
MFI	Money and Finance Integration
NRSO	National Registration and Statistics Office
PCA	Principle Component Analysis
PRC	People's Republic of China
RCI	Regional Cooperation and Integration
REI	Regional Economic Integration
RTA	Regional Trade Agreement
RTG	Regional Trade Group
RVC	Regional Value Chain
SCO	Shanghai Cooperation Organization
SDG	Sustainable Development Goal
SEZ	Special Economic Zone
SME	Small and Medium Enterprise
SOE	State Owned Enterprise
TAPI	Turkmenistan-Afghanistan-Pakistan-India
TIR	Transports Internationaux Routiers
TUTAP	Turkmenistan-Uzbekistan-Tajikistan-Afghanistan-Pakistan
UNDP	United Nations Development Programme
WTO	World Trade Organization
XUAR	Xinjian Uygur Autonomous Region

Foreword

In 2017, the CAREC Institute designed the CAREC Regional Integration Index (CRII) based on the Huh and Park Asia-Pacific Regional Cooperation and Integration Index (ARCII) to measure the depth and breadth of regional economic cooperation among the 11 member countries in CAREC. It compares the intra-CAREC state of integration vis-a-vis regional and global integration index rankings. It also helps identify policy gaps and enables the development of policy recommendations to enhance regional integration.

Within the specific context of the CAREC region, **regional integration is a strategy that promotes the benefits of collective and collaborative activities among member countries through economies of scale, more vigorous intra-regional trade, expansion of markets, shared information platforms for exchange, and harmonized frameworks for social and economic interaction.**

The dataset of 2006-2016 yielded a low integration score in CAREC, averaging 0.373.

Three growth areas and five knowledge corridors are proposed in CAREC, namely:

1) Azerbaijan-Georgia-Turkmenistan-Afghanistan-Pakistan growth area to connect the seaports of Azerbaijan and Georgia with the proposed Turkmenistan rail network, and with the Gwadar and Karachi ports of Pakistan.
2) Regional value chain growth area for the middle and far-west portions of CAREC to stimulate regional production systems primarily in agriculture whose outputs can move through the railway network in Turkmenistan and into the port outlets of Georgia and Azerbaijan, connecting the sub-region to Europe, as well as through the port outlets of Pakistan and into South Asia and the Middle East.
3) Cross-border tourism growth area involving all CAREC countries and the Silk Road branding.

Knowledge corridor proposals include:

1) Energy knowledge corridor to support several pipeline initiatives
2) Tourism knowledge corridor
3) Regional value chain knowledge corridor (agriculture, garments, animal industry, etc.)
4) Transport and logistics knowledge corridor to focus on the rail and seaport networks
5) Financial knowledge corridor to complement the Astana International Finance Centre in Kazakhstan and various knowledge providers in the PRC

The working paper explains the CRII, provides interpretation of the scoring, and proposes country-level recommendations.

From 2020 onwards, the CAREC Institute plans updating the CRII on an annual basis and organizing discussions among CAREC stakeholders to find policy measures to foster regional cooperation and integration.

Introduction

Regional integration in the Central Asia Regional Economic Cooperation (CAREC) region[1] is a development strategy underpinned by the assumption that economic interdependence and collective action, particularly among countries, would hasten and spur economic growth.

Within the specific context of the CAREC region, regional integration is a strategy that promotes the benefits of collective and collaborative activities among member countries through economies of scale, more vigorous intra-regional trade, expansion of markets, shared information platforms for exchange, and harmonized frameworks for social and economic interaction.

The prospect of achieving long-term sustainable development could be addressed by developing stronger ties with neighboring countries that could provide mutual benefits by strengthening their national economies through collaborative activities. By developing strong complementarities among economies through a unified regional strategy, CAREC member countries can respond to their domestic economic development needs at the same time (Mogilevskii 2012: 3).

Regional integration is a strategy that promotes the benefits of collective and collaborative activities among member countries through economies of scale, more vigorous intra-regional trade, expansion of markets, shared information platforms for exchange, harmonized frameworks for social and economic interaction.

Regional integration has proceeded apace since the post-Cold War period. In 1994, the Asian Development Bank (ADB) adopted a policy of regional cooperation that underpins its economic activities to promote economic growth and reduce poverty in the Asia-wide region. At the core of this "worldview" is a belief system premised on economic interdependence as a result of market-led and private sector activities combined with collective government action.

The CAREC Program is one such initiative of the ADB. With the participation of 11 member countries, the CAREC Program was launched in 2001. The Program has evolved into an intra-regional development and regional cooperation initiative. Since then, the ADB has steadily increased its support to the Program through investments in the member countries, currently totaling US$33 billion, to include loans, grants, and technical assistance covering 190 projects as of 2018[2].

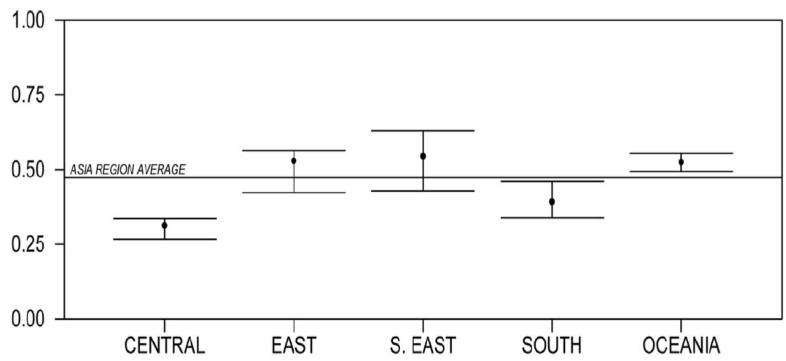
The portfolio of investments have primarily been in the energy, transport, and trade sectors, with the transport sector receiving the biggest share (US$24.4 billion or 77% of total investments), followed by the energy sector (US$6.6 billion or 21%), and lastly, by the trade/trade facilitation sector (US$580m or 2%). The biggest recipients were Kazakhstan (US$8.556m or 27%), Azerbaijan (US$5.882m or 19%), Afghanistan (US$4.457m or 14%), and Uzbekistan (US$5.653m or 18%). The smallest recipients were Mongolia (US$588 million or 2%), and Turkmenistan (US$569 million or 2%).

[1] The CAREC member countries include the People's Republic of China (Xinjiang and Inner Mongolia Autonomous Regions) and Mongolia in East Asia; Afghanistan and Pakistan in South Asia; Azerbaijan and Georgia in the Caucasus; Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan in Central Asia.
[2] CAREC 2030: Connecting the Region for Shared and Sustainable Development. https://www.adb.org/documents/carec-2030-connecting-region-sustainable-development (accessed on 26 November 2018).

The share of ADB financing as compared with other donors constituted about 36% (approximately US$12 billion).

Despite steady increase in investments under the CAREC Program over the past several years, the level of regional integration in CAREC remained low as compared with other regions (see Figure 1), notably Southeast Asia, East Asia and Oceania. Singapore in Southeast Asia is the most regionally integrated economy with a score of 0.630, exceeding the regional Asia-Pacific average of 0.473. The regional average for CAREC is at 0.373 significantly lower than the Asia-Pacific regional average. These were the findings of Huh and Park (2018) who developed the Asia-Pacific Regional Integration Index (ARCII), a composite measure comprised of multiple sub-indices to measure the level and degree of integration along six socio-economic dimensions.

Figure 1: ARCII values for selected subregions in Asia[3]



In 2017, the CAREC Institute designed the CAREC Regional Integration Index (CRII) based on the Huh and Park Asia-Pacific Regional Cooperation and Integration Index (ARCII) to measure economic cooperation among the 11 member countries. It compares the intra-CAREC state of integration with the integration reached in other regions and globally. It also helps identify policy gaps, pinpoints at possible areas of research, and serves as a basis for providing policy recommendations to enhance regional integration.

As the ARCII, the CRII also includes 26 indicators[4] that measure various aspects of regional integration along six dimensions: (i) trade and investment integration, (ii) money and finance integration, (iii) regional value chains, (iv) infrastructure and connectivity, (v) free movement of people, and (vi) institutional and social integration. The 26 indicators are normalized and aggregated using principal component analysis to yield an index ranging from 0 to 1, with higher values representing higher levels of integration.

Conceptualizing, designing, and developing an integration index posed challenges as the region is comprised of countries which exhibit characteristics that vary substantially in terms of size, scale, geography, political and economic systems, endowments and developmental levels.

The CRII augments the ARCII in terms of the following:

a) Focuses on CAREC member countries for a separate analysis of the subregion's performance on regional integration.

[3] Source: Hyeon-Seung Huh and Cyn-Young Park, "Asia-Pacific Regional Integration Index: Construction, interpretation, and comparison." Journal of Asian Economics 54 (2018), p. 32.
[4] See Annex 1 on page 56 for details.

b) Introduces sub-groups, namely, CAREC with CAREC (CWC) member countries and CWC excluding PRC (CWCexPRC) to address the size and scale asymmetries especially of the PRC vis-a-vis the other CAREC member countries.
c) Introduces new proxy variables for dimension II[5] on the "Money and Finance Integration" to reflect the state of financial development[6] and cooperation in the CAREC region. These proxy variables have been designed to take into account the development challenges faced by CAREC countries, particularly in terms of liberalizing the financial sector.

The CRII also helps analyze integration shortcomings to come up with suggestions and directions for regional integration policies that can serve as a guide to policymakers to achieve a balanced and desirable level of non-discriminatory open regional economic integration compatible with both domestic development challenges and regional cooperation aspirations.

Low CRII scores[7] in trade/investment and financial/monetary integration point to these areas as especially important for policy intervention. The paper elaborates policy interventions for each CAREC member to strengthen the groundwork. Additionally, *CRII suggests* possible research areas, such as: intra-regional business councils, mapping the terrain of multilateral and bilateral RTAs, the collective action problem, case studies focused on migration and mobility patterns, etc.

From 2020 onwards, the CAREC Institute plans updating the CRII on an annual basis and organizing discussions among CAREC stakeholders to find policy measures foster regional cooperation and integration.

Conceptual Framework for Regional Cooperation and Integration

Regional Cooperation and Integration (RCI) is a dynamic process that aims to deepen collaboration on various socioeconomic aspects and dimensions for shared prosperity and economic growth. The CAREC Program provides an open regional platform for member countries to scale up their level of economic connectivity and cooperation. Starting from infrastructure connectivity through transport corridors, the CAREC Program has been evolving steadily to promote the economic corridor development among member countries.

The process of economic integration comprises measures that entail "the suppression of some forms of discrimination, (for example) removal of trade barriers," (Balassa 1962: 2). Therefore, economic integration on a regional basis can be discriminatory for non-members if it drives away the competitive and efficient producers, termed as 'trade diversion,' and as it creates favorable terms for regional member countries, termed as 'trade creation.' The economies of scale and scope in such discriminatory regional economic integration arrangement would not be optimal for efficient

[5] Non-availability of data in a standardized format has been a serious handicap in developing the dimensions and indicators consistent with the ARCII. Some of the CAREC countries are still developing their capacity to record statistics on Money and Finance flows. Additionally, indicators on Infrastructure and Connectivity dimension are national data that refer to the Logistics Performance and Doing Business, respectively.
[6] "Financial development is defined as a combination of depth (size and liquidity of markets), access (ability of individuals to access financial services), and efficiency (ability of institutions to provide financial services at low cost and with sustainable revenues, and the level of activity of capital markets)." See the IMF Staff Discussion paper "Rethinking Financial Deepening: Stability and Growth in Emerging Markets". https://www.imf.org/external/pubs/ft/sdn/2015/sdn1508.pdf
[7] 2006-2016 data

allocation of resources for static gains (trade creation) or losses (trade diversion[8]). Similarly, trade among the regional members can create winners and losers as trading arrangements entail the exchange of products and services based on regional competitive advantage, preferential market access and preferential treatment for members that encourage relatively competitive sectors to thrive and uncompetitive sectors to realign their allocation of resources to regionally competitive areas. In this process, the uncompetitive sectors can be weeded out. Consequently, the vulnerable sectors may also shed jobs and even face partial or complete closure.

Another important feature of integrated markets is the price convergence for factors of production across and beyond national boundaries. A unified market for goods, services, capital, and labor along with infrastructure connectivity and financial cooperation, exhibits unique equilibrium and is envisioned to achieve "economic and technical cooperation to address shared vulnerabilities and risk," (UNESCAP 2016). In general, **RCI is a process of attaining a single market status for different factors of production that entail "freer movement of goods, services, labor, and capital across borders. . . (as well as) observing the evolution of different indicators of regional interaction in areas such as production and investment, finance, macroeconomic links, and people to people exchanges," (Woo 2008).**

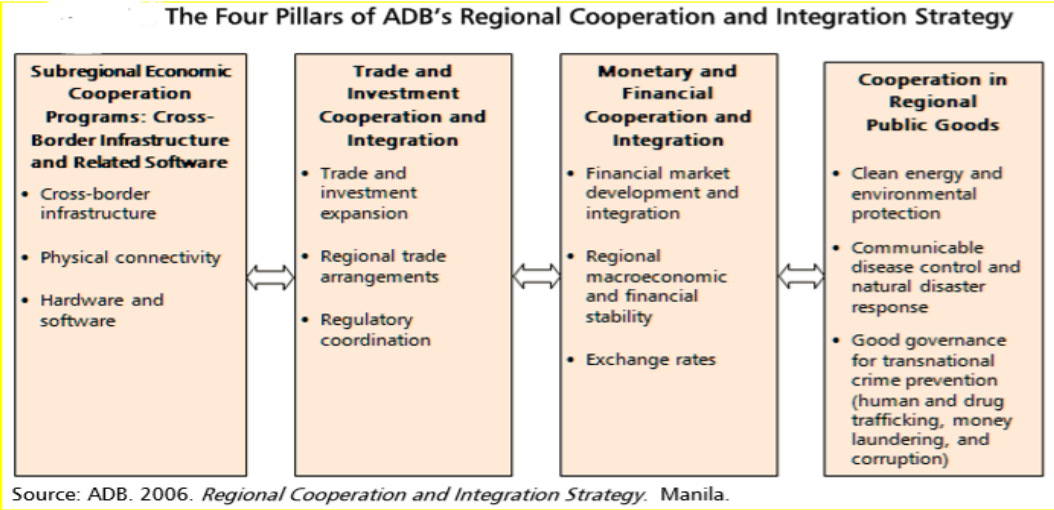
Figure 2 below is a representation of four pillars for RCI, conceived by the ADB in 2006, and serves as the overall strategy to guide all regional cooperation and integration efforts.

Other indicators have been suggested to measure the degree of economic integration. Petri, Capannelli and Lee (2009) identify intraregional trade and investment shares, correlation of equity prices in the region's stock markets, correlation of gross domestic product across regional economies, and intraregional flows of tourism, among others. Also, regional price convergence is an important criterion to assess perfect market integration. Other measures may also be considered, e.g. reduced intraregional income gaps among countries and common structural changes to the economies under scrutiny. The efforts and initiatives for developing statistical measures to quantify the regional economic integration have been made by many researchers and institutions in an attempt "to develop composite indicators for regional integration and cooperation," (Dreher 2006, Chen and Woo 2008).

Similar past initiatives have informed the development of the CAREC Regional Integration Index (CRII), among them, the Composite Index of Economic Integration in the Asia-Pacific Region (Bo and Woo 2008); the European Union Composite REI Index (Konig and Ohr 2017); and the Africa Integration Index (UN Economic Commission for Africa 2016). Among these, the European Union (EU) Composite REI Index is the most comprehensive and provides the widest scope of coverage in terms of convergence and integration of markets.

[8] These terms were coined by Jacob Viner (1950), who defined trade creation as taking place whenever economic integration leads to a shift in product origin from a domestic producer whose resource costs are higher to a member producer whose resource costs are lower. Taken from Appleyard-Field-Cobb, International Economics. The McGraw-Hill 2010.

Figure 2: The four pillars of ADB's regional cooperation and integration strategy



Methodology for CRII Construction

The CRII was developed in consonance with the ADB's overall strategy for RCI which consists of four pillars, namely, i) cross-border infrastructure and related software, ii) trade and investment cooperation and integration; iii) monetary and financial cooperation and integration, and iv) cooperation in regional public goods. It follows the procedures and steps adopted by ARCII in developing the index, particularly with regard to data normalization, weighting, and aggregation steps.

Building on the ARCII 2018 methodology[9], the CRII also employs a panel dataset to assess the extent and evolution of the regional cooperation and integration (RCI) over the period of 2006-2016 in CAREC. The panel dataset of the dimensions and their constituent indicators exhibits the dynamic movement of the RCI process within the sub-region and each national economy. Evolution of each of the economies within the sub-region or beyond depends on a host of factors.

The index's ability to filter out the (over- or under-) dependence of some countries with the sub-regional partners or beyond is modest and may need to be improved in the subsequent versions of the CRII.

Higher index values posit increasing interdependence and cooperation, thus enhanced integration. As Park and Claveria (2018: 34) note: "Unlike the cross-sectional analysis employing a single year, a panel approach adds comparability of the indices over time, which allows for a richer and more dynamic analysis of composite indices across different periods. It enables an analysis of the time evolution and identification of main drivers and weakest links of overall integration at the sub regional, regional, and global levels over different periods of time."

Similar to ARCII, the CRII did not include the 'trade in services' and service liberalization variables for the 'Trade and Investment' dimension due to unavailability of data. The omission of these important

[9] Park, Cyn-Young, and Racquel Claveria. May 2018. Constructing the Asia-Pacific Regional Cooperation and Integration Index: A Panel Approach. Manila: ADB Economics Working Paper Series

variables that capture the share of trade in services and determine the level and extent of RCI may limit the explanatory power of the CRII.

Regardless these limitations, CRII 2017 tracks contribution, evolution, and change of each of the dimensions in the composite index for the sub-region and each economy during the period of 2006 to 2016.

A new set of four proxy variables for the Money and Finance Integration (MFI) dimension was added to reflect the level of financial cooperation and market development in CAREC. The MFI dimension uses four variables from the IMF Financial Development Index[10] as follows: i) FID-Financial Institutions Depth; ii) FIE-Financial Institutions Efficiency; iii) FMD-Financial Market Depth; and iv) FMA-Financial Market Access.

The Principal Component Analysis

The principle component analysis (PCA) is a statistical procedure that summarizes a dataset into a smaller number of dimensions while preserving the variation in the data to the maximum extent possible. The PCA determines the weight of each dimension in the CRII.

Originally introduced by Pearson (1901) and independently developed by Hotelling (1933), the PCA transforms the original set of variables into Principal Components (PC) which are orthogonal to each other. Each PC is a linear combination of all indicators. The first PC accounts for the largest amount of the total variation (information) in the original data, the second PC explains the second largest variation and so on. The normalized loadings in a PC are the weights of the corresponding indicators in the dimension represented by that PC (Bo & Woo 2008).

The first principal component is selected as the linear index of all the variables that capture the largest amount of information common to all the variables which may then be used as the index. This approach allows the determination of the most appropriate weightings for each variable to derive an index which captures maximum variation (Abeyasekera 2018). From this methodology, the composite index is derived. The score between 0 - 1, derived from the min-max normalization method, reflects the relative strength or weakness of each of the components. The highest possible score is 1, which reflects perfect integration, while a score of 0 reflects no integration whatsoever.

Country Scoring

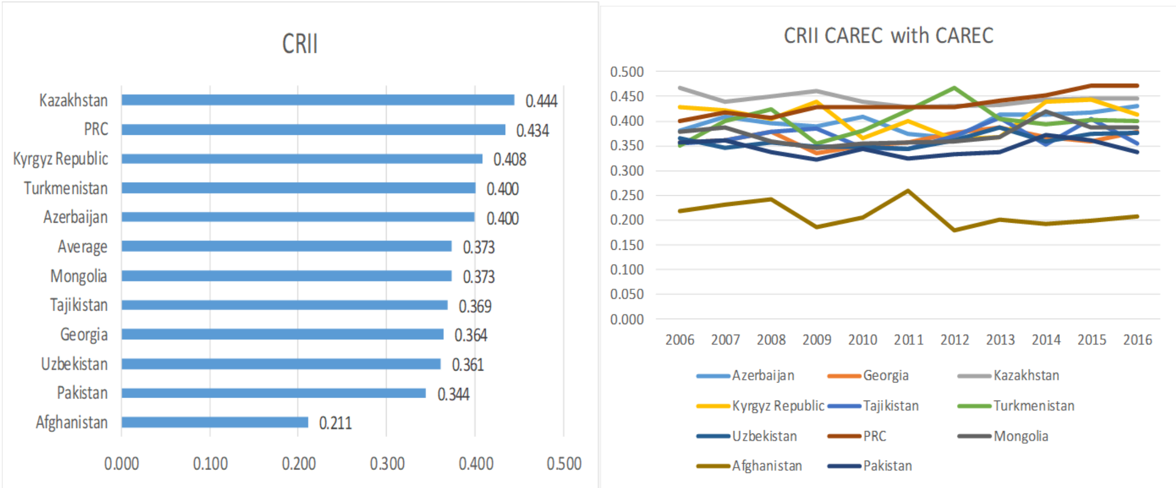
The dataset of 2006-2016 yielded the regional average of 0.373. Countries with above average scores are Kazakhstan (0.444), the PRC (0.434), Azerbaijan (0.400), Kyrgyzstan (0.408), and Turkmenistan (0.400). The following countries have the lowest integration scores: Mongolia (0.373), Georgia (0.364), Tajikistan (0.369), Uzbekistan (0.361), Pakistan (0.344), and Afghanistan (0.211).

Across all CAREC members, Kazakhstan and the PRC generated the highest degree of intra-sub-regional integration for the period 2006 to 2016, with an exception for the year 2012 where Turkmenistan exhibited a score of 0.467. More specifically, Kazakhstan obtained the highest score from years 2006 to 2011 with an average score of 0.444, while the PRC generated the highest score from years 2013 to 2016 with an average of 0.434.

[10] Katsiyarina Svirydzenka “Introducing a New Broad-Based Index of Financial Development,” IMF Working Paper 16/5 (2016), pp.8-9 https://www.imf.org/external/pubs/ft/sdn/2015/sdn1508.pdf (accessed on 18 June 2019)

In contrast, Pakistan and Afghanistan displayed the lowest integration within the CAREC region. Afghanistan is consistently at the bottom during the same period, with an average score of 0.211. Pakistan placed second to the bottom throughout the sample period, where its average score is 0.344 (see Figure 3 below). These results indicate that intra-trade in the CAREC region is still at a low level and is consistent with the ARCII report (Huh and Park 2018).

Figure 3: CAREC Regional Integration Index (CAREC with CAREC), 2016



The China Factor

When the PRC data is removed from the calculations (hereinafter referred to as CAREC ex PRC), integration scores vary.

Kazakhstan, Kyrgyzstan, Uzbekistan, Georgia, Azerbaijan, Tajikistan, and Pakistan are relatively more integrated into the CAREC region when the PRC data is excluded from the analysis. Without the PRC data, the average level of integration within the region is slightly higher. More specifically, the average CRII for CAREC with CAREC is 0.373 while the average CRII for CAREC with CAREC excluding the PRC data is 0.399. Country scores affected by removal of the PRC data are shown in Figure 4 below.

Findings further indicate that scores of both Mongolia (0.332) and Pakistan (0.349) fall below the regional average (0.399), suggesting that both countries are more dependent on trade relationships with the PRC than with other countries. Afghanistan remains the least integrated in the region with or without the PRC data.

The role of the PRC in the CAREC region remains significant, as is evident in the structure of foreign trade between CAREC countries and the PRC. Kyrgyzstan, Tajikistan, and Uzbekistan are the major importers of the Chinese goods. In turn, the PRC is the main destination for Kazakhstan and Turkmenistan exports. Both countries are energy exporters, while Kyrgyzstan and Tajikistan have the highest percentage of imports compared with other CAREC countries. Both Mongolia and Pakistan indicate consistency in foreign trade turnover with the PRC for the period of 2010-2016. As a member of the CAREC region, the role of the PRC cannot be discounted, given the size of its market, and its direct proximity to the CAREC members. See Tables 1 and 2 below.

Figure 4: CAREC Regional Integration Index (ex PRC), 2016

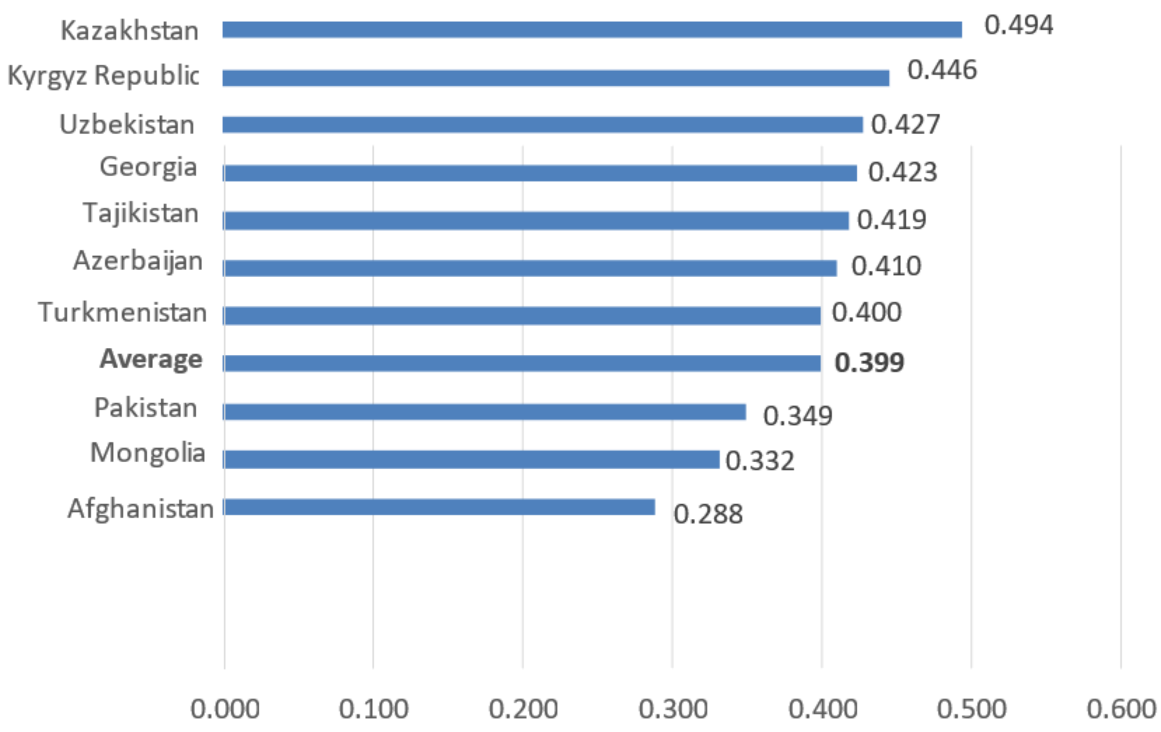


Table 1: Foreign trade turnover share (%) of CAREC countries with the PRC, 2010-2016

	KAZ	KGZ	TJK	TKM	UZB	AZE	CHN	AFG	PAK	MNG
2010	2.8	0.2	0.1	0.6	0.7	1.2	92.2	0.3	1.8	0.2
2011	2.9	0.2	0.1	0.7	0.6	1.3	92.0	0.2	1.7	0.3
2012	3.0	0.2	0.1	0.8	0.6	1.2	92.0	0.3	1.6	0.3
2013	2.8	0.2	0.1	0.7	0.6	1.1	92.5	0.2	1.5	0.3
2014	2.3	0.1	0.1	0.7	0.5	1.0	93.2	0.2	1.5	0.3
2015	1.6	0.1	0.1	0.5	0.5	0.8	94.3	0.2	1.6	0.2
2016	1.4	0.1	0.1	0.5	0.6	0.8	94.5	0.3	1.6	0.2

Table 2: Major trading partners of selected Central Asian countries, 2016

Units	UZBEKISTAN		KAZAKHSTAN		KYRGYZSTAN		TAJIKISTAN		TURKMENISTAN	
Export Partner (% of exports)	China	16.4	Italy	20.3	Switzerland	45.5	Kazakhstan	20.9	China	70.9
	Russia	14.7	China	11.5	Kazakhstan	10.6	Turkey	20.3	Turkey	5.4
	Kazakhstan	7.8	Russia	9.5	Russia	10.2	Italy	10.0	Italy	5.4
Import Partner (% of Imports)	China	21.0	Russia	36.3	China	38.1	China	52.0	Turkey	24.9
	Russia	20.3	China	14.6	Russia	20.8	Russia	20.1	Russia	11.4
	Republic of Korea	9.6	Germany	5.7	Kazakhstan	10.5	Kazakhstan	11.3	Japan	7.9

Trading Partners outside of CAREC

Apart from the PRC, there is trade with other regions that have the potential for growth and integration.

In 2013, Japan and the Republic of Korea along with the PRC, ranked among the top ten trading partners for several CAREC members. Japan's total trade with Kazakhstan amounted to some US$1.7 billion. The Republic of Korea's trade with Uzbekistan stood at US$2.2 billion and US$1.4 billion with Kazakhstan. In the same year, Turkey was Kazakhstan's major trading partner at US$3 billion, US$2.75 billion with Turkmenistan, and US$1.36 billion with Uzbekistan. While trading relationships with Southeast Asia remain modest, the potential exists in the areas of investment, tourism, and energy (Contessi 2016: 4-5). Table 2 above shows the intensity of trading relationships between and among CAREC countries within and outside the region.

CRII Component Scoring

The 2006-2016 data of the CRII yielded the lowest scores in Trade and Investment (0.137), and Money and Finance (0.157). The highest scores are reported in Institutional and Social Integration (0.181) and Movement of People (0.180), followed by Regional Value Chain (0.176), and Infrastructure and Connectivity (0.168) dimensions.

Relatively high scores in **Institutional and Social Integration** suggest that all countries have signed the regional trade agreements and are members of several, sometimes overlapping, regional blocs, even while these agreements have yet to translate into concrete results (Linn and Pidufula 2008).

Relatively high scores for the dimension of **Movement of People** suggest that where borders have become relatively open, the movement of people was a more immediate result than the movement of goods. Furthermore, economies of Kyrgyzstan and Tajikistan are heavily dependent on remittances from labor migration to Kazakhstan and Russia. Estimated contribution of remittances to GDP in 2012 for Kyrgyzstan and Tajikistan is 31.3% and 44.2% respectively (ADBI Working Paper 2014: 15).

Table 3: Dimensions and weights of regional integration in intra-CAREC, 2016

	Dimensions	**Weights**
I	Trade and Investments	0.137
II	Money and Finance	0.157
III	Regional Value Chains	0.176
IV	Infrastructure and Connectivity	0.168
V	Movement of People	0.180
VI	Institutional and Social Integration	0.181

With regards to the sub-dimensions, all countries in the CAREC region displayed *high volatilities* for Trade and Investment.

Furthermore, all CAREC members, except for the PRC, have persistently obtained low scores in **Money and Finance**. The PRC continuously attained the highest scores of 0.788, followed by Kazakhstan with an average score of 0.381. However, these scores should be treated with caution. Financial development does not equate with financial integration, rather these scores reflect the depth of financial markets in both countries, i.e. both have well developed banking systems, have stock market exchange, and bond markets, among others. However, these indicators do not signify that mentioned financial systems are sufficiently liberalized to account for integration with other CAREC countries. Notwithstanding the utility of the proxy variables, the results of countries on the financial sub-dimension point to the inadequacy of the proxy variables which calls for further analysis[11].

In addition, lack of financial integration is a reflection of the relatively underdeveloped state of Asian economies. According to a World Bank working paper (2016), developing economies lack “safe assets in which to allocate their excess savings,” prompting investments in developed economies where assets are deemed safer. The higher level of financial development in advanced market economies are evident in availability of financial instruments for both domestic and foreign savers, as well as sophistication of its financial markets that allow for overseas investments and diversification of risk internationally.[12] In a scenario of high-level sophistication of financial markets and institutions, the appetite for financial integration increases accordingly. The situation in most Central Asian economies is far from optimal in terms of a diversified market and robust institutions to encourage an intra-regional financial dynamism.

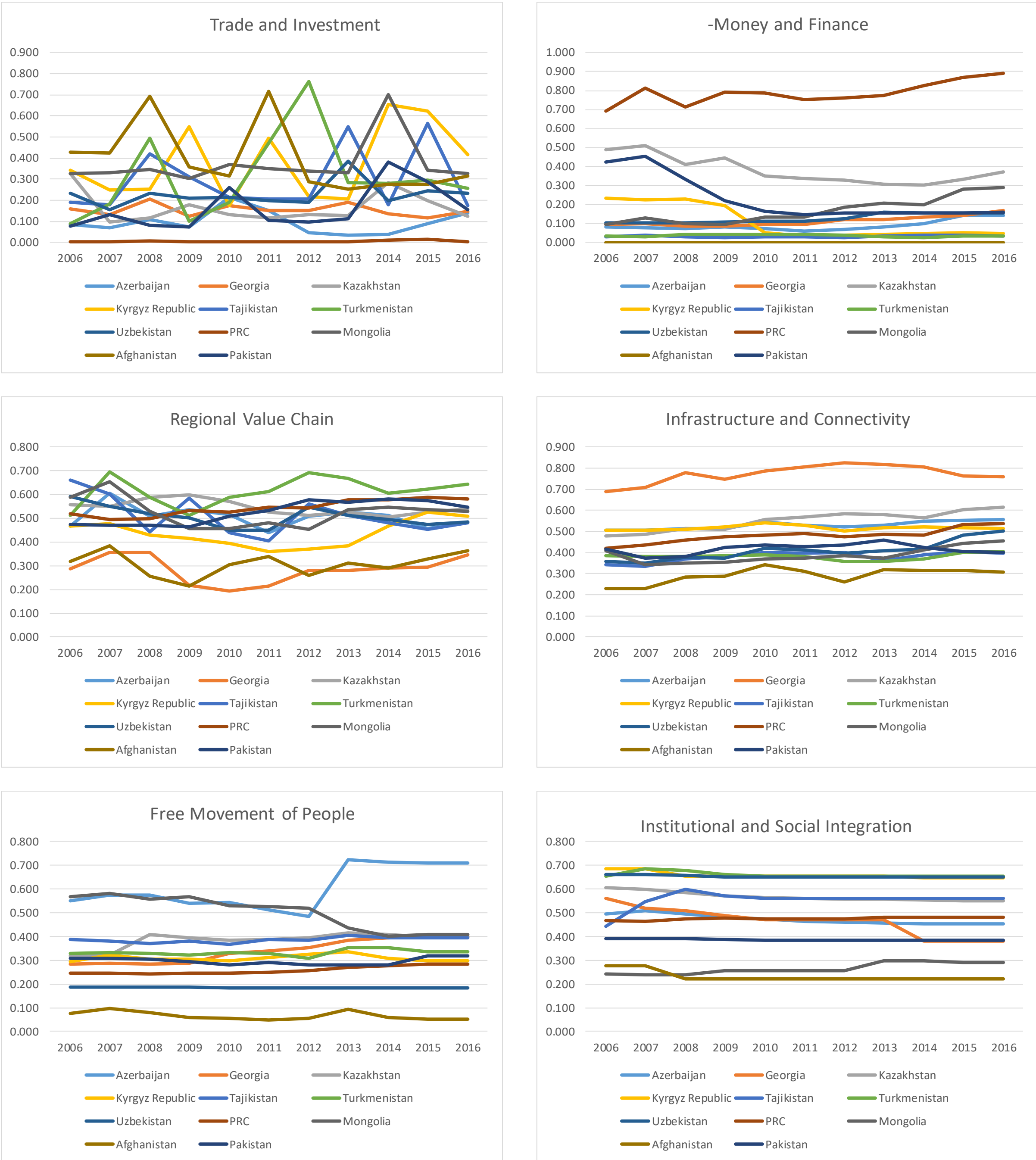
All CAREC member countries exhibited relatively high volatility in the **Regional Value Chain** dimension. Turkmenistan displayed the highest score for most of the period. The only exception is in the year 2009, where Kyrgyzstan obtained a higher score than Turkmenistan in the Regional Value Chain with a score of 0.6 versus 0.514, respectively.

In terms of other dimensions, there is relatively stable movement across all countries except for Azerbaijan regarding the Movement of People dimension from year 2012 to 2013 when its score almost doubled. The Movement of People dimension is led by Mongolia and Uzbekistan. Mongolia obtained the highest score from 2006 to 2010 and went into a downward trend starting in 2011, while Uzbekistan generated the maximum score from 2011 to 2016.

[11] The authors are grateful to the comments of ADB-ECRI in recommending the use of the Financial Liberalization Index as another possible proxy variable. Continued research is warranted in the financial/monetary sub-dimension to sharpen the analysis.

[12] Tatiani Didier, et.al. (July 2016). International Financial Integration of East Asia and Pacific. The World Bank: Development Research Group, Macronoecomics and Growth Team and Development Economics Vice-Presidency Operations and Strategy Team. Policy Research Working Paper 7772, p.3.

Figure 5: Country performance on CRII dimensions



Policy Implications: Constraints and Possibilities

Since the Central Asia Regional Economic Cooperation (CAREC) Program is not a formal regional trade or economic integration agreement, there is a policy question to explore the optimal level of integration in CAREC. Further, the CAREC members present wide disparities and asymmetries. The economic endowments of each of the countries differ from one another. The CAREC member countries exhibit a big variety of heterogenous factors that have an impact on intra-regional trade. Among these are differences in population, land, natural resources, proximity to centers, and size of markets. Azerbaijan, Kazakhstan, Uzbekistan, and Turkmenistan are resource-rich economies and have boosted their economies since post-independence primarily through energy trade with China and Russia. Tajikistan and Kyrgyzstan have abundant hydro resources with potential for intra-regional trade. However, there are asymmetries in the size, scale, and scope among CAREC member countries. Most countries are landlocked and mountainous; thus, the mobility of goods is a challenge. Among the significant features are the following:

a. The PRC's GDP is 95% of the CAREC GDP.
b. The PRC's import share is 94% of CAREC imports.
c. The PRC's export share is 93% of the total share of CAREC.
d. Kyrgyzstan, Mongolia, and Tajikistan each account for only about 0.1 percent of the region's GDP.
e. CAREC member countries, even excluding the PRC, remain asymmetric due to Pakistan, Kazakhstan, and Uzbekistan whose large scale and size account for about 80% of the GDP of the subgroup, with 47.2%, 22.2%, and 11.1% of subgroup's GDP respectively.
f. The market structure, state-owned enterprises, SMEs, and public and private sectors in all countries are at various stages of development.
g. Eight CAREC members are landlocked and need freedom of transit rights under the TIR and WTO Trade Facilitation Agreement.
h. Azerbaijan, Turkmenistan, and Uzbekistan still do not have WTO membership.
i. The CAREC region can aptly be described as fragmented. Each CAREC member has its bilateral trade and economic cooperation agreement. Kazakhstan and Kyrgyzstan are members of the Eurasian Economic Union. The PRC has separate Free Trade Agreements with Pakistan and Georgia. This situation makes for a disjointed relationship among member countries.
j. Another fact is that the CAREC Program members do not constitute a historical sub-regional group. Although, the ancient Silk Road could be a binding theme, and five Central Asian countries and two countries in the Caucasus share some linguistic and historic ties of the soviet times.

Given the aforementioned situation, the following policy challenges and questions arise for the CAREC economic integration:

a. Should member countries graduate from the current informal arrangement under the CAREC Program to a more formal economic integration arrangement based on bilateral, plurilateral (CAREC regional) or multilateral open regionalism paradigms and principles?
b. What would be the trade-offs to achieve a balanced and desirable level of non-discriminatory open regional economic integration which is compatible with both the domestic development challenges and regional cooperation aspirations and that can also facilitate accelerated economic growth and sustainable development in the region.

c. Given the size and scale asymmetries, how to incorporate the enabling clauses[13] like Special and Differential Treatment for the landlocked economies, etc. into an economic integration arrangement.
d. How to integrate the Sustainable Development Goals (SDGs) and COP 21 commitments under the CAREC economic integration framework agreements

Notwithstanding the multiple challenges posed by the above-mentioned policy environment and against the backdrop of low integration scores, CAREC possesses positive ingredients for regional integration and cooperation. The scores of countries along the six dimensions reveal priority areas that *exhibit a stronger integration potential* on specific dimensions to guide policymakers.

Emphasis is placed on cross border trade and investment, movement of people, and institutional/social integration according to the following rationale:

a) Due to specific features within the region, intra-regional trade is a significant factor in the economic development for all countries in CAREC. Some countries are geographically landlocked and are remotely located from most global economic centers. Population size is relatively small compared with other regions (e.g., the ASEAN, South Asia). To overcome these deficiencies, intra-regional trade is one of the most significant solutions that would spur economic growth and harness the region's overall potential.

b) Connectivity through investments in infrastructure remains a key component for intra-regional trade. Connectivity needs to be improved through stronger interlinkages within the region to promote intra-regional trade. Expansion of existing land-based corridors that were built under the CAREC Program will improve interlinkages and will further stimulate infrastructure development as trade proceeds apace.

c) Proximity of CAREC to the PRC is a positive factor in stimulating cross-border trade. As the world's second largest economy, the PRC is a strategic resource to CAREC members who stand to benefit from their geographic location vis-à-vis the PRC. Alongside the natural resources that are highly valuable to the PRC, particularly oil and gas reserves and the high potential of renewable energy resources, the CAREC region can leverage this strategic location to its advantage through intra-regional trade with the PRC.

d) The CAREC region is the site of growing dynamism and economic vibrancy as investments in the revival of the Silk Road are proceeding at a steady pace. An estimated US$350 billion[14] worth of investments will have a direct impact on intra-regional trade and will have far-reaching effects on connectivity within and beyond the region.

e) Finally, intra-regional trade is imperative for CAREC countries whose development remains fragile and unstable. Afghanistan provides an illustrative case where integration within

[13] The Enabling Clause is the WTO legal basis for the Generalized System of Preferences (GSP). Under the Generalized System of Preferences, developed countries offer non-reciprocal preferential treatment (such as zero or low duties on imports) to products originating in developing countries. Preference-giving countries unilaterally determine which countries and which products are included in their schemes. The Enabling Clause is also the legal basis for regional arrangements among developing countries and for the Global System of Trade Preferences (GSTP), under which a number of developing countries exchange trade concessions among themselves. https://www.wto.org/english/tratop_e/devel_e/d2legl_e.htm
[14] "Chinese firms' planned investment of US$350 billion along new Silk Road exposed to risk," South China Morning Post. 24 October 2017. https://www.scmp.com/business/companies/article/2116784/chinese-firms-planned-investments-us350b-projects-along-new-silk (accessed on 19 June 2019)

CAREC would likely spur economic growth, promote institutional development, (re)build the country's social and economic foundations that would lead to long-term stability. Investments that are properly calibrated and implemented in Afghanistan would be beneficial not only to Afghanistan but to the region as a whole.

Policy Directions and Suggestions

The CRII scoring and other analysis suggests the following policy priorities.

Trade and Trade Facilitation

The low integration scores in the CAREC region (2006-2016 data) is a function of multiple factors, chief of which is the degree of trade openness among the member countries. Difference in the degree of economic openness is evident throughout the region, with some countries exhibiting relatively greater openness. Trade openness is defined as the trade/GDP ratio and is expressed in percentage terms.

Both Kyrgyzstan and Kazakhstan exhibit greater degrees of openness (38% on average) as opposed to the less open economies of Tajikistan, Turkmenistan, and Uzbekistan (26% on average). In the post-independence period, reforms have been introduced to liberalize the economies within the region, the implementation of which has also been different from one another. Kazakhstan and Kyrgyzstan implemented reforms faster than did Tajikistan, Turkmenistan, and Uzbekistan, which resulted in differences in degrees of trade openness (Mazhikeyev, Edwards and Rizov 2016: 935).

The two core and vital dimensions namely Trade and Investment (TI) and Money and Finance (MF) which generally reflect overall regional cooperation and integration in Asia and the Pacific do not drive integration within the CAREC region. According to Park and Claveria (2018: 9), "of the six dimensions featured in the ARCII, trade and investment and movement of people are the main drivers of regional integration, while the Money and Finance dimension was the weakest link." The low values of the TI (0.232) and MF (0.189) necessitate a more formal regional trade agreement to enhance trade, investment, finance, and money market integration in the region and beyond.

Implementation of the trade facilitation measures under the WTO Agreement and elimination of non-tariff barriers can help reduce the high costs of trade across borders in CAREC. Establishing cross-border free trade areas along various CAREC corridors will transform transport connectivity into meaningful economic connectivity and integration.

In the absence of "trade adjustment schemes" to compensate the vulnerable sectors (which have been rendered uncompetitive due to regional liberalization), these sectors should be provided with retraining and capacity building to shift or realign to competitive and thriving sectors. Further, regional agreements need provisions for checking unfair trade practices[15] and policy support for technology transfer and upgrade of technology to mitigate the short-term pains of the liberalization process.

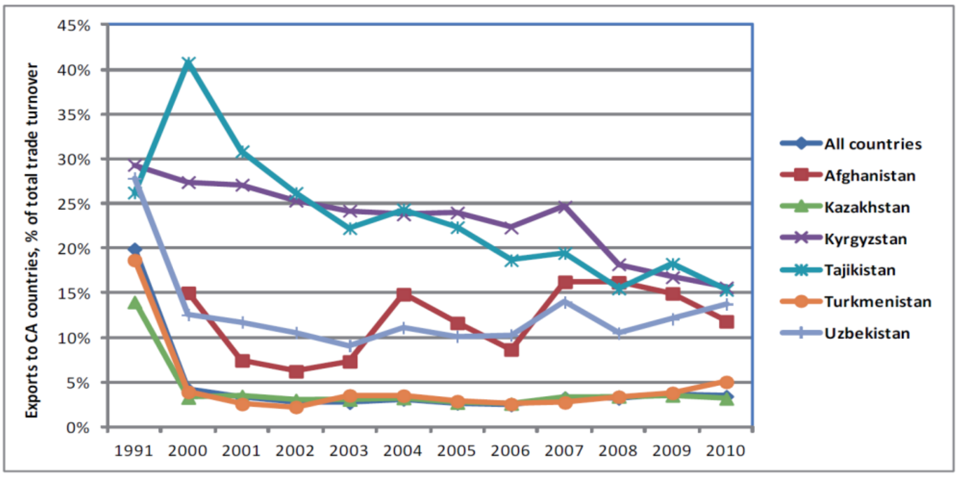
Elimination of non-tariff and other regulatory barriers, to enhance cross-border trade can be achieved by fully implementing the WTO Trade Facilitation Agreement commitments in the region.

[15] These consist of anti-dumping, subsidies, and other countervailing measures

Freedom of Transit for landlocked economies and other multimodal transportation issues need to be settled per global compacts like TIR[16] and World Customs Organizations legal instruments[17].

Much of the cross-border trade in the CAREC region occurs informally (ADB Working paper 2014). In the aftermath of the breakdown of the Soviet Union three decades ago, market mechanisms evolved as a very gradual process during the transition period (Morris and Polese 2014). Borderland trade stepped in to fill the vacuum, generated employment, stimulated cross-border trade albeit in an unregulated fashion, and provided incipient market linkages among contiguous countries. These features of the cross-border economy are significant in terms of contextualizing policy responses to regional integration efforts. **Regional integration through trade is a function of the ability of governments to enact policies that formalize trade regimes and reduce informal trade activity.** In turn, these policies can address issues such as regulatory burdens on financial and product markets, as well as reform labor markets through more formalized employment and labor welfare regimes. Cross-border economic zones and other reciprocal market access and service liberalization commitment by relatively bigger economies may also create shared and sustainable regional cooperation and integration in the region.

Figure 6: Dynamics of intra-regional trade turnover (1991 – 2010)[18]



Source: COMTRADE, IMF, World Bank, national statistical agencies of CA countries, in Mogilevskii (2012), p. 14

The literature on informal trade acknowledges the difficulty of measuring the size of the informal economy. However, there have been numerous estimates that attempt to capture the contribution of the informal economy to GDP. For example, Tajikistan's informal trade was estimated at 40% of GDP per capita in 2015, in contrast to its contribution of formal trade to GDP (16.52%) in 2016. In Kyrgyzstan and Kazakhstan, the size of the shadow economy as a percentage of GDP was estimated at 30.8% and 32.8% respectively. Further, Kazakhstan's informal imports amounted to almost US$6 billion, constituting almost 20% of total formal imports, whereas Kyrgyzstan's informal trade in the garment sector alone was estimated at around 16.5% of GDP in 2010 (Mogilevskii 2012: 17).

[16] "Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention) was drafted in 1975. It replaces the original Transport Internationaux Routier (TIR) Convention from 1959 and came into force on 20 March 1978. The convention has now 68 contracting parties." Source: http://tfig.unece.org/contents/TIR-convention.htm

[17] http://www.wcoomd.org/

[18] Source: COMTRADE, IMF, World Bank, national statistical agencies of CA countries, in Mogilevskii (2012), p. 14

Among selected countries in Central Asia, institutional weaknesses and the regulatory burden in financial and product markets are the most crucial variables in explaining the persistence of the informal economy. Both factors are closely interrelated. Institutional weaknesses refer to a weak judiciary system, excessive bureaucracy, and lack of access to financial resources. Regulatory burdens refer to procedures for engaging in formal enterprises that include registration, permits, accessing the credit market and the presence of monopolies. In addition to this, there are tax burdens and labor market rigidities, all of which contribute further to the proliferation of the informal economy.

One of the most critical incentives to spur the formalization of open trade regimes is the tax reform that could help generate revenues for the governments of member countries. A simplified tax scheme as well as lower corporate taxes provide incentives for small and informal trading firms to enlist in the formal sector and generate additional revenue for governments. In addition, financial assistance to informal traders should be continued to allow their move to the formal economy. Where tax incentives apply to Special Economic Zones for large companies, the same should be explored and implemented for small firms.

Stimulating cross-border trade is also a function of assisting small businesses by linking them to product markets in neighboring countries. These markets are vital in sustaining businesses across the borders, particularly among small and medium-sized firms that have yet to compete with their larger counterparts. Further, assistance extended to small and medium-sized firms to transition from primary products to high value-add products stimulates production for exports to neighboring markets. Other policy incentives and regulatory measures are also needed to reduce income inequality and unfair market (anti-competitive) practices to achieve a level playing field for SMEs, and other small-scale business ventures.

The flourishing garment industry in Kyrgyzstan is a significant economic success story. Small and medium-sized firms have penetrated export markets in Kazakhstan and Russia. These firms altogether employ 100,000 and contribute 5-15% to GDP. [19] A combination of preferential tax incentives and accession to the Customs Union have contributed to the enrollment of many small and medium-sized firms in Kyrgyzstan. Trade openness and regulatory measures act as incentives and provide policy lessons for other CAREC members.

Money and Finance Integration

In developing financial markets, which are considered as “thin” (that is, a limited number of market players and absence of underlying market clearing mechanism and linkages which may yield inefficient or suboptimal market outcomes) and in very early developmental stages, policy measures that are designed to “thicken” these markets are in order. A sequencing approach to developing financial and capital markets would include strengthening financial regulatory regimes to ensure that economies can withstand volatilities in exchange rates and global business shocks. Further, liberalization of cross-border FDI will stimulate financial market development, with the appropriate regulatory checks in place.

A phased approach and calibrated financial liberalization that is growth-friendly and sustainable[20] for CAREC member countries should take into account factors such as their developmental challenges

[19] An elaborate case study of the garment industry in Kyrgyzstan can be found in Nurbek Jenish, Export-Driven SME Development in Kyrgyzstan: The Garment Manufacturing Sector. Institute of Public Policy and Administration, University of Central Asia. Working Paper No. 26. 2014.

[20] The IMF’s Institutional View on Capital Flows in Practice. May 2018 https://www.imf.org/external/np/g20/pdf/2018/073018.pdf (accessed on December 1, 2018)

and macroeconomic and financial stability, while simultaneously initiating complementary supporting reforms which are broadly in line with the institutional approach of the IMF. The IMF's institutional approach recognizes that both push and pull factors remain important for capital flows, highlighting that source and recipient country policies have implications for the size and volatility of capital flows. As noted by the IMF: "Liberalization is generally more beneficial and less risky when countries reach certain threshold levels of financial and institutional development. Therefore, liberalization needs to be well planned, timed and sequenced with other supporting policies and each country's institutional and financial development to ensure that its benefits outweigh the costs" (IMF 2018: 2, 36).

A policy guide and roadmap that addresses the Money and Finance Integration dimension for the CAREC region is proposed as follows:

a. Sequential financial reforms: calibrated financial liberalization, i.e. removal of capital controls after domestic financial reforms and strengthening of supervisory capacities.
b. Opening up of financial markets through liberalization of financial services (WTO Trade General Agreement on Trade in Services (GATS) plus commitments).
c. Regional initiative to deal with exchange rate volatility and balance of payment crisis. Taking the cue from the Chiang Mai Initiative, the establishment of a regional fund that can help countries in the region overcome extreme volatility in currency values through swap arrangements.
d. Harmonization and recognition of international accounting standards (IAS), a subset of IOSCO standards.
e. Acceding to Asian Regional Bond Market initiatives.
f. Regional policy coordination under the CAREC Program framework.
g. Harmonization, mutual recognition, clearance and payment mechanism for a more predictable and transparent flow of capital within and beyond the region without a supranational institution.
h. Corporate governance and financial supervision for regulating and monitoring of financial firms and information sharing.
i. National treatment, market access and prudential regulations for cross-border banking and capital markets including internet-based services, block chain, e-commerce tools, etc.
j. Development of a CAREC Bond Market on the pattern of the Asian Bond Market initiative to provide access to significant Asian savings by tapping into the equity and debt market.
k. Improving data collection to generate indicators that are more reflective of financial integration within the CAREC region.

Another obvious area for policy intervention is in banking reform. The adoption of global standards in the banking sector of member countries will require strong policy measures by respective governments, to ensure that cross-border financial transactions adhere to the standards of international banking practice. Banks remain one of the most significant avenues for facilitating the development and implementation of financial markets.

The stimulation of financial markets will likely have a positive spillover effect on the informal cross-border trade. These reforms need to be closely related to the ease of doing business in the CAREC region. Further, as barriers to entry are removed, all firms and workers are competing in a level playing field business environment. Ultimately, financial markets that suit the needs of small and medium-sized firms not only ease the burden of doing business but also contribute to government revenue and overall capital stock formation.

Foreign Direct Investment

Trade openness has a direct impact on Foreign Direct Investments (FDI) and vice-versa. In turn, higher volumes of FDI directly correlate with a strong impetus for economic development, providing as it does, for an important source of funding for domestic projects to stimulate economic activity. The FDI also augments capital formation in the host country (Liargovas and Skandalis 2012: 323). In the context of the CAREC region, the relatively more open trade regimes benefitted from FDI flows.

As countries continue to liberalize their trade regimes, FDI inflows are expected to contribute to higher GDPs as in the case of Kazakhstan, which is the CAREC member country, apart from the PRC, that has the highest GDP per capita and savings. In the case of Tajikistan, a major component of GDP is sourced from remittances through labor exchange, suggesting a clear policy direction to reform the investment climate in Tajikistan.

Cross-Border Logistics

Different member countries are in numerous bilateral trading relationships. But there is the need to integrate member countries more through the actual intra-regional exchange of goods. The policy direction then becomes a matter of facilitating trade among and between countries.

The issue of logistics, thus, becomes a salient one, given the difficult conditions in the landlocked and mountainous countries. The difficult terrain in CAREC makes transport costs via overland at least ten times higher than sea freight. Comparatively, trade costs in East Asia are the lowest, whereas, in the CAREC region, these costs remain high even as there has been a downward trend over the past few decades, almost at par with the South Asian economies. The highest trade costs are in the Pacific[21].

Logistical performance, which is a key component of a modern economy, is another point of significance. Better logistics result in lower inventories as input materials and goods are moved quicker across borders. Also, good logistical performance results in better coordination of schedules for goods that rely on networked production, i.e. different component parts produced in different production sites. The assembly of these separate components into the final product will rely on a well-coordinated logistical platform (Saslavsky and Shepherd 2013: 980). The case of Kyrgyzstan's garment industry that relies on input materials from different sources illustrates the importance of good logistical performance.

Trade facilitation measures consist of the following: reduction in trading costs through faster and more efficient transport facilities in different modes (land, sea, air) using a variety of modalities (rail, sea freight, and the like). These measures have to be calibrated according to the specific conditions in the CAREC region, taking into account distances among potential trading countries and their associated costs, "behind the border" transactions that include customs clearances and border procedures/regulations.

[21] Trade Facilitation and Better Connectivity for an Inclusive Asia and Pacific. ADB-UNESCAP Report. 2017, p. 7.

Regional Value Chains

Relative to Trade and Investment and Money and Finance Integration, the Regional Value Chain (RVC) dimension scored high in the CRII. The RVCs are vital to the CAREC region insofar as these value chains contribute to employment creation and poverty reduction. Further, successful value chains are important linkages in a regional economy whereby firms and economic actors can participate in external markets, thus prompting them to produce enhancement and diversification. Finally, regional value chains promote intra-regional trade through a network of regional producers and consumers, thereby deepening economic interaction.

Institutional and Social Integration

While still far below the overall Asia-wide average, the highest score in the CRII is Institutional and Social Integration (0.181). Regional institutions in the CAREC region are particularly important in light of the multiple benefits to regional cooperation, among them: building trust and dialogue that is extremely important in conducting trade (and other) relationships; establishing mutually agreed rules of engagement including sharing of costs and benefits; sharing technical expertise and undertaking joint ventures to achieve economies of scale, particularly for smaller countries; attracting financial resources to support investments in large-scale infrastructure; compensating losers; monitoring implementation agreements and providing dispute resolution mechanisms (Linn and Pidufala 2008: 5).

The CAREC Program is one vehicle for promoting regional cooperation. There are other organizations, notably the Shanghai Cooperation Organization (SCO) and the Eurasian Economic Union (EEU). Despite overlapping functions and activities, there are clear lines that demarcate the orientation and scope of activities among these organizations. Both SCO and EEU are treaty-based organizations, whereas CAREC focuses exclusively on regional cooperation and integration through the pursuit of socio-economic development activities with obvious spillover effects. Other institutions that have links to the CAREC region are the Asian Infrastructure Investment Bank (AIIB) based in Beijing and the Eurasian Development Bank (EDB) based in Moscow.

Institutional and social integration is vital for the CAREC region insofar as the positive spillover effects of cooperation translate into economic gains enjoyed by individual countries. However, these expectations need to be tempered with the current institutional capacities of individual member countries and the complex diversities of the region. Management of these complexities and the multiple demands facing the region is a mandatory requirement if regional integration is to succeed.

To achieve greater coordination, the CAREC Program, through CITA 2030 proposes two platforms, namely, the Regional Trade Group (RTG) and the Customs Cooperation Committee (CCC). Both platforms contribute to further strengthening the social and institutional integration dimension through better data and information sharing and enlisting the participation of other stakeholders to include think tanks and private sector associations.

Movement of People

Another significant impediment to the RCI is the low score in the dimension of Movement of People. Some of the CAREC member countries are more integrated in terms of labor migration in the Eurasian Economic Union[22] than within CAREC. The CAREC would benefit if there is more liberalized

[22] The Eurasian Economic Unions aims to create single market for goods, services, capital and labour within the Union. Within the Union, there is "No restrictions of national labour market. Worker is not required to obtain employment permits. Labour activity is under employment contract or a civil law contract." Source: Labor

movement of people under the framework of the WTO General Agreement on Trade in Services for all modes with emphasis on Mode 4[23] - the presence of natural persons. Further research into the dynamics of cross-border migration, specifically the sending and receiving countries is warranted.

From a comparative perspective, the experiences of the Association of Southeast Asian Nations (ASEAN) and the Greater Mekong Sub-regional (GMS) Regional Economic Cooperation Program can provide distinct lessons to the CAREC region, given the relatively successful record of both regional institutions. The successful economic record of Southeast Asian countries in the last five decades provides ample evidence of the efficacy of regional institutions, despite the complexities faced by individual countries at the time of inception, and which continues to the present time. Nonetheless, the ability of these regional bodies to withstand pressures from the larger environment and to manage competing and conflicting demands from individual member countries is a vital lesson for the CAREC region. Policy proposals that call for trans-regional cooperation should likewise be explored.

migration and social security of migrant workers in the Eurasian Economic Union. https://www.unescap.org/sites/default/files/Eurasian%20Economic%20Commission%20Presentation.pdf

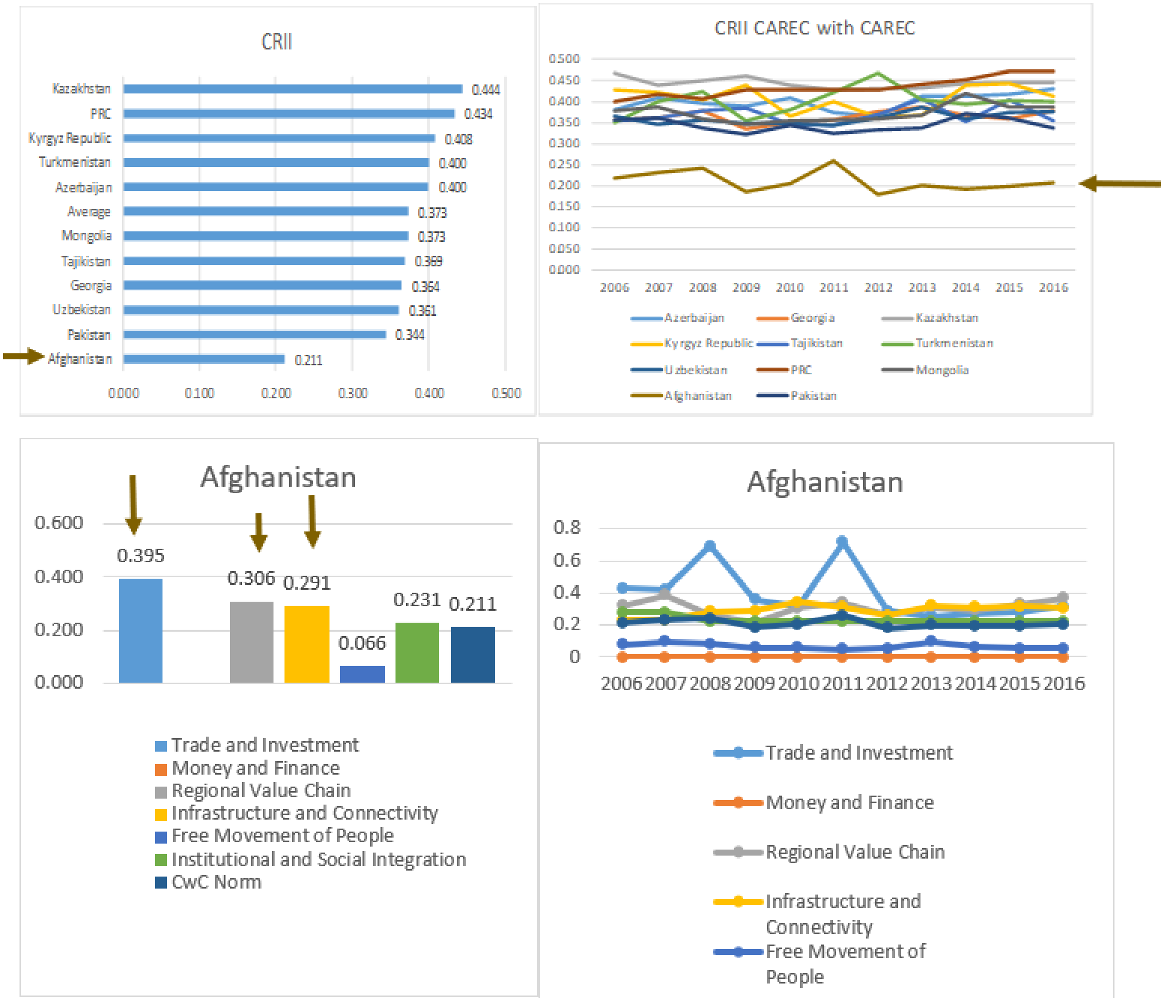
[23] "The definition of trade in services under the GATS is four-pronged, depending on the territorial presence of the supplier and the consumer at the time of the transaction. Pursuant to Article I:2, the GATS cover services supplied from the territory of one Member into the territory of any other Member (Mode 1 - cross border trade); in the territory of one Member to the service consumer of any other Member (Mode 2 - consumption abroad); by a service supplier of one Member, through commercial presence, in the territory of any other Member (Mode 3 - commercial presence); and by a service supplier of one Member, through the presence of natural persons of a Member in the territory of any other Member (Mode 4 - presence of natural persons)." https://www.wto.org/english/tratop_e/serv_e/cbt_course_e/c1s3p1_e.htm

Country Level Recommendations

Afghanistan

Regional integration scores for Afghanistan are the lowest for the CAREC region (0.211), way below the regional average of 0.373. Its score in Money and Finance Integration is zero. Over a period of ten years, there have been spikes in the scores for Trade and Investment: 0.691 for 2008 and 0.716 for 2011, suggesting stronger regional integration for Afghanistan during those years. Factors responsible for the upsurge in Trade and Investment scores during these two years might be worthy of further research. See Figures 7 below.

Figure 7: Afghanistan in CRII



Afghanistan's major challenge lies in managing the political and economic transition following the withdrawal of foreign security forces in 2014 and reduction in donor assistance. Both factors have a direct impact on economic growth. In 2013, growth was 3.3%, a sharp decline from 11.9% in 2012. A continuing insurgency alongside a host of obstacles such as rapidly growing population, persistent poverty, and a large number of internally displaced persons and refugees adds to the strain of the government that, in itself, is grappling with limited capacity to deploy services to its population[24].

[24] Afghanistan 2017-2021 – Achieving Inclusive Growth in a Fragile and Conflict-Affected Situation. ADB Country Partnership Strategy. October 2017. https://www.adb.org/documents/afghanistan-country-

Regional integration is particularly crucial for Afghanistan. Its unique geographical position as a "land bridge" between the Central Asia and South Asia is strategic for both regions. Further, the country's development can be best achieved through regional cooperation due to specific benefits that include economies of scale; improved access to markets; cross-border trade; harmonized regulatory frameworks and policies; regional infrastructure; and management of shared resources[25]. Finally, the country's fragile political situation makes it imperative for economic development to spread the benefits to the Afghan population. Notwithstanding the political dimension of Afghanistan's development trajectory, investments in economic development will have a vital contribution to promoting peace and stability within Afghanistan and throughout the region.

Leveraging on Afghanistan's unique geography as a "land bridge," investments in infrastructure and connectivity would spur and hasten regional integration. A score of 0.291 suggests that Afghanistan is poorly integrated into this dimension. Afghanistan suffers from an infrastructure deficit. Road density is only 4 kilometers (km) per 1,000 square km, and more than 70% of the interprovincial and inter-district roads are in poor shape. Further, only 32% of the population has access to grid-connected electricity; in rural areas, this figure drops to less than 10%.[26] Development of the energy sector is crucial to the government's program for poverty reduction, job creation, and increased productivity.

Investments in the energy sector include geographical diversity and renewable energy. Harnessing Afghanistan's vast potential in solar power and run-of-the-river hydropower projects are strong possibilities for economic growth and intra-regional cooperation. Infrastructure development also includes rehabilitation and upgrade of irrigation to support agricultural value chains. Thus, increased investments in these sectors would balance investments in other sectors. Also, infrastructure development would necessarily facilitate intra-regional trade and establish connectivity with other CAREC members. Being a landlocked country, Afghanistan would, at the outset, benefit immediately from increased infrastructure and connectivity.

Afghanistan's predominant trade partner in the CAREC region is Pakistan accounting for 47% of exports and 13% for imports in 2013. Its other trading partners are the PRC, India, Iran, Russia, and Saudi Arabia. Some exports with Central Asian countries have been noted. In 2011, Afghanistan exported to Tajikistan and Turkmenistan goods worth of $13.2 million accounting for merely 3% of total exports. In contrast, Afghanistan's imports from its CAREC neighbors, notably, Kazakhstan and Uzbekistan accounted for approximately 15% of total imports. Being an energy-deficient country, Afghanistan imports petroleum gas from Uzbekistan ($732 million) and Turkmenistan ($353 million). Other imports come from Kazakhstan, Kyrgyzstan, and Tajikistan[27]. While trading relationships exist between Afghanistan and some Central Asian countries, the balance of trade does not favor Afghanistan. All considered, Afghanistan runs on a large trade deficit[28] and will need strong policy support to create a favorable climate for intra-regional trade.

Afghanistan's economy has a large informal sector, [29] with small and medium enterprises (SMEs) making up about 80% of all private businesses, employing about 1/3 of the labor force. The majority

partnership-strategy-2017-2021 https://www.adb.org/documents/afghanistan-country-partnership-strategy-2017-2021 (accessed 10 July 2019)

[25] Afghanistan and Central Asia: Strengthening Trade and Economic Ties. UN-ESCAP Report. 11 March 2015. https://www.unescap.org/sites/default/files/Afghanistan%20and%20Central%20Asia-Strengthening%20Trade%20and%20Economic%20Ties.pdf (accessed on 10 July 2019)

[26] ADB Country Partnership Strategy, Ibid., p. 4

[27] Ibid., p.6

[28] UN-ESCAP report, Ibid., p.4

[29] ADB Country Partnership Strategy, ibid., p. 3

operate largely in urban areas outside of formal government regulatory frameworks, have very few incentives to formalize and face limitations such as access to credit sources, crumbling infrastructure, limited market access both regionally and globally, poor business environment, shortage of skilled labor, and unstable security situation. Despite these factors, observers contend that SMEs are a dynamic sector that hold the key to economic growth, particularly during the transition period. As SMEs occupy a relatively dominant position in Afghanistan's economic space, support for SMEs would boost the economy through alternative job creation, provision of services, and stimulating cross-border trade as the country attempts to re-integrate into the regional and global economy[30].

Support for the SME sector will spur economic growth and create a more durable economic foundation for subsequent expansion. SMEs are crucial to the formation and expansion of regional value chains and will stimulate intra-regional trade. SMEs in the agriculture and services sectors can potentially involve women who remain disadvantaged due to cultural, economic, and social restrictions. Substantive support for SMEs will presumably widen women's participation in the Afghan economy and also reduce gender disparities. In turn, these initiatives will contribute to human development, as well.

Afghanistan's zero score in Money and Finance Integration already signals a need for policy intervention in this sector. The development of a financial sector is important to creation of a positive business-enabling environment and will provide incentives to greater private sector participation.

Finally, Afghanistan's deeper integration into the regional economy can be further realized through investments in human development. Afghanistan's performance in the Human Development Index is low (0.498) and ranks 168 out of 189 countries. Among the weakest scores in the HDI are women's participation in the economy (19.5%), a high maternal mortality ratio (396/1000), and low life expectancy (64 years). A cursory glance at the scores of both indices (CRII and HDI) reveals the necessity for targeted policy support so that Afghanistan can achieve a balanced, comprehensive, and inclusive development.

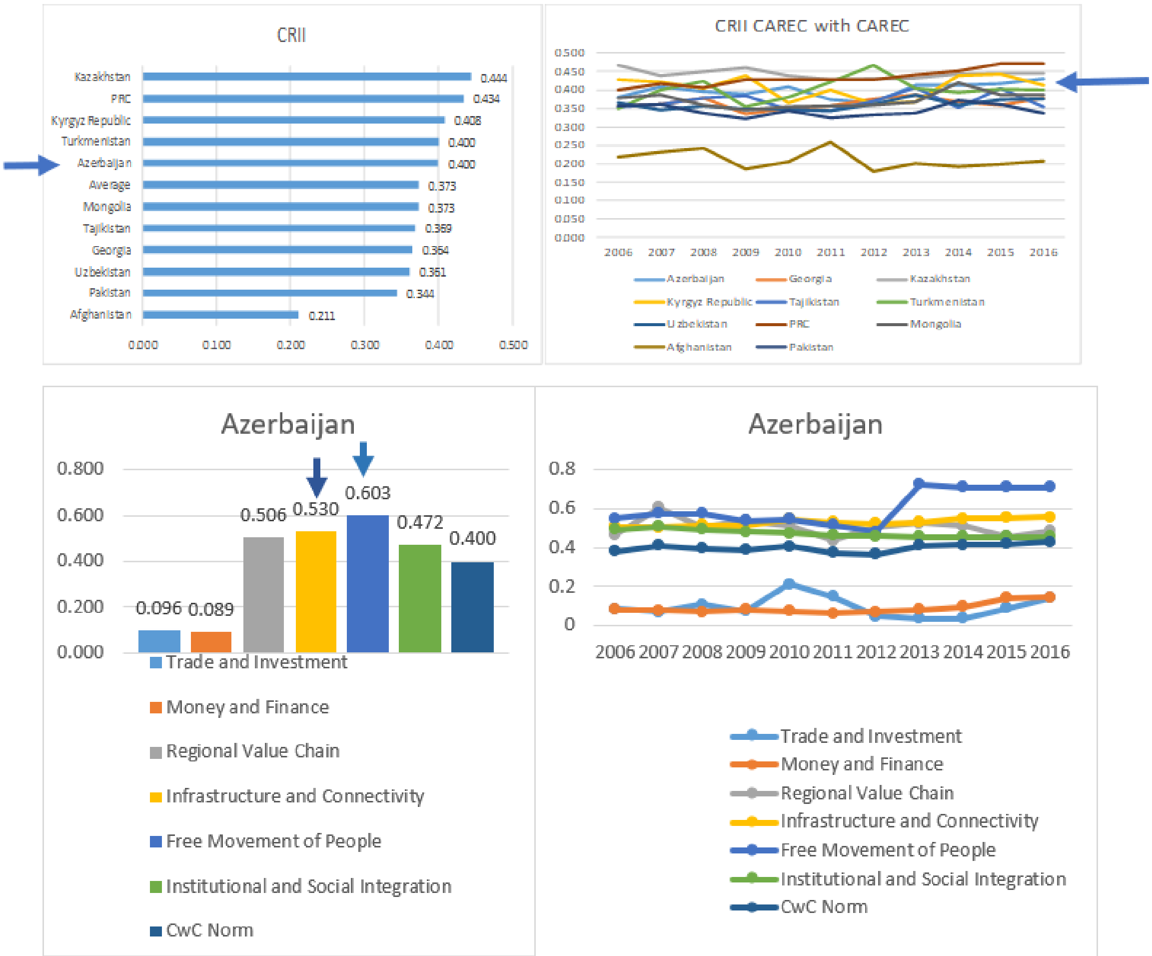
[30] Andrew Huelin, Afghanistan: Enabling Trade for Economic Growth and Regional Cooperation. Forum Issue 3. 2017, p.33

Azerbaijan

Azerbaijan's integration score of 0.4 is slightly above the regional average of 0.373. This score is consistent over ten years 2006 – 2016. Its lowest scores are in Trade and Investment (0.096) and Money and Finance Integration (0.089). The highest ones are in Movement of People (0.603), Infrastructure and Connectivity (0.530). See Figures 8 below.

The overall score suggests the positive potential for further integration with the CAREC region, specifically in areas where Georgia also scores high. More policy interventions are required to boost intra-regional trade and financial flows.

Figure 8: Azerbaijan in CRII



High scores in Infrastructure and Connectivity may be reflective of the country's investments in upgrading and renovation of its public transport system. Also, the construction of the Baku-Tbilisi-Kars railway line connecting Azerbaijan, Georgia, and Turkey, designed to be part of the Silk Road to connect Europe to the PRC. In addition, the Baku-Tbilisi-Ceyhan (BTC) pipeline transports oil from the Caspian Basin to Western Europe[31].

High score in Movement of People is a reflection of the inward and outward migration flows particularly during the period of increased oil production that attracts migrants from various sub-

[31] Azerbaijan BTI Country Report 2018. https://www.bti-project.org/en/reports/country-reports/detail/itc/AZE/ (accessed on 1 August 2019)

regions including those from CAREC, particularly Pakistan, Uzbekistan, and Turkmenistan. Further, conflicts in neighboring countries, particularly Afghanistan and Iraq, resulted in inflows of refugees into Azerbaijan. Migration outflows also reflect the behavior of integration scores in Movement of People and can be noted through the remittances that constitute approximately 3% of GDP. [32]

Located at the crossroads of significant land and air transport corridors, Azerbaijan is geographically well situated to take advantage of its strategic location to serve as a bridge between Europe and Asia. Azerbaijan shares this particular feature with Georgia; both countries are members of the CAREC region and could potentially harness and synergize these advantages.

Further, Azerbaijan is classified as a high human development country since 2010 according to the UNDP. The country also ranked number 3 out of 74 developing countries in terms of inclusive development[33]. Despite its post-independence difficulties when the economy struggled due to the Nagorno-Karabakh conflict, Azerbaijan has steadily transformed itself into a high middle-income country with an annual average GDP per capita of $5,850 for the period of 2008-2016[34]. Only in 2014 and 2016, Azerbaijan's economy weakened, currency depreciated sharply, public debt increased, and poverty increased due to declining oil prices.

The integration challenges facing Azerbaijan are twofold: i) economic diversification beyond a single commodity export in oil and gas; and ii) export market diversification. Thus far, over 50% of its exports are with the EU.

To this end, support to the agricultural sector is a recommended policy action given labor force participation rate of 36% in contrast to 1% in the oil sector. [35] Further analysis of agricultural regional value chains provides good potential for Azerbaijan, in complementary rather than competitive strategies with other CAREC members (e.g. competitive value chains in pomegranates, aquaculture, hazelnuts, and dairy products) [36].

The Baku Sea Trade Port is positioned as a platform for transport and logistics that should eventually be transformed into an economic hub in Central Eurasia and beyond. Synergies between the Baku Port and the proposed Anaklia Seaport and Special Economic Zone in Georgia should be explored to ensure that both platforms have positive externalities to the wider CAREC region and beyond.

Because of Azerbaijan's status as both a migrant-sending and receiving country, research into strengthening its current migrant policy should be a priority. Illegal migration, irregular migration, human trafficking, refugee and asylum issues, and readmission/reintegration of returning migrants constitute the features of Azerbaijan's migration policy. As Azerbaijan scores very high on Movement of People, there is an obvious requirement for policy intervention in the areas of border management, data management on entry/exit, institutional collaboration of migration and asylum flows, and legislative reform. [37]

[32] Migration Profile --- Azerbaijan. Migration Policy Centre. 2013. http://www.migrationpolicycentre.eu/docs/migration_profiles/Azerbaijan.pdf (accessed 2 August 2019)
[33] The Inclusive Development Index 2018. Geneva: World Economic Forum as contained in "Azerbaijan 2019-2023 -- Promoting Diversified and Inclusive Growth." ADB Country Partnership Strategy. May 2019. p. 2
[34] "Azerbaijan 2019-2023 -- Promoting Diversified and Inclusive Growth." Asian Development Bank Country Partnership Strategy. Asian Development Bank Country Partnership Strategy. Ibid.
[35] Ibid, p. 4.
[36] Economic Growth and Trade – Azerbaijan. The United States Agency for International Development. https://www.usaid.gov/azerbaijan/economic-growth-and-trade (accessed 31 July 2019)
[37] Shushanik Makaryan, "Challenges of Migration Policy in Armenia, Azerbaijan and Georgia." December 2013. Caucasus Analytical Digest 57(3): 3

The PRC

Caution and prudence must be applied when interpreting the PRC's integration scores. The data covers the whole of the PRC whereas only two regions, the Xinjiang Autonomous Region (XUAR) and Inner Mongolia Autonomous Region (IMAR), are members of the CAREC. The PRC is also a member of the Greater Mekong Subregion (GMS). Thus, these results may be reflecting a level of integration with other subregions of which the PRC is also a member. There is a need to disaggregate the data specifically for the PRC to obtain a more accurate picture of the level of integration of XUAR and IMAR with the rest of the CAREC region. Further research with the PRC disaggregated data for XUAR and IMAR is warranted.

Overall, the CRII yields relatively high integration for the PRC with the score averaging 0.434. Only Kazakhstan scores are higher than the PRC.

Highest scores are in Money and Finance Integration (0.788) and Regional Value Chains (0.544). These scores have been consistent over ten years (see Figure 9 below). However, these scores have to be interpreted with caution. Researchers used proxy variables for Money and Finance Integration in the absence of data from different countries. The substitute indicators were those of Financial Development, which measured i) Financial Institutions Depth Index; ii) Financial Markets Access Index; iii) Financial Markets Depth Index; and iv) Financial Markets Efficiency Index.

Arguably, the PRC would score very high on these different indicators given the size and complexity of the Chinese economy. However, these indicators do not necessarily signify open financial systems, nor do they measure financial liberalization adequately. At best, the PRC scores in the MFI dimension reflect PRC's economic strength, not necessarily financial exchange within the CAREC region. [38]

High scores in Regional Value Chains reflect some economic exchange with CAREC member countries, notably Kyrgyzstan, Pakistan, and Mongolia. These scores indicate the potential for enhanced intra-regional trade (see Figure 9).

Trade and Investment is the lowest score (0.006), which signifies almost non-existent trade with the CAREC countries. This finding reflects the limitation of using aggregate statistical data for the PRC. Research demonstrates significant trade and investment between the PRC and the CAREC region; however, due to the absence of data specifically for XUAR and IMAR, these results should be interpreted with caution. Conceivably, these scores could reflect stronger trade relations between the PRC and the United States and the EU. China is the biggest source of imports for the EU, amounting to an average of over EUR 1 billion per day[39]. In 2018, trade in goods and services between the US and China totaled US$737.1 billion[40]. Thus, in relative terms, the PRC's share of trade with the CAREC region is miniscule.

For the PRC, it is imperative to generate disaggregated data for XUAR and IMAR to ensure that results reveal findings that are relevant to the CAREC region. The findings in Trade/Investment and

[38] A similar analogy could be applied to the United Kingdom, whose financial development is at a very advanced stage. However, despite its (still) current membership in the EU (with inconclusive decisions about Brexit as of this writing), the UK is not part of the Eurozone, and is therefore not financially integrated with the EU.

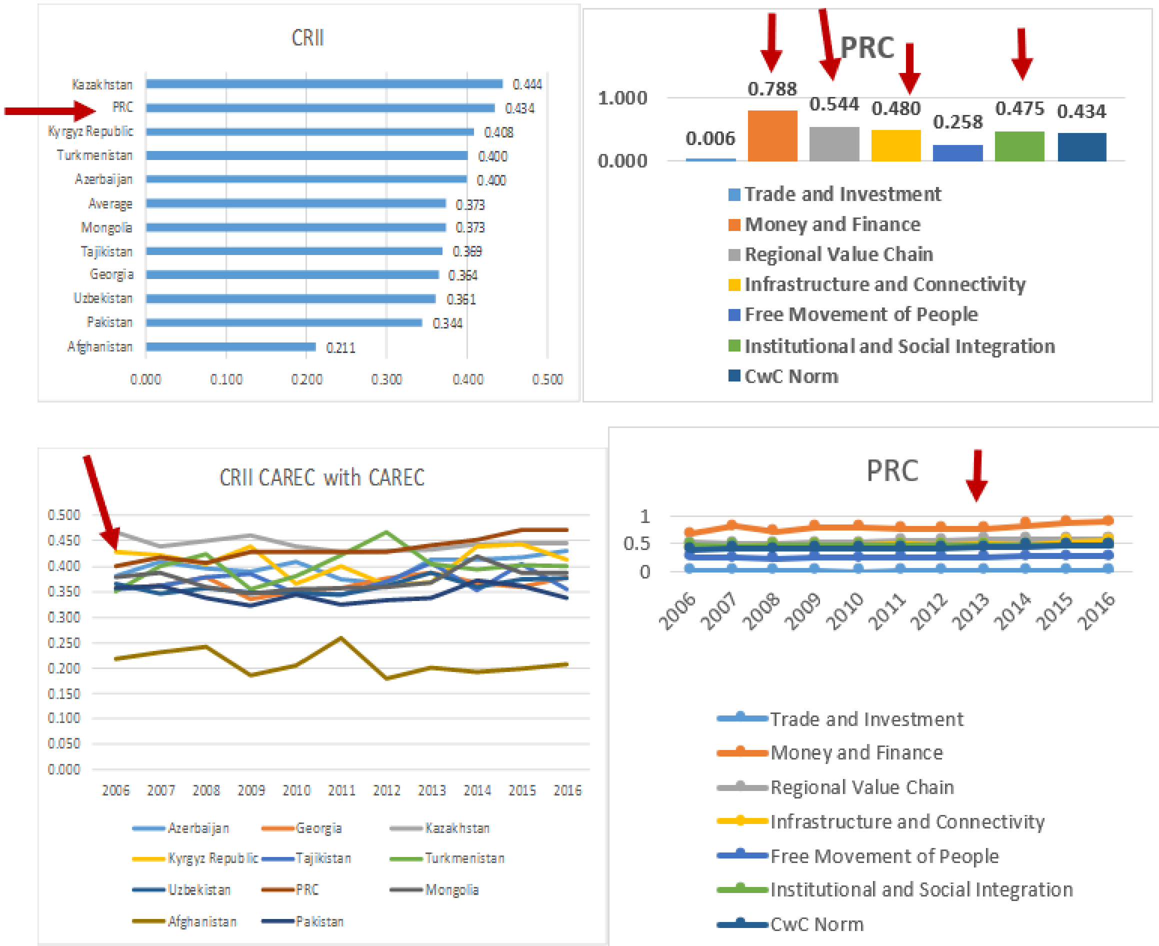
[39] The European Commission and its Priorities: China. http://ec.europa.eu/trade/policy/countries-and-regions/countries/china/ (accessed 5 August 2019)

[40] The People's Republic of China: Office of the United States Trade Representative. https://ustr.gov/countries-regions/china-mongolia-taiwan/peoples-republic-china (accessed 5 August 2019)

Financial/Monetary Integration dimensions are not convincing of the accuracy of the level of integration with the rest of CAREC.

Support for investments in Infrastructure and Connectivity will strengthen regional integration and cooperation specifically for landlocked countries that are in remote areas and cannot access the larger markets for goods and services. To this end, further research on collaborative activities in infrastructure, particularly within the context of the Belt and Road Initiative (BRI) is recommended[41].

Figure 9: The PRC in CRII



[41] Transforming Partnership: The People's Republic of China and the Asian Development Bank 2016-2020. Manila: ADB, p. 7 https://www.adb.org/documents/peoples-republic-china-country-partnership-strategy-2016-2020 (accessed 5 August 2019)

Georgia

Regional integration score for Georgia is 0.364 which is slightly below the regional average of 0.373. Over ten years, Georgia has consistently scored above average for Infrastructure and Connectivity (0.772) suggesting stronger regional integration with CAREC countries in this dimension. Georgia also scores relatively high in Social and Institutional Integration (0.463). However, scores are below average in other dimensions, specifically in Money and Finance Integration where the score is 0.114. This is consistent with the MFI scores of other member countries. Trade and Investment is also among the lowest at 0.154. See Figures 10.

Possible explanations for the behavior of Georgia's integration scores could be what follows:

i. High scores in Infrastructure and Connectivity may be attributed to investments in infrastructure development and upgrading of existing road networks. There are investments in the Batumi Bypass Road and the East-West Highway Improvement Project. Batumi is a Black Sea resort and port city. Both sites experience heavy cross-border movement.

ii. Relatively high scores in Social and Institutional Integration is a function of the numerous regional trade agreements (RTAs) between Georgia and various trade bodies, for example, the European Commission (EC), the European Free Trade Association (EFTA), and the Commonwealth of Independent States (CIS). Other trade agreements with Georgia include the PRC, Armenia, Azerbaijan, Turkey, Russia, Kazakhstan, Turkmenistan, Ukraine, Guam, and Hong Kong[42]. Georgia is also a member of the WTO since June 2000.

iii. Low scores in Trade and Investment is a reflection of Georgia's intensive trade outside of the CAREC region despite trade agreements with some of CAREC member countries. Georgia's major trading partner is the EU, accounting for 27% of the total trade, followed by Turkey (13.6%) and Russia (11%). Georgia signed an Association Agreement with the EU in June 2014 which took effect in July 2016. Significant to this agreement is the Deep and Comprehensive Free Trade Area (DCFTA) which increases market access[43].

Georgia's specific geography as a link between Europe and Asia is advantageous to regional integration. Its high score in Infrastructure and Connectivity can be leveraged to support the other dimensions, particularly Trade and Investment and Movement of People. Of interest is the construction of a deep seaport in Anaklia on the Black Sea coast that promises to be a "game changer."[44] Cargo headed eastwards toward Central Asia, the PRC, Afghanistan, and even Pakistan can be accommodated at Anaklia once construction of the port is completed. This prospect is especially appealing to landlocked countries in Central Asia who need access to ports for their goods to reach markets in the west.

Furthermore, Georgia has been cultivating its tourism industry recently. Tourist arrivals in 2017 equaled 7.5 million, an increase of 18% over the previous year. Georgia's integration with the CAREC member countries can further be enhanced through a more robust and sustainable regional tourism development strategy.

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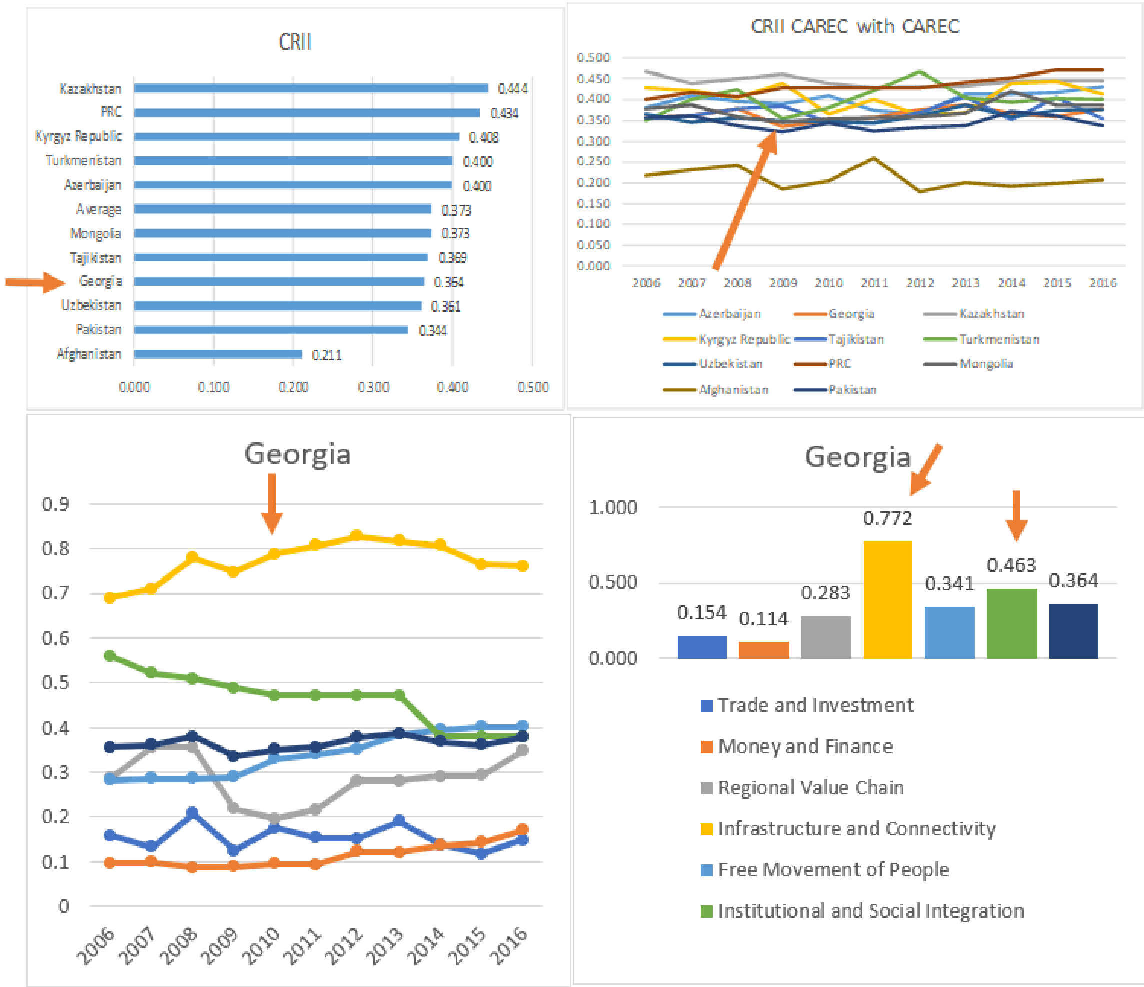
[42] Georgia: Regional Trade Agreements Database.
https://www.wto.org/english/news_e/news19_e/rta_04apr19_e.htm;
https://www.wto.org/english/thewto_e/countries_e/georgia_e.htm (accessed 27 July 2019)
[43] Georgia: The European Commission Countries and Regions. 22 July 2019
http://ec.europa.eu/trade/policy/countries-and-regions/countries/georgia/ (accessed 27 July 2019)
[44] Frederick Starr, "Europe's easternmost port," European Interest, 20 January 2019.
https://www.europeaninterest.eu/article/europes-easternmost-port/ (accessed 29 July 2019)

Figure 10: Georgia in CRII



Kazakhstan

Kazakhstan is the most integrated country in the CAREC region, with a score of 0.444, well above the regional average of 0.373 (see Figure 11 below). Without the PRC data, integration scores increase to 0.494. The lowest scores, however, remain in Trade and Investment, suggesting that more needs to be done to exploit the potential of Kazakhstan for intra-regional trade. This has been the discernible pattern for a period of ten years 2006 – 2016 (see Figure 11 below).

High scores in Money and Finance Integration (0.381) suggest a relatively high level of financial development. This score, however, does not suggest financial integration with other member countries, it only implies that the level of financial development is comparatively quite advanced.

High scores in Social and Institutional Integration (0.568), Infrastructure and Connectivity (0.551) and Regional Value Chains (0.545) provide useful indicators for further investments to deepen regional integration for Kazakhstan.

Kazakhstan was classified as an upper-middle-income country in 2004 through windfall revenues from exports primarily of oil and gas. The country is considered a major economic power in Central Asia. However, excessive reliance on commodity exports and declining world prices revealed Kazakhstan's economic vulnerabilities to external shocks, both in 2008 and in 2014. Incoming revenues suffered a sharp decline that in turn, affected national budget revenues, lowered investments, and increased pressure on the exchange rate[45].

Kazakhstan's primary challenge is to diversify its economy and reduce reliance on single commodity exports and create a viable and competitive manufacturing sector. Further, Kazakhstan's economy is still dominated by SOEs that need to improve the quality and efficiency of goods and services. The creation of a private sector through more vigorous privatization efforts will hasten the transformation of the Kazakh economy and become one of the most advanced economies by 2050, in line with its vision of Kazakhstan-2050[46].

To further strengthen and deepen regional integration, Kazakhstan needs to leverage its advantages in the CAREC region, among them:

i. a large economy in terms of GDP and surface area
ii. its strategic position that can facilitate cross-border trade through the transformation of the transport corridors into economic corridors that will open new business centers across Central Asia
iii. regional and global value chains
iv. institutional linkages (0.568 score in Institutional and Social Integration) through various regional memberships[47]
v. to become a possible financial integration hub to promote regional financial integration through the Astana International Finance Center[48]

[45] Kazakhstan 2017-2021. Promoting Economic Diversification, Inclusive Development and Sustainable Growth. August 2017. ADB Country Partnership Strategy. https://www.adb.org/sites/default/files/institutional-document/357421/cps-kaz-2017-2021.pdf (accessed 19 August 2019)
[46] Ibid., pp. 5-6
[47] Aside from CAREC, Kazakhstan is also a member of the Eurasian Economic Union since 2014, joined the WTO in 2015, and intends to join the Organization of Economic Cooperation and Development (OECD) as a full member.
[48] Ibid.

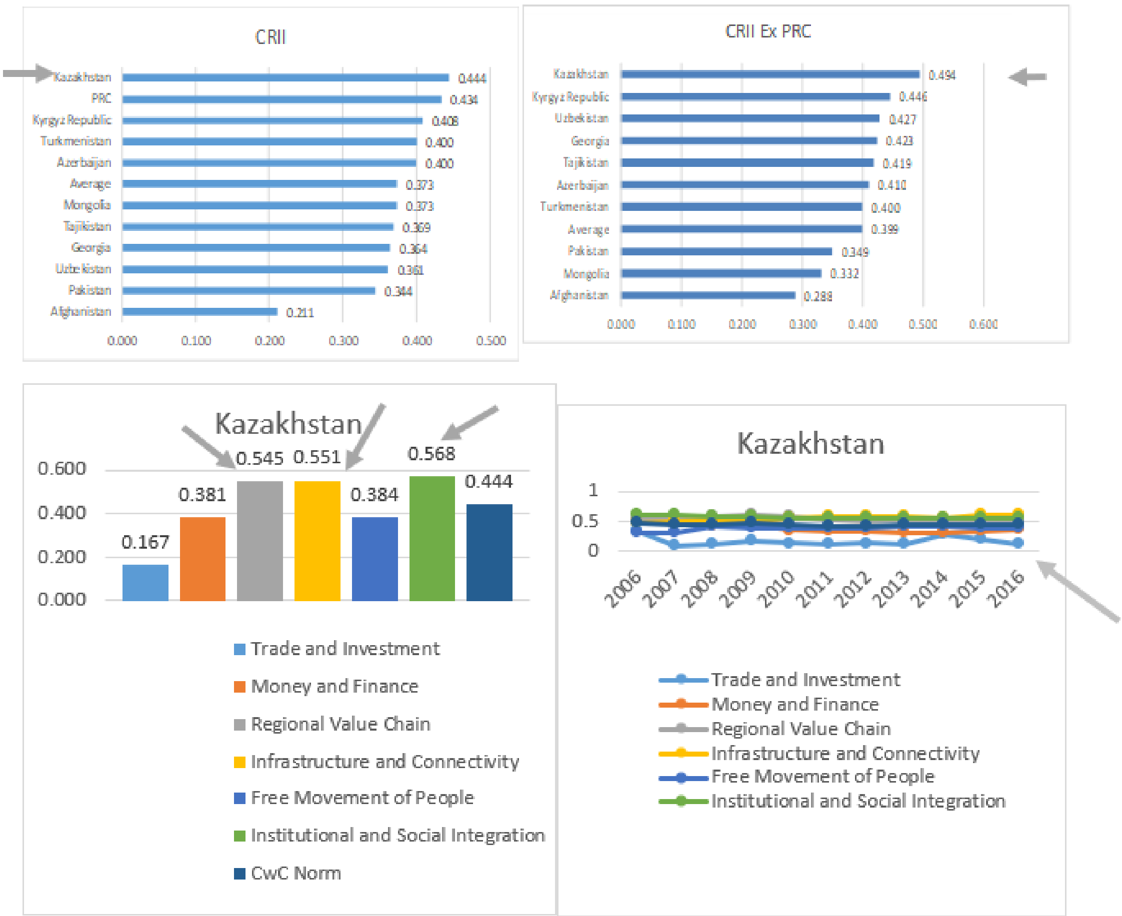
The donor assistance extends to, among other, financing Kazakhstan's infrastructure investment needs; promoting structural reforms; implementing SOE reforms and privatization plans, supporting private sector development and investments, supporting applied knowledge centers, and supporting the Almaty-Bishkek Economic Corridor (ABEC) initiative to create cross-sector linkages and exploit regional synergies. [49]

Infrastructure linkages will also reduce spatial and gender inequalities by connecting urban to rural areas in which border zones are located. By transforming the area around the cities of Almaty and Bishkek into one integrated economic space, the flow of goods, people, and ideas will be facilitated more easily.

As an upper-middle-income country, Kazakhstan has knowledge resources that it can leverage to build local capacities through the Knowledge and Experience Exchange Program.

Knowledge partnerships will support the development of Kazakhstan as well as the CAREC region to address the development needs of the region collaboratively. Kazakhstan's role as a knowledge platform on which to anchor other knowledge centers in the CAREC region should be explored.

Figure 11: Kazakhstan in CRII



[49] Ibid., p.10

Kyrgyzstan

The regional integration score of Kyrgyzstan is 0.408 which is above the regional average of 0.373. This suggests that there is further potential for deepening regional integration with CAREC member countries. See Figures 12 below.

Along the different dimensions of the index, Kyrgyzstan's scores demonstrate the following patterns:

i. Over a ten-year period, Trade and Investment dimension exhibited extreme volatility (see Figure 12 below), and the overall score of 0.38 suggests that, like other CAREC member countries, this dimension requires more direct policy interventions to stimulate cross-border trade and investment. This volatility reflects the country's narrow economic base, primarily depending on outputs from the mining sector, particularly gold[50].

ii. The lowest score is in Money and Finance Integration (0.108), consistent with the overall performance of the entire region.

iii. Regional Value Chains, Infrastructure and Connectivity, and Social/Institutional Integration register the highest scores, 0.508, 0.420, and 0.657 respectively. All scores are above the overall regional average (0.373). These findings suggest the strong potential for RVC development, supported by investments in infrastructure, and integration into regional associations. Over a decade, Social and Institutional Integration scores have been consistent. See Figure 12 below.

To further exploit the regional integration potential of Kyrgyzstan, an understanding of the overall policy environment is essential. The following features are significant:

i. Kyrgyzstan is a small, low-income country surrounded by bigger and wealthier neighbors, notably the PRC, Kazakhstan, and Uzbekistan. Its population is 5.9 million, with a GDP per capita of US$1,103 in 2016. Improvements have been achieved with poverty reduction rates, dropping to 25.4% in 2016 from a high 40.7% in 2006. However, it is still at par with its CAREC neighbors: Tajikistan (31.3%) and Pakistan (25.4%).

ii. Kyrgyzstan has a narrow economic base, largely dependent on outputs of the mining sector, particularly gold, which has been driving economic growth averaging 5.5% for the period of 2013-2017. This has caused volatility in growth rates due to fluctuations in world prices. Further, agriculture's share declined from 36.6% to 14.4% for the period of 2000-2016, whereas industry's share marginally increased from 25.4% to 27.7%. The services sector expanded from 32.1% to 57.3%. The sharp decline in agriculture's contribution to GDP may be due to the outflow of agricultural labor either to low-skilled jobs abroad or to the informal sector[51].

[50] Kyrgyz Republic, 2018-2020. Supporting Sustainable Growth, Inclusion and Regional Cooperation. ADB Country Partnership Strategy. September 2018 file:///C:/Users/user/Desktop/11%20Country%20Policy%20Reports/Kyrgyzstan/ADB%20Country%20Partnership%20Strategy%202018-2020.pdf (accessed 4 July 2019). Volatility in trade and investment could likewise be attributed to political factors. The country has experienced changes in political leadership from 2005-2010. These events have in turn affected the economy. See Laura Birkman, et.al. 2012. Textile and Apparel Cluster in Kyrgyzstan. Published Report. Harvard Kennedy School and Harvard Business School

[51] Ibid.

iii. More worrisome is the dependence of the Kyrgyz economy on remittances. In 2010, remittances contributed almost 30% to GDP. Remittances from Kyrgyz labor migrants in 2018 amounted to US$2.24 billion, an increase of US$160.2 million over the previous year. For long-term sustainable growth, Kyrgyzstan cannot rely on remittances as a development strategy.

iv. The macroeconomic profile of the Kyrgyz economy is generally positive. Forecasted growth in 2019 is 3.5%, which falls below the long-term average of 4.3%. Kyrgyzstan remains an open economy relative to its neighbors. It ranked 97th in the Global Competitiveness Index[52] in 2018-2019, up by five places as compared with the 2017-2018 ranking, and consistently improving over the past few years. Economic freedom has improved considerably over the past two decades. Its economic freedom score is 62.8. The country ranked 78th and is now considered as a “moderately free” economy[53]. These results bode well for the country in terms of intra-regional trade.

v. However, Kyrgyzstan’s investment climate needs to be strengthened. Concentration of investment in the mining sector requires an expansion of investment in other productive sectors. Likewise, investments are needed in infrastructure and connectivity (0.420 index score) particularly in the areas of a regional integrated transport system and better air connectivity. The country’s geography as a landlocked mountainous region requires greater connectivity to support regional integration.

The development of Regional Value Chains is an obvious dimension requiring policy support. The competitive advantage of Kyrgyzstan in the garment industry should be further exploited, particularly in terms of expanding markets beyond Russia and Kazakhstan. Also, consistent support from government and donors is important for the economy to advance along the RVC and penetrate global markets. Capacity development in marketing, branding and distribution, as well as export management, will be beneficial to the garment industry actors.

Easy access to finance for Small and Medium Enterprises (SMEs) with favorable terms for credit will create more dynamic cross-border trading relationships, especially for the garment industry actors. Support is advisable to business associations who are crucial in promoting cross-border trade. However, SMEs need to expand through competitive technologies and more aggressive export promotion strategies. Scaling up of SMEs into larger firms will need a conducive policy environment that is competitive in both regional and global markets.

Hydropower resources are likewise abundant and provide the potential for hydroelectric development. An energy exchange market can be explored with energy-deficient countries (e.g., Afghanistan). Comparatively, Kyrgyzstan could benefit from the experience of Laos in the Greater Mekong Subregion (GMS) whose hydropower resources have been exploited to integrate itself within the subregion and facilitate its membership in the Association of Southeast Asian Nations in 2005. The technical assistance focuses on the development of infrastructure in energy to rehabilitate major hydropower plants and focus on power generation and transmission especially during winter months to supplement heating for population. [54]

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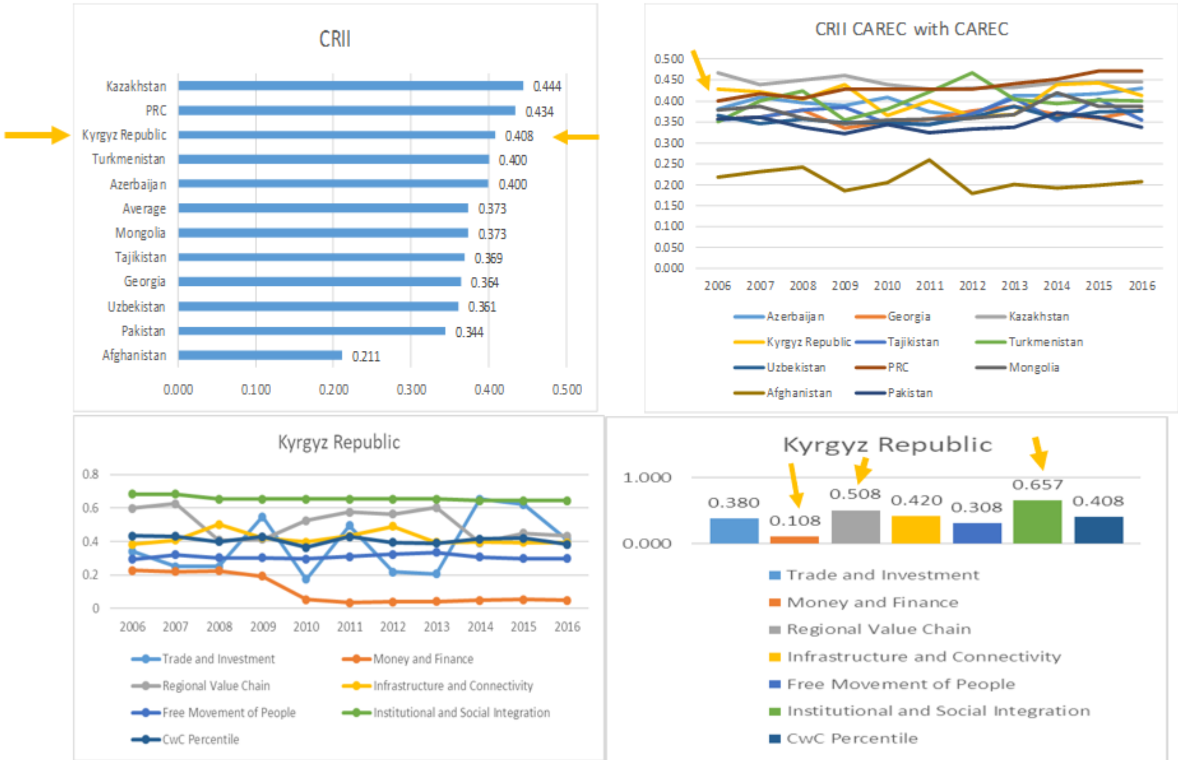
[52] Competitiveness is defined as the set of institutions, policies, and factors that determine the level of productivity of a country.

[53] The Index of Economic Freedom is a composite measure of four major categories: i) Rule of Law; ii) Government Size; iii) Regulatory Efficiency; and iv) Market Openness. The index is published yearly by the Heritage Foundation. In “Charting Kyrgyzstan 1H” https://search-proquest-com.libproxy1.nus.edu.sg/docview/2166664829?pq-origsite=summon (accessed 15 April 2019)

[54] Kyrgyz Republic, 2018-2020. Supporting Sustainable Growth, Inclusion and Regional Cooperation. Ibid.

Agriculture employs half of the population. Agricultural products are largely for domestic consumption, although tobacco and cotton are significant exports. Further exploration of agricultural development as a promising sector to develop a competitive advantage in intra-regional agricultural trade is recommended. However, specific commodities in which Kyrgyzstan can create a niche will prevent unnecessary competition from other member countries who also have an advantage in agriculture.

Figure 12: Kyrgyzstan in CRII



Mongolia

Mongolia's integration score is 0.373, equivalent to the overall score for the CAREC region. Removal of the PRC data from the region has an impact on Mongolia (0.332), which suggests that Mongolia is more integrated with the PRC than with the rest of CAREC. Refer to Figure 13 below.

Over a period of ten years, Mongolia's trade and investment patterns have been very volatile, consistent with the overall pattern in the CAREC region. Money and Finance Integration remains very low, at 0.169. Highest scores are in Regional Value Chains (0.525) and Movement of People (0.500). The overall score of 0.373 for Mongolia along all six dimensions suggests that Mongolia is more integrated globally than with the rest of CAREC. Among its global trading partners are Italy, Japan, Russia, the Republic of Korea, Switzerland, the United Kingdom and the United States. Apart from the PRC, its largest trading partner is Russia (US$1.25 billion in 2017). Other import partners are Japan, the Republic of Korea, USA, and Germany. [55] See Figure 13 below.

Since Mongolia is reporting scores lower than the rest of CAREC (along with Afghanistan), more specific interventions are required for Mongolia to deepen its integration.

The significant features of Mongolia's economy that have relevance to regional integration are the following:

i. Major trading partners are the PRC and Russia. In 2015, Mongolia's exports to the PRC accounted for 83.7%, according to the National Registration and Statistics Office (NRSO). Its main exports are copper, coal, iron ore, crude oil, and raw cashmere. Exports' contribution to GDP is approximately 24.7%. Imports consist of industrial equipment, particularly for mining, and food and consumer goods. Imports from the PRC account for 36.6%. Trade patterns suggest an over-dependence on the PRC on a limited number of commodities, thus the need to diversify in terms of trading partners and range of export items.

ii. Although Mongolia possesses oil and gas reserves, the country does not have refinery capabilities, thus it is dependent on importing petroleum mostly from Russia[56].

iii. Foreign investment has been steadily declining due to uncompetitive exports (mostly from mining) and also due to a sharp decline in global prices for coal and copper prices.

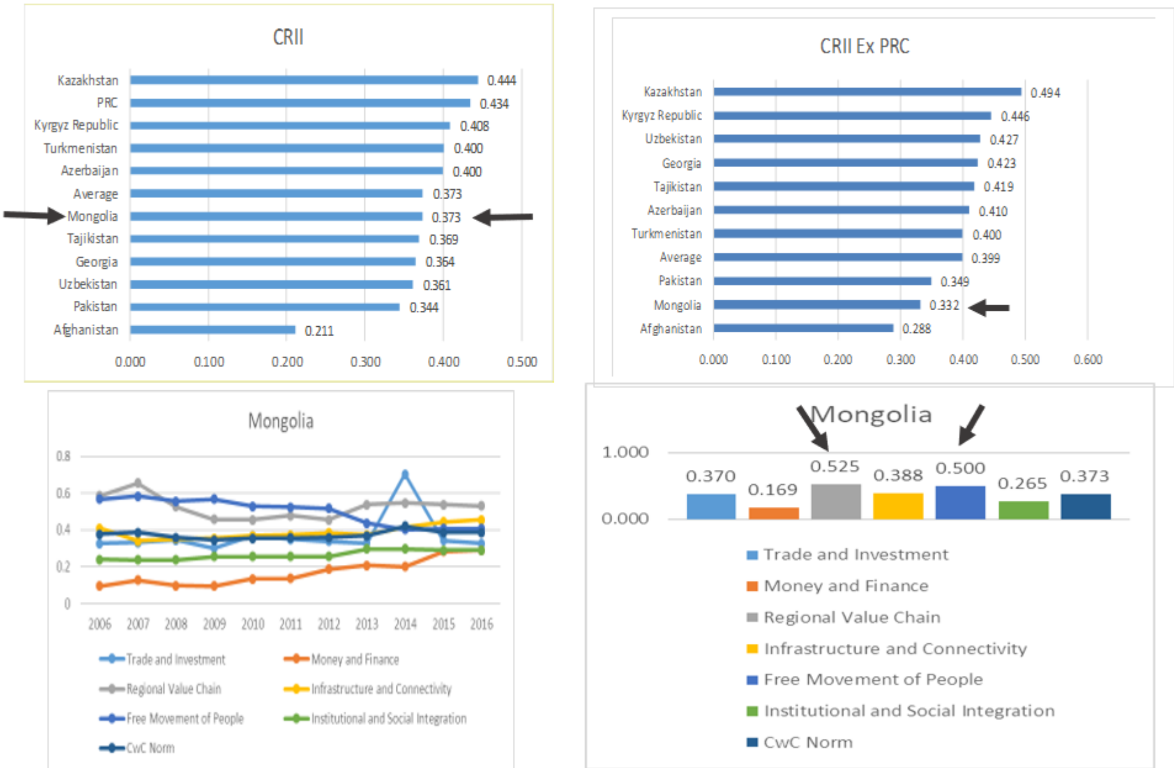
High scores for Regional Value Chains (0.525) suggest a relatively high level of integration, although this may reflect trade mostly with the PRC. Nonetheless, scores indicate that Mongolia may have a competitive advantage in certain commodities, particularly in meat products given its vast territory and traditional nomadic livestock industry. [57] Investments in the agricultural sector would diversify Mongolia's economy and its trading partners. However, there has been little progress on the development of agricultural value chains despite the sector's significant role in the country's economic diversification and job creation efforts. Agriculture accounts for 12.2% of GDP and 31.3%

[55] Mongolia: Imports, Exports, and Trade Partners. https://oec.world/en/profile/country/mng/ (accessed 25 July 2019)
[56] Investment in Mongolia. KPMG in Mongolia 2016 Edition, p.11. https://assets.kpmg/content/dam/kpmg/mn/pdf/mn-investment-in-mongolia-2016-new.pdf (accessed 9 July 2019)
[57] Mongolia's Fledgling Meat Industry Seeks Export Expansion. The Cattle Site, 24 February 2016. www.thecattlesite.com/articles/4318/mongolias-fledgling-meat-industry-seeks-export-expansion/ (accessed on 9 July 2019)

of employment in 2015[58]. Also, because of recurrent outbreaks of transboundary animal diseases, there is a need to strengthen sanitary and phytosanitary measures alongside cross-border trade.

A high score in Movement of People (0.500) suggests the potential for competitive advantage in the services, particularly the tourism industry. Mongolia hosts several sites of high tourism potential, and the tourism sector contributes roughly 9% to GDP. The government of Mongolia has identified tourism as a priority sector and aims to expand tourism arrivals to 1 million visitors by 2020. [59] Support for this sector will boost Mongolia's integration with the CAREC region and further diversify its economy.

Figure 13: Mongolia in CRII



There is a potential for renewable energy and energy exchange given the country's unique landscape. Mongolia has abundant solar and wind energy sources which, if properly exploited and utilized, will reduce dependency on coal exports. Further, investors and donors are keen to invest in the development of renewable energy and to support the government's targets to increase the share of generation capacity of renewable sources to 20% by 2020 and to 30% by 2030, up from the current 3%.[60]

[58] The Asian Development Bank's (ADB) Country Partnership Strategy for Mongolia (2017-2020) to achieve sustainable and inclusive growth. file:///C:/Users/user/Desktop/Mongolia%20Partnership%20Strategy%20ADB%20.pdf (accessed 6 July 2019)

[59] *The Tourism Industry in Mongolia.* The Mongolian Economy. https://mongolianeconomy.mn/archive/4858/ (accessed 9 July 2019)

[60] Gordon Feller, "Investors Keen to Support Mongolia's Renewable Energy Goals." Renewable Energy World. 29 December 2017. https://www.renewableenergyworld.com/articles/2017/12/investors-keen-to-support-mongolia-s-renewable-energy-goals.html (accessed 9 July 2019)

A number of barriers need to be addressed so that Mongolia can develop its renewable energy sector sufficiently. Among the required policy interventions are the following: a) liberalization of the energy sector to allow more private sector participation and stimulation of investments; b) capacity building in terms of technology transfer, tariff and non-tariff barriers, competitive pricing, and market potential, among others.

Finally, Mongolia must enact and implement measures that would reform the banking sector. The sector needs a supervisory framework to address non-performing loans and ensure adequate capitalization. These initiatives will lay the groundwork for developing a more robust financial sector that would lead towards financial and monetary integration within CAREC.

Pakistan

Pakistan's regional integration score is among the lowest in the region, only above Afghanistan (0.344). By excluding the PRC (CWCexPRC), the scores go up marginally to 0.349 but still remain below the regional average (0.399). The policy interventions needed for stronger regional integration are obvious for Mongolia, Pakistan, and Afghanistan - the three countries that score lowest in the index with or without the PRC data. The pattern of low regional integration scores has been evident over the last ten years (see Figure 14 below).

Relatively high scores are in the dimensions of Regional Value Chains (0.524) and Infrastructure and Connectivity (0.417). Low scores in Trade and Investment (0.161), Money and Finance (0.230) and Movement of People (0.297) require policy interventions.

Conceivably, relatively higher score in Infrastructure and Connectivity is a reflection of investments in infrastructure from the PRC through the China-Pakistan Economic Corridor (CPEC) - a project worth $51 billion designed to link China to Pakistan through Kashgar in the Xinjiang Autonomous Region to the Gwadar Port in Pakistan through multiple projects involving a network of highways, railways, and pipelines. This connectivity will serve as a conduit for trade beyond the two countries and will extend to South Asia, Central Asia, and eventually, to Europe[61].

The CRII scores in Regional Value Chains are reflective of Pakistan's good performance in the apparel industry. Its garment exports generated approximately US$7.8 billion in the first ten months of 2019, an increase of 1.19% over the previous year. [62] The PRC and Afghanistan are Pakistan's major export partners in the CAREC region, accounting for US$1.8 billion (7.7%) and US$1.4 billion (5.7%) of total exports. Biggest export markets are still the EU and the USA. [63]

Continued investments in the Infrastructure and Connectivity dimension will likely spur intra-regional exchange between Pakistan and Central Asia. To this end, Central Asia and the rest of the CAREC region (including South Asia) stand to benefit from an increased infrastructure that links Pakistan with two economic powerhouses of the PRC and India to the east, and Iran and Afghanistan to the west. Further, Pakistan will benefit from additional investments in infrastructure by diversifying its export markets to Central Asia and will, in turn, facilitate the import of much-needed energy resources for its development programs. [64]

The technical assistance support for Pakistan is focused on energy and transport sectors by extending the CAREC corridors to the ports of Gwadar and Karachi, also on the Turkmenistan-Afghanistan-Pakistan-India natural gas pipeline[65], improvements in ease of doing business, trade

[61] Shazia Kousar, Abdul Rehman, and Mahwish Zafar. (2018) "China-Pakistan Economic Corridor: a gateway to sustainable economic development ," International Journal of Social Economics 45(6) : 909-924

[62] "Knitwear Garment Exports Rise by 16% in January," (20 February 2019) The Express Tribune. https://tribune.com.pk/story/1914259/2-knitwear-garment-exports-rise-16-jan/ (accessed 4 August 2019)

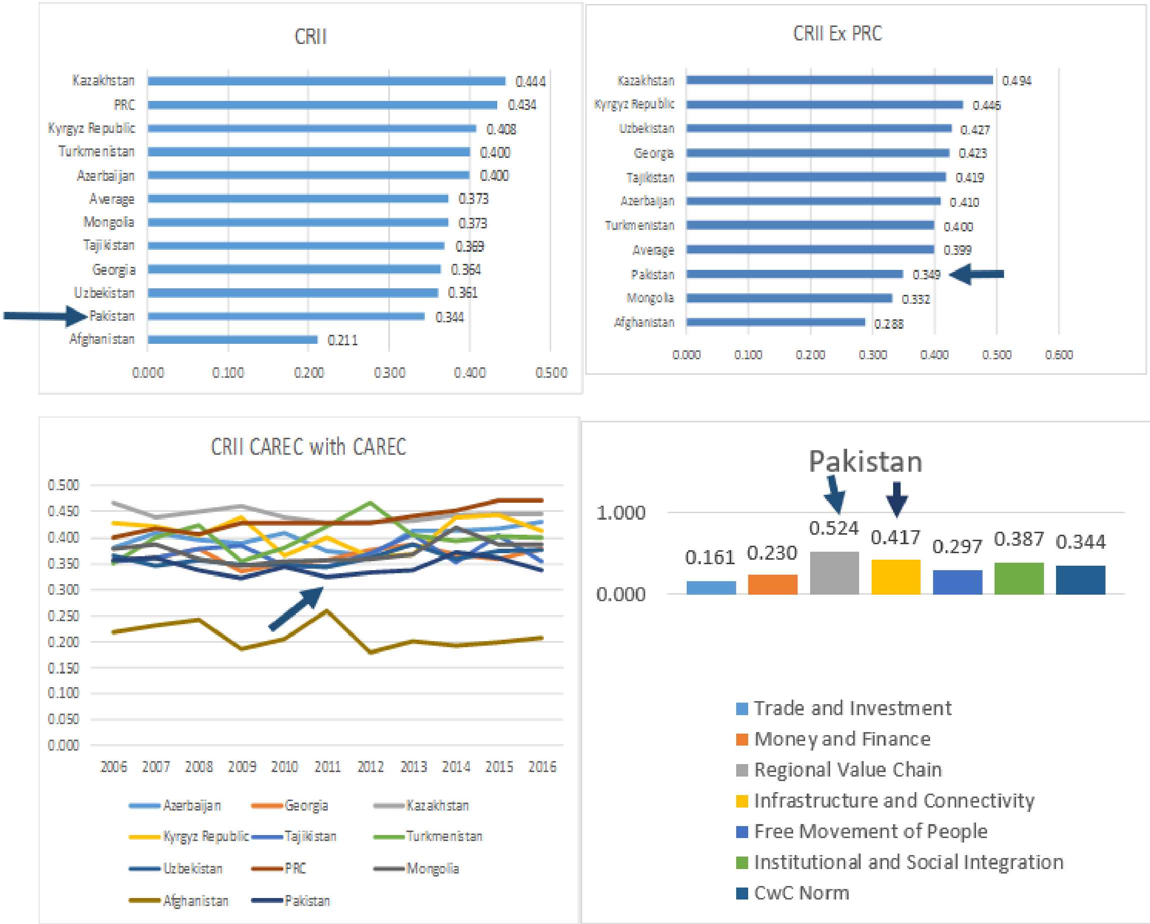
[63] Daniel Workman, "Pakistan's Top Trading Partners." (1 July 2019). World's Top Exports (WTEx) http://www.worldstopexports.com/pakistans-top-import-partners/ (accessed 4 August 2019)

[64] Shakeel Ahmad Ramay, (29 October 2018) "Central Asia a good avenue for expanding Pakistan's export base," The Express Tribune. https://tribune.com.pk/story/1836176/2-central-asia-good-avenue-widening-pakistans-export-base/ (accessed 4 August 2019)

[65] Country Partnership Strategy – Pakistan. 2015-2019 (August 2015) Manila: ADB. https://www.adb.org/sites/default/files/institutional-document/171824/cps-pak-2015-2019.pdf (accessed 3 August 2019); Business Operations Plan – Pakistan 2019-2021 (December 2018). Manila: ADB. https://www.adb.org/sites/default/files/institutional-document/471336/cobp-pak-2019-2021.pdf (accessed 3 August 2019)

across borders, and logistics performance. Improvements in these areas will reduce trading time, costs and uncertainties, and expand the market potential for exports. [66]

Figure 14: Pakistan in CRII



66 "Regional Cooperation to be a key theme in ADB's new country partnership strategy for Pakistan: An Interview with Safdar Parvez, Director Regional Cooperation and Operations Coordination Division, Central and West Asia Department" (12 July 2019) https://www.brecorder.com/2019/07/12/509334/regional-cooperation-to-be-a-key-theme-in-adbs-new-country-partnership-strategy-for-pakistan/ (accessed 4 August 2019)

Tajikistan

Tajikistan's integration score is 0.369 below the regional average. However, with the removal of PRC, the score goes above the average to 0.419. This indicates strong potential for integration with other countries in the region. See Figure 15 below.

High scores are in RVCs (0.654), Infrastructure and Connectivity (0.522), and Institutional and Social Integration (0.562). The lowest score is in Trade and Investment and MFI.

Tajikistan is a landlocked country, and 93% of its territory is mountainous. It is classified as a low-middle-income country with a GNI per capita of $1,240 for 2015. The economy has been reliant on two exports (raw cotton and unwrought aluminum) as well as remittances from migrant labor. Remittance flows contributed 49.6% to GDP in 2013 though the relatively small amounts of inflows were channeled to private consumption. Thus, remittances did not have positive effects on investments. Other exports consist of fruits, nuts, vegetables, leather, and tobacco products[67].

Among the Central Asian countries, Tajikistan remains relatively poor compared with its wealthier neighbors (e.g., Kazakhstan), even while there have been dramatic reductions in poverty rates. From a high poverty rate of 81% in 1999, the figure dropped to 31.6% in 2015. These achievements, however, were largely due to remittances from migrant labor[68].

Hydropower is Tajikistan's major resource and considered as the most vibrant and investment-intensive sector in the local economy. Its hydropower potential is estimated at 527 billion kWh per year, which exceeds the current electricity consumption of the countries of Central Asia by 300%. Its total domestic electrical generation capacity is 6577 MW, including 5858 MW of hydroelectric capacity. [69] Electricity exports of summer surplus to Afghanistan increased from US$33 million in 2013 to US$44 million in 2015. However, there were acute energy shortages in winter estimated at 1.1 terawatt-hours (TWh) outside of Dushanbe in 2015. [70] Apart from Afghanistan, there are positive prospects for expanding energy exchanges with other CAREC countries.

Consistent with the National Development Strategy 2030 of Tajikistan, the country aims to achieve energy security and efficient use of electricity through diversification of energy generation sources; development of hydropower resources from small and large rivers; build technical capabilities for the development of alternative renewable energy sources; and modernize the energy infrastructure through upgrading and construction of new power plants. [71]

In line with the NDS, the technical assistance is planned to connect the energy systems of Tajikistan with Uzbekistan through the Reconnection to the Central Asian Power System Project (CAPS) in 2018. [72] With improved relations between the two countries, Tajik-Uzbek transmission lines were restored in April 2018, allowing an annual export of up to 1.5 TWh to Uzbekistan. [73]

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[67] Tajikistan 2016-2020. Country Partnership Strategy. August 2016. Asian Development Bank. https://www.adb.org/documents/tajikistan-country-partnership-strategy-2016-2020 (accessed 21 August 2019)

[68] Ibid.

[69] Tajikistan – Energy. https://www.export.gov/article?id=Tajikistan-Energy (accessed 21 August 2019)

[70] Tajikistan 2016-2020. Country Partnership Strategy. Ibid.

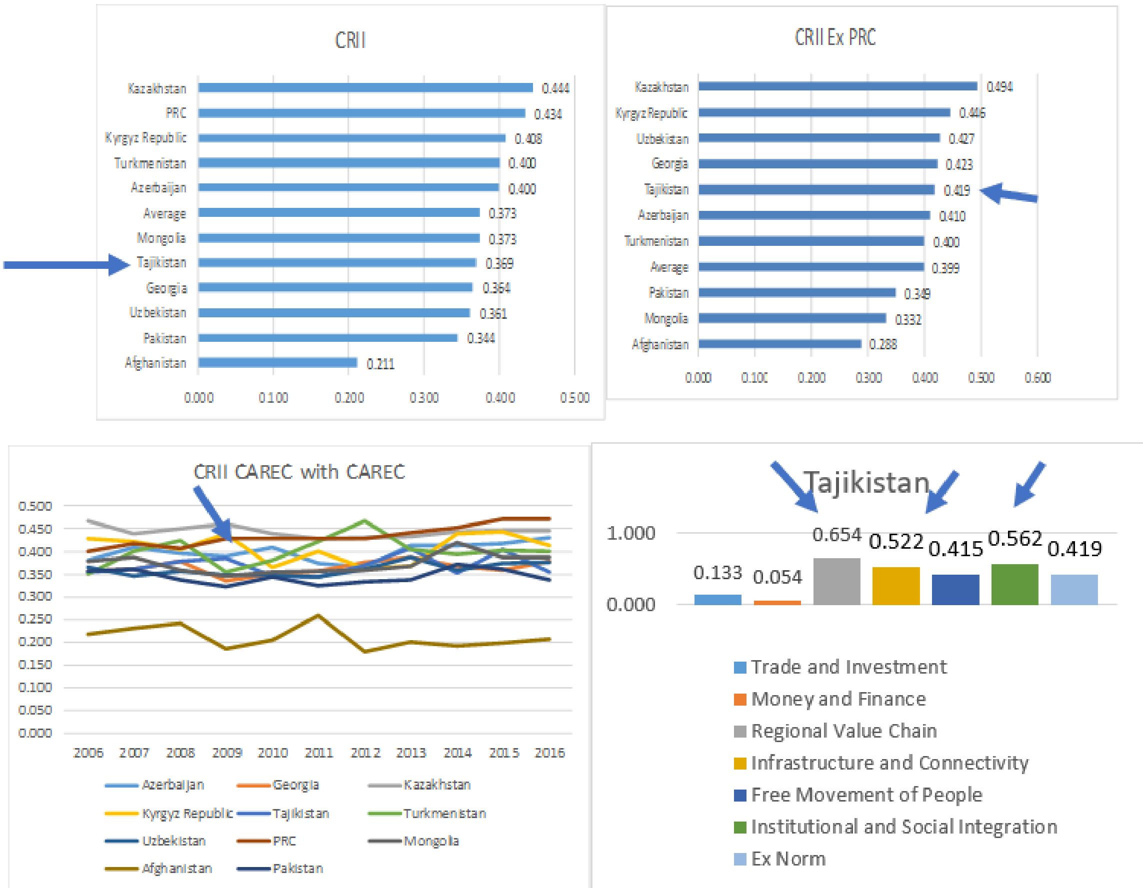
[71] National Development Strategy of the Republic of Tajikistan for the period up to 2030. Dushanbe 2016. http://nafaka.tj/images/zakoni/new/strategiya_2030_en.pdf (accessed 22 August 2019)

[72] Tajikistan 2019-2021. Country Operations Business Plan. Asian Development Bank 2019.

[73] Tajikistan. International Hydropower Association. https://www.hydropower.org/country-profiles/tajikistan (accessed 22 August 2019)

The technical assistance is concentrated in the energy sector, reconstruction of the Obigarm-Nurobod Road which connects Dushanbe to the Kyrgyzstan border in the northwest as part of the CAREC corridor 2 and 5,[74] structural reforms to improve investment climate through private sector development and job creation, and technical and vocational education sectors for more productive employment and expansion of business capabilities.

Figure 15: Tajikistan in CRII



[74] ADB Country Operations Business Plan. Ibid.

Turkmenistan

Turkmenistan's score on the index is 0.4 which is above the average of 0.373. The score remains unchanged when the PRC data is removed from analysis. See Figures 16 below.

Highest scores are in RVC (0.606), Institutional and Social Integration (0.662), and Infrastructure and Connectivity (0.542). Lowest scores are in Trade and Investment (0.047) and MFI (0.045) consistent with most other countries in CAREC. These scores suggest that the two main drivers of regional integration are the lowest for Turkmenistan.

Turkmenistan's economy is dominated by the export of natural gas along with cotton, oil and oil-related products, and carpets. These commodities averaged 94.3% of total annual exports for 2010-2015. Turkmenistan is the world's 12th natural gas producer and has the world's fourth-largest natural gas reserves after Russia, Iran, and Qatar. Major export partners are Russia and the PRC. [75] There is very little trade between Turkmenistan and other CAREC members as evidenced by low scores in Trade and Investment dimension (0.047).

Excessive reliance on a narrow basket of export commodities has rendered Turkmenistan's economy vulnerable to external shocks. In 2014, the demand for hydrocarbon dropped, which resulted in falling prices. As a result, the annual export value of natural gas dropped by more than a third, from $13.5 billion in 2014 to $8.4 billion in 2015. Turkmenistan's foremost challenge is to diversify its economy to reduce its vulnerability to exogenous shocks and to generate revenues from a broader base of exports. Diversification also requires expanding other markets apart from the existing ones.

To this end, the technical assistance supports regional connectivity for natural gas export to South Asia through the Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline. The Turkmenistan-Uzbekistan-Tajikistan-Afghanistan-Pakistan (TUTAP) power interconnection initiative aims to export power from Turkmenistan, Uzbekistan, and Tajikistan to supply the Afghan grid with excess power to be exported to Pakistan[76]. Turkmenistan's position as a major energy player will be central to efforts to achieve regional energy security.

Being a landlocked country, Turkmenistan will achieve greater connectivity through developed road and transport infrastructure that will integrate Turkmenistan with regional transport systems to increase trade with neighboring countries and links with international markets. A relatively high score in Infrastructure and Connectivity (0.542) already indicates strong potential for further integration within CAREC, and for becoming a transit and trade hub.

The technical assistance is also concentered in support to SMEs in agro-industry and agribusinesses. Agriculture employed 43.3% of the labor force in 2016. The contribution of agriculture to GDP dropped from 22.5% in 2000 to 10% in 2016. [77] The SME sector contributes 21% to GDP and accounted for 30% of employment for 2011-2015. Its share of total bank credit is only 10%. Reform of the financial sector to extend assistance to SMEs is evident, especially given low scores in Money and Finance Integration (0.045). As SMEs operate mostly in the informal economy, policy measures are required to enroll them in the formal sector, and lend them support in terms of credit assistance, market linkages, and capacity building skills via training and knowledge exchange. The SME sector in

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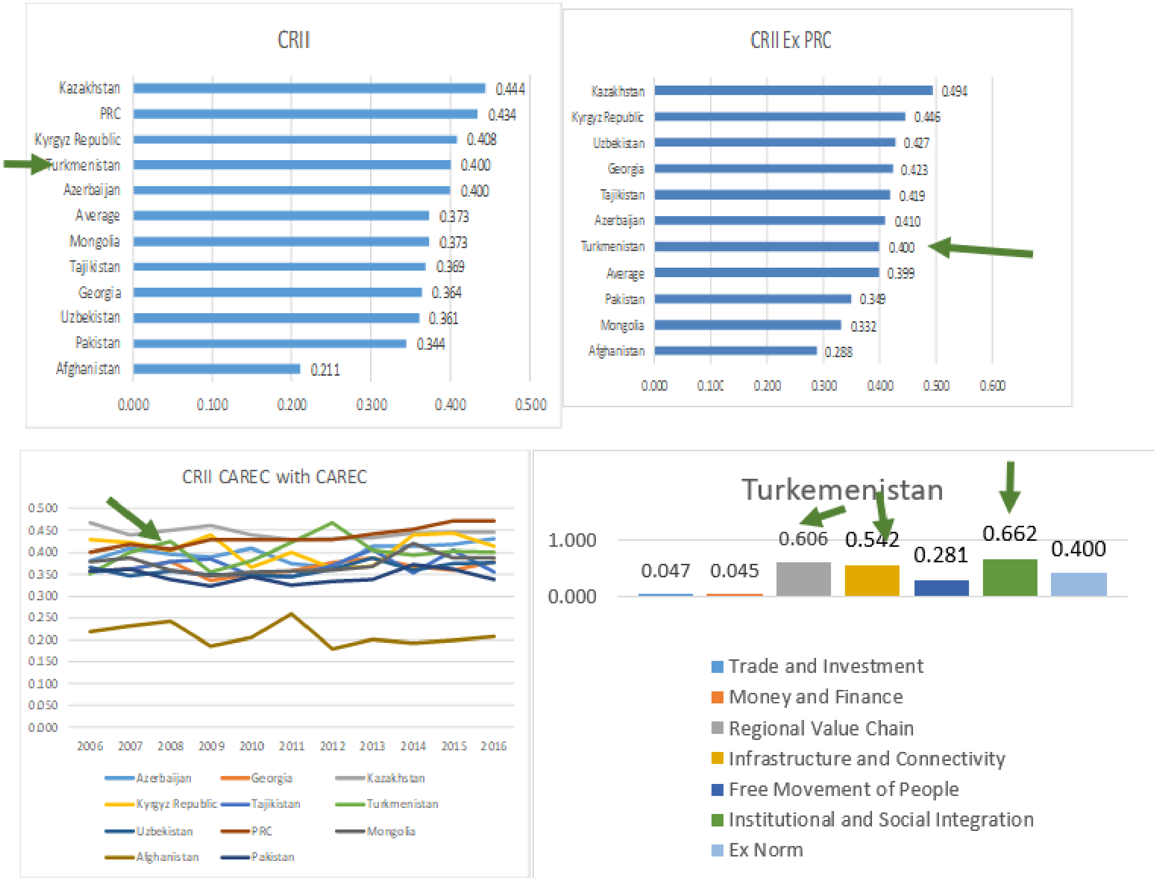
[75] Turkmenistan 2017-2021: Catalyzing Regional Cooperation and Integration, and Economic Diversification, p. 3 https://www.adb.org/countries/turkmenistan/strategy (accessed 23 August 2019)

[76] Ibid., p. 8

[77] Turkmenistan 2019-2021. ADB Country Operations Business Plan. November 2018. https://www.adb.org/documents/turkmenistan-country-operations-business-plan-2019-2021 (accessed 23 August 2019)

Turkmenistan mirrors the situation in other CAREC countries who have relatively significant informal economies.

Figure 16: Turkmenistan in CRII



Uzbekistan

Uzbekistan scores below average in the overall index (0.361). However, without the PRC data, Uzbekistan's scores increase to 0.427 (see Figures 17). These results suggest that with appropriate policy support, there is a strong potential for intra-regional trade, without having to rely exclusively on the PRC.

Highest scores are in Institutional and Social Integration (0.653) and Regional Value Chains (0.507). See Figure 17. These scores reflect the role of Uzbekistan in regional agreements, particularly their membership in the CIS Free Trade Zone which took effect in 2014. Though not a member of the WTO, Uzbekistan has begun the process of accession. To date, Uzbekistan has signed bilateral investment treaties with 53 countries. [78] Also, the recent launch of the Afghanistan-Uzbekistan Trade Zone in May 2019 heralds a positive development in bilateral relations between the two countries. The Termez Cargo Center Terminal at the Afghan-Uzbek border provides a facility for storage of goods as well as cross-border mobility. The cargo terminal serves as a conduit to more extensive trade cooperation between the two countries, and potentially to other member countries in the region. [79]

Relatively high scores in Regional Value Chains (0.507) suggest Uzbekistan's positive role, especially in the agricultural sector. Uzbekistan is a major agricultural producer and the PRC's major trading partner in cotton, providing nearly half of China's cotton imports. In turn, the China National Machinery Industry Corporation provides Uzbekistan with agricultural equipment. [80]

Lowest scores are in Trade and Investment (0.227), Money and Finance Integration (0.126), and Movement of People (0.185). Policy support in these areas is recommended to enhance regional integration.

As a lower middle-income country, Uzbekistan is the most populous in CAREC. Its population of over 30 million is considerably bigger than many countries in the region and is also the region's largest market, after the PRC. The country's demography presents challenges. It has relatively young population; 28.6% of its population is under the age 14, whereas only 55% of its population is employed. Economic growth has not kept pace with employment opportunities; thus, migration levels remain high. An estimated 10% of the labor force is abroad. [81] Remittances form a significant component of the average household income. [82]

Poverty levels remain high in Uzbekistan. In 2018, poverty rates were 11.4% mainly due to jobless economic growth, low productivity in labor-intensive agriculture, informal labor market, low access of females to the labor market, and disparities in property ownership. [83] One of Uzbekistan's

[78] Uzbekistan – Trade Agreements. https://www.export.gov/article?id=Uzbekistan-Trade-Agreements (accessed 14 August 2019)

[79] Umida Hashimova, "How Trade Shapes Afghanistan-Uzbekistan Relations." 24 June 2019. The Diplomat.https://thediplomat.com/2019/06/how-trade-shapes-afghanistan-uzbekistan-relations/ (accessed 14 August 2019)

[80] Andrew C. Kuchins, et.al Central Asia in a Reconnecting Eurasia. Uzbekistan's Evolving Foreign Economic and Security Interests. June 2015. Central for Strategic and International Studies, p. 13. https://reconnectingasia.csis.org/analysis/entries/central-asia-reconnecting-eurasia-uzbekistan/ (accessed 15 August 2019)

[81] Ibid., p. 3

[82] Uzbekistan, 2019-2023: Supporting Economic Transformation. May 2019. Country Partnership Strategy. Asian Development Bank, p. 3. https://www.adb.org/countries/uzbekistan/strategy (accessed 15 August 2019)

[83] Ibid.

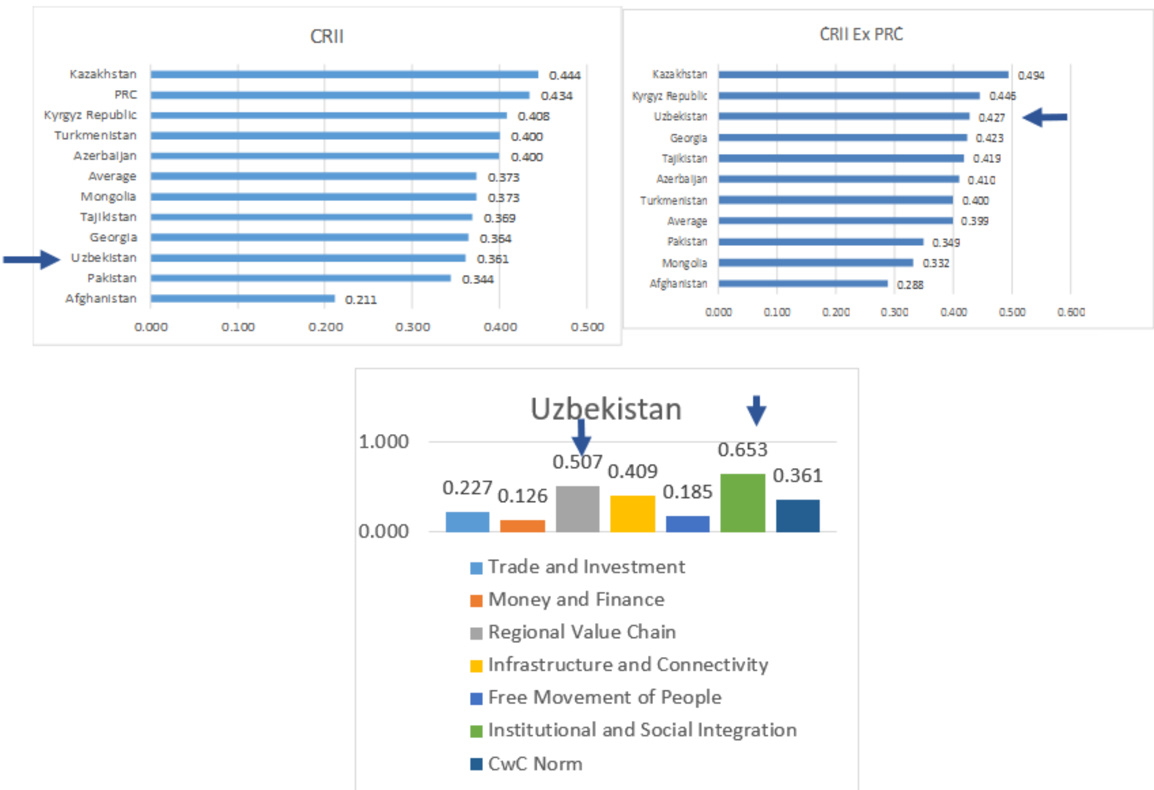
foremost challenges is to exploit the demographic dividend, especially for the youth who constitute a sizeable segment of the working population.

Further challenges lie in poor quality of infrastructure, which is a hindrance to establish a vibrant business environment. Other constraints to growth include active state participation in the Uzbek economy, with over 8000 SOEs in energy, metallurgy and mining, telecommunication, agriculture, machinery, and transport - all of which crowd out the private sector. Lack of financial intermediation facilities is an additional constraint to economic expansion, particularly for small and medium enterprises.

However, the new administration in 2016 has initiated reforms to liberalize the economy and transform the role of the state through five priority areas for reform. To this end, the technical assistance focuses on three strategic areas: i) supporting private sector development; ii) reducing social and economic disparities, and iii) promoting regional cooperation and integration[84].

To support regional integration, the technical assistance provides funding for the energy exchange through the Central Asia Power System (CAPS) and regional connectivity along major CAREC corridors particularly between Uzbekistan, Kazakhstan, and Tajikistan. These economic corridors provide the potential to develop and expand cross-border tourism and exploit Uzbekistan's valuable heritage sites. Further, technical assistance supports the diversification of agriculture beyond cotton production into high-value horticulture, livestock farming, and high-quality processing and distribution. Finally, support for developing the financial sector will spur investments across the value chain, and support greater participation from an expanded private sector, including the SMEs.

Figure 17: Uzbekistan CRII



[84] Ibid., p. 8

Summary Table of Country-Level Recommendations

Area	Recommended Policy Interventions
Trade and Investment	▪ Provide support to firms to join the formal sector of the economy through simplified tax schemes and similar policy measures. Look into institutional weaknesses and the regulatory burden to address the issue of informal economy. ▪ Implement trade facilitation measures under the WTO Agreement and eliminate non-tariff barriers ▪ Establish cross-border free trade areas along various CAREC corridors ▪ Provide policy support for technology transfer to mitigate difficulties of the liberalization process ▪ Support SMEs via credit access, capacity building ▪ Economic diversification to reduce over-dependence on the extractive industries (Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan, Mongolia, Azerbaijan)
Money and Finance Integration	▪ More focused policies for financial development for Afghanistan to support SMEs and private sector participation ▪ Reform the banking sector and ensure stronger financial development ▪ Support the banking reform to increase the share of private sector credit to GDP, privatization of banks with credit extension to SMEs and large companies (Uzbekistan, Turkmenistan, Afghanistan) ▪ Kazakhstan has the potential to promote financial integration through the Astana International Financial Centre
Regional Value Chains	▪ Extend support to regional value chains (especially in the apparel industry), invest in capacity building to advance the value chains, including branding, distribution, and technology; open up regional markets for Pakistan and Kyrgyzstan. ▪ Advance along the regional value chain for the garment industry through the expansion of markets; support SMEs to scale up and expand operations beyond Cut-Make-Trim (CMT) contracts in Kyrgyzstan ▪ Develop regional value chains in Mongolia for meat products to capitalize on its nomadic livestock industry and associated support for phytosanitary measures to address transboundary health challenges ▪ High-value horticulture, livestock farming, and high-quality processing and distribution

Area	Recommended Policy Interventions
Infrastructure and Connectivity	▪ Support for infrastructure and connectivity that link Pakistan with two economic powerhouses: India and the PRC, support the energy and transport sectors by extending the CAREC corridors to the ports of Gwadar and Karachi and to the Turkmenistan-Afghanistan-Pakistan-India natural gas pipeline which will facilitate the import of energy resources ▪ Support the renewable energy in Mongolia particularly solar and wind ▪ Prospective investment in the Anaklia Deep Seaport on the Black Sea Coast in Georgia, potential to connect Central Asia to international markets especially the EU; proposed growth area to link with the rail network in Turkmenistan and two ports of Pakistan (Gwadar and Karachi) ▪ Leverage abundant hydropower resources in Tajikistan for regional energy exchange to supply energy-deficient countries
Movement of People	▪ Invest in tourism development in Mongolia, given its unique terrain (Gobi Desert); expand cross-border tourism and make the most of Uzbekistan's valuable heritage sites ▪ Continue tourism development in Georgia to respond to the growing tourism market ▪ Enhance border management, data management on entry/exit, institutional collaboration of migration and asylum flows, and legislative reform in Azerbaijan ▪ Invest in job creation and skills training to move away from remittance dependency in Tajikistan and Kyrgyzstan; link capacity building to formation of regional value chains
Social and Institutional Integration	▪ Explore bilateral FTAs specifically for Afghanistan ▪ Support development and regional integration agendas of regional bodies outside of CAREC (e.g. SCO, EEU, etc.) ▪ Create regional knowledge corridors/hubs in selected geographies along with sector concerns (energy, tourism, agriculture, etc.) ▪ Institutional development focused on policy research. Focus on disaggregated data for the Xinjiang and Inner Mongolia Autonomous Regions to draw recommendations for the PRC specific policies in the CAREC region.

The Growth Area Approach

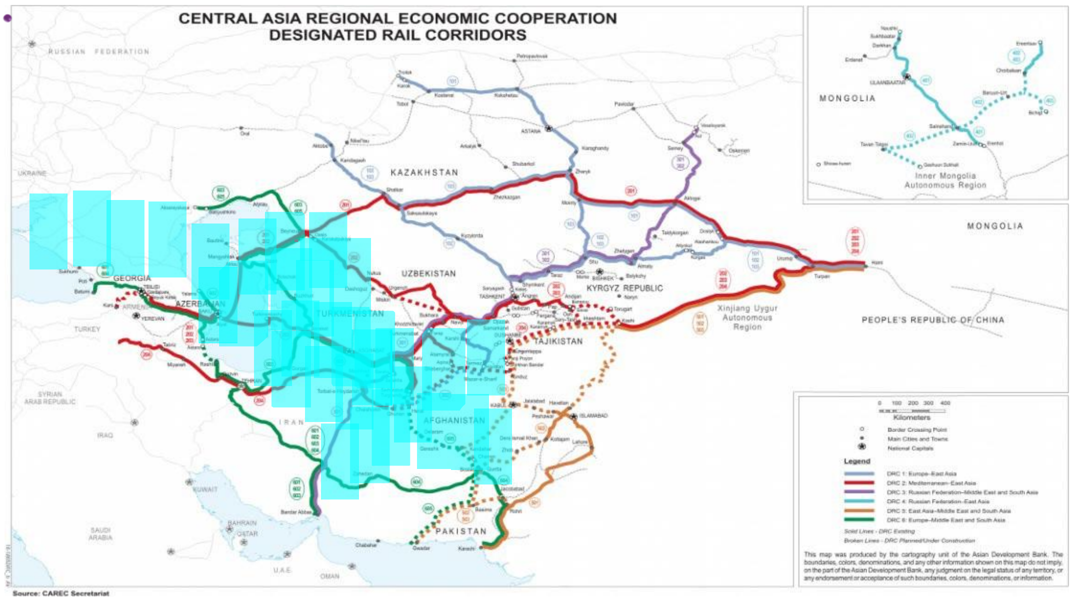
The concept of the "growth triangle" was promoted by the ADB in the early 90s. Its original purpose was to "exploit complementarities among geographically contiguous areas to gain a competitive edge in export promotion." These triangles are transnational economic zones that cover three or more countries and refer to sub-regional economic cooperation. Since then the practice has extended to include more countries and is now referred to as a "growth area." The growth area approach is highly appropriate for the CAREC region, whose member countries are at different stages of economic development and with different economic and social systems." This approach could help solve practical challenges.

A grouping of countries into growth areas could be explored along geographical lines akin to the GMS and the BIMP-EAGA. A second approach would be to organize countries around sectors with complementarities (e.g., energy, transport, SEZs, manufacturing, labor, knowledge, etc.). This approach can reduce intra-regional competition and overlapping interests, while leveraging countries' distinct competitive advantages, enhancing cooperation, and providing differentiated strategies for sub-regions.

Possible groupings of growth areas along geographical lines are as follows:

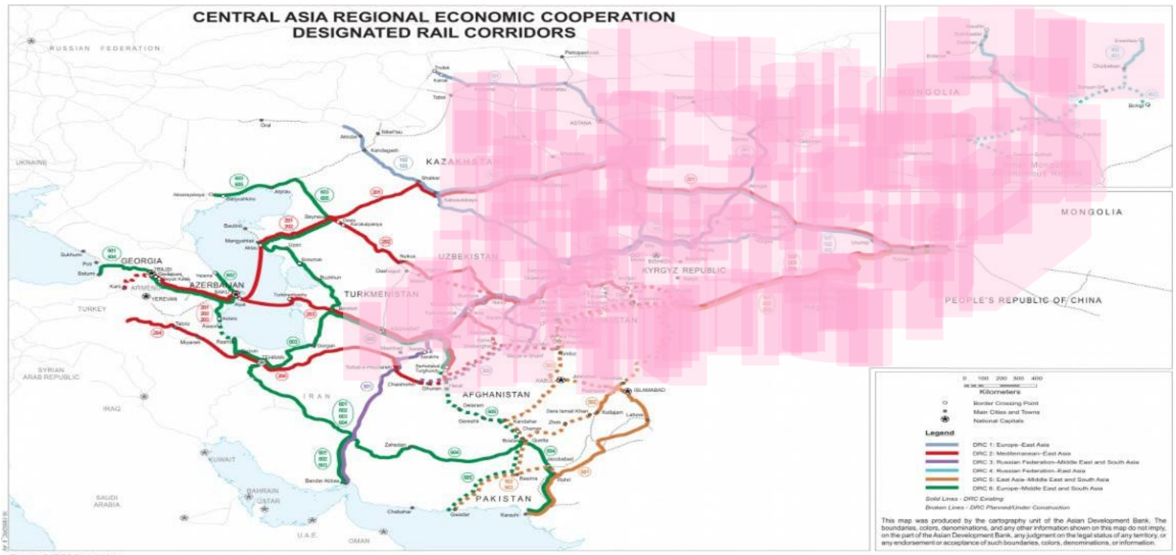
1) Azerbaijan-Georgia-Turkmenistan-Afghanistan-Pakistan growth area to connect the seaports of Azerbaijan and Georgia with the proposed Turkmenistan rail network, and with the Gwadar and Karachi ports of Pakistan. This growth area could serve as the regional transit points for goods coming from South Asia/Middle East, the CIS subregion, and Mongolia-XUAR-IMAR. See shaded area of Figure 18 below.

Figure 18: Proposed Azerbaijan-Georgia-Turkmenistan-Afghanistan-Pakistan growth area



2) Regional value chain growth area: the middle and far-west portions of the CAREC region could constitute the regional value chain growth area which would stimulate regional production systems primarily in agriculture whose outputs move through the railway network in Turkmenistan and into the port outlets of Georgia and Azerbaijan, connecting the sub-region to Europe, as well as through the port outlets of Pakistan and into South Asia and the Middle East. See shaded area of Figure 19 below.

Figure 19: Proposed regional value chain growth area: Kazakhstan-Kyrgyzstan-Tajikistan-Uzbekistan-XUAR-IMAR

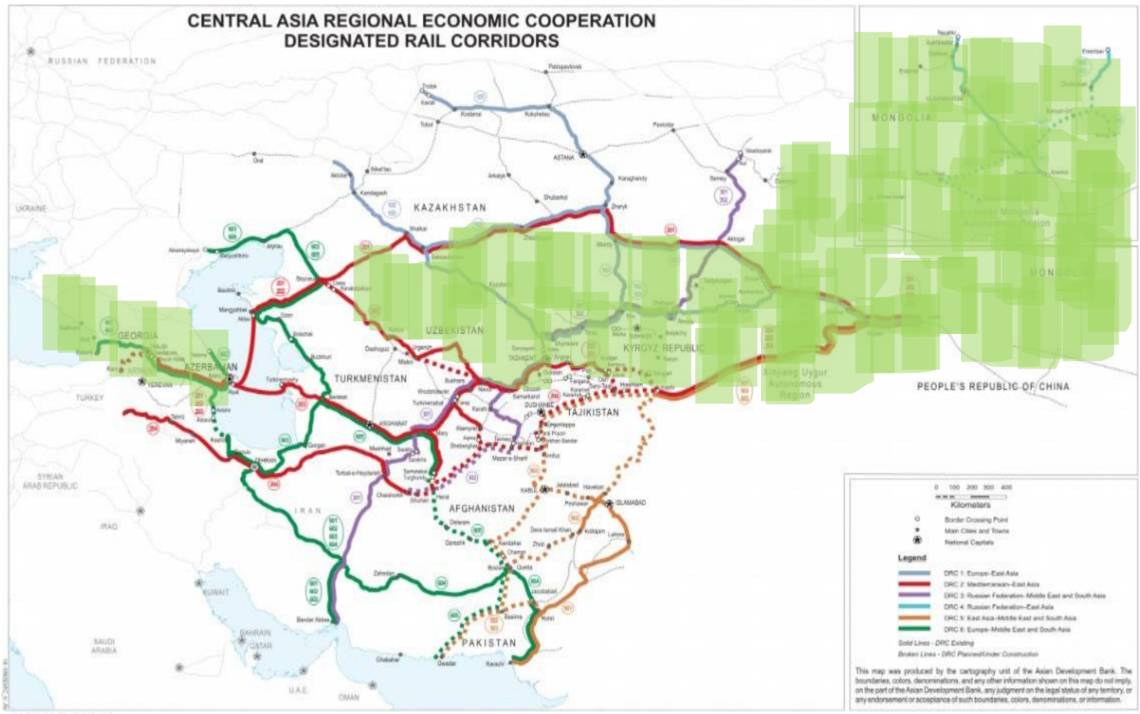


Source: CAREC Secretariat

3) Cross-border tourism growth areas which include:

- Georgia-Azerbaijan for tourists from Europe
- XUAR-IMAR-Mongolia-Kyrgyzstan-XUAR-IMAR-Uzbekistan to cover portions of the Silk Road together with the heritage sites (Bukhara and Samarkand) in Uzbekistan. See shaded areas of Figure 20 below.

Figure 20: Proposed tourism growth areas



Source: CAREC Secretariat

Further, the growth area approach would benefit from knowledge corridors/hubs to generate knowledge products and services which could support the integration agenda. The following knowledge corridors/hubs are recommended:

1) Energy knowledge hub to support the CAP, TAP, TAPI, and TUTAP initiatives
2) Tourism knowledge hub
3) Regional value chain knowledge hub (agriculture, horticulture, garments, animal industry, etc.)
4) Transport and logistics knowledge hub to focus on the rail and seaport networks of Azerbaijan, Afghanistan, Georgia, Turkmenistan, and Pakistan growth area
5) Financial knowledge hub to complement the Astana International Finance Centre and the various knowledge providers in the PRC

Annex 1

	Dimensions and Subdimensions CWC, as of 2016	Weights	
I	**Trade and Investments**		**0.137**
I-a	Proportion of intra-regional goods exports to total goods exports	0.157	
I-b	Proportion of intra-regional goods imports to total goods imports	0.171	
I-c	Intra-regional trade intensity index	0.218	
I-d	Proportion of intra-regional FDI inflows to total FDI inflows	0.227	
I-e	Proportion of intra-regional FDI inflows plus outflows to total FDI inflows plus outflows	0.227	
II	**Money and Finance Integration**		**0.157**
II-a	Financial Institutions Depth Index	0.313	
II-b	Financial Markets Access Index	0.172	
II-c	Financial Markets Depth Index	0.319	
II-d	Financial Markets Efficiency Index	0.195	
III	**Regional Value Chain**		**0.176**
III-a	Ratio between the averaged trade complementarity index over regional trading partners and the averaged trade complementarity index over all trading partners	0.220	
III-b	Ratio between the averaged trade concentration index over regional trading partners and the averaged trade concentration index over all trading partners	0.254	
III-c	Proportion of intra-regional intermediate goods exports to total intra-regional goods exports	0.203	
III-d	Proportion of intra-regional intermediate goods imports to total intra-regional goods imports	0.323	
IV	**Infrastructure and Connectivity**		**0.168**
IV-a	Ratio between the averaged trade cost over regional trading partners and the averaged trade cost over all trading partners	0.207	
IV-b	Ratio between the averaged liner shipping connectivity index over regional trading partners and the averaged liner shipping connectivity index over all trading partners	0.260	
IV-c	Logistics performance index (overall)	0.255	
IV-d	Doing Business Index (overall)	0.278	
V	**Movement of People**		**0.180**
V-a	Proportion of intra-regional outbound migration to total outbound migration	0.293	
V-b	Proportion of intra-regional tourists to total tourists (inbound plus outbound)	0.183	
V-c	Proportion of intra-regional remittances to total remittances	0.272	
V-d	Proportion of other Asian countries that do not require an entry visa	0.251	
VI	**Institutional and Social Integration**		**0.181**
VI-a	Proportion of other Asian countries that have signed FTAs with	0.174	
VI-b	Proportion of other Asian countries that have an embassy in	0.210	
VI-c	Proportion of other Asian countries that have signed business investment treaties with	0.242	
VI-d	Proportion of other Asian countries that have signed double taxation treaties with	0.264	
VI-e	Cultural proximity with other Asian countries relative to that with all other countries	0.110	

Source: Qadir and Adriano, Unpublished Working Paper, 30 March 2019

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