Global Value Chains along the New Silk Road

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Central Asia is opening up rapidly with the completion of new transport corridors. Providing a passageway for goods between east and west, however, cannot be its main goal. It needs to attract investment to diversify its economies from petroleum and other natural resources. Other parts of Asia have developed by linking with global value chains. This may be an option for Central Asia, but it must overcome some serious barriers to make that a reality.

Opening up Central Asia

In late 2014, a cargo train departed from Yiwu, a city located south of Shanghai, and traveled west for 3 weeks across the Asian-European landmass before arriving in Madrid. Covering a distance of over 10,000 kilometers, it passed from the People's Republic of China (PRC) through Kazakhstan, the Russian Federation, and other countries before finally reaching Spain. After offloading its goods for the Christmas market, it was reloaded with Spanish products and returned to complete the maiden round-trip journey on the Yiwu–Xinjiang–Europe cargo line.

This line and other routes are opening up trade between east and west via a continental land bridge through Central Asia that is referred to as the New Silk Road (or Route). The 3-week train trip from the PRC to Europe is much quicker than the 8-week journey by ship and much cheaper than airfreight. While beneficial to the economies at either end of the route, a key concern is what benefits it will bring to the economies of Central Asia. They will benefit from transshipment, servicing, and refueling activity and from better access to markets for their natural resources and agricultural products. But can the opening of the route spawn deeper and more diversified manufacturing and service sector development within Central Asia?

This was a central question discussed at the workshop “Central Asia’s Economic Opportunities: Economic Corridors and Global Value Chains” in Urumqi, PRC. The event was the inaugural training workshop of the CAREC Institute whose physical base was officially opened just prior to the workshop. Government officials from the 10 member countries of the Central Asia Regional Economic Cooperation (CAREC) participated in the workshop, which was co-organized with the Asian Development Bank Institute and the Asian Development Bank.

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The workshop was co-organized by the CAREC Institute, the Asian Development Bank Institute, and the Asian Development Bank. Presentation materials are available at http://www.adbi.org/event/6611.central.asia-economic.opportunities/
Linking to global value chains

One strategic approach to developing their economies and maximizing benefits from the New Silk Road would be to link up with global value chains (GVCs), also known as global production networks. Production and exports from Central Asia currently are concentrated in petroleum, minerals, and agricultural products, although there is considerable diversity among the countries (Table 1). Central Asian governments would need to attract investment from global companies that would be interested in locating parts of their value chains in these economies. This may not be easy, however, given that many of the countries are landlocked.

The PRC and countries in Southeast Asia have been able to grow and industrialize by attracting investment linked to GVCs. They have benefited from the production strategies of firms from high-income economies in both the East (Japan, Republic of Korea, Singapore, Taipei, China, and Hong Kong, China) and the West (United States and Europe). This process of expanding global production networks and the increased geographical fragmentation of production has been part of a key change in the way that low- and middle-income economies have industrialized and developed over the past 3 decades. This process, led by multinational corporations, means that multi-component goods are designed in one country, have parts produced in many others, and are assembled at a final location. The output is then sold globally—both to countries that contributed to the production and to those that did not. Corporations employ these production strategies to benefit from local production advantages.

The changing patterns of production are evident in global trade statistics. The share of global value-added trade accounted for by developing countries increased from 20% to over 40% in 1990–2013, although poorer developing countries still struggle to gain a role.

Table 1  Central Asian economies: income, economic growth, and exports

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP per capita, 2013 ($)</th>
<th>Average annual GDP growth (%)</th>
<th>Main exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazakhstan</td>
<td>13,610</td>
<td>6.92</td>
<td>Crude petroleum (55.0%), refined petroleum (4.9%), refined copper (4.3%), ferroalloys (4.3%)</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>7,987</td>
<td>10.61</td>
<td>Petroleum gas (81.0%), refined petroleum (10.0%), non-retail pure cotton yarn (2.3%)</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>7,812</td>
<td>12.92</td>
<td>Crude petroleum (88.0%), refined petroleum (4.3%), petroleum gas (1.1%)</td>
</tr>
<tr>
<td>Mongolia</td>
<td>4,056</td>
<td>9.23</td>
<td>Coal briquettes (37.0%), copper ore (23.0%), iron ore (13.0%), crude petroleum (9.4%), gold (4.3%)</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>1,878</td>
<td>8.16</td>
<td>Raw cotton (15.0%), cars (15.0%), refined copper (9.3%), non-retail pure cotton yarn (6.6%)</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1,275</td>
<td>4.29</td>
<td>House linens (10.0%), non-retail pure cotton yarn (9.2%), rice (7.9%), non-knit men’s suits (4.3%)</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>1,263</td>
<td>4.57</td>
<td>Gold (34.0%), refined petroleum (6.9%), delivery trucks (4.6%), non-knit women’s suits (3.4%)</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>1,037</td>
<td>7.23</td>
<td>Raw aluminum (59.0%), raw cotton (12.0%), lead ore (3.8%), other ores (3.7%), dried fruits (3.6%)</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>665</td>
<td>8.71</td>
<td>Raw cotton (150%), coal briquettes (11.0%), grapes (9.7%), scrap iron (9.2%), insect resins (7.2%)</td>
</tr>
</tbody>
</table>

GDP = gross domestic product.
Central Asia’s integration in global value chains

Central Asia has been able to attract an increased flow of foreign direct investment (FDI) over the past decade, although much of this has gone into countries with a large petroleum sector (Fig. 1) with less investment in manufacturing (Fig. 2). This investment pattern has shaped export patterns with some countries largely dependent on petroleum exports (Fig. 3). There have been investments in GVC manufacturing as well, although this is still at the initial or nascent stage. The key GVC sectors globally are in multicomponent goods such as automobiles and electronics. Automobile production is established in several Central Asian countries as joint ventures with foreign producers. The most notable is General Motors Uzbekistan, which is a venture with UzAvtosanoat to produce GM cars from knock-down kits. Production began in 2008 and in 2011 the companies formed another joint venture, GM Powertrain Uzbekistan, to make engines for use in GM cars assembled in the country and for export. Similarly, Toyota entered into a partnership with Saryaka AvtoProm in 2014 to assemble knock-down kits of the Fortuner, an SUV, in Kazakhstan. It is the first production operation of Toyota in the five core Central Asian republics.

Less complex goods are also produced through value chains. Textiles and garments, the most basic manufactured products, are made in several Central Asian countries. In some cases, they are produced largely from domestic inputs, such as in Pakistan where cotton is grown and turned into fabric. Elsewhere, production is part of a regional value chain. In the Kyrgyz Republic, for example, synthetic fabric is imported mainly from the PRC and made into clothing that is exported and sold in Kazakhstan and the Russian Federation. Garment exports grew rapidly from $15 million to $155 million in 2003–2012 and the sector employs more than 100,000 workers in the Kyrgyz Republic (Jenish 2014). Many of the producers are domestic firms and thus the sector does not rely on foreign investment.

Central Asia is also competitive in the production of processed agricultural products. Food can form an important part of export-based manufacturing as shown by New Zealand (e.g., dairy), Thailand, and other countries (Vandenberg and Kikkawa 2015). The processing of these products can help to expand manufactured output and diversify the production and export structure. The majority of Kazakhstan’s exports to other Eurasian Customs

![Graph showing foreign direct investment, selected years, 1995–2013](source: World Bank Databank (2015).)
Union countries are foodstuffs, such as milk products, livestock, and fruits and vegetables (Tynaliev 2015). However, these products are not necessarily part of global value chains but are based on domestic resources and are produced almost entirely from domestic inputs, even if they might be sold abroad.

Policies for global value chain investment

To ensure that Central Asia is not only a transportation corridor but also a region for goods and services production, countries can seek to attract investment in GVCs. Governments can support such investment with policies and investments in several key areas.

Infrastructure: To overcome the constraints of geography, it is imperative that Central Asia build modern transportation infrastructure. Producers in GVCs need to ship parts, components, supplies, and finished goods quickly and cheaply both within the region and to other regions. Most of the GVC production hubs in the PRC (eastern coastal cities) and Southeast Asia (e.g., Bangkok, Ho Chi Min City, Manila, and Singapore) have access to ocean shipping which allows for low transport costs. Central Asia does not have such access (Yang 2015). Eight Central Asian countries are landlocked, constituting about one-fifth of the 44 landlocked countries in the world. Indeed, Uzbekistan is one of only two doubly-landlocked countries, meaning that all of its neighbors are also landlocked. To overcome this problem, the region needs to rely on building good quality road and rail infrastructure, as well as efficient air transport. Intraregional transport networks also need to connect through countries to ocean ports. The development of land transport corridors through the PRC, as mentioned at the beginning of this brief, and through Pakistan can provide the vital link to ocean shipping. The China–Pakistan Economic Corridor will link Kashgar in northwest PRC to Gwadar Port about 3,000 kilometers to the south on the Arabian Sea.

Trade facilitation: As a result of political and ethnic tensions, Central Asian economies have sometimes built walls at borders, prohibited vehicles registered in one country from crossing to another, and required goods to be unloaded and checked at border crossings (Jekic 2015). These issues need to be addressed through bilateral discussions and concerted policy action.

Furthermore, trade in GVCs requires efficient soft infrastructure at the
borders so that goods can pass efficiently. Low tariff rates and simplified and efficient border procedures are required. A number of countries have recently joined the World Trade Organization (WTO), which provides a commitment to low tariffs and offers access to the other 160+ WTO members. While securing WTO membership is important, there are many subsequent commitment actions that need to be put in place. Tajikistan, which acceded in 2013, has been proactive in trying to fulfill these commitments. Other countries are in the process of seeking accession.

The WTO arrangements are complicated by the development of regional trading blocs, notably the Eurasian Economic Union that includes the Russian Federation, Belarus, Kazakhstan, Armenia, and the Kyrgyz Republic. The bloc includes a customs union, which proposes a higher common external tariff on some goods. WTO members in the bloc will need to provide compensating measures (low tariffs on other goods) to remain compliant with the WTO.

**Business environment:** Countries need to provide a conducive business and regulatory environment to attract foreign investment in GVCs. This can be a challenge due to instability within the legislative system that plagues some countries, as well as differential rights for foreign investors in regard to private property, administrative regulations, and tax regimes, which together can create disincentives for investors in Central Asia. In addition, the development of industrial parks or zones with clear and streamlined investment procedures have been employed successfully in the PRC and many parts of Southeast Asia to attract foreign investment.

**Supporting businesses, notably SMEs:** Foreign GVC production plants require a range of supporting services and input manufacturers. They are often provided by domestic small and medium-sized enterprises (SMEs) but also foreign SMEs from the country of the main GVC investor. Domestic firms also act as joint venture partners. Government policy support to the development of a vibrant SME sector can therefore help attract investment and ensure that the value chain establishes deep domestic roots. Specific policies and programs include facilitating access to credit and identifying and securing key technologies.

**Wage rates and skilled labor:** A key motivating factor for global firms to diversify investment locations is to reduce costs, notably wages. Thus, governments need to manage a competitive wage environment. Many countries in Central Asia do have low wages, although in some cases the reservation wage is pushed up by wages available to migrants in other countries. The two large labor-sending countries, Tajikistan and the Kyrgyz Republic, send many workers to the Russian Federation. The skill level of

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**Fig. 3 Export composition, 2014 (%)**

Note: Data for Afghanistan and the Kyrgyz Republic from 2013; data for Tajikistan and Turkmenistan from 2000.
the labor force is also important for attracting GVC investment, notably in higher value products. Government policy can provide a solid foundation of basic education and a system of vocational training that equips workers with skills relevant to the job market.

Conclusion

The emergence of the New Silk Road is streamlining trade between the major economic hubs of Asia and Europe, including the Russian Federation. Central Asia is developing the connections to make the new road viable, but it should also seek to encourage productive investment along the road. Participating in GVCs can help in this regard and will ensure a transition from being a supplier of natural resources and raw materials to becoming a manufacturer of goods and services.

Note

1. Liechtenstein is the other doubly-landlocked country and is a micro state of 35,000 people.

References


