

Uzbekistan

Martin Reiser and Dennis DeTray

Uzbekistan: On the Slow Lane of the New Silk Roads?

In the broad sweep of history, Uzbekistan's current stance on trade is an anomaly. From the days of the famed Silk Road beginning in Roman times, the area that is now Uzbekistan has been an important transit route for trade and itself an active trader. More recently, Russian trade with the region grew rapidly through the



eighteenth and nineteenth centuries, so much so that Russia thought it necessary to secure the region by occupying Tashkent in 1865. The Great Game, so aptly described in Peter Hopkirk's classic of the same name, was about trade or the prospects for trade. Greater Central Asia, Uzbekistan in particular, was and is the land bridge between many of the world's great cultures and trading partners: Russia to the north, China to the east, India to the South, Iran and then Europe to the west.

Even today the Uzbeks' trading heritage is evident to anyone visiting the Uzbek portion of the Ferghana Valley. Following the breakup of the Soviet Union Uzbekistan lost its protected markets in the Soviet Union.

Almost overnight huge ceramics factories went from producing for the massive Soviet market to producing for no one. Yet the instinctive entrepreneurial spirit of the Uzbek people found ways of using the abandoned factories and, more importantly, discarded skills and expertise to produce tradable goods. Today it is policy, not motivation or culture, that keeps the Uzbek people from assuming their place among the world's great trading nations.

With its illustrious trading history, why is Uzbekistan today a major barrier in the efforts to increase trade across the Greater Central Asia? The reasons lie in what changed and what did not change following independence on 1 September 1991. Change came in the form of a series of programs launched by President Karimov to reduce, if not eliminate, Uzbekistan's dependence on others. Self-sufficiency was the touchstone of Uzbek economic policy and import substitution its key instrument. But experience in many other countries and regions shows that inward-looking policies tend to produce economies that are distorted and inefficient, making it ever more difficult for those economies to open up. This is the position in which Uzbekistan finds itself today.

What did not change following independence were Uzbekistan's location and its population. Uzbekistan remains an important bridge for transport from south to north and from east to west, just as it was in the days of the Silk Road. However, the infamous Central Asia borders drawn in 1924– the jigsaw that carved up the Ferghana Valley, for example – impeded the flow of transport routes, roads, rail, rivers, ignore national boundaries. What this means is that getting around Uzbekistan is expensive. Uzbekistan is also the most populous of the Central Asian states, making it a potentially important internal market for the region.

As Uzbekistan's neighbors have begun to embrace the opportunities brought by opening up to the world and as the world's major trading powers discover Central Asia's potential for trade and transit, the opportunity costs of maintaining Uzbekistan's position have visibly increased. At the same time, the situation may be slowly improving, which creates opportunities for Uzbekistan and for the region.

The New Caravan Sarais: Trade and Transit Opportunities for Uzbekistan in the Greater Central Asia

Some of the ancient world's most glorious and rich cities lie on the territory of today's Uzbekistan: Bukhara, Samarkand, Khiva. These were major oases along the Silk Roads, and their rulers grew rich by offering protection to traders, providing storage facilities, and hosting important bazaars. The wealth of ancient Central Asia was built on trade. Can today's Central Asia become again a major element along the new Silk Roads?

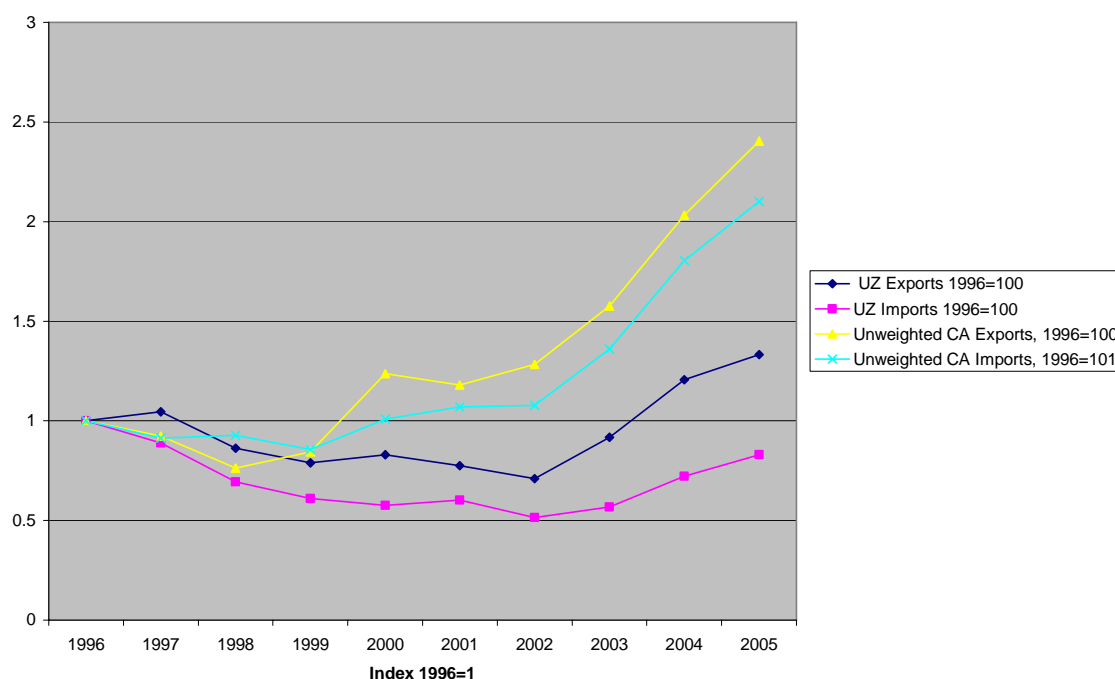
There are different ways of estimating the potential benefits of greater international trade and integration for the countries of greater Central Asia. The existing literature has tended to focus on the following three potential benefits:

- An increase in the overall level of exports and imports as a result of the opening up of the economy, providing for greater foreign exchange revenues and at the same time greater access to foreign technologies and know-how.
- A re-orientation of trade flows away from traditional trading partners (i.e., the former USSR), increasing access to the more dynamic and competitive markets of Europe and Asia.
- An increase in trans-continental transit trade through Central Asia as the ancient silk routes are revived and cargo transit from China to Europe and from Russia to South Asia is routed through the reemerging East-West and North-South trade routes.

Greater Openness Overall

In general, the past 15 years have seen a significant opening up of the region, when measured in total trade volumes. Chart 1 shows that Uzbekistan was initially an exception to this trend, but since 2002 the country has started to catch up in terms of total export and import levels.

Chart 1 - Uzbekistan and other Central Asia, Import and Export Performance since 1996



Source: World Bank Development Indicators Database

Today, Uzbekistan's total trade stands at around 70% of GDP at market exchange rates, a little below the CIS average but well up from the low of just 50% recorded in 2002.

Nonetheless, it appears that Uzbekistan is still not fully utilizing its potential to trade both regionally and with the global economy. Those living on or near its borders would attest to this. Various attempts have been made to estimate Uzbekistan's predicted level of openness.¹ According to IMF calculations, the ratio of actual to potential trade (using imports + exports) was around 0.6 in 2003.² Estimates of the same magnitude are reported in the EBRD Transition Report.³ Broadman⁴

¹ This is done by regressing the share of exports or the combined share of exports and imports in GDP against the size of a country (population), its income level (GDP per capita), and some other controls (country dummies and in some cases estimates for the distance to the major foreign markets).

² IMF Staff Report, Uzbekistan, May 2005, Washington DC, Selected Issues, p. 15 (unpublished).

³ Transition Report: Transition and International Integration. EBRD, November 2003, London, p.87.

runs a similar calculation, but does not present actual to potential trade ratios because of concerns over measurement errors in the Uzbek data.⁵ The IMF calculations are particularly interesting because they suggest that one of the main reasons for Uzbekistan's "under-trading" relative to potential may lie in its own restrictive trade policies, and that with trade policies as liberal as those in the rest of the CIS, Uzbekistan could increase its overall trade by at least \$ 2 billion.

Taking statistical under-reporting into account, and with the recent significant rise in exports and imports, it is safe to assume that Uzbekistan's total level of openness still falls around 10-20% short of its potential. Over the period to 2015, for instance, this implies potential increases in Uzbekistan's exports and imports from \$ 9 billion today to around \$ 15 billion if GDP continues to grow at the historical average (1998-2005) of 5 percent. One may assume that a large share of the increase in openness in the future will come from growth in trade with non-traditional trading partners, including Uzbekistan's neighbors to the south.

Geographic Reorientation of Trade

For Uzbekistan, as a former part of the Soviet Union, the geographic reorientation of trade away from other former Soviet republics towards market economies in Western Europe, South and East Asia, and beyond has significant potential benefits. Greater trade with market economies, whether in the industrialized or developing world, entails access to modern technologies and the greater exposure to competition and innovative business practices. Growth in trade with non-traditional partners could help increase Uzbekistan's share in world markets and may allow consecutively for the deepening of economic relations and

⁴ Broadman, Harry. *From Disintegration to Reintegration: Eastern Europe and the Former Soviet Union in International Trade*. The World Bank, 2005. Washington DC, p.103, footnote b.

⁵ Indeed, the IMF's Direction of Trade Statistics on which all of the above calculations are based seem to suffer from significant under-reporting of Uzbekistan's foreign trade. It recorded exports of just US\$2405 million in 2003, against actual exports of US\$ 3725 million as per Uzbekistan's balance of payments.

Uzbekistan's gradual movement up the value chain. The experience of eastern European countries suggests that such a transition is possible, and the geographic reorientation of trade has played a key role in this regard.⁶

Yet, reality hasn't met these positive expectations. As pointed out by Broadman, most of the countries of the former Soviet Union remain highly dependent on trade with Russia. Indeed, according to Broadman, a Russia-centered trade block seems to be re-emerging in the former Soviet Union and trade dependence on Russia has grown in recent years. Table 1 below presents the latest data on the direction of trade for Uzbekistan obtained from the IMF Direction of Trade Statistics.

This suggests that dependency on Russia has indeed remained significant, with around 22% of reported exports and 27% of reported imports respectively going to and coming from the Russian Federation. Both shares have increased in recent years and are now close to what they were in the mid 1990s.

By contrast, there seem to be huge unexploited trade opportunities, particularly with South and East Asia. As can be seen from Table 1, Uzbekistan's trade with India was around one tenth of its trade with China, and less than 5% of its trade with Russia, although India is closer than the main commercial centers of Russia and has a similarly dynamic economy. The numbers for Pakistan are also disappointing. For Afghanistan official numbers do not exist; unofficial numbers indicate growing trade mostly as exports from Uzbekistan, but still at levels well below Uzbek trade with its post-Soviet neighbors.

⁶ Broadman, Harry. *From Disintegration to Reintegration: Eastern Europe and the Former Soviet Union in International Trade*. The World Bank, 2005. Washington DC.

*Table 1a: Geographic orientation of imports (CIF, US\$ millions),
Afghanistan and Central Asia, 2004*

Imports from:	AFG	KAZ	KGZ	TJK	TKM	UZB	CA
Afghanistan	0	0	0	4	0	0	4
Kazakhstan	71	0	230	153	101	199	754
Kyrgyz Republic	8	73	0	18	8	24	129
Tajikistan	8	4	4	0	8	73	97
Turkmenistan	107	64	1	34	0	16	221
Uzbekistan	0	118	51	169	60	0	398
Total Imports from CA	194	259	286	377	177	311	1,604
Imports from CA as % of the total imports	10%	2%	21%	32%	6%	10%	6%
Iran	0	17	9	26	123	0	175
Pakistan	511	10	6	0	1	3	531
Russia	84	5,113	300	241	267	844	6,847
Total imports from WCA as % of the total imports	789	5,398	600	644	568	1,158	9,157
Imports from WCA as % of the total imports	39%	37%	45%	54%	21%	37%	36%
China	64	2,269	352	57	94	183	3,019
India	170	86	39	3	17	20	336
Turkey	78	391	72	38	236	160	975
United Arab Emirates	5	33	9	16	252	0	317
Total imports from WCA plus neighbors as % of the total imports	1,106	8,178	1,072	759	1,168	1,521	13,803
Imports from WCA plus neighbors as % of the total imports	55%	55%	80%	64%	43%	48%	55%
Total Imports (World)	2,002	14,776	1,341	1,191	2,737	3,144	25,190

Source: IMF Directions of Trade Statistics, International Monetary Fund, Washington DC, 2004.

* **Exports.** The exports for Wider CA are as reported by exporters (see table B5). Consequently discrepancies may be due to under-reporting of exports as well as to transport costs accounting for differences between fob export and cif import values.

*Table 1b: Geographical orientation of exports (FOB, \$US millions),
Afghanistan and Central Asia, 2004*

Exports to:	AFG	KAZ	KGZ	TJK	TKM	UZB	CA
Afghanistan		65	7	8	97	0	176
Kazakhstan	0		78	4	4	107	193
Kyrgyz Republic	0	191		4	1	46	242
Tajikistan	4	139	17		31	153	343
Turkmenistan	0	49	3	8		55	115
Uzbekistan	0	181	22	66	14		283
Total exports to CA	4	624	127	89	147	362	1353
as % of the total exports	2%	3%	18%	10%	4%	14%	5%
Iran	0	535	3	30	661	75	1303
Pakistan	45	1	0	0	8	6	60
Russia	4	3143	134	61	39	556	3937
Total exports to WCA	52	4303	264	179	855	999	6652
as % of the total exports	28%	21%	38%	20%	22%	40%	23%
China	1	2066	84	0	13	371	2535
India	39	13	1	0	9	26	88
Turkey	6	401	12	140	160	162	881
United Arab Emirates	4	280	198	0	124	0	606
Total Exports to WCA plus main neighbors	103	7061	559	320	1161	1559	10763
as % of the total exports	55%	34%	80%	35%	30%	62%	37%
Total Exports (World)	185	20814	703	915	3810	2524	28951

Source: IMF Directions of Trade Statistics, International Monetary Fund, Washington DC, 2004.

One way to assess the potential for increased trade with other regions is to use a so-called gravity model to predict bilateral trade flows between Uzbekistan and a range of other trading partners.⁷ These predicted levels of trade can then be compared to actual trade; the difference represents the unexploited trade potential or, in the case of Russia, for instance, the extent of “over-trading.”

Table 2 presents the ratio of predicted over actual trade for selected trading partners of Uzbekistan based on such a gravity model.⁸

⁷ The simple idea of the gravity model is that trade between two countries is higher the closer they are geographically and the bigger their respective economies. This model can be modified to include bilateral or multilateral trade barriers, both natural and policy induced. See Anderson, J.E. and E. van Wincoop (2003), “Gravity with gravitas: a solution to the border puzzle”, *American Economic Review*, Vol. 93, No. 1, pp. 170-192 for a recent influential theoretical derivation.

⁸ The model was calculated using data from 84 countries from 1997-2004. Unlike much of the extensive existing literature it includes all the transition economies, allowing us to make predictions for Uzbekistan without resorting to out of sample estimates. Moreover, the gravity model used here controls for a whole range of factors that may limit bilateral trade, such as borders, the extensiveness of infrastructure, the openness of the trade regime, and the quality of domestic institutions. The resulting ratios are thus estimates of the “pure” trade potential that remains unrealized even taking current policy conditions into account. Assuming changes in any of the policy variables that present obstacles to trade would increase the predicted level of trade even further, and thus enhance the trade potential. Details of the data and the estimation used can be found in: Babetskii, Ian, Oxana Babetskaya-Kukhartchuk and Martin Raiser, “Gravity and integration: determinants of international trade in South-Eastern Europe and the former Soviet Union”. Substantially revised version of EBRD Working Paper, No. 83, mimeographed.

Table 2: Potential trade as a percent of actual trade, Kazakhstan and Uzbekistan and selected trading partners

Kazakhstan					Uzbekistan				
Geo	iso	Export	Import	Total	Geo	iso	Export	Import	Total
Eastern Asia	CHN	113.4	91.6	102.1	Eastern Asia	CHN	79.4	127.5	94.8
Eastern Asia	JPN	648.5	662.0	654.6	Eastern Asia	JPN	549.1	621.1	577.7
Eastern Asia	KOR	176.5	96.9	126.4	Eastern Asia	KOR	135.2	21.5	40.1
South Asia	BGD	194.8	1438.4	294.7	South Asia	BGD	9.3	516.2	14.5
South Asia	IDN	1171.2	3696.5	1720.0	South Asia	IDN	1757.2	5386.6	2485.5
South Asia	NPL	N/A	N/A	N/A	South Asia	NPL	N/A	N/A	N/A
South Asia	PAK	4392.5	377.1	868.9	South Asia	PAK	348.4	355.9	351.0
South Eastern Asia	IND	2400.1	225.6	526.6	South Eastern Asia	IND	366.9	268.4	326.2
South Eastern Asia	MYS	1695.9	867.7	1171.4	South Eastern Asia	MYS	14543.9	472.6	1037.6
South Eastern Asia	PHL	22551.9	93972.5	35081.8	South Eastern Asia	PHL	N/A	8340.7	19042.2
South Eastern Asia	SGP	82582.2	1406.2	3128.0	South Eastern Asia	SGP	N/A	N/A	N/A
South Eastern Asia	THA	224.3	1326.4	373.4	South Eastern Asia	THA	2592.8	1874.0	2212.1
South Eastern Asia	VNM	86.6	4089.2	172.8	South Eastern Asia	VNM	105.2	2725.3	194.5
Russia	RUS	36.9	23.8	29.1	Russia	RUS	29.4	17.9	22.7

While the estimates in Table 2 should be taken with a degree of caution, they confirm the impression obtained from a casual observation of current trade flows that Uzbekistan is under-trading with South and East Asia by a factor of 10-15 times, with the notable exception of China, which has greatly increased its economic presence all over Central Asia in recent years, and South Korea, which has historically played an important role in Uzbekistan's economy. In monetary terms, and using the estimates of total trade of \$15 billion in 2015 derived above, Uzbekistan's trade with the Greater Central Asia region could amount to over \$10 billion in that year. Trade with India may grow to \$1.5 billion; trade with China could by that time exceed trade with Russia; and Iran, Pakistan and Afghanistan could together account for up to \$1 billion in Uzbekistan's external trade. This conclusion is independent of Uzbekistan's particular trade policies, as the reference data in the Table provided for Kazakhstan clearly reveal. Kazakhstan has the same under-exploited trade potential with South and East Asia, with China and South Korea again being the exceptions.

From a product and sector perspective, geographic diversification presents a further potential advantage. On the export side, the opening of new export routes competing with present outlets through Russia may reduce transport costs and thus increase producer netbacks in Central Asia. This is most obvious for oil and gas exports, but in Uzbekistan's case it also applies to cotton exports and, increasingly, to manufacturing. The opening of the Sarakhs-Meshed rail-link in 1997 has led to a gradual re-routing of Uzbek cotton exports to Bandar-Abbas.⁹

The Uzbekistan product composition of trade is dominated by commodities due to the low competitiveness of Uzbek manufacturing and services (Table 3).

⁹ It is estimated that around two thirds of the 2004 harvest was shipped through Bandar-Abbas. Recent geopolitical tensions with Iran have however increased the risk premium on shipments through Iranian ports and Russia has taken advantage of this situation (and Uzbekistan's misguided cotton marketing campaign in 2005) to attempt to re-capture lost market share by offering long-term off-take contracts from Russian textile companies.

Table 3: Geographic and Product Composition of Uzbekistan's exports, 2003

HS product code	Total trade flow (million US\$)	Cumulative total (per cent)	Share of CIS countries (percent)
Exports			
5201 Cotton, not carded or combed	592	33.9	17.2
5205 Cotton yarn (not sewing thread) 85% or more cotton, not retail	128	41.2	8.7
7403 Refined copper and copper alloys, unwrought	113	47.7	0.0
7108 Gold unwrought or in semi-manuf forms	106	53.7	0.0
8703 Cars (incl. station wagon)	93	59.0	99.9
2711 Petroleum gases	86	64.0	100.0
5208 Woven cotton fabrics, 85% or more cotton, weight less than 200 g/m2	46	66.6	9.3
2844 Radioactive chem elements&isotopes, their compounds, mixtures&res	38	68.8	48.1
806 Grapes, fresh or dried	27	70.3	95.6
2612 Uranium or thorium ores and concentrates	26	71.8	0.0
7901 Unwrought zinc	23	73.1	12.0
7112 Waste & scrap of precious metal	20	74.3	0.0
2710 Petroleum oils, not crude	19	75.3	23.5
3102 Mineral or chemical fertilizers, nitrogenous	18	76.4	9.9
702 Tomatoes	18	77.4	100.0
7106 Silver,unwrht or in semi-manuf. form	17	78.4	0.0
7214 Bars&rods of iron/non-al/s, nfw than forged, hr, hd./hot-extruded	16	79.4	44.0
5209 Woven cotton fabrics, 85% or more cotton,weight over 200 g/m2	13	80.1	5.5
703 Onions, garlic and leeks, fresh or chilled	13	80.8	95.1
5601 Wadding of tex mat&art thereof;tex fib	12	81.5	97.4
3901 Polymers of ethylene, in primary forms	12	82.2	29.8
807 Melons (including watermelons) & papayas, fresh	12	82.9	99.7
2002 Tomatoes prepared or preserved	10	83.5	99.9
809 Apricots, cherries, peaches, nectarines, plums & sloes, fresh	10	84.1	100.0
6204 Women's suits, jackets,dresses skirts etc&shorts	9	84.5	0.0
5202 Cotton waste (including yarn waste and garnetted stock)	8	85.0	35.3
6110 Jerseys, pullovers, cardigans, etc, knitted or crocheted	8	85.5	0.3
6002 Knitted or crocheted fabrics, nes	8	86.0	1.4
713 Dried vegetables, shelled	8	86.4	33.8
6203 Men's suits, jackets, trousers etc & shorts	7	86.8	5.6
Imports			
8708 Parts & access of motor vehicles	165	8.0	2.2
8802 Aircraft, (helicopter,aeroplanes) & spacecraft (satellites)	136	14.7	4.0
3004 Medicament mixtures (not 3002, 3005, 3006), put in dosage	65	17.8	42.6
8411 Turbo-jets, turbo-propellers and other gas turbines	38	19.7	89.6
8471 Automatic data processing machines;optical reader, etc	38	21.5	2.1
8525 Television camera, transmissn app for radio-telephony	38	23.3	2.0
8413 Pumps for liquids; liquid elevators	37	25.1	16.8
2709 Crude petroleum oils	35	26.9	100.0
8433 Harvesting/threshing machinery,hay mower,etc	31	28.4	1.9
8430 Moving/grading/scraping/boring machinery for earth	29	29.8	11.6
4011 New pneumatic tires, of rubber	28	31.2	59.1
8703 Cars (incl. station wagon)	27	32.5	18.0
1101 Wheat or meslin flour	25	33.7	96.5
2608 Zinc ores and concentrates	24	34.8	93.4
8431 Machinery part (hd 84.25 to 84.30)	23	36.0	17.3
8429 Self-propelld bulldozer, angledozer, grader, excavator,etc	22	37.0	15.0

Source: Data collected from mirror statistics as reported in the UN-Comtrade Database, electronic release, Geneva, 2005.

This reflects in part the skewed nature of transportation costs, which strongly favor rail shipments over road transport, due to Russia railway discounts, infrastructure weaknesses, and to the burden of informal payments that make road transport uncompetitive.¹⁰ What manufacturing exports exist are largely concentrated on the Russian market and are supported by historically established technological and business links that have been revived in recent years.¹¹ Against this background, geographic diversification, and in particular the improvement in road links towards the Persian Gulf and the Indian Ocean, represent an opportunity to create new businesses linkages, import cheaper capital goods that allow the technological modernization of production, and find cheaper outlets for higher value added goods. For Uzbekistan, with Central Asia's largest population and hence its greatest manufacturing potential, these are particularly important opportunities.

Continental Transit Trade

Even greater than Central Asia's potential for trade with the wider region and its integration into the global economy is Central Asia's potential as a new land bridge on the Eurasian continent. The idea of reviving the ancient Silk Roads that once traversed Central Asia's oases and which brought great wealth thanks to caravan traders has captured the imagination of politicians both in and outside the region since the breakdown of the Soviet Union. Other chapters in this book attest to the vitality of this vision, even if precise estimates of the potential economic significance of transit trade through Central Asia are hard to come by.

The key to realizing the vision of a new land bridge between Europe, China and India across the greater Central Asia is the construction of new transport links. Investments in the twentieth century were almost exclusively directed towards integration with Russia. Presently, almost

¹⁰ Raballand, Gael "The Determinants of the Negative Impact of Land-Lockedness on Trade: An Empirical Investigation through the Central Asian Case". *Comparative Economic Studies* 45: 520-536, 2003.

¹¹ Luecke, Matthias and Jacek Roberts. "Comparative Advantage in International Trade for Central Asia", Kiel Working Paper forthcoming. Institute of World Economics, 2007, Kiel.

all roads still lead to Moscow. Today most of the attention is concentrated on unlocking the roads south from Central Asia, and providing access through the region to the new deep water port currently being built at Gwadar in Pakistan, as well as to the existing port of Bandar Abbas in Iran. In addition, Iran is developing a port to the east from Bandar Abbas at Chabahar, while Karachi remains Pakistan's main port and its commercial capital. Perhaps the greatest prize in developing the Southern routes lies in access to the vast Indian market. Yet, as noted elsewhere in this volume, this will depend on a lasting political settlement of the Kashmir issue. The available calculations on which we draw in this chapter do not factor in the possibility of direct access to India through Pakistan (see the chapter on India in this volume for initial estimates).

In its Report 2005 the Asian Development Bank¹² identified a total of 52 potential routes along the major North-South corridors to the above-mentioned ports (including also Port Qasim just east of Karachi), and provided cost estimates for the construction and rehabilitation of these routes (ADB did not look at the parallel north-south route through Azerbaijan and Iran and the direct Russia-Iran-Persian Gulf link through the Caspian Sea, which are discussed in other chapters of this volume). In making an estimate of investment costs and resulting reductions in vehicle operating costs ADB also took into account the quality of road conditions along each corridor in order to obtain more precise estimates of the returns on these investments. The results of this study are summarized in Table 4.

¹² "Report on the Economic Impact of Central-South Asian Road Corridors". Prepared for the Transport Committee of CAREC. Asian Development Bank (ADB), March 2005.

*Table 4: Key Impact of Central-South Asian Road Corridor
under Various Scenarios*

Note: Impact is due to corridor over without corridor.

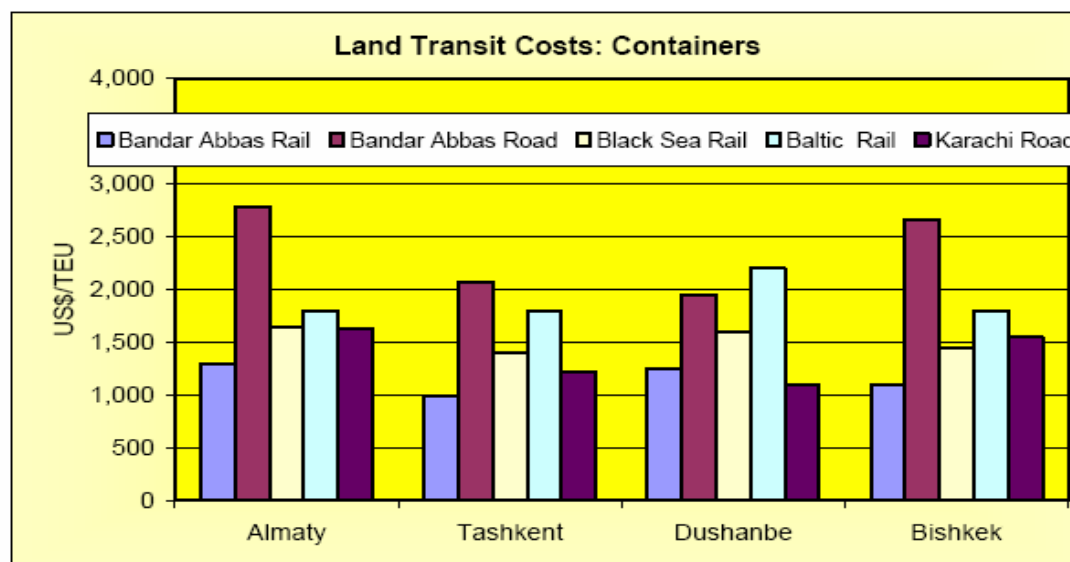
Item	Base Case (S0)	20% Reduction in Traffic Flow (S1)	20% Reduction in Voc Savings (S2)	20% Reduction in Average truck load (S3)	20% Reduction in Traffic Flow, Voc Savings and Average Truck load (S4)
Combined incremental regional trade growth 2002-2010 (%)	160	129	155	113	90
Combined incremental regional transit trade growth 2002-2010 %	111	93	111	89	75
Corridor investment cost (\$ million)	5639	5639	5639	5639	5639
Corridor investment as % of total investment	4.55	4.66	4.56	4.67	4.75
Annual travel cost saving/\$ of investment 2010 (\$)	0.31	0.25	0.25	0.31	0.20
Incremental annual GDP growth rate 2005-2010 (%)	0.43	0.35	0.42	0.34	0.28
Incremental annual GDP/\$ of investment 2010 (\$)	1.05	0.85	1.04	0.83	0.68
Incremental annual full time employment in 2010 (million)	1.86	1.50	1.85	1.48	1.20
Total incremental export growth 2002-2010 (%)	14	13	14	13	12
Total incremental import growth 2002-2010 (%)	16	15	16	15	14
Incremental revenue in 2010 (\$ million)	910	863	908	863	827

Source: "Report on the Economic Impact of Central-South Asian Road Corridors". Prepared for the Transport Committee of CAREC. Asian Development Bank (ADB), March 2005, p.3.
Voc = vehicle operating cost

These suggest that the benefits of investing in new road corridors through Central Asia would be very significant indeed. Investments totaling an estimated \$ 5.6 billion would raise total trade by some 15% compared with the no-investment case, or by some \$ 12 billion, by 2010. Of these, more than half are assumed to be gains in transit trade alone, with the remainder being increased trade from and to Central Asia as it expands relations with new trading partners. An illustration of the same argument is provided in Chart 2, which shows that the southern rail link

to Bandar-Abbas and the road link to Karachi would be highly competitive with northern and western routes to the Baltics and the Black Sea, if infrastructure and policy obstacles to using these routes could be overcome.

Chart 2: Trade-Transport Costs in Some Central Asian Republics



Source: "Trade and Regional Cooperation between Afghanistan and Its Neighbors." World Bank, Washington DC, February 2004, p. 39.

There are further significant transit trade opportunities related to the construction of a new East-West corridor from China across Central Asia, the Caspian, the South Caucasus and the Black Sea to Europe. Indeed, it is the East-West axis that was at the heart of such early concepts to revive the Silk Roads as the European Union's TRACECA initiative. Uzbekistan is one possible transit country along a new East-West route, which would progress along the Ferghana valley and connect to the Caspian port at Turkmenbashi in Turkmenistan. A rival proposal, and at this writing the most promising alternative, runs further North across Kazakhstan and on towards the port of Aktau. A railway link through Central Asia to rival both maritime transport and the Trans-Siberian railway through Russia would, in time, carry volumes of cargo from China to Europe valued at several billion dollars per annum.

For Uzbekistan, these calculations present both an opportunity and a challenge. The opportunity is that Uzbekistan sits at the center of Central Asia. With a less mountainous topography than that of the

Kyrgyz Republic or Tajikistan, it is a priori a preferred transit corridor for inter-continental North-South transit routes.¹³ This is further supported by the existing infrastructure, which provides railway access all the way from Moscow to Hairatan on the Afghan border (a new Japanese funded railway spur will by-pass Turkmenistan along this route, thereby reducing delays and potentially saving transit costs), an existing railway link through Turkmenistan to Bandar Abbas, as well as Central Asia's best road network (although in need of repairs, particularly en route from Karshi to Termez). It should be noted in further support of this point that Uzbekistan is already utilizing the southern route to Iran to a far greater extent than is Kazakhstan or the Kyrgyz Republic, which have both diversified their trade routes primarily in the direction of China.¹⁴

The challenge is that to the extent that Uzbekistan becomes a major transit route its present restrictive trade regime will come under increasing threat. The combination of tariffs and import excises raises the effective import tax level for some consumer goods in the Uzbek market to three digit levels. Such levels of taxation present extremely attractive arbitrage gains for traders, who may violate transit rules and offload non-declared cargo en route in Uzbekistan. Increasing transit trade would tend to increase the competition for rents in this lucrative business – a difficult political challenge, even if most Uzbek consumers would welcome such a change.

Energy Rransit and Trade

There is significant additional potential in new energy transport routes from and through the region. The Greater Central Asia region has substantial energy resources, although there are variations across

¹³ This geographical advantage is not so clear East-West, where Kazakhstan offers a link from China to the Caspian with just one border as opposed to three on the route through the Ferghana and Turkmenistan.

¹⁴ Ojala, Lauri. "Review of Inter-Regional Trade and Transport Facilitation in Europe and Central Asia Region, South Asia Region and East Asia and Pacific Region". Mimeographed, June 2005.

countries in the amounts and types of their energy endowments (see Table 5).

Table 5: Primary Energy Resources in Wider Central Asia (WCA) and Main Neighbors

Type of Reserves Countries \ Units	Crude Oil	Natural Gas	Coal	Total**		Hydro Potential	
	MTOE*	MTOE	MTOE	MTOE	% of Total	TWh/ year	% of Total
Afghanistan	-	-	-	-	-	-	-
Kazakhstan	5404	2700	19810	27914	77%	62	12%
Kyrgyz Republic	6	5	580	591	2%	99	19%
Tajikistan	2	5	500	507	1%	317	62%
Turkmenistan	74	2610	Insignificant	2684	7%	5	1%
Uzbekistan	81	1674	2851	4606	13%	27	5%
Subtotal Central Asian countries:	5567	6994	23741	36302	100%	510	100%
Iran	18068	24750	-	42818	21%	88	4%
Pakistan	-	718	1017	1735	1%	130	5%
Russia	9859	43200	68699	121758	60%	1670	70%
Subtotal WCA:	33494	75662	93457	202613	100%	2398	100%
China	2328	2006	58900	63,234	18%	1920	37%
India	759	831	60843	62,433	18%	660	13%
Turkey	-	-	1488	1,488	0%	216	4%
UAE	13340	5454	-	18,794	5%	-	-
Total for WCA plus main neighbors:	49921	83953	214688	348562	100%	5194	100%

Source: Central Asia: Regional Electricity Export Potential Study. World Bank, Working Paper, 33877, Vol. 1, Washington DC, 2004, p.1.

* Million Tons of Oil Equivalents.

** Does not include hydropower generation potential

There is great potential for regional energy development and trade which can benefit all of the countries of the region. Specifically, there would appear to be good prospects for development of hydroelectric resources in the countries with large potential, much of whose output could be exported to electricity-deficient countries to the south, notably Pakistan, as well as to Iran. Similarly, there are opportunities for natural gas trade

from gas-surplus countries like Turkmenistan and Iran to gas-deficit countries like Pakistan and India. New gas pipelines and electric transmission lines, while costly could generate hundreds of millions of dollars in transit revenues for the countries through which they pass.

Uzbekistan could play a critical intermediary role in the emerging continental energy trade. The country is self-sufficient in energy, thanks to its considerable natural gas reserves. Moreover, it is the center of the existing South Central Asian energy grid, with its central dispatch center in Tashkent. Uzbekistan's central position and availability of domestic thermal energy resources would allow it to draw on hydroelectric power imports in summer as well as for its own peak consumption¹⁵ while saving thermal resources for base load exports to the power-deficient countries further south. Moreover, Uzbekistan could earn considerable transit revenues from transiting Tajik and possibly Kyrgyz hydro-power once their hydro-capacity is fully developed. The main existing gas export pipeline also crosses Uzbekistan, giving the country additional leverage. If a southern gas export route from Turkmenistan is built, Uzbekistan could inexpensively connect its own gas reserves to such a project. One implication of these various opportunities is that Uzbekistan's own thermal resources are at a premium over the medium to long run. Energy saving in Uzbekistan is profitable business and would greatly increase the country's capacity to exploit export opportunities.¹⁶

Timing and Sequencing

The potential economic benefits of greater integration of the countries of post-Soviet Central Asia with Afghanistan and through it with South and East Asia are clearly significant. Yet, progress so far has been limited, and it seems for the moment that the forces championing

¹⁵ Because hydro power can be quickly turned on and off and marginal costs are essentially flat, it is generally the preferred power source for peak loads, as marginal costs of thermal generation increase steeply as capacity utilization increases.

¹⁶ See "Central Asia: Regional Electricity Export Potential Study." World Bank, Washington DC, 2004.

reintegration with Russia are stronger than the forces that support diversifying trade routes and economic opportunities. But in the long run the benefits of opening up are simply too big to be ignored. The message of many chapters in this book is that the time is ripe for bold policy moves to make the strategic vision a reality. In an effort to clarify why things may be moving more slowly than many would desire, we offer the following three caveats:

- Reintegration with Russia may entail important economic benefits.¹⁷ To the extent that Uzbekistan faces the need to prioritize investments and policy measures, looking north may have higher returns in the short run than looking south. The flip side of this argument is that the southern trade routes are hostage to the security situation in Afghanistan. Strategic vision requires low discount rates, which most Central Asian politicians do not have. The distribution of benefits over time is thus a weighty argument in timing and sequencing policy measures.
- In the short-term at least, there may not be room for more than one major new North-South and East-West corridor. Central Asian countries are engaged in a competition over whose territory the route will cross. Realizing these new routes requires country-to-country collaboration and enforcement mechanisms to prevent transit countries from attempting to capture all the transit rents once the investment has been made. In principle, competition should spur each country to offer the best conditions and the most reliable partnership. But intense regional rivalries have delayed the necessary cooperation. It behooves the major regional powers (China, Russia, and more recently Japan, Europe and the USA) and the multilateral organizations to play a coordinating role. To make the strategic vision a reality thus requires astute statesmanship and a benign international policy environment. Neither is assured.

¹⁷ Linn, Johannes and David Tiomkin. "Economic Integration of Eurasia: Opportunities and Challenges of Global Significance". CASE Center for Social and Economic Research paper, Warsaw, April 2005.

- The potential benefits of greater integration depend on the adoption of supportive policy measures. While the overall welfare effects of policy reform are positive, the distributional implications are usually not, raising significant political challenges that still need to be overcome – especially in Uzbekistan.

Against these caveats, the reintegration with Russia and the other former Soviet Republics represents a number of short-term advantages. First, links are well established along supply chains, with a high degree of asset specificity and concomitant costs of switching to alternative suppliers and customers. A good example in Uzbekistan is the Chkalov Aircraft factory in Tashkent, which builds planes using Russian intermediate inputs and markets these planes under the Ilyushin Russian brand. Such links are reinforced by a common working language, similar education systems, joint technical standards and, significantly, a common sense of pride for the technical achievements of the Soviet Union.

Second, for Uzbekistan, which has one of the most restrictive trade regimes in the region, re-integration with Russia may be a politically more expedient avenue towards opening up its domestic market and might thus represent a welcome intermediate step, its implementation aided by the greater short-term returns that re-integration with Russia may offer. From the perspective of Uzbekistan's leadership, in this direction the present geopolitical constellation would appear further to tilt the balance of benefits.

It would be wrong to see reintegration with Russia as an alternative to greater integration with South and East Asia. The two are clearly complementary rather than alternatives. Indeed, the first best option for Uzbekistan would be a policy of unilateral liberalization of trade with all its partners. However, political choices involve compromises and sequenced steps. Importantly, the relative weight of the associated economic costs and benefits does influence the sequencing of policy measures. International actors wishing to leverage the realization of the Greater Central Asia vision need to bear in mind these considerations.

Obstacles to Uzbekistan's Greater Integration with Continental Trade Routes

As the ancient traders gathered around their fires in the evening, tales abounded of obstacles they had encountered, bandits they had avoided or fought, desert storms they had braved, and water holes that had disappeared. Hundreds of years later there are still many tales to be told about obstacles along land-transport and transit routes through Central Asia, obstacles that stand in the way of realizing the potential we reviewed above.

In discussing the impediments to regional and transit trade in Greater Central Asia, we return to the gravity literature for helpful guidance. Gravity models can be specified, for instance, to include a host of barriers to trade induced by infrastructure, geography, culture, and policies.

One consistent result of recent gravity studies is that so-called “behind-the-border” obstacles to trade (such as the quality of a country's institutions) are at least as important, if not more important, in determining both the level and direction of trade flows than are physical or policy obstacles related to the movement of goods across borders.¹⁸ In other words, countries that provide business-friendly environments, have well-functioning financial sectors, modest levels of corruption, legal system that make possible the enforcement of contracts, and educational systems that promote outward orientation and the easy absorption of new ideas and technologies, are likely to do well as exporters, and are more likely to be attractive as trading partners. This should come as no surprise. But from the point of view of Central Asia, and of Uzbekistan in particular, it serves as a cautionary reminder of the comprehensive developmental challenges faced by the region.

The results of the gravity model presented earlier suggest that trade policies and the “border” effect tend to exceed the quantitative importance of the density of infrastructure.¹⁹ Moreover, they suggest that

¹⁸ Broadman, Harry. *From Disintegration to Reintegration: Eastern Europe and the Former Soviet Union in International Trade*. The World Bank, 2005. Washington DC.

¹⁹ Babetkskii, Ian, Oxana Babetksaya-Kukhartchuk and Martin Raiser, “Gravity and integration: determinants of international trade in South-Eastern Europe and the

WTO membership has only a marginal impact on trade volumes once the openness of the trade regime is accounted for. This is consistent with the analysis by Subramanian and Wei²⁰ which suggests that WTO membership has been effective in promoting liberalized trade in the industrial countries. However, WTO accession has not led to the liberalization of economies of developing countries and has had only a limited impact on trade levels. The conclusion again seems to be that for countries such as Uzbekistan to fully exploit the opportunities provided by greater integration into the world economy, complementary policy reforms are a prerequisite.

Table 6: Estimated Freight Costs for the Countries of Central Asia

Country	GDP	Exports	X as % of GDP	Imports	M as % of GDP	Freight Costs	Freight Costs
	(US\$ billion)	(US\$ billion)	%	(US\$ billion)	%	(US\$ billion)	% of GDP
Kazakhstan	41	18	45%	16	40%	5.7	14%
Uzbekistan	12	5	39%	4	31%	1.4	12%
Turkmenistan	6	4	62%	3	54%	1.2	19%
Afghanistan	5	0.6	12%	3	69%	0.6	13%
Kyrgyz Rep	2	1	42%	1	51%	0.3	15%
Tajikistan	2	1	55%	1	65%	0.4	20%
Total:	68	29	44%	29	42%	9.6	14%

Source: World Bank staff calculations based data provided by national statistical agencies.

Transport costs: an overview

A large literature confirms the importance of transport costs for economic growth and trade performance.²¹ For Central Asia land transport costs matter, since all countries in the region are landlocked.

former Soviet Union”. Substantially revised version of EBRD Working Paper, No. 83, mimeographed.

²⁰ Subramanian, Arvind and Shang-Jin Wei. “The WTO Promotes Trade, Strongly but Unevenly”. International Monetary Fund, Working Paper No. 03/185, 2003.

²¹ For a review in the context of Central Asia, see Byrd, William and Martin Raiser (with Alex Kitain and Anton Dobronogov) (2006), “Prospects for Economic Development and Cooperation in the Wider Central Asia Region”. World Bank Working Papers No. 75, April 2006.

For Uzbekistan this issue is even more severe as it is one of only two double-landlocked countries in the world, the other being Liechtenstein. Table 6 provides a snapshot summary of estimated transportation costs, obtained from a comparison of cif and fob prices for exports and imports. For Uzbekistan, freight costs in 2004 amounted to around 17% of total trade values, in line with average estimates for landlocked countries but much higher than the 5-9% typical for countries with direct access to a shipping port.

Table 7: Estimated Transport Costs from Europe to Central Asia and other CIS Capitals

	Dushanbe (TAJ)	Khujan (TAJ)	Tashkent (UZB)	Almaty (KAZ)	Bishkek (KGZ)	Ashgabat (TKM)	Baku (AZE)	Tbilisi (GEO)	Yerevan (ARM)
40' Container by Road Transport									
Typical Transit Time	15	14	12	13	14	14	13	12	14
Ojala Spring 2004	9200	9000	7000	8000		8000	7000	6000	7000
Raballand 2004*			4000						
Ojala Spring 2005	7500	7000	5500	5500	6500	n.a.	6000	5000	6500
40' Container by Rail									
Typical Transit Time	28	26	23	21	24	28	24	24	30
Ojala Spring 2004	3400	3000	2800	3000		3300	2700	2500	2800
Raballand 2004*			4000						
Ojala Spring 2005	3400	3200	3000	3000	3100	2900	3000	3000	3300
A Small Shipper Exporting 1 ton by Road Freight									
Typical Transit Time	19	19	14	14	16	17	15	14	18
Ojala Spring 2004	500	480	300	300		400	280	300	420
Ojala Spring 2005	430	400	320	300	350	n.a.	300	300	360
1 ton by Air Freight									
Typical Transit Time	6	6	4	4	5	6	5	5	6
Ojala Spring 2004	2400	2200	2000	2100		2300	2100	2000	2300
Ojala Spring 2005	2100	2000	1800	1800	2000	2300	2000	2000	2300

Source: Lauri Ojala, "Review of Inter-Regional Trade and Transport Facilitation in Europe and Central Asia Region, South Asia Region and East Asia and Pacific Region". Mimeographed, June 2005, p. 27; Ojala's data are from Belgium/Netherlands and include unofficial payments. Raballand's data are to Paris. Both sources are based on surveys of freight forwarders.

Ojala provides a comparison of transport costs both in dollars and also in transit time for transport by road, rail, and air from different locations in post-Soviet Central Asia to Europe via Russia (see Table 7).

This comparison shows that the cheapest form of land transport is by rail. Road and airfreight are more expensive but are much faster. The choice of transport mode is hence a function of the nature of the goods being shipped. For the standard commodities which still comprise the greatest share of Central Asia or Uzbek exports, the railway dominates. However, for perishable goods, or intermediates traded as part of a global value chain, time is of the essence. Table 7 also reveals the considerable cost added by border crossings: e.g., \$1000-1500 for road transport and around 3 extra days for rail transport.

Compared to the European routes analyzed in Table 7, southern routes to the Persian Gulf or the Indian Ocean are much shorter and thus potentially highly competitive. Added to this is the present imbalance in most road shipments, with trucks entering Central Asia loaded but leaving empty. Truckers from Iran and Turkey potentially could offer very competitive rates. In an ideal world, a typical 40 ton truckload could reach Teheran for \$ 3,000 round trip and Bandar-Abbas for about \$4,000. In practice, the round trip to Teheran costs \$ 5,000 and to Bandar-Abbas around \$6,000, with most of the extra cost attributable to informal payments. Based on current freight rates in Pakistan and assuming these were recognized by the Central Asian countries, the land route to Karachi would be even more competitive. However transit cargo takes on average around two weeks from Karachi to Tashkent compared to 7-9 days from Bandar-Abbas and around 15 days from Europe. So far, therefore, neither of the two southern routes is much utilized.

The picture is similar for transportation by rail, as shown on Table 8. The railway to Bandar-Abbas is considerably shorter than any of the western or northern routes. Because of long delays at the Turkmenistan border and further delays during transshipment at the Iranian border due

to a change in gauges, this route remains under-utilized, although its use has been increasing recently.²²

Table 8: Existing Railway Links Between Central Asia and Major Ports

Origin	Destination seaport	Distance
Almaty	Aktau-Baku-Poti (Black Sea)	4600
	Novorossiysk (Black Sea)	4630
	Bandar Abbas (Persian Gulf)	4800 (3770*)
	Riga (Baltic Sea)	5350
	Druzhba-Shanghai (Pacific)	5370
	Mersin (Mediterranean Sea)	5421
	Vladivostok (Pacific)	7850
Tashkent	Bandar Abbas (Persian Gulf)	3800 (2770*)
	Aktau-Baku-Poti (Black Sea)	3900
	Novorossiysk (Black Sea)	3950
	Mersin (Mediterranean Sea)	4421
	Riga (Baltic Sea)	5500
	Druzhba-Shanghai (Pacific)	6320
	Vladivostok (Pacific)	8800

Source: "Transit Transport Issues in Landlocked and Transit Developing Countries". United Nations, Oxford University Press, New York, 2003.

* After the completion of Mashad-Bafq railway section in Iran.

The construction of the Bafq-Mashhad rail link will further reduce the distance on this route and may make it competitive with European routes in the future. But the key constraint appears to be the time required to cross borders.

Evidence on the costs of official and unofficial barriers to trade and transit from Afghanistan through Iran and Pakistan is scantier than for post-Soviet Central Asia. For a 40 ft container from Karachi, costs to Kabul or Kandahar are around \$3,000. Two-thirds of this is pure transport costs, the remainder being expenditures on port charges, customs, unloading and reloading charges, and road tolls. To this must be added informal payments to customs and road security forces, for which no precise estimates are available. The most important costs incurred are due

²² More than half of Uzbekistan's cotton exports are now estimated to be shipped by rail through Bandar- Abbas.

to time delays, with transit through Pakistan to Kabul taking around 20 days by road and rail or 14 days by road alone, of which four days is in Afghanistan. Transit by road from Iran is more expensive but saves around eight days on the journey. Increasing the speed of transit through Afghanistan is therefore a key to developing trade and transit on the North-South corridors.²³

The estimates of transport costs can also be read as the reverse side of future potential. With faster processing times and reduced informal payments, the two southern routes to Gwadar and Bandar Abbas (and in the future Chahbahar) would be the preferred outlet for Uzbekistan.²⁴ The emerging competition has already led Russia to lower its railway tariffs for Uzbek exports and prompted greater attention to the cost of road transport along existing northern routes.

Physical Barriers to Transport on Southern Routes

In the railway sector, the main physical barrier is the absence of a link from Termez through Afghanistan to Pakistan. Existing studies are cautious about the economic returns on an investment in this project, which would cost billions of dollars and traverse difficult terrain. As Afghanistan develops it may still be built, but probably not for quite a few years.

The low quality of road networks, particularly in Afghanistan and Pakistan, prevent greater road transport. While around 90% of roads in formerly Soviet Central Asia are paved, the share in Afghanistan and Pakistan is a fraction of this level. However, it should be noted that road

²³ Existing studies of the costs of different transportation corridors are largely based on surveys of freight forwarders. For routes that are in regular use, these provide reasonably robust estimates and show some interesting changes over time. However, on the North-South routes through Afghanistan trade is estimated at less than US\$170 million (against US\$0.5 billion on the route to Iran, US\$1 billion on the route to China, and much higher numbers on all Northern routes). Additional analytical work will be required to obtain more robust comparisons.

²⁴ And at present, the Iranian route would appear to have the upper hand over the route to Gwadar from Uzbekistan's perspective. This may change, if tensions over Iran do not subside, and alternatively, if Pakistan and Afghanistan find ways to cooperate and reduce transit times and costs through Afghan territory.

reconstruction efforts have progressed well in Afghanistan, and major transit links are now in good condition, security obstacles notwithstanding.

The ADB Report²⁵ estimates that needed investments in road rehabilitation and modernization along 52 transport corridors through Central Asia at \$ 5.6 billion.

Differing axle load requirements for trucks also hinder road transport. In the five formerly Soviet republics of Central Asia, axle load limits are 7-8 tons, reflecting the norms for road construction in the Soviet Union. Russia itself is moving to the EU norm of 11.5 tons in a move that may spread to Central Asia over time. By contrast, axle loads limits in Afghanistan and Pakistan are 12 and 14 tons respectively. Different axle load requirements present a physical barrier to competition among truck operators, made worse by the fact that axle load limits are rarely enforced for domestic truckers but used as a pretext to keep foreign trucks out. The estimated investment needed to bring Central Asia's road network consistent with the European 11.5 ton standard are around \$ 5-6 billion, of which around \$ 800 million would be needed in Uzbekistan.²⁶

The low quality of transport fleets and the lack of investment in them further hinders road transport. In the formerly Soviet Central Asian countries, private ownership and investment in the transport fleet remain low. Ojala in his work²⁷ estimates that in Uzbekistan the trucking sector remains 50% state owned. While private ownership in the other countries is higher, private transport operators are typically small, with little access to credit. Hence transport fleet is gradually depreciating. Regional truckers are thus non-competitive internationally, which in turn makes

²⁵ *Report on the Economic Impact of Central-South Asian Road Corridors*. Prepared for the Transport Committee of CAREC. Asian Development Bank (ADB), Manila, March 2005, p. 1.

²⁶ Estimates provided by Henry Kerali, senior transport specialist of World Bank. It is likely that these investments are not entirely additive to the ADB estimates of road rehabilitation costs along different North South corridors; at least for Uzbekistan they should overlap to a considerable extent.

²⁷ Ojala, Lauri. "Review of Inter-Regional Trade and Transport Facilitation in Europe and Central Asia Region, South Asia Region and East Asia and Pacific Region". Mimeographed, June 2005, p. 34.

them reluctant to reduce some of the policy barriers to competition discussed further below.

Lack of transshipment and logistics infrastructure is a further impediment. Because of varying axle loads as well as different railway gauges, transshipment is often necessary for cargo crossing borders in Greater Central Asia. There is a corresponding need for modern logistics and transshipment centers. In best practice models, these centers simultaneously offer customs clearance, storage, and transshipment, as well as competitive freight forwarders. This lowers costs and adds to the speed of continental container trade, which will be essential if Greater Central Asia is to become a continental trade corridor. However, at present we have no information concerning the costs of investment in such logistic centers.

Trade Policy and Trade and Transport Facilitation

There are many policy obstacles to trade and transit within and across the region, which are summarized in Table 9. They are grouped into obstacles related to trade policy, border management and customs harmonization, and regulation of the transportation sector.

Table 9: Major Policy Related Trade and Transit Obstacles

Trade Policy	Differences in tariff rates Different stages in the WTO accession process Overlapping, sometimes inconsistent regional trade preferences Non-tariff tax barriers such as excise taxes on imports, labeling requirements, import licenses
Border Management	Lack of harmonized customs procedures, leading to detailed checks on both sides of the border Numerous and cumbersome documentation requirements Lack of recognition of TIR seals and high cost of transit convoys High levels of corruption of customs officials and other inspection agencies
Transport Sector	Visa restrictions on entry of foreign truckers Truck entry fees Trucking cartels to guarantee safe passage

In addition to the physical barriers mentioned above, competition in road transportation is hampered by policy obstacles such as the difficulties for truckers to obtain entry visas and the high fees charged to foreign trucks entering a country. Uzbekistan, mainly for security reasons, prohibits the entry of trucks from Afghanistan, and non-CIS drivers pay high costs for entry visas (Table 10).

Table 10: Cost of Visas in Central Asian Republics, 2005
(In US dollars)

Country	For CIS Nationals		For Non-CIS Nationals	
	Single Entry	Multiple Entry	Single Entry	Multiple Entry
Azerbaijan	0	0	40	250
Kazakhstan	Varies	Varies	70	210
Kyrgyz Republic	4	20	35	125
Tajikistan	7–8	60	30–60	150–350
Uzbekistan	4–6	30	60	250

Source: “Central Asia regional cooperation in trade, transport and transit”. Paper prepared for the Trade Policy Committee of CAREC Asian Development Bank, Manila, March 2005, p.14.

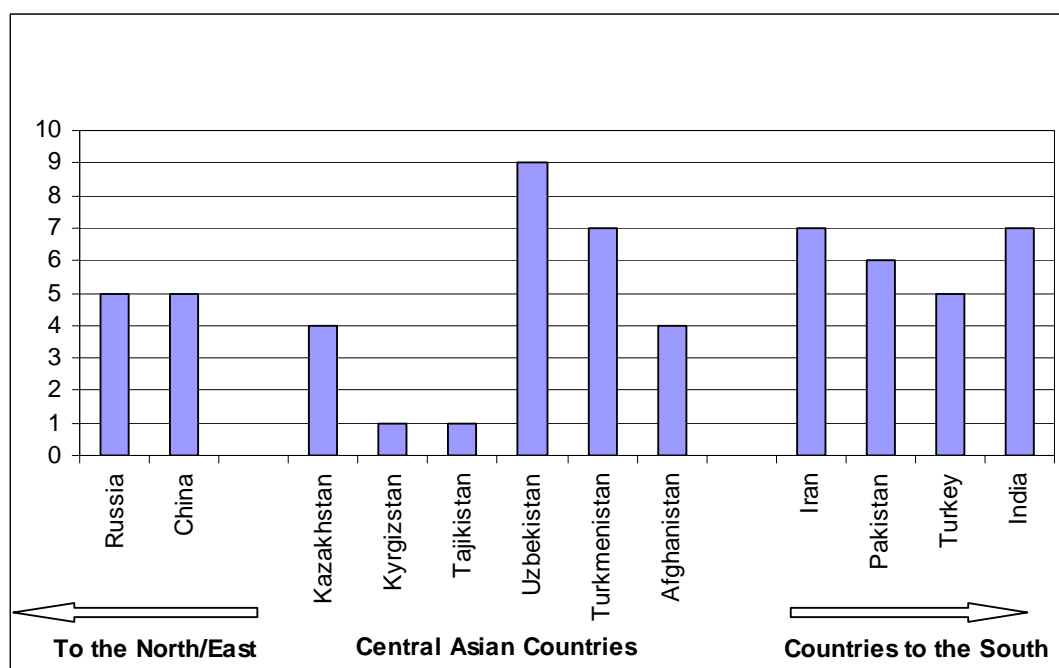
Uzbekistan’s policies are mirrored by those of its neighbors in a pattern characterized until recently by retaliatory escalation. It remains to be seen whether in the context of Uzbekistan’s joining EurASEC these and other issues will begin to be tackled.²⁸ However, EurASEC does not

²⁸ Interestingly, in two successive meetings in late summer 2006, Uzbek officials have called for visa free travel with both Kyrgyz Republic and Tajikistan. There may still be a gap between political rhetoric and practical reality, but it is one among a number of signals that point towards a gradual rapprochement.

include Afghanistan and Turkmenistan and thus progress within EurASEC will tend to reinforce rather than reduce the trade dependence on Russia.

At the heart of many of the obstacles hindering trade and transit are the significant variations in trade policy regimes across the region (see Chart 4).

Chart 4: Trade Restrictiveness Indexes in Central Asia and their Northern and Southern Counterparts



Source: International Monetary Fund data, taken from Byrd, William and Martin Raiser (with Alex Kitain and Anton Dobronogov) (2006), "Prospects for Economic Development and Cooperation in the Wider Central Asia Region". World Bank Working Papers No. 75, April 2006, p.68.

These differences in trade policies are reflected in policy-induced variations in the prices of goods in the different national markets, in turn creating incentives for shuttle traders to exploit these differences.²⁹

²⁹ See Grafe, Clemens, Martin Raiser, and Toshiaki Sakatsume (2006), "Beyond the Border: Reconsidering Regional Trade in Central Asia". EBRD Working Paper

Shuttle imports into Uzbekistan from China, Iran and Turkey may account for close to \$1 billion (25% of the total) and smuggled exports of cotton, energy products, agricultural goods and precious metals (all subject to high excises and/or domestic price controls) are also significant. Anecdotal evidence suggests that shuttle trade between southern Uzbekistan and Mazar-i-Sherif is also increasing. Land-based shuttle trade is likely to increase significantly with the opening of the new bridge across the Panj River between Afghanistan and Tajikistan and with the completion of the Anzob tunnel connecting southern Tajikistan with the Ferghana valley. If Uzbekistan wants to avoid further tensions in the Ferghana valley it will need to re-think its trade policies and adopt a more relaxed attitude towards shuttle traders. We offer some proposals on this issue.

While informal trade generates important employment opportunities, in particular for poor people, it undermines revenue collection and creates significant difficulties for domestic producers, who face competition from informal imports which pay neither import duties nor domestic taxes.³⁰ The Uzbek government therefore seeks to suppress informal trade by making it more difficult to cross borders and by placing restrictions on domestic wholesale and retail trade. But these policies affect not only small informal traders but formal traders as well. The fear of informal trade evading customs and other duties is also one of the main reasons for the high costs of transit trade, manifested in the requirement for escort services, failure to implement the TIR convention, etc. Harmonization of trade policies will be needed if progress in other areas of trade and transit facilitation is to be sustained.

No. 95. For Uzbekistan, excise taxes levied discriminatorily on imports in reflection of “domestic market conditions” are in fact a much more important element of trade policy than tariffs per se (which are relatively moderate, with three bands up to 30% for MVN partners, twice the rate for all others). Yet in practice it seems that final goods prices are essentially limited by arbitrage as well as low consumer spending power in Uzbekistan. The complex trade regime thus serves primarily as an instrument in reallocating rather than increasing the absolute level of arbitrage rents. This suggests welfare losses well in excess of the dead weight loss resulting from higher domestic prices.

³⁰ Such complaints are heard frequently, for instance, from Uzbek businessmen.

Crossing borders anywhere in the world is costly. Commercial traffic often faces cumbersome formal documentation and registration requirements and lengthy delays before receiving clearance. Table 11 illustrates some of the obstacles faced by traders wishing to clear goods through customs in Central Asia.

Table 11: Trading Across Borders

Region Or Economy	Documents for export (number)	Signatures for export (number)	Time for export (days)	Documents for import (number)	Signatures for import (number)	Time for import (days)
Europe & Central Asia	7	10	31	11	15	42
OECD: High income	5	3	12	6	3	14
South Asia	8	12	33	12	24	46
Uzbekistan	..	..	..	18	32	139
Kyrgyz Republic	..	..	..	18	27	127
Afghanistan	..	..	..	10	57	97
Kazakhstan	14	15	93	18	17	87
Iran	11	30	45	11	45	51
India	10	22	36	15	27	43
Pakistan	8	10	33	12	15	39
Russian Federation	8	8	29	8	10	35
Turkey	9	10	20	13	20	25
China	6	7	20	11	8	24
United Arab Emirates	6	3	18	6	3	18

Source: Doing Business Report, World Bank, Washington DC, 2005.

Compared with its regional neighbors, Uzbekistan has some of the most time-consuming border procedures, as the number of signatures and documents required for import clearance demonstrates.³¹

A notable issue in all countries of Greater Central Asia is the presence of several inspection and enforcement agencies at the border, who often act in an uncoordinated and highly discretionary manner. A culture of control and red tape prevails among most enforcement agencies, leading to duplication and harassment. While customs codes are being reformed throughout the region (indeed, Uzbekistan made the reform of the customs code a priority for 2006), implementation may lag behind changes in primary legislation, leading to legal and procedural inconsistencies. This can occur even though Central Asian customs have comparatively low case loads, which indicates the need for improved customs efficiency.

A large part of the estimated economic returns from new transportation routes come from increased transit trade. Of particular importance in this respect are improvements in the regulation of transit by road. Because of concerns over the evasion of import duties, governments often require trucks in transit to be escorted. Private escort services are expensive, costing between \$1,000-1,500 per truck for a crossing through Kazakhstan, and up to \$2,000 through Uzbekistan (these numbers include informal payments to the road police). Truckers usually prefer convoy systems rather than "escort service" for the following reasons: (i) greater security, (ii) no need to make a deposit for the duties which is always difficult and takes a long time to get back, and (iii) the absence of road police or other harassment. Convoys are escorted by customs officers. Normally, there is

³¹ Some very interesting new results come from a survey of transport operators on the route Bishkek-Almaty. These results, part of a Central Asia wide initiative to measure performance along selected transit corridors, suggests that the delays due to road blocks and customs clearance on this journey of usually 4 hours, make up an additional 10 hours on average, with much of this time spent in customs facilities in land rather than at the border. Moreover, informal payments exceed official costs by a factor of 10 and total US\$450 for a stretch of less than 400km. Unpublished survey results as part of the Central Asia trade and transit facilitation initiative of the World Bank.

one convoy per day, except in Tajikistan where it is not uncommon for 2-3 days to be lost waiting for convoys to form.

The TIR convention, to which all post-Soviet countries are signatories but which does not apply in Afghanistan, allows sealed trucks to transit unchecked to their final destination. In practice this is not enforced. The number of TIR carnets issued is minimal (21,500 for the whole of Central Asia in 2003), and alternative insurance bonds are not available. The application of TIR is also hampered by the lack of modern trucks that would meet TIR requirements, except in Iran and Kazakhstan, where reasonably modern fleets exist.

The above obstacles create entry barriers to private trucking companies that lack connections with the customs officials and road police who try to extract further rents along the way through checkpoints, etc. These problems are compounded in Afghanistan by levies by illegitimate authorities akin to “protection money”. These differ little in their impact on transporters from police checkpoints in some other countries of the region.

The Transport of Energy

Energy is the sector in which Uzbekistan could reap the greatest gains from more cooperation with its neighbors and the international community without requiring a fundamental change in domestic policies. Still there are important constraints and impediments to coordinated development and the trade of energy resources in the Greater Central Asia region and in Uzbekistan in particular.

Afghanistan and some other countries of the region suffer from insecurity in certain geographical areas, which could adversely affect the construction and operation of transmission lines and natural gas pipelines. Current plans are to provide populations along main transmission lines with social benefits to create an incentive to protect the line. Implementing and enforcing such a regime will pose a huge challenge.

There is a lack of trans-regional electricity transmission lines and gas pipelines, and the national energy networks in a number of the countries

are limited, most notably in Afghanistan. Major investments in electricity generation and gas production capacity will also be required to exploit regional potentials.

Reliable supply and demand are important for energy trading, which often involves high up-front investments in transmission infrastructure. Uzbekistan, like its Central Asian neighbors, has followed a policy of energy self-sufficiency and so far seems reluctant to agree to long-term power trading arrangements that will be essential if opportunities in this sector are to be realized.

Energy transmission networks often have “network monopoly” characteristics, which means that there are discrete “either-or” choices of transmission routes. Such choices can easily become the subject of destructive geopolitical competition, with the risk of technically and financially attractive routes being blocked and of inferior routes being chosen due to geopolitical factors.³²

The regulatory framework for regional energy planning, financing, and investment protection, contract enforcement, and policy and commercial risk mitigation is notably weak in Uzbekistan and elsewhere.

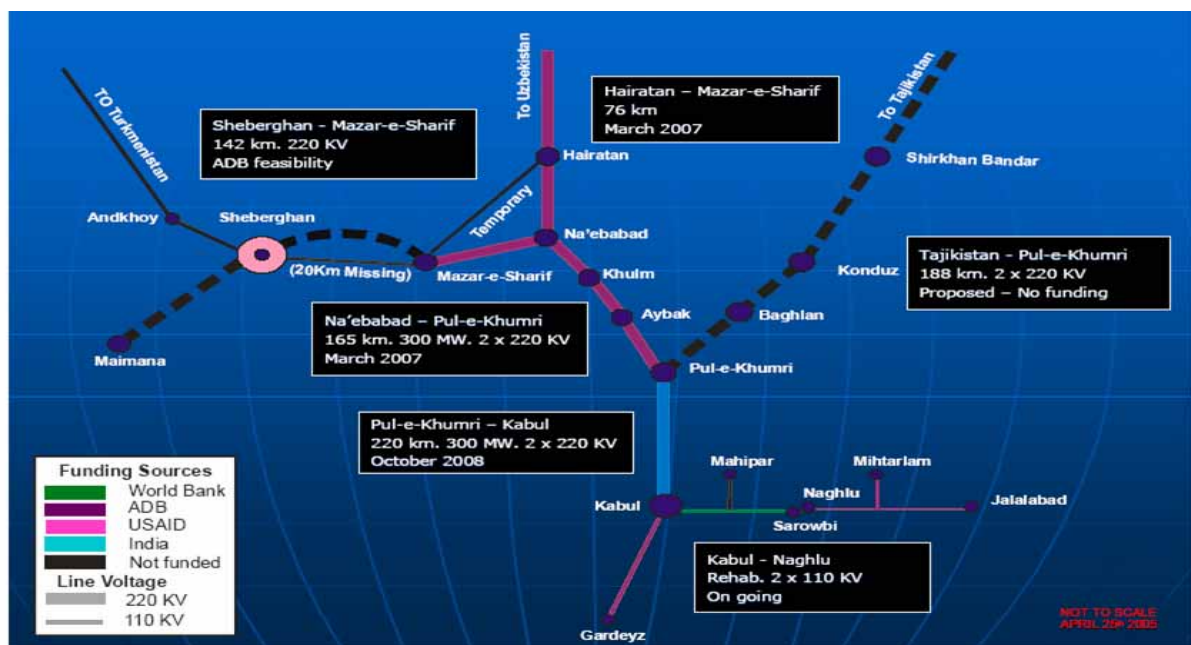
Energy prices in several countries remain below cost recovery and regulation is weak, putting investments at risk. It should be noted, however, that the increase in energy prices, and gas prices in particular, has increased the opportunity costs of not reforming the domestic energy sector. Revising this Uzbekistan has moved rapidly in this area.

³² For Uzbekistan, there is a risk that given the country’s reluctance to sign-up to longer term power trading with its neighbors, alternative transmission routes bypassing the country may be built. One such route would link Toktogul in Kyrgyz Republic with Tajikistan and on towards Afghanistan (a 110KV link between the two countries has already been completed). Putting such an alternative route in use would, however, require the recalibration of the Central Asian energy grid, which requires either the agreement of UDC Energia, or the establishment of a new regional dispatch center. Evidently, by-pass solutions would be expensive, but Uzbekistan should be aware that such solutions will be pursued unless it shows more willingness to cooperate.

In the case of hydropower, which can serve as the production base for substantial regional electricity trading, there are many riparian issues which would need to be resolved for major investments to go forward.

These constraints require both investments in physical infrastructure and complementary policy measures. Investments in infrastructure in Afghanistan are proceeding. From the Uzbek perspective the most important investments concern the completion of the Kabul-Puli Khumri-Termez 220KV transmission line, scheduled for 2008 (see Chart 5).

Chart 5: Priority Transmission Lines



Source: World Bank staff. Taken from Byrd, William and Martin Raiser (with Alex Kitain and Anton Dobronogov) (2006), "Prospects for Economic Development and Cooperation in the Wider Central Asia Region". World Bank Working Papers No. 75, April 2006, p.43.

The current 110KV transmission line from Hairatan directly to Mazar is not fully utilized because of the lack of a local distribution network in Mazar. Uzbekenergo has conducted feasibility studies for the required investments in the Mazaar area to allow the existing 150MW export capacity to be more fully utilized and would be prepared to complete this work if financing is obtained. An upgrade of the Mazar-i-Sharif

distribution network is included in the World Bank's upcoming power sector loan to Afghanistan, and Uzbekenergo may have an opportunity to bid for the resulting contracts, although it is likely that they would have to do so as partners in a consortium.

Turning to policy, until recently, Uzbekistan charged 2.3 cts per kwh for power exported to Afghanistan, which is below the estimated long run marginal cost of around 3.5 cts. and also below the domestic price of more than 3cts. In 2006 Uzbekistan announced that it will seek to increase prices, but the status of negotiations with the Afghan government is uncertain. For now contracts are concluded annually between the two countries. This does not provide a solid basis for investments to realize the medium-term power trading potential. Multi-year power purchase agreements would be one way to go but this would require Afghanistan to be able to commit to purchases over a medium term timeframe, which would under current circumstances be impossible without donor guarantees. It will also require Uzbekistan to be able to commit to reliable power supplies over the medium-term, something which the country has so far been reluctant to do.³³

Proposals to Overcome Obstacles in Uzbekistan

For Uzbekistan to move from the slow to the fast lane in regional cooperation and integration is first and foremost a question of leadership and political will. This chapter argues strongly for the potential economic benefits of opening up. Uzbekistan's leadership has instead chosen to emphasize the risks of doing so. Unless Uzbekistan's political leadership embraces change and the opportunities it brings, the country will risk being left behind.

Still, the number and size and multitude of the obstacles identified above requires careful thought on how best to sequence policy measures and

³³ Uzbekenergo insists that this is not because of uncertainties over domestic energy needs and availability of resources, but rather reflects the desire to be able to adjust pricing as market conditions change. If this were to be the case, a contractual solution allowing for some variation in price is likely to be possible, as for instance with the gas pricing formula for Russian gas exports in the European market.

investments. Moreover, the required policy measures are typically not distributionally neutral. For a country like Uzbekistan, where distributional issues are at the core of the political economy, this is not a trivial consideration. Designing ideal policy options is easy; implementing them in the Uzbek policy environment is not.

We therefore concentrate on short-term measures that we believe may offer high returns and pose relatively few political risks for the present leadership. These measures are unlikely to be sufficient. Clearly, it would be desirable both for Uzbekistan and its neighbors that the country accelerate its market-oriented reforms, not just in the area of trade policy but also in improving the business environment, promoting private entrepreneurship and market-based financing. Uzbekistan should also increase its international competitiveness by being more open to the flow of ideas and more willing to debate policy alternatives. We advocate our short-term policy proposals as a possible way of overcoming the skepticism that still prevails in Tashkent about a policy of greater openness and liberalization. As the international environment changes and the opportunity costs of standing still become ever greater, more ambitious measures may become feasible. But since the catalogue of desirable reforms in Uzbekistan is both long and well rehearsed, we do not list it here.

In the short term, the following proposals deserve closer consideration:

1. Create border zone markets.

These are being developed already in Kara-Su area and would represent a first step on the way towards greater trade liberalization. The basic idea would be to create markets in border zones which are accessible to residents from these border zones and within which duty-free trade is possible. Non-residents would continue to have to pay customs and other duties. An extension of this model would allow for the creation of free trade zones in border areas for storage and re-export as is presently under consideration along the Chinese and Kazakh borders. By providing opportunities for residents of border areas to trade across borders as well as visit relatives, this proposal would be a step towards separating trade and security issues, since residents are relatively easy to identify. This

could in turn be a step towards confidence-building particularly in the Ferghana valley. It would also allow border guards to concentrate on real security risks, including illegal border crossings, rather than losing time chasing after the numerous shuttle traders (and attempting to extract private gains in the process).

2. Rebuild Uzbekistan as a wholesale trade center for Central Asia.

Uzbekistan's location makes it the first choice for wholesalers wishing to penetrate the Central Asian market. Indeed, this is the role Tashkent played until Uzbekistan's trade policies turned inwards. As a result of these policies, Uzbekistan has lost the greatest benefit from trade in Central Asia, which comes from controlling wholesale trade into the region.³⁴ Uzbek wholesalers are forced to use a complicated system of "mules" – small traders that bring in goods from the Kyrgyz Republic, Kazakhstan, Moscow and Dubai and sell them to Uzbek wholesalers for resale inside the country. These wholesalers control the domestic market, but they are price takers on the international market, with the "mules" evading Uzbek trade restriction in order to reduce import costs.³⁵ As a pilot project the Uzbek government might consider allowing competitive access of import wholesalers to wholesale market in Uzbekistan at Andijan and observe whether a relocation of trading activities from Kara Su occurs. This would include a reduction in shuttle trade, since residents would now be able to buy legally imported goods in their own country. This could set the stage for a broader liberalization of wholesaling in the import market. An important side benefit would be the reduction of production costs in Uzbekistan because of easier and more reliable access to imports. Such policies would therefore also promote domestic

³⁴ This argument is based on the notion of economies of agglomeration in wholesale trade, which would need to be further investigated. But given the very high transport costs into the region, high transshipment costs, and weak trade logistics, the existence of agglomeration economies would seem likely.

³⁵ Because of shuttle trade, the wholesalers are effectively also price takers on the domestic market. The only rents available are obtained through discretionary reduction of official trade levies, either by under-invoicing or outright avoidance of customs and taxes through "connections". These are small amounts compared to the potential gains of being the wholesale center for Central Asia as a whole.

production, as suggested by the successful experience of similar schemes in China, Vietnam, Thailand and Laos.

3. Concentrate support for trade and transit along a few selected transit routes.

From Uzbekistan's perspective there would be much merit in providing assistance to Afghan security services, border management and customs officers along a few selected border posts, including Hairatan. This would reduce Uzbek concerns about allowing greater movement of goods and people across the "friendship bridge", and thus produce greater value from the modern equipment and training that has already been provided to Uzbek border guards at Termez. Such a concentrated approach could extend to the roads and railroads along continental corridors, so that transport investments and trade facilitation measures are fully coordinated. This is not presently the case. From Uzbekistan's perspective, two routes deserve particular attention: (i) Termez – Mazar – Kabul – Jalalabad and (ii) Bukhara – Charzhou – Mary – Meshed – Teheran. Whichever routes are chosen, Uzbekistan should actively participate in multilateral forums discussing trade and transit facilitation in the region. Uzbekistan's current bilateral approach to diplomacy in the region and particularly with its southern neighbors is in this context bound to be sub-optimal.

4. A donor initiative on trucking and road transportation.

Such an initiative is needed to deal with the problem of differing axle load requirements that result from regulations and ageing infrastructure. For example, Uzbek truckers could be given access to donor-funded credit facilities subject to certain conditions on convoys, entry fees, visas etc. This initiative could be motivated by a more detailed corridor performance measurement, which is already being developed.

5. Uzbekistan could serve as an energy clearing house.

Uzbekistan can achieve this through the import of hydro-generated power in summer and the sale of thermal-generated power in winter. Donor strategies would need to concentrate on giving Uzbekistan a stake in the rehabilitation of the power sector in Afghanistan and on delivering parallel transmission solutions from Toktogul and Sanctuda to break up

Uzbekistan's hold over Kyrgyzstan's and Tajikistan's power exports. We believe that a combination of such carrots and sticks is vital if the Uzbek authorities are to be convinced of the value of a more cooperative approach in this area. Conversely, solutions aimed merely at by-passing Uzbekistan are likely to be expensive and unsustainable and will cause political difficulties to those they are intended to help.

6. Technical assistance to help Uzbek suppliers compete in Afghan rebuilding efforts.

Aside from energy, options in this area include road building, the sale of construction materials, and the promotion of qualified personnel. Uzbek companies are often unable to meet international procurement requirements such as bank guarantees and relevant international experience. Moreover, they are often inept at complying with bidding procedures. Technical assistance to overcome some of these barriers should be considered, as well as efforts to create partnerships with successful western bidders. While to outside observers there is no doubt that Uzbekistan should open up in its own interest and should need no additional prodding to do so, the political realities require a more subtle approach. Afghanistan's reconstruction is an area where both Afghanistan and Uzbekistan could benefit from working together and thus build greater mutual confidence and a basis for sustainable regional cooperation in the future.

Conclusions

We have argued that there are significant benefits from increasing Uzbekistan's openness to trade and significant barriers to its realization. At a technical level, the conditions seem right for Uzbekistan to move on a new trade agenda. Yet the external environment in which Uzbekistan increasingly finds itself may send it in the other direction, toward closing up, toward increased reliance on old trading partners. In a region already struggling to find its footing, this would be a shame. Bringing Uzbekistan back into the continental trading fold depends in part on bringing it into the global fold. This, in turn, depends on finding ways to reverse Uzbekistan's growing isolation from the West. How to

rebuild Uzbekistan's trust in the West and thereby reopen dialogue on the issues discussed in this paper is a topic for another study. Under any circumstances, this remains a critical challenge.

