

OPERATIONALIZING ECONOMIC CORRIDORS IN CENTRAL ASIA A CASE STUDY OF THE ALMATY–BISHKEK CORRIDOR



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FOREWORD

For more than 2 decades, the Asian Development Bank (ADB) has supported regional cooperation across Asia and the Pacific. The cooperation initiatives are typically driven by investments in regional infrastructure, which also provides a platform for ADB member countries to cooperate on other areas of mutual interest. At the beginning, investments focused on improving physical connectivity, primarily through projects in transport and energy. Together, these sectors still account for most regional cooperation investments supported by ADB.

As ADB member countries become more physically connected and continue to develop, there is an emerging need to cooperate at a higher level and to focus on linking markets, ideas, and people. Economic corridor development (ECD) can provide a useful instrument in developing this next-generation regional cooperation agenda. ECD is concerned with the spatial organization of economic activities. It brings together existing and new infrastructure, policies, and institutions to attract private investment that will create jobs and growth. Infrastructure requirements encompass transport networks (primary and secondary roads, railways, ports, airports); energy; information and communication technology; urban infrastructure; and economic zones. ECD overlaps naturally with urban development, given its focus on supporting the growth of large economic clusters, which are typically urban, and on improving links between urban clusters and between urban and rural areas.

The Central Asia Regional Economic Cooperation (CAREC) Program is the largest of such initiatives supported by ADB. Since its inception, CAREC has mobilized more than \$24 billion for transport, energy, trade policy, and trade facilitation, of which ADB has financed in excess of \$9 billion. In 2011, the CAREC member countries adopted a long-term strategic framework that proposed ECD as a new priority.

This study develops an ECD framework specific to the region's unique physical and economic geography, and identifies a pilot ECD initiative to be pursued under CAREC. The study proposes three tracks for development of CAREC corridors: transport, transit, and economic corridors. Development of transport corridors remains a high priority for the member countries, with substantial investments needed to develop their road networks. Given that several member countries are landlocked, development of efficient transit is also a high priority for these countries. Both transport and transit aspects of corridor development have been a focus of CAREC since its inception.

Because the concept of economic corridors is new to CAREC, the study recommends piloting its operationalization with the Almaty–Bishkek Corridor Initiative and identifies the steps to implement it. The initiative is the first attempt at city-level cooperation in the CAREC region. It will help coordinate urban development planning between the two cities and produce detailed studies

to identify infrastructure requirements, policies, and market opportunities to better integrate the cities' economies, including in services sectors.

The ECD experience in other parts of the world underlines the need for a long planning and implementation horizon, active private sector involvement, and strong political commitment. A challenging agenda thus lies ahead for the CAREC Program's efforts to initiate ECD. Successfully implementing ECD will make an important contribution to spatial transformation, agglomeration and economic diversification in the participating countries, which are important development priorities in the region. ADB will continue to work with CAREC in expanding success in this endeavor.

A handwritten signature in dark ink, appearing to read 'Takehiko Nakao', with a large, stylized flourish at the end.

Takehiko Nakao
President
Asian Development Bank



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This study was undertaken on behalf of the Central Asia Regional Economic Cooperation (CAREC) Secretariat, Asian Development Bank (ADB). Klaus Gerhaeusser, director general, Central and West Asia Department (CWRD), provided overall guidance, and Vicky C. L. Tan, director, Regional Cooperation and Operations Coordination Division (CWRC), CWRD, managed the project.

Pradeep Srivastava, principal economist, CWRC, wrote the report and led the study team, which included CWRC staff members Oleg Samukhin, regional cooperation specialist, and Dominik Peschel, economist; and consultants Roman Mogilevskii, Zhanar Sultanbekova, and Gavin Bowring. Kristian Rosbach, economist, CWRC, helped obtain clearances for maps. Data was analyzed by consultant Ernalyn Lising.

Survey field work in Bishkek, Kyrgyz Republic, was organized by consultant Kubatbek Rakhimov, and survey logistics were supervised by Aidana Berdybekova, CAREC regional cooperation coordinator, ADB resident mission. Ruby Torralba, senior programs assistant, CWRC, handled all study logistics in Manila, Philippines. Elmira Dautova, Kulyay Rustamkhanova, and Manshuk Nurseitova of the ADB resident mission in Kazakhstan helped with arrangements in Almaty.

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ABBREVIATIONS

ABC	–	Almaty–Bishkek Corridor
AEO	–	authorized economic operator
BCP	–	border-crossing point
CAREC	–	Central Asia Regional Economic Cooperation
ECD	–	economic corridor development
GDP	–	gross domestic product
GRP	–	gross regional product
km	–	kilometer
km ²	–	square kilometer
PRC	–	People’s Republic of China

NOTE

In this report, “\$” refers to US dollars.



SUMMARY

The 10 member countries of the Central Asia Regional Economic Cooperation (CAREC) Program adopted a new, long-term strategic framework in 2011, *CAREC 2020: A Strategic Framework for the Central Asia Regional Economic Cooperation Program 2011–2020* (CAREC 2020). CAREC 2020 introduces three new operational priorities into the CAREC agenda, including economic corridor development (ECD). Broadly speaking, ECD focuses on how physical infrastructure can be used to catalyze and spatially organize economic activities to generate productivity and growth. Accordingly, ECD is relevant over the long term to address economic diversification, job creation, and spatial transformation.

This report follows up on CAREC 2020 to operationalize ECD. Its two objectives are to (i) customize the ECD concept to the unique context of the CAREC region, and (ii) identify specific areas where ECD may be piloted.

Experiences with ECD in other parts of Asia demonstrate important prerequisites for success: (i) a high level of political commitment, (ii) the strong role of the private sector at both conceptualization and implementation, (iii) institutional mechanisms to coordinate diverse stakeholders, (iv) detailed and comprehensive macro- and sector-level analyses, and (v) a long time horizon for implementation. Underlying all of these, however, is the need for economic potential. An economic corridor cannot create activities in a vacuum; it can only channelize and magnify inherent economic potential.

Thus, considering existing economic activities in the CAREC region, and distances across different economic clusters, this report proposes to initially focus on a specific segment of CAREC Corridor 1—the Almaty–Bishkek Corridor (ABC)—to pilot ECD. The ABC may provide the highest economic potential for cross-border ECD in the short term. The socioeconomic profile of the ABC shows that its economic potential is anchored on its endpoints, that is, the cities of Almaty and Bishkek. Almaty and Bishkek are large regional cities in their own right, although Almaty’s economy is the largest in the region by a substantial margin. The cities also have strong historical and cultural ties, along with trade links that include shuttle traders at the border. Further, an analysis of the trade barriers between Almaty and Bishkek, through examination of the behavior of prices for same goods in the region, indicates considerable room for greater integration of the two cities.

For this report, the dispersion in prices was compared across four cities—Almaty, Bishkek, Shymkent, and Taraz—demonstrating that both border and distance effects (through internal barriers) are significant in contributing to trade costs across these cities. However, some of these costs are expected to diminish or disappear following the Kyrgyz Republic’s accession to the Eurasian Customs Union, which is expected in 2015. Findings from primary data collected using a small survey of firms in Bishkek reaffirm the underlying affinities between the two cities, but they

also indicate some potential areas where interventions may help further strengthen the economic links between them.

Under recently approved plans of the Government of Kazakhstan, regional development within the country will be focused on increased size and economic density of urban clusters through agglomeration, combined with good links between urban clusters and smaller cities and rural areas. This ambitious agenda, if realized, will contribute to significant growth of Almaty's economy. Although the information available for Bishkek's development plans is less specific on investments, it indicates a strategic thrust toward enhancing the business climate, greater transparency, and improved governance to attract private investments into the city.

Based on existing economic potential and links between the two cities, expected substantial reduction in economic distance between the two economic centers and the potential increased size of both cities in the medium term, the report concludes that the ABC is a suitable option to pilot ECD under the CAREC Program.



I. Introduction

Established in 2001 and comprising 10 countries, the Central Asia Regional Economic Cooperation (CAREC) Program was created to foster cooperation in four areas of mutual interest to its member countries: transport, trade facilitation, trade policy, and energy.¹ As of 2014, the CAREC Program has invested more than \$24 billion across 158 investment projects, a major outcome being the identification, rehabilitation, and construction of six regional CAREC corridors, linking member countries across Central Asia.

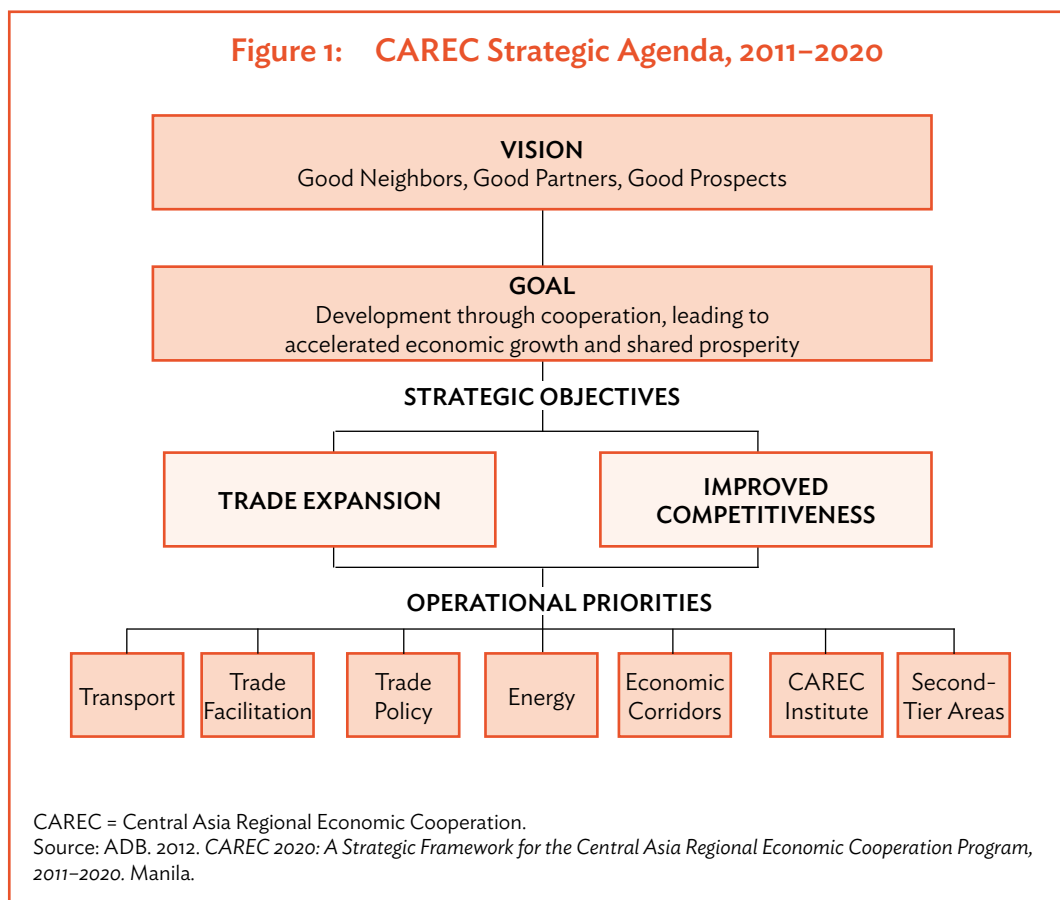
In 2010, CAREC member countries adopted a new, long-term strategic framework, the CAREC 2020, which introduces three new operational priorities in addition to the four mentioned above (Figure 1).² First, the framework emphasizes cooperation in “second-tier areas,” which address the social impacts of increased connectivity and expanded trade in the region (e.g., communicable disease control, disaster risk management, and climate change adaptation and mitigation). Second, it underscores the need to increase knowledge and analysis within the CAREC Program by strengthening the CAREC Institute, which also addresses the expanded capacity building needed for cooperation. Finally, it introduces the concept of economic corridor development (ECD), which goes beyond solely building infrastructure. Perhaps the most complex of operational priorities in CAREC 2020, ECD deals with how physical infrastructure can be used to catalyze economic activities to generate productivity and growth. It is a complex process but its success is associated with greater payoffs in generating economic value, creating jobs, and promoting growth.³

¹ Member countries comprise Afghanistan, Azerbaijan, the People's Republic of China (PRC) through two provinces (the Xinjiang Uygur Autonomous Region and the Inner Mongolia Autonomous Region), Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan.

² Asian Development Bank (ADB). 2012. *CAREC 2020: A Strategic Framework for the Central Asia Regional Economic Cooperation Program, 2011–2020*. Manila.

³ To use an analogy, consider the construction of a high-rise building. The concrete and girders provide the essential skeleton for the building, and the wiring and pipes address critical energy and sanitation aspects. However, the returns from the investment in the building will depend on the economic activities established within the building and how profitable they are over time. Unlike for the physical building, there are virtually no blueprints or engineering solutions available for these activities, only best practices, experience, and learning-by-doing to customize solutions.

Figure 1: CAREC Strategic Agenda, 2011–2020



ECD is more difficult in Central Asia, which has unique challenges such as landlocked economies, vast distances, difficult terrain, sparse and scattered populations, and resource endowments that tend to raise the costs of nontradable goods. The historical absence of market-based economic development is another impediment. However, although these factors have constrained the development of diversified economic activities, Central Asia also has advantages, such as well-educated populations that, in many cases, share languages, culture, and history; a solid middle-income status; and experience with complex manufacturing and industries, all of which can help the concept of ECD succeed.

This report follows on CAREC 2020 to move the agenda forward on operationalizing ECD. Its two objectives are to (i) customize the ECD concept to the context of the CAREC region, and (ii) identify areas in which application of the ECD concept may be piloted.

Since ECD is new for CAREC, and given the unique attributes of the region, it is possible that ECD may be deemed ahead of its time in some parts of the region. Yet ECD is relevant over the long term to member countries seeking to address economic diversification, job creation, and spatial transformation. This report thus initiates the accumulation of relevant experience and lessons that can be useful for ECD in member countries of the CAREC Program.

The report is divided into four chapters. Chapter 2 focuses on the concept of corridors, distinguishing three tracks for the CAREC Program: transport corridors, transit corridors, and economic corridors. The chapter also draws upon experience with ECD in other parts of Asia to

highlight lessons learned. Chapter 3 touches on transit issues when examining the unique role of Bishkek in regional distribution, particularly through Dordoi Market, which is the center for the importation of goods from the People's Republic of China (PRC) for further distribution in the region.⁴ An analysis is undertaken of how the transit of goods along CAREC Corridor 1 will be affected by the announced intention of the Kyrgyz Republic to accede to the Eurasian Customs Union, and comparison undertaken with similar transit of goods from the PRC to Almaty.

In chapter 4, a detailed, but preliminary exploration—considering the existing economic activities in the region, trading barriers across different economic clusters, and city development plans—focuses on a specific segment of CAREC Corridor 1, the Almaty–Bishkek Corridor (ABC), to assess its potential as a pilot for CAREC ECD.⁵ Chapter 5 then outlines steps to be undertaken over the next 12 months to move the ECD agenda forward under the CAREC Program.

⁴ Because transport and transit functions of CAREC corridors are covered comprehensively in the recently approved CAREC Transport and Trade Facilitation Strategy 2020, this report focuses only on the third track—economic corridors.

⁵ A parallel initiative exploring the development of a domestic economic corridor in Tajikistan is also being undertaken. It is not included here but will be merged into reports on ECD under the CAREC Program starting in 2015.

II. CAREC Corridor Development: Three Tracks

A. Combining Space and Function

A *corridor* is a spatial concept. A corridor defines a space that is dedicated to or has increased density of activities toward particular function(s). This understanding is fundamental to appreciating the diverse uses of the term “corridor.” Corridors are defined in various contexts, from urban planning, environmental management, migration of animals, to the spread of communicable diseases. In each case, a corridor can generally be viewed in function–space terms: a space dedicated to or dominated by the flow of an indicated function.⁶

Even transport corridors (frequently equated with a single road) are defined as *networks* that yield geographic areas where trips tend to cluster. The United States Department of Transportation notes that a “transportation corridor is defined as ‘a combination of discrete, adjacent surface transportation networks (e.g., freeway, arterial, rail networks) that link the same major origins and destinations.’”⁷ Another definition of transport corridors states that these “generally [refer] to a geographic area that accommodates travel or potential travel... a corridor is considered to be a ‘travel shed,’ an area where trips tend to cluster in a general linear pattern, with feeder routes linking to trunk lines that carry longer-distance trips in a metropolitan area.”⁸

In certain circumstances, difficult geographic terrain or sparse distribution of population and economic activities imply that transport networks may be limited to a single road connecting two or more centers. Nonetheless, such corridors too are best viewed in function–space terms, and should be perceived as potential networks. Once a road is built to high standards, there is not much scope for further development except in associated software such as signage, maintenance, governance, and interoperability with other transport systems.

Thus, an economic corridor should neither be conflated with a particular road nor should ECD be viewed as building or promoting commercial establishments on a particular road. Instead, an economic corridor represents a geographic area encompassing a higher density or flow of economic activities. Functionally, more narrowly specific economic corridors may also exist such as

⁶ An air corridor, for instance, may be a designated air space within which aircrafts are confined during transit through a particular area, while a tourist corridor may refer to an area dominated by flow of tourists between specific tourist assets.

⁷ Government of the United States, Department of Transportation. 2006. Integrated Corridor Management Concept Development and Foundational Research: Phase 1—Concept Development and Foundational Research. Technical Memorandum. Washington, DC. http://ntl.bts.gov/lib/jpodocs/repts_te/14273.htm

⁸ California Department of Transportation. Corridor Description. <http://www.dot.ca.gov/dist2/planning/pdf/description.pdf>

an information technology corridor, a biotechnology corridor, or a halal food corridor.⁹ ECD refers to the spatial organization of economic activity by linking activities across space and increasing their density within a given space. Indeed, when assessing the potential for new investments toward enhancing economic activities, whether through public or private investment, existing infrastructure (e.g., roads, rails, and electricity) is often better viewed as *sunk costs*—costs already incurred that cannot be recovered—and thus irrelevant for forward-looking investment decisions.

B. Three Tracks of CAREC Corridors

In the context of the CAREC Program, three functions of corridors can be identified: transport, transit, and economic activities.¹⁰ The study thus proposes that the CAREC corridors be developed along three tracks corresponding to these functions: (i) transport corridors (T₁)—ensure connectivity (within the country, within the region, and with outside the region); (ii) transit corridors (T₂)—enable smooth transit through countries; and (iii) economic corridors (T₃)—promote organization of economic activities to create jobs, increase productivity, strengthen economic clusters, and contribute to economic development of the country.

These tracks may not always be mutually consistent. In particular, transit corridors are focused on point-to-point trips, with little role for anything in between. Economic corridors focus on increased density and variety of economic activities in the corridor space, which tends to conflict with the transit objectives of greater speed and reliability in point-to-point movements. It is also possible that improved point-to-point connectivity may “hollow out” areas in between the two points due to migration of people and economic activities toward the endpoints of a transit corridor. Given that the CAREC corridors are covering long distances, and recognizing that not every kilometer (km) of each corridor is suitable for all three types of development, the mutual inconsistency noted here does not preclude simultaneously approaching each type of corridor development in different parts of a particular corridor.

1. Transport Corridors

The development of domestic transport corridors and associated networks remains a high priority for CAREC member countries. Central Asia represents a large land area with vast distances and often has sparse populations spread across difficult terrain, including mountains and deserts. Historically, road transport has been relatively underdeveloped, with a greater emphasis on rail transport since distances were large and the movement of bulk commodities dominated domestic trade. Railways carried 89% of freight volume prior to World War II, while road freight services were used as feeders for railways and in short-haul distribution, accounting for only 3% of total freight volume.¹¹

CAREC member countries continue to mainly export bulk commodities but increasingly demand the importation of manufactured goods from Western Europe and the PRC, underscoring rapid growth in road transport. However, since the fall of the Soviet Union, there has been a

⁹ An economic corridor may, in fact, have nothing to do with roads, as exemplified by the Congo and Mekong rivers that serve as economic corridors, supporting and sustaining a myriad of economic interchanges across communities separated by large distances.

¹⁰ This draws upon the framework for regional corridor development introduced in Srivastava, P. 2013. Regional Corridors Development: A Framework. *Journal of International Commerce, Economics and Policy*. 4 (2).

¹¹ Coulibaly, S., Deichmann, U., Dillinger, W. R., Ionescu-Heroiu, M., Kessides, I. N., Kunaka, C., and Saslavsky, D. 2012. *Eurasian Cities: New Realities along the Silk Road*. Washington, DC: World Bank.

rapid deterioration of roads in most countries where they were designed for axle loads below international standards in Europe.¹² Further, some countries have prioritized a strategic need to ensure domestic connectivity without having to go through a neighboring country.

The CAREC Program has recognized the importance of developing transport corridors, with the overwhelming majority of investment projects targeted toward strengthening these. As of March 2014, nearly 80% of the \$22 billion of CAREC investments was in the transport sector. The originally identified six CAREC corridors comprised about 24,000 km of expressways or national highways, but, in 2007, 36% of these were in bad condition, indicating that 8,640 km would be targeted for improvement by 2017. By March 2014, projects targeting pure transport connectivity (T1) had been implemented for 52% of the CAREC targets set in 2007.

In 2013, following a midterm review, CAREC member countries endorsed, at the 12th Ministerial Conference, a refined version of the CAREC Transport and Trade Facilitation Strategy.¹³ Since the strategy details the development of transport corridors in CAREC, this report does not pursue these further.

2. Transit Corridors

The transit function of CAREC corridors is important because a majority of the member countries are landlocked and dependent on smooth, efficient, and low-cost movement of goods through neighboring countries, particularly in acquiring consumer goods and machinery for investment. To the extent that transit corridors go through more than one country, they have aspects of public good. Actions taken by one country can have positive (or negative) externalities for a neighboring country or countries, implying substantial scope for coordination and regional cooperation in developing transit corridors. At the simplest level, investment in good-quality services at border-crossing points (BCPs) in one country may not provide any return if the border remains choked or invokes high costs due to inefficiency. Similarly, maintenance of road segments within one country, or road safety standards within one country, can have an impact on the attractiveness of the corridor as a whole serving a transit role to other countries.

As with transport corridor development, the CAREC Program has recognized the need to promote efficient transit in the CAREC region and is implementing several initiatives in coordination with development partners to, for example, modernize customs procedures and improve sanitary and phytosanitary regimes. The Corridor Performance Monitoring and Measurement System is also being used to quantify parameters of the transit role of CAREC corridors. The refined CAREC Transport and Trade Facilitation Strategy focuses on development of transit corridors also, including a pipeline of projects in the medium term; thus, this report does not examine transit corridor development further.

3. Economic Corridors

The third track for corridor development is concerned with the spatial organization of economic activities. Specifically, it involves building on the connectivity being developed under transport and transit corridors to promote spatial transformation, agglomeration, and economic diversification. This requires examining connectivity to support the development of large urban centers that are also well connected to smaller urban centers, as well as encompassing urban–rural links. The

¹² Ibid.

¹³ ADB. 2014. *CAREC Transport and Trade Facilitation Strategy 2020*. Manila.

spatial concept of corridors is thus more relevant to economic corridors than to both transit and transport corridors.

The following must be emphasized:

- (i) No economic corridor is defined by a single road; instead, they tend to be defined by geographic space dominated by the flow of targeted economic activities. Economic corridors are “post-connectivity,” in that well-developed connectivity is a prerequisite to successful ECD.
- (ii) Economic corridors encompass a constellation of connected markets that may, in turn, be linked to other markets outside of the region. To the extent that cities, and the regions around them, represent a hierarchy of markets, economic corridors represent networks of connectivity between a variety of markets, that is, larger markets connected to smaller markets, markets within a sector trading inputs into final production, and markets for services.
- (iii) It is difficult to conceive of successful ECD based exclusively on public investments, with no role for the private sector. Indeed, the role of the public sector and public investments in ECD is preferably focused on maximizing the multiplier for private investment for every unit of public investment.

The clustering of economic activities allows benefits from scale economies. It requires increasing the density of markets in economic clusters, and increasing the links between the markets both within clusters and across clusters of economic activities. Typically, this also requires good connectivity, through well-developed networks of major arteries and secondary roads, as well as other infrastructure necessary to attract private investment.

C. Economic Corridor Development—Experiences Elsewhere in Asia

CAREC member countries can learn from and refine initial applications of ECD in the region or in other countries. Experience in Malaysia and India, for instance, can provide useful insights for ECD in an Asian context (Box).

The need for sustained commitment is evident from Malaysia, where the first plans for ECD were initiated more than 1 decade ago, and ECD remains a work in progress. Malaysia’s experience also highlights the importance of high-level political commitment in pushing ECD over time. The diversity of stakeholders in its ECD also implies interface between different government agencies as well as different levels of government. There, specific bodies were set up for ECD through acts of Parliament. However, in India, a more elaborate, four-tiered structure was adopted for the Delhi–Mumbai Industrial Corridor, which cuts across several states.

Effective partnership with the private sector, key for ECD, requires extensive consultation between the private and public sectors, both upstream and downstream, at planning and implementation. In Malaysia, the government brought together the private sector, academics, and other stakeholders in extensive “labs” at the planning stages. The emphasis on a private sector role is also manifest in the fact that the corridor development authorities are staffed by people with private sector backgrounds, whose dominant metric for assessing their performance are the extent of private investments brought into the corridors and the number of jobs created. Typically, there is also a need for a large, “anchor” investor for the economic corridor. In Malaysia, for example, the anchor investor role was successfully played by Petronas in the East Coast Economic Region and by Sime Darby in the Northern Corridor Economic Region.

Box: Economic Corridor Development in Practice

Malaysia's corridor development is part of its overall regional development strategy for integrated spatial development and includes five economic corridors implemented through its national plans, of which three are in Peninsular Malaysia: the Northern Corridor Economic Region, East Coast Economic Region, and Iskandar Malaysia. In addition to a central planning agency, each corridor has its own implementing authority (e.g., the Northern Corridor Implementing Authority and the East Coast Economic Region Development Council). Each of these was established through legislative acts of Parliament to coordinate implementation of respective corridor development across different government agencies at the central and provincial levels. The corridor development authorities are organized in the form of an apex steering entity co-chaired by the Prime Minister and a chief minister, the head of provincial government; the focus is on legislative and policy issues to support the corridor's development. These are supported by an entity focusing on approval processes and headed by the chief minister with participation from the central government and provincial government that acts as a "one-stop center" for private investors. The corridor development authority supervises project implementation and day-to-day administration.

Customizing the corridors to local advantage, while retaining the overall framework of national development priorities, is important. Corridors are designed to build on existing strengths and resources as well as economic growth potential within the corridor region. Iskandar Malaysia focuses on industries like electrical and electronics, petrochemicals, and health care, while the Northern Corridor Economic Region focuses on agriculture, logistics, and tourism. Common to all the corridors, however, is an emphasis on them being private sector-driven. The amount of private investment mobilized along with the number of jobs created are two of the key performance indicators for these corridors, which implicitly compete in obtaining public resources and attracting private investment, although in different economic areas of emphasis. Aside from implementing projects, anchor investors also participate in consultations with the government during corridor development planning.

In India, the Delhi–Mumbai Industrial Corridor grew out of an initial vision of the Government of India to develop a 1,483-kilometer dedicated freight corridor between the two cities, offering high-speed rail connectivity for heavy-axle load wagons. Corridor plans call for investments exceeding \$80 billion–\$90 billion.

A four-tiered structure has been adopted for governance of the corridor, with a steering authority headed by the minister of finance with concerned central ministers and chief ministers of respective states as members. Below this is a corporate entity, referred to as the Delhi–Mumbai Industrial Corridor Development Corporation, and state-level coordinating bodies. Finally, special purpose vehicles were set up as corporate entities at the project level to implement individual project components of the corridor.

Comprehensive economic analysis is an important prerequisite to enhancing the success of corridor development. Existing industries may need to be assessed for attractiveness (i.e., industry profitability, industry growth, and industry size) and strategic fit (e.g., potential to create jobs, potential to leverage existing resources, and potential for future growth and national priorities). For the Northern Corridor Economic Region in Malaysia, for example, more than 30 industries were analyzed in detail before they were prioritized into a smaller group for corridor focus.

Source: Based on presentations made at the CAREC Indonesia–Malaysia–Thailand Growth Triangle Workshop on Economic Corridor Development. 2014. Kuala Lumpur. 8–9 April. <http://www.carecprogram.org/index.php?page=carec-imt-gt-workshop-on-economic-corridor-development>



III. Transit Trade along CAREC Corridor 1

This chapter examines the transit flow of goods along CAREC Corridor 1, on which both Almaty and Bishkek are located (Figure 2). In addition to their bilateral links, both are entry points for consumer goods from the PRC, which are then further distributed within the region. The transit flow of goods from the PRC has particularly influenced the structure of economic activities in Bishkek, including the evolution of Dordoi Market as a regional distributor of goods and the dynamic growth of the garments industry in the Kyrgyz Republic, both of which support the employment of thousands of persons.¹⁴ The chapter considers the existing logistics costs of moving goods from the PRC to Almaty and from the PRC to Bishkek, followed by an analysis of how the latter will be affected by the accession of the Kyrgyz Republic to the Eurasian Customs Union.

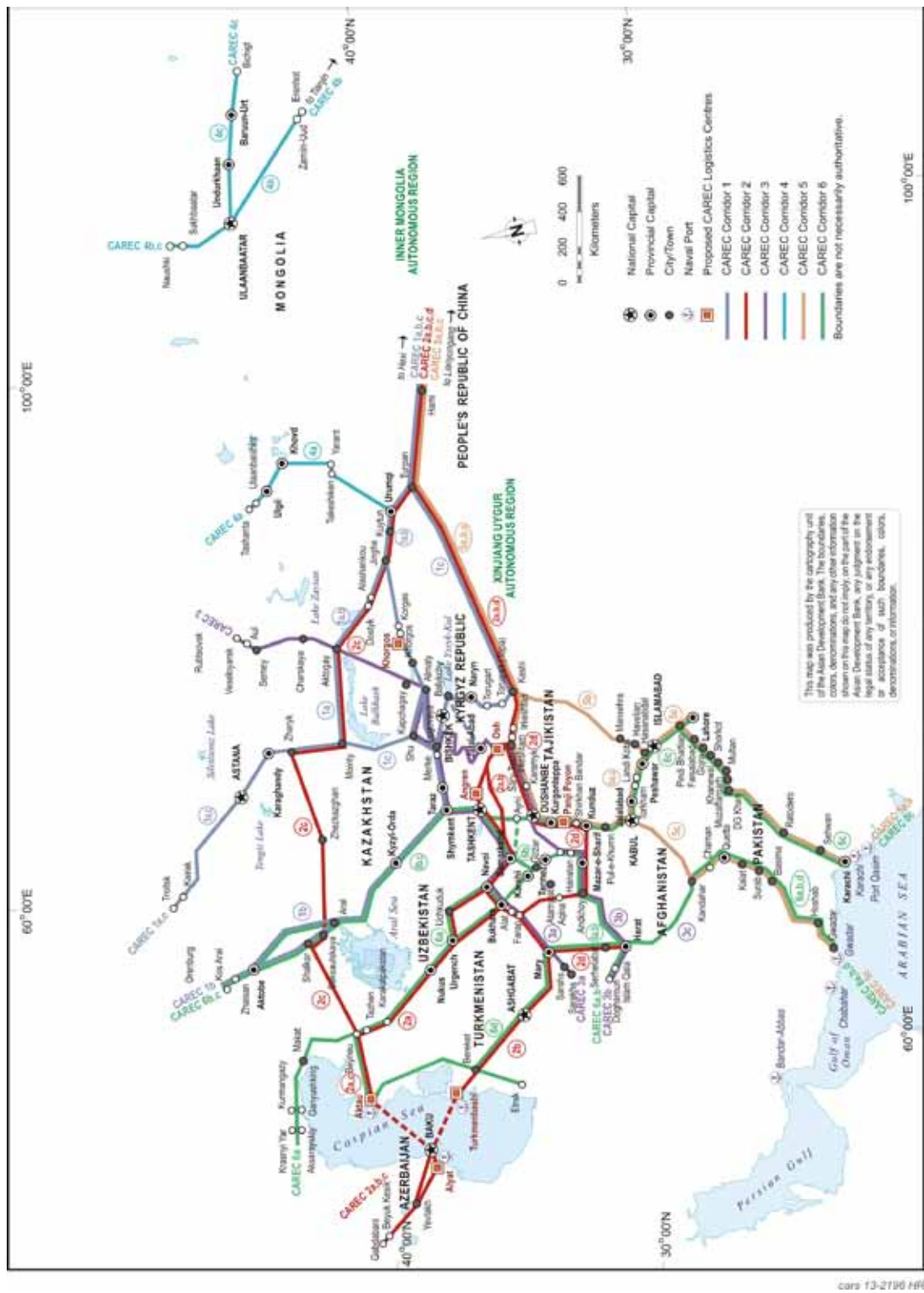
A. CAREC Corridor 1

Corridor 1 is an important transit route in CAREC, as it passes through three countries: the PRC, Kazakhstan, and the Kyrgyz Republic. It has three subcorridors: (i) Corridor 1a, which connects Urumqi (PRC) to Astana (Kazakhstan) and moves onward to the Russian Federation, but is primarily a rail corridor; (ii) Corridor 1b, which stretches 2,787 km within Kazakhstan, passes through Urumqi, Khorgos (Kazakhstan), Almaty, and heads west until it crosses Zhaisan into the Russian Federation; and (iii) Corridor 1c links the PRC and the Kyrgyz Republic through the Torugart BCP.

Subcorridors 1b and 1c play important transit roles, providing active and alternative routes for the importation, transit, and distribution of goods from the PRC to the region. Despite its length and location in mountainous terrain, Corridor 1c has benefited from easier and cheaper border crossing into the Kyrgyz Republic when compared with Corridor 1b, which uses BCPs with Kazakhstan, a member of the Eurasian Customs Union.

¹⁴ Dordoi Market, established 1992, has a strategic location at the northern border of Bishkek, just 10 km from the Kazakhstan border. This location, together with the most liberal regime for trade and customs clearance in Central Asia, has enabled it to achieve a dominant role in regional trade. Most traders in Dordoi are small wholesalers; accordingly, Dordoi contributes about 50,000 jobs to the Kyrgyz Republic economy. It also had an essential role in developing the Kyrgyz apparel production cluster, which now accounts for about 100,000 jobs in the Kyrgyz Republic.

Figure 2: CAREC Corridors



CAREC = Central Asia Regional Economic Cooperation.

Source: Asian Development Bank.

B. Movement of Goods to Almaty and Bishkek from the People's Republic of China

Table 1 shows the volume of goods moving from the PRC via Kazakhstan and the Kyrgyz Republic. Note also that the ratio of exports from the PRC to imports into the PRC by road is severely asymmetric, implying a considerable challenge from empty reverse hauls and one-way demand for trucks.

Table 1: Movement of Goods from the People's Republic of China through Kazakhstan and the Kyrgyz Republic CAREC Corridor 1 Road Border-Crossing Points, 2012

Border-Crossing Point	Exports from the PRC (ton)	Imports into the PRC (ton)
Khorgos (PRC–Kazakhstan)	791,100	26,100
Torugart (PRC–Kyrgyz Republic)	405,500	29,400

CAREC = Central Asia Regional Economic Cooperation, PRC = People's Republic of China.

Source: General Administration of Customs of the People's Republic of China.

Generally, merchandise is delivered to Almaty via the Khorgos BCP, and to Bishkek via the Torugart BCP. The trade logistics process begins with the purchase of goods from suppliers in the PRC. Goods are purchased in Urumqi or in the major East Coast trade hubs such as Shanghai and Guangzhou; larger-volume traders tend to purchase from major national trade hubs. Internet searches and purchasing are also widely used when dealing with PRC suppliers. Large-volume shipments (e.g., a multimodal container or more) are delivered by rail to Urumqi, where they are loaded onto trucks for further delivery to Central Asia. Starting from here, the process of delivery to Almaty and Bishkek splits.

1. Logistics Process from Khorgos to Almaty

Theoretically, trucks from Kazakhstan are legally allowed to collect cargo in Urumqi and transport it to a final destination in Almaty or other locations. In practice, however, a majority of runs are accomplished with transloading at Khorgos, that is, trucks from the PRC are used to deliver goods to Khorgos, and then trucks from Kazakhstan are used for transport from Khorgos to Almaty.

Usually, goods are transported by authorized economic operators (AEOs), which are a tightly guarded community of about 60 companies with about 400 trucks in operation between Urumqi and Almaty. The AEOs

- **Collect consolidated cargo in Urumqi.** Clients can transport relatively small shipments; thus, each truck can contain the cargo of several clients. Clients are expected to pay \$800–\$1,000 per cubic meter for full delivery of customs-cleared cargo in the AEO's terminal in Almaty.

- **Are considered to be the holder of the title for the goods.** All shipments within a consolidated truck are under one invoice and are cleared with one customs declaration.
- **Invite the traders to collect the goods when they arrive in Almaty.** As, according to the documents, the goods belong to the AEO, fake sales transactions need to be made—the traders can transfer money as if the goods were purchased, and the AEO later returns the same amount in cash.

The AEOs existed before the Eurasian Customs Union, and, in 2010–2011, charged three times less per cubic meter than in 2014. The increased customs duties and tightening of control at the Eurasian Customs Union borders, particularly Khorgos, after Kazakhstan’s accession, resulted in the increased costs.

Logistics costs paid by traders for the transport of one truckload of merchandise delivered through this scheme are \$80,000–\$100,000 per truck. Contrasted with the estimated value of duties of \$60,000–\$70,000, the cost of transport of \$5,000, and the same value of official and unofficial expenses, the AEOs enjoy a good profit margin for every transaction, explaining why the group is well guarded. Although there was a crackdown in 2011 when several customs officials were jailed, it appears that these profitable arrangements were not eliminated, only that this resulted in greater complexity and costs for traders.

2. Logistics Process from Torugart to Bishkek

Operators in the Kyrgyz Republic do not have freedom of access to Urumqi and must follow a different transport process. First, the PRC road carriers deliver goods to Topo Terminal, which is 110 km from the Torugart BCP, where goods are unloaded, thoroughly checked, repacked, and loaded onto Kyrgyz Republic trucks. According to Kyrgyz Republic traders, the main purpose of these checks is to ensure that bad-quality merchandise does not leave the territory of the PRC. No unofficial fees are paid on the PRC side. Then, documents check and weight control are performed at the Torugart BCP, where trucks are not normally opened for physical inspection. Comparatively small “tea money” may be paid at the border, which normally does not exceed \$200.

Upon arrival in Bishkek, goods are delivered to the customs terminal at Dordoi Market. After document control and physical inspection, they are customs cleared and are ready to move through the distribution chain, which begins in Dordoi, but can end up everywhere in Kazakhstan, the Kyrgyz Republic, the Russian Federation, or other Central Asian countries.

The total logistics cost from Urumqi to Bishkek is estimated at \$12,000 and includes the road transport cost of \$5,000; official and unofficial terminal costs in Bishkek, not exceeding \$250; and a customs tariff at the rate of \$0.35 per kilogram (which for a 20-ton payload truck is equal to \$7,000). Value-added tax is not paid.

These calculations demonstrate that the Kyrgyz Republic corridor has a substantial logistics cost advantage over the Kazakhstan corridor. This difference also helps explain the volume of shuttle traders from the Kyrgyz Republic to Kazakhstan. Since 2011, when this flow of people with small shipments began, border-control procedures were gradually tightened, increasing the costs of “leaking” merchandise across the borders and impacting the cost advantage of the Kyrgyz Republic corridor.¹⁵

¹⁵ Goods that arrive in Bishkek via Torugart are then reexported via Dordoi Market, and are hand-carried by “tourists” (i.e., shuttle traders) through the Korday BCP to Kazakhstan.

C. Trade, Transit, and the Eurasian Customs Union

The CAREC Corridor Performance Measurement and Monitoring System has collected detailed information about the time and cost of transport along CAREC corridors since 2010. Table 2 shows the existing time and cost of border crossings at BCPs for Kazakhstan–PRC, Kyrgyz Republic–PRC, and Kazakhstan–Kyrgyz Republic on Corridor 1. The Torugart BCP (PRC–Kyrgyz Republic) shows reasonable overall performance, comparable with the time–cost performance of Karasu–Ak-Tilek BCPs (Kyrgyz Republic–Kazakhstan and Kazakhstan–Kyrgyz Republic), and much lower costs and time than the Khorgos BCP (PRC–Kazakhstan).

The performance parameters above are expected to change with the Kyrgyz Republic's accession to the Eurasian Customs Union, expected in 2015. Accordingly, Table 3 shows changes on the Kazakhstan–Russian Federation BCPs following the accession of Kazakhstan to the customs union. The time spent at the BCPs dropped significantly after accession, while the time spent at BCPs with nonmembers of the customs union increased.

Since most time-savings came from the elimination of customs control among members of the Eurasian Customs Union, a similar effect will likely occur on the Kazakhstan–Kyrgyz Republic BCPs. However, BCPs with nonmember countries will experience tighter and lengthier control than before accession, such as at Torugart (with the PRC) where the current processes do not comply with procedures of the customs union.

Table 2: Average Time and Cost of Freight Truck Border Clearance at CAREC Corridor 1 Border-Crossing Points, 2013

Border-Crossing Point	Main Traffic Flows	Time to Clear Exit BCP (hours)	Time to Clear Entry BCP (hours)	Total Time to Clear Border (hours)	Cost to Clear Exit BCP (\$)	Cost to Clear Entry BCP (\$)	Total Cost to Clear the Border (\$)
Horgos (PRC)–Khorgos (Kazakhstan)	Import of PRC goods	28.2	11.2	39.4	447	336	783
Torugart (PRC)–Torugart (Kyrgyz Republic)	Import of PRC goods	0.2	2.8	3.0	0	73	73
Ak-Tilek (Kyrgyz Republic)–Karasu (Kazakhstan)	Export of Kyrgyz Republic goods to Kazakhstan and third countries	0.8	1.6	2.4	27	77	104
Karasu (Kazakhstan)–Ak-Tilek (Kyrgyz Republic)	Transit of Russian Federation and EU goods to the Kyrgyz Republic	1.4	0.5	1.9	82	21	103

BCP = border-crossing point, CAREC = Central Asia Regional Economic Cooperation, EU = European Union, PRC = People's Republic of China.

Source: CAREC Trade Facilitation. 2013. *CAREC CPPM Corridor Performance Measuring and Monitoring: Annual Report 2013*. Manila: ADB.

Table 3: Time to Clear Border-Crossing Points in Kazakhstan before and after Accession to the Eurasian Customs Union
(hours)

		Before 1 July 2011	After 1 July 2011
Exiting Kazakhstan			
To Russian Federation	Kazakhstan side	7.7	2.9
	Russian Federation side	7.7	1.8
To Non-ECU countries	Kazakhstan side	8.1	13.0
	Non-ECU side	4.3	7.0
Entering Kazakhstan			
From Russian Federation	Kazakhstan side	5.8	2.1
	Russian Federation side	7.8	1.5
From Non-ECU countries	Kazakhstan side	10.4	10.6
	Non-ECU side	8.6	21.5

ECU = Eurasian Customs Union.

Source: CAREC Trade Facilitation. 2012. *CAREC CPPM Corridor Performance Measuring and Monitoring: Annual Report 2012*. Manila: ADB.

Additionally, the impact of adopting customs union tariffs is potentially adverse for the transit of goods through Torugart, and for the role of Bishkek and Dordoi Market in regional wholesale trade. Several firms interviewed speculated that after accession, the Kyrgyz Republic will have to adopt similar customs tariffs and procedures as in Kazakhstan, erasing the logistics cost differential. Moreover, the road corridor from Urumqi to Bishkek via Kashgar and the Torugart Pass with an altitude of 3,750 meters above sea level will result in higher transport costs than in the Urumqi–Khorgos–Almaty route.

As shown in the previous section, logistics costs for a 20-ton payload truck are estimated at \$80,000–\$100,000 in the Urumqi–Khorgos–Almaty corridor, and only \$12,000 in the Urumqi–Torugart–Bishkek corridor. Often, trucks have higher payload capacity, and trucks used on the Urumqi–Torugart–Bishkek corridor normally carry heavier load than trucks on the Urumqi–Khorgos–Almaty corridor. Using again a 20-ton payload as a basis for comparative cost analysis, and using the rates for customs union tariffs, the logistics costs for the shipment of a cargo truck on the Urumqi–Torugart–Bishkek corridor will increase after customs union accession as shown in Table 4.

These estimates show that the Kyrgyz Republic corridor (i.e., Urumqi–Torugart–Bishkek) will likely lose the obvious cost advantage over the Kazakhstan route (i.e., Urumqi–Khorgos–Almaty) after the Kyrgyz Republic's accession to the Eurasian Customs Union.¹⁶ A possible scenario is that the higher logistics cost in the Kyrgyz Republic corridor will result in further reduction of wholesale trade at Dordoi Market and a significant reduction of transit volume via the Kashgar–Torugart–Naryn–Bishkek corridor. Further, a high sales price and low sales volume in Dordoi Market may divert international traders from the Kyrgyz Republic, reducing sales exposure of the country's garments industry, which developed largely with help from Dordoi Market. Accordingly, jobs in garments production, wholesale trade, and road transport sector may fall.

¹⁶ This is reinforced by the possibility that the estimate of \$6,000 for value-added tax in the table may be an underestimate, although it is based on inputs from customs brokers in Kazakhstan. This figure implies a total cargo value of a 20-ton truck of \$50,000 or about \$2.50 per kilogram, which may be low. A higher value would imply correspondingly higher value-added tax charges unless the trade declares less than the full value.

Table 4: Total Logistics Cost for Importation of Goods from the People's Republic of China to the Kyrgyz Republic, under Existing Tariffs Versus Customs Union Tariffs

Logistics Cost Component	Existing Tariffs	Under Customs Union Tariff
Transport costs, Urumqi–Bishkek	\$5,000	\$5,000
Customs tariff	\$7,000	\$54,000–\$81,000
Value-added tax (12%)	Included in tariff	\$6,000
Total	\$12,000	\$65,000–\$92,000

Source: ADB.

There are, however, other factors that may mitigate this adverse scenario and provide grounds for guarded optimism about the Kyrgyz Republic corridor and wholesale trade based on reexports from Dordoi Market. Transport and logistics costs are still much lower in the Kyrgyz Republic than in Kazakhstan. Transport operators have become used to smaller margins, as \$500 per trip is considered reasonable, while companies in Almaty may not accept a job unless it brings \$3,000–\$5,000 per trip. Similar comments about profit margins were received from producers in the Kyrgyz Republic: while profit margins of 15% are acceptable in the Kyrgyz Republic, traders in Kazakhstan are reluctant to accept anything below 50%.

Further, irrespective of logistics costs, Dordoi Market represents substantive human and institutional knowledge capital from its history as the major trading hub of Central Asia, with strong connections to its supplier base in the PRC, Turkey, and the Republic of Korea, as well as a strategic location in the middle of the most economically active part of the CAREC Corridor 1. Assuaging the border with Kazakhstan, after the Kyrgyz Republic's accession to the Eurasian Customs Union, this knowledge capital may help Dordoi Market further increase its role in the regional trade, since the competitiveness of PRC exports into the region will continue. Also, in 2013–2014, Almaty started phasing out Barakholka Market, which was the major competitor of Dordoi Market for 2 decades.

A collapse of Dordoi Market can adversely affect economic links between Almaty and Bishkek. It is thus recommended that options be explored to facilitate the transition of Dordoi Market to a productive role in this new environment. In addition, a more detailed analysis of the potential impact of accession to the customs union on relative logistics costs of trade with the PRC should be undertaken. A key challenge for such an analysis, however, is the low transparency of the logistics processes between the PRC and Central Asian countries.

IV. The Almaty–Bishkek Corridor: An Exploration

In the context of Central Asia’s vast distances, the cities of Almaty and Bishkek are virtually twin cities, separated by a distance of less than 250 kilometers (km). They are physically connected by a portion of CAREC Corridor 1b, and joined by strong commercial, cultural, and historical links. Both cities are also among the largest in their respective countries: Almaty, with a population of more than 1.5 million, is the commercial capital of Kazakhstan, while Bishkek, with a population rapidly approaching 1.0 million, is the political capital of the Kyrgyz Republic. Each city is also characterized by the highest per capita income within its respective country. It is difficult to identify a comparable cross-border pair of cities in the region with such proximity and potential for growth through regional cooperation. This chapter provides an assessment of the extent to which these similarities can be utilized to develop an economic corridor—the ABC—between them.

An overview of the economic profile of the corridor is a first step in assessing the economic relevance and potential of the ABC. It shows, not surprisingly, that the economic anchor for the ABC is centered on the endpoints, Almaty and Bishkek. Economic links between these two are then analyzed. The extent to which the cities are already well integrated helps determine the potential of the ABC as an economic corridor. It will also affect, for example, whether the Kyrgyz Republic’s accession to the Eurasian Customs Union will have any impact on how the two cities are linked. If the barriers or costs to trade between them are already low, then the customs union will not have much effect in lowering them further. The analysis then considers the development plans of Almaty and Bishkek and their implications for the ABC.

Barriers to trade may arise from several types of costs such as tariff and nontariff barriers, transport costs, administrative hurdles, contractual frictions leading to transaction costs, costs of finance (e.g., trade finance), corruption, wholesale or retail distribution costs, or even the market structure of the trading sector (e.g., monopolies or collusion in transport of goods). Generally, three approaches are used to analyze barriers to trade between two entities:

- (i) direct measurement of barriers such as corridor performance monitoring and measurement data on time and costs at BCPs;¹⁷
- (ii) use of trade flows to infer trade costs by estimating a gravity model on observed trade flows and determining if the trade flows between the two entities are comparable with a benchmark based on an estimated equation; and

¹⁷ For other examples of direct measurement of trade costs, see Hummels, D. 2007. Transportation Costs and International Trade in the Second Era of Globalization. *Journal of Economic Perspectives*. 21 (3); and Olken, B. A. and Barron, P. 2009. The Simple Economics of Extortion: Evidence from Trucking in Aceh. *Journal of Political Economy*. 117 (3).

- (iii) use of price dispersion and price gaps to infer trade costs, with the idea that prices should be linked closely if trade costs are negligible.

This report utilizes the third approach, examining comparative price behavior to assess economic links between Almaty and Bishkek.

Although not estimated, the well-known gravity model for trade is a useful context to frame the analysis of the ABC. Gravity models specify trade between two economies as directly related to the size of each economy (i.e., gross domestic product [GDP]) and inversely affected by trade costs, typically measured by the distance between the two. In simplified terms, the gravity model for trade between two economic regions i and j with incomes E_i and E_j and separated by distance d_{ij} can be written in stochastic form as below:

$$\ln X_{ij} = a_0 + a_1 E_i + a_2 E_j + a_3 d_{ij} + b V_{ij} + \mu_{ij}$$

where a represents parameters, as does b (which may be vector depending upon V), while μ_{ij} denotes the error term. Since the distance is a proxy for trading costs, different studies have used a variety of variables in vector V to augment the basic gravity model to better capture other elements of trading costs.¹⁸ These have included variables such as common language, shared borders, per capita GDP, shared colonial history, common membership in regional trading arrangements, common currency, quality of the connecting infrastructure, and even a measure of generalized remoteness from all other potential trading partners.

Based on the equation above, this report looks at the ABC and the economic links between Almaty and Bishkek by focusing on three sets of issues: (i) factors and initiatives that may increase E_i , (ii) factors and initiatives that may increase E_j , or (iii) factors and initiatives that may decrease the effective economic distance between the two cities through augmenting variable V . Several variables noted above are already given in the case of Almaty and Bishkek, suggesting the likelihood of greater trade between the two than would be predicted by a basic gravity model. However, other possible augmenting variables may lead to friction or greater trading costs, and some of these are explored using the primary survey data such as barriers arising from information costs, inadequate access to mutually acceptable standards and certifications, and concerns about contract enforcement. Policies and initiatives that mitigate these trade costs between the two cities will promote greater links and facilitate ECD along the ABC.

A. Profile of the Almaty–Bishkek Corridor

The ABC comprises Bishkek City and Chui Oblast (Province) in the Kyrgyz Republic, as well as Almaty and Zhambyl *oblasts* and Almaty City in Kazakhstan.¹⁹ In all of these *oblasts*, low levels of economic activity coexist with low population densities. For instance, the population density in Chui Oblast is 40 people per square kilometer (km^2), while Zhambyl Oblast has 7 persons per km^2 . By comparison, the population densities in Almaty and Bishkek, the ABC's endpoints, are close to 5,000 per km^2 .

¹⁸ For a detailed treatment of gravity models, see Anderson, J. E. and van Wincoop, E. 2004. Trade Costs. *Journal of Economic Literature*. 42 (3).

¹⁹ The corridor also serves flows of people (i.e., tourism) and goods (i.e., apples and other fruits) between Kazakhstan and Issyk-Kul Oblast, which is located east of Chui Oblast.

Almaty and Zhambyl *oblasts* are relatively rural, with urban populations representing about 23% of the total population in Almaty and 39% in Zhambyl. Agriculture accounts for about 14% of the gross regional product (GRP) of Almaty, and 10% of that of Zhambyl. Services account for 66% of the GRP in Almaty, and 70% in Zhambyl. The per capita GRP was about \$5,150 in purchasing power parity terms in Almaty Oblast and \$2,600 in Zhambyl Oblast.

Agriculture, including crop production and meat and milk production, is the largest sector in Chui Oblast, but its share in GRP has fallen over 2003–2012 due to an absence of growth. There, however, manufacturing, construction, and transport and communications have grown strongly during the past decade, with industry and services now accounting for 25% and 37% of the GRP, respectively. Key sectors of manufacturing include food production, construction, and metallurgy.²⁰ There is a free economic zone, which has three locations in Chui Oblast near Bishkek. Operating since 1995, it has 80–100 enterprises with investments from more than 20 countries, and provides jobs for 2,500–3,000 persons. In 2012, the free economic zone net exports were negative.²¹ Further, the urban population share in Chui Oblast was 17.8%, per capita income in purchasing power parity terms was \$2,400, and it had a significant poverty rate of 28.6%.

Direct bilateral trade between Almaty and Bishkek, utilizing the ABC, is dominated by primary products and services, including intrasector trade. Aside from fruits and vegetables, anecdotal evidence suggests considerable informal exports of meat and live animals (e.g., cattle, horses, and sheep) from the Kyrgyz Republic to Kazakhstan, despite a ban on exports of products of animal origin from the Kyrgyz Republic to the Eurasian Customs Union countries like Kazakhstan. Tourism, finance, health, and education are also important sectors for trade in services between the two cities. There are considerable tourist flows such as Kazakhstan tourists to Issyk-Kul in the Kyrgyz Republic, and Kyrgyz Republic travelers catching flights from Almaty International Airport or trains from Shu Railway Station in Kazakhstan. Generally, Almaty specializes in sophisticated capital-intensive and expensive services (e.g., high-technology medical services), while Bishkek offers more affordable alternatives for services, which do not require expensive personnel and equipment (e.g., dental care and some types of tertiary education). Tertiary education is another example of intrasector trade between Almaty (expensive, recognized brands) and Bishkek (affordable quality). Repair of cars is also a noticeable service exported from Bishkek to Almaty.

1. Almaty

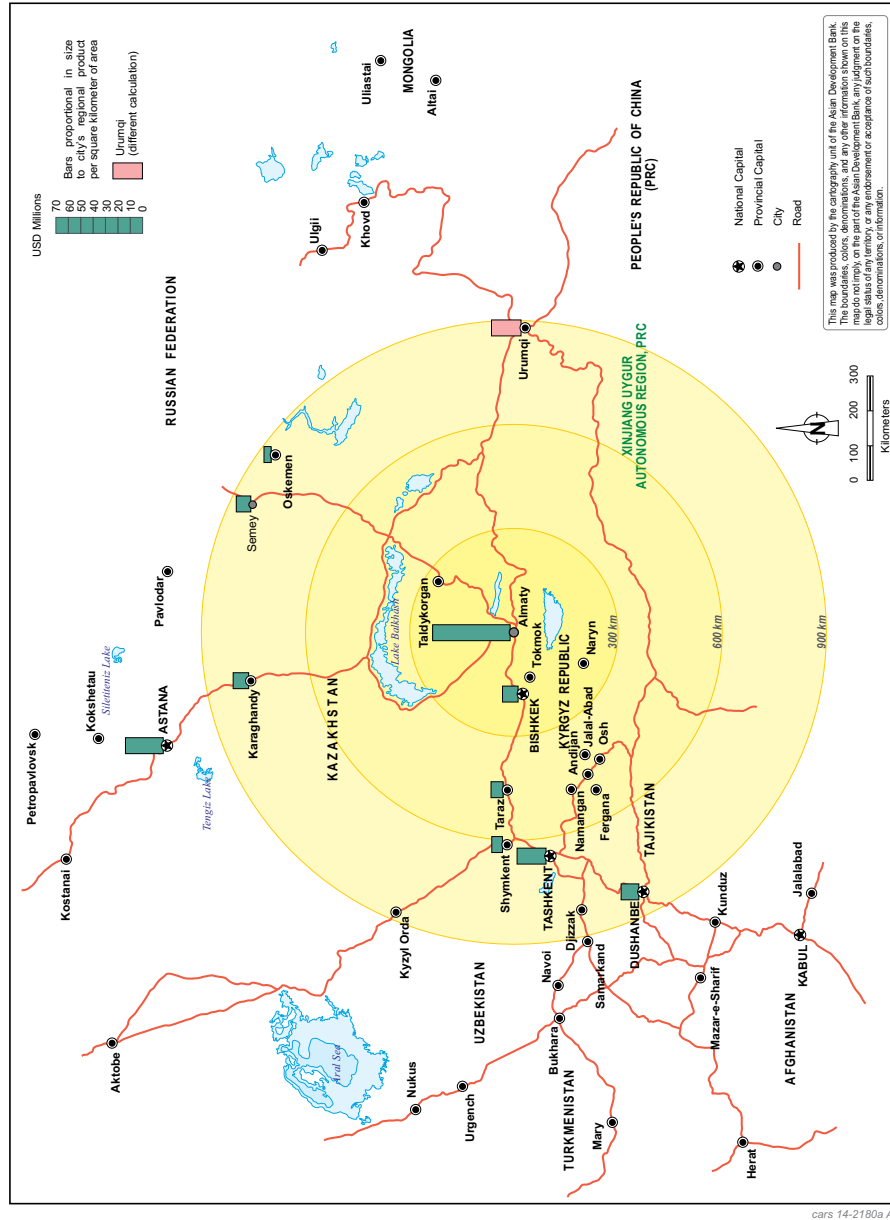
Distinguishing between three types of cities—global hubs, megacities, and gateway cities—Almaty can be classified as a gateway city, a regional economic cluster that facilitates access to frontier markets.²² The regional dimension of Almaty is evident in Figure 3, which shows major cities in Central Asia in three concentric circles with Almaty at the center, at distances of 300, 600, and 900 km. For each city, the height of the associated bar shows the economic density in economic activity measured by GRP per km² of the city area. At almost \$63 million per km², the economic density of Almaty is more than twice as high as the two closest cities, Astana and Tashkent. Given ECD needs underlying economic potential that can be channelized and magnified, Almaty provides a natural fulcrum for ECD in the region.

²⁰ Kara-Balta in Jaiyl Rayon (District) hosts a gold refinery, which processes concentrate produced at the Kumtor Gold Mine and explains large shares of metallurgy in industrial output and of manufacturing in the GRP. This is also partially responsible for hikes and drops in the GRP, replicating gold production patterns.

²¹ This is accounted for, in part, by the large share of production for the domestic market and by the fact that substantial exports are accounted for by reexports of cars that are not manufactured or assembled locally. See Free Economic Zone Bishkek. <http://www.fez.kg>

²² Global hubs are defined as global capitals such as Hong Kong, China; London; New York; and Tokyo. Megacities are hugely populous urban centers such as Jakarta, Lagos, and São Paulo. Gateway cities open access to frontier markets such as Almaty, Cape Town, and Dubai. See Khanna, P. 2011. When Cities Rule the World. http://www.mckinsey.com/insights/urbanization/when_cities_rule_the_world

Figure 3: Economic Density in Select Cities in Central Asia
(gross regional product of city per square kilometer of city area)



Notes:

1. Calculations based on gross regional product (latest available data) at market exchange rates.
2. Comparable data were unavailable for Samarkand in Uzbekistan.
3. Data for Urumqi were calculated using only some of the districts and are not comparable with the others in the map.
4. For Kazakhstan, the gross regional product for the city is calculated as the share of city population of the administrative region, except for Almaty and Astana, which are treated as separate regions in the statistics.

Sources: Data are from the statistical agencies of Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan; cities' official websites; and ADB staff calculations.

In absolute size too, Almaty represents one of the largest economies in the region. Its GRP is twice as big as the next city, Astana, and greater by almost a factor of more than 15 relative to Bishkek. The city is the largest economy in the region. Almaty accounted for 19% of Kazakhstan's GDP, with a GRP of about \$42.6 billion in 2013. The city's GRP is composed overwhelmingly of services, with the most significant being wholesale and retail trade, information and communication, transport and warehousing, and real estate. Agriculture has no weight in the city's GRP, while industry and processing industry accounted for only 9.6% of the GRP. The city's external trade turnover was almost \$26 billion in 2013, of which nearly \$20 billion was imports. Measured by population, Almaty is the largest in the region after Tashkent (Table 5).

Table 5: Population and Gross Regional Product in Select Cities in Central Asia

Country	City	Population ('000)	Gross Regional Product (\$ million)
Kazakhstan	Almaty	1,508	42,550
Kazakhstan	Astana	814	21,337
Uzbekistan	Tashkent	2,353	7,958
Kazakhstan	Karagandy	485	6,254
Kazakhstan	Shymkent	683	3,370
Kazakhstan	Semey	338	3,265
Kazakhstan	Oskemen	326	3,151
Kyrgyz Republic	Bishkek	891	2,562
Kazakhstan	Taraz/Shambyl	351	1,834
Tajikistan	Dushanbe	776	1,817

Source: Statistical agencies of Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan.

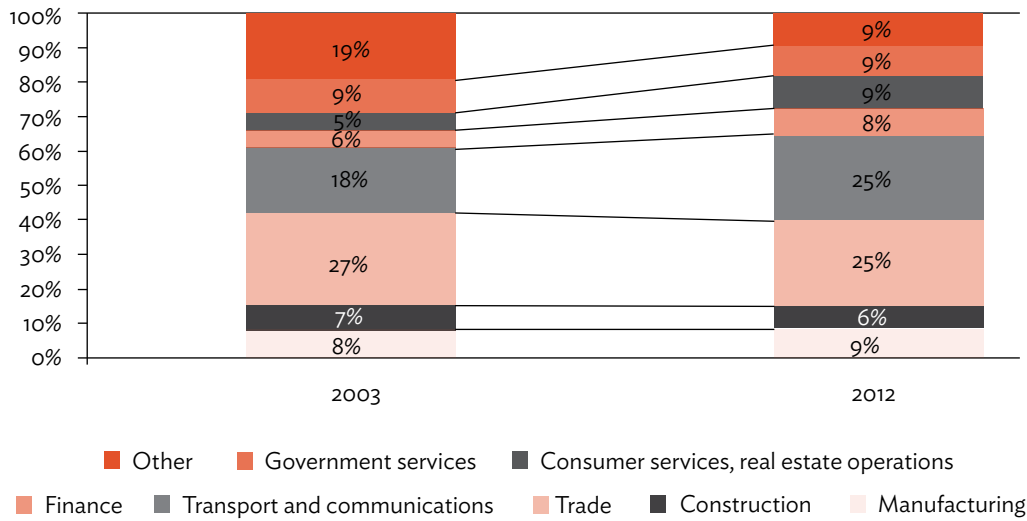
Tourism and finance services are important parts of Almaty's economy. Nearly one-third of all workers in the finance sector in Kazakhstan are employed in the city, which accounted for 44.1% of total deposits and 39% of loans in the country in 2013. The National Bank of Kazakhstan, regulators of finance activities, the stock exchange, 33 secondary banks out of 39 active banks, and 31 insurance companies operate in the city.

Almaty's profile as a regional gateway is also evident from its role as a distribution center for goods, and as a regional hub for international organizations and companies. It is also a destination for migrant labor from neighboring countries, both for seasonal and longer-term work, as well as an initial destination before departing to other destinations.

2. Bishkek

Spread over 170 km², Bishkek had a population of 895,000 in 2012, growing at 1.5% per year since 2005. Although much lower than Almaty, the per capita income in Bishkek is 2.5 times the national average, a gap that has been widening over time. Through much of 2006–2012, Bishkek has accounted for more than one-third of GDP, reaching 38.8% of GDP in 2012. The city's GRP was about \$2.6 billion in 2012, and has grown at 7.5% per year since 2006.

Figure 4: Bishkek’s Gross Regional Product Structure by Sector



Source: National Statistical Committee of the Kyrgyz Republic. www.stat.kg

Bishkek is primarily a services economy with manufacturing accounting for less than 10% of the GRP, despite having grown its share marginally due to the rise of the garment industry during the past decade. Aside from the garment industry, the main industrial sectors of Bishkek are food production, which is partially export-oriented; and production and distribution of electricity, gas, and water, catering entirely to the domestic market. The share of manufacturing in total employment is higher than its share in the GRP, implying lower labor productivity than in the services sector. Within the dominant services sector, trade and transport and communications are important, followed by consumer services and finance services (Figure 4).

Bishkek serves as the consolidation and distribution center for the Kyrgyz Republic as well. Its total imports in 2012 were \$3.2 billion, and total exports were \$1.2 billion. Imports into Bishkek are consumed not only in the city but also in other parts of the country. This is also true for some exports, which are sold from Bishkek, but produced in other parts of the Kyrgyz Republic such as gold and electricity.

In summary, the ABC is characterized by low levels of economic activity, primarily services and some agriculture, between the two endpoints of Almaty and Bishkek. Both cities are structurally similar: there are low shares for manufacturing, and are primarily driven by the services sector. Within this sector, several areas overlap such as wholesale and retail trading, transport and communication, finance services, and tourism. Given the cities’ size, physical proximity, and differences in endowments, there are potential gains from increased trade and integration between the two economies. At the same time, the cities also need to compete with one another in their common areas of focus. The extent to which strategic cooperation and competition can benefit both economies is an important determinant of the success of the ABC as an economic corridor.

B. Trade between Almaty and Bishkek: Costs and Barriers

An assessment of costs or barriers to trade between Almaty and Bishkek provides indirect evidence on the extent to which the cities are integrated. Barriers to trade are analyzed here using an approach that examines not trade flows (e.g., gravity models) but price dispersion and price gaps to infer trade costs. This may be particularly relevant to the present context given the presence of large informal flows of goods in the region through shuttle traders. A large part of trade flows in the region is not captured in official statistics due to its informal nature, being undertaken through regional bazaars.²³

If there is free arbitrage, which is assumed in most trade models, then the price for any identical good k at any two points i and j in space must reflect a no-arbitrage condition such as:

$$|p_i^k - p_j^k| \leq \tau_{ij}^k$$

where p denotes prices and τ is some parameter. Yet while the intuition is simple, implementing it empirically is subject to some caveats. For example, it is important to ensure that the good k being sold at place i is identical to the good being sold in j . This may be violated if the good comes bundled with services (e.g., an air-conditioned supermarket or friendly customer service) in one place and not in the other. Relatedly, there is the possibility that the price of the good in both places may incorporate nontradable elements such as services. If there is imperfect competition and producers are pricing to the market, the same good produced by a single producer may be sold at different prices.

The behavior of prices can convey substantial information about trade costs and integration of markets while keeping in mind the caveats mentioned above. Grafe et al. used this approach to look at the nature of integration within Kazakhstan, the Kyrgyz Republic, and Uzbekistan during 1999–2003, and found that dispersion of relative prices of consumer goods showed that the markets were integrated.²⁴ They also found that national borders did not add much to variation in relative prices across different regions in Central Asia, particularly compared with intracountry barriers. The intracountry trade costs were significant in their analysis and went beyond transport costs. They concluded that the shuttle trade was leading to equalization of prices, but internal barriers to trade, such as numerous road blocks and attempts by local governments to restrict access to local markets and bazaars, were leading to price differences across regions that appeared as high differences across countries.

In this report, the behavior of prices in Almaty and Bishkek is examined, and this analysis is complemented with a comparison of the behavior of prices in two other cities, Taraz and Shymkent.²⁵ Since both of these cities are located within Kazakhstan, a comparison of their price links with prices in Almaty provides a benchmark that excludes exchange rate and border effects. To the extent that there is a possibility of internal barriers to trade, as noted by Grafe et al., the difference in distance between Almaty and Taraz versus Shymkent provides an indication of trade costs due to internal factors. Bishkek is located between Almaty and Taraz and, based on anecdotal evidence, has strong links with both cities in Kazakhstan.

²³ Kaminsky, B. and Mitra, S. 2012. *Borderless Bazaars and Regional Integration in Central Asia: Emerging Patterns of Trade and Cross-Border Cooperation*. Washington, DC: World Bank.

²⁴ Grafe, C., Raiser, M., and Sakatsume, T. 2005. *Beyond Borders: Reconsidering Regional Trade in Central Asia*. EBRD-Working Paper Series. No. 95. London: European Bank for Reconstruction and Development.

²⁵ Data for these two cities are available only at the *oblast* level: Jambyl and Southern Kazakhstan respectively.

Due to the shared history of both countries, the basket of goods in the Consumer Price Index is comparable for Kazakhstan and the Kyrgyz Republic, but in view of limited time, 41 specific commodities were considered for which data could be found. The data are disaggregated, commodity-specific prices on a monthly basis at the *oblast* level.²⁶ Some commodities were excluded that were deemed nontradable. A few others that were excisable and subject to government regulations were also excluded, leaving a total of 21 goods, of which 8 are consumer durables. Appendix 1 shows the full list of commodities and their classification: tradable, nontradable, and subject to government regulation. The time period selected for the analysis was January 2010 to January 2014, which starts subsequent to the banking crisis in Kazakhstan in 2008 and ends before the large devaluation of the tenge in February 2014.

Since price data are in indexes, while exchange rates used are in levels, the methodology took the first difference of the exchange rate-adjusted equality of prices:

$$p_{it}^k = e_t p_{jt}^k$$

where p represents prices as before and e the nominal exchange rate, all measured at time t .²⁷ Log differentiation of this gives the form used in the analysis:

$$d\ln(p_{it}^k) = d\ln e_t + d\ln(p_{jt}^k) \quad (1)$$

The correlation between the two sides of equation (1) was thus examined, that is, the correlation between the percentage change in the monthly prices in Bishkek relative to the percentage change in prices in Almaty and percentage change in the exchange rate of the som to the tenge. For comparisons across cities within Kazakhstan, the change in exchange rate was set equal to zero.

Table 6 shows the variation in the prices of the selected commodities in Bishkek and in Almaty. Two points are worth noting here. First, price volatility is much larger in Bishkek than in Almaty, with the ratio of variability ranging from a factor of 2 to almost 12 times for most of the commodities. The substantially higher price volatility in Bishkek can be due to several factors. At the aggregate level, the som has been much more volatile than the tenge, at least before the devaluation in 2014.²⁸ Being a regional distribution center linked to other markets in the region may also lead to a lower variability of prices in Almaty relative to those in Bishkek. Finally, the Almaty market is more formal, so “menu costs” of changing prices may be higher than in Bishkek, where more retail transactions occur in bazaars and changing prices is easier.

Second, there is considerable diversity in the patterns across goods of price volatility. Generally, food-related items tend to be more volatile than other goods in Almaty, while this is true to a much weaker extent in Bishkek. The correlation of the relative ranking of commodities in their price volatility is statistically insignificant across all four cities at up to a 5% level of significance. The absence of consistent patterns in price volatility across goods suggests that links in price movements may not be strong across the cities, reflecting costs or barriers to trade both internally and across borders.

²⁶ Both Almaty and Bishkek are classified as *oblasts* for the price data.

²⁷ This is the standard law of one price. In the equation used above, the parameter π_{ij}^k is arbitrarily set to zero. The correlations of the first differences will not be affected by the fixed value of π .

²⁸ During the period under consideration, the tenge was fixed at about T150 to \$1. The som is implicitly tied to the Russian Federation ruble, and in 2010–2014, it floated to the United States (US) dollar in a broad range together with the ruble. This may affect consumer prices, as a large part of consumer goods are imported from the PRC and other countries, whose own exchange rates with the US dollar have been relatively stable.

Table 6: Price Variability in Bishkek and Almaty, January 2010–January 2014
(coefficient of variation, monthly prices)

Commodity Description	Bishkek	Commodity Description	Almaty
Fruits and vegetables	7.5	Fruits and vegetables	3.5
Materials for repair and housing	4.1	Consumables	1.9
Audiovisual equipment and cameras	3.5	Oils and fats	1.9
Dairy products, cheese, and eggs	3.4	Sugar and sweets	1.5
Small tools	3.4	Medicines and medical devices	1.4
Tablewear	3.0	Footwear. Including repair	1.3
Other goods and equipment	3.0	Dairy products, cheese, and eggs	1.1
Bread and cereals	2.9	Meat	1.0
Sugar and sweets	2.9	Fish	1.0
Footwear. Including repair	2.6	Bread and cereals	0.9
Other foods	2.1	Alcohol-free beverages	0.8
Oils and fats	2.1	Consumer devices	0.8
Medicines and medical devices	2.0	Materials for repair and housing	0.7
Meat	1.7	Audiovisual equipment and cameras	0.7
Fish	1.7	Other foods	0.7
Alcohol-free beverages	1.6	Apparel	0.4
Consumables	1.6	Curtains and other home textiles	0.4
Curtains and other home textiles	1.5	Tablewear	0.4
Consumer devices	1.4	Furniture and carpeting	0.3
Apparel	1.3	Small tools	0.3
Furniture and carpeting	1.1	Other goods and equipment	0.2

Source: Asian Development Bank.

The results of correlation in changes in prices based on equation (1) are shown in Table 7. Columns 2–4 provide correlations between change in prices between Almaty and, respectively, Bishkek, Taraz, and Shymkent for the commodity listed in column 1. Similarly, columns 5 and 6 provide the same correlation between Bishkek and, respectively, Taraz and Shymkent. The strongest links are evident between Almaty and Taraz (column 3) with statistically significant correlations for 12 of the 19 commodities; only 6 commodities show significant correlation between Almaty and Shymkent, implying weaker links than with Taraz. Between Almaty and Bishkek, statistically significant correlation is found for only 2 of the 19 commodities. Columns 5 and 6 also indicate that there is little evidence of correlations between prices for Bishkek with respect to either Taraz or Shymkent.

Table 7: Correlation in Prices across Almaty, Bishkek, Taraz, and Shymkent
(percentage change in monthly prices adjusted for exchange rate)

Commodity	Almaty			Bishkek	
	Bishkek	Jambyl (Taraz)	South Kazakhstan (Shymkent)	Jambyl (Taraz)	South Kazakhstan (Shymkent)
1	2	3	4	5	6
Bread and cereals	(0.060)	0.464^a	0.402^a	(0.213)	0.192
Meat	0.041	0.495^a	0.169	0.079	0.223
Fish	0.062	0.487^a	(0.035)	(0.053)	(0.140)
Dairy products, cheese, and eggs	0.122	0.522^a	0.598^a	0.042	0.084
Oils and fats	0.363^b	(0.139)	(0.101)	(0.117)	(0.100)
Fruits and vegetables	0.349^a	0.359^b	0.556^a	0.115	0.440^a
Sugar and sweets	0.149	(0.028)	0.036	0.283	0.315^b
Other foods	0.114	0.184	0.188	0.401^a	0.057
Alcohol-free beverages	0.042	(0.064)	(0.167)	0.189	0.023
Apparel	(0.202)	0.202	(0.021)	(0.243)	0.128
Footwear, including repair	(0.109)	0.863^a	0.872^a	(0.076)	(0.041)
Materials for repair and housing	(0.034)	0.000	(0.004)	0.212	(0.595)^a
Furniture and carpeting	(0.117)	0.393^a	0.380^a	(0.093)	(0.016)
Curtains and other home textiles	0.025	0.564^a	0.307^b	(0.300)^b	0.015
Consumer devices	(0.103)	0.394^a	0.252	(0.031)	(0.020)
Tablewear	(0.188)	0.432^a	0.422^a	(0.052)	(0.188)
Consumables	(0.234)	0.894^a	0.900^a	(0.009)	(0.086)
Medicines and medical devices	0.154	0.888^a	0.907^a	0.094	0.200
Audiovisual equipment and cameras	0.198	0.072	(0.006)	0.262	0.160

() = negative.

^a Correlation significant at the 0.01 level (1-tailed).

^b Correlation significant at the 0.05 level (1-tailed).

Source: ADB.

Anecdotal evidence of movements of meat and livestock and of fruits and vegetables between the Kyrgyz Republic and Kazakhstan as well as the shuttle trade between Almaty and Bishkek would suggest stronger price correlation between the two cities. While correlation is significant for fruits and vegetables, the other commodities do not show correlation. The results in Table 7 may be affected by the higher barriers and stronger enforcement at Kazakhstan's borders since 2011, after the country's accession to the Eurasian Customs Union.

These results are consistent with both border effects and distance effects contributing to barriers to trade. The stronger link between Almaty and Taraz, relative to Almaty and Bishkek, shows border matters in creating trading costs that lower the integration between the markets in Almaty and Bishkek. While the link between Almaty and Shymkent prices is evident, this is relatively weaker compared to that between Almaty and Taraz, suggesting that distance and associated internal

barriers may be lowering integration between markets in Almaty and Shymkent, consistent with the findings of Grafe et al.

It should be noted that the correlations above are for contemporaneous prices and do not take into account lags in movement of prices. If prices are at all “sticky” for any reason, it is possible that the markets may still be linked though with the effects manifesting with some lag. To incorporate lags in the impact of change in prices in one location on the same in another location, Granger causality specifications were estimated, using up to three lags of prices of the commodity in both locations.²⁹ Finding Granger causality, either one-way or two-way, may be interpreted not as causing the other variable but as providing incremental predictive content. For example, if the change in prices for a commodity in Bishkek Granger causes the price change in Almaty, it would indicate the prices in Bishkek provide predictive content for those in Almaty and in that sense the markets in the two cities are linked to one another. Table 8 provides summary tabulations for the tests of Granger causality for change in prices across the four cities. Since the link between Almaty and Bishkek in contemporaneous correlations is strongest for food products, and since the interest here is primarily on these two cities, Granger causality tests were confined to food products only.

Table 8: Tests of Granger Causality between Percentage Change in Prices across Almaty, Bishkek, Taraz, and Shymkent

Commodity	Almaty			Bishkek	
	Bishkek	Jambyl (Taraz)	South Kazakhstan (Shymkent)	Jambyl (Taraz)	South Kazakhstan (Shymkent)
1	2	3	4	5	6
Bread and cereals				Y	
Meat			Y		
Fish		Y	Y		
Dairy products, cheese, and eggs	Y	Y	Y	Y	Y
Oils and fats	Y		Y		Y
Fruits and vegetables			Y	Y	Y
Sugar and sweets		Y	Y		
Other foods					
Alcohol-free beverages					

Note: Y indicates the presence of one-way or two-way Granger causality at a 5% significance level.

Source: ADB.

The Granger causality results do not significantly modify the picture emerging from analyzing contemporaneous price movements, though lagged prices show more links across cities than contemporaneous. GC links between Almaty and Bishkek prices are now comparable to those between Almaty and Bishkek, and more commodities show GC links between Almaty and Shymkent. However, GC links between prices in Bishkek and those in both Taraz and in Shymkent are relatively weaker.

²⁹ Specifically, the change in price (e.g., in Almaty) is regressed at the same time on three lags of its own value and on three lags of exchange rate-adjusted price changes in Bishkek. Similar specifications are done for all the other pairs.

To summarize, Bishkek shows much higher price volatility than the three cities in Kazakhstan, and there is no consistent pattern in the relative volatility of prices across commodities. There is some evidence of correlation in price changes between Almaty and Bishkek, but less so than between Almaty and Taraz, suggesting border effects are still important between the two countries. This implies that elimination of the border effects following the accession of the Kyrgyz Republic to the Eurasian Customs Union will have a significant impact in further integrating Almaty and Bishkek, which would, in turn, boost the potential for developing the ABC. Using Granger causality estimates to incorporate lagged links in price co-movements across these markets provides results that are also consistent with the existence of relatively weak links between Almaty and Bishkek, suggesting that the links may be attenuated by border effects and possibly other factors that increase barriers to trade between the cities.

C. Qualitative Aspects of Trading between Almaty and Bishkek

A small survey, conducted in July and August 2014, focused on 80 firms in Bishkek that were involved in transactions with businesses in Almaty, Taraz, and Shymkent. It aimed to understand other types of costs that may characterize trade between the two cities such as contractual costs arising from issues related to information, risk sharing, and enforcement.

In the Kyrgyz Republic, only 1 out of 10 firms is engaged in direct exports.³⁰ Although the Russian Federation and Kazakhstan are major trading partners, the proportion of firms dealing with businesses in Kazakhstan is probably even lower than 10%. Thus, for the survey, firms were selected in consultation with business associations to identify those with greater likelihood of interacting with firms in Kazakhstan. Due to its small size and sampling methodology, the sample is therefore indicative and not representative of all firms in Bishkek.

The survey was conducted using interviews with firms based on a questionnaire that included sections on general firm characteristics, owner and/or manager attributes, perceptions toward competition and the customs union, and views on transacting with firms in Kazakhstan (Appendix 2). Selected survey results are summarized here, while more detailed tables will be made available later on the CAREC website.³¹

The sample included 7 firms in the primary sector (i.e., dairy and meats, livestock, and crop production including fruits and vegetables); 60 in manufacturing (i.e., other food processing, light industry, wood and/or furniture, metal working and machinery, and other manufacturing); and 13 in services, including trading. Twelve of the firms are relatively new, less than 5 years old; 20 are 5–10 years old; and 48 firms are older than 10 years.

Tables 9 and 10 show the mean sales by the firms, by type of customer and geographic destination. Nearly 50% of the sales are to retail or wholesale traders, while direct sales to consumers account for about 30% of the sales. The mean sales to domestic consumers are 54% of the total (more for services firms), with the rest accounted for mainly by Kazakhstan and the Russian Federation. The larger share of sales to Kazakhstan by these firms reflects the sample selection and possibly the role of transit sales meant for the Russian Federation.

³⁰ The 2013 Business Environment and Enterprise Performance Survey found the share of sales from exports for those who are engaged in direct export declined to 51% from 63% in 2008, and that the percentage of direct export sales in total sales also declined, from 6.4% in 2008 to 5.6% in 2013. World Bank Group. 2013. BEEPS At-A-Glance 2013: Kyrgyz Republic. Washington, DC. <http://www.worldbank.org/content/dam/Worldbank/document/eca/central-asia/BEEPS-At-A-Glance-2013-Kyrgyz-Republic-en.pdf>

³¹ <http://www.carecprogram.org/>

In contrast to sales, the inputs purchased by the firms show the small role of Kazakhstan (Table 11). The share of inputs originating from outside is led by the PRC, followed by the Russian Federation, while other countries collectively also account for nearly one-fifth of the purchases. While the questionnaire sought responses about the source of production of inputs, the high share of domestic inputs indicates that many firms may not have known the source and only specified their immediate point of purchase of the inputs.

Table 9: Sales by Type of Customer and Sector
(proportion of total sales)

Firm Category	Direct Consumers Mean	Industrial Buyers Mean	Retailers Mean	Wholesalers Mean
Primary	0.23	0.28	0.09	0.41
Manufacturing	0.29	0.19	0.11	0.40
Services	0.29	0.16	0.25	0.29
Total	0.29	0.20	0.13	0.38

Source: Almaty–Bishkek Corridor Survey (2014).

Table 10: Sales by Destination and Sector
(proportion of total sales)

Sector	Domestic Mean	Russian Federation Mean	Kazakhstan Mean	Rest of World Mean
Primary	0.47	0.16	0.28	0.09
Manufacturing	0.53	0.14	0.27	0.06
Services	0.64	0.02	0.27	0.08
Total	0.54	0.12	0.27	0.06

Source: Almaty–Bishkek Corridor Survey (2014).

Table 11: Inputs Used by Source of Production and Sector
(proportion of total purchases)

Sector	Domestic Mean	People's Republic of China Mean	Russian Federation Mean	Rest of World Mean
Primary	0.99	0.00	0.01	0.00
Manufacturing	0.51	0.17	0.09	0.22
Services	0.59	0.17	0.03	0.21
Total	0.57	0.16	0.07	0.20

Source: Almaty–Bishkek Corridor Survey (2014).

The survey elicited responses from these firms on the extent of competition that they faced and, in view of the Kyrgyz Republic's impending accession to the Eurasian Customs Union, the geographic source of their perceived competition looking ahead (Tables 12 and 13). One-third of the firms indicated that competition from imports or firms outside of the country was not a problem in their perception, while almost two-thirds believed competition from outside was important to their operations. Table 13 shows that the major sources of perceived competition from outside are Kazakhstan, the Russia Federation, the PRC, and, to some extent, Moldova.

Table 12: Competition from Outside of the Kyrgyz Republic
(number of firms)

Nature of Business	Very Important	Important	Not Important	No Impact	Total
Primary	1	6	0	0	7
Manufacturing	15	23	19	3	60
Services	2	2	8	1	13
Total	18	31	27	4	80

Source: Almaty–Bishkek Corridor Survey (2014).

Table 13: Geographic Source of Perceived External Competition
(number of firms)

Nature of Business	Kazakhstan	PRC	Russian Federation	Uzbekistan	Turkmenistan	Moldova	Belarus	Germany	Total
Primary	2	0	1	1	2	3	0	0	9
Manufacturing	18	18	17	1	2	5	2	1	64
Services	2	1	1	0	0	2	0	0	6
Total	22	19	19	2	4	10	2	1	79

PRC = People's Republic of China.

Source: Almaty–Bishkek Corridor Survey (2014).

More than two-thirds of the firms (55) in the sample had transactions with businesses in Kazakhstan. Among firms that were not transacting with firms in Kazakhstan, the major reasons indicated for not doing so were “bureaucratic barriers” and “not enough trust.” Bureaucratic barriers can be addressed through appropriate policy measures in future to simplify procedures, thus contributing to strengthening economic links between the two cities. Lack of trust reflects not just insufficient information about the other party of the transaction but also concerns on the part of respondents on whether they could deliver larger orders from Almaty with adequate quality and on time. As shown in Table 14, lack of information may not be a major problem, with more than three-quarters of the sample indicating that they regularly interacted with businesspersons from Kazakhstan. The strong links between Almaty and Bishkek are again underlined by the fact that these interactions are mostly with businesses in Almaty, with only a few indicating the same for the other major Kazakhstan cities in the vicinity, Taraz and Shymkent.

Table 15 shows that regular interactions with businesses in Kazakhstan (Almaty) are not replicated with other countries. About one-fourth of the firms indicated regular interactions with businesses in the Russian Federation, with the incidence even less for businesses in the PRC and in other countries.

The special relationship between Almaty and Bishkek is further evidenced in the frequency of travel by interviewed businesspersons to Almaty in the previous 6 months (Table 16). Almost half of the respondents had traveled to Almaty at least once in that period. As before, travel to the other two cities, Taraz and Shymkent, are much less.

The survey data thus reaffirm the close links between firms in Bishkek and in Kazakhstan, specifically Almaty. These reflect several factors, including relative physical proximity, language and cultural ties, and the regional profile of Almaty as a gateway city. At the same time, the survey covers only a small selection of firms that were chosen for the likelihood of having ties with firms outside of the Kyrgyz Republic. The vast majority of firms in Bishkek do not yet have transactions with businesses in Almaty.

Table 14: Interactions with Businesses in Kazakhstan
(number of firms answering “yes”)

Nature of Business	Almaty	Taraz	Shymkent
Primary	6	0	0
Manufacturing	42	3	5
Services	7	0	0
Total (out of 80)	55	3	5

Source: Almaty–Bishkek Corridor Survey (2014).

Table 15: Interactions with Businesses in Other Countries
(number of firms answering “yes”)

Nature of Business	People’s Republic of China	Russian Federation	Others
Primary	0	1	1
Manufacturing	6	16	10
Services	0	1	0
Total (out of 80)	6	18	11

Source: Almaty–Bishkek Corridor Survey (2014).

Table 16: Travel to Cities in Kazakhstan
(number of firms)

Number of Trips in Last 6 Months	Almaty	Taraz	Shymkent
0	40	78	75
1–5	33	1	4
6–10	2	0	1
More than 10	5	1	0
Total	80	80	80

Source: Almaty–Bishkek Corridor Survey (2014).

Several firms interviewed for the survey indicated that they were uninterested in foreign markets due to local operations being sufficient for their objectives. Others felt unprepared for catering to larger orders with regard to their ability to deliver on time and with quality. Identifying policy interventions that can help improve their capacities would further strengthen their ability to benefit from exploiting opportunities outside of Bishkek such as the large market of Almaty. Regulatory barriers, also cited by some firms as a concern for trading with outside markets, are another potential intervention area for strengthening economic links between Bishkek and Almaty.³²

³² According to the Business Environment and Enterprise Performance Survey, the business climate in the Kyrgyz Republic has improved across broad indicators since 2008. Although firms did not rank trade regulations as a serious problem, the least improved areas (since 2008) in absolute terms included “customs and trade regulations.”

D. Development Plans of Almaty and Bishkek

The economic development of Almaty and Bishkek, the two endpoints of the ABC, is an obvious determination of the potential for the ABC as an economic corridor. This section reviews available information on the existing development plans of the two cities.³³

1. Almaty

Under its Kazakhstan 2050 strategy, Kazakhstan is targeting increasing nonoil exports from 32% to 70%, increasing per capita income and labor productivity each by a factor of five, and increasing the share of small and medium-sized enterprises in its GDP from 20% to 50%. These targets will be driven by a policy of spatial agglomeration of people, knowledge, and capital around “long-term growth poles.” In the process, the share of the urban population will increase from 55% to 70% by 2050, with 35% of the population concentrated in cities. Through such urban agglomeration, three megacities (with populations exceeding 1 million) are initially proposed to be developed: Almaty, with a target population of 3.5 million people, and Astana and Shymkent, each with a target population of 2.0 million. The strategy relies on higher urban growth through increased density of population and economic activities and a focus on developing the services sectors.

Interregional development plans until 2020 have been approved for each agglomeration, including Almaty. Additionally, a memorandum of understanding has been signed between Almaty City and Almaty Oblast on development of the agglomeration and guidelines formulated for determining agglomeration boundaries. The year 2015 will mark implementation of a new Almaty development program with its master plan, drawing on the Interregional Development Plan of Almaty Agglomeration until 2020, approved by the government in June 2014. The new master plan was unavailable at the time of this study but will incorporate developments along three radial axes: toward the district center Uzunagash (in the direction of Bishkek), Kapchagay town, and district center Shelek (in the direction of Khorgos).

It is envisaged that the areas of influence of Almaty agglomeration will include Almaty City and settlements in suburban areas covering additional administrative districts of Almaty Oblast: Ili, Jambyl, Kapchagay, Karasay, Talgar, and Yenbekshikazakh. Coordinated infrastructure development of Almaty and its agglomeration are planned to ensure implementation of unified urban planning for developing infrastructure and coordinating interregional interests. This includes a key focus of agglomeration strategy, that is, forming high-quality and integrated transport, and an information and communication system of the city agglomeration; and modernizing and constructing new communal infrastructure.

The development plans for Almaty underline the role of the city as a logistics hub with high-speed transport infrastructure. One of the major infrastructure facilities deemed strategic for development is construction of the Almaty Ring Road on a concession basis, scheduled for 2014. The road will be a 65.5 km toll road, 19.0 km from the center of Almaty City. Its “zero picket” will be located west of Almaty City on km 23 of the Almaty–Uzynagash highway near Kyrgauldy Village, and it will end on the eastern side of Almaty on km 22 of the Almaty–Talgar–Evgenievka highway.

³³ The material on development plans for Almaty and Bishkek relies on information provided by respective city administrations. For Almaty, see also information presented by the Ministry of Regional Development, Government of Kazakhstan. 2014. Kazakhstan Regional Policy: Establishing Economic Growth Centers. Presentation to CAREC Senior Officials. Astana. Available at http://www.carecprogram.org/uploads/events/2014/SOM-June/Presentation-Materials/002_101_209_Session-2.pdf

The road is proposed as the external boundary of the suburbanized belt of Almaty City, and will accommodate existing and new industrial and transport logistics centers. It will increase the transit capacity and competitiveness of the trans-Kazakhstan transit routes by creating a bypass around Almaty City, connecting to both the Khorgos–Almaty–Bishkek–Taraz–Shymkent route and the Almaty–Karaganda–Astana–Petropavlovsk route. Additional transport initiatives include railway construction to bypass the city center, creation of a cargo airport northwest of Kapchagay, and development of a regional network of light aviation.

Four satellite towns are also planned as part of the development of the Almaty agglomeration. These mini-cities will be located along the national highway, Almaty–Kapchagay, with each having a specialized function so that they could complement each other and lead to evolving the expanded Almaty agglomeration into a polycentric city. A special economic zone is also planned to complement the satellite towns.

2. Bishkek

In 2014, city authorities adopted two documents, which set the development agenda for Bishkek. First, the City Council of Bishkek approved Strategic Priorities of the Social and Economic Development of Bishkek City: Town and Townspeople, 2014–2018. Then, based on these priorities, the Mayor's Office of Bishkek adopted Bishkek City Social and Economic Development Program, 2014–2018: City of Open Potential.³⁴

The program has three key pillars: safe city, comfortable city, and successful city. The safe city pillar provides a few concrete measures, which are under direct control of the city authorities, including citizen participation (e.g., through volunteer auxiliary police), better street lighting, and video surveillance systems in public areas. The comfortable city pillar covers issues in municipal infrastructure, services, and social development. Key activities include infrastructure maintenance and development, improvements in user fee collection, responsibility of providers for quality of services, regulation of service tariffs, training of personnel, and creating order in the general city planning scheme. The successful city pillar provides more principles of economic development of the city rather than activity details. These principles include economic diversification; partnership of local governments, businesses, and citizens; and transparency of all activities.

The program also suggests city governance reforms such as increasing control of city authorities over city services funded and managed by the national government (e.g., police); increased efficiency in public spending; internal reform of city administration; and strengthening of policy planning. Further, the program refers to a new budget policy, which establishes delimitation of expenditure responsibilities between central and city authorities, higher budget independence of the city, independent tax administration for local taxes, expenditure optimization and elimination of redundant functions funded from the city budget, improved management of municipal property, and transparency of the budget.

Total costs of the program are estimated at about \$0.4 billion, of which the city budget would provide 23%; the national budget, 27%; and the rest from other sources, with a funding gap of about 25%. An investor's handbook, published by the City Development Agency of Bishkek, contains a

³⁴ These documents are based on national strategies and previous city development documents, including the National Sustainable Development Strategy of the Kyrgyz Republic, 2013–2017, and the accompanying government program; the Local Self-Government Development Programme of the Kyrgyz Republic, 2013–2017; and the Bishkek City Development Concept until 2025.

description of 13 projects. The level of details available for these projects varies, although most projects are just ideas.

In summary, the case for further exploring the development of the ABC as an economic corridor can be stated in terms of existing factors on the one hand, and expected developments over medium-term on the other. Almaty and Bishkek are already large and important cities. Almaty is the largest city in the region in total economic product and the density of economic activities. Both cities enjoy a physical and cultural proximity that is remarkable by standards of the region, and together bring into relevance a population of almost 2.5 million people, which is a valuable resource. Some expected developments are also favorable to prospects for developing the ABC as an economic corridor. The accession of the Kyrgyz Republic into the Eurasian Customs Union of which Kazakhstan is already a member, with prospects of deeper integration through the Common Economic Space of the Eurasian Union, is likely to reduce several costs and barriers to trade between the two cities. The Government of Kazakhstan is already committed to a policy of spatial transformation and economic diversification through agglomeration of large cities like Almaty. The focus on urban development to drive spatial transformation and economic diversification may deepen across the region. This is also an opportune time for exploring economic corridor development of the ABC in view of both cities being in the process of initiating longer-term development planning. This constellation of factors suggests that the ABC may be a good case to pilot operationalization of economic corridors development in the CAREC Program.

Coordinating growth and development strategies between the two cities is of particular importance in the context of the ABC. The development plans of both Almaty and Bishkek are at one level primarily inward-looking, as would be expected of any major city. Yet both have an implicit vision that is outward-looking, evident in the case of Almaty, for example, by the emphasis on investments that enhance its regional connectivity, and focus on logistics services to support industrial parks and other economic zones envisaged around the increased connectivity. In the case of Bishkek, where the plans are less concrete with regard to investment projects, the intention is clearly on improving the business environment through better governance and more transparency to attract foreign investments to raise Bishkek's regional profile. However, there is virtually no explicit recognition in either case of the spill overs, both positive and negative, that could be exploited (or avoided) from the other city's growth trajectory and strategy. Given the economic proximity of the two cities and their large albeit unequal size, filling this gap can be of benefit to both. This is a role that is well suited to the CAREC Program and can be pursued with the ABC as an important instrument.

Since both Almaty and Bishkek are initiating the formulation of long-term development plans, exploring how strategic complementarities of their respective growth efforts can be built upon is important. This will require close collaboration at working levels as well as at leadership levels (city and national) to exchange information, discuss strategies, and look for synergy in respective priorities. Bringing in the private sector from both sides is also important in increasing the effectiveness of this collaboration.

The CAREC Program and its ABC initiative provide a potential umbrella for such a program. Based on experience and suitability, the initiative could be extended over time to other nearby cities such as Taraz and Shymkent. This can also provide a pilot template for similar initiatives in other parts of CAREC where relevant member countries see potential for ECD, either domestically or crossborder.



V. Conclusions

As a follow up to the long-term strategic framework of the CAREC Program, CAREC 2020, which introduced the development of economic corridors as a key operational priority for the program, this report has developed an approach for operationalizing ECD in the CAREC region. It has clarified and elaborated a conceptual framework relevant to the context of the Central Asian economies, and identified a suitable pilot to initiate implementation of ECD in the region.

To rationalize the CAREC 2020's emphasis on economic corridors, the study proposes differentiating three tracks for corridor development in CAREC: transport corridors (T₁), transit corridors (T₂), and economic corridors (T₃). Each of these is important in the context of Central Asia.

The report has focused on ECD, which is new to the CAREC Program. ECD is a more complex agenda but important over the longer term in ensuring a useful role for the CAREC Program in contributing to key challenges facing member countries such as economic diversification, job creation, and growth. ECD focuses on using connectivity and other infrastructure to channel and organize economic activity toward desired objectives, and this inevitably entails a strong role for private sector investment. In the CAREC context, this is also linked to issues of spatial transformation, urban development, agglomeration, and diversification of economic activities.

There are critical prerequisites for successful ECD: (i) the need to identify economic potential, without which private investment would not be forthcoming, implying a need for geographic selectivity and prioritization both across CAREC corridors and within a given corridor; (ii) political commitment and coordination across multiple stakeholders at various levels of government, across diverse government agencies, and among countries; (iii) detailed economic and technical analyses to identify business opportunities, infrastructure needs, and policy and regulatory prerequisites; and (iv) sustained commitment over 1 decade or more.

This report has addressed the first step—prioritizing the ABC and undertaking an assessment of its potential as a pilot for initiating ECD operationalization in CAREC. It is an initial due diligence to assess whether institutional initiatives should be considered and whether substantive resources should be committed as part of the next phase of exploring the ABC as an economic corridor.

The analysis of economic links between Almaty and Bishkek demonstrates that markets in the two clusters have some links, but less than what would be expected from anecdotal evidence, and that there is room for far more integration. In part, this may reflect transition dynamics, since the accession of Kazakhstan into the Eurasian Customs Union in 2011 led to higher barriers and stronger enforcement at borders with non-customs union countries, including the Kyrgyz Republic. However, the accession of the Kyrgyz Republic into the customs union is likely to

substantially reduce the trading costs between Almaty and Bishkek. The findings from the primary survey in Bishkek reiterate the close cultural and economic links between firms in Bishkek and Almaty. Issues such as information barriers, contract enforcement, or standards do not appear to pose significant hurdles to firms that are trading between the two cities. However, policies to improve information flows among firms will strengthen business environment in both cities, build capacity, and provide business support services in Bishkek, and can further strengthen economic links between the cities.

Cities are increasingly being recognized as the engines of growth in the 21st century. Just 40 city-regions are responsible for over two-thirds of the total world economy and most of its innovation, and an estimated \$53 trillion will be invested in urban infrastructure in the coming 2 decades.³⁵ Recognizing this, the Government of Kazakhstan is planning substantial urbanization of its economy through agglomeration, spatial transformation, and urban development. With major infrastructure investments planned, including urban infrastructure and transport, and plans to diversify into high-value services and manufacturing, it is possible to envisage Almaty doubling in the next 7–10 years into an \$80 billion–\$90 billion regional economic cluster. Almaty can further benefit in its growth by tapping into the Bishkek economy, which has lower costs for labor, an educated workforce, and an active entrepreneurial class.

Proximity to a large and growing market will also benefit Bishkek. Almaty and Bishkek are seeking to position themselves as regional centers, but through different emphases. While Almaty offers higher-quality infrastructure and greater connectivity within the region, Bishkek's strength may lie in providing a business environment that is more geared to attract foreign direct investment through a different political system linked to consensus and transparency.

The economic rationale for the ABC is thus strong: it is defined by two endpoints that are both large economic clusters and have had a strong regional profile that each wants to develop further. Almaty is the largest economy within a radius of almost 1,000 km, and also has a relatively high density of economic activities. Together, Almaty and Bishkek have an official population of almost 2.5 million inhabitants, which is fairly large by the region's standards, and a valuable resource. The potential for the ABC as an economic corridor is reinforced by close historical, cultural, and economic links between the two cities. Expected medium-term developments also augur well for developing the ABC as an economic corridor—such as the accession of the Kyrgyz Republic into the customs union in 2015; a drive toward agglomeration of Almaty into a megacity under plans of the Government of Kazakhstan; Bishkek's ambition to be a regional center; and the initiation by both cities of long-term planning for urban development.

Nonetheless, an aspect central to development of the ABC as an economic corridor is that Almaty and Bishkek are structurally twin cities. Manufacturing plays a minor role in both, which rules out in the short term certain types of economic links found elsewhere in Asia, arising from participation in value chains. Trade in primary products has been active between the two, and provides a promising area that can be expanded further while also enhancing the impact of the economic corridor on the regions between the two cities. Both economies are predominantly service economies. In some cases, they even overlap in focus areas such as finance services, tourism, and wholesale and retail trade. Even with such overlap, differentiation between the two economies at subsector levels may be possible. Modern economies increasingly have a vast spectrum of differentiated products and services, densely packed so that a single product or service may have many varieties.

³⁵ Khanna, P. 2011. When Cities Rule the World. http://www.mckinsey.com/insights/urbanization/when_cities_rule_the_world

It is possible for both Almaty and Bishkek to benefit from specializing in similar but different parts of their focus areas, even in the services sector.

The study recommends therefore that the CAREC Program undertake a more substantive analysis to develop the ABC into the first CAREC economic corridor. The analysis will need to cover specific sectors relevant to the ABC as well as a macro perspective on development strategies of each city. Areas of sector focus include those related to trade in primary products, in light manufacturing and in services: for example, agro processing, agro trade (including logistics, cold storage, warehousing, certifications, sanitary and phytosanitary standards requirements), tourism, garments and other light industries, finance services, medical services, and education. Focusing on services sectors will also entail undertaking a review of policies toward the delivery of services through all four modes of supply in both countries and discussions with the private sector and the government on possible measures to address movements of skilled workers and manage migrant labor.

Other areas of sector focus may be included following comprehensive discussions with stakeholders, including different levels of the government. To coordinate the public sector, it is suggested that a working group be initially established to direct, monitor, and assess the detailed sector-level analyses. The effectiveness of coordination will be enhanced if the working group were to be joint, comprising representatives from both Almaty and Bishkek administrations and other national ministries from both countries. Consultations with the private sector would also need to be initiated early in the analytical process. Resources for financing the analytical work could be provided by development partners under the CAREC Program as well as member countries as appropriate. This stage is expected to be completed within 2015, with outcomes that include (i) a preliminary list of requirements for developing the ABC, including infrastructure projects within each cluster and between them; (ii) policy and regulatory recommendations; and (iii) suggestions for mobilizing resources, including through investments by the private sector.



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Appendix 1

Table A1: List of Commodities Considered for Analysis of Price Behavior

No.	Commodity Description	Tradable	Nontradable	Regulated or Excisable
Food and alcohol-free beverages				
1	Bread and cereals	X	X	X
2	Meat	X		
3	Fish	X		
4	Dairy products, cheese, and eggs	X		
5	Oils and fats	X		
6	Fruits and vegetables	X		
7	Sugar and sweets	X		
8	Other foods	X		
9	Alcohol-free beverages	X		
Alcohol and tobacco				
10	Alcohol	X		X
11	Tobacco	X		X
Apparel and footwear				
12	Apparel	X		
13	Footwear, including repair	X		
Housing services, water, electricity, gas, and other fuels				
14	Housing rent		X	
15	Materials for repair of housing	X		
16	Services for housing maintenance and repair		X	
17	Water supply		X	X
18	Electricity, gas, and other fuels	X	X	X
Durable consumer goods				
19	Furniture and carpeting	X		
20	Curtains and other home textiles	X		
21	Consumer devices	X		

continued on next page

Table A1: continued

No.	Commodity Description	Tradable	Nontradable	Regulated or Excisable
22	Tableware	X		
23	Small tools	X		
24	Consumables	X		
Health care				
25	Medicines and medical devices	X		
26	Outpatient treatment	X	X	X
Transport				
27	Purchase of vehicles	X		X
28	Use and maintenance of personal vehicles	X	X	
29	Transport services		X	X
Communications				
30	Mail		X	X
31	Telephone and fax		X	
Rest and culture				
32	Audiovisual equipment and cameras	X		
33	Other goods and equipment for rest	X		
34	Cultural services	X	X	
35	Newspapers, books, and stationery	X	X	
36	Education	X	X	X
Restaurants and hotels				
37	Public catering		X	
38	Hotels		X	
Assorted goods and services				
39	Personal services	X	X	
40	Other personal goods	X		
41	Other services		X	

Note: Highlighted items selected for analysis.

Source: ADB.

Appendix 2

Survey Questionnaire

Almaty–Bishkek Corridor Development Survey

Supported by the Asian Development Bank (ADB), the Central Asia Regional Economic Cooperation (CAREC) Program has been promoting regional cooperation among its member countries in Central Asia since 2002. Cumulatively, the CAREC Program has mobilized more than \$24 billion in investments in regional infrastructure, particularly transport through regional corridors.

This study is being undertaken by ADB as part of its analytical work in supporting the development of regional economic corridors. It is focusing on the links between Bishkek and Almaty as well as other cities in proximity to Bishkek. Findings of the study will be presented at the 13th CAREC Ministerial Conference to be held in Bishkek in November 2014.

Your participation and cooperation in the information collected through this questionnaire will help ADB improve the quality of its findings and of recommendations to promote private sector development in Bishkek through enhanced links with regional cities.

All information provided by firms in this survey will be treated as confidential by ADB. Thank you for your cooperation.

Name of firm: _____

Sample ID number:

Address: _____

Phone number _____

Name of Interviewer: _____

Date of interview: _____

Time of interview: _____

Total attempts for interview: _____

Verified by: _____

Questionnaire

Section A: General Firm Characteristics

1. When was the firm started?

2. Do you have more than one business?
(Yes = 1, No = 2). If yes, discuss with the respondent the most appropriate one for the questionnaire.

3. Ownership status of the firm:
 - a) Individual owner
 - b) Limited liability company
 - c) Joint stock company
 - d) Others

4. Areas of activity:
 - a) Dairy/meats
 - b) Livestock
 - c) Crop production (including fruits and vegetables)
 - d) Other food processing
 - e) Light industry
 - f) Wood/furniture
 - g) Metal working and machinery
 - h) Other manufacturing
 - i) Trading
 - j) Trading and production
 - k) Other services (Specify:_____)

5. How many employees do you have?

a) Full time:	
b) Part time and contract:	

6. Compared with 2011, how many net additional employees have you hired?
(negative answers allowed)

a) Full time	
b) Part time and contract	

7. Compared with 2011, on average, how much has your turnover changed every year?
(Negative values for decline, answer in percentage per year)

8. Over the past 3 years, have you made any major investments in your business?
(Yes = 1, No = 2)
9. Have you borrowed from a bank since 2010 for investing?
(Yes = 1, No = 2)
10. What percent of your sales is to:
- a) Domestic
 - b) Russian Federation
 - c) Kazakhstan
 - d) Rest of the world
11. What percent of your sales is to:
- a) Direct consumers/end-users
 - b) Direct industrial buyers
 - c) Retailers
 - d) Wholesalers
12. What percent of your inputs is produced:
- a) Domestically
 - b) In the People's Republic of China
 - c) In the Russian Federation
 - d) Rest of the world
13. What percent of your input purchases is from:
- a) Producers directly
 - b) Retailers
 - c) Wholesalers in the Kyrgyz Republic
 - d) Wholesalers in the People's Republic of China
 - e) Other wholesalers

Section B: Owner/CEO/GM Attributes

14. Gender:
15. Highest educational attainment:
- a) Basic secondary
 - b) General or professional secondary
 - c) University

16. Is this the first business started/managed by the owner/manager?
(Yes=1, No=2)

17. Years of employment/business experience prior to initiating/managing this business:

18. Geographic origin:

a) Bishkek

b) Kyrgyz Republic, outside of Bishkek

c) Non-Kyrgyz Republic (Specify:_____)

19. How many times have you traveled to Kazakhstan in the past 6 months?
(If none, go to 21)

a) Almaty:

b) Taraz:

c) Shymkent:

d) Korday:

e) Others (Specify_____):

20. For the most recent trip, please specify:
Location (Almaty=1, Taraz=2, Shymkent=3, Korday=4, Others=5)

Primary purpose (Look for buyers/sell=1, Look for suppliers/buy=2, Dealing with government authorities=3, Health=4, Education=5, General shopping=6, Leisure travel=7, Others=8)

Mode of travel (Air=1, Own car=2, Taxi=3, Other=4)

a) Location:

b) Primary purpose:

c) Mode of travel:

d) Duration of stay (days):

e) Total expenditure during the trip (excluding transport):

Section C: Competition, Customs Union

21. For your business as it operates today, how many direct competitors do you face?

a) Less than 5

b) 5-10

c) More than 10

22. How important to your own business is competition from imports/outside firms?

(Very important = 1, Important = 2, Not important = 3, No impact = 4)

(If Answer is 3 or 4, go to 24.)

23. Please identify the major source of competition in terms of country. Up to 2 most important (Kazakhstan =1, People's Republic of China =2, Russian Federation =3, Uzbekistan =4, Turkey =5, Others=6 [Specify: _____])

Country 1:

Country 2:

24. When do you expect the accession of the Kyrgyz Republic into the Customs Union to be finalized?

a) 2014

b) 2015

c) 2016 or later

d) Will not happen

25. How will the Customs Union affect your business? (Choose up to 2 most important effects.)

a) I will have a bigger market and will be able to expand.

b) I will be able to get inputs more cheaply.

c) I will be able to get new technology and become more competitive.

d) I will have to pay more for inputs.

e) I will face more competition and may lose business.

f) It will be more difficult to get workers and raise my costs.

g) I will have to pay higher wages due to higher costs of living.

h) I will need to shut down my business.

i) I will need to relocate my business to another Customs Union country.

j) Others (Specify: _____)

26. What actions are you taking at the moment in preparation of the accession of the Kyrgyz Republic to the Customs Union? (Multiple answers allowed, up to 3.)

a) Identifying potential business partners in Kazakhstan.

b) Identifying potential business partners in the Russian Federation, Belorussia.

c) Reviewing business practices with People's Republic of China business associates.

d) Looking at new business opportunities.

e) Carrying out certification of my products in line with Customs Union technical regulations.

f) Preparing to increase the size of my business.

- g) Looking at downsizing this business.
- h) Looking for alternative countries for inputs.
- i) None.
- j) Others (Specify:_____)

Section D: Links to Kazakhstan (for each: Almaty, Korday, Taraz, Shymkent)

27. Does your firm either sell or buy goods or services directly from firms in Kazakhstan?
(Yes = 1, No = 2) (If answer is 2, go to 47.)

28. How many times in a month do you transact (sell/buy) with firms in Kazakhstan?

29. For how many years have you been selling to/buying from firms in Kazakhstan?

30. What percent of your total sales is to buyers from:

- a) Almaty
- b) Taraz
- c) Shymkent
- d) Korday
- e) Others (Specify:_____)

31. What percent of your total purchases is from firms in:

- a) Almaty
- b) Taraz
- c) Shymkent
- d) Korday
- e) Others (Specify:_____)

32. How many regular buyers do you deal with in:

- a) Almaty
- b) Taraz
- c) Shymkent
- d) Korday
- e) Others (Specify:_____)

33. How many regular sellers do you deal with in:

- a) Almaty
- b) Taraz
- c) Shymkent
- d) Korday
- e) Others (Specify_____)

34. How is the price decided with your major business transactors?

- a) Price given by me
- b) Price specified by other party
- c) Price is known to all in the market
- d) Price negotiated
- e) Others (Specify:_____)

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35. If selling to firms in Kazakhstan, do you produce to order?
(Yes = 1, No = 2)

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36. On what basis do you purchase from your main sellers in Kazakhstan (percent)?

- a) Cash basis/advance payment
- b) Credit
- c) Consignment

37. On what basis do you sell to your main buyers in Kazakhstan (percent)?

- a) Cash basis/advance payment
- b) Credit
- c) Consignment

38. Have you had any serious disputes with business parties in Kazakhstan relating to quality, timeliness, or damage?
(Yes = 1, No = 2) If no, skip to 40.

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39. If yes, how did you resolve it?

- a) Bilateral negotiation
- b) Legal proceedings
- c) Accept losses
- d) Others (Specify:_____)

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40. How do you look for new buyers/sellers?
(Up to 2 choices, ranked in importance)

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- a) Internet search
- b) Word-of-mouth
- c) Sales force
- d) Advertising
- e) Business fairs
- f) Visual display
- g) Others (Specify_____)

41. From where are the products that you purchase physically obtained?

- a) From producer's warehouse at border in Kazakhstan
- b) From producer's warehouse at border in the Kyrgyz Republic
- c) From producer's warehouse in Kazakhstan
- d) From producer's warehouse in the Kyrgyz Republic
- e) From wholesaler's warehouse
- f) From trucks sent by supplier
- g) Others (Specify:_____)

42. What is typically the cost of transport as a percentage of the value of consignment, including everything?

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43. What is typically the total cost of unofficial payments as percentage of total consignment value?

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44. What percentage of unofficial payments is paid at the border?

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45. What is the main source of barriers/hurdles on trade of goods?

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- a) Unofficial payments at border crossings
- b) Unofficial payments at customs clearance
- c) Controlled access to markets
- d) Availability of accredited laboratories
- e) Recognition of certificates of conformity

46. How often do employees of the firm travel for business reasons to Kazakhstan (i.e., Almaty, Korday, Taraz, or Shymkent) during a month?
(Skip to Section E after this question)

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- a) Almaty
- b) Taraz
- c) Shymkent
- d) Korday
- e) Others
47. If no transactions with Kazakhstan, do you buy/sell directly with firms in any other country?
(Yes = 1, No = 2)
48. Have you tried in the past to transact with firms in Kazakhstan?
(Yes = 1, No = 2; if no go to 50.)
49. Why did the deal not happen?
(Up to 2 answers)
- a) The price was not acceptable.
- b) The quality was not possible for me.
- c) The quantity was too large/too small.
- d) There was not enough trust between us (timely delivery, quality, payment, etc.).
- e) I did not have enough funds to arrange the transaction.
- f) There were too many bureaucratic barriers in doing the deal.
- g) Others (Specify _____)
50. Why have you not attempted to buy/sell directly from firms in Kazakhstan?
(Up to 2 answers)
- a) It is not profitable for me to sell there because the price is not good enough.
- b) It is not profitable for me to buy/sell there because the cost of transport is too high.
- c) There are too many bureaucratic procedures to buy/sell outside.
- d) I do not know anyone there with whom I can do business.
- e) I am fully busy catering to the market in Bishkek and cannot expand more.
- f) I can buy all of my inputs at a good price in Bishkek.
- g) I have a good relationship with suppliers in Bishkek, and I can follow up with them if there is any problem.
- h) Others (Specify _____)

Section E: Others

51. Do you interact regularly with businesspeople from:
(Yes = 1, No = 2)

- a) Almaty
- b) Taraz
- c) Shymkent
- d) People's Republic of China
- e) Russian Federation
- f) Other countries

52. What do you identify as the 2 biggest obstacles to being able to sell to or to buy from firms in Almaty/Taraz/Shymkent?

53. What actions should the government take to help you become more competitive in trading with other countries?

54. Looking ahead over the next 3 years, how optimistic are you about your business' profitability and growth?
(Very optimistic = 1, Optimistic = 2, Neutral = 3, Pessimistic = 4, Very pessimistic = 5)

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Operationalizing Economic Corridors in Central Asia

A Case Study of the Almaty–Bishkek Corridor

This report builds on the long-term strategic framework of the Central Asia Regional Economic Cooperation (CAREC) Program to operationalize economic corridor development (ECD) in the Central Asia region. Its two objectives are to (i) customize the ECD concept to the unique context of the region, and (ii) identify specific areas where ECD may be piloted. The study provides a detailed but preliminary exploration of a specific segment of CAREC Corridor 1—the Almaty–Bishkek Corridor—to assess its potential as a pilot for ECD, and outlines steps to be taken over the next 12 months to develop this corridor.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to approximately two-thirds of the world's poor: 1.6 billion people who live on less than \$2 a day, with 733 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

About the Central Asia Regional Economic Cooperation Program

The Central Asia Regional Economic Cooperation (CAREC) Program is a practical, project-based, and results-oriented partnership that promotes and facilitates regional cooperation in transport, trade, and energy. CAREC comprises 10 countries: Afghanistan, Azerbaijan, the People's Republic of China, Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan. Six multilateral institution partners support the work of the CAREC member countries: the Asian Development Bank (ADB), European Bank for Reconstruction and Development, International Monetary Fund, Islamic Development Bank, United Nations Development Programme, and World Bank. ADB serves as the CAREC Secretariat.

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