

## TRADE PROSPECTS BETWEEN INDIA AND CENTRAL ASIA

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*There is significant potential for improving trade in commodities and services between India and Central Asia. This document identifies the constraints of trade in this region and suggests policies that could be implemented to overcome these constraints and increase bilateral trade.*

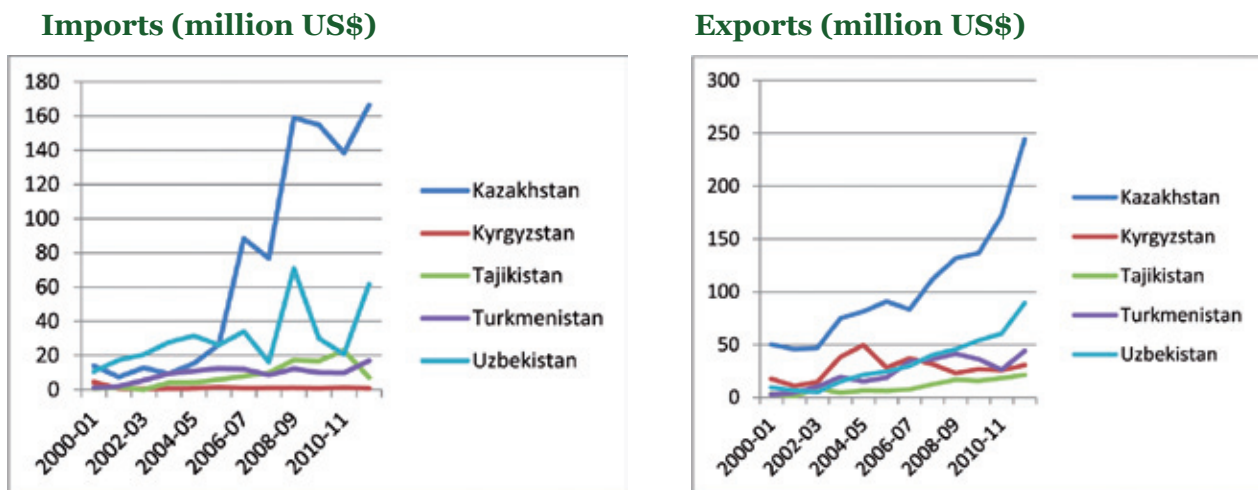
### BACKGROUND

The current global economic outlook in developed nations has increased the importance of South-South bilateral trade relationships. Given the nature of instability in different economies, it is imperative that countries consider diversifying their trading partners. In this context, we assessed the potential for improving the bilateral trade relationship between India and five Central Asian countries—Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan.

India is an emerging market economy undergoing industrialisation, while Central Asia is rich in minerals and raw materials. Most Central Asian countries are small economies heavily dependent on imports. Therefore, the potential for trade between India and Central Asia is high. In fact, the bilateral trade between India and the five Central Asian countries has been increasing since 2000 (Figure 1).

Trade is currently highest with Kazakhstan, which is the largest and richest country in the region. India's exports to Kazakhstan increased five times from 2000 to 2012. There has been only limited increase in India's exports to the other four countries—Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. In terms of imports too, Kazakhstan has been the leading trading partner of India. Uzbekistan's exports to India have been rising for most of this time frame. The imports from the other countries have been smaller and rising

Figure 1 India's bilateral trade with Central Asia



Source: Ministry of Commerce, Government of India (2013)

more slowly. Nevertheless, the share of trade between India and Central Asia continues to be small. For none of the five Central Asian countries, bilateral trade with India exceeded 2% of their total foreign trade during the last 12 years.

## TRADE POTENTIAL INDEX

We construct a trade potential index using the framework of gravity model of international trade. In its simple form, the gravity model suggests that bilateral trade between two countries is directly proportional to the GDP of both the nations and inversely proportional to the distance between them. If the two countries are  $i$  and  $j$ , then gravity model can be represented as

$$Trade_{ij} = GDP_i \times GDP_j / Distance_{ij} \quad (1)$$

The GDPs of the two countries represent the size of the countries that act as a proxy for production capabilities and market size. Distance is a proxy for the cost of freight and the time taken to transport goods plus other costs incurred in trade. An econometric model of India's bilateral trade with the rest of the world between 1996 and 2012 is created based on the equation above. The output generated by this model provides significant insights into India's foreign trade scenario. We use this model to predict the trade between India and Central Asia and calculate the trade potential index at different time periods ( $t$ ):

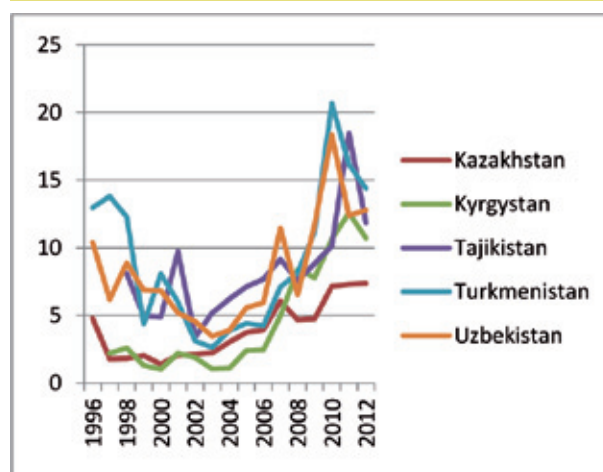
$$Trade\ Potential\ Index_t = \frac{Predicted\ trade\ from\ Model_t}{Actual\ bilateral\ trade_t} \quad (2)$$

If the trade potential index is more than 1, the actual trade is lower than the volume of trade predicted by the model. This implies that under the current conditions of the size of the economies and the distance between them, there is potential to increase bilateral trade between the two countries. If this index is less than 1, then the trade feasible in a particular scenario has been achieved and the possibility of increasing trade is low. It is, however, more instructive to focus on the direction of change of the trade potential index rather than on the absolute numbers since they depend on

the details of the model specification to some extent. If the trade potential index is decreasing, there is a convergence of potential trade and actual trade and the untapped potential for trade is being realized. On the other hand, an increasing trade potential index implies a divergence between the actual and the potential trade, and the untapped potential for trade is rising over time. This scenario calls for an examination of the reasons for the shortfall of bilateral trade and appropriate policies to remedy this situation.

We first calculated the trade potential indices for trade between India and the Central Asia countries using predicted trade when the model uses the shortest actual physical distance between the countries, which is via Pakistan and Afghanistan (Figure 2).

**Figure 2 Trade potential indices between India and Central Asian countries using shortest physical distances**



When potential trade is calculated using actual physical distances, the potential trade indices between India and Central Asia averages around 10, which is much greater than 1; hence, there are substantial opportunities to improve bilateral trade between the countries. Kazakhstan has a lower trade potential index, averaging about 5, compared to other countries—because the volume of trade between India and Kazakhstan is reasonably large—although there is considerable scope for further improvement. There is an upward trend in the trade potential index, particularly after 2000, which implies that the gap between actual and potential trade is increasing. In other words, there is scope for India to increase trade

with Kazakhstan. Kyrgyzstan has the next higher trade potential index, while it is still higher for Tajikistan, Turkmenistan, and Uzbekistan.

For Tajikistan, Turkmenistan, and Kazakhstan, the trade potential index was rather high in 1996, followed by a decline—which reflects a convergence of actual trade and predicted trade—until about 2000 to 2002. Since then, however, the trade potential index has increased. Actual trade has increased in this period, but less than the potential trade predicted by the model. This is because the GDPs of India and Central Asian countries have increased in this period but trade between them has not kept pace.

Finally, the trade potential index has declined for all countries after 2010 or 2011. This is a signal of increase in the value of bilateral trade in this period. This could be the start of a phase of convergence between actual and predicted trade between India and Central Asia. However, as the magnitude of the trade potential index is still substantially greater than

1, there is still huge, untapped potential for improving bilateral trade between India and this region.

## TRADE ROUTES AND TRADE POTENTIAL

Some of the frictions to trade between India and Central Asia are political turmoil and security problems in Afghanistan and an adverse political relationship between India and Pakistan. This does not enable trade via the shortest routes through these countries. This leads us to the question: what happens to the trade potential if the shortest route of trade is not feasible? We attempt to assess and compare the trade potential index in the three scenarios: the shortest distance, and the current trade route via China (goods travel by ship from Mumbai or Chennai to Guangzhou port in China and then by train to Kazakhstan) and the trade route via Iran that is proposed to be opened in the near future.

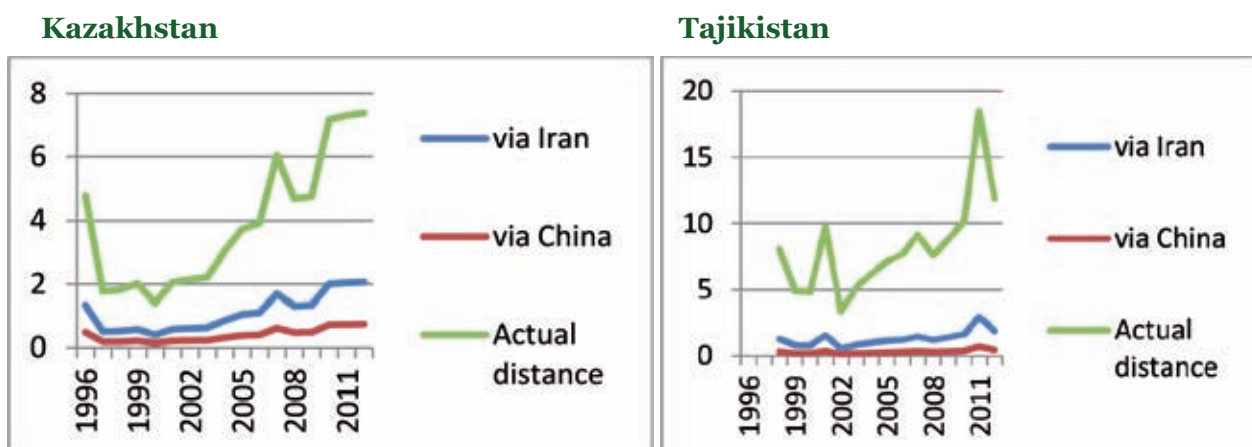
The trade potential indices for all three of the routes for India's trade with Kazakhstan and Tajikistan are shown in Figure 4 (results for the other three countries are similar but not shown for brevity).

Figure 3 Potential trade routes between India and Central Asia



Source: Google Maps

Figure 4 Trade potential index for trade via Pakistan, Iran, and China



The trade potential indices for all three routes show a similar pattern: these fell from 1996 to 2000 or so and rose since then (Tajikistan shows a decline after the 2008 crisis in the US and Europe). This shows that trade has not kept pace with increasing GDP of the countries after 2000. Interestingly, while the potential trade index is very high for trade via the shortest route (7 and 12 for Kazakhstan and Tajikistan for 2011), suggesting trade is much below potential, it dramatically reduces to less than 1 when we use the actual distances faced by the traders who mostly use the route via China (or even longer routes via Europe). In other words, actual trade is more than the trade predicted by this model and, hence, the potential for further increase in bilateral trade is very slim when traders face longer distances via China. While these problems seem unlikely to be resolved soon, trade distances and costs will go down considerably once the proposed rail and road routes from Iran to Central Asia are developed in a few years. The potential trade indices for the route via Iran is seen (Figure 4) to be close to 2 for 2011, compared to less than 1 through China and about 7 to 12 via Pakistan, implying that the potential trade via Iran would be 2 times and via Pakistan, 7 to 12 times the current actual trade.

## CONCLUSIONS & POLICY RECOMMENDATIONS

India should encourage trade with Central Asia—a resource-rich and strategically located region—and should welcome bilateral or regional trade agreements to facilitate it. Current trade between India and Central Asia is very low: our trade potential analysis explains that this is almost entirely because merchandise has to travel very large distances as trade has to be conducted via China or Europe. It is unlikely that trade between India and Central Asia would prosper on these routes. But once the proposed trade route via Iran becomes operational, trade with Central Asia can be expected to increase about two to three times, as the distance would be significantly shortened. Thus, it is desirable that agreements with Iran are formulated to create an enabling environment for this proposed route. Should the security and political issues in and with Afghanistan and Pakistan be resolved over time, trade with Central Asia could increase to about five to ten times the current levels. Meanwhile, we should focus on items that can be transported by air (pharmaceuticals, tea, coffee and spices, frozen meats), trade in services (IT and BPO services), use investments to produce some of the items in Central Asia (e.g., vehicles, textiles and garments), and invest in Central Asia (especially Kazakhstan) in many industries of mutual benefit (vehicles, textiles and garments, joint oil and gas explorations).

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