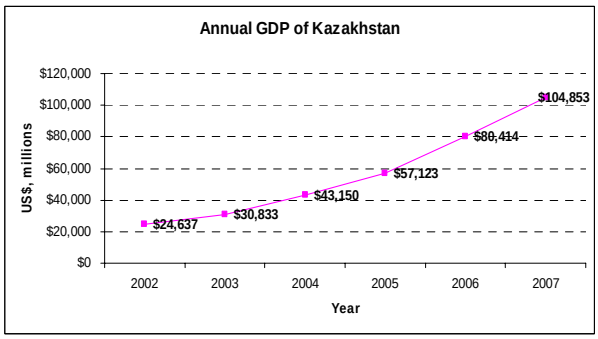
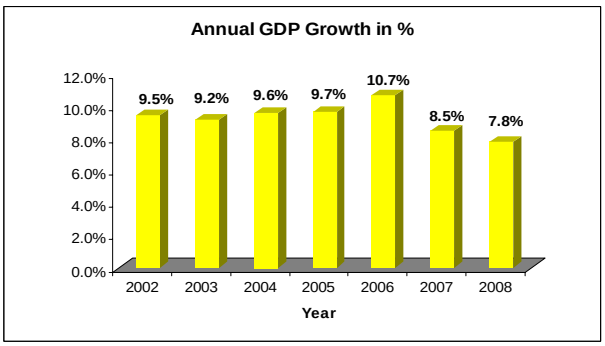
Executive Summary

A. Country Profile

S/N	Countries	Length of Border Shared (km)
1	Russia	6,846
2	China	1,533
3	Uzbekistan	2,203
4	Kyrgyzstan	1,051
5	Turkmenistan	379

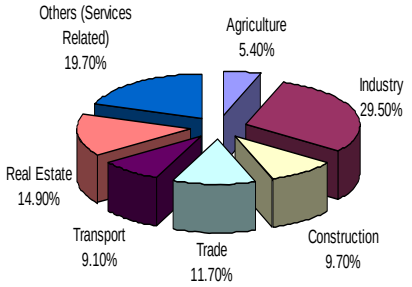
1 Kazakhstan is a landlocked country located in Central Asia, deep in the Eurasian continent. Its territory is as large as 2,724,900 km^2. Kazakhstan is divided into **14 oblasts** (regions) headed by provincial governor (akims) **and 5 economic regions.** Kazakhstan is rich with industrial metals and minerals. The country has the largest deposits of chromium, vanadium, bismuth and fluorine, and holding significant amounts of iron, chromium, lead, zinc, tungsten, molybdenum, phosphorite, copper, potassium and cadmium. Oil, gas, coal, metals, uranium and other energy related resources are available in large quantities too. The proven stock of Kazakhstan is 3,6 billion tons of oil and 1,9 billion cubic metres of natural gas. On coal stocks Kazakhstan occupies 9th place in the world.





Kazakhstan has a relatively large GDP size relative to the region, and the country has enjoyed an average of 9.5% growth from 2002 to 2007.

Economic Structure of Kazakhstan, 2006



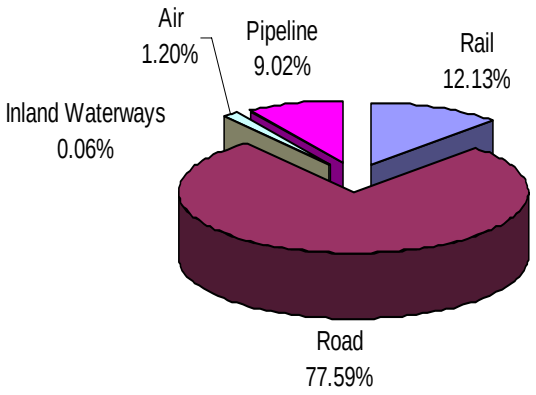
2 A *S.W.O.T.* analysis on the country is given in **Appendix 1**, which discusses the strengths and weaknesses in the country, as well as the opportunities and threats in the near future.

B. Analysis on Transport and Logistics

3 Automobile and railways routes account for a major share of the total above-ground transport routes (about **88, 400 km** and **14, 205 km** respectively). Total length of navigable waterways makes up **3,900 km**, and the total of air routes makes up 61,000 km.

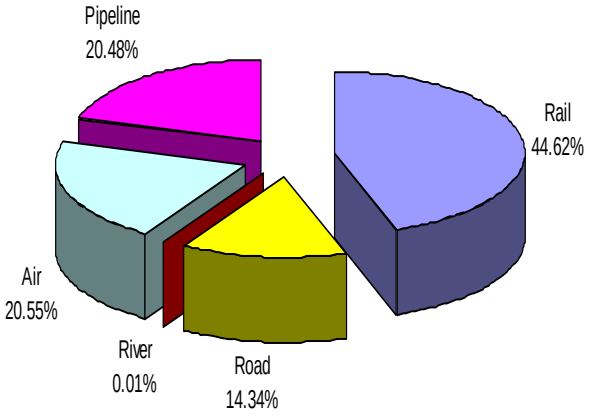
4 Total **cargo load** in 2007 is **2,148 million tons** carried by rail, road, air, inland water and pipeline. Total **freight turnover** in 2007 is **428 billion tons-km**. Road and rail transport carry the main bulk of the cargo load, responsible for nearly 90% of the total annual load in 2007. The breakdown of each transport mode is illustrated below.

Figure 6 : Breakdown of Cargo Load (Tonnage) transported by each transport mode, 2007



Source : Ministry of Transport and Communications

Figure 7 : Breakdown of Freight Turnover by each transport mode, 2007



Source : Ministry of Transport and Communications

RAIL TRANSPORT

5 About 30% of railways (4,143km) are electrified tracks. The number of locomotives is 5,192 and number of rail wagons total 59,954. The products transported by rail are heavy machineries and bulky commodities (high volume and low value). Compared to the neighbouring countries, Kazakhstan has superior rail infrastructure. The tracks are better maintained due to more funds available for maintenance. Also, the government has recently invested heavily to purchase new locomotives and railway tracks, which will be positive for the growth of rail carriage.

ROAD TRANSPORT

6 Road plays an important role. Many companies and transporters use road transportation due to its flexibility relative to rail transport. In Kazakhstan, the permissible dimensions for standard road transportation are 18.5m (length), 2.6m (width) and 4.0m (height).

7 A significant development in road transport is the **'Western-Europe – Western China' project**. This is a huge road rehabilitation and upgrading collaboration between many organizations[1] affecting

[1] ADB is involved in this project, and is planning a US$550 million financing for the stretch of road linking Shymkent to Almaty in southern Kazakhstan.

2,624 km stretch of roads in Kazakhstan. The entire route passes through five oblasts, originating from Orenburg (Russia) and ends at Korgas (PRC).

AVIATION TRANSPORTATION

8 Kazakhstan has achieved a remarkable feat of 4.5 million passengers transiting the airports in 2007, an increase of 36% over 2006. The same year on year growth rate for freight (tons) is 55.76%, while the average rate of growth from 2001 to 2007 is 15.71%. This rapid growth in aviation industry is due to several factors. Firstly, the country has relatively well established hubs at Astana, Almaty and Atyrau, which covers the flow of goods in the northern, southern and western regions respectively. Secondly, the national carrier has continuously invested in modernizing assets, such as air navigation systems and radio equipment. Thirdly, the Kazakh government is also proactively seeking and negotiating new air routes to major cities in the world, as well as facilitating the country's accession to major international agreements and conventions. For instance, Kazakhstan is a signatory of "World Convention on international Transportation through Air". The fourth positive factor is the aggressive use of ICT in transforming the airline operations. Air Astana is working on introducing computerized systems for registering and monitoring of cross border movement of airfreight.

PIPELINE TRANSPORTATION

9 An important transport strategy is how to transport crude oil and natural gas westwards to Europe and eastwards to PRC. This necessitated financing for the construction of port facilities and pipelines at Aktau. The expected throughput is 23 million tones of crude per year, up to 56 million tones of crude. This is in line with Kazakhstan's goal of dramatically increase the output till 2012. To supplement the transport capacity, Kazakhstan plans to purchase 7 large tankers with total capacity exceeding 60,000 tonnes of crude

C. Key Challenges

Impediments due to Physical Transportation

4 **Constraints in Rail Transport** –The capacity of the rail transport is compromised due to **the lack of facilities** in certain important rail nodes. In cities like *Karagandy, Shymkent, Aktobe and Aktay*, rail freight has increased steadily and the cargo terminals and warehouses are running at high capacity or utilization. Expansion for the storage capacity for these cities is required in near future.

5 The cross crossing of border with Russia does **increase the cost** for shippers though. For example, if a rail cargo travels from Aktobe to Uralsk, it will need to pass through Russian border at Zhaisan. Russian customs demand US$500 for US$600 for such transit. Unfortunately, there is no viable alternative as the road conditions in the northwestern oblasts are poorly maintained.

6 The rail transport with PRC faces some constraints too. In theory, the same cargo sent over Russian railways will take longer as the distance traveled is longer. For example, it takes 30 days for Russian railways versus 25 days for PRC railways. However, the **PRC railways have more stringent regulations and documentation**, which the Kazakh companies feel is much more complicated. Harmonization of customs procedures and documentation will be useful in addressing this issue.

7 **Trans-loading is required** for the *Dostyk* station, because the Chinese rail uses the international gauge (1.453 mm) while the Kazakh uses the former Russian standards (1.520mm). Thus, Chinese goods entering Dostyk will need to be lifted by machine onto the Kazakh rail axle and wagon to continue the journey.

8 **Constraints in Road Transport** – Kazakhstan has virtually no Class I and II roads. Relatively speaking, the quality of the roads is also not consistent in the huge country. The road surface in the

eastern region is relatively good, while those in the western region needs upgrading. The worst problems are located in two main areas. Firstly, the 700 km stretch of distance between Kostanai to Aktobe to Uralsk. This compels many companies to use rail transport. The second problem is located between Atyrau and Aktau. The economic and construction boom in that region led by the oil exploration companies put additional stress on the road networks in the western region.

9 Besides the low quality and capacity of roads in the north-western region, the criss-cross of border also poses additional cost and time delays in certain transit routes. Along the key route of Shymkent – Taraz – Almaty that traverses three oblasts, a part of it lies in the Kyrgyzstan (through Bishkek).

10 Another problem is empty return cargo. When delivery trucks return eastwards, a high proportion is empty or only partially filled.

Impediments due to Operating Difficulties

11 **Lack of Expertise with Containerization** –A number of Kazakh companies expressed a high degree of discomfort in sending via a standard 20' or 40' ISO containers, due to the limited knowledge in technical specifications and documentation. This poses a problem as shippers (local or foreign) who need to import or export using containers does not have much choices in selecting a competent freight agents, and the cost of transport is higher.

12 **High Cost of Import Tariff for Containers** – Another cost factor is the import tariff placed on containers. The customs have increased the tariff per container from US$200 to US$400. For example, interviews with operators in Al Farabi marketplace revealed that in the past, the centre handled an average of twenty 20' containers per day. Now is reduced to two or three.

13 **High Cost of Transport** – Related to the above point, limited use of containers result in an undesirable outcome where the cost of containers becomes higher, especially for traders and merchants who want to expand overseas markets. Why is this so? The report here uses an example of a Kazakh company seeking to export wheat flour. Please refer to the case study on the problems faced by wheat exporters.

14 **Visa Requirements and Fees** – Kazakh drivers can drive to other countries without visa, except Turkmenistan and PRC. For Turkmenistan, the application fee is US$75 per entry, and US$291 for multiple entries in three months. For PRC, the fee is US$60 per entry and US$200 for multiple entries in a year. Generally, there is need for visa to most European countries. The time to apply for such visa is also long.

15 **Training and Development of Human Resource** – The total value of transport and communications GDP will rise to US14.22bn in nominal terms by 2012, representing 7.4% of Kazakhstan's GDP. The transport and communications sector employed 519,000 people, or **7.2% of the labour force** in 2007. The total figure is projected to fall slightly to 516,000 by 2012 (Kazakhstan has a contracting population) but remaining at 7.2% of the total. This data shows two important points. First, the sector employs a large proportion of labour and thus productivity in this sector will be crucial to contribute to the GDP. Second, the supply of professionals may not meet demand given the country's growth aspiration. How Kazakhstan can meet the gap will rely on the productivity increase as well as possibly considering attracting foreign talents into the country.

Impediments due to Institutional Policies and Regulations

16 **Unfavourable Customs Levies** – A feedback from importers, especially those who deal with heavy machineries and equipment, is the recent change in the levy for imports. Previously, the levy is based on volume, which was then changed to calculate levy based on weight. The levy based on volume is US$250 per m^3, and is now revised to US$600 per ton. This new calculation makes it more costly for shippers sending heavy machineries.

17 **Burdensome Customs Procedures** – The documentation is also complicated and adds to time and cost for importers and exporters. For example, operators at Korgas need to apply for a Certificate of Import, which costs US$15. **Appendix 2** provides more details on import and export indicators.

18 **Frequent Changes to the Customs Laws** – Generally, the private enterprises would like to see more stability on the customs laws. Frequent changes to the requirements and tariffs make planning difficult. For example, the customs laws were changed recently in April 2008.

19 **Unofficial Payments** – Anecdotal evidence suggests that unofficial payments are present at border crossing. For example, it is shared that Kazakh customs collect unofficial payment of Euros 50 at Korgas when Chinese shippers send items into Kazakhstan.

20 **Limitations in Banking and Finance** – Some Chinese companies expressed the desire to have more Chinese banks operating in Kazakhstan. It must be recognized that few years back, there were no Chinese banks operating in the country. Now there are some banks, such as ICBC that have a presence, mainly in Almaty. The offer for trade financing and remittance services is very essential for Chinese companies. The second major problem is the high cost of financing, which deters companies to re-invest and purchase new equipment such as more fuel efficient trucks. Commercial loans at Halyk Bank or KazCommercial Bank have an interest of about 16.5% per annum. Compounded with the liquidity and credit crisis in the worldwide financial markets now, enterprises will experience greater difficulty in seeking debt financing.

D. Recommendations

First Tier

Second Tier

First Tier Development

1. Almaty City
2. Astana City
3. Aktau
4. Atyrau
5. Aktobe
6. Karangandy

Second Tier Development

A. Korgas
B. Dostyk
C. Beineu
D. Semey
E. Taraz
F. Troitsk
G. Zhaisan
H. Karakalpakstan

21 A master-plan for identifying and prioritizing key nodes in Kazakhstan is given in the map above. These cities and border posts are selected based on the economic, transport and trade data[2] described in the full report. Reasons to substantiate the nodes are given below.

Summary of Key Nodes in Transport Corridors

S/N	Locations	Status	Reasons
1	Almaty City	City	Economic and financial centre, well connected and relatively good infrastructure, transport hub
2	Astana City	Capital	Political centre, high rate of growth
3	Aktobe	City	Important gateway to Russia, pivot point for two important border posts (Zhaisan and Troitsk) in rail connectivity. Current road stretching from Kostanai to Aktobe to Uralsk urgently needs reconstruction. Once completed, will improve the road transit especially between east-west travel greatly. Aktobe is a key node in Corridor 1 and 6.
4	Karagandy	City	Central location puts Karagandy an ideal node for transshipment centre and multi modal hub. High industrial output in the region also requires increasing capacity for rail and road transport. Karagandy is a key node in Corridor 1.
	Aktau	City	Key node in Corridor 2. Good site for multi-modal transport hub to export crude oil to Baku. Region is experiencing high economic growth. One of the few sites with direct flights to overseas destinations.
	Atyrau	City	Region is experiencing high economic growth driven by energy sector. Gateway to Russia on the western front.
	Taraz	City	Important node in the southern region, connecting to Bishkek and Tashkent. Lies along the 'Western Europe to Western China' project and the development of road in that region will improve Taraz accessibility with Almaty as well as to the countries of Uzbekistan and Kyrgyzstan.
	Semey	City	Semey has potential as a multi-modal hub to support traffic in northeast and eastern regions of Kazakhstan. However, it has not been explicitly mentioned in major development plans. This report would urge a re-look at Semey's favourable conditions for development as a transport centre.
	Beineu	City	Beineu will become an important point once the railway from the east links to this point. Goods flowing from PRC can then shorten the distance and time to Europe by taking this route. Also, it will be

[2] The master-plan also considers the locations of cities and border posts along CAREC six corridors.

S/N	Locations	Status	Reasons
			easier to transport heavy machineries and construction equipment to Aktau and Atyrau from Almaty or Astana City.
	Dostyk	Border Post	Border post with high goods transported by rail. A key node in Corridor 1. The significance is challenged by the rise of Korgas as an alternative point but in the near future, Dostyk is an indispensable node for Chinese exports into Kazakhstan and to other CARs.
	Korgas	Border Post	A very important node in future, once the international logistics centre is built. Now the border post with the highest throughput of trucks for road transit, the building of a railway terminal increases the flexibility of transport at this point. Furthermore, the rail will be using the same standard as Chinese and thus avoid the trans-loading problem at Dostyk.
	Troitsk	Border Post	Key border post for Corridor 1.
	Zhaisan	Border Post	Key border post for Corridor 1.
	Karakalpakstan	Border Post	Key border post for Corridor 6.

From Almaty to Bangkok?

22 Interesting, export tonnage to Japan and Korea is higher than Kazakh export to many southern neighbours. Kazakhstan achieves 891,000 tons of export to the two countries, even though the distance is large and the need for multi-modal transport. Trade volume can also be increased by improving transport. Here, **containerization** plays a very important role. In the earlier discussion on wheat flour export to Korea, Kazakhstan can only use containers to send the goods to Korea via Lianyungang, as the port does not accept railway wagons. The cost of container transport is currently expensive because the demand for such services is very limited. The only long term solution is to encourage more trade to Japan and Korea, as well as to other countries such that the circulation of containers can be better managed and drive the cost of transport down. The industry must also have more training to inculcate familiarity with the documentation required. Here, the Kazakhstan government can do more to promote foreign trade with further countries, such as Southeast Asia. Wheat flour can fetch more attractive prices in cities like Bangkok and Ho Chi Minh City, but these necessitate the use of containers. The problem is the government agencies, trading companies and freight forwarders in these two regions may not be aware of the potential of the other party, thus missing an opportunity for trade. A suggestion is for ADB to organize a similar event done by IRU a few years back, called 'From Beijing to Brussels', This was a successful project to demonstrate the viability of road transport over the Asia and Europe continent, thus rivaling the sea route. A very obvious benefit of this campaign is to increase the awareness by the countries and freight agents on this mode of transport. Similarly, a symbolic transport of a TEU carrying a Kazakh goods from Almaty to Ho Chi Minh can mark a start of increase in trade flows between Central Asia and Southeast Asia.

End of Summary

Appendix 1

S.W.O.T. Analysis of Kazakhstan

The S.W.O.T. framework categorizes the relative strengths and weaknesses of Kazakhstan presently. The opportunities and threats in near future are also highlighted. Any development plans will need to consider the factors here, to leverage on strengths so that opportunities can be capitalized, and to address weaknesses which can become threats to economic growth.

Strengths	**Weaknesses**
• High economic growth rate, with an average of annual GDP growth rate at more than 9 % since 2000 • Rich mineral-resource base to support industrial production, mining sector or export • Large proven deposits of crude oil and natural gas rich mineral-resource base to support industrial production, mining sector or export • Strategic geographical position to link traffic across Europe and Asia • More developed in economic and transport capability in the region • Proximity to Russia, PRC and India, three of the BRIC's rapidly developing economies that can provide low cost supplies and huge markets for exports • Rail systems is more developed in legal and pricing tariffs, offering more cost effective means of transport	• Trade and transport are not well connected to major markets and international systems • Relatively low productivity of a manufacturing industry • Insignificant consumer demand for the goods and services in home market (small economy) • Unbalanced economic development where accruing deterioration of a fixed capital in the remote areas or areas with no oil and mineral deposits • Large land surface area necessitating more infrastructure investments to increase rail and road density • Land-locked country with no direct access to sea ports, thus need to rely on other countries for transit and sea routes • Low expertise in containerization resulting in limited access to overseas markets for export products
Opportunities	**Threats**
• Presence of the new transit route from PRC, Kazakhstan, CIS to Eastern and Western Europe offers alternative route to the trans-Siberian railways. In theory, this route should take 30% less time than the conventional route through Siberia • Proximity to Russia, PRC and India, three of the BRIC's rapidly developing economies that can provide low cost supplies and huge markets for exports • The current boom in oil and commodities increase the export revenues for the country and thus enables financing for infrastructure development	• Absence of customs-tariff agreements on the basic transport highways • Absence of a direct exit to the world trading markets, • Absence of the rolling stock corresponding to the international ecological standards • Limiting activity of domestic carriers in the international market of transport services • Worldwide credit crisis originated from U.S. could reduce available credit and capital, thus affecting capital intensive industries like construction in Kazakhstan

Appendix 2

Performance Indicators for Import and Export of a TEU in Kazakhstan

Export Documentation for a TEU

Nature of Export Procedures (2007)	*Duration (days)*	*US$ Cost*
Documents preparation	20	200
Customs clearance and technical control	23	200
Ports and terminal handling	11	380
Inland transportation and handling	26	1,950
Totals	**89**	**2,730**

Source : Doing Business in Kazakhstan (World Bank), 2008

Import Documentation for a TEU

Nature of Import Procedures (2007)	*Duration (days)*	*US$ Cost*
Documents preparation	33	100
Customs clearance and technical control	16	200
Ports and terminal handling	4	380
Inland transportation and handling	23	2,100
Totals	**76**	**2,780**

Source : Doing Business in Kazakhstan (World Bank), 2008

Note : The above data are not necessarily representative of ADB. For more information on the methodology, please refer to the World Bank website. Although the data is an aggregate and may not reflect the individual performances of different freight agents, they do constitute a general idea of a country's efficiency in cross border trade.

In the ADB consultants' opinions, the relatively long and expensive outcomes for handling a TEU could be due to the lack of familiarity and demand for container services in Kazakhstan. If the World Bank Study uses the handling of a rail wagon, the outcomes should be more favourable. However, this reveals the importance of containerization in integrating Kazakhstan's goods to international transport systems. Kazakhstan may be able to do well in the region using rail transport. However, containers and multi-modal transport will need to be developed for expanding into overseas markets, which often handle containers only.