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Eurasian Development Bank

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EDB EURASIAN INTEGRATION YEARBOOK 2009



Eurasian Integration Yearbook 2009

An annual publication of the Eurasian Development Bank

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Edited by Evgeny Vinokurov

The Eurasian Development Bank is an international financial institution established to promote economic growth and integration processes in Eurasia. The Bank was founded by the intergovernmental agreement signed in January 2006 by the Russian Federation and the Republic of Kazakhstan. In December 2008, The Council of the Eurasian Development Bank approved the entrance of Armenia, Belarus and Tajikistan to the Bank. In April 2009 Armenia has completed all the admission procedures and became the third full member of the Bank. The Agreement on Establishing the Eurasian Development Bank has come into force for Belarus and Tajikistan. Both countries are in the process of finalising the required admission procedures. The Kyrgyz Republic is in the process of obtaining the inter-ministerial clearance on issues related to joining the EDB.

Electric power, water and energy, transportation infrastructure and high-tech and innovative industries are the key areas for Bank's financing activity.

As part of its mission the Bank carries out extensive research and analysis of contemporary development issues and trends in the region, with particular focus on Eurasian integration. The Bank also hosts regular conferences and round tables addressing various aspects of integration. In 2008, the Bank launched an annual EDB Eurasian Integration Yearbook (in English) and quarterly Journal of Eurasian Economic Integration (in Russian). Both publications are available online at www.eabr.org. The Bank's Strategy and Research Department publishes detailed Industry and Country Analytical Reports and plans to undertake a number of research projects. Developing the EDB System of Indicators of Eurasian Integration Index is the first project in the pipeline.

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Eurasian Integration Yearbook 2009

An annual publication of the Eurasian Development Bank

Edited by Evgeny Vinokurov, EDB

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Abbreviations

ACDE – Association of Central Depositories of Eurasia
ASEAN – Association of South east Asian Nations
BSEC – Black Sea Economic Cooperation
CAF – Andean Development Corporation
CAREC – Central Asia Regional Economic Cooperation Programme
CES – Common Economic Space
CIS – Commonwealth of Independent States
CIS IASE – International Association of Stock Exchanges of the CIS
CJSC – closed joint-stock company
CMEA – Council for Mutual Economic Assistance
CNPC – China National Petroleum Corporation
CST(O)- Collective Security Treaty (Organisation)
EBRD – European Bank for Reconstruction and Development
EC – European Community
ECO – Economic Cooperation Organisation
EDB – Eurasian Development Bank
ETS – Eurasian Trade System
EU – European Union
EurAsEC – Eurasian Economic Community
FDI – foreign direct investment
FSU – former Soviet Union states
FTA – free trade agreement
G-20 – Group of Twenty
GDP – gross domestic product
GLONASS – Global Navigation Satellite System
HPP – hydropower plant
IATA – International Travel Association
IBRD – International Bank for Reconstruction and Development
IDB – Islamic Development Bank
IDWS – integrated deep-water systems
IFC – International Finance Corporation
IFI – International financial institutions
IIRSA – Integration of Regional Infrastructure in South America
IMF – International Monetary Fund
IPA – Inter-Parliamentary Assembly of the CIS
ITS – Integrated Transport System
JSC – joint stock company

KASE – Kazakhstan Stock Exchange
LASH – lighter aboard the ship
LLC – Limited liability company
MEDT – Ministry for Economic Development and Trade
MERCOSUR – Common Market of the South
MFA – Ministry of Foreign Affairs
MFN – most favored nation
MICEX – Moscow Inter-bank Currency Exchange
MIGA – Multilateral Investment Guarantee Agency
MRC – Mekong River Commission
NAFTA – North American Free Trade Agreement
NGO – non-governmental organisation
NIS – Newly Independent States
OECD – Organisation for Economic Cooperation and Development
OSCE – Organisation for Security and Cooperation in Europe
PPP – purchasing power parity
PSA – product sharing agreement
RF – Russian Federation
Ro-Ro – Rolling method
RTA – Regional trade agreements
RtW – Round the World
SCO – Shanghai Cooperation Organisation
SCO RATS – Shanghai Cooperation Organisation Regional Antiterrorism Structure
SDRs – Special Drawing Rights
SPECA – Special Programme for the Economies of Central Asia
TACIS – Technical Assistance to the Commonwealth of Independent States
TEWS – Transport-Energy Water Systems
TIM – Travel Information Manual
TRACECA – Transport Corridor Europe Caucasus Asia
TTS – Transport Technological Systems
UAH – hryvnia – national currency of Ukraine
UN – United Nations
UN ESCAP – United Nations Economic and Social Commission for Asia and the Pacific
UNECE – United Nations Economic Commission for Europe
WB – World Bank
WTO – World Trade Organisation

Dear readers,

I am pleased to have the opportunity to once again welcome the readers of the Eurasian Integration Yearbook.

Since we released our first Yearbook in autumn 2008, several events that impacted on virtually every aspect of the Bank's operation have taken place. The Bank's membership has grown in number, and with the addition of Armenia, Belarus and Tajikistan, the Bank has become a truly multilateral financial institution. New investment projects in Russia and Kazakhstan began, and a new Anti-Crisis Fund was established by the EurAsEC member states. All these developments, aside from expanding our horizons, call for the Bank to employ the capacity and resources that it was endowed with to the maximum effect. The status of an international development bank requires that we are well equipped and flexible to respond to the challenges of the present.

Supporting economic integration among the member states remains at the core of our mission. In particular, we prioritise projects that advance mutual trade and investments. The Bank actively seeks to identify and support business projects, which could contribute to regional economic cooperation. At present, the Bank intends to focus on electric power sector, transport infrastructure, machine-building and innovative high-tech projects. We very much look forward to seeing business empowered and taking a more proactive role in shaping economic ties between the region's countries demanding the ideal policy environment, and engaging in partnerships with governments in the implementation of large-scale infrastructure development projects. A number of our projects lead to the creation of joint ventures and other types of corporate integration.

The effects of the global financial crisis hit the economies of the EDB member states and inevitably impacted the state of their economic cooperation. The volumes of mutual trade and investments contracted. The shortage of liquidity forced many potential borrowers to postpone new investments and projects. The crisis elevates the role and capacities of national and international development banks. And it is the development banks that are not only capable of spurring large-scale infrastructure development projects on, but also facilitating the mobilisation of additional resources in order to overcome the crisis period.

The establishment of the EurAsEC Anti-Crisis Fund has been a significant development for the EDB. The Bank was selected an implementation agent of the Fund. This choice, in our view, is quite justifiable. Our mission and focus of operations provides a unique opportunity of insight into the nuances of economic and business environments and the socio-political aspects of

development in the region. This knowledge and understanding ensures that the Bank makes informed investment decisions.

The objective of the EDB Eurasian Integration Yearbook is to present to the international community substantive research on economic and political integration in the post-Soviet space. We welcome this opportunity to share our knowledge of Eurasian integration with the readers of the Bank's publications and hope that our audience will grow while our list of analytical products expands.

With best wishes,

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke at the bottom.

IGOR FINOGENOV
CHAIRMAN OF THE BOARD
EURASIAN DEVELOPMENT BANK

Dear readers,

I have the pleasure of welcoming you to the second issue of the Eurasian Integration Yearbook. At the EDB Strategy and Research Department, we closely monitor regional integration processes and collect data on countries and sectors, strategic issues, and economic development and cooperation. We use this information internally for project analysis and evaluation, as well as for EDB publications, including industry reports, the quarterly Journal of Eurasian Economic Integration, monthly integration digests and this Yearbook. Thousands of people subscribe to our publications.

The year 2008 was rich in events that inspired discussions, research and analytical reviews. As far as integration issues are concerned, I draw your attention to the adoption of the CIS Economic Development Strategy for the period up to 2020; the positive developments in the formation of the EurAsEC Customs Union; Georgia and Uzbekistan declaring withdrawal from CIS and EurAsEC respectively; the establishment of the EurAsEC Anti-Crisis Fund; and gas transit disputes. The net sum of positive developments and challenges does not offer a single opinion on whether integration processes in the past period were advancing or rescinding.

Nevertheless, some achievements are unquestionable. The political will of the heads of EurAsEC states advances the formation of the Customs Union. Taking bottom-up view, we observe cross-border exchange between small businesses as well as investments and acquisitions by large companies in neighbouring countries. Business is performing as an economic agent of integration that facilitates effective interaction between the countries.

Our primary mission is to identify and support business projects that bring about sizeable integration effects. Networking with expert community, as well as research and analytical work, form the core of our knowledge and operations both in the member states and selected sectors. We constantly seek to better tune our services to the needs of our shareholders and clients. In October 2008, the Bank became an observer in EurAsEC. The engagement of the Bank's representatives in expert discussions on various aspects of regional cooperation will enable the stronger coordination of activities with EurAsEC, as well as launching joint regional initiatives for the benefit of member states.

We believe that the Eurasian Development Bank is well positioned to facilitate more active economic interaction in the region through identifying and financing projects with integration potential. We also constantly seek to expand our range of analytical products in pursuit of our strategic objective of becoming a leading centre and repository of knowledge on integration processes in the CIS space.



VLADIMIR YASINSKIY
HEAD OF STRATEGY AND RESEARCH DEPARTMENT

Introduction

1

EVGENY
VINOKUROV

The Crisis-Related Threats to Integration

The on-going crisis has triggered qualitative changes in the global political and economic architecture. Separate elements of global economic and financial reforms are already visible. In particular, the process of G20 institutionalisation, which reflects the growing weight of developing economies, has finally begun. Following a slowdown of operations over the last decade, the role of IMF has increased rapidly, as the institution finds itself at the forefront of helping many national economies survive. The idea of the world reserve currency is actively discussed and IMF's SDRs are the most commonly mentioned option. Furthermore, for better or worse, a global financial regulator is likely to be established.

There is less substance on the level of post-Soviet regional integration. The EurAsEC Anti-Crisis Fund, designed to help less developed countries of the region stabilise their economies and launch important transborder integration projects, stands out. Also, Russia's massive financial aid to its neighbours, in particular Belarus, Kyrgyzstan, and Armenia, is worth mentioning. At the same time, the wave of protectionism is gaining ground as countries resort to any means available to counteract their shrinking GDP. Unfortunately, there is high probability that the crisis will not push the countries of the region toward qualitatively new parameters of comprehensive economic cooperation and a more efficient mode of the realisation of the vast integration potential.

In general, a global economic crisis is unlikely to affect integration in a critically damaging way. However, the introduction of protective measures in support of domestic producers by a number of countries sends a troubling message. The consequences are dire. On balance, the crisis bears in itself more threats than opportunities for the consequential development of regional economic integration. For the post-Soviet countries, which are not even bound by the WTO rules, protectionist policies are all too tempting. However, the immediate gains conflict with the requirements of optimal foreign trade policy. Recent years witnessed very promising developments along the 'bottom-up' approach to integration based on market economy principles – namely the rapid growth of mutual trade and investments, corporate expansion across the border, the nascent Eurasian transnationals, the technological alignment

in crucial sectors, and the large-scale transborder infrastructure projects. Will short-sighted policies damage the first healthy sprouts of Eurasian economic integration?

The Growing Base of Economic Integration

Mutual trade, mutual investments, and corporate expansion are building a firm foundation of regional economic integration.

Volumes of mutual trade have risen continuously over the last years. For instance, trade turnover between Kazakhstan and Russia grew by 30% per year and reached \$19.7 billion in 2008, increasing twofold from \$9.7 billion in 2005. The bilateral trade turnover of other countries (most significantly, that of Belarus and Russia) increased at a comparable rate. All EurAsEC bilateral trades, large and small economies alike, demonstrated mutual growth of between 50% and 200% over the last three years. Table 1.1. shows trade flows between EurAsEC member states, which are marked by relatively high levels of economic interaction.

Trade turnover between countries	2005	2006	2007	2008
Russia–Belarus	15834.0	19944.0	26074.0	34188.9
Russia–Kazakhstan	9749.0	12807.0	16576.0	19731.7
Russia–Kyrgyzstan	544.0	755.0	1 169.0	1 802.9
Russia–Tajikistan	335.0	504.0	772.0	1002.8
Kazakhstan–Belarus	234.5	355.3	525.3	567.0
Kazakhstan–Kyrgyzstan	344.1	406.7	517.0	608.4
Kazakhstan–Tajikistan	167.6	185.1	198.9	295.4
Belarus–Kyrgyzstan	10.8	21.5	25.8	47.8
Belarus–Tajikistan	12.0	18.0	34.0	75.1
Kyrgyzstan–Tajikistan	24.9	26.7	30.4	43.2
<i>Total trade:</i>	<i>27255.8</i>	<i>35023.3</i>	<i>45922</i>	<i>58362.5</i>

Table 1.1.
Trade turnover between EurAsEC member states (\$ million)

Source: CIS Statistics Committee

Nevertheless, the slowing pace of trade growth marked 2008. This can be attributed not only to the naturally slower pace of growth in wealthier economies but also to the negative consequences of the economic crisis, which became evident in the fourth quarter of 2008. *2009 is likely to become the first year since 1998 when trade volumes will contract.* The data for the first quarter of 2009 confirms this observation. For instance, Russia-Kazakhstan turnover went down by 44.6% in January-March year on year. At the same time, Russian exports to Kazakhstan, impacted by the large percentage of machinery and consumer goods trade, decreased by half.

The pace of trade growth looks slow compared with that of mutual investments that have boomed over the last few years (naturally, from a low starting point). Practically all of the major economic sectors were affected, including hydrocarbons, metallurgy, machine building, agriculture, transport, telecommunications, development, and electric power generation and distribution¹. It is remarkable that the investment growth is reflected not only in sheer volume but also in the quality of mutual investments. We witnessed the first massive long-term investments into capital-intensive projects, the first portfolio investments (previously virtually unknown in the post-Soviet area), and the formation of the first Eurasian transnationals.

	Russian investments in EurAsEC countries			EurAsEC countries' investment in Russia		
	2000	2008		2000	2008	
	Total	Total	Direct and portfolio investments	Total	Total	Direct and portfolio
Belarus	490.2	771.2	661.9	2.5	103.5	32.7
Kazakhstan	2.2	99.7	30.2	5.7	894.8	228.0
Kyrgyzstan	0.0	20.6	0.1	0.1	70.5	5.2
Tajikistan	0.0	61.7	1.2	0.0	25.9	0.0
Uzbekistan	0.4	333.9	250.7	3.5	7.0	5.2
Total EurAsEC:	492.8	1287.1	944.1	11.6	1101.7	271.1
Total CIS:	555.6	2521.4	1921.3	19.3	1502.6	562.8

Table 1.2. Cumulative mutual investments of Russia and the EurAsEC states, at the beginning of the year (\$ million) *

Note: * excluding investments within the banking sector

Source: Federal State Statistics Service of Russia

The total volume of cumulative Russian investments in other four EurAsEC countries grew by 160% over the seven years from 2000. This figure is even more impressive for the CIS – 350% (excluding banks). On the other hand, EurAsEC countries' investment in Russia increased 100 times during the same time period, from a negligible size to a magnitude comparable with Russian investment in the EurAsEC. This fact clearly demonstrates both the growing size of the post-Soviet economies and their growing awareness of the vast advantages provided by the neighbouring large market for their goods, services, and expertise.

¹ For example, MTS and Vimpelcom represent brilliant cases of brand new corporate transnationals in Eurasia. Developers from Kazakhstan and Russia have ventured into each other as well as in Ukraine, Georgia, Belarus, and Tajikistan. In power sector, Sangtuda-1 HPP with the installed capacity of 670 MWt, the largest power station constructed in Central Asia over the last 20 years, has been built and set in operation by the Russian INTER RAO. Also, the third power block of Ekibastuz GRES-2 with the installed capacity of 500 MWt, is likely to be built by the Russian-Kazakh joint venture. There is also a high probability that the new 1 GWt power block of the nuclear power station in Armenia will be built by joint effort.

The situation changed quite abruptly in the second half of 2008. The global economic crisis forced post-Soviet states to focus on their domestic markets, as most active market players were compelled to concentrate all available resources in their home markets in order to survive. Mutual investments virtually came to a halt. Large foreign investments suddenly became impossible without the direct participation of the states (such as the planned Russian-Kyrgyz joint venture, which was established to build Kambarata-1 HPP).

Although the absolute volumes are still relatively low compared with the absolute size of the regional economies and their economic potential, we have witnessed an unprecedented surge in mutual trade and investment. *In fact, what we saw amounts to the restoration of cooperative ties between the post-Soviet 'Eurasian' economies, based on the new market foundations.* The goal for policy makers is clear: prevent the economic crisis and related protectionist policies from reversing this very positive trend.

The Concept of the EDB Eurasian Integration Yearbook

This is the second EDB Eurasian Integration Yearbook. The first one, published in 2008, is also available online and free of charge.² The Yearbook is there to improve access for the global community to the best articles published in Russian and to provide a comprehensive and coherent view of regional integration in the 'Eurasian' area. It publishes a wide range of articles and other materials on the theory and practical aspects of Eurasian integration. The major part of the almanac consists of English versions of selected articles published in the Journal of Eurasian Economic Integration and other analytical publications of the EDB. They are supplemented by the Integration Chronicles and other specialised analytical materials. Papers written specifically for the Yearbook are also welcome.

While primarily focusing on economics, the Yearbook addresses a broad spectrum of urgent issues in Eurasian integration. This includes theories of integration; economic integration (trade, investment and financial institutions); institutional integration; other cooperation issues in the post-Soviet space; and experience of regional integration in the other macro regions of the world. The reputable Advisory Council ensures the quality of the volume. The Council currently comprises twelve world-class experts on various integration issues from countries like Belgium, France, Kazakhstan, Russia, the U.S.A. and Ukraine.

A pertinent and non-trivial question relevant to the idea of this volume would be the definition of 'Eurasia' in the context of 'Eurasian integration', terminology used widely on the pages of this volume. Since 1991, geographers, economists, political scientists, and social scientists have struggled with the terminological

² At <http://www.eabr.org/eng/publications/IntegrationYearbook/>

ambiguity concerning the states of the former Soviet Union. The term 'post-Soviet space' is frequently used, as is the term 'former Soviet Union' (FSU). Another commonly used description is the Commonwealth of Independent States (CIS). However, all of these denominators hold obvious deficiencies. To begin with, the first two terms are derivatives of the past, i.e. they draw on a non-existent political entity. Conversely, the CIS draws on an existing political entity, which has only limited relevance to the politics and economics of the region. Quite apart from these factors, all these terms artificially bind the actual political and economic geography of the region.

The straightforward solution to the problem would be to find an appropriate geographical description of the territory in question. In my opinion, 'Northern and Central Eurasia' would be the closest to being correct. However, this sounds a bit awkward, and would be far too long a phrase for practical use.

In our Journal of Eurasian Economic Integration, and in the Eurasian Integration Yearbook, we focus predominantly on the post-Soviet states. When doing so, we can combine the emphasis placed on the internal integration processes with the willingness to address any external integration considerations of the post-Soviet states. I believe that the current geo-economic situation is favourable to the new round of economic integration on the Eurasian continent, this time in a qualitatively 'smaller' world. *Due to their geographic location and national economic interests, Russia, Kazakhstan, and other FSU states are directly interested in Eurasian integration, which would overspill the tight boundaries of the post-Soviet space.*

The Contents of the Yearbook

The EDB Yearbook 2009 consists of an introduction, full-length papers and reports as well as a regional integration chronicle. The volume is composed of six parts.

The Yearbook starts with a 'Chronicle of Eurasian Regional Integration in 2008', compiled by Natalia Maqsimchuk, a senior analyst with the EDB Strategy and Research Department. This thoughtfully structured digest covers the economic, political and social dimensions of interaction between the member states of the CIS and EurAsEC. It provides the Yearbook's readers with updates on the status of the current and new policy initiatives within and between the integration groupings, as well as an overview of business activity. The Chronicle was placed at the very beginning of the volume on purpose as we wanted to precede the academic analysis with the dynamic picture of what was actually going on in 2008 in terms of integration and cooperation. This picture is in fact quite mixed. Positive developments in the corporate sector and substantial advances in the formation of the Russia-Kazakhstan-Belarus Customs Union are on the positive side, while the negative consequences of the economic crisis, Georgian-Russian war and subsequent Georgian withdrawal

from the CIS, accompanied by the suspension of Uzbek membership in the EurAsEC amount to a retreat in integration processes.

The next part of the Yearbook features three high quality papers dedicated to institutional integration and its relation to economic growth. Alexander Libman and Leon Zewin provide a qualitative and quantitative assessment of the relationship between the territory size and the efficiency of integration groupings. The chapter defines six organisation models. The efficiency of each model depends on its ability to support a full-scale integration project, avoid the trap of quasi-integration, and maintain the required balance between market exchange and redistribution. The chapter by Johannes Linn and Oksana Pidufala contains an analysis of the experience of regional economic cooperation organisation relevant to Central Asia. The last chapter of this part, written by Alexander Libman, defines the role of regionalisation in Central Asia and provides an analysis of bottom-up integration approaches in the region.

The next section, 'Economic Integration: Trade, Investments, and Ecology', contains four papers, which look into various trade- and investment-related issues. Starting with an analysis of regional trade arrangements by Irina Gurova, we logically move to Boris Heifetz 'Russian Direct Investments in the EurAsEC Countries: Developing Energy and Transport Infrastructure in Eurasia'. These papers are followed an assessment of relevant transborder ecological problems in Central Asia by Vladimir Yasinskiy and Alexander Mironenkov.

Following on from this is a discussion about the growing cooperation in the financial sector. This part comprises one report and two papers. Zhanara Sagimbayeva of EDB provides a concise overview of the activities of international and regional development banks in the region. Multilateral development banks play a significant role in economic development. Notably, their relative standing is growing in the times of economic difficulties. They are also important actors in promoting global and regional integration through large infrastructure investment, relevant technical assistance, and research. I would like to draw the reader's attention to this overview as it represents the first attempt to summarise the activities of multilateral development banks in our region. Further, Michail Golovnin analyses the prospects of a joint stockmarket infrastructure and Evgeny Vinokurov looks into developing mutual investments in the CIS banking sector.

In the subsequent part of the Yearbook, we deviate from the functional analysis of economic cooperation and jump onto the seemingly technical – but actually highly pertinent and policy-oriented – issue of monitoring and measuring integration. Philippe de Lombaerde rightly points out that these questions cannot be reduced to a set of technical problems, as the starting point for setting up a system of indicators is usually political in nature. The purpose of monitoring is usually the evaluation of regional integration policies,

given the 'implementation problem' faced by several regional initiatives, and to test the quality of regional governance. The paper that follows Lombaerde's highly informed discussion of indicator-based monitoring is Brendan Whyte's piece on visa-free travel as an indicator of global integration. He draws on the comprehensive study of visa-free travel privileges by Henley & Partners, a Swiss firm specialising in migration. The paper analyses the dataset, and confirms that the ability to travel visa-free to other countries is strongly correlated to the wealth and openness of a traveller's own country. Using population figures for each country, a Global Travel Freedom Index was developed.

The concluding part of the volume is actually the largest one. It is devoted to the transport sector as one of the most interesting functional sector where integration can bear visible fruits. EDB has recently published a report on the EurAsEC transport corridors, which sets the stage for discussion in further papers by Yuriy Shcherbanin, Leonid Kozlov, Alexey Belyakov, and Vitaly Zbaraschenko. The authors shed light upon various aspects of transborder infrastructure, such as railway transit corridors, transport-energy water systems, proposed new navigation canals enabling transborder shipping, etc. The section is highly practical but may also be useful for more theoretically-inclined researchers.

Overall, the Yearbook intends to provide a dynamic overview of integration processes in the post-Soviet 'Eurasian' space and the challenges to which the Northern and Central Eurasian states will have to provide adequate responses. I genuinely hope that the yearly EDB Eurasian Integration Yearbook will become a reliable companion to those studying regional integration. Once again I am pleased to direct readers to the EDB website, where this volume, the previous Yearbook, the Journal of Eurasian Economic Integration and a number of reports and stand-alone papers relevant to regional integration are available to download free of charge.

I would like to thank Vladimir Yasinskiy, Head of Strategy and Research Department at the EDB, for continuous support. I am most indebted to Gulnaz Imamniyazova, our diligent and thoughtful literary editor and proofreader, and Natalia Maqsimchook, Senior Analyst at the Economic Analysis Division, for her invaluable help along the way. Our permanent partner, Ruan publishing company, was instrumental in producing this volume.

2 Regional Integration Events Digest 2008

NATALIA
MAQSIMCHOOK

This section of the Yearbook offers our readers a chronicle of the integration events in the year 2008. It covers the economic, political and social dimensions of interaction between the member states of CIS and EurAsEC, updates on the status of current and new policy initiatives within and between the integration groupings, as well as an overview of business activity.

All the events of the previous year can be divided into “before” and “after” the breakout of the crisis. The integration development processes in the post-Soviet space generally showed positive dynamics in the first half of the year. The Eurasian Economic Community (EurAsEC) accelerated its work on the formation of a Customs Union with Russia, Belarus and Kazakhstan at its core. To this end, a set of documents on the Customs Union was ratified. These documents set out provisions for the establishment of a single customs territory, providing an exhaustive list of considerations to guide decision-making on consolidating customs territories of individual countries into a single space and the finalisation of the Customs Union formation. The Institutional framework of the Union started to shape up with the signing of an Agreement on the Customs Union Commission. The competencies and authority of the EurAsEC Court grew with the addition of arbitration functions within the organisation.

The Commonwealth of Independent States (CIS) concentrated on the development and adoption of the CIS Economic Development Strategy up to 2020. The overall objective of this document is to invigorate economic development in the member states, facilitate growth and economic security, and ensure a higher quality of life. Priority spheres of interaction between the CIS states included free trade zone matters, the formation of the common economic space, and the development of specialised product markets and the transport corridors network. In addition, yet another CIS priority of this Strategy up to 2020 addresses cooperation in the energy sector with a view to increasing the reliability of energy supplies and optimising the use of fuel and energy resources in the member states.

Trans-border cooperation and the large-scale modernisation of key industries, as well as infrastructural projects in energy and transport sectors, were the main themes for the Shanghai Cooperation Organisation (SCO) during 2008. Proposals on the establishment of a common energy market and transport

corridors were announced. More so, the idea of the SCO Development Fund to support pilot projects in the member states was discussed.

It was apparent that in 2008, the manifestation of existing controversies and problems within regional groupings was stronger than ever. Membership in the CIS shrunk with Georgia announcing its exit, as did the numbers of stakeholders in the EurAsEC with Uzbekistan's suspension from participation.

Business activity during the first three quarters of 2008 remained relatively high according to the recorded positive dynamics in mutual intra-trade between the member states. The most notable growth was observed in the mutual trade between Russia and Belarus, Russia and Kyrgyzstan, as well as between Belarus and Tajikistan, and Kyrgyzstan and Tajikistan. However, due to the financial crisis, countries' general economic policies and, particularly, companies' investment plans, were faced with substantive changes. By the end of 2008, the majority of countries reported a sharp drop in the GDP growth rates, as well as cuts in employment and national currency devaluations.

Main macroeconomic indicators, as % of the previous year						
	Kazakhstan			Russia		
	2007	2008	Jan-Mar 2009	2007	2008	Jan-Mar 2009
Gross domestic product	108.5	102.4 ¹	95.5 ²	108.1	105.6	87.7 ¹
Industrial output	104.5	102.1	95.4	106.3	102.1	85.7
Agricultural output	108.4	94.4	...	103.3	110.8	...
Capital investments	108.2	104.6	95.1	121.1	109.1	85.0
Exports to CIS	142.9	139.08	63.45	124.3	132.66	50.93 ²
Imports from CIS	132.0	119.85	73.39	133.4	122.52	52.77 ²
	Ukraine			Belarus		
	2007	2008	Jan-Mar 2009	2007	2008	Jan-Mar 2009
Gross domestic product	107.3	102.1	...	108.2	110.0	101.1 ¹
Industrial output	110.2	96.9	68.1	108.5	110.8	95.5
Agricultural output	94.4	117.5	...	104.1	108.9	...
Capital investments	128.5 ³	104.7 ⁴	...	115.1	123.1	120.0
Exports to CIS	147.0	127.96	56.66 ²	130.46	128.38	48.62 ²
Imports from CIS	127.0	131.29	53.61 ²	130.9	137.01	59.08 ²

Table 2.1.
Main
Macroeconomic
Indicators of
selected CIS
member states,
2009

Source: National
Statistical
Committees

¹ Index of industrial output for basic kinds of economic activities computed on the basis of the data on change in volume of agricultural production, mining and quarrying, manufacturing industries, production and distribution of electric energy, gas and water supply, construction, transport, retail and wholesale trade.

² January–February 2009 as % of January–February 2008.

³ January–September 2007 as % of January–September 2006.

⁴ January–September 2008 as % of January–September 2007.

Table 2. 2.
Economic growth in
CIS (%)

Source:
National Statistical
Committees

	2007	2008
Russia	8.1	5.6
Kazakhstan	8.5	3.0
Belarus	8.2	10.0
Kyrgyzstan	8.5	7.6
Tajikistan	8.7	7.8
Uzbekistan	9.5	8.0
Armenia	13.8	6.8
Azerbaijan	25.0	10.8
Ukraine	7.3	2.1
Moldova	9.9	9.0

In general, experts and analysts are unanimous in the view that a global financial shock cannot affect integration in a critical way. However, the introduction of protective measures in support of domestic producers by selected countries is sending a rather troubling message.

In this context, Russia and Kazakhstan are taking over crisis management role. Russia's partners in regional groupings not having a resource cushioning against economic and financial crisis are in acute need of credit and grant support. Despite its adverse impacts, the current situation could unite the member states of CIS and EurAsEC in finding approaches and implementing common measures to overcome the crisis. Establishment of EurAsEC Anti-crisis Fund is the first vivid example of such an initiative.

Table 2. 3.
Unemployment (%)

Source:
National Statistical
Committees

	Russia	Kazakhstan	Belarus	Ukraine
March 08	6.5	6.8	1.1	7.6
June 08	5.6	6.5	0.9	6.8
Sept. 08	6.2	6.4	0.9	6.5
Dec. 08	7.7	6.7	0.8	6.9
March 09	9	6.8	1	7.2

News from regional organisations

20th meeting of EurAsEC Interstate Council

January 25, 2008

A regular 20th meeting of the Eurasian Economic Community Interstate Council was held in Moscow. Prime ministers of EurAsEC member states adopted the concept of forming a common transportation space that will give a start to a brand new stage of integration in transportation sphere. The Interstate Council also addressed the issues of development in the social spheres of EurAsEC member states and determined actions to deepen integration. The project of EurAsEC intergovernmental target programme, entitled "Innovative biotechnologies" and prepared by the government of Belarus, was also proposed for approval. Moreover, during the meeting the prime ministers of Kazakhstan, Russia and Belarus signed nine documents on establishing the EurAsEC Customs Union.

Meeting of the EurAsEC Financial and Economic Policy Council*February 20, 2008*

The 5th meeting of the Council on Financial and Economic Policy of the Eurasian Economic Community was held in Moscow. EurAsEC Secretary General, Tair Mansurov, the Council members, including economy and finance ministers of EurAsEC member states, representatives of observer states, and experts all took part in the meeting.

The EurAsEC Secretary General briefed participants on the crucial issues of further boosting economic ties between EurAsEC member states, establishing a customs union and a common economic space, effective usage of economic potential for the improvement of living standards, and the development of cooperation in cultural, social and humanitarian spheres.

During the meeting, the sides came to the conclusion that EurAsEC member states should move on to implementing international agreements that form a legal base for the customs union between Belarus, Kazakhstan and Russia.

The agenda of the meeting also included such issues as the draft concept of the EurAsEC intergovernmental target programme for the strengthening and arrangement of the outer boundaries of Eurasian Economic Community member states, drafts of the interstate target programmes on creation of the unified automated information system, allowing for customs transit supervision in the EurAsEC member states, and on establishing a system of informational and methodical ware of implementing a single order of export control within EurAsEC.

During the meeting, the Council's Chairman, Alexei Kudrin spoke about the task of selecting key projects that will be of most importance to EurAsEC member states. He also noted that the improvement of the investment policies of the member states is one of the Eurasian Economic Community's major tasks.

Action plan of establishing the Customs Union by 2010 approved*April 23, 2008*

The issue of forming a customs union and a common economic space topped the agenda of the EurAsEC Integration Committee meeting in Moscow. According to EurAsEC Secretary General Tair Mansurov, "further activities on establishing customs union have been defined". The legal foundation for the customs union of Kazakhstan, Russia and Belarus has been laid. "We have signed 13 documents setting out the basic regulations for the formation of the Customs Union by 2010", Mansurov said. Participants of the meeting approved draft agreements on the information exchange between customs authorities, and the facilitation and mutual protection of investments. During a session of EurAsEC Interstate Council at a governmental level in late January 2008, the Prime Minister of Russia, Viktor Zubkov, expressed the hope that

"Kyrgyzstan, Tajikistan and Uzbekistan would join the customs union in due course".

Russia to establish a federal agency for CIS affairs

May 12, 2008

A new Federal Agency for CIS Affairs is being established under the Russian government. According to the Russian President Dmitry Medvedev, the decision to establish a Federal Agency under the Russia Foreign Ministry was conditioned by Russia's intent to develop integration processes. "The fact that an agency of this kind didn't exist before doesn't mean that we didn't work on the issue. However, now there is a need to intensify interaction", Medvedev said, "If we want to follow new forms of interaction and integration, we must also apply modern principles for cooperation with our colleagues from the CIS".

Council of CIS Heads of Government

May 24, 2008

A Draft Strategy for the Economic Development of CIS for up to 2020 has been discussed in Minsk. It outlines the goals and tasks of economic integration and the major spheres of economic cooperation. The prime ministers of CIS member states have also discussed several propositions in the transport policy sphere, including a project for raising the operating reliability of bridgeworks on the CIS member states' highways for 2008-2015. The project will contribute to maintaining and stepping up the traditional economic and trade transportation ties. The participants have also discussed a Draft Convention on Cross-Border Cooperation between CIS states and a Draft Convention on the Legal Status of CIS Member States' Migrant Workers and their Families.

CIS Electric Energy Council to discuss issues of cooperation in the field of energy

May 28, 2008

During the previous 33rd session of the CIS Electric Energy Council in Moscow, the participants noted the unfavourable and complex hydrogeological situation, which had come about due to a hard winter that demanded additional water intake and a low-water season in the region of Central Asia as a whole. The forecasted volumes of major reservoir inflow will amount to 25% below the norm. The issue of the rational use of transborder rivers' potential and solving several technical tasks in this connection received high-priority status. A draft Model Agreement of Cooperation on the use of Hydropower Resources of the transborder rivers was presented at the session. Participants of the session adopted several documents on establishing a wholesale electric

energy market, which would ensure cooperation in monitoring crossflows and electric power transit between the member states of the CIS Electric Energy Council.

Informal summit of CIS Heads of State in St. Petersburg

June 6, 2008

All 12 heads of CIS member states took part in the informal summit. The president of Russia, Dmitry Medvedev, focused on some of the major objectives of CIS development. Economic cooperation was named a top priority in CIS activities. Medvedev welcomed an initiative of Kazakhstan and Kyrgyzstan to devote the year 2009 to addressing energy issues.

Common economic issues topped the agenda of discussions. The Chairman of the Executive Committee CIS Executive Secretary Sergei Lebedev – briefed the participants on the status of work on the Strategy of Economic Development. Heads of state discussed the prospects of cooperation in the fields of energy, transport and food security. Moreover, several humanitarian issues, including the implementation of joint social projects, were also on the agenda.

Medvedev held bilateral meetings with the presidents of Moldova, Turkmenistan, Azerbaijan, Armenia, Ukraine and Georgia. During the latter two meetings, presidents discussed the issues of Ukraine and Georgia's possible entry into NATO, as well as the Georgian-Abkhazian conflict.

The regular meeting of the Council of CIS Heads of State is scheduled for October 10, 2008, in Bishkek. Following the results of the informal summit, several decisions were taken and a number of protocols signed.

CIS Economic Council meeting

June 20, 2008

A regular meeting of the CIS Economic Council was held in Moscow. The discussion on the document "On the Draft Strategy of Economic Development of the Commonwealth of Independent States for up to 2020" topped the agenda of the meeting. The draft document was approved and introduced for consideration of the next CIS Heads of State Council.

The participants also discussed draft priority directions for cooperation between CIS member states in the field of transport.

Members of the Economic Council reviewed a draft document "On Joint Measures for Strengthening of Food Security of CIS Member States". In addition to the aforementioned documents, the participants of the CIS Economic Council's meeting addressed a number of other issues, including cross-border cooperation, migration policy and the fight against counterfeit pharmaceuticals.

Georgia initiates procedure of withdrawal from CIS

August 19, 2008

Georgia passed a note of intent to cease its membership in the Commonwealth to the CIS Executive Committee, thus initiating the official procedure of withdrawal from the CIS.

“We have received a note from Georgia, stating that the country’s parliament adopted a resolution, which annuls the agreement on establishing the CIS in regard to Georgia. Now Georgia has 12 months for settling accounts with the Commonwealth. During this period Georgia will have to decide, which agreements within the framework of CIS will be annulled and which treaties, concluded within the CIS, will remain in effect”, the representative of the CIS Executive Committee, Vera Yakubovskaya, said.

Georgia’s withdrawal from the CIS will be completed in a year, following the submission of the appeal, i.e. August 18, 2009.

SCO Development Fund

August 29, 2008

During an extended meeting of the Heads of SCO Member States, the participants discussed the establishment of the SCO Development Fund – a facility for the mobilisation of financial resources in support of the economic integration of SCO countries. According to Kazakh President Nursultan Nazarbayev, if integration in the region succeeds, by 2020 SCO member states would be producing up to 30% of global GDP, with trade turnover totalling \$70 billion.

“We consider the signing of a memorandum between the Eurasian Development Bank and SCO Interbank Association as a positive step. The memorandum will provide an example of successful interbank cooperation and create additional opportunities to allocate resources for financing SCO projects”, – Nazarbayev said.

The next meeting of the Heads of SCO Member States will be held in Yekaterinburg in 2009.

Sessions of CIS Heads of State Council and EurAsEC Interstate Council, and a Meeting of Heads of Central Asian States in Bishkek

October 9-10, 2008

The CIS Economic Development Strategy was the central issue of the summit. The Strategy aims to strengthen long-term economic cooperation and boost economic integration among CIS countries. This Strategy defines the priorities in developing economic ties within CIS.

The presidents discussed the status of implementing decisions taken during the CIS summit in Dushanbe, as well as programmes on transport – the central development topic of the year 2008. The CIS Executive Committee briefed the Heads of State on CIS cooperation with other regional organisations. The parties also exchanged opinions on the issues of strengthening collective security and fighting crime. The current situation under crisis conditions, and ways of overcoming possible negative consequences of a global economic crisis, were also on the agenda. The participants reached an agreement on establishing a working group headed by Finance Ministers of CIS member states. Based on the results of discussion, participants adopted the CIS Economic Development Strategy and signed a number of documents related to the CIS activities and widening multilateral cooperation in several spheres. The Republic of Moldova took over the CIS chairmanship.

The EurAsEC Customs Union was the key discussion point for the EurAsEC Interstate Council meeting. Presidents examined the issues of effective use of transport and transit facilities. An exchange of opinions on cooperation in agriculture took place.

After this, a meeting of the Heads of Central Asian States was held. The main issues for the discussion were rational use of water and energy resources.

Uzbekistan suspends its membership in the EurAsEC

October 20, 2008

The Foreign Ministry of Uzbekistan has forwarded a note to the EurAsEC Integration Committee expressing its desire to suspend membership in the Eurasian Economic Community (EurAsEC). Uzbek president, Islam Karimov, has sent a letter requesting the suspension of Uzbekistan's membership in this organisation to the heads of EurAsEC member states.

It should be noted that the Agreement on Establishing the Eurasian Economic Community, dated October 10, 2000, does not provide for the suspension of EurAsEC membership unilaterally. But any country has the right to state its desire to separate from the organisation 12 months in advance of the current date, while settling its obligations to the Community and its members.

During regular sessions of the EurAsEC Integration Committee and Interstate Council at the levels of Heads of State and Prime Ministers, the issue of a quorum in the aforesaid organs without Uzbekistan will be considered in accordance with the regulatory enactment.

Uzbekistan joined the EurAsEC in January 2006 and pledged to join international agreements under EurAsEC in order to provide the country's full participation in activities of the Community, which had not been fulfilled up to now.

Meeting of SCO member states Heads of Government in Astana

October 30, 2008

The importance of large-scale modernisation of core industries and infrastructural projects in energy and transport topped the agenda of the meeting.

The projects on SCO common energy market and common transport corridors could serve as an example of the global approach to selecting forms and mechanisms of cooperation.

The People's Republic of China confirmed its intentions to take part in all major joint investment projects and finance them. It was said that China intends to provide soft loans to SCO member states. As per the crisis, the "financial community of SCO member states needs to jointly analyse and forecast macroeconomic and financial processes in the world, strengthen the coherence of monetary and financial policy, tighten and improve financial control", Wen Jiabao, the current Premier of the State Council of the People's Republic of China said.

Energy, and the ways of oil transportation in particular, topped the agenda of discussions. Kazakhstan and Russia reached agreements on the "Russian route" for Kazakh oil to China. Iran is also interested in this transport corridor.

The prevention of emergency situations and disaster preparedness were also on the agenda of the meeting. Kazakhstan's Prime Minister, Karim Masimov, suggested establishing an SCO Centre for Emergencies.

Russia suggested accelerating the preparations for establishing the SCO Development Fund that will support pilot projects in the member states.

Kazakhstan came forward with the initiative of holding a meeting of the Finance Ministers and heads of Central Bank of SCO member and observer states in Almaty.

Following the results of the meeting, the participants signed six protocols and reviewed an action plan for the programme of multilateral trade and economic cooperation. They also approved the budget for 2009 and a joint communique on the results of the meeting.

CIS Economic Development Strategy for up to 2020 approved

November 14, 2008

The CIS Economic Development Strategy for up to 2020 has been approved during a meeting of CIS Heads of Government Council in Chisinau. The major goals of the Strategy are to invigorate the economic development of CIS

member states, secure stable and equitable economic growth and economic security, and improve welfare and quality of life of the population. The document evaluates the CIS position in the world economic system and the economic situation in the CIS as a whole. It also foresees the goals and tasks of economic integration, as well as major spheres of cooperation.

The document defines priority directions for CIS states, including the completion of establishing and operating a free trade zone within the framework of CIS in accordance with the provisions and rules of WTO, the shaping of preconditions for establishing a common economic space, the development of common markets for several types of goods (primarily agricultural), and interaction in transport, including the development of international transport corridors. Moreover, the deepening of cooperation in the field of energy in order to increase reliability of energy supply and effective use of fuel and energy resources was set as a priority task for CIS for up to 2020. The strategy also focuses on establishing an interstate innovation space, and effective mechanisms of currency and financial cooperation, as well as private sector development.

According to the representative of the CIS Executive Committee, "in the nearest future an economic policy of the Commonwealth of Independent States will be aimed at the development of a domestic market and the protection of domestic producers and consumers. In these terms, it is necessary to bring together the national legislation and legal and economic conditions of market participants' activities". According to expectations, the governments of states would work out and adopt "a range of effective measures on elimination of corruption and reduction of shadow economy". The Strategy is to be implemented in three stages.

The CIS Heads of Government approved a range of documents, including priority directions for economic cooperation in the transport sector between CIS member states for up to 2020, food security, and the main directions of international transport services market development.

Joint meeting of EurAsEC Financial and Economic Policy Council and Council of Heads of Central (National) Bank

December 11, 2008

A joint meeting of the EurAsEC Council of Financial and Economic policy and Council of Heads of Central (National) Bank of EurAsEC member states has been held. Issues of overcoming the global financial crisis were the priority topics of the meeting.

Following the results of the meeting, 15 intergovernmental agreements on Customs Union legal framework have been signed, including a package of international agreements on the unification of customs regulation and trade

with the third countries and the agreement on a Secretariat of the Customs Union Commission. The participants approved the organisational structure, number of staff, the rules and procedures, and the budget of the Secretariat.

Moreover, the sides signed agreements on the promotion and mutual protection of investments, the organisation of a joint system of information support of the EurAsEC member states common energy market. A total of 23 issues were addressed during the meeting, and important agreements on energy, common insurance market, technical regulation, sanitary and phytosanitary measures were reached.

EurAsEC Interstate Council's meeting at the governmental level in Moscow

December 12, 2008

The Kazakh Prime Minister, Karim Masimov, briefed participants on the stabilisation plan, developed by the Government of Kazakhstan. He noted that proposed measures are of a long-term character and include five priority directions for state subsidies, such as support to the financial sector and real estate market, small and medium sized businesses, agro-industry enterprises, and breakthrough industrial and innovative projects.

Masimov met with the Russian President Dmitry Medvedev. They discussed the prospects of economic interaction, as well as boosting economic ties within EurAsEC. The Kazakh Prime Minister also met with the president of the ICT Group, which specialises in mining, machine building and transport logistics. In October 2008, following the meeting of Heads of SCO member states, Kazakh and Russian entrepreneurs have signed a memorandum, agreeing to cooperate on the construction of a railway car building plant. Kazakhstan's Temir Zholy National Company, the Eurasian Development Bank, and the Kazakhstan Development Bank, signed the memorandum facilitated as partners of the ICT GROUP in this memorandum.

EDB Council approves three new member states

December 11, 2008

The Council of the Eurasian Development Bank (EDB) reviewed formal applications by Tajikistan, Belarus and Armenia, and approved these three countries, as well as conditions of their membership in the Bank.

EurAsEC Interstate Council grants suspension of Uzbekistan's membership in the organisation

December 12, 2008

Prime Ministers of EurAsEC member states "decided to suspend Uzbekistan's membership of the Eurasian Economic Community in line with its request",

Russian Prime Minister Vladimir Putin said, following the results of the EurAsEC Interstate Council's meeting on December 12 in Moscow.

As reported, the Foreign Ministry of Uzbekistan has filed a note to the EurAsEC Integration Committee's Secretariat, expressing its desire to suspend membership in the Eurasian Economic Community. Uzbek president, Islam Karimov, has sent a letter of request on suspending Uzbekistan's membership in the organisation to the Heads of all EurAsEC member states.

Summit of EurAsEC Heads of State in Kazakhstan

December 19-22, 2008

During a meeting in Borovoye, the presidents of Kazakhstan, Russia, Tajikistan, Kyrgyzstan and Armenia discussed the measures of withstanding external and internal challenges and threats.

The Kazakh president held a number of bilateral meetings with Dmitry Medvedev, Emomaly Rakhmon, Kurmanbek Bakiyev and Serzh Sargsyan. The world financial crisis, issues of regional integration, and further work of the Collective Security Treaty Organisation (CSTO) topped the agenda of the summit.

The presidents discussed the creation of a EurAsEC joint Anti-crisis fund of \$10 billion. The fund will render emergency support to states that suffered from the global crisis. Moreover, the sides decided to establish a Centre of New Technology. All the agreements will become valid after the signing of the documents. The Heads of State agreed to adopt corresponding decisions in Moscow (meeting of the EurAsEC Interstate Council is scheduled on February 3, 2009, in Moscow).

Kazakhstan, Russia and Belarus are to complete the establishment of the Customs Union by April 2009. A majority of documents (20 out of 32) have been signed by now.

The presidents of Kazakhstan and Russia signed a joint action plan for the next two years. It included 40 items and covered the whole range of interaction, including politics and economy, fuel and energy complex, exploration of outer space, transport and communications.

Bilateral cooperation

Documents on cooperation between Russia and Uzbekistan signed

February 6, 2008

During an official visit to Moscow, the President of Uzbekistan Islam Karimov signed a number of documents, including a programme for economic cooperation between the Russian and Uzbek governments, as well as an action

plan for 2008-2012. Foreign Ministries of both states signed a programme of cooperation for 2008. Besides, the governments of both countries agreed to cooperate in the field of aircraft industry and integration of a state-run JSC Chkalov Tashkent Aircraft Production Enterprise and JSC United Aircraft Corporation.

Investment Fund of Kazakhstan and Kyrgyzstan

February 15, 2008

Kazakhstan and Kyrgyzstan are to establish an investment fund for joint projects. In 2007, the Prime Ministers of Kazakhstan and Kyrgyzstan signed a respective agreement establishing the fund with the initial capital of \$120 million, including \$100 million from Kazakhstan and \$20 million from Kyrgyzstan.

President of Uzbekistan to visit Astana

April 22-23, 2008

Uzbekistan is not supportive of the idea of a Central Asian States Union, President of Uzbekistan Islam Karimov said, commenting on the results of his meeting with the President of Kazakhstan. According to Karimov, it is premature to talk about such a union, because of disparities in the economic development level of the Central Asian states.

Nevertheless, as reported, Kazakhstan and Uzbekistan plan to establish a free trade zone between the two countries. According to Karimov, all possible conditions must be created and all barriers to trade between the two countries must be removed. "Here we talk about harmonising customs and other duties, introducing various tariff preferences that would encourage and facilitate trade", Karimov said. Following the results of 2007, trade turnover between Kazakhstan and Uzbekistan doubled and reached \$1.4 billion.

Russian President to visit Kazakhstan

May 22, 2008

During the first international visit of Russian President Dmitry Medvedev to Kazakhstan, a number of bilateral agreements have been signed.

The governments of Kazakhstan and Russia signed an agreement on cooperation on the Global Navigation Satellite System (GLONASS), as well as an agreement on cooperation in the field of research and use of outer space. Kazyna Sustainable Growth Fund and Russian Nanotechnologies Corporation signed an agreement on interaction. Kazakhstan's Development Bank signed an agreement of intent with Russian public corporation "Bank for Development and Foreign Trade (Vnesheconombank) on a long-term credit facility.

By the end of the year, the governments of Kazakhstan and Russia expect to introduce a Kazakh-Russian joint action plan for 2009-2010 for the approval by the Heads of State. "Considering the positive experience of 2007-2008 joint action plan, which took Kazakh-Russian relations to a qualitatively new level, the Heads of State instructed the governments of both countries to elaborate on an action plan for 2009-2010 by the end of the current year", says the document signed by the Presidents of Kazakhstan and Russia.

The agreement between Kazyna Sustainable Growth Fund and Rosnanotech state company in the field of commercialisation of nanotechnologies is aimed at establishing cooperation and facilitating competitive nano-industry development in Russia and Kazakhstan. In accordance with the agreement, both parties plan to cooperate in the framework of joint projects and venture funds investing in nanotechnologies and nano-industry. A project on joint production of land-based and space-based solar batteries built on Russian Research and Production Enterprise KVANT technologies is considered a pilot project in this area.

Prime Ministers of Russia and Belarus discuss economic integration and common foreign trade policy

August 14, 2008

Russian Prime Minister Vladimir Putin held a working meeting in Moscow with his Belarusian colleague, Sergei Sidorskiy. The parties discussed the issues of bilateral relations and fulfillment of commitments on strengthening integration, forming common customs space and building the Union State of Russia and Belarus.

The Heads of government discussed the issues of national legislations harmonisation, the unification of customs duties, the implementation of a common foreign trade policy in regard to third countries, and the deepening of integration in monetary and financial spheres.

The parties also discussed the possibilities of involving Russian companies in the implementation of the state enterprise's privatisation programme in Belarus.

The Fifth Cross-Border Cooperation Forum between Kazakhstan and Russia

September 23, 2008

The Presidents of Russia and Kazakhstan took part in the Fifth Cross-Border Cooperation Forum in Aktobe (Kazakhstan). The Forum aimed to strengthen integration processes between the two countries.

Aktobe authorities seek to maximize the benefits of cross-border cooperation with the immediate neighbour, the Orenburg oblast. This includes, but is not limited to, the organisation of industrial fairs and cultural events. In 2005, Orsk-Aktobe Trading House LLC was established in the city of Orsk with many enterprises of the Aktobe region signing agreements on supply of products and mutual cooperation. The setting up of 10 border checking points offering simplified requirements for the citizens of Kazakh-Russian border locations became the most prominent achievement to date.

The Presidents visited a joint Kazakh-Russian “High-tech for Regions: Transborder Cooperation” exhibition. Manufacturers from seven regions of Kazakhstan and 13 regions of Russia took part in the exhibition. A presentation of the Aktobe region breakthrough projects, implemented under Kazakhstan’s 30 Corporate Leaders State Programme, was part of the exhibition. The launch of Voskhod-Oriel chromium ore mining and processing plant set by Russian Mechel (100% Russian equity) was broadcasted on-line.

There are about 250 Kazakh-Russian joint ventures in the region employing over 40000 workers. Over the last three years, investors from Russia invested about \$1.5 billion in Aktobe oblast. Launching of new enterprises in the oblast increased exports of copper, nickel, cobalt, chrome, alumina, kaolin clay, nonmetallic pipes, foamed concrete blocks, chemical and other goods to Russia.

Two large projects in the Khromtau region are being implemented with the participation of Russian investors. The CJSC Russian Copper Company is engaged in the construction of a high tech copper ore mining and processing plant, which includes three mining and processing works and a copper-smelting plant. Within two years, Voskhod-Oriel LLC has built a chromium ore mining and processing plant based on a high tech production practice of inclined hoisting shaft. The construction of a ferroalloy plant is foreseen in the nearest future. The implementation of the project could strengthen Aktobe’s rankings on the world chrome market, as well as provide jobs and address the social issues of the Khromtau region. Approximately 40% of chrome concentrate, produced at the plant, will be exported to Russia (Tikhvin Ferroalloys Plant) and Great Britain.

Mutual trade and the Customs Union

Mutual trade of CIS member states in 2008

Mutual intra-trade between the member states according to official statistics recorded positive dynamics. The most notable growth in 2008 was observed in the mutual trade between Russia and Belarus, Russia and Kyrgyzstan, Kazakhstan and Ukraine as well as between Belarus and Tajikistan.

Table 2. 4. Mutual trade between CIS countries in 2008 (growth, %)

Source: National Statistical Committees

	Russia	Kazakhstan	Belarus	Kyrgyzstan	Tajikistan	Armenia	Ukraine	Moldova	Turkmenistan	Uzbekistan	Georgia	Azerbaijan
Russia		120.9	131.1	154.1	130.3	109.5	133.7	132.1	200.8	105	88.9	139.3
Kazakhstan	120.9		107.9	114.6	91.3	85.4	155.5	166.7	198.5	126.8	75.1	114.8
Belarus	131.1	107.9		172.9	138.8	118.5	163.4	147.7	56.4	146.4	133.9	124.4
Kyrgyzstan	154.1	114.6	172.9		69.8	112.7	119.3	96.6	134	197.1	141.8	-
Tajikistan	130.3	91.3	138.8	69.8		-	149.5	40.1	-	85.4	49.4	107.6
Armenia	109.5	85.4	118.5	112.7	-		115.3	-	339.7	83	115.3	-
Ukraine	133.7	155.5	163.4	119.3	149.5	115.3		124.9	122.5	303.9	135	149
Moldova	132.1	166.7	147.7	96.6	40.1	-	124.9		51.5	160.1	105.5	75.3
Turkmenistan	200.8	198.5	56.4	134	-	339.7	122.5	51.5		148.5	80.2	105.5
Uzbekistan	105	126.8	146.4	197.1	85.4	83	303.9	160.1	148.5		134.5	117.5
Georgia	88.9	75.1	133.9	141.8	49.4	115.3	135	105.5	80.2	134.5		156.4
Azerbaijan	139.3	114.8	124.4	-	107.6	-	149	75.3	105.5	117.5	156.4	

Table 2. 5. Mutual trade between CIS countries in 2008 (\$ million)

Source: National Statistical Committees

	Russia	Kazakhstan	Belarus	Kyrgyzstan	Tajikistan	Armenia	Ukraine	Moldova	Turkmenistan	Uzbekistan	Georgia	Azerbaijan
Russia		19 994	34 189	1 802.9	1 002.8	899.9	39 787	1 796.9	910.2	3 359.2	578.7	2 402.5
Kazakhstan	19 994		567.0	608.4	277.1	10.4	4 108.6	251.2	437.9	1 788.2	67.2	114.8
Belarus	34 189	567.0		44.6	47.2	28.2	4 915.2	334.9	49.5	167.9	45.4	111.6
Kyrgyzstan	1 802.9	608.4	44.6		43.2	0.1	92.8	3.6	4.3	407.0	2.9	-
Tajikistan	1 002.8	277.1	47.2	43.2		-	83.0	0.4	-	178.1	2.1	56.0
Armenia	899.9	10.4	28.2	0.1	-		289.1	-	41.0	8.8	196.4	-
Ukraine	39 787	4 108.6	4 915.2	92.8	83.0	289.1		1 347.7	6 008.6	2 713.5	847.6	986.3
Moldova	1 796.9	251.2	334.9	3.6	0.4	-	1 347.7		1.2	23.7	4.9	7.5
Turkmenistan	910.2	437.9	49.5	4.3	-	41.0	6 008.6	1.2		132.3	141.4	73.3
Uzbekistan	3 359.2	1 788.2	167.9	407.0	178.1	8.8	2 713.5	23.7	132.3		141.5	71.3
Georgia	578.7	67.2	45.4	2.9	2.1	196.4	847.6	4.9	141.4	141.5		813.2
Azerbaijan	2 402.5	114.8	111.6	нд	56.0	-	986.3	7.5	73.3	71.3	813.2	

Customs Union legal framework

January 25, 2008

The Heads of Kazakh, Russian and Belarusian government signed 9 documents on the establishment of the Customs Union, which is aimed at implementing a common trade regime in respect to third countries. The documents signed include agreements on a common customs tariff, export customs duties in respect to third countries, on unified rules for identifying the country of origin of goods, on customs valuation of goods being transported across the border of the Customs Union, and on the implementation of an agreed policy on technical control, sanitary and phytosanitary measures, etc.

As reported, on October 6, 2007, the Heads of EurAsEC member states signed 4 international agreements on forming an institutional framework of the Customs Union and defining the procedure of joining the union by other states, as well as an action plan of establishing the EurAsEC Customs Union by 2010. Therefore, a package of 13 key documents on the Customs Union activity has been signed thus far.

Meeting of the SCO Special Working Group on Investment Promotion

April 16, 2008

Dushanbe hosted the 4th meeting of the Shanghai Cooperation Organisation (SCO) Special Working Group on Investment Promotion.

In the course of the meeting, the participants discussed a draft agreement on the facilitation and protection of the investment. They also expressed a desire to run an inventory of investment projects included in the SCO Programme for Multilateral Trade and Economic Cooperation, as well as continuing the preparation of an Investment Bulletin of SCO Member States.

Session of the EurAsEC Integration Committee

June 20, 2008

The session of the EurAsEC Integration Committee was attended by the Deputy Prime Minister of Belarus, Andrei Kobyakov; the first Deputy Chairman of the Government of the Russian Federation, Igor Shuvalov; and Kazakhstan's Vice-Minister of Industry and Trade, Almas Kossunov. The participants discussed the implementation of the Action plan on the EurAsEC Customs Union, approved by the Presidents of Russia, Kazakhstan and Belarus on October 6, 2007. EurAsEC Secretary General, Tair Mansurov, briefed the participants on the status of implementation of this Plan.

Following the results of the session, the participants approved Regulations on principles and order of Common Customs Tariff forming and a draft Regulations on the adjustment of import customs duties included in the Basic List of a common customs tariff. Moreover, the participants discussed the

issue of prompting domestic procedures required for international agreements entry into force. EurAsEC member states are in the process of ratifying the aforementioned documents.

Russian Duma ratifies four international agreements on EurAsEC Customs Union

October 8, 2008

A package of documents on establishing the EurAsEC Customs Union by Russia, Kazakhstan and Belarus has been ratified. The documents provide for common customs space without customs duties and economic restrictions. The documents also include a full list of conditions, necessary for merging customs territories of three countries into a single space and completing the formation of the Customs Union.

The agreement on the Customs Union Commission establishes an institutional structure of the Customs Union. The Commission is a permanent regulating authority, comprised of deputy prime ministers or members of government of the Customs Union member states.

The protocol on introducing amendments to the agreed establishment of the Eurasian Economic Community dated October 10, 2000, has also been ratified. The protocol is a key document setting the legal basis of the Customs Union. The EurAsEC Interstate Council facilitates as the supreme authority on the Customs Union. The jurisdiction of the EurAsEC Court is expanding with the addition of dispute settlement functions within the Customs Union. All ratified documents had been signed on October 6, 2007, at the EurAsEC Interstate Council meeting in Dushanbe.

It is expected that other EurAsEC states would join the Customs union in due time. EurAsEC includes Belarus, Kazakhstan, Kyrgyzstan, Russia, Tajikistan and Uzbekistan. Armenia, Moldova and Ukraine have the observer status in the organisation.

A week later, on October 15, the Council of Federation ratified the package of documents on the EurAsEC Customs Union.

Kazakh Parliament approves ratification of agreement on common customs and tariff regulation

October 8, 2008

During a plenary session, the Lower Chamber of Kazakh Parliament approved the draft law "On Ratification of the Agreement on Common Customs and Tariff Regulation"

The Agreement was signed on January 25, 2008 in Moscow. It aims to accelerate economic integration and facilitate fair competition. According to

the agreement, after establishing the common customs territory, the sides will introduce unified non-tariff measures in respect of third countries.

In accordance with Article 1 of the Agreement, a single customs tariff is to be used. The purpose of single customs tariff is to rationalise commodity nomenclature of imports to the common customs territory of the member states; keep healthy export/imports balance on the common customs territory of the member states; sustain a favourable structure of production and consumption in the Customs Union; protect the economy of the Customs Union against negative influence of foreign competition; and facilitate the effective integration of the Customs Union in the world economy.

Preferential tariffs could apply, including import duty exemption or reduced import duty rates. A single customs tariff becomes operational when the rates of import duties in the member countries coincide through the whole of commodity nomenclature.

Council of Federation ratifies agreements on widening economic integration based on fair competition within EurAsEC

December 17, 2008

The Russian Council of Federation has ratified a number of agreements on widening economic integration by means of fair competition in EurAsEC member states.

An agreement between Belarus, Kazakhstan and Russia on the establishment of a common customs territory and the formation of a Customs Union is the result of deeper integration between EurAsEC member states. It stipulates the introduction and use of a common customs tariff and includes the list of import duties rates, as well as conditions for applying preferential tariffs.

Agreements on unified rules on the country of origin of goods aims to simplify and harmonise the customs procedures of members of the Customs Union with third countries. The agreement doesn't apply to goods from developing and least developed countries.

Agreements on defining the custom valuation of goods transported across the border of the Customs Union are intended to unify legislation in the field of defining value basis of prices for calculating customs charges. Options for dispute settlements are being worked out with the view to facilitate economic development of the Customs Union.

Industries and sectors

Armenia to join the Uranium Enrichment Centre

February 7, 2008

Armenia will become the third member of the Uranium Enrichment Centre, established by Kazakhstan and Russia. On May 10, 2007, Kazakhstan and

Russia signed an intergovernmental agreement to establish an international centre for uranium enrichment. Kazakhstan's KazAtomProm owns a 10% share in the centre. Another 90% belong to Russia. Other participants, including Armenia, will join the centre by buying out parts of the Russian share.

LUKoil to acquire new hydrocarbon assets in Uzbekistan

March 11, 2008

LUKoil Overseas (a 100% subsidiary of LUKoil) has completed a deal with MGNK Soyuzneftegaz to acquire 100% of the SNG Holdings Ltd. Group, which includes Soyuzneftegaz Vostok Limited. Soyuzneftegaz Vostok Limited holds shares in the product sharing agreement (PSA) for the fields of South-West Gissar and the Ustyurt region in the Republic of Uzbekistan. The total amount of the deal is around \$580 million. An authorised state body, the National Holding Company, Uzbekneftegaz, is the second party to the PSA. PSA was signed on January 23, 2007, for 36 years and came into effect on April 23, 2007.

Central Asian gas to be sold at European price starting from 2009

March 11, 2008

Starting from 2009, gas companies of Kazakhstan, Uzbekistan and Turkmenistan will begin charging European prices. Gazprom CEO, Alexei Miller, met with the KazMunayGas President, Uzakbai Karabalin, the UZBEKNEFTEGAZ CEO, Nurmuhamad Akhmedov, and the Turkmengaz Chairman, Yagshigeldy Kakaev, who all attended the meeting.

The prospects of cooperation in the gas sector were discussed at the meeting. Gazprom CEO Alexei Miller said that by the end of 2008, the average price of long term wholesale supply of gas to European customers could grow to \$360 per 1000 m³, citing expert estimates Gazprom own estimates suggested \$354 per 1000 m³.

In November 2007, Gazprom and Turkmenistan signed a supplement to the contract on natural gas supplies. Under the document, Turkmen gas would be supplied at \$130 per 1000 m³ in the first half of 2008 and at \$150 in the second half. Starting from January 1, 2009, the pricing formula will be linked to market principles. Starting from 2009, the price formula will be set by a long-term contract that expires in 2028. Gazprom purchases 50 billion m³ of natural gas from Turkmenistan annually under an agreement that expires at the end of the year. Gas from the Central Asian region is transported to Europe via the Gazprom-controlled Central Asia transit pipeline system through the territories of Uzbekistan, Kazakhstan and Russia.

In accordance with intergovernmental agreements, Gazprom secures the transit of Turkmen gas through Russia to Ukraine. In addition, Gazprom acts

as the operator of Turkmen gas transit through the territories of Uzbekistan and Kazakhstan.

In late December 2007, Gazprom also reached an agreement with Uzbekistan on adjusting purchase prices for Uzbek gas to the regional market conditions. The price of Uzbek gas was \$100 per thousand m³.

Tajikistan intends to complete construction of Rogun HPP

April 21, 2008

Tajikistan is determined to complete the construction of Rogun hydropower Plant (HPP) even without Uzbekistan's consent, Tajik deputy Minister of Energy and Industry, Pulod Mukhiddinov, said on April 22, during the workshop on Central Asian Hydropower Industry. According to him, "Tajikistan will not wait for the consent of its neighbors and Uzbekistan in particular, on issues of hydropower plants' building, especially the Rogun one, on its territory".

At least \$1.3 billion is needed in order to complete a Soviet protracted construction. A \$3.2 billion investment will allow for the launching of all six units – each with a 600 mW capacity. This could double energy production and strengthen the energy independence of Tajikistan.

According to a representative of the Interstate Commission for Water Coordination of Central Asia, Denis Sorokin, building such major hydropower plants as Rogun may influence the environmental situation in region. "Issues of construction of such like HPPs must be coordinated with all countries of the region", he said.

Co-financing of interstate waterworks facilities in Kyrgyzstan

May 20, 2008

In 2008, Kazakhstan will allocate 80 million tenge (approx. \$6.7 million) for joint financing of interstate waterworks facilities in Kyrgyzstan. Kazakhstan doesn't pay for water supply but takes a shared interest in co-financing interstate waterworks facilities on the rivers Chui and Talas, such as Ortotokoi and Kirov water reservoirs, East and West Chui Big Canals and a by-pass Chui Canal.

Joint venture on oil refining and petrochemistry

May 22, 2008

The Kazakh President Nursultan Nazarbayev suggested establishing an oil refining and petrochemistry joint venture with Russia. "We suggest strengthening this vector, by creating a joint venture on petrochemistry and oil refining" Nazarbayev said at the joint press conference with the Russian President Dmitry Medvedev.

"Most of Kazakhstan's oil and gas goes to Europe through Russian pipeline network. This year we plan to export Russian oil to China through Kazakhstan", Nazarbayev stated.

Moreover, both countries actively cooperate in development of new oil and gas deposits in the shelf of the Caspian Sea.

Kazakhstan plans to acquire share in one of the Ukrainian grain terminals at the Black Sea

May 22, 2008

During a meeting in the Ministry of Agriculture of RK, the Director of the Strategy Department for Agricultural Sector Development and Agricultural Science, Berik Ospanov, announced that Kazakhstan plans to acquire a share in one of the grain terminals of Ukraine on the Black Sea.

"The ministry takes all measures to expand possibilities of grain export. With this aim, a grain terminal was built in Baku, and similar terminals in ports of Georgia and Iran are being constructed, it is planned to acquire a share in one of the grain terminals of Ukraine, located at the Black Sea", Ospanov said.

Other issues discussed were the joint construction of a railway from the border of Kazakhstan through Turkmenistan and Iran with an exit to the ports of the Indian Ocean. In pursuit of the task of becoming the top 5 leading grain exporters, Kazakhstan's export has to reach the volume of 12 million tons a year. Presently, using the traditional routes via Russia, Ukraine, Uzbekistan and Tajikistan, Kazakhstan is exporting about 9-10 million tons a year. In order to expand export, Kazakhstan has to use access to the Caspian Sea and the Black Sea effectively. The country is constructing grain terminals there in order to get the shortest routes to Europe, Northern Africa, Asia and the Arabian countries.

MTS to invest \$600 million in Uzbekistan

May 27, 2008

Russia's major mobile operator, MTS, plans to invest over \$600 million in operations of its subsidiary in Uzbekistan in 2008-2010. MTS entered the Uzbek market in 2004 by purchasing a 74% stake in Uzdunrobta, Uzbekistan's biggest mobile operator, for \$121 million. Last year, MTS acquired the other 25% of Uzdunrobta's shares for a total sum of \$250 million. According to MTS President and CEO Leonid Melamed, about 30% of the stated \$600 million will be invested already this year and 1.500 will increase a quantity of base station systems. "Out of all countries we work in, Uzbekistan is the most attractive one from the view of growth potential and income from subscribers", Melamed said. According to him, MTS will have a market penetration of 36% in Uzbekistan in 2009, 45% in 2010 and

58% in 2012. He also announced that MTS intends to launch a third generation (3G) network in Uzbekistan. MTS controls 52.1% of Uzbekistan's user base. According to MTS, its main competitor, Russian Vimpelcom, provides mobile services to 35.4% of the country's subscribers through a subsidiary.

TransContainer and Kazakhstan Temir Zholy to establish a joint venture

May 29, 2008

Russia's largest container shipping operator, OJSC TransContainer, plans to set up a joint venture with Kazakhstan's Temir Zholy to provide a container shipping service that would bring together traffic streams, the Head of TransContainer Pyotr Baskakov said.

In the beginning, a joint venture will facilitate as logistics operator. The venture will service container-shipping flows from Kazakhstan to Russia and back. At a later stage, the company could expand into acquiring its own rolling stock and building terminals in Central Russia and Central Kazakhstan.

Concept of EurAsEC Common Energy Market

May 30, 2008

The participants of the 12th session of Energy Policy Council under the EurAsEC Integration Committee approved a draft concept for the formation of a common energy market of the EurAsEC member states. They agreed to submit the concept for EurAsEC governing organs, despite a number of existing disagreements.

The disagreements involve issues of forming a gas market of EurAsEC member states and result from Gazprom's hard line attitude towards conditions of access to the main gas pipeline system, transit through the territories of EurAsEC member states and unified policy on fair and transparent pricing for gas and transit tariffs.

The Council has also approved the EurAsEC Member States Joint Fuel and Energy Balance for 2008-2010. This document provides access for each EurAsEC member state to information on the current state and development prospects of other states' fuel and energy markets. In its current state, a joint balance represents an open offer to the EurAsEC member states to cooperate in the field of production, supply and transportation of energy resources.

Second hydraulic unit of Sangtuda HPP-1 put into operation

July 1, 2008

OJSC INTER RAO UES has put into operation the second hydraulic unit of the Sangtuda-1 hydropower plant on the Vakhsh River in Tajikistan. The rated

capacity of the second unit amounts to 167.5 mW with a monthly output of about 72 million kWh.

The launching of the first unit of the Sangtuda HPP-1 took place on January 20, 2008, 3 months ahead of schedule. It helped ease the seasonal energy shortfall in Tajikistan and accelerated the increase of HPP's overall capacity to 670 mW.

In accordance with the construction schedule, the launching of the third and fourth hydraulic units is planned on October 15, 2008, and January 15, 2009, respectively. It is expected that the whole process of Sangtuda HPP-1 construction will be completed by April 1, 2009. The cost of construction is 17.2 billion rubles.

Sangtuda HPP-1 is one of the largest investment projects in CIS with the participation of Russia and Russian companies. The main contractors and equipment suppliers for the project are JSC Silovye Machinery (Power Machines), OJSC Gydrostal Chekhov Plant, OJSC ChirkeyGESstroi, OJSC Zarubezhvodstroy, CJSC Zagranenergostroyontazh, OJSC Hydromontazh Trust and others. Over 4500 people are engaged in construction, including 3600 citizens of Tajikistan.

The completion of the Sangtuda HPP will ensure power supply to the industrial enterprises in Tajikistan and make it possible to export electricity to the neighbouring countries. HPP-1 will also be able to regulate the flow of the Vakhsh River on a daily basis.

Gas pipeline for Turkmen gas transit through Uzbekistan

July 1, 2008

The construction of a gas pipeline for transit of Turkmen gas across Uzbek territory has commenced. The joint venture, Asia Trans Gas, established by Uzbekneftegaz and China National Petroleum Corporation (CNPC), will be responsible for the project engineering, construction and operation of the Uzbekistan-China gas pipeline.

The Uzbekistan-China gas pipeline length is estimated at 530 km, its annual projected capacity is 30 billion m³. Uzbekistan has no plans for the export of gas via this pipeline. The project envisages the construction of two lines. The first line of the pipeline and the first compressor station CS-1 are expected by December 31, 2009, and will be put into operation in January 2010. The second line and two more compressor stations, CS-2 and CS-3, are planned for completion by December 31, 2011. Uzbekneftegaz and Chinese Trans-Asia Gas Pipeline Co Ltd. will monitor the implementation of the project.

Final stage of preparation for constructing third power unit of Ekibastuz GRES-2

August 11, 2008

The project's feasibility study is prepared and agreed with respective authorised public agencies, an appraisal of Gosexpertiza, republican state-owned company, is obtained, a project implementation scheme worked out and terms of reference for the selection of a general contractor were being prepared and scheduled for the third quarter of 2008.

The major construction will begin in early 2009 after a contract with a general contractor is signed. Letters of intent have been signed with the Eurasian Development Bank and Kazakhstan Development Bank. In the meantime, the banks will define the terms and conditions of project financing based on the results of technical, environmental, financial and legal expertise. Major precondition for financing would be a station having long-term contracts for electric energy supply.

Management of Ekibastuz GRES-2 power plant with the assistance of INTER RAO UES and Samruk-Energo JSC takes steps to accelerate the construction of the third power unit, which will allow for an increase in the plant's throughput to 1525 mW to meet growing electricity demand in the region

Ekibastuz GRES-2 Power Station JSC is a joint energy-generating venture between Kazakhstan and Russia with designed capacity of 1000 mW, where Russia's INTER RAO UES and Kazakhstan's Samruk-Energo hold a 50% stake each.

Gazprom Neft intends to enter retail market of oil products in Kazakhstan

August 11, 2008

JSC Gazprom Neft stated its intention to establish a retail fuel station network in Kazakhstan. Up to the present moment, Gazprom Neft's business in Kazakhstan was limited to wholesale trading in crude oil via its subsidiary Gazprom Neft-Kazakhstan. The company will be selling oil products from the Omsk Refinery – Kazakhstan nearest Gazprom Neft's principal oil refining facility.

Severstal to acquire Kazakhstan's Balazhal gold mine

August 12, 2008

Severstal Resources, the mining division of Severstal, has taken control of Balazhal, a gold mine in Kazakhstan. The purchase of 100% of the assets was made through one of Severstal's subsidiaries. The recoverable reserves in Balazhal are estimated at about 20 metric tons of gold, and the mine has a resource potential of up to 30-40 tons.

The company has not disclosed the cost of the deal. According to various estimates, the deal is estimated at \$30 million.

Balazhal is located in East Kazakhstan, 260 km south of Semipalatinsk. Severstal Resources plans to resume production by 2009 and to raise output to 1.5-2 tons of gold a year by 2011.

Russian VSMPO-Avisma acquires 84.28% shares of VSMPO Titan Ukraine

August 22, 2008

The company owns CJSC Pipe Works VSMPO-AVISMA in Ukraine. VSMPO-Avisma is the owner of Titan-Dnepr in Dnepropetrovsk, which is engaged in wholesale and retail trade, as well as intermediation and consulting in commerce and management.

Zaporozhye Titanium and Magnesium Works (ZTMK) state enterprise is the only Ukrainian producer of titanium sponge and a main rival of VSMPO-Avisma in the production of titanium raw materials. Moreover, the Volnogorsk ore mining and processing enterprise in Ukraine provides the company with ilmenite, necessary for the production of titanium sponge.

VSMPO-Avisma is the world's biggest titanium producer, and supplies the world's leading aircraft corporations with the metal. It exports 70% of its titanium and sells 30% in Russia. The state corporation, Russian Technologies (Rostekhnologii), owns 66% of the shares.

LUKoil, Russian oil company, plans to produce 12 billion m³ of gas annually at Uzbekistan's Kandym and Gissar fields

September 2, 2008

LUKoil and the national holding company, Uzbekneftegaz, signed an agreement in 2001 to develop the Bukhara-Khivinskoye and Gissar oil and gas fields, which have estimated reserves of 250 billion m³ of gas and 10 million metric tons of liquid hydrocarbons. The largest gas field, Kandym, which opened in 1966 in the Bukhara Region, central Uzbekistan, contains commercial gas reserves of 150-180 billion m³. Natural gas production at the fields was earlier estimated at around 9 billion m³.

"Investment is currently being made in the promising Kandym and Gissar group projects. I am sure that these large projects, which according to our estimates will require around \$5 billion more to complete, will produce over 12 billion m³ of gas in Uzbekistan". the CEO of Russia's largest independent oil producer, Vagit Alekperov, said.

Alekperov said LUKoil had already invested \$1.5 billion in Uzbekistan, describing the local climate for foreign investment as "positive". He added that their Uzbek counterparts were also considering building a gas refinery.

The implementation of projects in Uzbekistan may be viewed as continuing expansion of LUKoil to the south, where the vast gas reserves are

concentrated. Relations between Russia and Uzbekistan are stable enough. The only problem is the lack of a branching network of gas pipelines on the territory of the republic, and it is a temporary one. Either Gazprom or LUKoil are to start developing the infrastructure of the region in the nearest future.

A subsidiary of Russian VTB bank to start operating in Kazakhstan in January 2009

September 8, 2008

One of the Russian banking sector's leaders enters Kazakhstan's market. According to the Interfax Centre of Economic Analysis, in the second half of 2008, VTB was ranked 2nd by assets among the Russian banks (the bank's assets amount to 1.75 trillion rubles). VTB is also ranked 2nd by capital (352 billion rubles) and 3rd by profit before tax (15 billion rubles). The Russian government owns 77% of the bank's shares.

VTB bank entered the markets of Belarus, Georgia, Armenia and Ukraine. Representation office in Kazakhstan was open in February 2008. Having examined all possible options, VTB leadership made a decision to establish a subsidiary with a relatively small authorised capital.

International Financial Centre in Moscow

September 11, 2008

According to the president of Russia, an international financial centre, which is to be established in Moscow, will become a competitive platform and will boost economic integration of CIS member states and other countries.

"Establishment of a new centre is a substantial contribution to deepening of economic integration of CIS member states and other countries", Dmitry Medvedev told a meeting on issues of creating a centre. "An international financial centre, located in Russia, may soon become a large and universal financial platform in the region. Some day it would be able to defy competition on global financial markets".

Simple access to operations, special tax treatment of financial markets and a wide range of traded assets must be provided when establishing the centre. According to Medvedev, "providing informational transparency of markets while protecting them from insider leaks and prices abuse" is the second important direction of the centre's establishment.

A third major task is the overall development of business environment. "Here we talk about the introduction of a comfortable transport and informational infrastructure, simplification of rules for visa and customs regime and, in certain situations, rules for property registration", Medvedev said.

According to him, the establishment of the financial centre will help upgrade the whole financial system of the country, as well as become an instrument of attracting additional local and foreign resources to the economy.

PromStroi Group closed deals on acquisition of specialised contracting companies in Kazakhstan

September 15, 2008

The acquired assets bring PSG is in the list of the top five mechanical organisations and in the list of the three organisations for mounting and balancing of automation systems on the territory of CIS member states.

Kazmehanomontazh Ltd. and JSC Avtomatika are first foreign assets of the company. Joining the PSG will help Kazakh companies enter the Russian market. New assets, in their turn, will aid PromStroi Group in strengthening its positions in the engineering services sector of the post-soviet space.

The acquisition allows PSG to enter Kazakhstan's market, particularly in the oil and gas sector – the company's core activities. The company plans to work in Kazakhstan in the first instance. PSG will also gain access to markets of Russia and Central Asia in the long term.

Representatives of Kazakh counterparts believe that joining the PromStroi Group will primarily lift growth restrictions, which is determined by the small potential of Kazakhstan's market. Moreover, the companies get a chance of participating in tenders and project works.

Large investment projects of Russian companies in Kazakhstan announced during the Kazakh–Russian Forum in Aktobe

September 23, 2008

The Russian mining and metals giant, Mechel, plans to build two ferroalloys plants in Kazakhstan by 2012-2013. The company plans to build a ferrochrome plant, with a capacity of 240,000-250,000 tons of ferrochrome per year. The new facility will be located in Aktobe region close to the Voskhod chrome mine (reserves amount to 19.5 million tons of ore). The project is valued at \$500-800 million.

Voskhod-Oriel, controlled by Mechel through the recently acquired British Oriel Resources Plc., is responsible for the project's development. A week earlier, the company launched a mining and processing plant at the chrome field.

Starting from 2009, the plant is expected to produce 950,000 tons of chrome concentrate. At present, one third of the plant's output will be supplied to Mechel's Tikhvin Ferroalloys Plant in Russia's Leningrad region.

The second project to construct a ferronickel asset will be implemented at the Shevchenko field in Kazakhstan (Kostanai region). If the pilot project is a success, the second stage of the Shevchenko-based metals and mining company will include hydrometallurgical nickel production of 20000 tons per year. The second stage will get under way in 2011 and startup is scheduled for 2013. The concern will use sulphuric-acid leaching technology. A similar facility will be built in the Orenburg region. Mechel estimates the cost of the pilot project at \$600 million.

Economic integration of the Black Sea Basin countries in tourism

October 7, 2008

A fourth conference of the Black Sea Economic Cooperation (BSEC) organisation, together with Russia's federal tourism agency, Krasnodar Territory administration and the municipality of Gelendzhik resort-town, was held in Gelendzhik (the Krasnodar Territory of Russia). The participants discussed the prospects of developing health-resorts and tourist infrastructure in the Black Sea region. The representatives of Abkhazia, Azerbaijan, Bulgaria, Greece, Russia and Romania took part in the conference.

BSEC member states have a significant potential for joint use of resorts. For example, a belt highway around the Black Sea is a new, and in all aspects profitable, project for business cooperation. It will widen the range of sites for visiting by tourists that are travelling by cars or buses around the Black Sea.

Azerbaijan transport infrastructure development

October 8, 2008

In recent years, Azerbaijan has been engaged in the rapid reconstruction of its transport infrastructure. All works in this direction are aimed at developing a non-hydrocarbon segment, which is one of the major goals of the national economy. The implementation of full-scale projects is impossible without regional integration in the context of two main international transport corridors, Europe-Caucasus-Asia (TRACECA) and North-South running via the republic. The TRACECA Multilateral Agreement was signed in Baku in 1998 and composes Azerbaijan, Turkey, Georgia, Ukraine, Moldova, Romania, Bulgaria, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Armenia.

A range of infrastructural projects was discussed on October 8-9 in Brussels during a meeting of the working group of experts on the Black Sea and the Caspian Sea basins, held within the framework of the meeting of the TRACECA National Secretaries.

One of the important components of the TRACECA transport corridor is overseas transport. Transit of Kazakhstan's oil by means of this corridor will

be sharply increased in the very near future. Re-equipment of the Caspian tanker fleet is foreseen in this connection. A memorandum on establishing a Caspian shipbuilding facility, signed on May 19 in Baku by State Oil Company of Azerbaijan, Korean STX Shipbuilding Co. Ltd. and Azerbaijan Investment Company is being implemented.

EuroChem Mineral and Chemical company plans a large-scale project in Kazakhstan

October 20, 2008

The largest Russian producer of nitrogen and phosphate fertilisers, Eurochem Mineral and Chemical Company, plans to construct a mining and processing plant, as well as three plants for the production of phosphorus and nitrogen fertilisers in Kazakhstan.

Zhanatas, Aral-Tobe and Kesik-Tobe phosphorus deposits in the Karatau basin (in Zhambyl and South Kazakhstan regions) will serve a source of raw materials for new plants. Recoverable reserves of the Karatau basin top 4 billion tons of ore or 1 billion tons of phosphorus pentoxide. Undiscovered potential resources of deposits make up about 610 million tons.

Kazakhstan's leading manufacturer of phosphorus-containing products, including yellow phosphorus and mineral fertilisers, Kazphosphate LLC. is currently working in the Karatau basin. In spring 2008, EuroChem held negotiations for purchasing a 50% share in Kazphosphate, but the deal was aborted. At present, the holding is trying to once again consolidate its position on Kazakhstan's market.

EuroChem has already registered its subsidiary in Kazakhstan, EuroChem-Fertilisers LLC, and acquired the state-owned stake in JSC Sary-Tas plant (former Karatau chemical plant), on the basis of which the holding intends to build a new plant. A phosphorite pellets production plant stood idle since 1993, and needs large-scale investments and global reconstruction. EuroChem evaluates the project at over \$2.5 billion and will finance the spending mostly with its own funds.

By 2015, EuroChem plans to complete the construction of a mining and processing plant, and plants for manufacturing nitrogen fertilisers (with capacity of 0.8 million tons per year), phosphate fertilisers (1 million tons per year) and NPK fertilisers (0.5 million tons per year). Starting from 2015, the three plants will produce about 2 million tons of fertilisers with sales in Kazakhstan, Russia, Belarus and Ukraine.

Early launch of third hydraulic unit of Sangtuda HPP-1 on the Vakhsh River

November 5, 2008

According to the president of Tajikistan, the commissioning of the third hydraulic unit of Sangtuda-1 hydropower plant will make it possible to ease an acute shortage of electric energy in the republic. The rated capacity of the third unit amounts to 167.5 mW, with a monthly output of energy set at about 72 million kWh. The overall capacity of HPP after commissioning the last fourth unit will amount to 670 mW with an annual energy output of 2.7 billion kWh.

The construction works at Sangtuda HPP-1, carried out by Russian INTER RAO UES, will be completed in the first quarter of 2009. The total value of the project is estimated at nearly 17.2 billion rubles.

The construction of Sangtuda HPP-1 started in the late 1980s, but was suspended soon afterwards due to the lack of funds and a war in Tajikistan.

Belarusian President Alexander Lukashenko believes cooperation with Russian Sberbank to be promising

December 2, 2008

“At present there are no obstacles for Sberbank operations on the territory of Belarus”, Lukashenko said during the meeting with the Chairman of Sberbank’s management board, German Gref, in Minsk.

In particular, attracting funds from Russian Federation is of great importance for Belarus. According to Lukashenko, this type of cooperation is of prime importance “within the crisis period, when the country is trying to find additional resources in order to support the national currency and economy”.

Sberbank’s head expressed his willingness to cooperate with Belarus. “In the nearest future Sberbank will consider a possibility of opening new or acquisition of existing bank in Belarus”, Gref said.

According to him, Sberbank is ready to enter the financial market of Belarus on mutually beneficial terms and for at least 10-20 years. “Among CIS member states, Belarus is one of the most foreground and attractive”.

New 5-year term agreement on trust management of JSC Armenian Nuclear Power Plant signed in Yerevan

December 4, 2008

A new 5-year term agreement on the trust management of JSC Armenian Nuclear Power Plant (ANPP) has been signed in Yerevan.

The agreement extends the activity of INTER RAO UES as a trust manager of the JSC ANPP’s financial and economic activities. According to the agreement, INTER RAO UES undertakes corporate governance over the ANPP’s activities, including control over financial flows, funding capital investments, and implementing a modern system of financial and economic accounting.

The implementation of the first agreement on trust management dated September 18, 2003, between Armenia and INTER RAO UES, allowed the economical status of Armenian nuclear power station to stabilise by 2006, repaying a debt for the previously delivered nuclear fuel and transferring to purchases of new nuclear fuel at own costs, as well as implementing modern systems of the power plant's economic governance.

At present, Armenia set new tasks in the field of nuclear power engineering, including preparation for decommissioning existing ANPP's equipment, constructing a new up to date nuclear unit with the capacity of 1000 mW, and effectively exporting excessive electric power to the neighbouring countries.

KazakhGold and Russian Polyus Gold agree upon new terms for acquisition of controlling stake in Kazakhstan's miner

December 29, 2008

According to the original agreement, Polyus Gold's board of directors approved plans to buy a controlling stake in KazakhGold in shares and cash at a ratio of 70:30 (Polyus will pay for 70% of the value of KazakhGold stock with its own shares and will use cash for the remaining 30%, which would have been equal to \$236 million). However, from the moment of agreement signing, KazakhGold shares were down 2.53% to \$4.63 per share on the London Stock Exchange. Since September 26, when the company announced negotiations on the deal, the share price has fallen by 60%, leading to the deal's reconsideration.

Russia's Polyus Gold has reviewed the terms of its potential acquisition of KazakhGold and is now offering 0.423 of its own shares for shares in the Kazakh gold miner. So the deal for acquisition of 50.1% of the issued share capital of KazakhGold is now priced at \$308 million.

It is assumed, that the whole 50.1% of KazakhGold's share capital will be totally paid with the shares of Polyus Gold. 5.9% of Polyus reacquired stock may be assigned for this purpose. The company intends to preserve cash assets for future acquisitions.

Moreover, one more item was added to the deal's terms. KazakhGold also plans to issue \$100 million in new shares, offering them to Polyus, among other buyers. KazakhGold is placing the new shares to strengthen its balance sheet and refinance the debt.

Vnesheconombank obtains permission of Ukrainian Anti-monopoly Committee to purchase over 50% of Prominvestbank's shares

December 29, 2008

Established in August 1992, Prominvestbank, a joint-stock commercial industrial and investment bank, is one of the largest among the Ukrainian problem banks. On December 11, the board of the National Bank of Ukraine decided on the state's capitalisation of Prominvestbank. The decision followed the failure of the bank's shareholder Slav AG holding company to fulfill its obligations on purchasing the bank's additional issue of shares for a total sum of UAH 900 million and attracting another UAH 4 billion for deposits. In case of a transaction settlement, Vnesheconombank will acquire a set of assets, including blocks of shares of several Ukrainian enterprises.

Political and social aspects of cooperation

Cooperation in migration and border control

April 21, 2008

EurAsEC and the Collective Security Treaty Organisation (CSTO) intend to cooperate in the field of migration and the outer borders control, the EurAsEC Secretary General Tair Mansurov said. "The problem of migrant workers is the issue for our organisation. We must provide conditions for normal labour migration, which would be quite natural due to the fact that many countries need labour force. Meanwhile, there is a problem of illegal migration. This problem must be solved by OSCE, which possesses all necessary means for taking care of it. So we must work together in order to bring the situation to the civilised state", he told journalists. According to Mansurov, both organisations have a sufficient number of common issues. The sides view cooperation in the fields of border and customs policy concerning prevention of smuggling, including weapons and ammunition, drug trafficking and illegal migration, a priority task for both organisations. According to the CSTO Secretary General, Nikolai Bordyuzha, the two organisations intend to cooperate in the field of outer borders control of CSTO and EurAsEC member states. Moreover, the sides plan to exchange information and cooperate in the sphere of expertise of those regulatory documents that are worked out by both organisations.

Interstate Information Pool may be established in CIS

May 30, 2008

A working group of the Council of Chairs of State and Public Television and Radio Broadcasting Companies of CIS Member States was held in Dushanbe.

The participants discussed the preparation of the project for establishing the Interstate Information Pool, which will make it possible to cover the life of CIS member states on a full, comprehensive and objective basis. It will be based on the principles of television information exchange. The participants of the pool will provide their coverage of events and facts, taking place in the country, in

order to form an information package that will be received by television and radio broadcasting companies of other states. The latter will be banned from altering the information. If needed, the Euronews programmes will also be able to receive the information packets.

The "Mir" Interstate Television and Radio Company will act as the coordinator and supervisor of the video materials' joint exchange. It is planned that after the reconciliation procedure, the project of establishing an information pool will be introduced for approval to the Council of chairs of state and public television and radio broadcasting companies during a meeting scheduled on October 31, in Moscow.

Fight against illegal migration

June 4, 2008

The CIS Joint Commission for Cooperation in Fight against Illegal Migration held its eighth meeting in Minsk on June 3-4. According to the Chairman of the joint commission, Deputy director of the Federal Migration Service of Russia, Mikhail Turkin, a comprehensible and explicit legislation is of prime necessity in order to effectively combat illegal migration. Measures taken in Russia could serve an example of work on improving migration legislation. Russian authorities simplified procedures of migrants' registration and toughened administrative responsibility for different types of violations on the part of employers. Russia is ready to share its experience with other CIS member states. The meeting also considered a list of persons barred from entering CIS states, as well as issues related to improvement of system of control of arrival and staying of foreign citizens.

The CIS experts approved a draft agreement on cooperation in the fight against illegal production and trade in arms and ammunition. The document foresees joint actions, including creation of a collective database on transnational criminal groups, their leaders and participants, involved in illegal traffic in arms. Moreover, the draft agreement foresees cooperation of CIS member states in prevention, identification, suppression and solving of crimes, connected with illegal production and trade in arms; analysis of the current situation; working out of coherent strategy and joint measures of control, as well as coordination and improvement of interaction between competent authorities.

Security

SCO RATS Council held its 11th meeting in Tashkent

March 27, 2008

The Council of Shanghai Cooperation Organisation's Regional Anti-Terrorism Structure (RATS) held its eleventh regular meeting in Tashkent on March 27.

During the meeting, delegates from six SCO member states such as Kazakhstan, China, Kyrgyzstan, Russia, Tajikistan and Uzbekistan passed the draft of the SCO RATS Council report on organisation's activities in 2007 that will be submitted to the Council of Heads of State, the SCO's most senior body.

The participants of the meeting in Tashkent also expressed wishes and recommendations on implementing the set events in 2008.

The RATS approved several basic legal documents on taking further steps against regional terrorism, separatism and extremism.

Session of the CIS council of interior ministers

June 28-29, 2008

A session of the CIS council of interior ministers was held in Batumi, Georgia on June 28-29. The ministers considered a draft agreement on information exchange in the field of crime prevention, including drugs and human traffic. According to ministers, special attention should be paid to the research and information component of the fight against crime, which is an effective way of boosting the effectiveness of CIS member states cooperation in this sphere.

The session singled out problems and the prospects of developing further cooperation between Interior Ministries of CIS member states in the fight against cross-border transnational criminality. The CIS ministers also discussed some organisational issues, including a hotline for coordination and interaction in combating IT (information technology) crimes and a pilot draft Internet-site of the single information base of interior ministries' education facilities.

According to Russian Interior Minister, Rashid Nurgaliyev, "the hotline will contain information, which, according to legislations of the CIS countries, will be rendered under the police inquiry and without investigative order. This is necessary for immediate evidence saving, carrying out urgent actions and establishing a direct intercourse between task forces, engaged in fight against IT crimes". Department of Russian Ministry of Internal Affairs may serve as a centre for the system of operational communications.

Prospects of regional integration in military strategic cooperation

October 23, 2008

CIS Joint Air Defence System's command facilities and combat-duty units of the air defence forces held joint command-and-staff exercises. The exercises focused on preventing violation of air boundaries of CIS member states, as well as counter terrorism activities of combat-duty units of the air defence forces and CIS Joint Air Defence System facilities.

During the drill command facilities and combat-duty, units also practiced coordinating the joint efforts to intercept enemy aircraft that have violated CIS member states' national airspace. Moreover, the participants tested combat interoperability in counteracting aircrafts with emergency situations on board, which violate rules of airspace usage. The operational readiness of the combat-duty units was also put on test. Combat-duty units of the CIS integrated air defence network, which are stationed in Kazakhstan, central Russia and Siberia, Belarus, Ukraine, Tajikistan and Uzbekistan took part in the exercise.

The integration of national air defence systems in the regions of collective security will allow boosting the potential of combat-duty units. The establishment of regional air defence systems in Eastern Europe, Caucasus and Central Asia is planned within the framework of widening an operating range of the corporate responsibility in joint airspace. At present a joint regional air defence system of Belarus and Russia in the Eastern European collective security region is being actively developed.

Forums and Conferences

Caspian Energy Forum (CEF-2008)

July 16, 2008

The Caspian Energy Forum "Caspian Energy – Energy of the World" (CEF-2008) was held on July 15-16 in the International Trade Centre in Moscow. The event was held under the support of the Industry and Energy Ministry of Russia, the Russian Chamber of Industry and Commerce, and the Ministry of Foreign Affairs of Russia.

The Caspian Energy Forum aims to promote international energy cooperation in the economic interests of the countries of the Caspian Sea region and foster energy security in the Caspian area.

CEF-2008 was attended by co-chairs of the Russian-Uzbek, Russian-Kazakh, Russian-Turkmen, and Russian-Iranian Intergovernmental Commissions, representatives of the Ministry of Foreign Affairs of Russia, the Energy Ministry, the Ministry of Natural Resources and Ecology, the Chamber of Industry and Commerce, the Rosatom Corporation, the Russian Academy of Sciences, Gazprom, the SCO Interbank Association, as well as representatives of the embassies of Kazakhstan, Uzbekistan, Turkmenistan, and Iran, and representatives of oil and gas companies from Russia, Azerbaijan, Kazakhstan, Turkmenistan, Uzbekistan, Iran and European Union countries.

The forum's agenda included issues on the harmonisation of the Caspian states' economic development, including the development of oil and gas transport infrastructure in the countries of the Caspian area, oil and gas producing and refining facilities, enhanced investment processes, as well as

the implementation of existing agreements and improvement in the interests of economic development and ecological security of the region.

Issues of cooperation between all participants of the Caspian Region energy market were also discussed during the forum. Leaders and representatives of different international organisations will be invited to the talks in the nearest future.

ASEAN Economy Ministers discuss issues of boosting economic integration

August 26, 2008

Economy Ministers of 10 member states of the Association of Southeast Asian Nations (ASEAN) held a meeting on August 26, in Singapore in order to discuss issues of boosting economic integration. During the meeting, the ministers called ASEAN and its partners to step up settlement of the remaining issues on agreements on regional free trade and extensive economic partnership.

In accordance with the joint statement, published after the Fortieth Meeting of the ASEAN Economic Ministers, the participants underlined the importance of observance and timely implementation of measures that are foreseen by the plan of establishing ASEAN economic community.

The ministers exchanged opinions on foreign economic relations, including the process of negotiations over agreements on regional free trade and extensive economic partnership between ASEAN and its partners. The participants called ASEAN and its partners to consolidate efforts and show flexibility in order to settle the remaining issues at the earliest possible date.

Third EDB conference on Eurasian integration

October 15, 2008

Eurasian Development Bank held a conference on Eurasian integration in Almaty, Kazakhstan, on October 15–17, 2008.

The key issues discussed at the conference included energy sector development and water resources, the integration of transport networks, institutional and financial issues of transborder infrastructure. A round table on the issues of integration processes, measurement, and estimation, was held within the conference.

This conference brought together economists, scientists, and experts, as well as policymakers from Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Belgium, Britain, Germany, China, USA and Switzerland. Representatives of the World Bank and Asian Development Bank also took part in the conference.

Economy of Partnership

October 20, 2008

The regular session of the Governing Council of the United Nations Special Programme for the Economies of Central Asia (SPECA), as well as economic forums on "investment partnerships for stronger economic cooperation and integration in Central Asia" were held in Moscow. Promoting investment in transport, energy and water was the main topic for consideration and discussions. The meeting also stressed the need for greater cooperation between Central Asia and the rest of Asia, in order to find solution to the problems of global financial instability, and food and energy insecurity.

Speaking at the session, the Executive Secretary of the United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP), UN Under-Secretary General Noeleen Heyzer briefed participants on UN Secretary-General Ban Ki-Moon's proposal to the UN General Assembly of a joint UN ESCAP-UNECE (UN Economic Commission for Europe) office in Central Asia within the framework of SPECA.

The UN Economic Commission adopted the United Nations Special Programme for Economies of Central Asia for Europe, the United Nations Economic and Social Commission for Asia and the Pacific, and the leaders of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan in March 1998. Azerbaijan and Turkmenistan later joined while Afghanistan has been invited in May 2005. SPECA aims to strengthen sub-regional cooperation in Central Asia, as well as its integration into the world economy. Priority areas of cooperation include energy, water resource management, transport infrastructure, and border-crossing facilitation.

International Banking Conference of CIS member states in Baku, Azerbaijan

October 24-25, 2008

The first International Banking Conference of the CIS member states on the "Financial markets of the CIS countries: development and integration" was held in Baku on October 23-26 under the sponsorship of the CIS Finance & Banking Council, the government of Azerbaijan and the CIS Executive Committee.

About 200 representatives of executive authorities, national commercial entities, central and state banks, leading commercial banks, financial and investment, as well as rating companies of 11 countries, including 8 CIS member states, took part in the conference.

Business agenda and the high level of the conference's organisation made it possible to consider issues of cooperation and integration in financial, banking and investment activities of CIS member states. The plenary meetings of the

conference focused on discussing the issues of organisational and structural support for the banking systems in the context of global liquidity crisis.

Eurasian Energy Summit

December 9-12, 2008

The Eurasian Energy Summit was held on December 9-12, 2008, in Shenzhen and Hong Kong. It is the first large scale fuel and energy event that focuses on new trends and the development of new trading routes for energy industries of Russia, China, Kazakhstan, Central Asia and Asia Pacific, as well as the establishment of an effective networking platform for information exchange between oil, gas and power sector representatives of these countries.

The Summit covered all sectors of the energy industry, with the exception of nuclear. It comprised 3 Forums – the Asian Oil and Gas Forum, Coal Forum CIS-Asia Pacific and Power and Renewable Energy Forum. The Asian Oil and Gas Forum in its turn consisted of specialised oil and gas technology module and 3 conferences. An international conference, entitled “Financing of CIS Energy and Infrastructural Projects on Asian Stock Markets”, was also held within the framework of the Forum.

Financial aspects of oil and gas, coal and power sectors performance in conditions of a global financial crisis topped the agenda of the Forum.

Integrating Regional Space: New Opportunities for Economic Growth

3

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The size of an economic space

Nowadays, one of the key motivations for regional integration projects is the economic growth which can be generated by the creation of a larger economic space. However, large economic areas do not always benefit from faster growth. In this paper we address two issues. We begin by examining how the size of an economic space influences economic indicators in different environments. In particular, we compare the contribution towards growth that large economic spaces make within international associations and in the context of globalisation. It is critical to understand the factors that influence the effectiveness of certain growth mechanisms, depending on how economic integration is organised. In other words, the organisation of an economic space is one parameter which, together with its size, influences its economic variables. A special area of interest for us has been the comparison of various types of association which comprise low- and medium-level economies.

The term "economic space" is still vigorously debated in social science circles (Biyakov, 2004, 2004a). The "size" of an economic space is another concept that is not universally understood. In principle, it is possible to define two basic "size" parameters: the *geographic size* of an integration project and the *size of the population* of the countries involved in the integration. Using population to define a region's size is more readily accepted in economic theory, whilst economists rarely consider geographic size. However, we believe that another important parameter should be used in assessing the size of an economic space, i.e., the intensity of economic activity. This is judged on the criteria of percentage of natural resources used (agricultural land, water, forests and other areas); able-bodied population as a proportion of the total population; quality of education; and IQ levels). Measuring the intensity of economic activity allows us to make a more precise comparison of different economic spaces using a specific correction factor which reflects both quantitative and qualitative characteristics. However, this criterion is not yet fully formulated.

Population growth brings a number of advantages to an integration project. For example, a large region has greater opportunity for specialisation and division of labour based on comparative advantage, which is essential to

increasing efficiency. A large region also has more potential consumers, which allows economies of scale to be made (Rivera, Romer, 1990). In a larger region, there is often greater pressure on businesses to compete, thus reducing X-inefficiency¹. In just the same way, a large, politically decentralised region can spur competition between jurisdictions, which in turn serves to improve the quality of their institutions. The size of a region determines its scope for implementing large, labour- and materials-intensive projects. In addition, according to the “latest” trade theory, which focuses on the microeconomic aspects of international economic relations, the liberation of markets can bring about positive change in industrial structure, motivating businesses to adapt to stay in the market (Melitz, Ottaviano, 2008). Finally, larger regions tend to have a greater availability of highly qualified administrative personnel (Briguglio, 1995) – diversity can help to unleash their creative potential and foster their professional development.

Covering a large geographic area can be a factor in a region’s growth if that region is able to assume a prominent role in the international transport system. Another advantage of large regions is that natural disasters affect their territory unevenly, and there is always an opportunity to “insure against risk” by encouraging unaffected territories to support affected ones².

However, the economic advantages of large spaces are counterbalanced by some significant disadvantages. This mainly concerns geographically large regions. The diverse geographic influences which enable regions to spread risk are at the same time a source of diverging preferences. Accordingly, it is much more difficult to find common solutions, and adaptation costs for certain areas may be much higher. In other words, the *economic risk* associated with smaller regions’ restricted ability to insure against risk may be the price to pay for avoiding the ‘associated with unfavourable decision-making in larger regions (Spolaore, 2006). Typically, small countries and regions respond rapidly to economic and political change, since their administrative hierarchy has fewer levels than large countries. This simplifies the task of formulating efficient economic policies for a certain area (Rossi, 1998)³.

Maintaining the unity of a vast geographic space requires heavy investment, for example, in transport infrastructure which connects separate territories, or in security and defence against external threats. Countries with a low

¹ X-inefficiency is an evaluation of the reduction of a company’s efficiency in relation to its maximum possible efficiency calculated according to the profit maximisation principle.

² Just as importantly, large regions typically possess vast natural resources. In the neoclassical theory, the assumption of zero transaction costs led to the formulation of the so-called “unimportance of borders” theorem: the economic growth of regions does not depend on the distribution of resources among them. In reality, however, transaction costs are never zero; therefore, the geography of natural resources does matter (Nordhaus et al., 2001).

³ For example, the European Union focuses on the so-called second-tier regions (NUTS 2) when selecting priority territories to receive aid. However, distortions occur systematically in small third-tier regions (NUTS 3), i.e., aid is provided to fairly prosperous regions, bypassing disadvantaged ones (Becker et al., 2008).

population density and large geographic area face serious problems. As a rule, high population density is a factor in the development and even in the formation of states (Rozov, 2002). However, the effect of population density on economic growth is complex and depends on a number of institutional parameters. In some cases, the size of a state may ultimately become a disadvantage rather than an advantage (Hill, Gaddy, 2007, Chapter 2).

Size and integration into the world economy

Our study has concentrated up to now on intra-regional links. But nowadays, the development of global economic links has had a significant impact upon the ability of large spaces to generate economic growth.

The global market enables even small territories to benefit from economies of scale and the comparative advantages of specialisation. The availability of natural resources becomes less important since the main resources of the global economy are highly mobile. Strong external pressure to compete may prove beneficial, acting as a stimulus to regional economies by encouraging competition between companies (Srinivasan, 1986) and institutional systems. In the context of globalisation, small regions with a relatively homogenous population area able to avoid paying the additional cost associated with integration (and can even benefit from the effects produced by their larger neighbours) (Alesina et al., 2005). However, risks associated with small size have now emerged which would not have been present at lower levels of microeconomic integration. Small regions (both in terms of population and geographic size) often suffer as a result of their narrow export specialisation, which increases the volatility of export and tax revenues, restricts saving, investment and reduces a region's ability to pursue an independent economic policy. Since there is no "fallback" in the form of a large domestic market, improved efficiency becomes the only way to reduce this volatility. Global players are less interested in small markets (especially if the market's small size is coupled with high transport costs, as is the case with landlocked continental countries), and therefore small markets are less exposed to competitive pressure. Some empirical studies demonstrate that foreign trade accounts for a comparatively larger share in small countries' GDP and that, particularly in developing economies, export of raw materials dominates the foreign trade structure.

Small countries (with comparable income levels) show comparable degrees of specialisation, but this specialisation can vary greatly, providing opportunities for the adjustment of development strategies (Perkins and Syrquin, 1978). Limited independence in economic policy-making paradoxically combines with the so-called "advantage of insignificance": often the economic regulation of small countries or regions is more flexible than that of large economies (Armstrong and Read, 2000), allowing them, for example, to formulate better offshore strategies. In such cases, even a narrow specialisation, such

as tourism, can generate rapid growth (Alvarez-Albelo, Hernandez-Martin, 2007).

Nevertheless, large regions enjoy greater advantages: they have ample resources for implementing large projects and can withstand the political and legal instability to which such projects may be exposed, at lower cost (Barinov, 2007). This is particularly important in the context of weak global governance: every project is exposed to excessive risk, since no "global" insurance or risk redistribution schemes exist (one recent example being the financial crisis of 2008). The emergence of integration projects and the enlargement of economic structures is a *signal* to foreign investors that a group of countries have assumed a clear *obligation*. In contrast, small countries often lack this strength in their relations with other players, and this is an incentive to the integration of small countries (Andriamananjara and Schiff, 2001) or of small and large regions (Tsoi, 2007). It does not guarantee, however, that small countries will survive within such structures (Horn, 2004).

Literature on the relationship between a country's size and its economic growth is not very informative (neither are studies on other econometric aspects of economic growth).

According to some studies, small regions are characterised by lower levels of prosperity and slower growth (Isa, 2003). There are also studies which demonstrate that small countries and regions are no different from large ones, or at least have not been in recent decades, in terms of their rate of growth (Armstrong and Read, 2003, Brandi, 2004). Smaller regions and countries may even have a larger GDP (Easterly and Kraay, 2000).

Growth rates vary more between small countries than between large countries, although the latter have a more rapid growth pace on average. Notably, small countries provide the most impressive examples of rate of growth (Perkins and Syrquin, 1978).

It is also apparent that the size of a region and its partners are significant.

Countries which are surrounded by large and open economies tend to have a more rapid rate of growth (Vamvakidis, 1998), whilst changes in the economic variables of small economies are largely attributable to the influence of their neighbour countries (Armstrong and de Kervenoael, 1998). Growth in small countries can be associated with opportunities emerging from the international division of labour. This is a result of the so-called "spaghetti effect" created by the interlocking system of bilateral and multilateral agreements (Anderson and Read, 1998). However, in some cases, this effect can impede economic growth, if the terms of cooperation and the obligations and preferences associated with such interlocking agreements contradict rather than complement each other. This effect is especially pronounced in developing economies, where existing cooperation

agreements often do not cater for their real needs and merely indicate the intention to create efficient structures similar to those of developed countries, e.g. the EU.

In some sources, it is stressed that the EU has a positive effect on the economic growth of its member states in the longer term (Badinger, 2001; Brodzicky, 2003, 2005). These studies also examine other integration initiatives, concluding that the effects of integration upon low and medium-level economies depend on the size of the participants (Berthelon, 2004).

In the era of globalisation, the degree of openness of a developing economy to the world, *ceteris paribus*, can: affect its access to foreign technology, investment and industrial markets; improve the quality of its education; help to establish serial production, etc..

It is therefore interesting to analyse how integration groups of different types or level of development take advantage of this opportunity.

Group	Total exports (\$ billion)	Exports within the group (\$ billion/%%)	Exports to other countries (\$ billion/%%)
EU	4532	3051 (67.3)	1482 (32.7)
NAFTA	1678	902 (53.8)	776 (46.2)
ASEAN	770	193 (25.1)	577 (74.9)
MERCOSUR	190	26 (13.7)	164 (86.3)
Andean Group	64	5 (7.8)	59 (92.2)
EurAsEC	362	36 (9.95)	326 (90.05)

Table 3. 1.

Exports by major integration groups in 2006

Source: based on World Trade Developments in 2006. Appendix. Table A 3.

http://www.wto.org/english/res_e/statis_e/its2007_e/its07-appendix_e.pdf; Eurasian Community Countries. Statistics book. M. 2007. p. 107.

The above data require commentary. Firstly, it could be expected a priori that highly developed groups are more open to third countries as a result of the expansion of trade and investment, sale of patents, intellectual property, services (e.g. education), and extensive outsourcing. However, in reality, though these groups lead in absolute terms, lower-level groups are slightly ahead in comparative terms. Moreover, different groups (in terms of size and level of development) may be equally open to the world, but this openness may have restrictions: developed countries tend to trade principally within the group, whilst developing countries trade mostly with third countries.

Secondly, the fact that trade with third countries dominates the foreign trade structure of low and medium-income groups makes these groups more sensitive to external influences. As they strive to strengthen their position, regional groups of developing countries include in their "integration agenda" many social, environmental and security issues. This is quite understandable, since, in the absence of adequate protection mechanisms, a high degree of openness to external influences can impede economic growth or make it biased to one side.

Thirdly, the fact that ASEAN has the highest index of internal trade among groups of developing countries suggests that the size of an internal market, territory, etc. should also be viewed as a factor that promotes the interaction of members within an integration group. This trend can also be observed in developed groups such as the EU or NAFTA.

Finally, since the 2008 financial crisis, large regional groups will play an increasingly important role in the regulation of the world economy, as the reform of the Bretton Woods currency system progresses; they will take over those decision-making functions which global institutions failed to perform adequately. This in turn will draw greater attention to the interaction and conflict between regionalism and multilateralism. This trend may result in the emergence of several regional financial centres and strengthen regional currencies.

Organisational models of an economic space

As demonstrated above, the size of an economic space can have different effects on its economic growth. However, there is at least one more parameter which is important to any evaluation of the influence of the size of an economic space upon its economic growth – that is, the *organisation of an economic space*. Below we discuss the most important characteristics of different organisational models.

The main purpose of integration is to weaken or eliminate the *economic boundaries* which restrict the distribution of benefits or means of production. These boundaries are not always purely legal ones; they can be a product of the technological or geographical peculiarities of certain countries or even provinces (Pelkmans, 2008). Based on this assumption, each organisational model has an agent for the elimination of barriers. This agent does not necessarily work to redistribute benefits; its role may be to create favourable conditions for various other economic agents, e.g., by abolishing customs duties or improving internal transport routes. The creation of a common market in Russia (at least in its European part) in the 19th century was clearly associated with the development of a railway network rather than by a revision of political boundaries (Metzer, 1974).

We have identified six organisational models for economic space, depending on what acts the agent. Government agencies take on this role in three of the models, and the private sector in the other three:

- *common centre model*: the main integration force is a supranational body or a central government not associated with any particular area;
- *international agreements model*: barriers are eliminated by territorial governments pursuant to agreements;

- *dominant player model*: barriers are eliminated by one territorial government (e.g., the government of a particular area or country) which has authority over the other players;
- *corporate investment model*: the main integration agents are major corporations which create region-wide production networks;
- *informal trade model*: the main integration forces are informal networks comprising entrepreneurs and traders who partially operate in the shadow economy;
- *informal rules model*: integration is fostered by common informal rules which are deliberately imposed by a private sector player in order to organise economic interaction between separate areas.

Each of these models has a long history in both national and international contexts.

Historically, the common-centre model has been associated with so-called "military regionalism", a political structure that prevailed across the world until the 19th century. The Roman, Chinese and Persian empires are typical examples of this (Tavares, 2004). Today, this type of integration can be found in the majority of unitary and federal states which pursue a common national policy. At the international level, the only structure that resembles the common centre model is the EU. In reality, however, the interests of particular countries or regions can be said to be "common national" or "European" interests. There is no clear boundary between the common-centre and dominant-player models, and in many cases the position of the centre is not necessarily dictated by any one region.

The international-agreements model by definition requires the participation of several national governments; this is a new development in world history (Kaspe, 2007). Although free trade agreements did exist in ancient times, they were very limited. This model was first used on a meaningful scale in the 19th century (the customs union of Sweden and Norway in 1874–1900, etc.). Today, this model is the basis for most regional economic integration projects involving developing countries, e. g., MERCOSUR, ASEAN and others. On the other hand, this model is implemented by associations of regions existing in several federations like Switzerland, Canada or Russia.

The dominant-player model first appeared in formal and informal "international hierarchies" (Lake, 2009) and is carefully discussed in the hegemonic stability literature of international political economy. It can be identified, for example, in the Roman republic that extended its control throughout the Mediterranean and in the European colonial empires that existed until the mid-20th century. This model can be based on both formal domination and "unequal treaties" which were widely used by the great powers to establish control over the outlying parts of their empire. It is extremely difficult to

distinguish any boundaries between the forms of “indirect rule”, upon which an empire as a political organisation relies. The *creation* of a dominant player can itself be a manifestation of an integration model: each colonial empire “created” a dominant nation at its core (Miller, 2008). Generally, the process of developing such a model is very complex. For example, the Spanish empire resulted from the actions of many population groups rather than of the Castilians alone (Kamen, 2007), and the resulting conventions for redistributing benefits developed largely through bargaining between the imperial and colonial elites (Grafe and Irigoien, 2007).

Today, integration driven by a dominant player is frequently employed in the financial sector: politicians in France and the EU, for example, are showing a keen interest in African currency unions. Examples outside the currency sphere are the German customs unions (Zollverein) which formed around Prussia in the 19th century and the South African Customs union (SACU), one of the world’s oldest economic integration projects (Hancock, 2008). The recently established network of EU-centred agreements in the Eastern Europe and Northern Africa (EU Neighbourhood Policy, Mediterranean Union etc.) also clearly belong to this group. In some cases, this model can be identified in federal states, such as the German empire of the 19th century led by Prussia, or the Argentinian Confederation, dominated by the province of Buenos Aires. As a rule, such federations proved to be very unstable or metamorphosed into other structures based on the common-centre model (e.g., in Argentina, the victory of Buenos Aires triggered the shift to a common national centre).

Various forms of the informal integration which do not involve the public sector have long existed in the world economy. They include the informal-trade model, one of the oldest forms of integration, which probably preceded the emergence of states (Webb, 1974). It lay at the heart of many ancient civilisations, trade networks and gateway communities (i.e., areas that specialised in transit within various trading systems (Hirth, 1978). In Europe, certain elements of this model existed long before the Roman empire (Grantham, 2006). The informal-integration model is exceptionally robust: given the right technological and geographic conditions, it can successfully withstand the pressure of an antagonistic institutional climate. Even strict state regulation does not always check the development of informal integration. Thus, the Byzantine empire essentially became a centre of world trade in spite of the position of its authorities (Guillou, 2005). African countries exemplify this integration model in the modern world (Oculi, 2005).

The corporate-investment model is more sensitive to state regulation than the informal model. Historically, it was first embodied by the chartered corporations of the colonial era which acted jointly with governments and even performed governmental functions in the regions they controlled. Today, the scale of corporate investment enables companies to substitute formal integration processes to a certain degree. Classic examples of this model are

Japanese investments in Southeast Asia (Kawai, 2007) and investments by US companies in Mexico before NAFTA.

Finally, the *informal-rules model* combines the features of state domination and informal integration, i.e., it is driven by private sector players which exert influence on the integration process not through trade or investment but by imposing common standards and rules as a means of surmounting economic barriers. Surprisingly, a typical example of such a player is the Roman Catholic Church in medieval Europe. Its activities ultimately assisted the adoption of common rules and encouraged contact and interaction between European countries, i.e., it effectively fostered economic integration (McCarthy, 1992). This model also includes some *lex mercatoria* institutions, i.e., non-government regulations applied to international trade, such as international accounting standards (Nolke, 2003).

The organisation of an economic space and its growth

How do the above integration models influence the growth of an economic space? Answering this question, in our opinion, requires an understanding of the following three points.

Firstly, different models have different chances of success depending on local conditions. If a model is selected with no regard for the region's political, economic or institutional conditions, attempts to create a large economic space are doomed to failure. This explains why so many international integration projects throughout the world do not succeed. Practically all integration models face the same issues. In many cases, the efficacy of a particular model can be assessed only when different approaches to it begin to conflict. The format of an international agreement can determine the potential size of the economic space it creates; thus, the international agreements model is typically more effective if the number of participants is kept small. The dominant-player and common-centre models are very sensitive to the military and political situation as they affect the distribution of power and internal structures of countries within a region (McGuire, 2002; Lal, 2007). The degree of negative or positive integration largely depends on the selected model⁴. The institutional environment and other factors, such as the cost of reaching consensus or the heterogeneity of the participants' interests, also play an extremely important role.

Secondly, all models can, to a greater or lesser extent, be used to promote "quasi-integration", i.e., an imitation of integration activity which will never result in the creation of a truly integrated space. Quasi-integration is typically masked with political rhetoric and used by the elite and their opposition as

⁴ *Negative integration means removing international barriers to the exchange of goods, services, capital or labour. Positive integration means creating a common regulatory system and harmonising economic policies.*

a tool in their internal political struggle. Large corporations may champion quasi-integration with a view to securing access to government resources or subsidies, improving their image, achieving their political ambitions, or even protecting themselves against competition from third countries. In African countries, quasi-integration provides employment for a host of qualified administrators and consultants who have failed to find jobs in either the public or private sector (Shams, 2005).

Notwithstanding intentional quasi-integration, any integration project may have other goals besides the creation of a large economic space (Libman, 2006). Some do promote economic growth by creating conditions in which the internal institutions of particular countries or regions can improve. Others turn out to be detrimental to the economy irrespective of their declared ambitions for foreign trade. Moreover, some players may attempt to take the lead and change the integration model, which can result in a loss of momentum. If informal integration works to intensify competition between countries by promoting economic and social links between them, then, as demonstrated historically, it can become a real source of economic growth⁵ as governments attempt to implement the international-agreements model or even the common-centre model in order to eliminate competition. However, in the latter case, there is a risk that economic growth will slow down (Chu, 2008).

Thirdly, the dominant player has various integration mechanisms at its disposal. According to the ordoliberal theory, integration necessitates some degree of coordination of the individual plans of many economic agents. Karl Polanyi proposed probably the most comprehensive classification of integration in society by defining three methods: exchange, redistribution and reciprocity (Polanyi, 2002)⁶. Each of them relies on a specific institutional environment which translates a particular activity into a system of economic integration: the market system, the common redistribution centre and the symmetric groups system. It is difficult to find true distinctions between these ideal methods of integration: in reality, exchange is rarely equal, and unequal exchange can become an indirect method of redistribution where a market only has a specific control function as an alternative to direct hierarchy (Oleinik, 2008). Likewise, redistribution can be just a disguise for a bargaining system, for example, between different ministries or lobbies. Different methods of integration often co-exist in society.

⁵ Prime examples are politically divided but economically integrated Central Europe until the early 19th century (Volckart, 1999), and the whole of Western Europe in the Middle Ages (van der Beek, 2007).

⁶ A similar approach based on the comparison of exchange, power and gifts was described by Francois Perroux. To Polanyi, "market" is a specific institutional system or simply an "exchange practice". In this respect, we use the initial classification freely and equate "market" with "exchange", as economists normally do.

According to Polanyi, not every method of integration (i.e., integration models, as we define them) suits the practitioners. Whilst an exchange of gifts is possible at an international level (Polanyi quotes lend-lease as an example), it is incompatible with the common-centre and dominant-player models, in which gifts are substituted for patron relationships (Barsukova, 2004). It must be stressed that integration based on exchange does not preclude the state acting as an important player; the latter must perform its intrinsic *function* to create the conditions for markets and competition to operate.

The common-centre model can be based on either "supporting markets" or redistribution, and this distinction was well understood even in ancient times. The integration of the early Roman empire was based on a system of markets within which exchange between provinces was organised (Temin, 2001; 2001a; Kessler, Temin, 2005) and redistribution served only to maintain high living standards in the capital. In the late Roman empire, however, redistribution was more dominant; Byzantium inherited this pattern, albeit in a much more complex form (Bang, 2007). In imperial China, despite the frequently held misconception, redistribution existed alongside highly developed exchange systems. The ratio between them changed from time to time depending on prosperity levels and periodic attempts by the government to tighten economic regulation (Feuerwerker, 1984; Li, 2000; Deng, 2003; Shiue, Keller, 2006). China also was involved in exchange networks that existed in Eurasia (Zurndorfer, 2004). In the Aztec empire, an extensive market system co-existed with redistribution mechanisms (Sinopoli, 1994), whereas in the Inca empire (Berezkin, 1991) and many other tributary states redistribution systems were more dominant (Patterson, 2005). The situation in ancient Egypt developed in the same way (Balatsky, Yekimova, 2006).

As a rule, in the international-agreements model, the main focus is on supporting markets by jointly removing barriers to trade (in other words, granting access to each other's markets). It is very difficult to maintain a long-term redistribution coalition between several states; however, such examples do exist. The dominant-player model can be used equally for redistribution or for maintaining open markets (the latter often turns out to be a system of redistribution in favour of the dominant player). All three informal integration models are by implication compatible with exchange systems, but can also serve to redistribute, provided that the key players occupy monopolistic positions. Throughout the Middle Ages, guilds would act either as agents of market integration or as monopolies which supported redistribution, depending on the period. The early involvement of colonies in world markets was principally a result of the emergence of redistribution systems within them (Latov, 2003), and chartered corporations in many cases acted as monopolists seeking rent (Jones and Wille, 1996; Carlos and Nicholas, 1996; Adams, 1996). Finally, the internal corporate markets of international corporations can be considered as a form of informal

integration serving both redistribution (if transactions between branches are purely formal and are made solely to optimise their tax position) and exchange (if internal prices act as a stimulus).

According to Polanyi, all methods of integration promote the division of labour, and are thus sources of economic growth. However, their comparative efficiency, especially in terms of market exchange and redistribution, is not uniform. Redistribution is required for implementing large projects, but any government interference limits opportunities for a spontaneous search for optimum solutions (“competition as a method of learning”) and creates many opportunities to seek rent. Excessive geographic redistribution can reduce the efficiency of an economic system (Rosselo, 2003). On the other hand, the need for integration itself may be caused by redistribution (Rehme, 2006), and redistribution may prove to be the only integration tool available in a given institutional environment (although, in reality, defining an institutional framework can be a very complex task). Finally, the *negative* effects of large-scale redistribution may automatically diminish as the size of an economic space increases (Salmond, 2006).

The characteristics of the post-Soviet space

The need to create a larger economic space in order to speed up growth is an argument common to every discussion of the integration of post-Soviet countries. Meanwhile, a number of regional integration models have evolved in these countries during the two decades of independence, and all these models are functioning more or less successfully (see Table 3.2).

Table 3.2.
The efficiency of various integration models in post-Soviet countries

Model	Example	Efficiency
Common centre	Certain countries in the region	Comparatively low in the 1990s, generally high at present
International agreements	CIS	Low
Dominant player	The “rouble zone” in the beginning of the 1990s; EurAsEC and the union state of Russia and Belarus with unequal redistribution of powers can be viewed as a transitional phase between this model and the international agreements model (Hancock, 2007)	Low
Informal trade	Informal trade networks in Central Asian and Caucasian countries and border regions	Comparatively high in certain sub-regions of the CIS
Corporate investments	International financial and industrial groups in the 1990s, expansion of Russian, Kazakh, Azerbaijani and Ukrainian international companies	Increasing (since 2000)
Informal regulation	Eurasian Transport Union, International Association of Stock Exchanges of the CIS	Medium

The efficiency of a particular model should not be used to assess its impact on economic growth, and researchers' opinions on this issue diverge greatly (Libman, 2007). In this section we will describe the simplest method of evaluating the effect of the size of a potential country pair in the CIS on these countries' economic growth. Our assessment is based on the method proposed by Spolaore and Wacziarg (2005) and examines only two consequences: the elimination of barriers to trade and influence on trade flows to or from third countries. Therefore, it is less informative than more complex models such as CGE or inter-industry balance which have been employed in a number of studies dedicated to the post-Soviet space (Klotsvog, Sukhotin, Chernova, 2008; Silamaa, Wildgren, 2003) but is quite satisfactory for approximate estimates. This method is based on simultaneous comparison of a system of equations (in our case, having a limited sample, we assess the so-called "seemingly unrelated regressions" (SURE), thus ignoring the issue of endogeneity:

$$Oat = \alpha O + \alpha_1 \log(Sat) + \alpha_2 Wat + vat \quad (1)$$

$$Gat = \beta O + \beta_1 \log(yat) + \beta_2 Oat + \beta_3 \log(Sat) + \beta_4 Oat \log(Sat) + \beta_5 Zat + \varepsilon at \quad (2),$$

where

- a = a country
- t = time period for panel data (due to the limited observable period we assess regression based on cross-sectional data)
- y = per capita GDP
- O = openness of the economy (share of trade in GDP)
- S = size of a country (in our case, population)
- G = GDP growth rate
- Z and W = vectors of control variables (in our case, 'W' includes the geographic area of a country, initial per capita GDP, a dummy variable for exporters of oil and gas (Russia, Kazakhstan, Azerbaijan, Uzbekistan, Turkmenistan) and a dummy variable for landlocked countries (not including Caspian and Aral countries), and 'Z' includes initial per capita GDP, share of public expenditure in GDP, share of investments in GDP and a dummy variable for exporters of oil and gas)
- v and ε = error terms.

Therefore, *the increase in the rate of growth of country A after integration with country B* (in percentage points) can be calculated as:

$$\Delta = \log(Smt / Sat) (\beta_3 + \beta_2 \alpha_1 + \beta_4 \alpha O + \beta_4 \alpha_1 \log(Smt Sat) + \beta_4 \alpha_2 Wat) \quad (3),$$

where 'm' – the index of an “integrated” region, i.e., includes all countries. In other words, we are able to calculate, for example, by how many percentage points the GDP growth of, say, Russia will increase (or decrease) after its integration with Ukraine (the effect of creating a larger market being the only criterion considered). We use average figures between 1995 and 2003 taken from the following sources: openness, share of public expenditure in GDP and share of investments in GDP (%) – from Penn World Tables; population ('000 people) and initial per capita GDP (\$, 1990) – from Groningen Growth and Development Centre Total Economy Database. Our analysis includes ten post-Soviet countries (no data on Turkmenistan is available, and Georgia left the CIS). Average growth rates for 1990-2007 were taken from the EBRD Transition Report. The results are summarised in Table 3.3.

Table 3.3.
Change in GDP
growth of country
A after integration
with country B (in
percentage points)

Country B	Country A									
	Azerbaijan	Armenia	Belarus	Kazakhstan	Kyrgyzstan	Moldova	Russia	Tajikistan	Uzbekistan	Ukraine
Azerbaijan		-1.42	-0.08	-0.46	-0.69	-0.83	-0.01	-0.37	-0.13	-0.02
Armenia	-0.61		-0.09	-0.23	-0.50	-0.59	-0.01	-0.28	-0.07	-0.01
Belarus	-1.27	-1.46		-0.54	-0.69	-0.85	-0.02	-0.34	-0.15	-0.02
Kazakhstan	-1.48	-1.42	0.07		-0.61	-0.78	-0.02	-0.22	-0.16	-0.01
Kyrgyzstan	-0.84	-1.25	-0.10	-0.33		-0.73	-0.01	-0.34	-0.09	-0.01
Moldova	-0.79	-1.21	-0.10	-0.31	-0.60		-0.01	-0.33	-0.09	-0.01
Russia	-0.48	2.09	3.37	0.25	2.94	2.71		3.40	1.14	0.90
Tajikistan	-0.98	-1.35	-0.10	-0.40	-0.67	-0.80	-0.01		-0.11	-0.02
Uzbekistan	-1.64	-1.18	0.33	-0.75	-0.34	-0.52	-0.03	0.07		0.02
Ukraine	-1.57	-0.36	1.09	-0.68	0.49	0.29	-0.04	0.93	0.06	
All countries in the region	0.62	4.05	5.05	1.11	4.86	4.63	0.06	5.30	1.90	1.11

As we had anticipated, integration mainly benefits small and slow-growing countries. Integration with Russia is beneficial for all countries except Azerbaijan which is growing exceptionally rapidly. Desirable partners for Belarus are Ukraine, Uzbekistan and Kazakhstan; for Kyrgyzstan, Uzbekistan and Moldova – Ukraine; for Tajikistan – Ukraine and Uzbekistan; and for Ukraine – Uzbekistan. Russia does not benefit from integration, and shows a slight slowing in the rate of growth of its GDP.

The inability to demonstrate any benefit using the above model should in no way be viewed as a demerit. Firstly, we take into account a very limited range

of growth factors; secondly, we ignore all other objectives of integration even though these may also be desirable; and, thirdly, we do not analyse integration of many countries. Russia derives a 0.06 percentage point increase in its GDP growth as a result of integration with all nine countries in the region (and this is beneficial to all the stakeholders). It would appear that, in order to generate significant growth, the vast Russian market needs a relatively large partner, and this role is now being assumed by the whole region. The results of our analysis lead us to question the advantage of bilateral initiatives over multilateral ones. The former may seem more realistic, but will they really provide Russia with the desired return in the longer term? In our calculations, however, the whole region represents a "fake" partner for Russia; if it were "real", the regression coefficients and, accordingly, the results, would be different.

* * *

In this paper we attempted to study the effects the size of an economic space has on its economic growth. These effects are not uniform: large economic spaces have their advantages and disadvantages. Globalisation does not necessarily limit the advantages of large economies; it changes the nature and range of opportunities available to both large and small regions to accelerate their economic growth. We have analysed here only the overall economic dynamics, ignoring the effect that integration has on the rate of growth in particular areas of an economic space, or in particular industries. We have also ignored the problem of convergence. The performance of an economic space is determined not only by its size, but also by the way it is organised. We have defined here six organisational models which can be found in different parts of the world, including the post-Soviet countries. The efficacy of each model depends on its ability to support a full-scale integration project, avoid the trap of quasi-integration, and maintain the required balance between market exchange and redistribution. Finally, we attempted to provide a quantitative assessment of the size effect produced by the integration of particular pairings of post-Soviet countries. The latter, of course, is a simple statistical exercise and not a tool to be used to formulate recommendations; however, we believe that such a preliminary assessment may be of interest.

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4 The Experience with Regional Economic Cooperation Organisations: Lessons for Central Asia

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Introduction

Regional cooperation has long been seen as an instrument for promoting economic growth and political stability around the globe. The successful integration of Europe under the umbrella of the European Union (EU) after centuries of wars on the European continent has been a great beacon of hope for many developing countries and regions that have sought to avoid regional conflict and to exploit the opportunities to create prosperity through regional cooperation and economic integration.¹

In the early decades after World War II much of the regional cooperation among developing countries was driven either by efforts to protect regional markets from international competition or by the need to grapple with the fallout of decolonisation, which led to the disintegration of integrated colonial economic regions, especially in Africa. In recent decades, in contrast, regional cooperation efforts have more commonly followed the premise of “new regionalism”, which postulates that regional cooperation should be designed to help countries not only integrate with each other, but also with the rest of the world.

After the collapse of the Soviet Union in 1990, the newly independent republics of the Former Soviet Union faced problems of political and economic disintegration on a huge scale. While early efforts were made by the new countries to maintain cooperative arrangements to prevent economic disintegration, these were not successful, most notably the failure of the Commonwealth of Independent States (CIS) to maintain open borders, trade,

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¹ We refer to “regional integration” as the process of establishing economic linkages (trade, capital flows, migration, etc.) among countries, while we use the term “regional cooperation” to refer to governmental (and where appropriate non-governmental) institutional mechanisms that support the integration process.

transport and capital mobility. Since then, various efforts have been made in different parts of the Former Soviet Union to forge improved economic links through sub-regional cooperative arrangements. Among these the most notable for Central Asian countries are the Eurasian Economic Community (EurasEC), the Shanghai Cooperation Organisation (SCO) and the Central Asia Regional Economic Cooperation Programme (CAREC).

The purpose of this note is to survey the experience with regional organisations in developing countries and to draw lessons which can be helpful for Central Asia, and specifically for the participants in CAREC. We found that the literature on regional organisations is quite limited. There appear to be few thorough evaluations of specific regional organisations that are publicly available. Our note does not purport to fill this gap in the literature. It represents a brief summary of lessons from the experience based on the limited information that we were able to access.

A Typology of Regional Organisations

Regional organisations differ by the focus they have, the functions they are mandated to carry out, their form of organisation, the operational modalities that they employ and their membership. We briefly describe each of these dimensions, which together define a typology of regional organisations.

Focus: Most regional organisations have a mandate to support regional integration, but this is not always the case. They may focus on preservation of mutual security or on support for the development in each country.

Function: Regional organisations pursue specific functions, including cooperation in security and political aspects, trade, infrastructure, finance and socio-economic aspects (including health, education and science), or they can be comprehensive in pursuing groups or all of these functions.

Organisational form: Regional organisations are either formal, i.e., treaty-based or based on other formal legal agreements, or they are informal programmes and forums where participants cooperate on the basis of looser understandings. They may operate as financial institutions with their own financial resources and instruments. Finally, they function at a level of heads-of state, at ministerial level or at the level of senior officials.

Operational modalities: Regional organisations may operate in an advisory capacity, and they may carry regulatory and financing responsibilities. They can have arbitration or enforcement mechanisms that allow them to ensure disagreements among members are arbitrated or binding commitments are complied with.

Membership: The membership consists only of countries belonging to a particular region, or it may include members from outside the region as

Table 4. 1. Key Dimensions of Regional Organisations Involving Central Asian Countries

Source: Authors' compilation

	Integration	Security	Trade	Finance	Infrastructure	Socio-economic	Form of organisation	Level	Modality	Arbitr./ Enforcement	Members, Participants
SCO	✓	✓	✓		✓	✓	Treaty	Summit	Adv./[reg.]		6 regional countries
EurAsEC	✓		✓		✓		Treaty	Summit	Adv./reg.	✓	6 regional countries
EDB	✓		✓	✓	✓		Treaty	Senior Off.	Financing		5 regional countries
ECO	✓		✓		✓		Treaty	Ministerial	Adv./reg.		10 regional countries
CAREC	✓		✓		✓	✓	Informal	Ministerial	Advisory/ financing/ regulatory		8 regional countries, 6 multilat. institns.
SPECA	✓		✓		✓	✓	Informal	Senior Off.	Adv./reg./ (fin.)		5 regional countries, 2 UN agencies

Table 4. 2. Key Dimensions of Regional Organisations in Other Regions

Source: Authors' compilation

	Integration	Security	Trade	Finance	Infrastructure	Socio-economic	Form of organisation	Level	Modality	Enforcement	Members, Participants
GMS	✓		✓		✓	✓	Informal	Summit/ Ministerial	Adv./fin./ reg.		6 regional countries, ADB
MRC	✓				Water	Envi-ronm.	Informal	Senior Off.	Adv./fin./ reg.		4 regional countries
ASEAN	✓	✓	✓	✓	✓	✓	Treaty	Summit	Adv./reg.		10 reg. countries
EU	✓	✓	✓	✓	✓	✓	Treaty	Summit	Adv./fin./ reg.	✓	27 region. countries
Stab. Pact	✓		✓		✓	✓	Informal	Ministerial	Adv./fin./ reg.		9 regional countries 31 countr. / intern. orgs.
IIRSA	✓				✓		Informal	Senior Off.	Adv./fin.		12 regional countries
MERCOSUR	✓		✓				Treaty	Ministerial	Adv./fin./ reg.		4 full, 6 assoc. reg. countries
CAF	✓				✓		Treaty	Senior Off.	Financing		16 reg., 1 non-reg. countries

well as supra-regional, multilateral institutions. Many regional organisations allow observers.

Tables 4.1 and 4.2 show how various regional organisations in Central Asia, South-East Asia, Europe and Latin America compare across these multiple dimensions. For membership of each organisation listed see the text box.

Performance of Regional Organisations in Central Asia

As noted earlier, thorough evaluations of individual organisations are rare, with the exception of analyses of the performance of the EU. Therefore, a summary evaluation of the performance of regional organisations by necessity has to be tentative.

In presenting such an assessment it is important to bear in mind the different goals, functions and instrumentalities that characterise the regional organisations we have reviewed above. No regional organisation is like another. Each has its own combination of characteristics and needs to be evaluated on its own terms.

In Central Asia, SCO has succeeded in providing a forum for regional leaders to discuss common border, security and (less so) economic issues. Progress with settling outstanding disputes over border alignment was one area of clear success. For China and Russia SCO provided a forum for developing a common position on non-intervention by outside powers in the region. For China it also provided reassurance that separatist movements in its Western province of Xinxiang would not receive shelter and support in neighboring countries. Common military exercises may have strengthened the military readiness of members of SCO. On the other hand, in the economic area, and also in the area of coordinated control over drug trafficking, SCO so far has had little impact.

EurAsEC provides a forum among the leaders of its member countries to discuss and build trust around potentially contentious and disruptive issues, including water resource sharing, visas and treatment of migrants from member countries. However, overall EurAsEC has not so far managed to develop into a strong organisation promoting regional cooperation. One of its main goals, the creation of a customs union among its members, has not been accomplished. EurasEC also has had little impact so far in creating regional infrastructure or in addressing key regional water issues. With the recent creation of the Eurasian Development Bank (EDB), which has grown quickly as an organisation and acquired considerable technical expertise in its management and staff, EurAsEC may have acquired the financing instrument it needs to become more effective.

The track records of the Economic Cooperation Organisation (ECO) and the Special Programme for the Economies of Central Asia (SPECAs) have been

weak. ECO's goals for regional trade integration and trade facilitation have shown virtually no progress, at least as far as Central Asian countries are concerned. SPECA, over its wide range of functional areas, has also had no significant impact according to an evaluation carried out on behalf of its own governing body, but it has since made an effort to reform and increase its effectiveness.

Finally, CAREC has made progress in a number of areas, including the development of a Comprehensive Action Plan, a regional transport and trade facilitation strategy, an active electricity regulators' forum, and the implementation of a number of cross-border infrastructure projects funded by the multilateral institutions that participate in CAREC. CAREC is unique among regional organisations reviewed here, since it fosters not only cooperation among participating countries but also has been a mechanism for facilitating coordination among the multilateral institutions, which traditionally have not cooperated closely in most of their operational activities. Nevertheless, at this stage CAREC's success depends critically on the effective implementation of its new sector strategies and of the newly established "CAREC Institute", which is to support training, research and outreach on regional cooperation in Central Asia.

In sum, in the economic sphere Central Asia so far lacks a strong regional cooperation mechanism although the strengthening of EurasEC with the creation of EDB, the progress made by CAREC and efforts to rejuvenate SPECA hold some promise of improved regional cooperation. However, as we will discuss further below, the multiplicity of regional organisation with overlapping, but differing memberships creates its own problems and will require cooperation among regional organisations.

Performance of Regional Organisations in the Rest of the World

The most successful regional organisation in recent history no doubt is the European Union, in terms of creating political cohesion and stability, developing organisational capacity and financing instruments, and fostering economic prosperity overall and convergence in living standards among member countries. The EU has been remarkably successful in expanding its membership while also expanding the range of functions over which cooperation takes place and for which common laws and standards apply, including borderless travel, a common currency, etc. However, the process has taken a long time and many observers, and indeed many citizens in the member countries, feel that there remain significant weaknesses. Not only do some of the common features (borderless travel, common currency) not apply to all members, but an EU constitution remains elusive, the EU lacks a common foreign policy, its decision making process is cumbersome, and its executive body, the European Commission, is seen by the public

overwhelmingly as an intrusive, cumbersome and unaccountable bureaucracy.

The Stability Pact for South East Europe, which was formed after the Balkan wars of the early 1990s, has been reasonably successful measured against the mandate it was given: building trust within the region, helping countries prepare for eventual EU accession, coordinating among international donors and among governmental and non-governmental organisations, especially in regard to trade and trade facilitation. One of the major reasons for the success of the Stability Pact was the pull exerted by the expectation of progress towards EU membership among the participating countries; other factors were the financial and technical support provided by the EU and by the International Financial Institutions, and the dynamic leadership by the successive heads of the Stability Pact.

In Asia, Greater Mekong Subregion Programme (GMS) and the Mekong River Commission (MRC) have on the whole successfully delivered on their narrow mandates (respectively, investment in regional infrastructure development and water resource development and protection). The Asian Development Bank's lead role in GMS, supported by China, was certainly a factor in keeping the programme on track.

The Association of South East Asian Nations (ASEAN) has a much broader membership and mandate and a long and somewhat uneven history. In its early years it pursued a regional programme of large industrial projects for South East Asia that was not successful and was eventually abandoned. In contrast, its trade liberalization efforts were more successful and were one factor contributing to the rapid export growth of its member countries. The Asian financial crisis of 1997/98, during which ASEAN was not able to provide effective remedies, led to a reassessment of its governance and organisational structure, and to a broadening of its regional coverage for certain aspects (especially financial crisis prevention) in the context of the ASEAN+3 framework. The Chiang Mai Initiative (CMI) was organised in 2000 to allow for regional multilateral swap arrangements with which to supplement other international financial crisis management mechanisms. A lack of a strong secretariat, of own financial resources and of a dispute settlements process have limited ASEAN's ability to pursue a strongly proactive regional cooperative agenda. However, ASEAN none-the-less was able to serve as a forum for discussion and negotiation among the member countries and helped sustain regional stability and trust among member countries.

In Latin America, the Andean Development Corporation (CAF) is generally regarded as a great success story, not only because of its phenomenal loan growth over the last ten years, but also because it excels in the simplicity, low administrative burden and speed with it processes loan applications. This

in turn may be linked to the fact that CAF is principally owned and managed by countries from the region itself and that it has been led by a very dynamic president. The Integration of Regional Infrastructure in South America (IIRSA) also contributed to the development of regional infrastructure in South America. In contrast to the generally successful performance of CAF, the Common Market of the South (MERCOSUR) has a more ambiguous record. It has failed to make sustained progress in regional trade liberalization and macroeconomic policy coordination in the face of political and economic uncertainties and tensions in the region.

In Africa, many sub-regional organisations have been created since independence, with the goal of creating more efficient and competitive economic spaces in the fractured post-colonial patchwork of African countries' borders. With some exceptions these efforts focused principally on trade, and only secondarily on infrastructure and financial integration. However, progress has been at best modest, and more often very limited. There are however some notable exceptions of successful regional cooperation in specific areas, most notably the River Blindness Eradication Programme in West Africa, the Africa Hydropower Development Programme involving three countries in the Senegal River Basin and the Lake Victoria Environmental Management Programme.

The Arab experience of decades of regional cooperation efforts has been characterized by the creation of many overlapping bodies (similar to what has more recently happened in Central Asia), by political tensions among members and by volatility of financial resource flows (often linked to volatile oil revenues). Its principal development banks and funds, moreover, were focused less on supporting integration in the region, but more on supporting development in Islamic countries generally. As a result the benefits from regional cooperation and integration in the Arab world were much less than might have been possible, as successive UNDP Arab Human Development Reports have pointed out.

In South Asia regional integration efforts have been very limited to date, with the South Asia Association for Regional Cooperation (SAARC) and the South Asia Preferential Trade Agreement the only examples worthy of note involving more than two countries. However, the results of these two initiatives have been modest. One special case, particularly of relevance for Central Asia is the Indus River Treaty in 1960 and establishment of the Indus River Commission with the support of the World Bank. The treaty led to a durable sharing of Indus River waters between the otherwise hostile neighbors India and Pakistan.

In sum, the EU is clearly an outlier of success among regional cooperation efforts around the globe, but there are a handful of other success stories of regional cooperation in the developing countries, esp. in Southeast Asia and in

Latin America. The question for Central Asian regional cooperation efforts in general, and for CAREC in particular, then is what are the key lessons that can be learned from the worldwide experience with regional cooperation.

Seven Key Lessons on Regional Economic Cooperation

Lesson 1: Regional cooperation is not easy and implementation of stated intentions is frequently weak.

International experience shows that despite their leaders' often stated ambitions to develop regional cooperation schemes, few countries are willing to share sovereignty, and that it is not easy to develop the sense of trust that is needed to embark on and stick with serious cooperation efforts. As a result, many regional organisations are weak and regional cooperation initiatives are poorly implemented. It helps if:

- countries have clearly shared interests and clear ownership of the;
- an external or third-party honest broker assists with the cooperation process;
- countries have come out of a shared crisis or conflict that drives home the need to cooperate for future conflict avoidance;
- financial resources are available to help provide incentives for cooperation;
- arbitration or enforcement rules can be agreed on to ensure that agreements are actually implemented;
- regional strategies are effectively linked with national strategies.

Lesson 2: Effective regional cooperation and integration take time to develop, and require incremental, gradual and flexible implementation with visible payoffs.

The EU experience shows that regional cooperation and integration is a slow and gradual process. Other cases of relatively successful cooperation initiatives similarly show that success is measured in decades, rather than years. Some important ingredients make for success along the way:

- Patience and sticking with the process are essential;
- Setting ambitious, but clear and realistic intermediate targets with visible payoffs along the way will help keep the process on track;
- When progress in one area is not feasible, it helps pursuing others where progress is possible, as a way to show that cooperation can work, to build trust and where possible build coalitions and develop win-win deals across issues;
- Starting with a limited functional focus, rather than burdening the cooperation process with too many issues at the outset, is critical;

- Finally, it can help to let some countries in a regional grouping go ahead, while others at least temporarily go slow.

Lesson 3: Successful cooperation requires leadership.

Cooperation initiatives can benefit from strong leadership in three ways:

- At the country level, one or more countries may push the process of cooperation and are willing to commit their own prestige and resources, perhaps disproportionately so, to make the initiative a success. When the lead country is a regional power it needs to show respect for the sensitivities of the smaller countries, otherwise its efforts can easily backfire;
- At the institutional level, it helps if a strong organisation takes a lead, or members support the development of a strong organisation over time;
- At the individual level, visionary, effective organisational leadership is required at the top of the regional organisation or among key advisers and supporters of the initiative.

Lesson 4: Keep the membership of the regional organisation manageable.

Successful regional organisations attract the interest of other neighboring countries which want to join. This creates an unavoidable tension between the goal of inclusiveness and a focus on effective cooperation among the core countries of a region with shared geography and common regional interests. On balance it is better to start with fewer members and expand only when the capacity of absorb additional members is clearly established.

Lesson 5: Avoid the “spaghetti bowl” effect, where possible.

One of the complicating factors in regional cooperation is that various regional initiatives and organisations often overlap in membership and functions. Multiple bilateral free trade agreements are notorious in their detrimental effects by creating potentially distortive trading incentives as well as burdensome and opaque customs rules at the borders. But similarly costly and confusing overlaps can also occur in other areas (transport, water, energy, etc.), not least by placing great costs in time and travel on the limited governmental and leadership capacity in each of the countries. Various solutions can reduce the problem:

- Replace bilateral with regional trade agreements and/or join the WTO: Consolidating or replacing multiple bilateral trade agreements is one of the great potential benefits of regional cooperation and of joining WTO;
- Consolidate regional organisations: In practice this is rare, as it is generally difficult to abolish an institution once created, but examples show that it can be done;

- Work towards an explicit division of mandates;
- Collaborate and share information.

Lesson 6: Ensure financial resources and instruments are available to support regional investments and cooperation.

Financial resources can help in various ways, including:

- Facilitating investment in regional infrastructure (transport, water, energy, border facilities, trade facilitation, etc.);
- Create incentives for cooperation among governmental and non-governmental players;
- Provide resources for helping backward regions to catch up with the more advanced regions, or to assist sectors suffering negative consequences from regional competition in their adjustment.

Lesson 7: External actors should assist wherever possible.

External support can be very helpful for the success of regional organisations, as the experience of GMS, CAREC and the Stability Pact of South East Europe demonstrate. In each of these cases, larger regional and international agencies provided technical, financial and trust-building support. However, CAF (and the EU) demonstrates that regional organisations can also succeed without substantial external support, provided enough of the other success factors are in place. In any case, International Financial Institutions should play a more active role in supporting regional organisations.

In conclusion, international experience is highly relevant for Central Asian regional economic cooperation in general and for CAREC in particular. The core message is that regional cooperation underpinned by effective regional organisations is possible and brings considerable benefits to the participants. The existing regional organisations present a number of strengths and opportunities, but also weakness and challenges that can and should be addressed in a cooperative spirit among the countries, together with the multilateral organisations and other partners, as well as among the various regional organisations themselves.

Membership of Regional Organisations

Central Asia

SCO: China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan and Uzbekistan.

EurAsEC: Belarus, Kazakhstan, Kyrgyzstan, Russia and Tajikistan; Uzbekistan announced suspension of its membership in 2008.

ECO: Afghanistan, Azerbaijan, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkmenistan, Turkey and Uzbekistan.

CAREC: Afghanistan, Azerbaijan, People's Republic of China (PRC), Kazakhstan, Kyrgyzstan, Mongolia, Tajikistan and Uzbekistan; EBRD, IMF, Islamic Development Bank, Asian Development Bank (ADB), UNDP and World Bank.

SPECA: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

Southeast Asia

GMS: Cambodia, PRC, Lao PDR, Myanmar, Thailand and Vietnam, ADB.

MRC: Cambodia, Lao PDR, Thailand and Vietnam are full country members, China and Myanmar are "dialogue partners".

ASEAN: Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

Europe

EU: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.

Stability Pact for South-East Europe: Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Moldova, Montenegro, Romania, Serbia and The Former Yugoslav Republic of Macedonia; EU members states, the European Commission, various international and regional partner organisations, including UN agencies, EBRD and World Bank.

Latin America

IIRSA: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Surinam, Uruguay and Venezuela.

MERCOSUR: Core members are Argentina, Brazil, Paraguay and Uruguay; associate members are Bolivia, Chile, Colombia, Ecuador, Peru and Venezuela.

CAF: Its main shareholders are Bolivia, Colombia, Ecuador, Peru and Venezuela; associated countries are Argentina, Brazil, Chile, Costa Rica, Dominican Republic, Jamaica, Mexico, Panama, Paraguay, Spain, Trinidad and Tobago, and Uruguay; 15 private banks from the Andean region are partners.

Regionalisation in Central Asia

5

ALEXANDER
LIBMAN¹

1. Introduction

Regional cooperation and integration remains among the main topics of international discourse in Central Asia. In fact, though the issue of the regional integration is perceived differently for different regions of the former Soviet Union, the overall consensus is that increasing regional cooperation could be helpful for Central Asia or the Caspian Sea region from the point of view of economic development and overcoming common problems (Bartlett, 2001; Gleason, 2001). The literature, however, focuses on the top-down integration based on intergovernmental interaction. This form of integration seems to be extremely limited in the region. This paper, however, considers a different perspective on regional integration in Central Asia. It is generally accepted that the areas of relatively less effective regionalism could happen to be quite successful in terms of regionalisation (bottom-up integration), i.e. interaction of economic and political actors beyond the formal intergovernmental cooperation across national borders. The main elements of the regionalisation usually include stable trade networks and cross-border investments, linking the countries through international chains of production and migration.

It is possible to distinguish between two models of bottom-up integration. The first model ("investment integration") is based on FDI of large multinationals and implies relatively high levels of development of the leading countries of the region. The second model ("informal trade") is of a more archaic nature and is related to emergence of informal cross-border trade networks, mostly operating illegally. Some regions combine both models: for example, in East Asia the main drivers of integration are investments of Japanese multinationals and cross-border business networks of Chinese ethnic communities (Peng, 2000; Kawai, 2005); the relations between US and Mexico are similarly influenced by American multinationals (macuiladoras) and the informal network of Hispanic migrants. For example, the informal trade model is present in West Africa (Meager, 1997), and to a lower extent in South Asia (Taneja, 2001; Rafi Khan, 2007).

¹ The paper was written within the framework of the project "Emerging Market Economies in Central Asia: The Role of Institutional Complementarities in Reform Process". The author thanks Boris Kheyfets and Manuel Stark for helpful comments and suggestions regarding the sources of the data. All mistakes remain my own.

This paper aims to analyse the role of regionalisation in Central Asia. Breslin (2000) presents two important caveats with respect to the comparative analysis of informal regionalisation. First, the borders of regions become fuzzy. If one defines a region as a cluster of economic and social ties, it obviously does not have any well-defined borders, unlike formal regionalism projects. Moreover, the choice of region of analysis may depend on mental maps, producing and reproducing “imagined” or even “invented” regions (Shenk, 2001; Miller, 2002). If the analysis of regionalisation is focused on qualitative data (e.g. because the quality of statistics is low, what is quite likely to be the case for the post-Soviet space – as well as in the developing and transitional world in general), the “mental maps” of *researchers* are likely to create biases for the research outcomes and especially for the claimed causal links. On the other hand, mental maps of actors (indirectly *influenced by academic discourse*) not only have an impact on the perception of regions, but also can indeed influence the processes of regionalisation and regionalism (through real or “invented” psychological distance, for example). Second, defining regions in terms of nation-states is not always productive for the analysis of informal integration – in particular, the so-called “microregionalism” and “microregionalisation”, based on the integration of subnational entities, can be very important.

In this paper, I define “Central Asia” as five former Soviet republics (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan). On the one hand, this approach is reasonable because countries of the region share a relatively long period of common economic and political history and closed interconnections, which in fact determined the process of nation- and border-building in Central Asia (see e.g. Hirsh, 2000; Abashin, 2007). However, on the other hand, Central Asia is still an “emerging region” (Kazantsev, 2005), i.e. its very concept, as well as structure of economic and political relations can be subject to re-definitions and turbulences. The second caveat is also ambiguous; all Central Asian countries are politically highly centralised (Ufer and Troschke, 2006; Leschenko and Troschke, 2006), while the Chinese experience (Breslin, 2000a) and the paradiplomacy of Russian regions (Magone, 2006) shows the need for decentralisation as a driving force of microregionalisation. But on the other hand, geographical dimensions (especially in Kazakhstan) and poor quality of transportation, as well as internal differences (like those between northern and southern Kyrgyzstan) could theoretically contribute to the clustering of economic activity on the subregional level.

2. Regionalisation in Central Asia

2.1. Post-Soviet regionalisation and Central Asia

In spite of extremely weak intergovernmental cooperation in the post-Soviet space, the region currently exhibits a substantial degree of the bottom-up integration. Basically, there are four factors contributing to this process.

First, since the early 2000s, Russian corporations have been increasingly present in the post-Soviet countries through takeovers, joint ventures, and – recently – greenfield investments (Heifetz and Libman, 2008; Deloitte, 2008). The investment expansion of Russian business is only partly registered by official statistics, since informal channels and offshore schemes are actively employed. Traditionally, three main sectors of expansion are oil and gas, metals and mining and telecoms, although currently a much larger diversification is observed. Second, post-Soviet countries are closely linked by migration flows (Ivakhnyuk, 2006; Ryazansev, 2008). Third, the post-Soviet space is still connected through a unity of infrastructure, e.g. in railroad and power utilities sectors, created in the Soviet times. Finally, there is still a significant (though permanently declining) degree of social integration in the post-Soviet world, manifesting itself in interpersonal networks and, above all, Russian as *lingua franca* for communication (Nasledie Evrazii, 2007). Hence, the regionalisation in the post-Soviet space seems to be driven partly by the Soviet heritage (which may happen to be a “disappearing reality”), and partly by the logic of regionalisation common for a typical geographical strategy of emerging multinationals (Davidson, 1980; Bell and Pennings, 1996; Kuznetsov, 2008). The post-Soviet regionalisation seems to be extremely asymmetric and clearly centred around Russia as the key market and key source of FDI in the region. Interestingly enough, there is no evidence of informal trade regionalisation in the CIS (unlike, e.g., Africa), what can be attributed to the specifics of industrial structure of post-Soviet economies, where (mostly global) trade in commodities dominates the trade structure, and to the overall level of economic development. The investment model seems to be much more important. Nevertheless, after significant decline of the 1990s the share of intraregional trade in the CIS reached a stable level; there is also evidence that the intraregional trade is still “too high” as opposed to gravity models predictions – a kind of inverted border effect (Fidrmuc, Fidrmuc, 2001; Djankov, Freud, 2002; Elborg-Voytek, 2003, de Sousa and Lamotte, 2007).

What does this highly asymmetric regionalisation imply for Central Asia? Theoretically, extraregional actors (like Russian corporations) could act as a driving force in the regionalisation process. For example, in East Asia Japanese and (partly) U.S. multinationals seem to contribute to the development of informal regional structures (Dobson and Yue, 1997). However, it requires two additional conditions: first, companies are present in several countries of the region, and second, their businesses are linked to each other. To our knowledge, there are extremely few areas where both conditions are satisfied. Two fields where Russian FDI could potentially increase the degree of regional interdependence in the Central Asia are telecommunications, where the “Big Three” Russian mobile service providers actively explore the regional markets, and power utilities, where the key player is INTER RAO UES. Given the fact that the energy systems of the post-Soviet countries are still

intervened, common actors in energy sectors can significantly contribute to regionalisation. However, one should be aware of the fact that the energy trade in the post-Soviet space decreased in the last few years, and that the modes of organisation of power utilities in individual Central Asian countries differ substantially. A third field where Russian extraregional actors could potentially become agents of regionalisation is oil and gas; however, currently the presence of Russian corporations in this sector is quite limited.

Finally, regionalisation through external actors – like in the “Greater China” area – is sometimes explained by the “intermediary function” accepted by certain regions and countries “canalising” foreign investments and trade in the region (Breslin, 2004). However, developed bilateral ties between Russia and post-Soviet countries make the use of these “intermediaries” less important. The situation is not unambiguously clear; for example, in October 2006, the president of the Association of Kazakh investors in Kyrgyzstan Bakhtybek Zheldibaev claimed that, as opposed to foreign investors from other countries, companies from Kazakhstan “... are in a more attractive position. First of all, Kyrgyz and Kazakhs have similar language, traditions, beliefs, psychology, reason and think in a similar way. Second, we do not need intermediaries. This is our advantage as opposed to European, Chinese and Russian investors. Actually, the latter also feel quite good [in the Kyrgyzstan], but we do not feel their pressure now” (Kuz'min, 2007).

Hence, Russian investors are probably not as close to Kyrgyzstan, as those from Kazakhstan, but the “distance” is still relatively small. However, as I will show below, Kyrgyzstan and Kazakhstan seem to develop deep economic relations, which are not present elsewhere. In Tajikistan, Russian investors are more important than those from Kazakhstan. One could of course speculate as whether increasing presence of Chinese investors will contribute to establishment of the “gate regions” to support regionalisation through external forces, but the outcome is yet to be seen.

2.2. Foreign Direct Investment

Let me now consider the actual intraregional factors of regionalisation. Unlike other subregions of the CIS, where the role of mutual investments is limited (for example, there is only vague evidence of some Ukrainian investment activity in Moldova – in particular, in Transdnistria and of Azerbaijan – in Georgia), Central Asia is quite different, mostly because of the activity of private and semi-private businesses from *Kazakhstan*, which actively explore the Central Asian countries. Though the main direction of investments for Kazakhstan is still Russia, it is increasingly present in the Central Asian region. As of September 30, 2007, Kyrgyzstan ranks 13th in the overall outward investments of Kazakhstan with about 1.3% of total foreign investments of the country (\$481 million, including \$240 million FDI). Uzbekistan ranks 20 with \$199 million (FDI: \$109 million), and Tajikistan ranks 21 with \$188

million (FDI: \$ 24 million). Hence, the countries seem to be of minor importance for the outward investment activity of Kazakhstan, with Russia, US, UK and British Virgin Islands (BVI) being the main targets for outward investments. However, one should take into account, that the Central Asian economies are relatively small, and hence even limited investment activity of Kazakhstan can become crucially important. Indeed, according to the investment statistics of the Kyrgyzstan, Kazakhstan is currently the dominant source of FDI for Kyrgyzstan, accounting for about 50% of the total investment inflow (see Figure 5.1). Unfortunately, there is no data on the FDI structure for Tajikistan and Uzbekistan available. However, applying the Kazakhstan data on FDI and total investments and national data from the balance of payment, one could establish, that for Q1-Q3 2007 Kazakhstan accounted for about 21% of total investments and about 4% of FDI inflow in the economy of Tajikistan (with Russia being the main investor accounting for about 40% of capital inflow).² One should, however, be aware of the presence of indirect investment channels (e.g. via the BVI investments), which have not been captured by the statistics above.

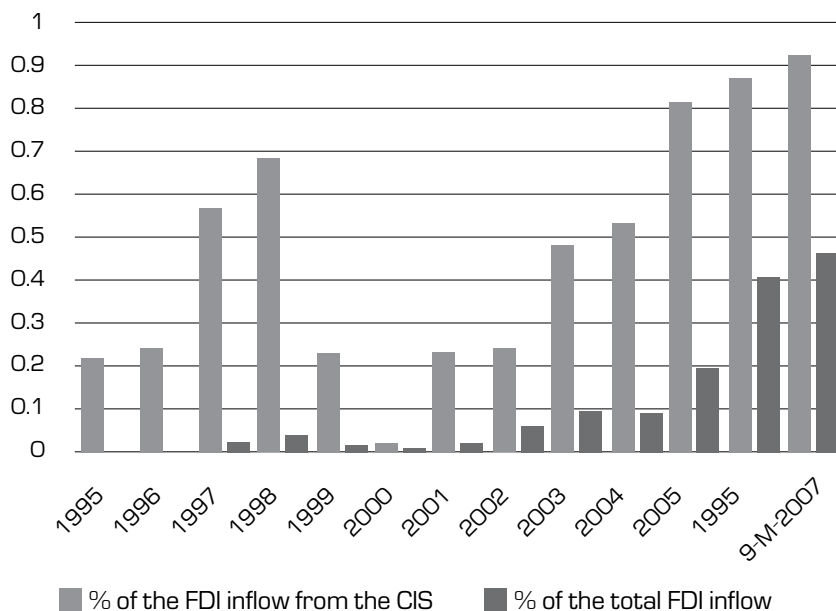


Figure 5.1.
Share of Kazakhstan
in the FDI inflow to
Kyrgyzstan

Source:
governmental
statistics of the
Kyrgyzstan

The low quality of statistical data makes the discussion of case studies of investment activity in the region necessary. In what follows, I list the main investment projects of Kazakhstan in other countries of the region. Most

² This indicator is extremely questionable. Generally direct comparison of outward and inward investment flows data from different statistical authorities of the CIS yields substantially different results (Vahtra, 2005); moreover, one faces the challenge of separating balance of payment statistics and methodology of statistical authorities, which also happen to be different.

projects I am aware of are implemented in Kyrgyzstan; it could represent the quality of data bias, however, from our point of view, reflects the true predominance of Kyrgyzstan-Kazakhstan connection in the regionalisation processes in Central Asia.

While distinguishing among the areas of FDI activity of Kazakhstan in the region, one should point out the *banking sector*. Successful economic reforms fostering market discipline and high standards allowed Kazakhstan to establish a well-functioning banking sector outperforming that of most other CIS countries (including, to a certain extent, Russia), allowing the banking sector to pursue an active expansion strategy abroad. Currently the main holdings of the banks of Kazakhstan in Central Asia include *Nacional'nyi Eksportno-Importnyi Bank* (Kyrgyzstan) owned by *TuranAlem* (originally purchased by *Temirbank*), *Kazkommerzbank Kyrgyzstan* (Kyrgyzstan) and *Kazkommerzbank Tajikistan* (Tajikistan) owned by *Kazkommerz*, *ATF Bank Kyrgyzstan* (Kyrgyzstan) owned by *ATF Bank*, *FinanceCreditBank* (Kyrgyzstan) owned by the *Seimar Alliance Financial Corporation* and *Halyk Bank Kyrgyzstan* (Kyrgyzstan) owned by *Kazakhstan People's Bank*. The state-owned *Development Bank of Kazakhstan* has a representative office in Uzbekistan. Investments from Kazakhstan account for about 30% of the capital of the banking system of Kyrgyzstan being the sole major foreign investor (Abalkina, 2007:43), and the share of the banks controlled by Kazakh banks may reach 50% of the market for banking services (Kuz'min, 2007). Nevertheless, the presence of Kazakh banks in other countries of Central Asia seems to be fairly limited.

There are several other sectors where investors from Kazakhstan achieved relative success. In Kyrgyzstan, one should definitely mention the tourist industry – in particular the recreation facilities in the Issyk-Kul region (UNDP, 2006:28). The data regarding this sector is fragmentary at best; however, the number of objects controlled by Kazakhstan could be significant. The most well known deal is the agreement to hand over four facilities to Kazakhstan signed in 2001 and ratified in 2008. Nevertheless, it probably only covers the tip of the iceberg. In March 2008, Kazakhstan and Kyrgyzstan announced its plan to construct a new road connecting Almaty and Cholpon-Ata at Issyk-Kul, which, however, is still very far from implementation. It is certain that a clear advantage is the geographic proximity of the region to Almaty, increasing the potential market for the tourist services for customers from Kazakhstan.

Further sectors of the investments from Kazakhstan include mining, construction and media industries, as well as real estate. In Kyrgyzstan, Kazakh companies control the Kant Cement and Slate Plant, maize syrup plant, two concrete plants, Tokmak Brick Plant, Kadamjai Stibium Plant, Tokmak Wool Processing Plant, *Kyrgyzenergoremont* in Bishkek, and participate in the development of gold deposits at Jeruy (*Visor Holding*) and Taldy Bulak (*Sammergold*). In Tajikistan, *KazInvestMineral* acquired the

Adrasman mining complex in 2006 for \$3.2 million. In the field of gas supply, Kazakhstan's state owned *KazTransGaz* and Kyrgyz *Kyrgyzgaz* established a joint stock company, *KyrKazGaz*, in 2004 to operate the gas pipelines to the North of Kyrgyzstan and the South of Kazakhstan. As in the CIS in general, the dominant instrument is still the acquisition of existing assets, though there is an increasing presence of greenfield investments (like the recently initiated project of a ferrosilicoaluminium plant in Tash-Kumar (Kyrgyzstan) for \$100 million). BRK-Leasing, a subsidiary of the Development Bank of Kazakhstan, provided €7 million for financing the development of textile production in Bishkek. In December 2008, the ambassador of Kazakhstan in Uzbekistan Zautbek Turisbekov proposed to provide finance to farmers from the banks of Kazakhstan, as well as to establish joint food processing plants in the border zone. Finally, Kazakhstan seems to be extremely interested in power utilities in Kyrgyzstan and Tajikistan (in January 2008, Kazakhstan declared its plans to participate in the reconstruction of the Kambarada Power Plant in Kyrgyzstan, and in February – in the reconstruction of the Rogun Power Plant in Tajikistan); however, any perspectives in this field are still vague, especially given active position of Russian business in the area. The investment activity seems to be driven by both relatively cheap labour (compared to Kazakhstan) and access to natural resources. Access to markets seems to be less important in this sector (unlike banking services).

The opposite direction of investments from Uzbekistan, Tajikistan and Kyrgyzstan to Kazakhstan seems to be insignificant. In the first 9 months of 2007, Uzbekistan accounted for about 0.004% of total FDI inflow to Kazakhstan (or 11% from the CIS),³ and Kyrgyzstan for 0.008% (or about 22% from the CIS). There is no data on the investment activity of Tajikistan, as well as cross-border investments in Central Asia beyond Kazakhstan. To conclude, it looks like the Central Asian regionalisation is as asymmetric, as the regionalisation process in the CIS in general, with Kazakhstan as the main source of outward investments and Kyrgyzstan as the main recipient of FDI. In Tajikistan, investments from Kazakhstan are important, but less active, than those of Russia (in the Kyrgyzstan the situation is exactly the opposite). Uzbekistan and (especially) Turkmenistan are much less active in the development of intraregional investment ties.

2.3. Intraregional trade and migration

In case of the formal intraregional trade, the situation is similar to the CIS in general. Regional concentration of exports is characteristic to a certain extent

³ *There are currently 96 enterprises with Kazakh investments functioning in Uzbekistan, including trade, construction, light industry, metals and food industry, and 715 small and medium enterprises with Uzbek investments in Kazakhstan, including trade, manufacturing, food industry, construction materials, glass, services and real estate operations (RIA Novosti, 2008, April 21). However, the quality of these data is very low and is hardly helpful for understanding the scope of international cooperation.*

for the Kyrgyzstan, mostly because of its closed economic ties to Kazakhstan. On the other hand, Tajikistan and Kyrgyzstan experience a certain degree of concentration of imports in the region (see Table 5.1). However, a slightly different result follows from the cluster analysis based on dissimilarity matrix (Figure 5.2). While Kazakhstan seems to have higher degree of market integration with Russia than with the rest of the CIS, Kyrgyzstan and Tajikistan indeed belong to one cluster. An additional factor potentially supporting the regionalisation is that Central Asian countries share a number of common problems of infrastructure, in particular for energy trade and water supply, where their economies are closely linked to each other (Vinokurov, 2007). Even if the value of trade is small, its importance for the development is crucial.

Table 5.1.
Structure of
interregional and
intra-regional trade in
Central Asia, 2006

Source:
CIS Statistical
Committee, 2007

From (exports), to (imports)	Indicator	Exports and imports					Total Central Asia
		Kazakhstan	Kyrgyzstan	Turkmenistan	Tajikistan	Uzbekistan	
Kazakhstan	Share of total exports		0.700%	0.054%	0.412%	1.006%	2.171%
Kazakhstan	Share of CIS exports		4.804%	0.371%	2.824%	6.902%	14.901%
Kazakhstan	Share of total imports		0.587%	0.560%	0.117%	1.348%	2.611%
Kazakhstan	Share of CIS imports		1.255%	1.199%	0.250%	2.884%	5.589%
Kyrgyzstan	Share of total exports	20.476%		0.264%	3.010%	3.513%	27.264%
Kyrgyzstan	Share of CIS exports	42.902%		0.554%	6.306%	7.361%	57.124%
Kyrgyzstan	Share of total imports	11.628%		0.105%	0.163%	3.783%	15.679%
Kyrgyzstan	Share of CIS imports	20.161%		0.182%	0.283%	6.559%	27.185%
Tajikistan	Share of total exports	1.987%	0.801%	0.007%		4.818%	7.613%
Tajikistan	Share of CIS exports	14.938%	6.018%	0.054%		36.217%	57.227%
Tajikistan	Share of total imports	10.838%	1.631%	3.501%		10.223%	26.193%
Tajikistan	Share of CIS imports	16.976%	2.555%	5.483%		16.012%	41.026%

However, in spite of relatively low international trade, it seems likely that individual markets for consumer goods in the region are highly integrated. Impact of border on price variation between Kazakhstan, Kyrgyzstan and

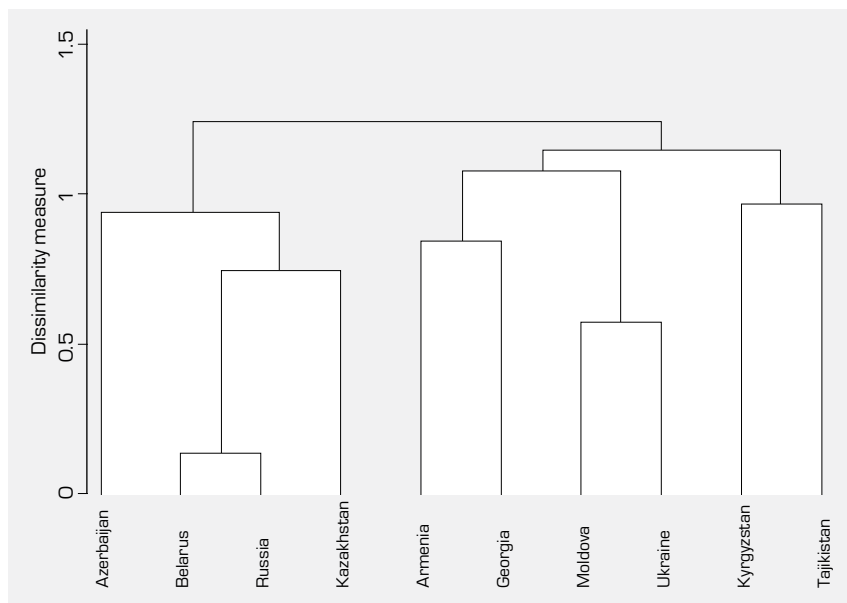


Figure 5.2.
Clusters of
intraregional trade
in the CIS, 2006

Notes: cluster analysis using Ward clustering method. Dissimilarity matrix defines dissimilarity as 1 minus share of trade turnover between countries i and j in the overall trade turnover of the country i in the CIS, prices of export applied

Source: own calculation based on CIS Statistical Committee database, 2007

Uzbekistan is relatively small and practically equivalent to the intranational price variation between individual regions (Grafe et al., 2005). It, however, does not imply that internal markets are integrated – only that the border effect for disintegration is less relevant. Therefore, one could probably assume that the integration on the level of small business networks is much higher, than for commodities (which play the crucial role in determining the structure of trade statistics presented above). Spechler (2000:7) claims that; “with all the problems, informal trade among the Central Asian countries appears to be working reasonably well”. Informal trade seems to be important for countries like Tajikistan (Olimova et al., 2006) and even Turkmenistan in spite of strong trade restrictions (in particular across the border with Uzbekistan) (Badykova, 2006). One should bear in mind, however, that the emerging informal trade networks often span outside the Central Asian region over the whole Eurasian continent (Evers and Kaiser, 2000; Kaiser, 2002).

Finally, the last issue to be considered is the labour migration in Central Asia. Once again, although Russia still remains the most important partner for the majority of the countries from the migration point of view, Kazakhstan plays an increasingly important role, partly competing with Russia. As in the case of the FDI activity, increasing labour migration in Kazakhstan is also a relatively recent phenomenon, directly related to the economic success of the country in the last half decade. The main countries of origin for labour migration to Kazakhstan are Uzbekistan (with a significant ethnic Kazakh minority) and Kyrgyzstan. Although Kazakhstan implements a policy of privileged ethnic

immigration of the *oralman* (ethnic Kazakhs), there seems to be a significant flow of illegal labour migration exceeding the official migration. The number of labour migrants from Uzbekistan in Southern Kazakhstan (which seems to be the most attractive region for migration inflows) varies between 200,000 and 1 million; however, the any data is likely to be extremely biased and is to be considered with great caution. Some authors point out the existence of labour migration from Uzbekistan to Kyrgyzstan, generating a remittance flow, but it seems to be relatively small (Mogilevsky, 2004:27). The migration flows have a heavy impact on both legal and illegal monetary flows of migrant remittances (Sadovskaya, 2005, 2006). In case of Tajikistan, Russia remains the absolutely dominant country from the point of view of labour migration. One can argue that for informal trade and migration, the “microregionalisation” involving selected regions and areas of the countries is probably relevant.

3. Regionalisation and institutions: channels of interdependence

However, the most important problem is not just to establish the existence and forms of regionalization, but also to understand its interconnection with the institutional development in the region. Regionalisation often occurs at the corners of the development spectrum: it can become crucially important for economies at the low level of development, substituting for the deficit of the rule of law, but it can also follow from high development, with high governance capacity of non-governmental agents. In both cases, the effects of regionalisation on institutions can differ. In Medieval Europe, for example, merchant guilds effectively supported the de-facto integration of the economic space and overcame the low development of formal institutions (Greif, 2006), but also engaged in redistributive activities and market monopolisation (Ogilvie, 2007). In what follows I am going to consider three channels of interaction between institutions and corporate integration.

3.1. Regionalisation and reform strategies

The first issue to be considered is the impact of models of institutional development in Central Asia on regionalisation. The countries of Central Asia experienced a variety of different reform strategies, and hence, economic outcomes and institutions. It is especially relevant for the two largest countries of Central Asia – *Kazakhstan* and *Uzbekistan*. As already mentioned, Kazakhstan is currently the centre of the process of regionalisation, especially within the framework of “investment model”, and significantly outperforms Uzbekistan. But why did Kazakhstan, and not Uzbekistan, generate the first regional multinationals?

From the point of view of formal institutions, Kazakhstan implemented a more consequent model of liberal reforms and high levels of openness for foreign investors (which recently was replaced by less favourable conditions for investors, who lost control of some important assets, and more important

industrial policy, say, within the framework of the cluster initiative). On the other hand, the structure of informal institutions, as in Russia and Ukraine, created a set of privileged business groups with strong economic and political ties (Libman, 2006). Uzbekistan did not implement any large-scale reform programme, maintaining significant public sector and public investments in the economy. Uzbekistan actually outperformed Kazakhstan in the early 1990s, giving rise to the discussions of the nature of an "Uzbek paradox" (Spechler et al., 2004). However, since the early 2000s, Kazakhstan has performed significantly better than Uzbekistan in terms of economic growth.

It is possible to claim that these differences to a certain extent explained the leadership of Kazakhstan, and not Uzbekistan, in the structure of investment integration. First, as part of liberal reforms of the banking system, Kazakhstan successfully transformed its banks into powerful players, which actually dominate in the process of regionalisation. Second, in a political-economic environment like that of the Central Asian countries, successful regionalisation basically requires two contradicting conditions. On the one hand, one of the problems of the state-led economies in a region with a very low level of political cooperation is that political difficulties actually prevent the development of economic ties. So, if the connection between economic and political actors is *formal* and *too strong* – like in case of the state-owned economy of Uzbekistan – political differences can effectively block any economic cooperation. On the other hand, an environment with poor protection of property rights is problematic for small private companies with substantial public support. The model of large privileged business groups implemented in Kazakhstan seemed to be quite successful from this point of view. Moreover, the businesses of this group are large enough to successfully establish their presence in neighboring states, but also have experience of turbulent economic environments, which gives them a unique advantage vis-à-vis multinationals from developed countries. Third, the timing of development seems to be crucial. Gradual reforms are likely to reduce pressure at the stage of recession, but rapid reforms and development of market institutions could lead to better performance *after* the recession stage. However, any regionalisation in the post-Soviet space became possible only after a certain period of time, when the initial problems of nation building preoccupying political elites became weaker. From that point of view, Kazakhstan also had better chances to become leaders of the regionalisation in Central Asia, than Uzbekistan.

The models of reforms and outcomes of economic development in other countries of the region also played a certain role in influencing the process of regionalisation in Central Asia. In some cases, the link is straightforward: for example, strict public control over all aspects of economy and society in Turkmenistan makes any active participation of this country in the regionalisation impossible; Russia's position in the resolving the civil war in

Tajikistan obviously supported the domination of large Russian multinationals in this country, although the current stabilisation of political regime has an ambiguous effect on status of Russian investors (Abalkina et al., 2007). Substantial informal trade and development of large migration flows is to a certain extent an outcome of economic problems of most countries in the region (with the exception of Kazakhstan) and strict public restrictions for formal trade (especially in Uzbekistan and Turkmenistan). Although the political instability in several countries of the region (in particular, in Kyrgyzstan) had a negative impact on FDI inflow (generally speaking, as well as from Kazakhstan), it is possible to claim that the Kazakh investors were *relatively* less affected by the problems than multinationals from developed countries (because of a general ability to act under weak institutions, as well as similarities in reform strategies between Kazakhstan and Kyrgyzstan, see Olcott, 2002; Spector, 2008). Hence, the instability, while having an *absolutely* negative effect on the investors from Kazakhstan, increased their *relative* weight. It is not impossible that there is also some *absolutely* positive effect; for example, in several regions of the CIS several groups of Russian investors were able to enter the markets *because* of low quality of institutions, but our analysis is limited to speculations.

3.2. Impact of Regionalisation on Economic Institutions

The opposite causal link – from the structure of regionalisation to the quality of institutions – is more difficult to study. The effects of regionalisation can be both strengthening the market-enhancing institutions and conserving the inefficient institutional structure. However, these effects also differ for the “investment driven” regionalisation and “informal trade” regionalisation. From the point of view of the investment driven regionalisation, two arguments should be mentioned. First, investment driven regionalisation (as well as developed labour migration) strengthens institutional competition, i.e. competition between countries for mobile factors of production by establishing legal environment and economic policies. Institutional competition is often considered to be an efficient tool of taming the Leviathanic rent-seeking government and of revealing the preferences for institutions through the evolutionary learning process (Vaubel, 2007). Secondly, multinationals are likely to act as channels of transmission of best practices and knowledge between countries; thus supporting the diffusion of efficient institutions. In a similar way, the best practices can be important through the networks of labour migration.

Unfortunately, both positive effects are not unambiguous. On the one hand, institutional competition is not necessarily driven by demand for good institutions. In fact, the literature on the post-Soviet transition established a variety of factors leading to inefficient equilibria supported by the demand for weak institutions (for a survey see Libman, 2007). This is definitively related

to the emergence and stability of the "clan capitalism" (Kosals, 2006) in the post-Soviet world. The main question is actually not whether demand for weak institutions really exists, but rather whether it is permanent (i.e. constitutes a stable equilibrium) or temporary (and after a certain period of development should be replaced by demand for good institutions). Havrylyshin (2007:17) refers to this discussion as "transition inevitable" and "transition frozen" school of thoughts and claims, that "the debate ... will certainly go on for some time to come". From the point of view of regionalisation in the CIS space, the results are ambiguous: both factors of demand for good institutions and demand for weak institutions seem to be present (Libman, 2007).

From the point of view of the Central Asian countries the problem is as ambiguous as in the CIS in general. Actually, it receives an additional dimension given relatively high degree of political instability in several countries of the region (like Kyrgyzstan and Tajikistan). It is clear that the increase of investments from Kazakhstan and Russia does not necessarily coincide with stronger demand for transparency and general rules in the Hayekian sense. In fact, the demand for privileged relations with regional authorities may be more important, and the "threshold level" of demand for institutions necessary to enter the market for the post-Soviet companies is not so high anyway. Hence, foreign investments may well support inefficient equilibria. Certainly they support the semi-authoritarian regimes in the countries of Central Asia, which, in turn, are one of the main factors of the existing low quality of governance (Libman, 2007a). Moreover, as already noticed, strengthening these regimes can effectively result in a hold up of foreign assets and decline of regionalisation in general. However, the alternative to this support may be not market-enhancing reforms (like in the countries of the Western flank of the CIS), but chaos and disorder.

Similar reasoning is applicable for the second channel of impact of regionalisation on the quality of institutions. In fact, in spite of its own institutional deficits, Kazakhstan can become an important source of "good practices" for the countries of the region. Once again, unlike the Western flank of the CIS, there are hardly any viable alternatives (like investments of multinationals from developed countries). Nevertheless, this transmission of good practices is per se limited by the quality of institutions in the country of origin of investments, making the very issue of institutional advancements crucially dependant from reforms in the leading country. Given the extremely brief experience of investment led regionalisation in the region, it is still difficult to make any conclusions. Moreover, effects can be different for different business groups with their own strategies of business-government relations.

The effects of informal trade regionalisation are also not unambiguous. As already mentioned, most forms of the informal regionalisation appear in an environment of weak formal institutions; to a certain extent, they serve as an

instrument of overcoming this problem. From this point of view, informal trade networks serve as a natural instrument of establishing an order for economic transactions. However, in this case their advantages and disadvantages are similar to the general discussion on the role of informal economy: on the one hand, it overcomes the deficits of formal rules and makes economic transactions possible, but on the other hand, informal rules are less efficient (e.g. because of their personalised nature vis-à-vis formal abstract rules) and, more importantly, they establish behavioural patterns preventing introduction of formal rules in the future. A possible strategy in keeping with the ideas of Hernando de Soto is to develop formal rules consistent with informal rules, but it is always a difficult task (also from the point of view of incentive-compatibility for political decision makers). Therefore, the existence of informal trade regionalisation may constitute a constraint optimum in a given environment, but is able to become an obstacle for the development of efficient reforms in the future.

3.3. Regionalisation and regionalism

The last point I address in this paper is the relation between regionalisation and regionalism. As already noted, there have been numerous attempts of top-down integration in Central Asia, mostly without any visible results. Even the most basic form of regional cooperation – the Free Trade Agreement (FTA) – is quite problematic. Although there exists a (highly incomplete) network of bilateral trade agreements in Central Asia (Kort and Dragneva, 2006:9), there are huge implementation problems; countries quite often act unilaterally, restricting the trade relations in case of economic or political turbulences. However, regional integration, both in the context of larger regional agreements like EurAsEC or SCO and specific structures for Central Asia (Kuz'min, 2008) remains part of the agenda in the region. Once again, investment led and informal trade regionalisation can have different influences on the regionalism in Central Asia.

From the point of view of the former, the most oft stated argument is that the economic dominance of Kazakhstan, based on the investment expansion of its corporations, can become a factor supporting formal regionalism in its current form (once again, with Kazakhstan as the main perpetrator). Regionalisation can become an additional leverage mechanism. The increasing attention of the Kazakhstan government to the FDI activity in the Kyrgyzstan confirms that at least these expectations are present at the level of the political decision makers. Nevertheless, international experience shows that asymmetric regionalisation can have different impact on regionalism: while in Mexico the development of *maquiladoras* actually supported the formation of NAFTA, in the CIS significant presence of Russian investors in Ukraine did not support any formal integration between these two countries.

Considering the link between investment-led regionalisation and regionalism, one should not forget the potential importance of political institutions in the regional integration processes. As noted, most countries of the region are semi-authoritarian regimes, where governments use the design of economic institutions to restrict potential opposition. It is well known in the literature on international integration, that non-democracies are less likely to participate in the regional economic integration than democracies (Mansfield et al., 2002). In fact, that is what one can observe in Central Asia: the less democratic countries of the region (Turkmenistan and – to a lesser extend – Uzbekistan) are also less likely to become part of integration agreements. The main problem is the issue of commitment: in a political system based on informal power balances, it is extremely difficult to provide any commitment to an external actor, yet alone to give up part of the sovereignty (what is per definition implied by the regionalisation). The question is, of course, whether regionalisation can overcome these obstacles. Basically, there are two factors to be taken into consideration. First, regional cooperation can take form of the development of *international hierarchies* (Lake, 2007), and in this case is less dependent from the issue of democracy. An important aspect from this point of view is not just the *existence* of asymmetries, but also the *scope* of asymmetries. Weak asymmetry can in fact be even quite dangerous for regionalism: it increases mistrust, but does not provide any instruments for leverage. In fact, the political elites in Kyrgyzstan have been quite cautious with respect to any potential integration with Kazakhstan. However, high levels of political instability is a clear factor increasing the asymmetries and also the demand for international hierarchies. Second, the question is whether there is a clear link between investment expansion and governmental policies. Once again, in the case of Russian investments in Ukraine, businesses basically ignore the regionalism dimension. However, given a relatively high influence of consolidated political leadership in Kazakhstan on its business groups, one could in fact expect that the government will be able to influence the investment decisions following the logic of international politics. Hence, one can actually expect that in case of Kazakhstan and Kyrgyzstan *regionalisation could support formal regionalism*.⁴

Obviously, the scope of these projects mostly covers Kazakhstan and Kyrgyzstan, and maybe Tajikistan (where the position of Russia is crucial). Uzbekistan has been quite reluctant to support regionalism in Central Asia (Bohr, 2004; Kuz'min, 2008), and in the current situation seems to prefer Russia to Kazakhstan as the main source of FDI, designing its investment

⁴ *It is important to notice, that the main players in the economy of Kazakhstan are, though highly connected to the government, still private businesses. There is no trend towards wide-scope nationalisation in Kazakhstan, as it was observed in Russia. This is an additional argument in favour of the regionalism projects: in case of dominance of state-owned enterprises regionalisation can effectively become just another form of intergovernmental contacts (Vinokurov 2008).*

policies respectively (Abalkina et al., 2007; Heifetz and Libman, 2008). The latter fact raises an important issue of *competition between Central Asian regionalism projects and broader projects* (with participation of Russia – EAEC – or China – Shanghai Cooperation Organisation). And in this context, the development of regionalisation can also be quite important: on the one hand, strong economic interconnections can make regional integration within Central Asia a priority; but on the other hand, it is possible, that at least some actors try to off-balance economic influence of Kazakhstan by the political influence of other actors (e.g. Russia). Theoretically, it is also reasonable to claim that *the development of Central Asian regionalism is able to reinforce the regionalisation*, reducing the degree of political uncertainty and removing existing borders. The crucial factor is here whether the regionalism will move from rhetoric to implementation. The effects of pure rhetoric (as it has been so far in the field of regionalism in Central Asia) are ambiguous: it can both create necessary framework for public support of investment expansion (as seems to be the case for Kazakhstan-Kyrgyzstan dyad [Kuz'min, 2008]), but also introduce political tensions in purely economic relations.

From the point of view of informal trade one can hardly expect any clear effects of regionalisation on regionalism and vice versa. Informal trade supports the persistence of social integration and cross-border interpersonal networks, necessary for any integration project. On the other hand, increasing intergovernmental cooperation could theoretically shift the patterns of informal trade to formal trade by creating well-protected property rights and restricting rent-seeking of public officials through removing additional options for their decision-making (it is actually implied by any economic liberalisation). From this point of view the very existence of *informal trade* is based on the lack of *formal framework for cooperation* – once again, very similar to the issue of the informal economy in general. Whether this degree of cooperation (and of quality of governance in general) can be achieved is questionable. A reasonable point often mentioned by sociologists is that the real puzzle is not why some people prefer *informal structures*, but why there are people choosing the *formalisation* of their transactions (Paneyakh, 2008). In a region with decades-old traditions of informal economy (in fact, flourishing even under late Soviet regime) even changes of formal institutions may have no effect on behavioural patterns for the actors.

4. Conclusion

In this paper I tried to show that there are at least some elements of regionalisation present in Central Asia, though their role is still relatively limited. The businesses of Kazakhstan have recently significantly increased their presence in the economy of Kyrgyzstan, particularly in the banking sector. Currently, state-owned structures (KazTransGaz, Kazyna) and the government of Kazakhstan increase their attention to the support of

investment expansion: Kazyna participates in the development of a mutual investment fund of Kazakhstan and Kyrgyzstan; a similar institution was established for Kazakhstan and Tajikistan. However, the investment expansion of Kazakhstan is a very recent phenomenon of the last years – even opposed to Russia's business expansion starting in the early 2000s. Moreover, a complex network of informal trade, which is only partly captured by statistics, links Kazakhstan, Kyrgyzstan and Uzbekistan. This is a very old phenomenon, which is based on traditional economic ties in the region and which exhibits a higher level of development than in the CIS in general (with the only exception of unrecognised republics, where informal trade is also important). Given the significant size of the shadow economy in Kazakhstan (Schneider (2007) estimates it at 44.6% of official GDP for 2004/05), Kyrgyzstan (40.6%) and Uzbekistan (35.4%), the role of informal trade should not be underestimated. Less reliable estimates of shadow economy in Tajikistan exceed 60% of official GDP (Lenta.ru, 2007, June 27); this country is also involved in the structure of informal trade, but generally is to a greater extent connected to Russia than to the subregional regionalisation processes. The role of Turkmenistan seems to be negligible. Probably, it is more justified to consider the informal integration of Central Asia as a network of areas of microregionalisation, which may have relatively limited ties between each other.

The patterns of regionalisation seem to be heavily influenced by the development of institutions in Central Asian countries. In particular, the model of more liberal reforms combined with still-persistent links between influential business groups and politics seems to be a "success combination" for the multinationals from Kazakhstan (as opposed to Uzbekistan). The impact of regionalisation on institutional development is, however, ambiguous: on the one hand, it can serve as a link for transmission of "best practices" and reinforce better property rights, but on the other hand, the positive impact is limited by institutional deficits for the economy of Kazakhstan. Finally, regionalisation *could* potentially support the regionalism development in Central Asia, though the expectations are also unclear. The informal trade model seems to be relatively stable; it is hardly possible to expect qualitative shifts in the design of formal institutions reducing the attractiveness of informal channels.

Since the investment integration in Central Asia (a relatively recent process), it is difficult to make clear predictions regarding the future of the regionalisation. It is probable that the investment and migration flows crucially depend on economic performance of Kazakhstan. Recent turbulences related to the global financial crisis 2007-2009, which seems to have had a significant impact on the banking system of Kazakhstan (the driving force of FDI regionalisation!), raising some questions regarding the viability of the model. Therefore, the coming few years could be quite interesting from the point of view of informal regional integration in Central Asia.

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Regional Trade and Trade Integration in the CIS¹

6

IRINA GUROVA

Having emerged from the disintegration of the Soviet Union, the former Soviet republics are once again moving towards integration. This trend is demonstrated with a number of integration initiatives in the post-Soviet states: the Commonwealth of Independent States (CIS), established in 1991; GUJAM² (1997); the Eurasian Economic Community (EurAsEC) (2000); the Central Asia Economic Cooperation Programme (CAREC) (2002); and the Common Economic Space (CES) (2003). However, of all these projects, only the CIS has been notified a free economic zone (1994) in the list of regional trade agreements (RTA) maintained under the World Trade Organisation's General Agreement on Trade and Tariffs (GATT). The list also includes bilateral agreements between the former Soviet republics³.

These multi-lateral and bilateral agreements have helped partners to break down some of the trade barriers between them; however, certain major obstacles and disagreements continue to exist with regard to integration projects. According to a UN Economic Commission for Europe (UNECE) paper entitled *Building Trade Partnership in the CIS Region*, "this has led to scepticism as to the participants' genuine commitment to regional integration and the debate continues on what form and direction this could take" (ECE, 2005b: 1).

At the end of 2006, there were 367 RTAs in existence worldwide. The rapid growth of regional economic integration in the world began in the 1990s. In the last decade, 243 new ones were notified, compared with 124 in 1948-1995 (Fiorentino, Verdeja and Toqueboeuf, 2007: 3). Economic integration has the potential to improve the economic efficiency and welfare of countries which elect to create regional blocs, but not all these countries succeed in realising this potential fully: only 214 RTAs are actually effective.

¹ This paper is based on a survey financed by the Russian Humanitarian Scientific Fund under project No.08-02-00313a, *Regional Trade and Economic Integration in the CIS*.

² According to the names of the countries: Georgia, Ukraine, Uzbekistan, Azerbaijan and Moldova.

³ Armenia-Russia, Kyrgyzstan-Russia (1993), Georgia-Russia (1994), Kyrgyzstan-Armenia, Kyrgyzstan-Kazakhstan, Armenia-Moldova (1995), Georgia-Ukraine, Armenia-Turkmenistan, Georgia-Azerbaijan, Kyrgyzstan-Moldova, Armenia-Ukraine (1996), Kyrgyzstan-Ukraine, Kyrgyzstan-Uzbekistan (1998), Georgia-Kazakhstan (1999), Georgia-Turkmenistan (2000).

The progress of regional integration is influenced by political and economic forces. The aim of this article is to provide an insight into the economic characteristics of regional trade in the CIS, to highlight changes in the geographic and commodity composition of foreign trade engaged in by these countries and to identify trends in the trade integration of the CIS⁴.

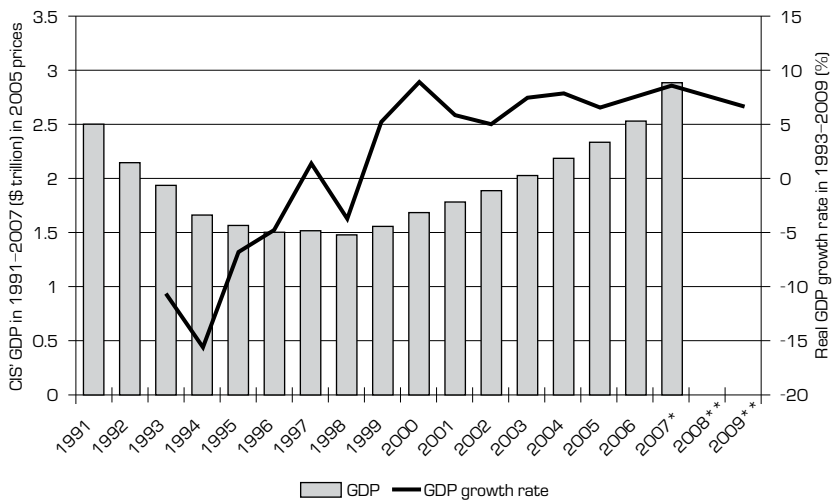
Although the relationships between the former Soviet republics are complex and varied, the international community recognises the CIS as an organisation of nations which takes its place in the global economy alongside regional blocs such as the European Union (EU), the North American Free Trade Agreement, the Common Market of the South (MERCOSUR), the Association of South East Asian Nations (ASEAN), and others.

The CIS has overcome its severe transformational crisis of the 1990s. A steady growth of GDP has been recorded since 1999 (see Figure 6.1). At present, the CIS' GDP, compared by purchasing power parity (PPP), exceeds the pre-crisis level of 1991 (see Figure 6.1). At 2006 exchange rates and prices, it exceeds the GDP of the former Soviet Union, which was \$928,352 million in 1980 and \$776,920 million in 1990 (UNCTAD, 2007a: 398) (see Figure 6.1).

Figure 6.1.
The CIS' GDP in
1991–2009

Source:
UNECE (2008),
UN (2008b: 142),
UN (1999: 51), UN
(2008a), World
Bank (2008a).

Note:
* calculation based
on World Bank data;
** UN forecast.



Socioeconomic indicators also show positive changes: unemployment rates fell and *per capita* income increased in practically all CIS countries (see Table 6.1). In 2006, average *per capita* income in the CIS (PPP at 2005 prices), was \$9122, compared with \$8871 in 1991 (UNECE, 2008). However, after a period of systemic economic crisis, not all the republics have reached the

⁴ Sale of services is not discussed in this paper.

per capita income levels of the former Soviet Union, which were \$3498 in 1980 and \$2685 in 1990 (at current exchange rates and prices) (UNCTAD, 2007a: 399).

The socioeconomic picture varies across the CIS. According to World Bank country classification, Armenia, Azerbaijan, Belarus, Georgia, Moldova, Turkmenistan and Ukraine are lower middle income countries. Three countries – Kyrgyzstan, Tajikistan and Uzbekistan – remain in the low-income group of countries. The socioeconomic situation is somewhat better in Russia and Kazakhstan. These two countries have considerably improved their position in the world economy in the last two or three years, moving into the upper middle income group (World Bank, 2007: 333).

The most notable feature of the CIS economy is the presence of a major player whose national economy dwarfs those of its partners: Russia accounts for 77-78% of the Commonwealth's GDP. This explains the heavy influence Russia exerts on the CIS economy, and particularly on foreign trade.

Table 6. 1.
Macroeconomic indicators of CIS countries

Source:
UNCTAD (2007a: 398-399, 408-409), UN (2007: 135), World Bank (2008a), UN (2009: 139)

Note:
* calculation based on World Bank data;
** 2000 data.

	GDP (\$ million)		Population (thousand people)	Per capita GDP (\$)		GDP growth rate (%)	Per capita GDP growth rate (%)	Unemployment rate (%)	
	1995	2007		2007	1995			2007*	1995-2005
Armenia	1287	9177	3001	399	3058	8.5	9.1	11.0	6.6
Azerbaijan	3079	31248	8571	395	3646	10.7	9.9	1.3	1.2
Belarus	13845	44771	9702	1349	4615	6.6	7.1	2.8	1.0
Georgia	2721	10176	4396	541	2315	5.7	7.0	7.6	13.3
Kazakhstan	20547	103,840	15481	1291	6708	6.8	7.4	12.8**	7.3
Kyrgyzstan	1492	3505	5243	325	669	4.6	3.2	3.1	3.2
Moldova	1766	4396	3792	403	1159	2.4	3.7	8.5**	5.1
Russia	399,166	1,291,011	141,636	2677	9115	4.4	4.8	10.8	6.1
Tajikistan	1230	3712	6740	213	551	6.3	5.0	2.8	2.5
Turkmenistan	2188	12933	4963	522	2606	4.6	3.2	-	-
Uzbekistan	13465	22308	26868	588	830	4.5	3.0	0.3	0.2
Ukraine	48608	140,484	46383	953	3029	3.8	4.7	11.6**	6.4

The collapse in the former Soviet republics' foreign trade in the early 1990s was followed by steady growth of both imports and exports. This positive dynamic allowed the CIS to increase its share in world commodity exports and imports from 1.5% to 3.6% and from 1.2% to 2.3% respectively in 1993-2006 (WTO, 2007: 10-11). By comparison, in 1983, the former Soviet Union's share of world exports and imports was 5% and 4.3% respectively (WTO, 2007: 10-11). It had been expected that by 2009, the CIS' foreign

trade including merchandise exports and imports, would total \$1.4 trillion, thus accounting for 4.2 % of the world's trade in value terms (UN, 2008a). However, the global crisis has necessitated an adjustment to this forecast: in 2009, the CIS' share in world exports may drop by 4.2%, whilst global exports may fall by 4.4% (UN, 2009: 37).

The CIS as a regional bloc has a high degree of variation and imbalance in its trade patterns, which can be explained by the inclusion of a member country the size of whose economy vastly exceeds that of all the other members. As a rule, the share in regional trade of large economies is relatively small. Trade with other CIS countries accounts for only 14-15% of Russia's total foreign trade revenues, whereas in countries such as Belarus, Georgia, Moldova and Kyrgyzstan the ratio may be about 40% (CIS Executive Board, 2008). This situation is typical of other RTAs which include a large economy, for example, NAFTA: regional trade accounts for about 30% of total foreign trade in the United States, compared with over 70% in Canada and Mexico.

Intra-regional trade is more balanced in blocs which have no distinct leader, for example, the EU.

The uniformity of trade in a bloc is measured by comparing two indices, namely the total share of intra-regional trade in the bloc's total foreign trade, and its average share, which is calculated as an arithmetic mean of the foreign trade of the member states. If the first index exceeds the second one, this suggests that the trading bloc includes economies of different sizes. Again, this may be explained by the presence of a large member. In 2007, the average share of intra-regional trade in the CIS' total foreign trade was 36%, whereas the total share was 24%.

The CIS has chosen to integrate itself into the global economy. Member states' economies have been liberalised and as a result are opened up to world trade. The most commonly used indicator of an economy's integration into international trade and the global economy is the ratio of the country's (or region's) foreign trade to its GDP. All CIS countries have seen a considerable increase in the openness indicator (see Figure 6.2). At present, it averages 50% across the CIS, i.e., in line with the average world index and even exceeding that of some regional blocs (see Table 6.2).

During the period of economic recovery, the rapid growth of foreign trade in CIS member states was accompanied by an increase in intra-regional trade. Merchandise trade in the bloc increased from \$60 billion in 1995 to \$192 billion in 2007 (CIS Executive Board, 2008). However, although volumes increased, there was a steady relative decrease, i.e., a decline in intra-regional trade's share of total CIS foreign trade. In 1990, merchandise trade between the former Soviet republics accounted for 77% of all trade, falling to 34% in 1994 (UNCTAD, 2007b: 101) and 24% in 2007. This may be the result

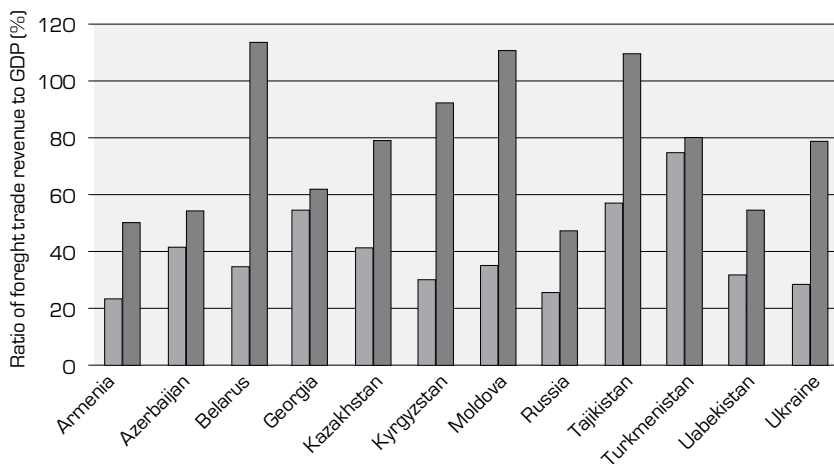


Figure 6.2. Openness of CIS economies in 1994 and 2006

Source: calculation based on data from the UN ECE (2005a: 104–105), World Bank (1996: 210–211, 216–217), World Bank (1997: 218–219) and World Bank (2007: 340–343).

of changes in the geographic structure of the foreign trade of CIS member countries. Many of them are playing a more active role in international trade and establish trading relations outside the CIS. Regional imports remain important for most of them (see Figure 6.3), whereas markets beyond the CIS are taking a greater share of exports. The EU is becoming the main trading partner for most CIS countries, accounting for a major share of exports from Armenia (45%), Azerbaijan (57%), Belarus (46%), Kazakhstan (45%), Moldova (51%), Russia (59%) and Ukraine (32%) (WTO, 2008b).

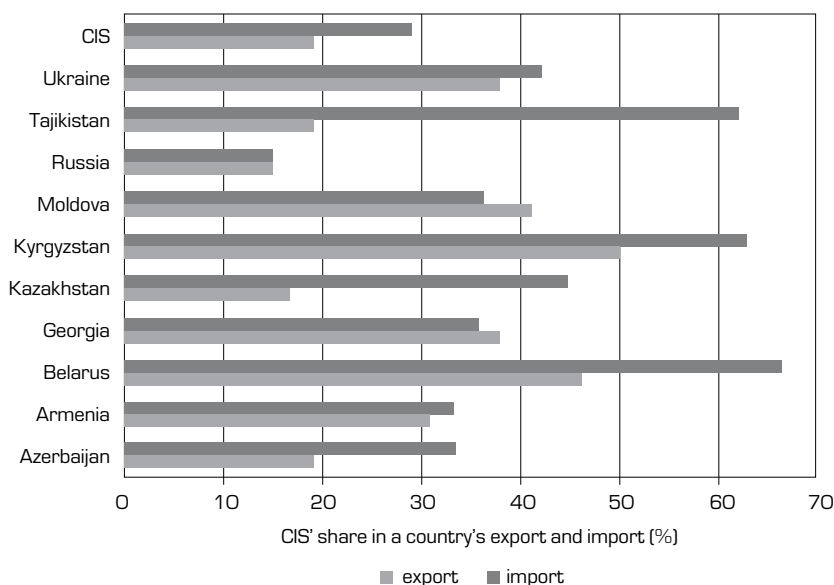


Figure 6.3. Trade between CIS countries* in 2007

Source: calculation based on CIS Executive Board data (2008).

Note: * no data on Turkmenistan and Uzbekistan available.

The expansion and diversification of CIS countries' export markets is reflected in changes in the export market concentration index, which is calculated as:

$$EMC = 100 * \left[\sqrt{\sum_j \left(\frac{X_{ij}}{X_i} \right)^2} \right]$$

where:

EMCij = export market concentration index;

Xij = exports of country 'i' to country 'j';

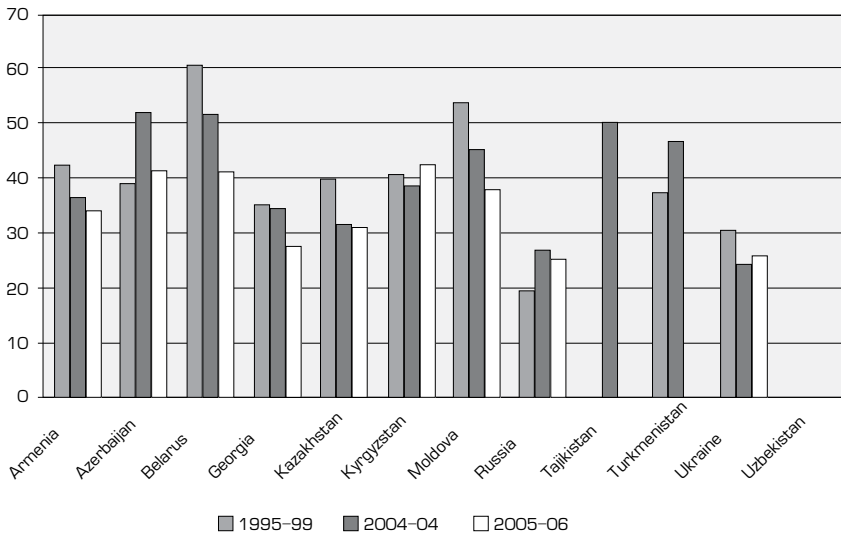
Xi = total exports of country 'i'.

The value of this index can vary from 0 to 100 – the maximum indicating that only one trading partner exists. This index is influenced by cyclical fluctuations and changes of relative prices on international markets. Therefore, in order to understand the dynamics of this index, average values for a given period are normally used. During the period of economic reform, export market concentration decreased considerably in most CIS countries except Azerbaijan, Kyrgyzstan, Russia and Uzbekistan (see Figure 6.4).

Figure 6.4.
CIS export market concentration in 1995–2006*

Source:
World Bank (2008b)

Note: data on Tajikistan and Turkmenistan incomplete; no data on Uzbekistan available.



Intra-regional trade as a share of total foreign trade is an important indicator of trade integration on a regional level, but not the only one. Another quantitative indicator is the regional trade intensity index, i.e., the ratio of intra-regional trade's share of the region's total foreign trade to the region's share of total world trade (UNCTAD, 2007b: 93). This index is calculated as:

$$RTI = \frac{X_A + M_A}{X_A + M_A} \bigg/ \frac{X_A + M_A}{X_W + M_W - (X_A + M_A)}$$

where:

RTI = regional trade intensity index;

X_{AA} and M_{AA} = intra-regional exports and imports of region A;

X_A and M_A = total exports and imports of region A;

X_W and M_W = world export and import.

The value of this index is 1 where the countries of a regional grouping trade with each other at the same intensity as with other world markets. If the threshold value is exceeded, this indicates that some regional preferences exist within the geographic structure of foreign trade. In 2007, trade between CIS countries accounted for 24% of the CIS' total foreign trade, and the CIS' share in the world trade was 3.6%. Although it has decreased to some extent, intra-regional trade in the CIS is of a high intensity comparable to that of other regional blocs (see Table 6.2).

Table 6. 2.
Trade integration of regional blocs in 2006

Source: calculated using data from the CIS Executive Board (2008), WTO (2007: 24–25, 212–213), UNCTAD (2007a: 48–49), WTO (2008a) and Eurostat (2008: 160, 188).

Note:
* 2007 data;
** excluding total foreign trade

	CIS*	ASEAN	EU	MERCOSUR	NAFTA
Share of total foreign trade to GDP (%)	50	139	63	22	28
Share of total foreign trade in the world trade** (%)	3.6	6.5	51.9	1.4	21.5
Share of intra-regional trade in total foreign trade (%)	23.1	24.2	58.2	15.8	41.6
Regional trade intensity index	6.4	3.7	1.12	11.2	1.9

The nature of the goods being sold abroad by CIS countries is also changing. The range of products manufactured in the CIS which can compete on world markets is shrinking. This is reflected in the growth of the export product concentration index. Based on the Herfindahl-Hirschmann index, the following index can be calculated:

$$EPC = 100 * \left[\frac{\sqrt{\sum_i \left(\frac{X_i}{X_j}\right)^2} - \sqrt{\frac{1}{n}}}{1 - \sqrt{\frac{1}{n}}} \right]$$

where:

EPC = export product concentration index;

X_{ij} = export of product 'i' by country 'j';

X_j = total exports of country 'j';

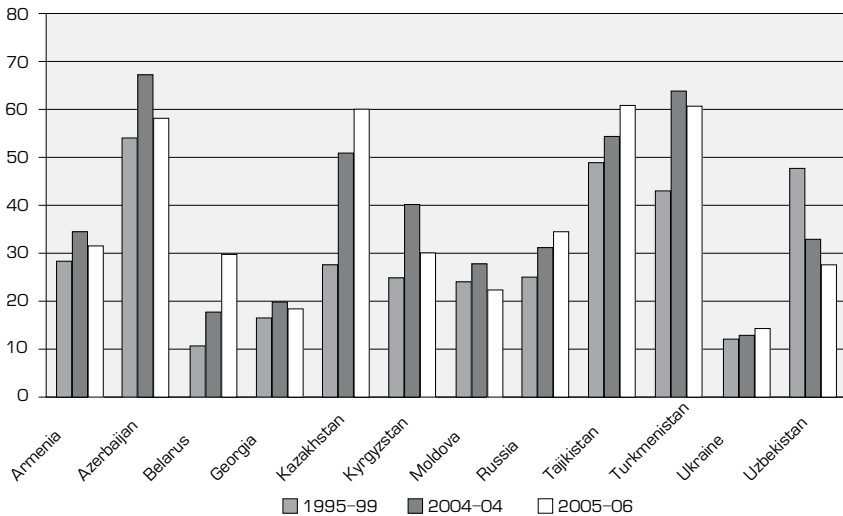
n = total number of exports, which may not exceed 261 according to three-digit Standard International Trade Classification (SITC) system. For any one country, the goods taken into account are those which account for at least 0.3% of its total exports (not less than \$100,000).

A maximum value of 100 indicates that a country exports only one product. Like the export market concentration index, this index is affected by cyclical fluctuations; therefore, calculations are based on average values for several years.

During the period of economic reform, export product concentration increased considerably in all the CIS countries except Moldova and Uzbekistan (see Figure 6.5). The concentration is especially strong in Azerbaijan, Kazakhstan, Tajikistan and Turkmenistan.

Figure 6.5.
CIS export product concentration in 1995–2006

Source:
World Bank
(2008b).



Another unfavourable trend is that CIS exports are dominated by raw materials and low-value-added products. The major exports for CIS countries are:

- Armenia: ferroalloys (31%), diamonds (27%), alcohol (10%), copper (6%) and jewellery (4%);
- Azerbaijan: oil (82%), nuts (2%), fruit (1%), cotton (1%) and polyethylene (1%);
- Belarus: fertiliser (19%), tractors (5%), wood (4%), lorries (3%) and iron bars (3%);

- Georgia: scrap iron (15%), oil (11%), vine (8%), soft drinks (7%) and ferroalloys (6%);
- Kazakhstan: oil (56%), copper (6%), ferroalloys (5%), coal (2%) and iron ore (2%);
- Kyrgyzstan: iron scrap (11%), cotton (9%), glass (7%), electric power (7%), non-ferrous metals (4%);
- Moldova: vine (20%), iron bars (13%), iron wire (8%), shoes (4%) and alcohol (3%);
- Russia: oil (44%), gas (6%), aluminium (3%), coal (3%) and steel ware (2%);
- Tajikistan: aluminium (64%), cotton (19%), fruit (3%), men's cloths (2%) and cotton fabric (2%);
- Turkmenistan: gas (84%), oil (5%), cotton (2%), cotton yarn (2%) and polypropylene (1%);
- Uzbekistan: cotton (20%), gas (16%), cars (9%), copper (9%) and gold (6%);
- Ukraine: steel blanks (10%), steel-rolled stock (5%), sheet steel (4%), ferroalloys (3%) and fertiliser (3%) (World Bank, 2008b).

The product composition of the CIS' foreign trade is uneven: exports are dominated by raw materials and imports by finished goods (see Figure 6.6). The structure of exports, of which fuel accounts for about 56%, differs significantly from global trade structure, where both exports and imports are dominated by manufactures (70%), with fuel accounting for 15%. This indicates that fuel is the CIS' niche in world markets, and that the CIS has a comparative advantage in this niche (according to the Balassa approach) (Gurova I.P., 2008: 25).

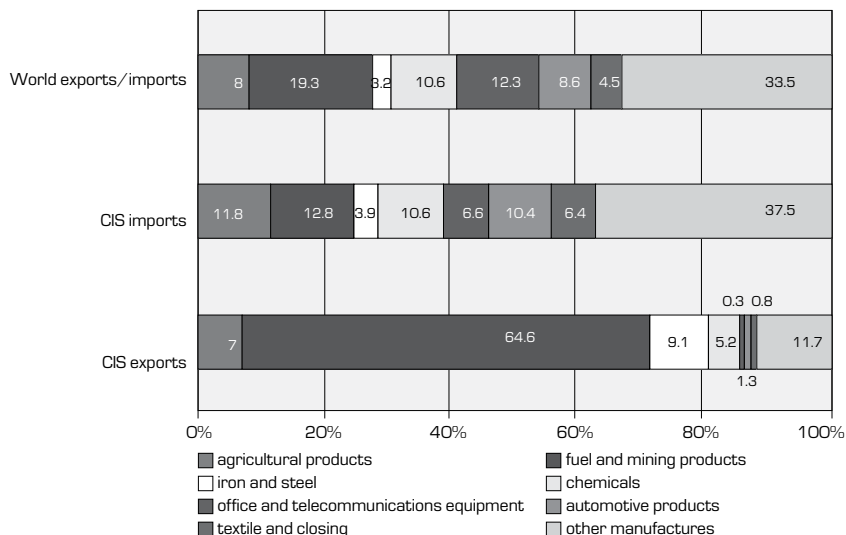


Figure 6.6. World and CIS trade product structure in 2006

Source: WTO (2007: 44-47).

CIS countries can be divided in two groups: net oil exporters (Azerbaijan, Kazakhstan, Russia, Turkmenistan and Uzbekistan) and net oil importers (Armenia, Belarus, Georgia, Kyrgyzstan, Moldova, Tajikistan and Ukraine) (UN, 2008b:142). The first group has a stable positive trade balance, whereas most net oil importers have a persistent trade deficit (see Figure 6.7). On the whole, the CIS has a stable export surplus, which totalled \$141.7 billion in 2007, or 43% of total CIS imports (CIS Executive Board, 2008). This creates favourable conditions for advance of regional integration and, in particular, for establishing a regional reserve currency zone.

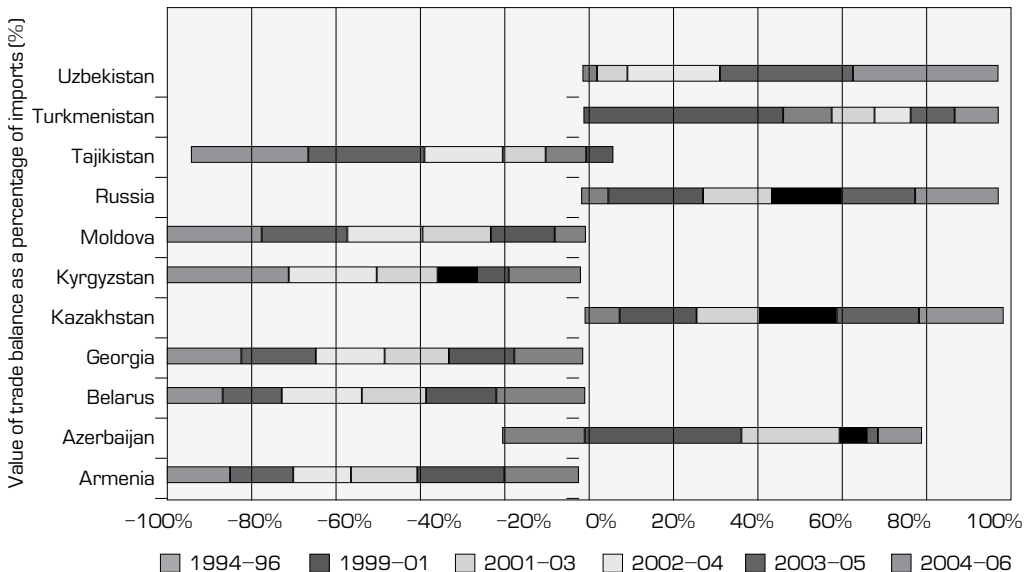


Figure 6.7.
CIS trade balance
in 1994-2006

Source:
UNCTAD
(2007a:45).

Prior to the global financial crisis, the CIS had emerged from the economic recession caused by economic reforms and had managed to restore its main macroeconomic indicators (GDD and *per capita* GDP) and regain its position in world trade. Following the reforms, the CIS opened up to world markets, and CIS countries were integrated into world trade. They expanded their trading relationships outside the Commonwealth, diversifying the geographic structure of their foreign trade. The relative decrease in intra-regional trade has not resulted in any decrease in trade volumes. Intra-regional trade remains strong, which has helped the CIS establish itself as a trading bloc of nations aiming towards regional and global integration. However, this bloc has its peculiarities, above all, the differing size of its constituent economies, and the effect that Russia's vast economy has on the macroeconomic and trade indicators of the Commonwealth. During a period of economic recovery, Russia's heavyweight influence is to be welcomed, since it supports a stable

export surplus and strengthens the bloc's position in the global economy. However, in crisis conditions, the slowing down of Russia's economic growth may trigger recession in other CIS countries. Despite the success achieved by the former Soviet republics in regaining their pre-reform economic status, the global crisis has now revealed the key weakness of this trading bloc – its reliance on raw materials for export trade.

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Russian Direct Investments in EurAsEC and Their Role in Energy and Transport Infrastructure Development in Eurasia

7

BORIS HEIFETZ

The Heads of EurAsEC member countries have stressed on many occasions that the development of investments is one of the main tasks for this integration group. This primarily concerns Russia's investment policy. In the 1990s and early 2000s, the main recipients of Russian investments were European countries. However, the portion received by EurAsEC countries has increased significantly over the last few years.

This increase in Russian investments in EurAsEC has been facilitated by a number of factors.

First, EurAsEC obviously has become a priority in Russia's economic policy in the post-Soviet space. The political convergence of Russia and other EurAsEC countries also helps to promote investments. Russia supports the political regimes of those countries that she understands well, while the West accuses them of being undemocratic and abusers of human rights, and a real threat to the national security of some EurAsEC countries.

Second, the first Russian transnational corporations have matured and built financial muscle, and now they are turning their attention to attractive assets in Central Asian countries, which are less familiar to them compared to the European members of the CIS. Small and medium-size businesses are realising their foreign trade ambitions on an increasing scale, as competition in Russia becomes tougher. These types of businesses always tend to expand to neighbouring markets, and many Russian regions border EurAsEC countries with which they have had close economic, cultural and family links since the Soviet era.

Third, EurAsEC countries possess vast deposits of oil, gas and other fossil minerals. A realistic assessment of the prospects of the world hydrocarbons market and Russia's domestic demand and export obligations urges Russian companies to develop the production of oil and gas in these countries.

Fourth, privatisation is still under way in many EurAsEC countries, and there are attractive opportunities that would be much cheaper for Russian businesses than elsewhere. Russian investors understand the mentality of the local population and the particular features of doing business in these countries.

Fifth, EurAsEC countries are a promising internal market with a rapidly growing population and gradually rising income, and this makes them attractive for Russian production and service companies. In particular, these countries may have the highest demand for Russian mechanical engineering products. This in turn will improve the general structure of Russian exports and provide new opportunities to set up assembly factories, and develop or restore cooperation in production. The region's vast labour resources allow labour-intensive production to be launched there with a view to exporting products back to Russia.

Sixth, strengthening links with EurAsEC is in line with the general trend towards the geographic diversification of Russia's external links, first of all in the direction of Asia. In doing so, EurAsEC members would become a bridge enabling Russia to establish links with remote Asian countries.

Seventh, the increasing economic expansion by Western powers, China and some CIS countries in this geopolitically important region requires an adequate economic response by Russia.

The financial and economic crisis of 2008-2009 strengthened EurAsEC countries' enthusiasm for mutual cooperation even further. As a real step towards this cooperation, the Anti-crisis Fund was established. The resources of this Fund will be disbursed in the form of stabilisation loans at arm's length basis in the event of a cash gap or a lack of funds for urgent welfare payments. To provide support to EurAsEC countries, bilateral channels will also be used. Large loans were extended by Russia to Belarus and Kyrgyzstan. For example, the main portion of the Russian loan to Kyrgyzstan (\$1.7 billion) is to be invested in the construction of the Kambar-Ata-1 hydropower plant.

This state support is very important for those Russian companies that now suffer from a lack of investment. It enables them to continue the projects they have already started and make new investments to speed up recovery after the crisis and promote economic modernisation of EurAsEC countries.

Investment volumes

It is quite difficult to assess the volume of Russian direct investment in specific EurAsEC countries, as the various ministries use different calculation methods. For instance, the Russian statistics service records only gross investments by non-financial organisations and disregards withdrawals

from foreign companies, whereas the Central Bank records real cash flows as reflected in a balance of payments.

Considerable deviations take place because the Central Bank assesses reinvested income, which makes up a major portion of the increase in investments.

This is not the point, however. Russian investments are often masked with foreign, mostly offshore names. In these cases, a foreign company located outside EurAsEC is often taken as the investment entity for statistical reporting, although the main assets of such a company are located in a EurAsEC country. This practice was exemplified by one of the major transactions by a Russian company in EurAsEC: in 2005 LUKoil via LUKoil Overseas Holding Ltd. purchased Nelson Resources Ltd., a company registered in the BVI. The new owner is Caspian Investments Resources (CIR), a 100% subsidiary of LUKoil Overseas Holding Ltd. The cost of this transaction exceeded \$2.1 billion, which is 2.5 times the cumulative direct and portfolio investment, according to the Russian statistics service, and nearly 30% of such investments according to the Central Bank¹. Another example is the purchase of the gold company Celtic Resources (Ireland) by Severstal for about \$330 million, which was completed in January 2008. The main assets of the Irish company are located in Kazakhstan (100% of the Suzdal gold mine, 75% of the Zherek gold mine, and 50% of the Shorsky molybdenum mine) and Russia (74.5% in the Tominskoye copper and gold deposit development project and 100% of the Mikheyevskoye copper and gold deposit in Chelyabinsk Oblast). There are some other notable examples.

According to the Russian statistics service, the breakdown of Russian investments in EurAsEC countries and EurAsEC investments in Russia is as follows:

	Russia's investments in EurAsEC			EurAsEC investments in Russia		
	2000	2008		2000	2008	
	All	All	Direct and portfolio	All	All	Direct and portfolio
Belarus	490.2	1505.0	1323.3	2.5	193.4	54.9
Kazakhstan	2.2	174.3	79.2	5.7	1064.7	380.0
Kyrgyzstan	0.0	39.8	0.1	0.1	66.4	27.3
Tajikistan	0.0	28.1	1.1	0.0	8.9	0.1
Uzbekistan	0.4	385.1	250.8	3.5	11.5	10.1
Total EurAsEC	492.8	2132.3	1654.5	11.6	1344.9	472.4
Total CIS	555.6	4084.9	3067.6	19.3	1758.9	756.3

Table 7. 1. Cumulative mutual investments by Russia and EurAsEC countries, as at the end of the year (\$ million)*

Note: * excluding monetary regulation bodies and commercial and savings banks.

Source: Federal State Statistics Service.

¹ In 2007, 50% of shares in CIR was sold to Mittal Investments, an Indian company owned by Lakshmi Mittal.

As can be seen from the above table, in the beginning of 2009 EurAsEC countries accounted for 53.9% of all Russian investments in the CIS (and 49.1% of direct investments). Belarus has advanced to a leading position in EurAsEC due to a single long-term transaction (Gazprom purchased 50% shares in Beltransgaz for \$2.5 billion, which will be transferred in 2007–2010 in equal installments 12.5% each, i.e. Gazprom will annually invest \$625 million). Kazakhstan with its rapidly growing economy has long ranked second, but in 2007 it was surpassed by Uzbekistan due to a number of new Russian projects.

Russia accounts for 76.5% of all investments in the CIS and 62.5% of direct cumulative investments by EurAsEC countries.

Notably, in all EurAsEC countries Russia falls significantly behind other foreign investors in terms of direct investments. For example, in Kazakhstan in the beginning of 2007, Russian investments accounted for as little as 3% of all foreign direct investment, whilst investments by the US, the Netherlands and the UK accounted for 29%, 15% and 11%, respectively. In terms of direct investments in Kazakhstan, Switzerland, France, China and Canada also surpass Russia². In Kyrgyzstan, Russian investments in 2007 accounted for 3.3% of foreign direct investments, whilst Kazakhstan's investments accounted for 46.6%.

Interestingly, the balance of investments by Russia and some EurAsEC countries is not in favour of Russia. This can be explained, first of all, by investments by Kazakhstan, which is second only to Russia in post-Soviet countries.

Investments in joint hydrocarbons production

The main targets for Russian investments in EurAsEC countries are the fuel and energy sectors. It is natural, since the region possesses vast resources, and EurAsEC countries desperately need investments. Some oil and gas production projects are closely associated with joint reconstruction of existing pipelines or construction of new ones for exporting fuel and raw materials.

One of the most active Russian players in EurAsEC is LUKoil. It has participated in eleven oil projects in Kazakhstan since 1995, when a contract for the development of the northern part of Kumkol was made. Since that time LUKoil has invested in Kazakhstan's economy over \$4.5 billion. LUKoil is a stakeholder in the Karachaganak project (15%) and has a 50% share in the Tyub-Karagan and Atashsky blocks located on the Caspian shelf (both of them are parts of the Dostyk project). LUKoil Overseas Holding Ltd. holds 54% of shares in LukArco, which in turn owns 12.5% in the Caspian Pipeline Consortium (CPC)³ and 5%

² *Exclusive, October 2007.*

³ *The other members of CPC are the Government of Russia (CPC-R, 24%) and the Government of Kazakhstan (CPC-K, 19%).*

in Tengiz, a major oil and gas deposit. In conjunction with Kazakh companies, LUKoil and Rosneft will explore and develop three more large deposits on the Caspian shelf.

In 2004, LUKoil founded the operating company LUKoil Uzbekistan Operating Company through LUKoil Overseas Holding Ltd. In June 2004, a PSA was made with the state company Uzbekneftegaz, under which LUKoil Uzbekistan Operating Company obtained the rights to commercial development of the Kandym, Khauzak and Shady deposits in southwest Uzbekistan for 35 years, and exploration of the promising Kungradsky areas in the Ustyrt plateau in west Uzbekistan, which hold about 300 billion m³ of gas and 7 million tons of gas condensate in total. LUKoil will invest about \$1 billion.

These deposits have been developed since 2007; during phase one, production will total 2.5 billion m³ annually, which will require \$200 million in investments. In 2007–2010, LUKoil will invest another \$500 million to boost annual production to 8 billion m³ starting from 2010. During the initial phase, the produced gas will be divided among the parties on an equal basis, but in the future the shares may change depending on the project's profitability. This project also includes the construction of a natural gas chemical complex with an annual capacity of 6 billion m³ (total cost \$250 million), two compressor plants and a 200 km main gas pipeline by 2010.

Jointly with KazMunaiGaz of Kazakhstan, Rosneft will develop the Kurmangazy deposit on the Caspian shelf in accordance with a PSA made for 55 years. The total cost of this project is estimated at \$23 billion. The first exploration well was drilled there in 2006.

Gazprom also seeks to expand its presence in EurAsEC countries. In Kazakhstan, this Russian gas monopoly founded the joint venture KazRosGaz. In 2006 Gazprom and the Government of Kyrgyzstan agreed to form a joint venture that will consist of the assets of Kyrgyzgaz and Kyrgyzneftegaz. In Belarus, Gazprom strives to secure safe conditions for gas transit to Europe.

A long-term strategic approach towards the development of contacts with EurAsEC countries is vital for joint investments in the production, transportation and processing of hydrocarbons. Considering this, it is important to consider the strategic agreements that Gazprom has secured with Uzbekistan, Kazakhstan, Tajikistan and Kyrgyzstan since 2000.

In December 2002, Gazprom made an agreement on strategic partnership in the gas sector with Uzbekneftegaz. It provides for long-term supplies of Uzbek gas in 2003–2012, Gazprom's participation in natural gas production projects in Uzbekistan on the terms set forth in PSAs, and cooperation in the development of Uzbekistan's gas transport infrastructure and transit of gas via the country's territory.

To further this agreement, Gazprom and Uztransgaz executed a medium-term agreement on transportation of natural gas in 2006–2010 in September 2005, and the *Agreement on the Basic Principles of Geological Exploration of Investment Blocks in the Ustyurt Region, the Republic of Uzbekistan* in January 2006. As part of this strategic partnership, Gazprom recommenced gas production at the Shakhpakhty filed on the PSA terms, and intends to produce 500 million m³ of natural gas annually. Gazprom's investments in this project totals \$21 million.

In December 2006, Uzbekneftegaz granted Gazprom licences to carry out geological exploration in seven investment blocks in the Ustyrt region: Aktumsuisky, Kuanyshsky, Agyinsky, Nasambeksky, West Uzginsky, Akchalaksky and Shakhpakhtinsky. These blocks have a total area of 38100 km², and hold about 1 trillion m³ of natural gas.

In accordance with existing agreements, Gazprom had to come up with a phased geological exploration programme for these blocks and, in the event of a commercial discovery, will have the exclusive right to negotiate with Uzbekistan the development of these reserves on the PSA terms. To implement this agreement, a Managing Committee will be established. Gazprom will have invested about \$1.5 billion in this project, including \$260 million in 2006–2008.

Geological exploration and seismic surveys by Gazprom specialists revealed insignificant hydrocarbons reserves in three blocks (Akchalaksky, Kuanyshsky and West Urginsky), and Gazprom abandoned the project. Experts comment that this decision was in line with Gazprom's efforts to reasonably reduce its investment programme in the face of the crisis. As a result, the Government of Uzbekistan ordered the State Committee on Geology and Mineral Resources and Uzbekneftegaz to revoke these licences⁴.

Gazprom and KazMunaiGaz founded a joint venture on the basis of the Orenburg Gas Processing Plant (OGPP), which will process Kazakh gas from Karachaganak and the North Caspian. Thus, additional workload will be provided to the OGPP to make up for the depletion of the Orenburg gas condensate field. Production by this facility dropped from 34.6 billion m³ in 1993 to 18.3 billion m³ in 2005, whereas its annual capacity is 28 billion m³. The proposed joint venture has been under negotiation since the mid-1990s, but positive decisions, particularly, in respect of gas prices and supply volumes in 2006, were achieved only as a result of personal agreement between President Putin and President Nazarbayev.

⁴ *Gazprom Returns Exploration Licences in Uzbekistan. Malaysians to Take Over* (http://www.newsru.com/finance/03mar2009/uzbek_gaz.html).

In 2006, Gazprom and the Government of Tajikistan executed a memorandum on cooperation in the energy sector, which creates a legal framework for the creation of a joint venture to explore, produce and sell natural gas, and other projects in this sector, including reconstruction, modernisation and construction of gas pipelines.

Transport infrastructure

Investment cooperation of EurAsEC countries on infrastructure projects has not developed on a large scale. On the other hand, there is an urgent need to rehabilitate and expand infrastructure in EurAsEC countries, which in many cases seriously impedes their economic development.

Bearing in mind the long payback periods and capital intensity of infrastructure projects, EurAsEC countries show enthusiasm for cooperation, especially for projects relating to transit infrastructure and facilities located near borders. Many EurAsEC countries are planning considerable investments in infrastructure projects. For example, investments in transport infrastructure in Russia may total \$600 billion by 2015, and government investments will account for 50%⁵.

The construction of the Caspian gas pipeline and other gas transportation facilities in the region will be critical for the development of the oil and gas sector in EurAsEC. The presidents of Russia, Kazakhstan, Turkmenistan and Uzbekistan agreed to this in May 2007. A declaration signed by the presidents will allow up to 90 billion m³ of gas to be transported via Russia. The Caspian gas pipeline will be laid along the coastline through Turkmenistan (360 km), Kazakhstan (150 km) and Russia. The pipeline will be constructed by the Kazakh party in Kazakhstan and by the Turkmen party in Turkmenistan; then it will join the old Central Asia–Centre system at Aleksandrov Gai on the Kazakh-Russian border. In addition, Russia, Kazakhstan and Turkmenistan agreed to reconstruct the existing gas transportation system and increase the annual capacity of the two old branches of the Central Asia–Centre pipeline to 12 billion m³. One more project is being discussed – to construct an East–West trans-Turkmen pipeline for transporting natural gas from northwest Turkmenistan to the Caspian pipeline system. Thus, additional workload for the Caspian pipeline will be secured. The East–West pipeline will have a length of 600 km, and the project cost will exceed \$1 billion.⁶

Cooperation in the construction of cross-border motorways is also expanding. A new motorway to Lake Issyk-Kul (Almaty–Cholpon Ata) is in the pipeline. This commercial road will be 200 km shorter than the existing one. Its length will be 88 km, including 62 km in Kazakhstan. The construction cost will be about

⁵ *Vedomosti*, 19 February 2008.

⁶ *Russia and Turkmenistan to Construct New Gas Pipeline and Transcontinental Motorway* (http://site.securities.com/doc.html?pc=RU&print=1&doc_id=214).

\$3.5 million per km, and the expected traffic intensity will be up to 10000 cars per day. This new road will provide easier access to the Kyrgyz resort facilities on the shore of Issyk-Kul, which were transferred to the Kazakhs.

Turkmenistan has invited Russian Railways to participate in a project to launch a ferry line between Turkmenbashi and Makhachkala, and also to act as general contractor in the project to construct the eastern part of the North–South transport corridor (the Kazakhstan–Turkmenistan–Iran railway). This railway will be laid along the Caspian Sea and have a length of 697 km.

The power sector

One of the largest investment projects in the CIS in which the Russian public and private sectors are participating is the completion of Sangtudinskaya Hydropower plant 1 (project capacity 670 MW). The construction of this plant started in the late 1980s, but was soon discontinued due to a lack of funds. Negotiations over completion of Sangtudinskaya between Russia and Tajikistan started in 2003, and in September 2004, Iran joined these negotiations. In January 2005, Russia, Tajikistan and Iran signed a memorandum on the completion of Sangtudinskaya HPP 1 and 2. In accordance with this document, Plant 1 will be fully completed by the Russian and Tajik parties. The Iranian party, on the other hand, will fully complete Plant 2 in conjunction with the Tajik party. To construct Plant 1, the joint stock company Sangtudinskaya HPP1 was founded, in which Russia and Tajikistan are represented by INTER RAO (75%) and the Tajik Ministry of Energy (25%), respectively.

Sangtudinskaya Hydropower plants 1 and 2 will satisfy Tajikistan's domestic demand and also export electric power to Iran, Pakistan, Afghanistan and some power-starved oblasts of Russia. In addition, these plants will play a key role in regulating the region's water balance.

In 2009, INTER RAO will commence construction of three medium-capacity hydropower plants. Total investment in these plants is estimated at \$1 billion.⁷ In the future, the programme of building small hydropower plants for remote towns in mountainous areas may be expanded, as this need exists all over Tajikistan. By 2025, over 60 small hydropower plants will be constructed in the country. There is also a project to modernise the Nurekskaya hydropower plant.

Also of note is the long-standing cooperation between INTER RAO UES and Kazakhstan in power production using coal from the Ekibastuz coal deposit in Kazakhstan (Severny and Bogatyr open pits). In 2005, on the basis of Ekibastuz GRES-2, a joint venture was founded in which INTER RAO UES received 50% of the shares. Thus, the debt of the National Electric Grids Kazakhstanenergo to INTER RAO for power supplied in 1993–1996 for a

⁷ *Half of all investments in Tajikistan are Russian // Finance, 28 March 2009.*
(<http://www.finansmag.ru/news/9033>).

total of \$239 million was settled. Ekibastuz GRES-2 is a major power plant in North Kazakhstan. Its share in the total volume of power generated in Kazakhstan is 10-12%.

In the end of 2007, Rusal and the Kazakh holding company for state assets management, Samruk, founded the joint venture Bogatyr Komir through which they participated in the development of the coal and power industries in Kazakhstan. Bogatyr Komir produces coal at the Ekibastuz coal deposit (Bogatyr and Severny open pits). In accordance with the signed agreements, Rusal assigned 50% of its shares in Bogatyr and Severny to Samruk, which were received under the agreement on merging the assets of Rusal, SUAL and Glencore. Bogatyr Komir will supply coal to satisfy demand in Russia and Kazakhstan, and the parties will also consider building new power plants on the basis of supporting the development of the metal industry⁸. Notably, this cooperation has not lost momentum despite the crisis. At present, Rusal and Samruk-Energo are implementing a programme to modernise Bogatyr Komir with a total of €390 million⁹ in investments.

In February 2008, INTER RAO UES offered to buy 48% of Uzbekistan's shares in Syrdaryinskaya Thermal Power Station (which generates about 32% of all electricity in the country) and invest up to \$170 million in its modernisation. The Government of Uzbekistan will retain the controlling block of 51%. This offer indicates that INTER RAO UES has revised its strategy, as previously it considered privatising power plants in Uzbekistan to be uneconomic if the Government retains control over them¹⁰.

In the beginning of 2009, Russia and Kyrgyzstan signed an agreement which will allow their cooperation in constructing and operating Kambar-Atinskaya hydropower plants 1 and 2, and the Verkhne-Narynsky and Sary-Dzhazsky chains of hydropower plants to be optimised, and investments to be made in power distribution companies – Severelektro in particular. INTER RAO is implementing this project; this company wishes to acquire a number of assets such as Severelektro, Bishkekteploset and the Bishkek Thermal Power Plant, which are due to be privatised.

The cooperation of EurAsEC countries in the nuclear sector is of strategic importance. At present, the production of natural uranium in Russia barely satisfies 20% of the needs of Russian reactors, which, according to the Federal Agency of Subsoil Use, will increase by 1.6-1.7 times by 2020. Kazakhstan, Kyrgyzstan and Uzbekistan have large uranium deposits. Russia holds 5% of the world uranium reserves, whereas Kazakhstan holds 17%, being second only to Australia (24%).

⁸ <http://www.relcom.ru/Right?id=20071129155429>.

⁹ Y. Dorokhov. *Time to Unite Countries // Ekspert*. 2009. No.12 (30 March).

¹⁰ http://www.quote.ru/fterm_comment/index.shtml?2005/10/11/1205451.

In 2006, a programme of strategic partnership of Russia and Kazakhstan in nuclear fuel production was drawn up, and Tekhsnabeksport, Atomstroieksport and Kazatomprom executed respective memoranda. In accordance with this programme, the founding documents of three Russian-Kazakh nuclear joint ventures were signed:

- Akbastau (development of the South Zarechnoye and Budennovskoye deposits in Kazakhstan to supply nuclear fuel to Russian-built reactors);
- Uranium Enrichment Centre (isotopic enrichment);
- Atomic Plants (development of a nuclear reactor with new type VBEP-300 power generating units and its promotion in Russia, Kazakhstan and other countries).

The signed documents of these three joint ventures provide that Russian and Kazakh companies will participate in them on a parity basis.

For example, the Uranium Enrichment Centre will be created on the basis of the Angarsk Electrolysis Chemical Works. Kazatomprom and Tekhsnabeksport paid in its charter capital of 43 million roubles on a parity basis. The Uranium Enrichment Centre will supply its products to Russia, Kazakhstan and external markets. Ukraine was invited to participate in the Uranium Enrichment Centre, and other CIS countries expressed interest in its activities. In April 2007, Rosatom and the Ministry of the Environment of Armenia signed a letter of intent in respect of uranium exploration, production and processing.

Early on, the Russian-Kazakh joint venture Zarechnoye was founded to produce uranium at a deposit of the same name in the Otrarsky District, South Kazakhstan Oblast. The total reserves of this deposit are estimated at 19000 tons of uranium. Zarechnoye produced its first uranium in December 2006, and is expected to reach its design capacity of 1000 tons per annum in 2009.

In March 2009, all uranium assets of the Russian group in Kazakhstan were consolidated. The Russian uranium holding company Atomredmetzoloto, member of Rosatom, acquired a 50% share in Karatau LLP and 25% of shares in the joint venture Akbastau, which it controls via Effective Energy N.V. After completion of this transaction, Atomredmetzoloto consolidated all Russian uranium assets in three joint ventures created with Kazatomprom: Zarechnoye, Akbastau and Karatau (50% in each). This consolidation of assets by Atomredmetzoloto was part of an intergovernmental programme between Russia and Kazakhstan. The acquisition of these assets places Atomredmetzoloto second among the foreign uranium companies operating in Kazakhstan. Atomredmetzoloto announced its plan to boost uranium production by its three joint ventures to 6000 tons by

2020. At present, Atomredmetzoloto's production in Russia slightly exceeds 3000 tons.

Cooperation with Kyrgyzstan in the uranium sector has also been successful. In 2007, Ural Platina Holding, a member of Renova, won an auction for the privatisation of EurAsEC's largest uranium processing facility, the Kara-Baltinsky Ore Mining Works. Renova offered Kyrgyzstan a project to process the accumulated uranium dumps. These tailings will be used to produce valuable minerals, which could not be extracted with older technology. Technical modernisation of the facility will require \$200 million; Renova will contribute \$50 million, and \$150 million will be provided by the EDB.

Cooperation in implementing innovative alternative energy projects has also been gaining momentum. For example, the Russian research and production company Kvant and the Research Institute Gidropribor (Uralsk, Kazakhstan) plan to jointly manufacture equipment capable of producing world-class solar cells. Kvant is a leading Russian company that develops methods of direct transformation of different types of energy (chemical, solar, thermal, etc.) into electricity, self-contained power supply, and diagnostic tools that are widely used in research and production. The construction of a new Kazakh-Russian facility for manufacture of solar cells with a capacity of up to 50 MW per annum will significantly reduce the cost of solar energy, and expand its use in the economy.

Key problems

The investment cooperation of Russia and other EurAsEC countries encounters a number of problems; the most important of them are discussed below.

1. Political opposition to investment expansion

The role of political factors in the development of links between EurAsEC countries is becoming more and more important, because any significant project needs formal or informal approval at the highest level.

Sometimes Russian companies encounter the manifestations of the so-called economic nationalism, or the aspiration to tighten control over natural resources. This trend is universal, and can be observed in Russia itself. For example, the mass media may publish hostile papers or even statements by state officials aimed against Russian companies¹¹. In some cases, the situation may lead to an open conflict; this was the case with the completion of the Rogun HPP, when the Government of Tajikistan terminated the respective agreement with Rusal in August 2007.

¹¹ For example, in August 2007, Belarusian President Lukashenko, during his visit to the office of Sovetskaya Belarus, accused Russia of attempting to "privatise" his country: "Russia wants to privatise not only certain enterprises, or grab them for free. They want to privatise the whole country". (http://news.bbc.co.uk/1/hi/russian/international/newsid_6928000/6928135.stm).

EurAsEC countries often set their national interests against the goals of regional integration. They wish to pursue an independent policy and diversify their foreign trade. The policy of Western powers plays a prominent role in this game, and political investments are being readily made in order to prevent Russia's expansion in EurAsEC.

2. Lack of flexibility in Russian company policy

When acquiring assets in EurAsEC countries, Russian companies believe that control over property will secure stability and achievement of the set goals, e.g. making transit cheaper or enhancing the reliability of supplies. However, in practice, the conditions of operating an overseas asset may deteriorate (for example, raising rent for land occupied by oil and gas pipelines, introduction of new fees, taxes or duties, termination of benefits, environmental claims, etc.)¹². As a result, all the benefits of possessing an overseas asset may disappear or even turn into losses. There is also the risk of the nationalisation of assets in the event of change of power.

3. Increasing competition

Competition increases at different levels: competition with national companies, third country companies, and other Russian companies. In contrast to European members of the CIS, national elites and their affiliates in EurAsEC countries so far do not mount any significant opposition to the Russian expansion. The most serious competitors are the US, Canada, China, India, South Korea, Malaysia, the UAE and other countries which have more resources and powerful political support at their disposal, pursue a more flexible policy, and can offer better terms of cooperation. For example, when Gazprom announced its intention to abandon a number of blocks in Uzbekistan it considered unpromising, Petronas of Malaysia immediately took over, and production will commence there in 2009.

As for competition between Russian companies, it is more pronounced in sectors that can provide fast payback such as telecommunications or the food industry, rather than in the fuel and energy sector, which requires large investment. Consolidation of assets occurs more frequently in the latter sector. For example, LUKoil has acquired Soyuzneftegaz Vostok Limited, a company with Russian capital that is a party to the PSA on the Southwest Gissar and the Ustyurt region in Uzbekistan.

Recently, competition increased between Russian companies and businesses from Ukraine and other post-Soviet countries¹³.

¹² In 2007 Belarus deprived Beltransgaz of a portion of its profit by cancelling the 18% premium on sale of gas to end users. In 2008 Beltransgaz and other Russian assets in Belarus (e.g. Molyzysky Refinery) were required to pay 19% of their turnover to the Innovation Fund of the Ministry of Energy of Belarus. The amount involved is about \$70 million annually (*Nezavisimaya gazeta*, 24 March 2008).

4. There was no progress in multilateral cooperation, which would allow additional resources to be employed and new areas of common interest to be identified. Participation of non-EurAsEC countries is also possible.

5. Governmental support for the investment expansion of Russian companies and investment cooperation in EurAsEC is inadequate. Many Russian officials voiced this problem. Some positive developments in this issue were observed recently; particularly, it is planned to establish a special agency to support Russian overseas investments. This support may include provision of information, risk insurance, assistance in receiving export loans, etc. New public corporations that have considerable financial resources at their disposal will play a more active role in projects of cooperation with EurAsEC countries.

Conclusions and proposals

1. The investment cooperation of companies from Russia and other EurAsEC countries is becoming increasingly diverse, and is covering new areas of business. This is the manifestation of so-called upward integration, which is so far more successful than the formal integration projects being implemented in post-Soviet countries.

2. On the other hand, a number of problems have accumulated in this area; these are associated with increasing competition in EurAsEC markets and their particular role in modern geopolitics, and many other factors.

3. All these observations suggest that the authorities in Russia and other EurAsEC countries should pay closer attention to the private sector's efforts to expand cooperation, and formulate a sound policy of supporting these efforts. Large companies have many tools to exert pressure on governments with a view to securing political and administrative support for their investment projects. However, the governmental policies of EurAsEC countries need to be better aligned with the investment policy of large companies, which should be involved in the implementation of strategic projects in the region on a larger scale. In line with that, medium and small-size businesses and regions should also be involved actively in investment cooperation. State support is vital for capital-intensive long-term projects, especially in the energy, power and infrastructure sectors. The importance of this type of support will increase as many businesses in EurAsEC countries face major financial difficulties.

¹³ After negotiations with the Tajik President Rakhmon in March 2008, Ukrainian President Yushchenko commented that Ukraine is interested in participating in an international consortium for finalising the construction of the Rogun hydropower plant in Tajikistan: "Two Ukrainian-built turbines are already installed at this plant. It would be logical to expect that, on completion of the plant, the other six turbines will also be Ukrainian-built, provided that the Ukrainian party acts deftly". Yushchenko also stressed that 82% of all equipment installed at hydropower plants in Tajikistan was imported from Ukraine (<http://ru.proua.com/news/2008/03/07/123017.html>).

4. In this context, Russia should play a special role; it should abandon its imperial ambitions and build equal partnerships with EurAsEC countries, taking their interests into account. It should be realised that EurAsEC countries are no longer the same, and the “elder brother” approach, which can be disastrous for Russia’s interests, should be abandoned. Paradoxically, the crisis provides good opportunities for Russia to do so, and Russia has managed to preserve the major portion of its financial resources.

5. Proposals on cooperation by Russian companies should be mutually beneficial and competitive compared with other economic players’ projects. The main consideration may be the strategic importance of a project, not only its financial aspects. Russia should use and strengthen its positive image in EurAsEC – the image of a country that is always ready to come to its friends’ aid and one that imposes no political conditions. Actions by Russian companies should be well coordinated, so as to avoid unreasonable competition in EurAsEC countries, and Russian companies should be encouraged to cooperate and combine in implementing joint projects.

6. Investment cooperation can provide serious support for Russia’s policy by creating a more reliable basis for integration projects in the post-Soviet space, both economic and political. More efforts should be made to develop and implement multilateral integration initiatives relating to investment cooperation in EurAsEC. In doing so, the priority should be to enforce an agreement on encouragement and mutual protection of investments in EurAsEC countries. This agreement would be an important practical step, which would secure long-term stability and predictability of the legal framework of investments. It would also serve to improve the mutual investment climate and create a common capital market in EurAsEC, which would become a vital element of the common economic space.

7. Formulation of a common policy for EurAsEC countries towards the use of energy resources and transport services and cooperation in this area are priority economic goals for EurAsEC. It is in line with the main tasks set in the anti-crisis programmes of the EurAsEC countries. To complete these tasks and expedite development and modernisation after the crisis, it will be critical to ensure that the private sector actively participates in these processes, as it can introduce the necessary flexibility and efficiency.

Investor company or its affiliate	Asset	First transaction year ¹	Price of "entry ticket" ² , \$ million
Gazprom	Shakhpakhty (Uzbekistan)	2004	...
	50% of shares in KazRosGaz (Kazakhstan)	2002	...
	50% of shares in Beltransgaz (Belarus) ⁴	2007	2500
Gazpromneft	Over 100 petrol stations in Kyrgyzstan	2006	...
	Gazpromneft Tajikistan	2007	...
	Gazpromneft Kazakhstan	2007	...
LUKoil	15% in the Karachaganak PSA (Kazakhstan)	1997	...
	50% in Kumkol (Kazakhstan)	1995	...
	2.7% in Tengiz (Kazakhstan)	1997	129.1
	50% in Karakuduk (Kazakhstan)	2005–2006	...
	25% in North Buzachi (Kazakhstan)	2005	...
	25% in JV Arman (Kazakhstan)	2005	...
	25% in Kazakhoil–Aktobe	2005	...
	50% in the Tyub–Karagan PSA (Kazakhstan)	2004	...
	50% in Atashsky (Kazakhstan)	2004	...
	12.5% in the South Zhambai and South Zaborunye PSAs (Kazakhstan)	2007	...
	50% in JV Turgai Petroleum (Kazakhstan)	2005	...
	50% of shares in Nelson Resources (Kazakhstan)	2005	2.130
	90% in the Kandym–Khauzak–Shady PSA (Uzbekistan)	2004	...
20% in the Aral PSA	2006	...	
100% in SNG Holding (Uzbekistan)	2008	580 ³	
Rosneft	50% in the Adaisky area (Uzbekistan)	2001	...
	RN Kazakhstan (Kazakhstan)	2003–2005	...
INTER RAO UES	50% in Ekibasruz GRES–2 (Kazakhstan)	2003	...
	75% of shares in Sangtudinskaya hydropower plant 1 (Tajikistan)	2003	...
Rusal	50% in a JV founded with Samruk (Kazakhstan)	2007	...
Atomredmetzoloto	50% in Karatau LLP and 25% in JV Akbastau (Kazakhstan)	2009	560–580 ³
Renova	Kara–Baltinsky Ore Mining Works (Kyrgyzstan)	2007	...

¹ The year of first acquisition of an overseas asset or any part of it by a Russian company.

² The volume of investments which has secured the initial acquisition of assets in a CIS country, without obligations to pay their debts (if such information is available, it is given in brackets); later on the size of these assets (shown in the second column) would increase or decrease as a result of purchase or sale of shares.

³ Estimate.

⁴ In 2007–2010, 12.5% of shares will be assigned to Gazprom annually.

Table 7.2. Direct Russian investments in the energy sector and infrastructure in EurAsEC countries

8 Outlook for the Joint Development of Stock Market Infrastructure in EurAsEC Countries

MICHAEL GOLOVNIN

Stock markets are an important element of any modern market economy. Along with banking systems, they facilitate the efficient distribution of resources between borrowers and lenders. As EurAsEC countries made the transition to market economics, they had to create new stock markets.

Prior to the current economic crisis, significant differences in the level of development of stock markets across EurAsEC had become apparent (see Tables 8.1 and 8.2). Russia and Kazakhstan were the clear leaders (in 2007, the capitalisation of their stock markets¹ was 111.8% and 39.2% of GDP, respectively; Kazakhstan's performance deteriorated in 2007 as the economic crisis in that country began to take hold. Russia's stock market not only has a higher level of capitalisation, but also demonstrates higher market liquidity: trade in all types of securities on leading national stock exchanges² in 2007 totalled 84.1% of GDP, compared with 19.2% in Kazakhstan.

By comparing the levels of development of the stock markets and banking systems of Russia and Kazakhstan, we are able to conclude that in recent years Russia has adopted the Anglo-Saxon financial model which is oriented towards the stock market, whereas Kazakhstan has adopted the continental European model which is focused upon the banking system. However, this is only a very basic characterisation.

Table 8. 1.
Stock market
capitalisation in
EurAsEC countries,
1999–2007
(% of GDP)

Source: EBRD 2008
Transition Report.

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Belarus	3.4	4.1	2.9	–	–	–	–	–	–
Kazakhstan	15.5	7.5	5.6	5.5	7.7	8.7	18.9	54.7	39.2
Kyrgyzstan	0.4	0.3	0.3	0.5	1.6	1.5	1.7	3.1	3.1
Russia	41.2	15.3	26	36.6	51.1	44.6	71.9	104.4	111.8
Uzbekistan	1.9	1	0.6	0.4	0.2	0	0.3	4.3	–

¹ We use the term "stock market" in the narrow sense, i.e., a share market.

² The Moscow Inter-bank Currency Exchange (MICEX) and the Russian Trading System (RTS).

	Shares	Government stock	Corporate bonds	Regional bonds	Total	Trade (% of DP)
Russia (MICEX and RTS)	614488.2	346734.4	107137	20615.7	1088975	84.1
Kazakhstan (KASE)	8924.4	6722.4	4302.5	0.2	19949.5	19.2
Belarus (BCSE)	3.7	4534.5	124.1	0	4662.3	10.4
Uzbekistan (Toshkent NSE)	89.2	0	0.4	0	89.6	0.4
Kyrgyzstan (KSE)	146.1	0.04	0	0	146.14	3.9

The stock markets of other EurAsEC countries are significantly underdeveloped compared with those of Russia and Kazakhstan. In Tajikistan, there is no organised stock market. In Kyrgyzstan and Uzbekistan, stock markets are very weak, although some positive developments were seen there prior to the global economic crisis (see Tables 8.1 and 8.3). Belarus has a robust government stock market³, but so far there has been no significant progress in the development of a non-government securities market.

	Shares		Government stock		Corporate bonds	
	2007	2006	2007	2006	2007	2006
Russia (MICEX and RTS)	44.2	245.1	1544.5	12.2	59.6	110
Kazakhstan (KASE)	121.6	287	26.9	38.5	42.7	75.7
Belarus (BCSE)	1133.3	-78.6	38.5	-24.5	8273.3	-65
Uzbekistan (Toshkent NSE)	-19.6	212.4	-	-	-50	166.7
Kyrgyzstan (KSE)	42.3	240	...	-	-	-

The financial crisis has affected all EurAsEC countries to some extent, but has had a significant impact upon the more developed financial systems of Russia and Kazakhstan, causing much greater fluctuations in their stock markets. The MICEX and KASE indices dropped by 67% and 65% respectively in 2008. In the same year, share trade on MICEX and KASE (denominated in \$) fell by 15.7% and 42.8%, respectively. The distribution of EurAsEC stock markets in terms of their level of development has not changed significantly, but the Russian market is still slightly ahead, albeit in conditions of overall decline.

Given the outbreak of the financial crisis, the prospects for interaction between the stock markets of EurAsEC countries must be reviewed. Whereas the main problem for developed EurAsEC stock markets before the crisis was the

Table 8.2. Stock exchange trade in EurAsEC countries in 2007 (\$ million)

Source: 2007 Stock Exchange Statistics Bulletin. International Association of Stock Exchanges of the CIS (<http://mab.micex.ru/papers>). GDP data: EBRD 2008 Transition Report; www.gks.ru.

Table 8.3. Increase in trade on the stock markets of EurAsEC countries (% of the corresponding period in the previous year), (\$).

Source: 2007 Stock Exchange Statistics Bulletin. International Association of Stock Exchanges of the CIS (<http://mab.micex.ru/papers>).

³ Trade on this market in 2007 totalled about 10% of GDP.

“drain” of activity from these markets to overseas markets (the London Stock Exchange)⁴, and less developed markets were principally concerned with their own development, now their main preoccupation is one of maintaining stability. Although it might be assumed, therefore, that the task of increasing interaction in this sector is now less urgent, the strategic importance of this goal has not diminished.

Two factors which favour this interaction are, firstly, that countries with developed stock markets (Russia and, to some extent, Kazakhstan) would be able to assist the other countries in this respect. Secondly, there is still scope for diversifying stock-market operations. If we examine the structure of trade on organised markets before the crisis (see Table 8.2), we see that only Russia had achieved a relatively balanced structure, whilst in the other countries trade was dominated by individual segments (shares or public bonds). But the issue of diversification is no less urgent for Russia: at the end of 2007, 5% of companies whose shares were traded most actively accounted for 94% of the total trade on MICEX and for 86% on RTS⁵.

In addition, the crisis itself creates opportunities to broaden financial cooperation. It should not be forgotten that major financial integration initiatives in post-Soviet countries were conceived in the wake of the 1998 crisis. In the current climate, foreign stock exchanges are becoming somewhat less attractive, and opportunities to utilise the region's own potential are emerging, even though the size of the latter has shrunk in material terms.

The interaction of the infrastructural organisations of EurAsEC stock markets would go some way to addressing the aforementioned problems, given the support of the regulatory authorities in the relevant countries. The participation of state bodies in this process is critical, since their role becomes more significant as the crisis continues. Just as importantly, these bodies are also shareholders in infrastructural organisations. For example, the principal shareholder of MICEX is the Central Bank of Russia (which owns nearly 30% of shares), and the National Bank of Belarus holds the controlling block of shares in the Belarusian Currency and Stock Exchange.

Such interaction will be driven not only by the need to address common problems, but also by the players' mutual penetration of each other's markets, which had intensified prior to the crisis. This is especially true of the Russian and Kazakh stock markets. For example, two of Russia's largest investment companies – KIT Finance and Renaissance Capital – are now listed on the Kazakh stock market. Russia's Troika Dialog investment bank also purchased Kazakh company ALMEX Asset Management.

⁴ Thus, in Russia in 2007, 44% of total IPO proceeds were generated on national stock exchanges, whilst Kazakh companies executed all their IPOs on the London Stock Exchange.

⁵ 2007 Stock Exchange Statistics Bulletin. International Association of Stock Exchanges of the CIS.

Similarly, on the Russian stock market, there are a number of investment companies which are owned by, or affiliated with, Kazakh banks. For example, the Russian companies TuranAlem Finance, BTA Finance and BTA Capital are members of the TuranAlem group of Kazakhstan; NBK Finance is owned by the Narodny Bank of Kazakhstan; Kazkommertsbank acquired 50% of shares in East Capital (now renamed East Kommerts); and Centras Capital is a member of the Kazakh investment group, Centras. However, the only prominent player is East Kommerts, which in 2007 was Russia's seventh largest investment company in terms of trade in securities.

Before the crisis, Russian and Kazakh companies had started to penetrate the stock markets of other EurAsEC countries, but this process has not yet gained momentum and there are few significant deals to cite. East Capital founded an affiliate in Uzbekistan, East Capital Invest; and Centras Capital, a member of the Kazakh investment group Centras, entered the Kyrgyz stock market, some of whose key companies are owned by Kazakh banking groups, namely Halyk Bank Kyrgyzstan, East Capital Management and Kazinvest.

There are also a few examples of cross-border provision of stock market services. In May 2007, Polesye Trading House, an affiliate of Pinskoye Promyshlenno-Torgovoye Obyedineniye Polesye (Brest Oblast, Belarus), placed bonds on the Russian market with a total nominal value of 500 million roubles⁶; Russia's Sudostroitelny Bank and the All-Russia Bank for Regional Development acted as underwriters.

It would appear that the global financial crisis has slowed down these trends as market size has shrunk and investment companies are faced with financial problems. In this context, however, infrastructural organisations can take the lead.

In CIS countries, stock market infrastructural organisations have acted as the main driving force of integration. They have set up associations to promote cooperation between their members and the stock markets of other countries; the most prominent associations are the International Association of Stock Exchanges of the CIS (CIS IASE) and the Association of Central Depositories of Eurasia (ACDE). Objectively, we would expect that the Moscow Inter-bank Currency Exchange (MICEX), Russia's largest stock exchange holding company, will make the most significant contribution to the financial integration process.

The International Association of Stock Exchanges of the CIS was founded on 20 April 2000. It comprises twenty infrastructural organisations (stock exchanges and depositories) in nine CIS countries, including thirteen EurAsEC stock exchanges (all the major national stock exchanges, the Uzbek National

⁶ *Prime-TASS, 17 September 2007.*

Commodity Exchange and certain regional Russian stock exchanges) and the Central Securities Depository of Kazakhstan.

At the beginning of the 2000s, a number of significant integration initiatives were proposed under the aegis of the CIS IASE. At a meeting on 29 September, 2002, in Bruges, its members discussed progress towards the implementation of a financial integration programme which would create unified operating mechanisms for currency and stock exchanges in CIS countries⁷. At present, no such far-reaching proposals have been taken up, and cooperation continues at a basic level of interaction. At a CIS IASE meeting on 3-5 March 2008, the Committee on Technical Policy was established to promote the development of information technology⁸.

The Association of Central Depositories of Eurasia was founded on 22 December 2004, in order to create a common "depository space". It comprises eleven depositories from CIS countries, including six from EurAsEC countries.

Bilateral cooperation relies mainly on memoranda of understanding and cooperation between stock exchanges and EurAsEC depositories. There are a few notable examples, in fact, of such memoranda being entered into by MICEX and a EurAsEC stock exchange, or the National Depository Centre and a EurAsEC depository:

- in December 2000, MICEX and the Belarusian Currency and Stock Exchange (BCSE) signed a memorandum of understanding and cooperation on developing stock exchange infrastructure;
- on 28 February 2001, in Moscow, MICEX and the Kazakhstan Stock Exchange signed a memorandum on cooperation on the creation of an integrated stock exchange space;
- on 14 November 2001, in Moscow, MICEX and the Tashkent National Stock Exchange (Uzbekistan) signed a memorandum of cooperation on the creation of an integrated stock-exchange space using advanced stock-exchange technology;
- in December 2005, MICEX, the MICEX Stock Exchange and Tashkent National Stock Exchange signed a trilateral memorandum of understanding;
- on 9 February 2006, the National Depository Centre and the Central Depository of Securities (Uzbekistan) signed a memorandum of cooperation;
- on 11 April 2007, the National Depository Centre and the National Central Depository of Securities (Belarus) signed a memorandum of cooperation.

⁷ http://rus.mab-sng.org/activity/actiondetail.php?id_action=72.

⁸ http://rus.mab-sng.org/news/detail.php?id_news=796&date=3_2008.

To date, stock exchanges in EurAsEC countries have not interacted on a deeper level. The only example of a EurAsEC stock exchange buying up capital in another stock exchange is the Kazakhstan Stock Exchange, which has become a shareholder of the Kyrgyz Stock Exchange. Meanwhile, the largest shareholder of the latter is an infrastructural organisation from a third country – the Istanbul Stock Exchange. A Kazakh subsidiary of Russia's Sberbank owns 1.3% of the capital of Kazakhstan Stock Exchange.

One very significant event has been the launch of the Eurasian Trade System (ETS) of Kazakhstan – a stock exchange founded jointly by RTS (60%) and the Regional Financial Centre of Almaty. ETS uses equipment supplied by RTS. Currently, ETS is a commodity exchange and did not form part of our study, but trade in futures and stock-index futures are to begin there⁹ in the near future. This may in turn prove an impetus to the development of the Kazakh derivatives market.

There are a number of formal integration agreements which define differently the objectives and mechanisms of financial integration in EurAsEC.

In the Agreement on EurAsEC Member Country Cooperation in the Securities Market, signed on 18 June 2004, the main goal of integration (Article 1) is to create a common international securities market, which is understood as being one in which all the securities markets of EurAsEC operate according to unified principles and state regulation. This goal requires a high level of integration, but the Agreement provides no mechanisms to achieve it.

In the Agreement on the Customs Union and a Common Economic Space (signed on 26 February 1999), one of the practical measures to develop financial cooperation between EurAsEC countries is to provide mutual access to each others' services markets (Article 37) based on national treatment systems. In the 2004 Agreement, this measure became a most-favoured nation system for other EurAsEC members (Article 7).

Likewise, in many other documents adopted so far on financial integration, long-term goals and the practical mechanisms to achieve them diverge greatly.

In Russia and Kazakhstan, projects are being implemented at national level to expand internal stock markets by attracting foreign investors and issuers. In Kazakhstan, such a project has already come to fruition with the launch of the Regional Financial Centre of Almaty, which is now the major shareholder of the KASE. In Russia, plans to create a regional financial centre have been drawn up and the first step towards their implementation have been made. In December 2006, the federal law On the Securities Market was amended to introduce a new type of security, Russian depository receipts (RDR). RDRs

⁹ *Respublika (Kazakhstan)*, 3 April 2009.

will enable foreign issuers to place their securities on the Russian stock market using a simplified procedure. In addition, some amendments are being discussed that will provide direct access to the Russian market for foreign securities listed in an OECD or FATF country.

A draft concept to create an international financial centre in the Russian Federation envisages that by 2010, this centre would act as the local centre for the CIS which, as a result of economic integration in the region, will attract securities issued by CIS issuers to Russian stock exchanges. However, this document does not specify how Russia should attract other post-Soviet countries to participate in this project. If Russia fails to link this project to financial integration in the CIS, other potential players may fear that their interests will not be properly taken into account, and that the "securities drain" will be diverted to Russia rather than to western stock exchanges.

So far, these projects are essentially "national", their purpose being to open national markets to the global market; they do not provide any significant support to financial integration in EurAsEC, and in fact, on the contrary, compete with integration projects.

Another threat to joint development of stock markets in the region comes from third countries which are becoming increasingly active in the region. Close attention should be paid to infrastructural organisations, since these largely determine how national markets function. In the CIS context, Armenia is a significant example: the Scandinavian operator OMX acquired the Armenian Stock Exchange. Besides OMX, NASDAQ and the German, Vienna, Warsaw and Istanbul Stock Exchanges are showing interest in CIS markets. The current crisis can only serve to heighten this interest, as confirmed by the by the German Stock Exchange declaration that, in an effort to strengthen its competitive position, one of the Group's key tasks in 2009 will be to enhance its interests in the investment infrastructure of the CIS, Russia and Central and Eastern Europe.

Russia's sometimes dismissive approach to the poorly developed stock markets of Belarus, Uzbekistan and Kyrgyzstan and the practically non-existent stock market of Tajikistan, also gives cause for concern. In this connection, it should be remembered that ownership of practically all sectors of global and regional stock markets is widely distributed, and stiff competition exists where this is not the case. A key example of this is the Istanbul Stock Exchange which has become the principal shareholder of the Kyrgyz Stock Exchange and thus acts as one of the founders of the Federation of Euro-Asian Stock Exchanges, which comprises most of the stock exchanges in CIS countries.

In the light of the above, we have identified the following four potential scenarios for the development of stock markets in EurAsEC:

- retaining the status quo, which means that these countries will focus upon the development of national stock exchanges and therefore competition within the region will increase (between Russia and Kazakhstan in Central Asia, for example), especially once the financial crisis begins to ease. In the post-crisis period, large issuers will continue to move to global financial markets, whilst medium and small issuers will be able to operate on national or regional (in fact, expanded national) stock exchanges. National financial infrastructure may be acquired by global or foreign regional players;
- building an integrated financial infrastructure: i.e., creating conditions to allow securities from one EurAsEC country to be traded on the stock exchange of another country. This will require the harmonisation of regulations and standards. Since this process is most likely to be initiated by Russia, the latter should devise measures to develop national stock markets early on, rather than attract issuers by introducing Russian depository receipts. In so doing, Russia may find it has a competitive advantage: knowledge of local conditions and willingness to invest in projects which will not pay back in the near future. Some advances in this direction have taken place during the crisis, in particular the launch of the Eurasian Trading System in Kazakhstan (which should be counterbalanced by the launch of a similar entity in Russia), and the development by MICEX of a trading system for Ukraine's largest stock exchange, the First Stock Trading System¹⁰. Accordingly, this model of cooperation should be expanded to other EurAsEC countries;
- acquiring other countries' stock exchanges and playing by local rules. Most probably, MICEX will act as the consolidating player. This scenario is largely based on the "cost-benefit" approach and, if a large block of its shares is put up for sale, the most likely first candidate for acquisition is the Kazakhstan Stock Exchange. However, this model of cooperation may be viewed by national regulatory bodies as a threat to national security. In addition, under this scenario, Russian stock exchanges will have fewer competitive advantages compared with many western (and, possibly, eastern-hemisphere) players who are able to secure access to larger markets and advanced technology (e.g., OMX). This limitation will be especially pronounced during the crisis, which has had its strongest impact on the Russian stock market;
- gradual movement towards cooperation between stock markets: from information exchange to cross listing. This is a "softer" version of the third scenario, which takes into account all the stakeholders. However, as this scenario is based on purely practical considerations, it does not guarantee that this cooperation will be favoured by EurAsEC stock exchanges

¹⁰ *Interfax Ukraine, 2 March 2009.*

themselves, for the aforementioned reasons. Moreover it would appear that the financial crisis will serve to prolong the implementation period of such a scenario.

Each of the above options has its advantages and disadvantages, and the selected scenario will determine EurAsEC's future financial integration as a whole and the development of cross-border financial infrastructure.

Stronger cooperation between infrastructural organisations may become one of the first successful integration projects in EurAsEC, prompting countries to assume more active roles in regional economic integration. Meanwhile, cooperation between stock markets can provide a basis for regional economic integration in general, and the development of cross-border financial infrastructure. The crisis is temporary and does not in any way obviate the need to develop stock markets and even to explore new opportunities. The integration of stock markets allows the substantial reserves of some countries to be efficiently invested in other countries. The expansion of markets enables issuers to minimise their borrowing costs, and investors to reduce their risks by diversifying their financial portfolios. Finally, the resources of integrated stock markets can be used to finance cross-border infrastructure development projects in different sectors.

Mutual Investments in the CIS Banking Sector

9

EVGENY VINOKUROV

Emerging cross-border activities

The banking landscape in the CIS is extremely uneven, as Kazakhstan and Russia possess the most developed banking sectors. As of January 1, 2009, assets to GDP ratio stood at 67.5% in Russia and 74.7% in Kazakhstan. Other countries' banking sectors are significantly less developed, both in relative and absolute terms. Kazakhstan's banking sector grew extremely rapidly until the third quarter of 2007, when it started to struggle as foreign credit sources ran dry. Russia lags one or two years behind Kazakhstan in terms of regulation, concentration, and the development of banking services and products. However the absolute size of its banking sector is understandably much higher.

	Russia	Belarus	Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan	Armenia	Georgia	Ukraine	Moldova
Number of banks	1 172	31	37	30	22	12	22	20	184	16
Assets (\$ billion)	1 126.6	8.6	98.8	6.5	1.5	1.8	3.3	5.6	120.4	3.7
Capital (\$ billion)	153.2	5.5	16.2	1.5	0.4	0.3	0.8	1.0	15.8	0.7
Assets/GDP (%)	67.5	49.2	74.7	24.6	29.7	35.0	28.1	43.0	97.5	38.7

Table 9. 1.
Banking sector indicators in the CIS member states as of 1 January 2009

Source:
National and Central Banks of respective countries.

The previous years witnessed a number of formal integration initiatives in the post-Soviet 'Eurasian' space. These have yet to bear fruit. At the same time, the largest economies (Russia, Ukraine, and Kazakhstan) enjoy acceptably open economic regimes, concerning cross-border investments in the financial sector. Neither existing quotas on foreign capital, nor restrictions on the staffing policies, represent substantial obstacles for big players. While it is too soon to talk about a formal integration of financial sector in the CIS, market players used the favourable conjuncture of the recent years, in order to take the first steps in boosting their cross-border activities.

Kazakh Pathfinders

It is not accidental that Kazakh banks were the first to begin expanding abroad; the Kazakh banking system is the most advanced in the CIS, due to early regulatory reforms and advanced regulatory supervision. In addition, the banking system is more concentrated and technologically advanced. Until the beginning of 2009, there were no state-owned banks, and the two largest institutions, BTA-Bank and Kazkommertsbank, were also largest private banks in the CIS (acquisition of BTA by the state has changed the banking landscape significantly; the largest Russian private banks, Alfa and the newly merged MDM and URSA may also challenge the lead of their Kazakh counterparts). Kazakh banks were ready to go abroad, following their clients, a few years before other CIS banks were established enough to follow suit.

The natural direction of foreign investments was in other Central Asian states and Russia, with the latter taking the lead due to the huge economic potential and relatively open economy. Kazakh banks had also ventured into Ukraine, Georgia and other CIS states. In 2005-2007, practically all of the largest banks opened foreign operations. The leading BTA operates through four subsidiary banks in Russia, and also owns banks in Belarus, Ukraine, Georgia, Armenia, and Tajikistan. Kazkommertsbank entered the Russian soil through its subsidiary, Moskommertsbank, which was particularly active in financing real estate and mortgages. To characterise its activities in Russia, it is sufficient to state that Moskommertsbank possessed the third largest mortgage portfolio in the country at the end of 2007.

In 2007, the assets base of these banks grew by 30%; however, 2008 saw a significant contraction of portfolio, as the banks faced the impossibility of funding activities abroad and started transferring money back home to support their core operations. Other Kazakh banks also went abroad, albeit on a smaller scale. The more conservative Halyk Bank has subsidiaries in Chelyabinsk as well as in Moscow. Alliance Bank bought the small Starbank in Russia in 2007, after unhappily rejecting plans to absorb the much larger Petrokommerts. ATF-Bank and Bank Centrecredit, also established subsidiaries in Russia.

...The Russians are Coming, Finally

There are two reasons why the Russian banks were slow in following suit. First of all, the resurgence of the Russian economy provided ample opportunities at home, and the banks were busy expanding their retail networks and building local portfolios at an unprecedented speed. Secondly, Russia lagged behind Kazakhstan in the regulatory and structured qualities of its banking system. Nonetheless, by 2007, a handful of Russian banks were also prepared for foreign expansion. These were the largest banks: Sberbank, VTB, Gazprombank, Bank of Moscow, Alfa-bank, and Rosbank. The directions of expansion were quite natural: Kazakhstan, Ukraine, Belarus, and Armenia, i.e. the countries with significant Russian economic interests.

The Russian presence in Kazakhstan demonstrates this. Sberbank bought a small Texaka-Bank as early as 2006. After a period of inaction, the bank was strongly recapitalised and started rapidly building its assets portfolio. The long-term goal of the bank is to enter the top ten of the Kazakh banking system. This mission would seem achievable for Sberbank. On the contrary, VTB, for which the expansion in the CIS makes a vital part of the bank's mid-term strategy, has yet to enter the Kazakh market. The bank's initial strategy centred on buying an active business in the country, however, despite the deteriorating conditions, Kazakh bankers are unwilling to part with their controlling stakes at a low price, while VTB was not ready to pay 2.5-3 book values (for instance, it negotiated over Temirbank). Finally, exasperated, VTB declared its intention to build the business from scratch. Presumably, buying a bank as a strategy option is still on the cards for later. Finally, Alfa-bank has a subsidiary in Almaty, which is rather well established (it was the first of the Russian banks to enter the market) and pursues a conservative policy.

Russian banks are the main foreign banking presence in Belarus, where there are subsidiaries of Gazprombank, Bank of Moscow, Rosbank and others. In 2007, the role of Russian banks in the Belarusian banking system grew as a result of several acquisitions. For example, Vneshtorgbank bought out Belvnesheconombank, while Mezhtorgbank was taken over by Alfa Bank. Ownership of Slavneftebank, formerly controlled by a Russian oil company, will also be transferred to Russia's VTB.

...Cornered by Competition from East and West

It is not safe to assume that Kazakh and Russian players are the only ones interested in expanding in the CIS area. The CIS countries' are hugely under banked and are considered among the most attractive in the world to enter. Russian, Ukrainian, and Kazakh banks (the most open and largest) were aspired until 2008, with prices overreaching four book values. These markets remain attractive in the long term. Again, the Kazakh banking system provides a great example. As a matter of fact, the laurels for the largest purchases go not to Russia but to the West (Italian UniCredit having bought ATF-Bank) and East (Korean Kookmin gradually acquiring control over Bank CentreCredit). The Ukrainian banking system provides a similar picture. Perhaps the only market where Russian financial players do not face any substantial foreign competition is Belarus.

... And Interrupted by Crisis

The CIS banks were not given much time for uninterrupted investments in the neighbouring countries. The 2007-2008 crisis largely limited the potential to invest abroad and compelled the banks to concentrate on core markets. In addition, the deteriorating quality of assets became a worrying

issue for M&A. We discuss the near- and mid-term prospects of mutual investments in the last section of this article.

The Scale of Cross-Border Investments is still Low

The patterns of mutual investments in the CIS banking sector have been consistent with world experience. The first reason behind setting up foreign subsidiaries was servicing mutual trade and investments in other sectors ('follow your client' strategy). Only later did a handful of banks adopt a more embracing approach, targeting the full-scale expansion and universal banking with retail and SMEs as viable business sectors. For Kazakhstan's BTA Bank and Russian VTB, such expansion is a strategic centrepiece; Sberbank and Kazkommertsbank are also serious about this strategy. Another characteristic is the visible asymmetry of mutual investments, with Kazakhstan and Russia in the lead and other countries serving as mere recipients. What is perhaps more unusual is the speed at which the CIS banks developed their foreign networks: after all, the whole story took place within three to four years.

As a result, the cross-border investments in the authorised capital of the CIS banks grew approximately threefold within 2005-2008. However, their relative weight and role is still negligible. In the EurAsEC space, foreign capital is a dominant presence in the banking system only in Kyrgyzstan, while its role in other EurAsEC countries is minimal¹.

Prospects

Looking into 2009 and 2010 is an exercise in forecasting through an obscure glass. The scope of the world recession and the dynamics of oil price (on which the overall prosperity of Russia, Kazakhstan and a few other CIS countries strongly depend) will have a decisive impact on the health of local banks, including the quality of assets as well as the M&A stories.

Nevertheless, with a certain degree of moderation, we can sketch a few trends for 2009, suggesting that the cooperation and penetration in the banking sector will slowly increase even in the difficult times, driven by the logic of mutual trade and economic efficiency. Our considerations are supported by the observation that institutional integration has not stopped. E.g., in December 2008, Russian and Kazakh counterparts established a new commodity exchange platform, which was christened the Eurasian Trade System (ETS). The newcomer foresees substantial trade volumes in grain and petroleum-based fuels in 2009.

¹ *Abalkina, Anna (2008) Preconditions and Prospects for Banking Integration in the Eurasian Economic Community, in: Vinokurov, Evgeny (ed.) EDB Eurasian Integration Yearbook, EDB: Almaty, p. 109. Available at <http://www.eabr.org/eng/publications/IntegrationYearbook/>*

- Let us begin with the two most active players, Russia and Kazakhstan. Russian banks will continue looking abroad, albeit on a modest scale. Potential directions are Kazakhstan, Belarus, and Ukraine. In Kazakhstan, Sberbank's subsidiary plans a 40% growth of assets into 2009. 2008 witnessed an extremely rapid growth and, as of November 1, Sberbank Kazakhstan's assets amounted to \$800 million, with its own capital standing at \$283 million. The effect of the 2007 capitalisation by Sberbank still leaves ample room for asset growth. Its association with the well-respected Russian state bank has helped the Kazakh subsidiary actively attract local depositors and grow its deposits base from virtually zero to almost \$200 million within a year. In our opinion, Sberbank's operation in Kazakhstan is well positioned to deliver promised growth and enter the top ten of Kazakh banks in the foreseeable future.

While Sberbank actively builds up its assets and expands the branch network, VTB still needs to set up a subsidiary in Russia's southern neighbour. Buying a bank at a sensible price still remains a strategic option. The newly merged MDM and URSA banks (forming the second-largest private banking institution in Russia with stronghold in the Urals and Siberia) would naturally benefit from presence in the southern neighbour. Tsesna-bank might serve as a particularly attractive take-over target due to its strong presence in Northern Kazakhstan. Alliance, as well as Temirbank, remains on the radar screens as potential takeover targets with extensive retail networks. BTA, after its nationalisation, may also be sold to a foreign investor.

- The foreign expansion of *Kazakh banks* faces two contradictory pressures. On the one hand, in the time of severe crisis the Kazakh authorities are keen to see their banks concentrating on Kazakhstan, not elsewhere. In any case, there are substantial barriers to the outflow of capital. On the other hand, where banks go, there trade goes, and there is a substantive economic rationale behind expanding service capabilities in the CIS countries and China. Thus, we expect Kazakh banks to lower their foreign presence in terms of assets while simultaneously continuing organisational activities such as setting up rep offices, creating necessary infrastructure etc. Again, let us mention that along with the CIS state West China will stay high on the priority list.
- 2008 witnessed an unprecedented level of state support action in the banking sector of the CIS countries, most importantly Russia and Kazakhstan. Governments rightly identify banks as providers of blood in the veins of national economies and support them subsequently by injecting necessary liquidity, taking care of distressed assets and also by direct intervention. It is evident that, at the time of economic contraction, banks will be actively discouraged to channel the state assistance funds into other

countries through foreign expansion, however tempting it might be in the long term.

- There is a distinctive trend of going beyond the tight boundaries of the post-Soviet space. As trade flows expand, there is a pressure to set up subsidiaries in *China, Mongolia, India and other non-CIS Eurasian states*. It is likely that we see the development of this nascent trend even in the difficult times, as it demands organisational capabilities and can be accomplished without substantial injections of capital. Sistema-controlled MBRR-Bank going to India (where Sistema is building a big mobile network) and Khalyk-Bank setting up subsidiaries in Western China and Mongolia (where the bank's clients do business) are vivid illustrations.
- Out of the larger CIS markets other than Russia and Kazakhstan, three larger countries demonstrate various threats and opportunities. First, crisis provides major players with an opportunity to buy into *Ukrainian banking sector* at very distressed prices. Of course, only players who can sustain losses in the short term can afford such investment in 2009, notwithstanding potential long-term gains from the second-largest CIS market for financial services. One of the first instances of the sort is VEB rescuing the Ukrainian Prominvestbank. Secondly, the partial opening of the lucrative *Uzbek* market is to be expected in the medium-term perspective (not necessarily in 2009). Russian and Kazakh banks are eyeing this opportunity. They possess fair chances to succeed in the challenging environment of the state-controlled economy. Third, Russian financial institutions are likely to build up their weight in the *Belarus banking sector*, thus strengthening economic and political ties between the two countries.
- Last but not least, the CIS banks do not operate in an international vacuum. The crisis has reduced – but not wiped out – the attractiveness of the CIS market for larger international players from both West and East. By buying banks in various countries, international players can gain their place among the principal providers of inter-state financial services in the CIS.

To sum up, the story of cross-border investments in the CIS banking sector remains unfinished. The banks are compelled to halt their foreign expansion and, in some cases, partially retract in terms of assets. At the same time they do not stop non-capital-intensive cross-border activities. The process of setting subsidiaries and rep offices as well as creating necessary infrastructure abroad goes on, while the banks wait for better times to achieve substantial growth of capital and assets. We will see the next chapter of the story rapidly unfold as soon as access to the international financial market eases up.

The Eurasian Development Bank's Investment Policy and the Environment

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The EDB's Strategy for 2008–2010 incorporates environmental responsibility in the Bank's investment policy. The Bank's mandate is to foster economic growth in the member states and support sustainable development and regional integration. In selecting and implementing investment projects, the Bank takes measures to prevent any deterioration of the environment or the social, working or living conditions of the population.

The Bank's approach must be effective for environmental security of the Bank's member states. In the regional context, these measures address the problems of transboundary transfer of water- and airborne pollutants, and promote the efficient use of natural resources based on resource-saving and environmentally friendly technologies. The structural reorganisation of any economy poses economic and environmental problems which governments and institutions must address in the best possible way, adhering to the highest standards of environmental protection and eliminating natural and manmade disasters.

Any investment project which affects the environment of neighbouring states is subject to thorough environmental impact assessment (EIA) and notification procedures in accordance with international regulations and recommendations governing environmental protection. The Bank conducts the compulsory EIA, taking into account economic risks which can result from changes in the environment and the management of natural resources with a potential transboundary effect.

Sustainable development and economic growth are closely linked with environmental protection. The Bank, as an international financial institution, adheres to multilateral and regional agreements on environmental protection and sustainable development. These include the UN Framework Convention on Climate Change, the Kyoto Protocol, the Convention on Biodiversity, the Convention on Environmental Impact Assessment in Transboundary Context, and the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters. Each of these documents provides the Bank and its clients with the main requirements and mechanisms which underpin their approach UN (1997) to the environment in the implementation of their investment projects (UNECE, 1992).

Assessing Regional Environmental Problems as a Key Phase of Investment Project Planning in Central Asia

Contemporary Central Asia is situated at the heart of Eurasia; it encompasses the territories of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan and borders Russia in the northwest, Iran and Afghanistan in the south and Russia and China in the east. The region covers about 4 million km² of the vast Aral-Caspian drainage basin, which extends from the subtropical zone to the southern margin of the mid-latitudes. The region's desert location, its remoteness from seas and oceans and its orographic structure all shape its continental climate and hydrography. Climatic conditions in mountainous areas directly influence cyclical river flows and the utilisation of water. High temperatures during the growing season and a saturation deficit result in a high evaporation capacity. Therefore, irrigation, which is vital to this region, has the greatest influence on water utilisation and international relations in transboundary river basins.

The Central Asian region is a new geopolitical structure within the modern global political system and consists of five independent states. The term "Central Asia" traditionally denotes a geographical area which extends far beyond the borders of these states. However, in a political context, this region is understood as being confined to the territories of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. Its natural and geographic unity has been forged in the basins of its transboundary rivers. This in turn has determined the historic and cultural homogeneity of Central Asian nations, and is a key factor in strengthening their economic integration. Given their economic and social interdependence, resolving the region's environmental problems, which are generally transboundary in nature, and ensuring the sustainable development of Central Asian countries, will depend upon accelerated integration based on the joint management of water resources in transboundary river basins. Whilst the geographic location of Central Asia bestows certain advantages, the region is nevertheless disadvantaged by its remoteness from major transport routes and sea ports, the scarcity of water resources and irrigable land, and its sparse population density in certain parts of the region.

Common environmental problems in Central Asia

Central Asia's fragile ecosystem, its water shortages and arid climate act as serious impediments to the socioeconomic development of the region's countries.

Transboundary atmospheric pollution in industrial and urban areas is one of the most acute environmental problems in Central Asia. The main causes of air pollution are the metallurgical, chemical, building, energy and transport industries. Wastewater from farms and industrial facilities contaminates

transboundary rivers. Runoff water contains pesticides, nitrogen and phosphates, which threaten river ecology and water safety. Neither an efficient recycling infrastructure nor an adequate waste management strategy is in place. There is also a potential threat from radioactive and toxic metallic waste disposal sites. Eventually, a considerable percentage of waste disposed of within the drainage basin reaches the rivers.

Another serious problem for the region is desertification. For example, more than 66% of Kazakhstan's land is desertified. About 40% of pasture land in Kyrgyzstan is depleted. In Tajikistan, the cultivation of steep slopes and deforestation of the mountains has destabilised the natural mountain habitat. About 80% of Uzbekistan's territory is desert or semi-desert. Mountainous ecosystems are especially sensitive to external influences. Anthropogenic effects are felt even in the scarcely populated Pamir and Tien Shan mountains, resulting in deterioration of ecosystems, loss of biodiversity and soil erosion. The cumulative effect of anthropogenic load on mountainous ecosystems accelerates desertification and the loss of biodiversity. Other negative consequences of this process are changes in the hydrological cycles of renewable water resources and an increased risk of natural disasters (OECD, 2005).

The region is widely exposed to natural disasters, including earthquakes, floods, mudslides and landslides. These pose a huge threat to the safety of dams, water reservoirs, villages and towns along the rivers. Any major dam burst threatens the population of all countries in the region. This threat is especially pronounced in the mountainous areas of Kyrgyzstan, Tajikistan and Uzbekistan, where most of the region's runoff is generated, and where the risk of destructive flood tides is highest.

In addition to the problems mentioned above, there are several large-scale environmental crises which threaten all the Central Asian countries: the drying up of the Aral Sea, the unstable rock-dammed Lake Sarez, etc¹.

According to statistics, about 36.1 million people (64% of the region's population) have access to centralised water supply. In Kazakhstan, Tajikistan and Turkmenistan, water supply systems in cities are better than in rural areas. Access to sewage systems is restricted to 22% of the population (11.4 million people), mainly in cities (UNESCO, 2000).

The absence, inefficiency or poor state of repair of water supply and sewage systems are the main obstacles to improving public health and quality of life standards, especially in rural areas. All these problems in turn impede the sustainable development of the region. Most oblast centres have no sewage

¹ *The Executive Committee of the International Aral Rehabilitation Fund (2008) 2002–2008 Operations Report of the International Aral Rehabilitation Fund. Dushanbe.*

treatment systems, and untreated wastewater is being discharged directly to filtration fields or storage ponds. The existing treatment facilities are overloaded, and there is a permanent threat of dam breakage.

The construction of many hydraulic environmental protection facilities has been discontinued or never planned due to a lack of funds. The generally accepted "polluter pays" rule is barely applied, and no fee is charged for the use of freshwater resources, which is required to encourage efficient natural resources management. Common pollutants are oil products, phenols, heavy metal salts, fertiliser, and pesticides. As a result, cities and other areas are unable to supply drinking water that complies fully with public health requirements.

The existing water supply systems in Central Asian countries do not meet requirements for reliability and drinking water quality, nor do they have all the required treatment facilities; protective sanitary zones are not in place at many water collection sites. Up to 70% of water distribution networks are obsolete, and this figure is increasing, which results in frequent accidents and contamination of water. Over 20-30% of water is lost due to leakages in household water supply systems and pipe corrosion or obsolescence. Existing pipeline capacity is not sufficient to provide an uninterrupted water supply because of its poor state of repair and the obsolete water treatment technology in use. The situation is exacerbated by the fact that a large proportion of wastewater from industrial facilities is being directed to municipal treatment works which are not designed for such wastewater. Most cities have no storm drainage able to treat excess water; as a result, large quantities of contaminated water end up in water bodies. Contamination of drinking water sources and the inefficiency of treatment facilities lead to the deterioration of the quality of drinking water consumed by the public.

In rural areas, people sometimes have no choice but to drink water which does not meet health standards, and the majority of the population uses decentralised water sources which do not always meet public health requirements for salt content, hardness and chemical composition; surface water sources are not protected against bacterial and chemical contamination. The water companies themselves are financially weak, for a number of reasons: overstated individual water consumption makes extensive capacity development essential; there is a lack of actual consumption records; data is misstated; pricing is disproportionate; customer service is poor; and there is no clear allocation of rights and responsibilities for both consumer and supplier.

The safety of drinking water has to be a key element of a comprehensive environmental policy for Central Asian countries. A package of urgent legal, economic and organisational measures must be implemented to protect water resources from contamination, increase the use of properly protected

underground freshwater, reduce the load on water treatment plants, minimise drinking water losses, and improve water treatment technology.

To conclude, it is clear that Central Asia's environmental problems all relate directly to the stability of river ecosystems (UNECE, UN ESCAP, UN, SPBEC, 2004). If these countries fail to take concerted action to stop the depletion and contamination of water resources, these trends may have a negative impact on socioeconomic development, environmental protection and security in Central Asia (UN, 2003).

The availability and adequacy of water resources is an essential precondition for the stable functioning of all economic sectors. The efficient regulation of shared water utilisation, especially in agriculture and the hydraulic power industry, is key to international cooperation between Central Asian countries.

Environmental safety at mining waste sites

Waste from uranium production facilities poses a serious threat to the population and the environment in Central Asia. The waste has accumulated over many decades but is no longer reliably maintained, and there are insufficient funds to ensure that necessary land reclamation measures are being taken at uranium tailings sites. There is a high risk that any accident would have a severe transboundary impact and this situation calls for concerted action to ensure the safety of these sites.

In Belarus, the most urgent environmental problem is the radioactive contamination of about one quarter of its territory following the Chernobyl disaster.

In Kazakhstan, there is a high level of contamination from mining and uranium processing waste sites.

In Kyrgyzstan, there are many complex and radioactive ore processing dumps concentrated in river basins (of the 35 dump sites, 30 contain uranium processing waste and five contain non-ferrous metal wastes).

Box 10.1.: *Between 1946 and 1968, a uranium deposit was exploited in the floodplain of the Mailuu-Suu (a tributary of the Syrdarya), 26 km from the Uzbek border (Madaniyat, Pakhtaabad District). A total of 23 tailing storage facilities were constructed to hold 2 million m³ of radioactive waste, and 13 dump sites contained a total of 845,600 m³ of radioactive overburden. The total area of the Mailuu-Suu tailings storage is 432,000 m². In Mailuu-Suu city itself there are 14 tailings storage facilities and 12 dump sites. As well as the Mailuu-Suu deposit, the nearby Shakaftar, Kyzyl-Dzhar and other mines were also developed.*

Kyrgyzstan's uranium tailings sites pose a major threat to human health, the environment, and the security of Central Asia. They are a particular threat

to the Fergana valley. The risk of an environmental catastrophe is high, and its potential impact may spread to Kazakhstan, Uzbekistan and Tajikistan. Therefore, securing the environmental safety of the Syrdarya and Chu basins, which are exposed to the transboundary impact of mining wastes and dump sites, is viewed as a key regional priority.

The *VNIIPromtekhlogiya* Institute (Moscow) has prepared a report entitled *An Assessment of the Radiation and Environmental Situation and the Feasibility Study for the Rehabilitation of Areas Affected by Uranium Production in the Republic of Kyrgyzstan*. The report includes a brief assessment of radioactivity at uranium tailings storage facilities and reclaimed radioactive waste storage sites in the Mailuu-Suu area. It also includes the Institute's engineering and environmental surveys and the results of previous studies by Kyrgyz and Uzbek specialists. The Institute's proposed project comprises an assessment of the present condition of the tailings storage facilities and surrounding areas, their effect on the environment, safety aspects, and technical solutions to rehabilitate these facilities and ensure safe working conditions. The project is intended to stabilise the radiation affecting the city of Mailuu-Suu and prevent the spread of radioactive materials to other parts of the valley along the alluvial cone of the Mailuu-Suu as a result of landslides, riverbed obstruction or flushing-out of tailings sites.

In Tajikistan, areas where dangerous radioactive waste has accumulated are a serious threat to health. In Sogdiyskaya Oblast there are large storage sites for radioactive tailings and low-grade ores. The oblast is also home to the Anzob Mercury and Antimony Works and two gold mining facilities. Most tailings sites are situated close to cities and rivers. Close to Khudzhand and Chkalovsk, 9 km from the Syrdarya, is the 70-ha Digmai storage facility, which contains radioactive tailings and the waste of rare-earth metal processing. Digmai is the largest facility of its kind in Tajikistan; it holds 20 million tons of uranium processing waste and 5.7 million tons of vanadium processing waste. The site has not been maintained since ore processing there was abandoned. Although the site was partly sown with reeds, its surface has dried out and radioactive dust is being carried by the wind to the surrounding area. Several radioactive tailings sites are located near the cities of Chkalovsk, Gafurovo and Taboshar, and the village of Adrasman; all of them are major sources of environmental pollution. Dumps and open pits at these sites have not been rehabilitated and waste is being spread by wind and rain.

A dangerous situation has also developed at the Anzob Ore Mining and Processing Works on the Yagnob river, an upper tributary of the Zeravshan. Temporary waste storage facilities are overloaded and there is a serious threat that waste will no longer be contained.

The transboundary industrial waste site near Bekabad in Uzbekistan also requires attention. The Bekabad Metal Works waste heaps, which are

5-20 m high and cover an area of 15 ha, are located in the territory of Tajikistan. Bekabad's large household landfill site is located nearby. The storage facilities there do not meet the environmental protection regulations of either country.

The most serious direct threat to health and the environment is posed by the Kanibadam toxic waste storage facility near the district's administrative centre, the Great Fergana Canal and the Kairakum reservoir. This contains toxic chemicals and biological preparations whose shelf life has expired or which have been banned from use. Between 1973 and 1990, a total of 4000 tons of toxic waste accumulated there. The site has no waterproof ground membrane or drainage system. Underground aquifers are not protected against toxic chemicals, and the state of the toxic waste storage area is not monitored.

Under the aegis of EurAsEC, the Concept for an international programme entitled *Rehabilitation of Areas Affected by Uranium Production in EurAsEC Member Countries* is being drafted; this Concept is aimed at eliminating the risks of radioactive contamination.

Box 10.2: *In EurAsEC member countries, a total area of 80 km² is affected by radioactive contamination from uranium production facilities total. This includes 51.7 km² in Kazakhstan, 16 km² in Russia, 6.5 km² in Kyrgyzstan, 3.0 km² in Tajikistan and 2.8 km² in Uzbekistan.*

Tailings storage and mining waste sites in Kyrgyzstan and Tajikistan pose the most serious transboundary threat to the environment, as these can contaminate river basins.

The state corporation, Rosatom, prepared a draft Concept for the EurAsEC international programme entitled Rehabilitation of Areas Affected by Uranium Production in EurAsEC Member Countries. This Concept proposes a unified system for radiation safety and rehabilitation of areas contaminated by radiation to international standards, in order to prevent transboundary environmental disasters; trials of certain elements of this system will be carried out at the most dangerous sites in Kyrgyzstan (Kadzhi-Sai and Minkush) and Tajikistan (Taboshar).

According to a preliminary estimate (2008), this programme will cost 446 million roubles; it will be implemented in 2010-2015.

It is envisaged that the programme will be financed by EurAsEC, international organisations, private investors and by the governments of EurAsEC member countries.

Environmental Problems in the Caspian Region

As international demand for oil and gas increases, the vast oil and gas reserves of the Caspian region have attracted the attention of international energy companies and individual countries.

The proven oil reserves owned by Azerbaijan, Russia, Kazakhstan, Turkmenistan and Iran are estimated at 17-49 billion barrels, which is 3-5% of the world's oil reserves. Natural gas reserves total 6.5 trillion m³, comparable to those of Saudi Arabia, whilst probable reserves are estimated at 9.3 trillion m³. As at the end of 2006, proven oil reserves totalled 39.6 billion barrels (3.3% of the world's reserves) in Kazakhstan and 0.5 billion barrels in Turkmenistan.

In 2006, oil production in the region totalled 2.3 billion barrels per day, almost equal to oil output in Brazil, the second largest oil producer in South America. It is expected that, in 2010, the Caspian region will produce 2.9-3.8 million barrels of oil per day, surpassing Venezuela's output. The region's natural gas production in 2005 reached 147 billion m³. This almost equals the total gas production of South and Central America and Mexico.

The economy of the region's post-Soviet states is heavily dependent on the production and export of fossil fuels. The economic importance of coastal areas, national economies, living and environmental conditions in the region have all changed accordingly.

The Caspian Sea is the world's largest inland water body. Its size and its ecology largely depend on the water quality of the rivers that empty into it. The effects of human activity in the region are augmented by climate change and extreme weather conditions. As a result, the ecosystems of the Caspian basin bear an excessive anthropogenic load, detrimental to the environment and the living conditions of the population. Mismanaged industrial development, pollution and the exploitation of valuable resources (oil, gas, uranium, sturgeon and other fish, etc.), all harm the environment. There is an inevitable social and economic price to pay both nationally and internationally. Rising Caspian Sea levels in 1978-1996 were a huge environmental problem for the region's countries which were faced with the associated problems of flooding, salinisation of pasture and other agricultural land and degradation of infrastructure. Intensive fishing and contamination have decimated the sea's biological resources.

Of all the economic activity undertaken in the eastern Caspian region, intensive oil and gas exploration and production have the worst impact on the environment. Pollution of the sea, air and soil is being recorded in many offshore and onshore areas. To date, desertification, soil consolidation and soil contamination resulting from the production and transportation of oil have affected a total area of 500,000 ha. Severe soil degradation resulting from spillages of oil and oil products has been recorded over 5000 ha in the Atyrau and Mangistau Oblasts. Data on soil contamination in Turkmenistan is incomplete but, according to preliminary estimates, may affect 1000 ha.

A boom in offshore and onshore oil exploration and production and the expansion of the pipeline network create risks for the environment. The Volga

alone carries several thousand tons of oil products annually from onshore facilities to the Caspian Sea. The rivers that fall into the Caspian Sea are responsible for over 50% of its total oil contamination. Future development of onshore and shelf deposits is expected to increase this pollution. Currently, the northern part of the sea, mainly the Volga delta, has a high content of phenols and oil products, which may affect plant and animal life. Depletion of fish stocks, damage to the beauty of the landscape, the deterioration of water quality and other negative influences may undermine prospects for future development, especially of fisheries and tourism. Oil from certain Caspian deposits has higher natural radioactivity. The long-term exploitation of these deposits, especially in Mangistau Oblast, has resulted in the accumulation of 10000-15000 tons of low-radiation, oil-bearing waste and scrap metal in temporary storage facilities close to the oil deposits. These sources of radiation are an additional threat to environmental safety.

In Turkmenistan, oil production in the Cheleken peninsula, and the transportation of oil and gas by tanker and pipeline, have harmed local biodiversity and ecosystems. Several specialised chemical plants are also located in Cheleken. This high concentration of oil and chemical facilities raises particular environmental protection issues, since not only is there an increased risk of water and air contamination, but the rising Caspian sea level could also cause industrial sites to flood. Offshore oil production in the Turkmen sector of the Caspian, near the Cheleken peninsula, is based on dozens of platforms producing 350,000 tons of oil annually. Before the oil boom in Cheleken, flat pits formed by saline soil on the shore (*takyrs*) served as natural water reservoirs. These *takyrs* provided fresh water to some 10000 people, farm animals (camels, sheep and goats) and migrating birds. When oil production began, many *takyrs* were used as evaporation ponds for oily fluids and became contaminated with oil products, surface reagents and heavy metals. Oil spills and other emergencies continue to threaten the environment and public health.

Given the need to preserve the ecosystem and natural resources of the Caspian Sea as oil reserves are being developed, Kazakhstan and Turkmenistan must keep a close eye on environmental protection and safety. For example, Kazakhstan banned the flaring of gas and discharge and burial of waste at sea. Environmental standards and industrial safety in both countries have been brought up to international levels. In addition, these countries implemented a package of measures to ensure prompt reaction to oil spills, including the formation of a special offshore rescue team. A National Plan of Action was developed to prevent and respond to oil spills in the sea and inland water bodies. Under the Tehran Convention (Framework Convention for the Protection of the Marine Environment of the Caspian Sea), several protocols to tackle the region's most acute problems were drafted and forwarded to other Caspian countries for discussion and ratification.

In order to secure the environmental safety and sustainable development of the Caspian region, a review of the defence industry is also needed, particularly the production, processing and storage of uranium. Projects to assess the threats posed by such facilities and to reclaim land must be planned and implemented, and information on any hazard to human health and the environment around such facilities must be made public.

The expansion of the energy sector in the region over the last decade has had a significant impact upon the socio-economic climate, changes which are often linked to the increasing burden on the environment. Political stability and security in the Caspian basin is a critical prerequisite for future development. In order to reduce actual and potential threats to security, Caspian states should continue to build mutual trust and take steps to promote regional cooperation and integration. This will enable them to respond more efficiently to new challenges such as climate change.

Industries in all the coastal oblasts of Kazakhstan and Turkmenistan are highly specialised, and increases in their gross regional product is attributable mainly to the energy sector, while agricultural production in the same areas is declining.

Caspian cities have become strategic centres for the energy sector – concentration of financial services, transportation, housing, etc. – and this attracts many migrants from rural areas, other regions and even other countries. At present, more than half of the region's population lives in urban areas close to oil and other raw material deposits. This widens the social and economic divide between these cities and the agricultural areas located at some distance from the sea.

Development of these areas is seriously impeded by a shortage of drinking water. Over the next decade, the availability of fresh water will be the key factor in the sustainable development of the region's cities.

One of the signs of the growing human impact on the sea is the dramatic shrinkage in the population of Caspian seals – from one million a century ago to 350,000-400,000 animals in the 1960s and 110,000 at present. Until recently, the decline in the seal population was attributed to excessive hunting and poaching, but the main reason for the decline of this species are now thought to be environmental pollution, scarcity of food, ecosystemic change, global warming and disease.

It is believed that fluctuations in the Caspian Sea level are mainly due to climate change, especially in the Volga basin, which contributes about 80% of total run-off to the sea. Rising seas and natural events such as storm surges have led to the flooding of oil wells and infrastructure. This in turn has resulted in the contamination of vast areas of land and the deterioration of scarce farm land. Earthquakes can also have a devastating effect on the region's energy infrastructure, population and environment.

The rapid development of the fishing industry in the 1950s, and other factors such as the degradation of spawning grounds in the Volga and Ural deltas, dam building, intensive fishing, poaching and pollution, have all resulted in the dramatic depletion of Caspian fish stocks. The process was accelerated by predation by non-native fish species introduced to the Caspian Sea. The catch of sturgeon, the Caspian's main commercial fish, fell from 16800 tons in 1981 to 8000 tons in 1991 and 200 kg in 2007. In 2001, a temporary ban on the export of sturgeon caviar was introduced under the Convention on International Trade in Endangered Species of Wild Fauna and Flora. The depletion of the sea's natural resources has had serious economic and environmental consequences (Martino, Novikov, 2008).

Achieving a balance between the development of energy resources and the prevention of excessive depletion of resources and harm to the environment is a complex challenge for this region. A study of the environmental and socioeconomic problems that may provoke conflict in the region should lead to the formation of a coordinated policy to ensure environmental and industrial safety in the Caspian region. It will also encourage cooperation in the utilisation of transboundary water resources.

A Comprehensive Approach to Environmental Problems

In all Central Asian and Caspian economies, almost every sector is dominated by resource-intensive production. This has a significant environmental impact. Efforts being made at the national level to ensure environmental safety are inadequate. Rates of morbidity attributable to environmental pollution are rising or remain high. The urgent problem of industrial waste processing is unresolved. Areas affected by radioactive contamination or in which dangerous industrial waste is stored face intolerable risk to health and the environment. The problems of soil erosion and loss of soil fertility are escalating. A considerable proportion of fixed industrial assets do not meet environmental safety standards. Water quality in most transboundary watercourses does not meet statutory requirements. The supply of fresh drinking water is becoming critical in all these countries.

Transboundary pollution poses numerous threats to the environment. In many cases, contamination spreads to neighbouring countries, with severe economic and social consequences. Air and water are particularly exposed to contamination. Accumulated industrial waste threatens public health and ecosystems, particularly in border regions. However, efforts to solve transboundary environmental problems lack coordination. The environment is not often seen as priority in international relations (UNDP, 2003), and there are no institutionalised procedures for transboundary environmental issues settlement (Kondratyev, Krapivin, 2005).

The contamination of very scarce water resources is a serious obstacle to sustainable development and environmental protection in Central Asian

countries. Their economies are seeing immense structural change, involving upheaval in the ownership of land and the means of production. In many cases this brings with it a change in water consumption patterns and, subsequently, a redistribution of investment between economic sectors. High energy costs restrict the profit that can be generated from available resources, making investors reluctant to invest in the water sector.

The lack of effective distribution of water across borders, the conflicts which arise from this, poor communication regarding the quality and utilisation of water, and restricted common access to information, all threaten the progress of regional cooperation. It is notable that states concerned tend to share out the benefits of access to water, rather than the water itself. This complicates the problems associated with joint use of transboundary rivers. Declining water quality and quantity and the risk of flooding are huge threats to sustainable development. This situation requires the creation of effective and authoritative cooperation organisations and the implementation of regional security measures. Until now, there has been no integrated management of the utilisation and protection of river basin water resources (UNEP, 2002).

The higher frequency of natural and manmade disasters causes disproportionate damage to the region's poorest countries. All countries prone to natural disasters suffer economic losses, but they strive to adapt to such loss rather than change their approaches radically.

All these inter-related problems are dealt with separately at the national and regional levels, reducing the effectiveness of the response to environmental challenges. Therefore, regional cooperation must focus on formulating a comprehensive environmental security policy.

Integrating Environmental Standards into the Investment Policies of International Financial Institutions

Environmental considerations are of increasing importance to international institutions, especially those operating in the transboundary context. In June 2003, the ten largest international banks declared that their investment decisions would be governed by the Equator Principles. These principles are so called because a project must comply equally with the requirements of national and international laws pertaining to environmental protection and industrial safety. The number of major lending institutions which have adopted the Equator Principles has reached sixty, and altogether they control 80-85% of the global project financing market.

The Equator Principles are based on the environmental protection and social standards adopted by the International Financial Corporation, a member of the World Bank. When a bank adopts the Equator Principles to assess the

environmental and social impact of a project, this means that it assumes responsibility for the environmental safety of the project as early as the pre-investment phase. Thus international financial institutions are changing their policy of non-intervention to one of joint responsibility for efficient natural resources management and environmental protection. Unfortunately, the Equator Principles have not yet been adopted by banks in post-Soviet countries.

The Equator Principles apply to new project financing in all sectors with total capital costs of at least \$10 million. They form a benchmark against which financiers assess all the project's risks, including environmental, social and socio-economic issues. Recipients who do not meet these criteria must either repay their loans with a risk premium or review their business. Normally, these criteria apply to sizable, complex or costly projects such as power plants, chemical facilities and mines and transport, environmental and telecommunications infrastructure.

Financial institutions adopting the Equator Principles must develop their own project financing procedures covering various aspects of corporate social responsibility and sustainable environmental management. In so doing, these institutions undertake to lend only to projects where there is a proven ability and willingness to comply with social and environmental protection requirements. The bank must designate each project as either Category A, B or C (i.e. high, medium or low environmental or social risk). For Category A and B projects, the borrower is required to carry out a special environmental impact assessment. This approach enables the bank to eliminate or minimise the project's potential negative impact on ecosystems and the population.

Since the Equator Principles constitute a new approach towards investment, they should be explained in more detail:

Principle 1: Review and Categorisation

Projects are categorised according to the magnitude of their potential impact and risk in accordance with the following environmental and social assessment criteria:

Category A – projects with potentially significant adverse social or environmental consequences that are diverse, irreversible or unprecedented;

Category B – projects with potentially limited adverse social or environmental consequences that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures; and

Category C – projects with minimal or no social or environmental consequences.

Principle 2: Social and Environmental Assessment

For each project assessed as either Category A or Category B, the borrower must carry out a Social and Environmental Impact Assessment and propose mitigation and risk management measures that are relevant and appropriate to the nature and scale of the proposed project.

Principle 3: Applicable Social and Environmental Standards

Standards applied fall into the following categories: social and environmental impact assessment and management systems; working conditions; prevention and elimination of environmental pollution; public health and safety; acquisition of land and forced migration; preservation of biodiversity and comprehensive management of natural resources; indigenous people; and cultural heritage.

Principle 4: Action Plan and Management System

For all Category A and B projects the borrower must prepare an Action Plan which addresses environmental protection, industrial safety and social activity. Borrowers will build on, maintain or establish a Social and Environmental Management System that addresses the management of these impacts, risks, and any remedial action required in order to comply with applicable host country social and environmental laws and regulations.

Principle 5: Consultation and Disclosure

For all Category A and, as appropriate, Category B projects, the government, borrower or third party expert must consult with the communities affected by the project in a structured and culturally appropriate manner.

Principle 6: Grievance Mechanism

For all Category A and, as appropriate, Category B projects, consultation, disclosure and community engagement must continue throughout construction and operation of the project, the borrower will, commensurate with the risks and adverse impacts of the project, establish a grievance mechanism as part of the management system.

Principle 7: Independent Review

For all Category A projects and, as appropriate, Category B projects, an independent social or environmental expert not directly associated with the borrower will review the Social and Environmental Impact Assessment, Action Plan and consultation documentation in order to assess compliance with the Equator Principles.

Principle 8: Covenants

For Category A and B projects, the borrower will include in financing documentation covenants to comply with all relevant host country social and

environmental laws, regulations and permits; to comply with the Action Plan (where applicable) during the construction and operation of the project; and to provide periodic reports in a format agreed with the banks.

Principle 9: Independent Monitoring and Reporting

To ensure ongoing monitoring and reporting over the life of the loan, the banks will, for all Category A projects, and as appropriate, Category B projects, require the appointment of an independent environmental and/or social expert, or require that the borrower retain qualified and experienced external experts to verify its monitoring information.

* * *

Through the EDB Technical Assistance Fund (EDB TAF), the Eurasian Development Bank offers financial assistance for pre-investment and innovative studies at international, country and industry levels. The EDB TAF is designed to enhance the flow of knowledge, skills, ideas, technology and methods that demonstrate best international practice and adhere to international standards of corporate governance.

The EDB's TAF programme is being developed in accordance with the Bank's mission and strategic objectives.

The Technical Assistance Programme for investment project participants is aimed at accelerating and enhancing the efficiency of project implementation; it includes support for feasibility studies, marketing surveys, personnel training and qualifications (on-the-job training, preliminary training, distance education, seminars, training sessions, etc.), administration, project monitoring and project assessment on completion.

The Regional Integration Studies Programme focuses on financing research and educational projects. Priority is given to national, international and industry studies of regional integration. These studies may relate to reform in various economic sectors and any accompanying legislative changes, including model legislation, or to integration problems. Grants may be provided for educational projects with an integration element and for seminars, round tables and conferences dedicated to various aspects of economic integration.

The Programme of Support for Innovative Economy is designed to encourage innovation and economic diversification in the member states and the manufacture of competitive, higher-value-added, hi-tech products in non-raw-material sectors. Assistance may be provided for applied studies of innovative industries, clusters and producers, feasibility studies of innovative projects, marketing surveys related to innovative technology, the publication of specialised periodicals and creation of websites.

The Programme of Support for Inter-regional and International Programmes is aimed at inter-regional and international programmes, including those being implemented under the aegis of EurAsEC. Eligible programmes include those relating to cooperation between the border regions of the Bank's member states and other countries in the region. Support may also be provided for applied studies, open seminars, round-tables, forums, conferences, publication of periodicals and creation of websites dedicated to inter-regional and international cooperation.

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International and Regional Development Banks in Northern and Central Eurasia: Overview of Activities in 2008

11

ZHANAR
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The focus of this overview is on the activities of the main international financial institutions in eight states – five Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) and also Russia, Armenia, and Belarus. The selection of countries is determined by the expanding geography of the Eurasian Development Bank activities – Russia and Kazakhstan founded the Bank and Armenia, Belarus and Tajikistan joined EDB in December 2008. The rest of the Central Asian states were the focus of the first EDB Yearbook and continued review of these countries illustrates the consistent interest of EDB in the development of this region. The overview covers the Asian Development Bank (ADB), the World Bank (WB), the European Bank for Reconstruction and Development (EBRD), the Eurasian Development Bank (EDB), and the Islamic Development Bank (IDB).

These international and regional development banks play a significant role in economic development. Notably, their relative standing is growing in the times of economic difficulties. They are also important actors in promoting global and regional integration through large infrastructure investment, relevant technical assistance, and research.

This report is based on information from public sources, including the websites and annual reports of these development banks. Direct comparison is not always possible due to objective reasons. For example, the banks use different classifications of their activities, and their reporting format and periods vary. It is nevertheless possible to identify common trends and gain an insight into the areas and scope of operations of the international financial institutions (IFIs) in the region.

1. International Financial Institutions' Role in Global Economic Crisis Response

In 2008, the operations of international financial institutions were heavily affected by the global economic crisis. In these circumstances, the main efforts of the World Bank Group, EBRD and ADB were aimed at the provision of more assistance to developing countries.

The November 2008 meetings of leaders and representatives of the Group of Twenty (G-20) economies made important advances toward re-establishing financial stability, supporting global growth, and ensuring that adequate official flows (including aid) are mobilised and delivered.

Crucially, the G-20 recognised the important role of the major IFIs in achieving these goals and underlined the need to ensure that they have adequate resources to meet the challenge. IFIs can help their Developing Member Countries face the challenges brought about by the crisis in the following ways:

- **Stabilising financial and private sectors.** IFIs can be part of a coordinated and rapid programme of action to avert the collapse of the banking and private sectors in developing countries. They can offer advisory services to help countries prepare for and respond to financial sector crises, assess vulnerability, and strengthen policy and regulatory frameworks. They can also provide short-term finance (including trade finance) and provide capital to vulnerable banking systems (either directly through private sector operations or indirectly via government programmes supporting bank recapitalisation). IFIs can also support developing countries by providing guarantees to foreign banks and/or private investors to encourage them back to emerging markets;
- **Managing fiscal challenges.** Through budget support, IFIs can help partner countries finance their deficits and adjust their expenditure and revenue policies to take account of the priorities and pressures emerging from the crisis (in particular ensuring that fiscal adjustment takes into account the needs of the poor). This work can be supplemented by technical assistance to help strengthen management, transparency, and accountability in public finances to ensure that scarce resources are used efficiently;
- **Securing long-term development.** One of the most important roles for IFIs over the coming years will be to help developing countries minimise disruption to ongoing development programmes and projects. This includes helping governments to prioritise their own resources and ensure sustained external financing of ongoing and planned development projects and programmes. Given the increased pressure on government resources and the importance of fiscal stimulus, IFIs may in some cases need to support additional programmes and projects in infrastructure and human development.

Currently, the IFIs are responding by providing policy advice and balance-of-payments support, increasing lending levels, and supporting recapitalisation of banks and the expansion of trade financing facilities.

What the World Bank is Doing

The *International Bank for Reconstruction and Development (IBRD)* has indicated that it is prepared to make new commitments of up to \$100 billion over the next 3 years, and to almost triple 2008 lending to more than \$35.0 billion (compared with \$13.5 billion in 2007) to meet additional demand from developing country partners. On 9 December 2008, the World Bank announced the creation of a \$2 billion International Development Association (IDA) Financial Crisis Response Fast-Track Facility to speed up grants and long-term, interest-free loans to help the world's poorest countries cope with the impact of the global financial crisis. The facility will utilise IDA 15 funds and finance expenditures to maintain economic stability and sustain growth, address volatility, and protect the poor, through funding for infrastructure services, education, and health and social safety nets. The World Bank will also provide technical analysis and advice to help countries respond to potential difficulties in banking systems.

The *International Finance Corporation (IFC)* is planning to expand support to the private sector through the following initiatives, to be implemented over a 3-year period:

- A doubling of the Global Trade Finance Programme to \$3.0 billion and the issuance of up to \$18 billion in guarantees for short-term trade finance, benefiting participating banks based in 66 countries;
- The launch of a global equity fund to recapitalise distressed banks, with \$1 billion provided by the IFC and \$2 billion by Japan;
- The creation of an infrastructure crisis facility, to provide rollover financing to help recapitalise existing, viable, privately-funded infrastructure projects facing financial distress, with \$300 million provided by IFC and \$1.5 billion from other sources;
- A refocusing of advisory services programmes on banking for small and medium-sized enterprises, leasing, micro finance, housing, investment policy and promotion, and business operation and regulation for an estimated financing of \$40 million.

The *Multilateral Investment Guarantee Agency (MIGA)* is providing guarantees to foreign banks to help inject liquidity and bolster confidence in the financial systems of the Russian Federation and Ukraine. Similar guarantees are expected for countries in Eastern Europe and Africa.

Also, the World Bank is calling for developed countries to pledge 0.7% of their stimulus packages to a vulnerability fund for assisting developing countries that can't afford bailouts and deficits. The idea is for the 0.7% of countries' stimulus packages to be channelled to help the poor and vulnerable through

bilateral organisations, UN organisations, multilateral development banks (including the World Bank Group) as well as non-governmental organisations (NGOs). For its part, key priority areas for the World Bank Group include expansion of safety nets, an emphasis on infrastructure, and finance for small and medium enterprises and micro finance institutions.

The EBRD Adopts Crisis Response Package

The EBRD Board of Directors has approved the 2009 Business Plan and Budget which allows for an increase of the Bank's annual business volume in 2009 of about 20% to approximately €7 billion. Half of the €1 billion in extra spending are earmarked for Central and Eastern Europe.

The increase will be financed from EBRD's reserves. The extra investments in 2009 will be spread across EBRD's countries of operations, with a special focus on the western Balkans and less developed countries in the Caucasus and Central Asia.

The EBRD's response will initially focus on the banking sectors in countries where EBRD invests to ensure that financing flows continue, in particular to small and medium-sized enterprises. EBRD will also extend its support to the broader corporate sector. The crisis response package also includes an expansion of EBRD's Trade Facilitation Programme, and intensified engagement with existing clients and with governments to address key policy issues.

The Asian Development Bank's response to global economic crisis

According to the ADB 2008 Asia Economic Monitor (AEM), economic growth in developing Asia will slow to 5.8% in 2009, down from a likely 6.9% in 2008 and 9% in 2007, as the impact of the global financial crisis spreads to emerging markets.

The shortfall in internal and external financing in ADB developing member countries to support development expenditure related to ADB operations can be estimated in the order of at least \$7.4 billion (\$5.6 billion, excluding the larger countries such as China and India). ADB intends to assist its developing member countries to cushion the social impact of the economic crisis, and to complement the role played by other IFIs through support for:

- Public investment programmes in infrastructure and social sectors;
- Trade financing facilitation;
- Where ADB is already engaged in the financial sector, policy-based advice and support to address weaknesses in financial systems.

Where required, ADB will participate in emergency response programmes in coordination with other IFIs, including the International Monetary Fund

and the World Bank. In addition to direct support at the country level, ADB proposes to strengthen monitoring and support for regional approaches to the crisis. ADB plans to respond to its developing member countries' requests and to the mandate from the international community by increasing its role in regional cooperation and increasing 2009 levels of operations, in spite of the present resource constraints.

2. Activities of IFIs in the Eurasian region

In 2008, international development banks continued regional activities in priority areas of an each institution. In doing so, they had to respond to emergency requests of their member countries due to global food and fuel prices increase.

	ADB	WB	EBD	EBRD	IDB
Armenia	2005	1992	December 2008	1992	–
Belarus	–	1992	December 2008	1992	–
Kazakhstan	1994	1992	June 2006	1992	1995
Kyrgyzstan	1994	1992	–	1992	1993
Russia	–	1992	June 2006	1992	–
Tajikistan	1998	1993	December 2008	1992	1996
Turkmenistan					
Uzbekistan	1995	1992		1992	2003

Table 11. 1.
Eurasian countries'
IFI membership

Source:
Web sites and
Annual Reports
of IFIs

Asian Development Bank

During 2008, the Asian Development Bank approved a number of Central Asian countries initiatives aimed at the development of cooperation in the region. In particular, ADB decided to provide a technical assistance grant to assist with exchange of knowledge and information on water resources in the region as well as for capacity building of water resources governance institutions. The envisaged assistance aims to support initiatives in river basins of Amu Darya, Syr Darya, Chu and Talas.

Another important area of ADB activities is the provision of support to the Central Asia Regional Economic Cooperation (CAREC) initiative. Eight countries (Afghanistan, Azerbaijan, Kazakhstan, China, Kyrgyzstan, Mongolia, Tajikistan and Uzbekistan) and six multilateral organisations (ADB, EBRD, IMF, IDB, UND and WB) participate in CAREC. In November 2008, countries participating in CAREC had adopted strategic documents aimed at deepening regional economic

cooperation in transport, trade support, trade and energy policy in Central Asia and neighbouring states. An action plan for implementation of the Strategy for Transport and Trade Promotion envisages investments to the tune of \$21 billion for the improvement of six CAREC transport and trade corridors to meet international standards up to 2017. It is expected that in 2008, regional investments in priority areas of CAREC – transport, energy and trade – will amount to about \$2.4 billion.

Another initiative is the approval by the government of Japan of a technical assistance grant in amount of \$0.9 million for improvement of the trade policy development and strengthening institutional capacities within the Asia and Pacific region.

European Bank for Reconstruction and Development

According to EBRD, growth in the EBRD region was likely to fall sharply in 2009 in the face of global economic slowdown and financial market turbulence. The institution urged its member states to place high priority on the stabilisation of their banking systems.

The EBRD's Transition Report 2008, which tracks the economic performance and progress on reforms across EBRD countries, predicted that overall growth would fall to 6.3% in 2008 from 7.5% in 2007 and drop further to 3.0% in 2009. The EBRD sees growth in the CIS and Mongolia, slowing to 7.3% in 2008 from 8.5% and a drop to 3.4% in 2009.

The Transition Report said there was a risk of even slower growth in the region in 2009 if external funding suddenly fell away. In a separate chapter on the impact of the global credit crisis on the region, the report said the deterioration in the overall financing environment could now result in a lasting and substantial slowdown in credit expansion.

However, the report also noted that several factors could help the region avoid this worsening scenario or at least help it cope with the effects. It pointed out that government debt levels had been falling continuously since 2000, the fact that provides respective governments with more policy flexibility. Business conditions had generally improved in recent years and labour markets were relatively flexible, which would allow for a faster recovery to potential growth.

The report also noted the continued progress over the past year in market-oriented reforms, especially in Southeastern Europe and in parts of the CIS and Mongolia. Some of the least reformed countries, such as Belarus and Turkmenistan, have taken positive steps to open up markets and reduce the role of the state. Given the strong link between reforms and growth, this bodes well for the region's resilience to short-term fluctuations and prospects for long-term growth.

Eurasian Development Bank

EDB is an international financial institution founded by the initiative of Presidents of Russia and Kazakhstan in January 2006, with authorised capital of \$1.5 billion. The mission of the EDB is to promote sustainable economic growth of its member states as well as their mutual trade and investments. EDB should become one of the key elements of the regional financial infrastructure and a catalyst of integration processes in Eurasia. Following the Bank's mission, the strategic directions of EDB's investments are electric power sector (generation and distribution), transport infrastructure, high technology and innovations.

As of 31 December 2008, the project portfolio of the EDB amounted to \$ 1.2 billion. The total cost of projects considered by the Bank for possible investment is about \$4.2 billion. EDB's envisaged share is about \$2.1 billion.

EDB's presence in the region is expanding and the integration of cooperation is becoming more real. In June 2006, the EDB started its operations in Almaty. At the end of 2006, EDB opened its representative offices in Moscow and Astana, and at the end of 2007, the St. Petersburg branch office was launched. In December 2008, EDB's Council had made a decision of accepting Armenia, Belarus and Tajikistan as member-countries of the Bank. The following ratification of the agreement by the national parliaments will allow an opening of representative offices in capital cities of these states in the course of 2009.

Islamic Development Bank

The Islamic Development Bank is a development institution established in 1975 with an authorised capital of 30 billion Islamic dinars (\$46 billion) to promote economic development and cooperation between its member states. In 2008, it approved 183 development projects and technical assistance amounting to \$2.7 billion, and 82 trade operations for \$2.8 billion.

In 2008, the Islamic Development Bank was primarily concerned with the food crisis in its least developed member countries. In response to this challenge, IDB allocated \$1.5 billion to support efforts to meet immediate, medium and long-term food constraints. The programme, known as Jeddah Declaration, will go over a 5-year period and will target needy countries via various short-term programmes. These would include building strategic inventory of food security, providing agricultural inputs, pesticides, fertilisers to assist countries in the coming agricultural season. Moreover, the programmes will support provision of fodder, agricultural machinery and equipment. The list of countries that will be targeted includes Kyrgyzstan and Tajikistan.

The IDB Group is expected to invest up to \$20-25 billion in the infrastructure sector over the next 10 years. This investment is expected to target mainly power, transport and water projects. Climate change adaptation and

mitigation is likely to stimulate further demand for investment in cleaner energy, energy efficiency as well as water storage infrastructure and flood protection. In 2007, the IDB Group provided around \$2 billion of financing for infrastructure projects in more than 30 countries in Africa, Asia, Europe and the Middle East.

IDB has signed a landmark co-financing agreement with ADB, which will allow them to work together on projects in common member countries (Afghanistan, Azerbaijan, Bangladesh, Indonesia, Kazakhstan, Kyrgyzstan, Maldives, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan). The agreement calls on both institutions to provide up to \$2 billion equivalent each over the next three years to finance projects in their common member countries.

The agreement – which is the first of its kind – is based on a 3-year business plan that includes a common vision, strategic framework, and best practice ideas in development financing. The co-financing will mainly target transactions in the infrastructure (including irrigation), utilities, and urban sectors. However, it may also cover education, health and other sectors in selected countries.

The IDB Board of Executive Directors approved \$2.47 billion for its 2009 Operational Plan to finance various development projects, technical assistance projects and food security in member countries. The approved Operations Plan includes \$2.09 billion towards regular funding and \$381 million to be allocated towards programmes and projects in member countries. Additionally, \$357 million in loans will be allocated under the Islamic Solidarity Fund for Development in order to fight poverty. The 2009 Plan was a 15% increase in the rate of growth from the 2008 Operational Plan.

The World Bank Group

During fiscal year 2008, the World Bank Group committed \$8 billion in loans, credits, equity investments and guarantees to its members and to private business in the Europe and Central Asia (ECA) Region. The World Bank Group commitments in ECA grew in fiscal year 2008 (ending June 30) by 33% as finance was rapidly approved to help the poor in the food price crisis and support growth for private sector development.

Table 11.2.

World Bank Group
Commitments in
Europe and Central
Asia Fiscal Years
2008 and 2007
(year ends June 30)

Note:

* Own accounts

Source:

2008 Annual
Report.

World Bank Group	(FY) 08 *	(FY) 07 *
IBRD	\$3.71b	\$3.34b
IDA	\$457m	\$422m
IFC	\$2.68b*	\$1.79b*
MIGA	\$1.2b	\$430m
TOTAL	\$8b	\$6b

IDA commitments in ECA were \$457 million, and IBRD commitments totalled \$3.71 billion in fiscal year 2008. IDA/IBRD lending increased in response to the food price crisis, and four ECA projects were approved in record time for the Global Food Crisis Response Programme – two in the Kyrgyzstan and two in Tajikistan. Lending was provided across all sectors, including governance, infrastructure, roads and highways, trade, and railways. Examples of IDA assistance in Fiscal Year (FY) 2008 include credits for Uzbekistan (\$68 million) and Kyrgyzstan (\$31 million).

The Bank extended several loans for infrastructure in the Region's middle-income states. Among these were \$200 million to improve housing in the Russian Federation. The Bank also continued strengthening the institutional framework and social services in ECA: the Health Sector Technology Transfer and Institutional Reform Project to Kazakhstan have helped introduce international standards in health sector.

Fiscal year 2008 saw strong growth in IFC's new investment commitments with corresponding expansion in advisory work. IFC committed \$2.68 billion for its own account (a 50% increase over FY07) and mobilised an additional \$1.09 billion in financing for its clients. As of June 2008, IFC's portfolio in the region's financial institutions was \$3.5 billion, of which \$2.2 billion is in 86 institutions focusing in micro, small, and medium enterprises (MSMEs). This represented 37% of IFC's total global investments in the sector. IFC's priorities in the region include more investment in infrastructure and agribusiness, increase access to finance for MSMEs, efforts to mitigate climate change, promote sustainable development and encourage intraregional investments.

During the fiscal year 2008, MIGA supported nine projects with \$1.2 billion in political risk insurance or guarantee coverage in the region. Among them was the agency's support for a bank in Kazakhstan that is expected to help strengthen the leasing sector and facilitate medium- and longer-term financing in the country. The agency's support for these projects is critical not just for encouraging the growth of financial markets, but also for building market confidence in these emerging economies.

In the 2009, World Development Report, issued in November 2008, World Bank maps local and global economic geography and calls for a greater integration. History shows that severe crises can cause nations to become inward looking, often with negative consequences. The World Development Report 2009 argues that the most effective policies for promoting long-term growth are those that facilitate geographic concentration and economic integration, both within and across countries. Integration should be the pivotal concept in the policy discussions involving the location of production, people and poverty—in particular, the debates on urbanisation, regional development, and globalisation

The World Bank launched a \$1.2 billion rapid financing facility to help poor countries cope with the food crisis. Since then, around \$850 million has been committed to finance seeds, plantings, and feeding programmes.

Reforms to business regulation reached record numbers in 2008, with Eastern Europe and Central Asia leading among world regions for a fifth consecutive year, according to Doing Business 2009 – the sixth in an annual series of reports published by IFC and the World Bank. According to this study, four of the ten economies making the most regulatory reforms in the world are in Eastern Europe and Central Asia. The top ten are, in order, Azerbaijan, Albania, the Kyrgyzstan, Belarus, Senegal, Burkina Faso, Botswana, Colombia, the Dominican Republic, and Egypt. In Eastern Europe and Central Asia, 23 of the region's 25 countries implemented 62 regulatory reforms, accounting for more than a quarter of the worldwide total. Doing Business 2009 ranks 181 economies on the overall ease of doing business based on 10 indicators of business regulation that record the time and cost to meet government requirements in starting and operating a business, trading across borders, paying taxes, and closing a business. The rankings do not reflect such areas as macroeconomic policy, quality of infrastructure, currency volatility, investor perceptions, or crime rates.

3. Activities of IFIs in Countries of the Region

Armenia

During 2008 World Bank, EBRD as well as ADB had approved several projects in various economic sectors of Armenia.

The Asian Development Bank decided to provide \$18 million for implementation of projects in transport sector.

The World Bank expanded the scope of the Municipal Water and Wastewater project through provision of additional \$20 million to an on-going WB project in this sector.

EBRD remains one of the largest investors in Armenian economy. The EBRD had approved 10 projects aimed at financial and property sectors as well as at agriculture, infrastructure and energy. The total amount approved by the EBRD is \$179.5 million.

Belarus

The World Bank approved \$60 million for Water Supply and Sanitation project in Belarus. The EBRD decided to provide \$55 million mainly for development of small and medium enterprises by lending to Belarusian banks.

Kazakhstan

In 2008, all reviewed financial institutions provided funding to Kazakhstan in order to support development of this country.

The World Bank approved two projects in areas of technology commercialisation and health sector totalling \$131.1 million.

The ADB focused on transport area and approved four projects costing over \$1 billion.

The EBRD's financial assistance to Kazakhstan was concentrated in transport, telecommunications, agriculture, energy, banking and SME support and amounted to more than \$1.2 billion.

According to information on the IDB web site, the bank approved financing of six projects in Kazakhstan at a cost of over \$15 million.

During 2008, the EDB approved funding for 7 projects in Kazakhstan totalled \$308.1 million. While electric power and transport stand out as priorities, the bank provided loans also in mining, industry, agriculture, and financial sector.

Kyrgyzstan

In Kyrgyzstan the World Bank approved eight projects in the areas of water and transport infrastructure, agriculture, health, and public administration including energy and food emergency initiatives. In 2008, the total amount of WB approved funding to Kyrgyzstan was more than \$51 million.

The Asian Development Bank decided to provide financial assistance to Kyrgyzstan through approval of eight projects in areas of transport, water supply and sanitation as well as multisector initiatives. The approved assistance amounted to more than \$69 million.

The EBRD approved four projects for Kyrgyzstan in total for \$ 8.4 million.

The IDB approved one loan for Kyrgyzstan for \$1 1.2 million aimed at financing the reconstruction of Taraz-Talas-Suusamyr road (Phase II).

Russia

The World Bank approved two projects for Russian Federation in areas of housing and communal services and gas flaring reduction to a total of \$350 million.

The EBRD's financial support to Russia was aimed at a broad scope of economic sectors such as agribusiness and municipal services, banking and transport, natural resources and power and energy. This assistance was to the tune of \$5 billion.

In 2008, the IDB for the first time held an investment conference in Russia, which has an observer status in the Organisation of the Islamic Conference since 2005.

It is to be noted that IDB has been active in the Russian Federation since 1991. Over this time span it approved an amount of \$6 million for 30 projects in

various sectors including education, health and awqaf¹ properties in addition to emergency relief and reconstruction operations.

In 2008 EDB had approved funding of five projects in Russian Federation at a cost of \$553.8 million.

Tajikistan

In 2008, Tajikistan was among the least developed economies not only in the region, but also globally.

The World Bank approved energy and food emergency grants and additional financing for health and Pamir projects totalling \$54 million.

ADB approved five projects for Tajikistan amounting to more than \$62 million.

The EBRD's lending to Tajikistan was approved through eight projects totalled \$23.7 million.

As Tajikistan only joined the EDB in December 2008, the Bank has yet to build up its presence in the country.

Turkmenistan

In 2008, Turkmenistan did not receive any financial support from reviewed IFIs, except \$0.39 million for a Statistical Capacity Building project from the World Bank.

Uzbekistan

In 2008, Uzbekistan benefited from the financial support of the following IFIs. The World Bank approved one project supporting rural enterprises for about \$68 million. ADB approved \$136 million for eight projects in the areas of agriculture and water supply. The EBRD approved six projects totalling \$21.5 million. IDB approved two projects totalling \$94.7 million in the areas of water supply and power generation.

4. IFIs funding in the Eurasian Region in Year 2008

The direct comparison of IFIs operations in the reviewed countries is not always possible due to objective reasons such as different classifications of their operations and currencies in which institutions provide funding. However, using the average annual exchange rate for various currencies and adopting review period of 1 January – 31 December 2008, it is possible to present funding trends in the reviewed region. In accordance with this approach, the total funding provided by the ADB amounted to \$1325.9 million; EBRD'

¹ *Awqaf is an inalienable religious endowment in Islam, typically denoting a building or plot of land for Muslim religious or charitable purposes.*

approved lending comprised \$6.8 million. The Eurasian Development Bank approved funding for \$861.9 million, IDB for \$121.7 million, and the World Bank for \$734.6 million.

Country	ADB*	EBRD	EDB	IDB**	WB
	\$ million				
Armenia	18.32	179.5	–	–	20
Belarus	–	55	–	–	60
Kazakhstan	1040.3	1210.1	308.1	15.36	131.1
Kyrgyzstan	69.15	8.4	–	11.63	51.15
Russia	–	4878.6	553.8	–	350
Tajikistan	62.16	23.7	–	0	54
Turkmenistan	0	0	–	0	0.39
Uzbekistan	136	21.5	–	94.7	68

Table 11.3.
Approved IFIs
Funding in 2008

Note:
* – Belarus and Russia are not ADB' member states.
** – Armenia, Belarus and Russia are not IDB' member states,

Source:
Information from the IFIs press releases and web sites.

12 The EurAsEC Transport Corridors

EDB Industry Report

EVGENY
VINOKUROV,
MURAT
JADRALIYEV,
YURY
SHCHERBANIN

Executive summary

1. The geographic and geo-economic location of EurAsEC countries gives them **significant strategic potential for freight transit**. Analysts estimate that the region's total potential transit capacity is about 220 million tons at present. This figure is expected to increase to 400 million tons by 2020, 290 million tons of which will originate in EurAsEC countries for transport on to third countries. EurAsEC has motorway and railway corridors running east-west and north-south, and a number of new corridors are being constructed. However, to handle such huge volumes of cargo, the region's existing transport infrastructure must be modernised.

2. **EurAsEC states are not making the most of their transport potential.** At the moment, these countries are handling only half their potential cargo flow. The main limiting factor is EurAsEC's current inability to become the key cargo transit route between the mainland's two macroregions – the European Union and the Asian-Pacific Region (APR), principally China. Trade between these two regions will reach \$1 trillion within the next few years. Only 1% of the cargo transported between the EU and the APR utilises the EurAsEC international transport corridors (ITC). Meanwhile, sea freight companies are earning billions of dollars. According to available data, of the 17.7 million TEU transported from Europe to Asia in 2008, only 74551 TEU were transhipped via Dostyk (0.42%), including 0.35% from Europe to Asia.

3. **Sea vs land: 2:1.** Transportation of transit cargo by sea (transoceanic service) has some strong advantages, such as low delivery cost, established relationships with customers and high standards of service. This leads us to conclude that sea transit will prevail in the near future. **Land transit routes offer only one competitive advantage – speed of delivery**, which is two to three times faster compared with the sea routes linking East Asia with Europe. This advantage must be exploited. A considerable proportion of "time-sensitive" transit (some 16 million tons annually, according to the most conservative estimate) can be redirected to ITCs operated by EurAsEC.

4. There are a number of physical and non-physical barriers to the realisation of the EurAsEC's transit potential. Physical barriers include the poor state of motorways and railways and their related infrastructure, i.e. obsolete rolling-

stock, which prevents any increase in transportation speeds and volumes; existing roads do not meet international standards; border crossing points and logistics centres have a low throughput capacity. Non-physical barriers include cumbersome permit systems, unreasonable delays in crossing borders, various charges and additional taxes imposed by regulatory and local authorities, scheduled and spot-check inspections of cargo weight, etc. **The non-physical barriers are the most significant obstacles to the development of cargo transit in the region** and cause serious delays in cargo delivery. Time lost does not only result in loss of money and customer trust, but also the loss of the main (in fact the only) competitive advantage land transit has over sea transit.

5. There are two complementary ways to reduce physical and non-physical barriers:

- a) **integrating national transport systems**, which we consider to be key to overcoming barriers by introducing well-coordinated transport policies and by harmonising and fine-tuning national legislation, etc.;
- b) **well-coordinated investment policy for priority national projects** is required in order to realise transit potential and foster mutual trade between EurAsEC member countries, including projects to construct priority railway and motorway routes, develop logistical and border infrastructure, and renew existing rolling-stock.

Together, the above factors should enable the physical and non-physical barriers to be minimised and encourage joint investment in the renewal of transport infrastructure and construction of service and logistics centres. Ultimately, these will have a positive impact upon economic integration.

6. Projects to construct or modernise transport infrastructure are exceptionally capital-intensive. Therefore, **the region's countries must identify the priorities for their concerted action** in order to develop transit flows and support integration. In order to maximise transit potential, the most important ITCs are the **northern corridor of the Trans-Asian railway (which connects to the Trans-Siberian railway) and the 10000-km Western Europe – West China motorway corridor**. The transport capacity of the Trans-Asian railway is not fully utilised, whilst the TRACECA (Europe-Caucasus-Asia) international transport corridor, with its numerous transshipments, ferry ports (Turkmenbashi and Baku on the Caspian and Poti, Batumi, Varna and Odessa on the Black Sea) and high capital intensity is unlikely to be competitive in the Europe-Asia direction. According to preliminary estimates, all other conditions being equal, the freight tariffs charged by Russian railways (RZD) for grain, cotton and containers are 1.7 times lower than those of TRACECA, and for oil and non-ferrous metals this ratio is 1.2. In addition, transportation via Russia is 1.8 times faster.

7. Given their geographic position and national economic interests, Russia, Kazakhstan and their neighbours have a direct interest in the Eurasian integration process that extends beyond the boundaries of the post-Soviet space and involves the region's most important countries. Projects implemented in certain economic sectors provide a reliable basis for regional economic integration. Transportation is undoubtedly among these priority sectors.

1. Scope of this report

Transport is at the heart of an efficiently functioning economy, since it provides an infrastructural basis for sustainable development. In modern times, when individual economies are joining together to form a global production network, access to efficient transportation and communications systems is an essential precondition for integrating into this network (Lakshmanan, 2001).

For EurAsEC members – Belarus, Kazakhstan, Kyrgyzstan, Russia and Tajikistan – whose mutual trade turnover and, accordingly, cargo transportation have been rapidly increasing recently (by 2020, their cargo transportation may total 490 million tons, a four-fold increase compared with 2000), the development of transport infrastructure is vital in sustaining the rapid expansion of mutual trade and economic integration.

Today, analysts estimate the transit potential of EurAsEC at around 220 million tons. By 2020, this may increase to 400 million tons, with about 290 million tons of cargo potentially being transported from EurAsEC to third countries. In order to be able to handle these enormous volumes of cargo, the region's existing transport infrastructure needs to be modernised.

However, EurAsEC does not fully utilise its transit capacity, handling only half of its potential cargo flow. The main reason for this is its failure to become a key transit route between the two global commodity-producing centres, the EU and the APR. Trade turnover between these regions will reach \$1 trillion in the next few years. Only 1% of the cargo generated is being transported via the ITCs of EurAsEC. In this paper, we will attempt to identify measures that need to be taken to make the region's ITCs a realistic source of transit revenue for EurAsEC countries.

The purpose of this review is to provide an insight into the diverse problems associated with transit via EurAsEC. Firstly we examine competition in the transit transportation industry and the structure of competitive advantage in sea and land freight transit. Secondly, we identify specific cargoes which can be transported via the ITCs of EurAsEC. Thirdly, we analyse physical and non-physical barriers to the realisation of the region's transit potential, and propose measures to eliminate these barriers. We also discuss various potential targets for investment and the progress of transport integration in

EurAsEC. Finally, we provide detailed information on existing and emerging ITCs in EurAsEC countries, and highlight the most promising and efficient ITCs which are already helping the region to achieve its transit potential and further the integration of EurAsEC countries.

2. The transit and transport potential of EurAsEC

2.1. Review of cargo flows between EurAsEC member countries

The foreign trade turnover of EurAsEC has been increasing steadily in recent years. Between 2005 and 2008, total turnover from trade between EurAsEC countries almost doubled in monetary terms (see Table 12.1). This is largely attributable to the trends and structure of economic cooperation inherited from the Soviet era, the region's relatively rapid economic growth, the development of industries producing raw materials and semi-finished goods (so-called commodity cargoes), and expansion of internal and foreign trade.

Trade turnover by country pair	2005	2006	2007	2008
Russia–Belarus	15834.0	19944.0	26074.0	34188.9
Russia–Kazakhstan	9 749.0	12807.0	16576.0	19731.7
Russia–Kyrgyzstan	544.0	755.0	1 169.0	1802.9
Russia–Tajikistan	335.0	504.0	772.0	1002.8
Kazakhstan–Belarus	234.5	355.3	525.3	567.0
Kazakhstan–Kyrgyzstan	344.1	406.7	517.0	608.4
Kazakhstan–Tajikistan	167.6	185.1	198.9	295.4
Belarus–Kyrgyzstan	10.8	21.5	25.8	47.8
Belarus–Tajikistan	12.0	18.0	34.0	75.1
Kyrgyzstan–Tajikistan	24.9	26.7	30.4	43.2
Total commodity turnover	27255.8	35023.3	45922	58362.5

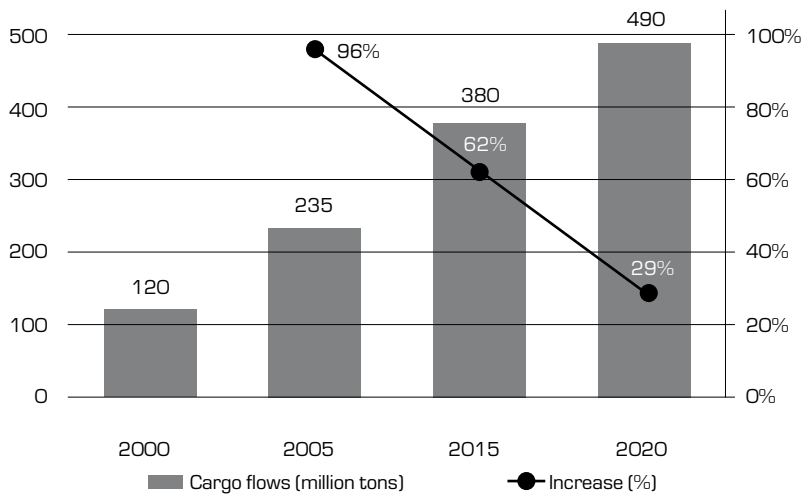
Table 12. 1.
 Trade turnover
 between EurAsEC
 member countries
 (\$ million)

Source: state
 statistics agencies
 of EurAsEC member
 countries

In tandem with the increase in revenues generated by trade between EurAsEC countries, volumes of cargo transported within EurAsEC have also grown at a rapid pace. According to the EurAsEC Integration Committee, total cargoes will reach 490 million tons by 2020, i.e., four times the volume transported in 2000. Even allowing for the expected slowdown, cargo flows between EurAsEC countries will continue to grow by more than 15% annually (see Figure 12.1).

Figure 12.1.
Potential cargo flows between EurAsEC countries

Source: EurAsEC Integration Committee



Clearly, this rapid growth of cargo flows between EurAsEC member countries will soon necessitate an overhaul of the existing transport infrastructure, and capacity expansion, above all in railways, motorways and logistics centres.

2.2. Cargo transportation potential in the context of the global crisis

The UNECE's Inland Transport Committee defines an international transport corridor as part of a national or international transport system which maintains considerable international cargo and passenger transportation between certain geographic regions and includes the rolling-stock and immovable structures of all modes of transport working on the respective route, and all technological, organisational and legal conditions for such transportation. Using this definition, and in order to understand the urgency with which the EurAsEC must develop its ITCs, it is essential first to evaluate existing levels of cargo¹ transportation in the region and the potential for transit via these countries.

ITCs in this region are uniquely important because of the region's geographic and geo-economic location between two macroregions, the European Union (EU) and the Asian-Pacific Region (APR). Trade between the EU and the APR totalled \$700 billion in 2007 and is set to reach \$1 trillion by 2010.

Evidently, given the global financial and economic crisis, certain adjustments will have to be made to any estimates of future trade between Europe and Asia. The recession-stricken countries of Western Europe are experiencing a considerable contraction in domestic demand and, as a result, have reduced

¹ This report discusses only cargo transportation (leaving aside passenger transportation) based on its importance in realising the region's transit and transport potential.

the volumes they import from Asia, especially of cheap commodities from China. The latter, being an export-oriented economy, responded with a package of anti-crisis measures aimed at stimulating domestic demand and reducing its reliance on exports. However, we believe that exports to richer, developed countries (primarily the US and Europe) will remain a priority for the developing Chinese and APR economies (the traditionally high level of savings in these countries will preclude any significant increase in domestic demand, and during the crisis their governments will focus on subsidising exports as a more immediate and proven policy).

In addition, drawing our conclusions from the fundamental scenario of cyclical crises, by the end of 2009/early 2010, the world will move into a period of economic growth once again, leading to an increase in commodity turnover between the world's main production and consumption centres. Therefore, despite a relatively small contraction in EU-APR trade in 2008-2009, the forecast level of \$1 trillion can be achieved, albeit somewhat later – by 2013-2015, we estimate. Thus, in spite of the global crisis, the enormous transit potential of EurAsEC countries is undiminished, especially in the East-West direction.

2.3. Review of Eurasian cargo flows from Asia to Europe

When analysing the cost indicators of Eurasian cargo flows and the load on inland freight transit systems, the three major cargo centres that should be examined are China, South Korea and India. China and South Korea are Europe's main partners in the Far East. India is a source of cargo that could potentially be transported to Europe along North-South routes.

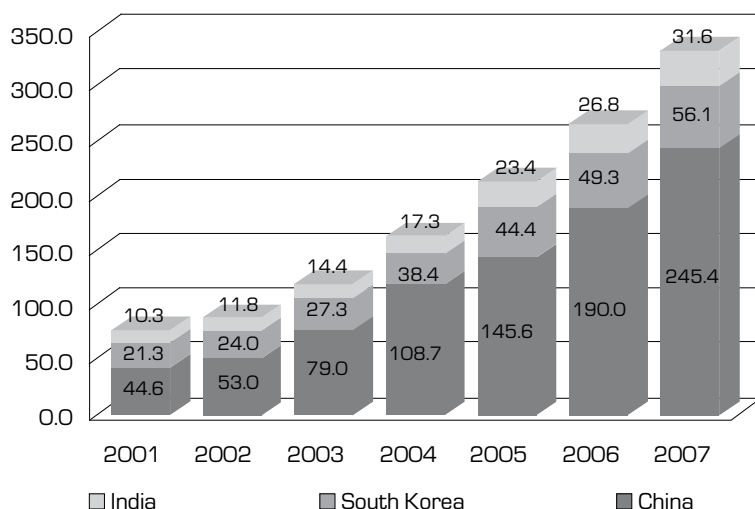


Figure 12.2.
 Exports to the EU
 from China, South
 Korea and India
 (\$ billion)

Source: WTO, 2008

In 2007, China was the world's second largest exporter (\$1217.8 billion) and third largest importer (\$956 billion) in monetary terms (WTO, 2008:39).

The table below shows China's trade with Europe and the CIS by main commodity group.

Commodity	Total trade		Europe		CIS	
	Export	Import	Export	Import	Export	Import
Agricultural produce	38.9	65.4	6.6	5.4	1.6	5.9
Fossil fuel and minerals	41.9	210.6	5.5	9.0	0.7	17.3
Finished goods	1134.8	677.5	251.8	104.9	45.7	4.7
Including:						
Metals	51.5	24.1	10.4	3.8	1.6	1.2
Chemicals	60.3	107.4	11.2	14.7	2.2	3.0
Office equipment	347.8	226.5	84.1	9.7	4.3	0.04
Transport equipment	59.1	41.7	13.6	18.1	3.5	0.1
Textiles	56.0	16.6	8.5	1.2	2.8	0.01
Clothing	115.2	2.0	25.8	0.4	6.9	0
TOTAL:	1217.8	956.0	263.9	120.0	48.0	28.0

Table 12.2.
China's trade with Europe and the CIS in 2007 (\$ billion)

Source: WTO, 2008

China's main exports to Europe are finished goods – accounting for about 95% in monetary terms (see Figure 12.3). These include office equipment (31%), transport equipment (about 19%), textiles (nearly 10%), chemicals (over 4%) and other items (see Table 12.3). These commodities are suitable for containerised shipment.

China imports mainly finished goods from Europe. These account for 87% of total imports and fall into two main commodity groups: machinery and equipment – 57.2%; and power and electrical equipment – 34%. These are also containerised cargoes.



Figure 12.3.
Structure of Chinese exports to Europe, 2007

Source: WTO, 2008

■ Agricultural produce ■ Fuels and minerals ■ Finished goods

The structure of China's trade with the CIS is somewhat different. China's main exports to the CIS are finished products. Textiles account for 28.5% of total exports, power industry equipment for more than 12%, household items for nearly 10%, office equipment for 9% and cars for 6%.

China's main imports from the CIS are fuel and energy products (over 61%), agricultural raw materials (16%), chemical fertilisers (nearly 11%) and metals (4%). These bulk cargoes have to be shipped in on flat-trailers rather than in containers.

South Korea has a strong export bias. Data on South Korea's foreign trade is summarised in Table 12.3.

Commodity	Total trade		Europe		CIS	
	Export	Import	Export	Import	Export	Import
Agricultural produce	6.32	22.04	0.36	1.85	0.35	0.76
Fossil fuel and minerals	33.82	126.58	1.39	2.30	0.09	5.46
Finished goods	330.41	206.09	59.60	35.46	10.87	1.72
Including:						
Metals	18.82	21.45	2.53	1.44	0.18	0.99
Chemicals	37.54	32.34	2.69	6.59	1.15	0.37
Office equipment	92.69	45.62	16.79	2.70	1.23	0.02
Transport equipment	78.99	13.68	21.15	4.42	6.46	0.05
Textiles	10.37	4.14	1.13	0.46	0.22	0.02
Cloths	1.91	4.32	0.29	0.48	0.02	0
TOTAL:	371.48	356.84	61.57	40.70	11.31	8.01

Table 12.3.
 South Korea's commodity trade with Europe and the CIS in 2007 (\$ billion)

Source: WTO, 2008

South Korea's exports and imports may seem modest compared to China's trade with Europe and the CIS; however, the structure of commodities traded must be taken into account.

As shown in the above table, finished goods dominate Korean exports to Europe, accounting for 97% of the total. The main commodity group, machinery and equipment, accounts for 73% of total exports in monetary terms. Breaking this group down further, cars are the main machinery export (over 34%), followed by spare parts and components for overseas assembly of certain car makes (about 15%). Another large commodity group is office equipment (24%). Power industry and electric equipment account for 7% of total exports. This makes it likely that practically all South Korean exports are containerised and shipped to Europe by sea. This is logical, since the country needs to ensure optimal use of the loading capacity of its sea ports. The transshipment statistics of the country's main sea port confirms this conclusion.

In addition, South Korea imports some finished goods. Mechanical engineering goods account for 51% of all imports, mainly comprising European equipment which Korean companies are as yet unable to manufacture, such as printing industry equipment, instrumentation, etc.

Chemicals account for about 16% of Korea's imports. Various goods make up the rest of the total, including fuel and raw materials for Korean industry.

Trade with CIS countries totals \$19.3 billion, with Korean exports totalling \$11.3 billion. The export structure is basically the same as for Europe: cars and spare parts account for 57.2%, but the share of office equipment is much smaller (\$1.2 billion or 11%). Chemicals account for about 10%. Fuel and energy products dominate South Korea's imports from the CIS (68.3%). Another large imports group is metals and iron ore (12.5%); the remaining imports are insignificant.

Analysis of cargo flows between China and South Korea on the one hand and Europe and the CIS on the other has enabled us to identify the following specific features:

- these Far Eastern countries trade with Europe principally in finished goods which can be containerised. This suits both parties, since they each have the capacity to:
 - a) employ multimodal technology, including door-to-door delivery;
 - b) ship by sea, which enables them to simplify formalities, use uniform waybills, and easily track the movement of cargoes;
 - c) apply transparent tariffs which can be announced in advance and remain stable. This is discussed in more detail below.
- It is important not to overlook other Southeast Asian countries² that supply commodities to Europe. However, for technical reasons, **Eurasian land transport corridors can potentially be used only by China and South Korea**. Japan uses Russian ports in the Far East for trade with Russia, otherwise all Japanese exports to Europe are shipped by sea. In recent years, the transit of Japanese cargoes via Russia has been almost totally abandoned, for reasons which we discuss below.

India's foreign trade has expanded considerably over the last few years with an annual increase in exports of around 19% each year since 2000. In 2007, India earned \$145 billion from the export of various commodities, including \$34 billion from sales to Europe, and \$2 billion from the CIS. Indian shippers may be persuaded to use India-Iran-Russia-Europe routes. Traditionally,

² Southeast Asian countries also include Brunei, East Timor, Vietnam, Indonesia, Cambodia, Laos, Malaysia, Myanmar, Singapore, Thailand, Taiwan and the Philippines.

shipments from India and Iran to Europe have been transited via Russia. Volumes carried via Belarus are insignificant.

Currently there is no Indian freight transit via the Caspian along the North-South ITC. All cargo flow is through the Suez Canal. The port of Mumbai is expanding rapidly. Indian, European and Asian shipping companies are successfully transporting cargo to Eurasia by sea using established systems. Notwithstanding the North-South ITC Agreement of September 2000, freight forwarders are showing little interest in the proposed new routes. In 2007, the Caspian Sea port of Olya, which is assigned a key role in servicing the North-South ITC's cargo flow, transshipped only 435,000 tons at its terminals. When the ITC Agreement was signed in 2000, Olya was expected to be handling 3 million tons annually within five years.

2.4. Review of potential cargo flows along China–Western Europe overland routes via CIS countries

Practically all the goods traded between the EU and the APR are being shipped by sea. Therefore it is important to assess the potential volume of cargo flows along the CIS overland routes.

In 2007, 17.7 million TEU were transported from Asia to Europe, and 10 million TEU from Europe to Asia. The difference of 7.7 million TEU represents empty containers returning to their point of origin. However, container shipment via the Suez Canal is limited. According to UN ESCAP (2007:39), by 2015 containerised transportation from Asia to Europe and from Europe to Asia will reach 26.1 million TEU and 17.7 million TEU respectively, and the Suez Canal is expected soon to reach its maximum capacity for container vessels. Using the alternative sea route via the Cape of Good Hope is more expensive. In 2005, Kazakhstan received 142,000 TEU of import and transit cargoes and shipped 25,000 TEU of exports. In 2015, these figures will increase to 126,000 and 138,000 TEU respectively (UN ESCAP, 2007:40).

Containerised shipments from China to EurAsEC or Kazakhstan are essentially transit cargoes. They enter via the Dostyk-Alashankou border crossing point. According to the Kazakh press, in 2008, the daily throughput at Dostyk-Alashankou was 520-550 rail cars, although a high of 620 rail cars has been recorded recently. Some 70% of this freight is containerised. Most trains consist of 48-50 rail cars, including container wagons. We estimate that Dostyk can transship about 306,000 TEU annually. However, this figure has not yet been achieved. According to Kaztransservice, the official container operator owned by Kazakhstan Temir Zholy (KTZ), Dostyk transshipped 109,677 TEU in 2007, including 74,551 TEU from China and 35126 TEU to China. Compared with 2006, these figures were up by 37%, 40% and 31% respectively (SPECA, 2007).

Kaztransservice forecasts that by 2015 the transshipment of containers at Dostyk's railway terminal alone will reach 730,000 TEU, i.e. 2.5 times the current throughput (see Figure 12.4). The Kaztransservice forecast is, however, much more optimistic about the future of container transportation than UN ESCAP. Nevertheless, there is a consensus that transshipment volumes will grow considerably in the medium term, which justifies the development of overland transport systems.

The port of Lyanyungang (the destination point of the railway line via Dostyk) transhipped 2 million TEU in 2007 and 3 million TEU in 2008. Therefore, it is safe to assume that cargo flows from China will merit investment to increase capacity at Dostyk and construct a new border crossing point at Khorgos.

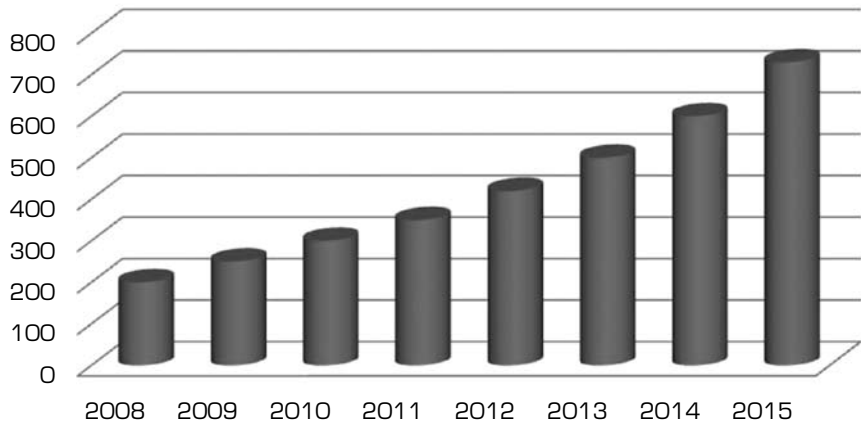


Figure 12.4.
Transshipment of
containers at Dostyk
(thousand TEU*)

Source: * forecast by
Kaztransservice

Analysts estimate that revenue from freight transit between Europe and Asia exceeded \$50 billion in 2007 and could reach \$80 billion in 2015 if current increases in cargo turnover continue. However, sea-shipping companies earned nearly all this revenue, since 98% of transit cargo is transported between the EU and the APR by sea through the Suez Canal.

In other words, transit potential is not being utilised. In this paper we will attempt to identify the measures that must be taken in order to make the region's ITCs a viable source of transit revenue for EurAsEC countries. This problem has become even more pressing since the startup of China's Go West The Xinjiang Uigur Autonomous Region (XUAR) development programme, which is designed to increase the manufacture of goods for export to Europe, potentially using EurAsEC overland routes (see Box 12.2).

Box 12.1. Main commodity groups that can be transported by Eurasian routes (China–West Europe)

Export and import shipments between China, Russia and Western Europe are largely transported by sea. China's export-orientated industries are concentrated in coastal areas. For example, nearly all industrial output from Guangdong, Fujian and other provinces around Shanghai is transported by sea, with export logistics designed accordingly. Most home electronics brands are manufactured in Hong Kong, and members of the Russian Association of trading companies and manufacturers of consumer electronic and computer equipment, such as Skarlett, Binatone and Vitek, transport these products from Hong Kong only by sea. These goods are then distributed throughout the CIS.

China's main shipping centres are in the south of the country, the Pearl river delta, and the Shanghai region. None of these regions has a particular specialisation, although there are differences between them. For example, South China produces more shoes and electronics, whilst Shanghai produces more clothes and toys. Northern provinces are historically home to many heavy industrial facilities, and local railways there mainly serve this sector. Therefore, opportunities to increase container transportation from these regions to EurAsEC are extremely limited. This problem applies even for backhaul loading: CIS exports to China are such that there is simply nothing that can go by container. Metal goods are no longer an option, since China itself has started to export them.

Commodities which can be transported by road and rail from China (including the XUAR) to Kazakhstan and Russia include:

- chemicals, including hazardous loads;
- foodstuffs (perishable) and other restricted cargoes;
- instrumentation;
- stereo, video and audio systems;
- mobile communications equipment;
- TV sets;
- electrical goods;
- electric cables;
- furniture;
- clothes and shoes;
- cosmetics.

The following commodities can be considered as possible backhaul road transport cargoes moving from Europe to China,

- industrial and agricultural equipment;
- metals (high-value non-ferrous metal goods, higher-purity metals and other high-value goods which are usually purchased in small quantities);
- integrated circuits;
- various fine chemical products and polymers;
- consumer goods;
- foodstuffs (e.g., meat).

Certain cargoes, such as bearings, are not suitable for sea transportation without expensive specialised and costly packaging to protect them from the sea air.

Box 12.2. The XUAR and transit to Western Europe

The XUAR is one of China's largest regions; it borders eight countries. Its population exceeds 19 million. Economic growth averaged 11.2% per annum in the last decade. The XUAR produces gas, oil, coal, cotton, fruit, vegetables and fertiliser. Over 60 large facilities are now under construction costing more than \$100 billion. 91000 km of new roads and 4070 km of new railways have been built. The administrative centre, Urumqi (population 2 million), has become a major transshipment centre, receiving consumer goods from all over China and shipping them to Central Asia, Russia and Europe. Over 90% of these goods are manufactured in inland China.

The XUAR exports textiles, shoes, mechanical engineering products and electronics (industrial goods account for 67% of all exports), and imports oil, iron ore and copper ore. According to Chinese statistics, the XUAR's own production accounts for less than 10% of its exports, and the region consumes around 20% of its imports. Trading with the XUAR means trading with the whole of China through its western gate.

The People's Government of the XUAR and the ADB have signed an agreement under which the bank will extend a \$100-million loan to fund the development of transport infrastructure in Altay, Kuitun, Changji, Turfan and Hami. Prior to this, in April 2006, the ADB had loaned the XUAR government \$150 million to develop transport in the cities of Tacheng and Yining and around the Alashankou border crossing point.

Special economic zones (SEZ) are being established to encourage trade; these zones offer advantageous terms to businesses. The construction of roads is an important part of the creation of SEZs. To date, the XUAR has 16 border motorways with a total length of 1676 km. Border SEZs are all connected to railway networks such as Dostyk, the only Sino-Kazakh railway border crossing point. Motorways and road transport are used increasingly.

It is estimated that, by 2025, the Urumqi–Yining–Sary-Ozek railway will have an annual freight capacity of 25 million tons.

In the first quarter of 2008, the foreign trade transactions of the XUAR totalled \$13.7 billion – an increase of 90.4% compared with the previous year.

Trade with Western Europe accounts for 7.3% (about \$1 billion) of the total commodity turnover. According to our estimates, XUAR's share of foreign trade between China and Western Europe will increase by 1-2% annually. The pace of growth is slow because it is exceeded by demand for XUAR products from its neighbouring countries. The dollar-denominated monetary value of trade with XUAR's immediate neighbours will grow faster (about 15-17% annually) and reach \$2.1 billion within five years and \$4.4 billion in ten years, according to Chinese estimates.

A few years ago the Chinese Government adopted a resolution on the industrial development of the XUAR. Its intention was to strengthen the region's economic position by bringing in plentiful and cheaper labour, reducing political tensions and relocating low-cost production facilities from other successful industrial regions to this relatively poor region.

Beijing believes that many consumer goods intended for Europe can be manufactured in the XUAR, which is geographically closer to Europe. However, only a part of this vast volume

of exports will be manufactured by the XUAR itself, and it is understood that the lion's share of goods will have to be shipped to Europe by sea from other more established zones of production. Nevertheless, a certain proportion will be shipped directly from the XUAR. The Chinese Government hopes to bolster XUAR's industries and enhance trade with Central and Eastern Europe and the Russian Federation.

China's Leap Forward unified transport strategy and Go West programme to develop its western provinces will have the effect of increasing cargo flows to Europe via Kazakhstan and Russia.

The Go West programme may lead to an increase in freight transit via the region's ITCs, as is discussed below.

A new network of logistics centres is being planned for the XUAR, which will simplify cargo transportation to Central Asian countries. By 2015, 21 logistics centres, with a total area of 2.12 million m², will have been built in the XUAR, including in the cities of Urumqi, Hami, Korla, Kashgar, Kuitun and Yining and the Khorgos border crossing point. In addition, by 2015 the XUAR will have around 280,000 lorries of its own.

Some commodities manufactured in the XUAR will be shipped via Kazakhstan. Delivery from China to western parts of Russia will take about ten days – one fifth of the journey time by sea. It is expected that an international border cooperation centre will be opened in 2009.

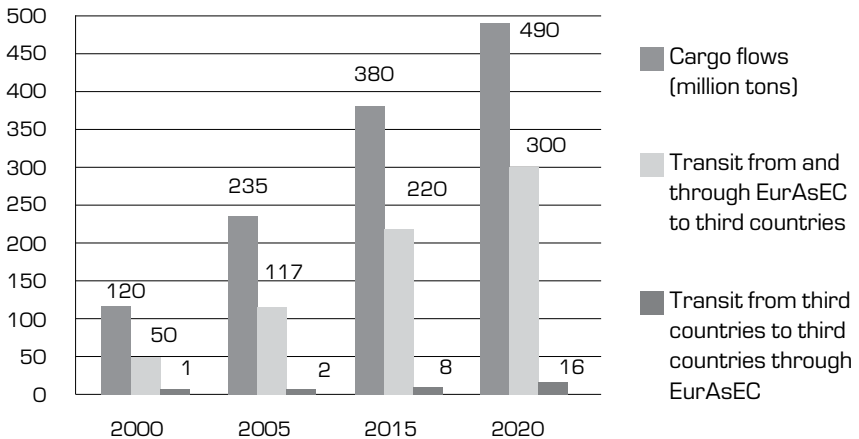
We believe that the volume of land trade between the XUAR and Western Europe will be dictated by the technical capacity of border crossing points. Based on the optimistic forecast by Kaztransservice that transshipment will reach 730,000 TEU in 2015, and assuming that shipments to Europe will remain at the current level of 70% of the total volume, we expect that about 500,000 TEU will be transited to Europe annually.

There can be no doubt that the vast transit potential of EurAsEC is, at present, very much underused. The current and potential transit cargo flows of non-CIS countries are negligible compared with transit from and through EurAsEC countries to third countries, in quantitative terms (see Figure 12.5). This is explained principally by the geographic locations of the main trading countries within EurAsEC. For example, Russia, a major trading partner of the EU, mainly uses the territory of Belarus for export to, and import from, the EU.

We believe that, although the current volume of transit originating outside EurAsEC is insignificant, fulfilling the transit potential of EurAsEC in this regard is an urgent priority. As the figures in Figure 12,5 show, the EurAsEC Integration Committee forecasts that in 2020, transit from and through EurAsEC countries to third countries and back will total 300 million tons, i.e., six times more than in the year 2000. In parallel with this, transit from third countries via EurAsEC will increase by 16 times compared with 2000 to 16 million tons. Not only is the rate of growth of external cargo flows expected to be much more rapid, it should also be remembered that the main purpose of

EurAsEC as a regional organisation is to create a customs union, which will mean a reduction in and, in the longer term, abolition of the customs duties on imports to member countries. Transit of external cargo flow, however, could become a stable source of revenue for them.

Figure 12.5. Existing and potential cargo flows via EurAsEC (million tons).
Source: EurAsEC Integration Committee estimates



3. The existing and emerging international transport corridors in the region

3.1. The role of international transport corridors in EurAsEC

Any study of the role of transport corridors in transport systems (especially those which span more than one country) should take into account the following:

- transport corridors are trunk routes which, because of their comprehensive infrastructure and communication links, permit the use of multi-modal technology, multiple modes of transport and multi-function terminals and transshipment facilities in a particularly advantageous location;
- the operations of the transport corridor must be protected by a continually evolving legal framework and by international agreements (e. g., those pertaining to the use of standardised waybills which allow equal access to terminals and other infrastructure);
- parties to the various conventions on ITCs agree to adopt modern customs technology to expedite cargo and passenger transportation procedures;
- parties to conventions agree to develop transport infrastructure in their respective territories and support the provision of services to users which meet international standards.

Experience from elsewhere in the world should also inform policy. For example, the EU is currently working towards ensuring interoperability and interconnectivity of different modes of transport along its transport corridors.

Interoperability is dependent on the use of standard and compatible infrastructures, technology, utilities, equipment and vehicle dimensions. This ensures technical and operational uniformity which can be vital to the provision of door-to-door delivery services. This uniformity, just as importantly, can help to eliminate the various barriers (institutional, legal, financial, physical, technical, cultural or political) between transport systems.

Interconnectivity is the horizontal coordination of various modes of transport in order to provide integrated door-to-door delivery services. An essential prerequisite for such coordination is the provision of transshipment/cargo transfer technology and equipment, complex surveillance and management systems, and well-trained personnel.

There are several Eurasian trunk routes in EurAsEC member countries, but few of them actually correspond to the definition of a “transport corridor”. In many documents, all Eurasian routes are referred to as “corridors”; by contrast, in the EU, where plans to create and develop transport corridors have all been finalised, this term is used more carefully. Thus, the EU adheres to the definition of transport corridors adopted at the First and Second Pan-European Conferences on Transport (in Prague in 1993 and in Crete in 1994): an international transport corridor consists of main transport communications (existing or under construction) with related equipment and infrastructure which connect large traffic junctions, and employ various modes of transport for international transportation of cargoes and passengers at the points of their maximum concentration.

Cargo transportation along the region’s inland waterways is technically difficult to implement on a viable scale. For example, in accordance with the 2003, Russian inland waterways code, any such transportation under the flag of a foreign state is subject to permits granted by the Russian Ministry of Transport. In addition, many hydraulic works on Russian rivers do not meet safety standards because of channel silting, which makes the cost-effective transportation of cargo unfeasible.

Therefore, only railways and roads have decisive importance for transit in Eurasia. We discuss below the main Eurasian overland transport corridors.

3.2. Pan-European corridors

In this study we focus on the Pan-European corridors, since these routes, which extend to the Urals, are an easy way for Asian (primarily Chinese) commodities to reach Western Europe via regional transport networks.



Figure 12.6. Pan-European corridors. *Soure: European Union*

The origins of these international transport corridors can be traced back to the 1980–1990s, when Western European countries identified an urgent need to improve the EU's internal and external links in response to a rapid growth in traffic. In 1994, following the First and Second Pan-European Conferences on Transport, ten major transport routes, "the Pan-European corridors", were created; these corridors provide optimum transport links between Western European countries, the Baltic, the European part of the CIS (Moscow, St. Petersburg, Minsk, Lviv, Kiev), the Black Sea ports (Odessa, Constanta, Varna) and Turkey (Istanbul):

- I. Helsinki – Tallinn – Riga – Kaunas – Warsaw;
- II. Berlin – Warsaw – Minsk – Moscow – Nizhny Novgorod;
- III. Berlin – Dresden – Wrocław – Lviv – Kiev;
- IV. Berlin / Nuremberg – Prague – Budapest – Constanta / Thessaloniki / Istanbul;
- V. Venice – Trieste / Koper – Ljubljana – Budapest – Uzhgorod – Lviv;
- VI. Gdansk – Warsaw – Katowice – Zilina;
- VII. the Danube;
- VIII. Durres – Tirana – Skopje – Sofia – Varna;
- IX. Helsinki – St. Petersburg – Moscow – Pskov – Kiev – Chisinau – Bucharest – Dimitrovgrad – Alexandroupolis;
- X. Salzburg – Ljubljana – Zagreb – Belgrade – Nis – Skopje – Veles – Thessaloniki.

Three Pan-European corridors extend into Russia and one into Belarus. These corridors can therefore be linked with other EurAsEC countries. In 1997, they were all extended through Russian territory linking the following destinations:

- Baltic (St. Petersburg) – Centre (Moscow) – Black Sea (Rostov-on-Don, Novorossiysk);
- Moscow – Astrakhan;
- West (Berlin–Warsaw–Minsk) – Centre (Moscow) – Nizhny Novgorod – the Urals (Yekaterinburg–Chelyabinsk);
- Northern Sea Route (St. Petersburg–Murmansk and further eastwards by sea);
- Waterway from the Black Sea–Azov region through the Volga-Don Canal to the Caspian.

Of special interest in the EurAsEC context is the II Pan-European Transport Corridor which extends 1830 km from Berlin to Nizhny Novgorod via Warsaw, Minsk and Moscow. It will be fully operational by 2010. Presently, the East Wind container service links Berlin with Moscow.

The II Pan-European Corridor is important not only to Russia and Belarus, but also to other EurAsEC countries involved in cargo transit between the APR and Western Europe. Using this corridor, Kazakhstan and Russia can offer transport services in the China–West Europe direction (these services can be used by Japan, South Korea, Malaysia, Indonesia, Singapore, Thailand and others as well as China). For many years, shipments in that direction have been made along the Moscow – Yekaterinburg – Omsk – Novosibirsk – Irkutsk transport corridor which provides access to the ports of Nakhodka and Vanino and to China via Zabaikalsk, Grodekovo and Naushki. With the opening of the Druzhba-Alashankou Sino-Kazakh railway border crossing point in 1992, journeys in this direction were shortened dramatically: for example, the journey from Moscow to the port of Lianyungang (China) is now 670 km shorter, and from Moscow to Hong Kong 860 km shorter than the previous route via Naushki. In addition, this route can be used for shipments from Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan to Moscow and beyond through the II Pan-European corridor to Europe. Cargoes include cotton, the staple export commodity of these countries, and oil from Kazakhstan, Uzbekistan and Turkmenistan.

3.3. Railway corridors

Thanks to the extensive railway network spanning the territory of the former Soviet Union, railway transport corridors have always played a key role in plans to maximise the transit potential of EurAsEC. International shipments account for 90% of Russia's total railway cargo revenues and 72% of those revenues in Kazakhstan.

The general opinion today, reflected in the declarations of the 1998, 2000 and 2003, St. Petersburg Eurasian Conferences on Transport which were attended by ministers of transport from many European and Asian states, is that, technically, the following railway routes are suitable for cargo transportation in Eurasia:

- **The Trans–Siberian Railway (TSR)** (Brest – Minsk – Finnish border – Ukrainian border – Moscow – Yekaterinburg – Novosibirsk – Vladivostok – Ulan-Bator – Beijing);
- **The Northern Trans–Asian Corridor** (Chop – Kiev – Moscow – Chelyabinsk – Dostyk – Alashankou – Lianyungang);

- **The Central Trans-Asian Corridor** (Kiev – Volgograd – Almaty – Aktogai – Dostyk – Alashankou – Lianyungang);
- **The Southern Trans-Asian Corridor** (Istanbul – Ankara – Tabriz – Tehran – Mashad – Seraks – Tashkent – Almaty – Aktogai – Dostyk – Alashankou – Lianyungang);
- **TRACECA** (Constanta – Varna – Ilyichevsk – Poti – Batumi – Baku – Tashkent – Almaty – Aktogai – Dostyk – Alashankou – Lianyungang).

The multi-modal North-South ITC which links northwest Europe and Scandinavia with Central Asia and the Persian Gulf has also become much more important as a result of the rapidly expanding trade between Europe and India. This route relies on the extensive transport networks of Russia, Iran, Kazakhstan and other countries.

The corridor running from the port of Bombay to St. Petersburg is 7200 km long. In the Caspian region, several routes are open to cargo transit: the trans-Caspian sea route, the inland Caspian-Volga-Baltic waterways which extend to the Volga-Don Canal and the Black Sea, and a number of railways and motorways. The Russian Ministry of Transport estimates that, in the long term, up to 10 million tons of cargo could be transported via these routes annually, excluding oil products (Russian Ministry of Transport, 2002).

Below we discuss cargo traffic along these ITCs in more detail.

1. For decades, the Trans-Siberian Railway has been the principal railway link between European Russia and its industrial regions to the east (Siberia, the Urals, etc.). The TSR is 9288 km long; it was completed in 1903, and fully electrified by 2002. It has a number of branch lines in its far eastern section which link to Chinese, North Korean and Mongolian railways, central Eurasia (i.e., to Central Asian railways via Kazakhstan) and Europe (to Western European railways via Belarus). Currently, the TSR is technically capable of carrying 250,000-300,000 TEU of international transit cargoes per annum. Once the modernisation of the TSR is complete, and if the Baikal-Amur Mainline (BAM) railway is used, this figure may increase to 1 million TEU per annum. RZD has pledged to invest about 50 billion roubles (\$1.5 billion)³ in the modernisation of the TSR up to 2015, primarily to allow it to handle special container traffic.

The TSR has the technical capacity to carry up to 100 million tons annually, which would include about 200,000 TEU of international container transit from the APR to Europe and Central Asia. Currently, the TSR is used by fifteen container services (see Figure 12.7).

³ Hereinafter, at the exchange rate of 01.01.2009.

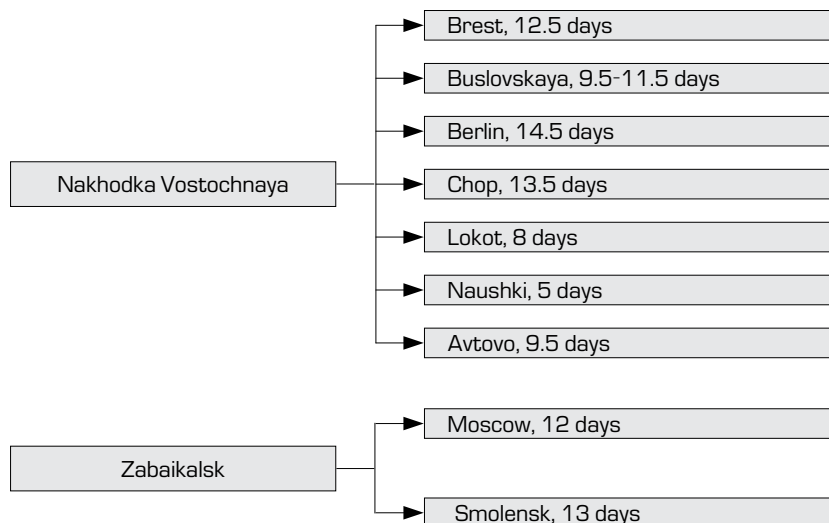


Figure 12.7.
Journey times
of Trans-Siberian
Railway services

Container freight trains can travel about 1200 km per day on the TSR. As a result of the simplification of customs procedures at ports and border posts, transit containers wait just a few hours for clearing compared to 3-5 days in the past. The TSR's simplified customs and checking procedures for containerised commodities also apply to all containers shipped to third countries, regardless of destination.

2. The northern trans-Asian corridor is viewed as the second most developed corridor after the TSR. In some UN ESCAP documents, this corridor is referred to as "the second Eurasian overland bridge". It runs from Lianyungang through central and northwest China, Kazakhstan and Russia to Western Europe. The distance from Lianyungang to Rotterdam is 10900 km. The corridor is being developed on an ongoing basis. It is 2500 km shorter than the TSR and 10500 km shorter than the sea route.

After 1992 the Chinese section of this railway (some 4150 km) was partially modernised. To date, 89% of its total length is double track, and 29% of the line is electrified. It is expected that, with the industrial development of northwest China, this route will be made double track along its entire length, and electrification will be extended.

China and Kazakhstan use different gauges – 1435 mm and 1520 mm, respectively. This poses a major problem for the development of freight transportation, since containerised cargoes have to be reloaded by crane.

At present, the Dostyk rail freight terminal in Kazakhstan, at the Sino-Kazakh border, is capable of handling a maximum of 620 rail cars per day. Until recently, maximum capacity barely exceeded 500-550 rail cars per day. The

depot's current throughput is 12 train pairs per day on the Chinese narrow-gauge line. According to preliminary estimates, the depot handled a total 14 million tons scheduled cargo in 2008. Now, new handling terminals are being constructed and eight of them are already complete. Each of these terminals is designed to handle certain cargoes: heavy machinery and equipment and packaged, bulk or containerised cargoes. Dostyk services container shipments, which constitute about 70% of all cargo traffic. It has been calculated that this border crossing point must be capable of handling over 300,000 TEU annually. Compared with 2007, container traffic in 2008, was up by 30%. Typically, containerised cargoes are shipped to the Baltic, CIS and European countries.

3. The central trans-Asian corridor runs from the Sino-Kazakh border via Dostyk to Almaty and on to Ukraine. This is the shortest route from Asia to Central Europe. It is double-track and electrified within the former Soviet Union and it provides access to Poland via Jagodin and Mostiska and to Slovakia and Hungary via Chop.

4. The southern trans-Asian corridor incorporates only one EurAsEC member country – Kazakhstan. However, this railway is enlisted here as a potential competitive route. It also starts from Lianyungang, and passes through Dostyk, Almaty, Tashkent, Iran and Turkey before reaching the Mediterranean and Black Sea ports. But this railway also has the problem of different gauges. Transshipment is required at two points, which increases delivery costs and slows down traffic; hence the key advantage of overland trans-Eurasian routes over sea shipment, i.e., speed of delivery, is lost. The Iranian part (2010 km) is single track and not electrified. In Turkey, trains have to cross lake Van by ferry. Along the branch lines to Istanbul (i.e., the Mediterranean) and Samsun (Black Sea), only 46% of the railway is electrified, and only 10% is double track.

5. **TRACECA.** This project includes the Dostyk – Tashkent – Ashgabad – Turkmenbashi – Baku – Tbilisi – Poti section and ferry lines to Odessa, Varna, Constanta and Istanbul. Despite the EU's enthusiasm for this project at an early stage, TRACECA failed to achieve its design capacity during the fourteen years after relevant documents were signed. We discuss the reasons for this below.

Parties to TRACECA signed a number of documents relating to certain benefits and reduced tariffs, e.g. a 50% discount on rail freight and ferry transportation of empty wagons. In addition, taxes and fees on transit cargoes were abolished, and measures were taken at national level to enhance the safety of passengers, cargoes, carriers and vehicles.

However, despite all these measures, the economic efficiency of this route is in doubt. According to preliminary figures, all other conditions being equal,

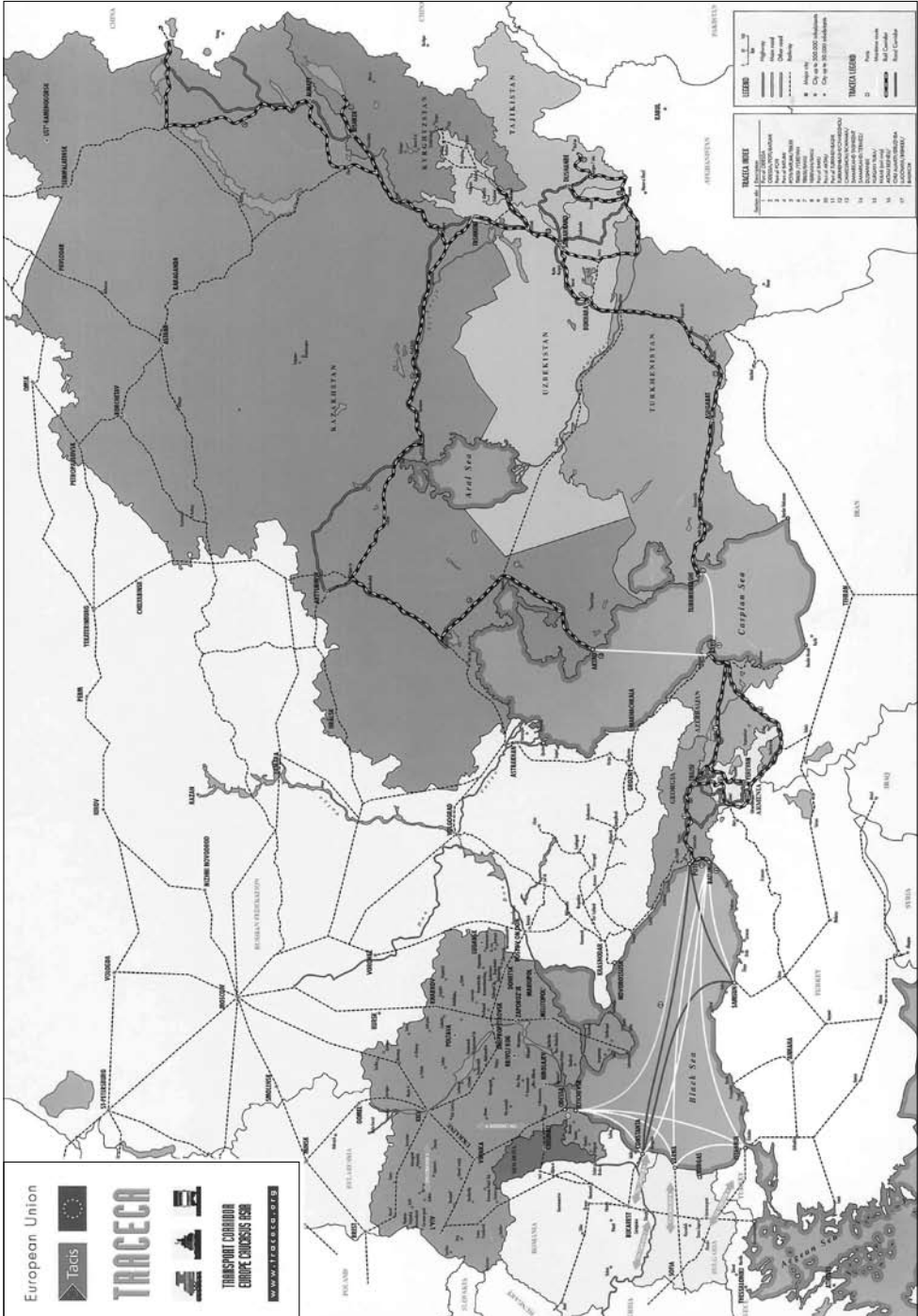


Figure 12.8. TRACECA. Source: European Union

the tariffs charged by RZD for transporting grain, cotton and containers are 1.7 times lower than those of TRACECA, and 1.2 times lower for oil and non-ferrous metals. In addition, transportation via Russia gives 1.8-fold journey time advantage. Cargo is shipped mainly from west to east, with mostly empty wagons travelling in the opposite direction. This has a negative effect on the efficiency of Caspian and Black Sea ferry lines.

At the moment, some sections of TRACECA are used to transport oil and oil products from Turkmenistan, cotton and grain from Uzbekistan, etc. At the port of Poti, a grain terminal with an annual capacity of 1.5 million tons, a container terminal with an annual capacity of 200,000 TEU, and large storage facilities are all under construction.

According to experts, the potential capacity of the Batumi – Poti – Ilyichevsk ferry line is 15-20 million tons per annum. However, its annual throughput at the moment is no higher than 0.9 million tons (using two ferries). The Baku – Turkmenbashi ferry line handles up to 2 million tons annually (five ferries).

Box 12.3. The TRACECA Programme

This Programme was adopted at a conference held by the EU in Brussels in May 1993, which was attended by representatives from Georgia, Azerbaijan, Armenia, Kazakhstan, Uzbekistan, Turkmenistan, Kyrgyzstan and Tajikistan (Ukraine and Mongolia joined later). This Programme aims to develop a transport corridor from Europe to Central Asia through the Black Sea, the Caucasus and the Caspian. It incorporates the Poti (Georgia) – Varna (Bulgaria), Poti – Burgas (Bulgaria), Poti – Odessa (Ukraine) and Baku (Azerbaijan) – Turkmenbashi (Turkmenistan) ferry lines. In addition, the new ferry routes of Poti – Constanta (Romania) and Batumi (Georgia) – Novorossiysk (Russia) will be opened and a new Kars (Turkey) – Tbilisi (Georgia) railway section is to be built. Nine railway ferry complexes will be operated in the Black Sea region. The design capacity of TRACECA is up to 40 million tons per annum.

Currently, TRACECA is used to transport oil and oil products from Turkmenistan and cotton and grain from Uzbekistan. It is expected that Chinese freight transport will also access this route from the Trans-Asian mainline.

TRACECA distances (sections in use):

Tashkent – Brest – 4200 km;

Tashkent – St. Petersburg – 4000 km;

Tashkent – Bandar Abbas – 3900 km;

Tashkent – Odessa – 4230 km;

Tashkent – Batumi – 2900 km.

The main advantage of this corridor is that it begins at the Black Sea ports where several of the Pan-European corridors end. The countries through which it runs were keen to be used for freight transit. To implement the TRACECA Programme, the countries involved signed the Multilateral Agreement on the Development of TRACECA on September 8, 1998, in Baku. The reasons that the Programme failed to achieve target capacities are discussed above.

Box 12.4. Outlook for the development of container traffic

Belarus has two major railway links with Europe: Minsk to Brest, and Minsk to Vilnius, Kaunas and Klaipeda. The Smolensk – Vitebsk – Daugavpils – Riga – Ventspils railway also runs through Belarus. From Ukraine, this railway follows the Bakhmach – Gomel – Bobruysk – Minsk route before entering Lithuania.

Belarus' railways have a total length of 5500 km. The following east-west-east, high-speed services operate there:

- East Wind (Berlin – Minsk – Moscow); In 2007, the railway carried 7580 TEU freight, and was 1.9-times faster than in 2006;*
- Mongolian Vector (Brest – Naushki – Mongolia – China); 657 TEU handled in 2007 (1.4 times faster than in 2006);*
- Kazakhstani Vector (Brest – Iletsk – Arys), 9320 TEU carried in 2007 (1.2 times faster). In the near future this service will be extended to Dostyk and China.*

In 2007 the Belarusian railway carried 2179 containers from east to west (100.6% of the 2006 figure) and 16782 containers from west to east (133.8% of the 2006 figure).

However, these statistics alone do not give the complete picture. Although container traffic undoubtedly increased, it remains insignificant compared with the "traditional" raw material cargo traffic, which still predominates in this region.

Railway transportation between Russia and Kazakhstan (the key players in the proposed EurAsEC transit project) is growing steadily: in the first nine months of 2008, export and import shipments totaled 77.2 million tons, an increase of 17% (11.1 million tons) compared with the same period of 2007. This figure includes exports to Kazakhstan (18.3%), imports from Kazakhstan (53.5%), goods in transit to Kazakhstan (4.1%) and goods in transit from Kazakhstan (17.5%). Container traffic between Russia and Kazakhstan during the first nine months of 2008 totaled 137,400 TEU (a 6% increase compared with the previous year).

By extrapolating these figures to the end of 2008, we estimate that in 2008 container traffic in both directions totalled about 180,000 TEU. According to preliminary estimates, about 39000 TEU will be transited in both directions. About 31000 TEU will be transited from Kazakhstan to Russia. Since this is cargo coming in from Dostyk, containerised Chinese cargo is expected to account for around 20% of total freight transit via Kazakhstan to Russia (Kaztransservice is expected to handle 200,000 TEU at Dostyk in 2008, i.e., twice the 2007 total).

3.4. Motorway corridors

Public and private road transport services carry between 59% and 80% of all freight shipments in EurAsEC countries. The following intercontinental motorway routes are particularly important for this traffic:

1. **Asian Highways** are international routes which pass through more than one sub-region, e.g., East and Northeast Asia, South and Southwest Asia, Southeast Asia, and North and Central Asia. Internal sub-regional routes link neighbouring sub-regions. Internal roads in each country provide access to capital cities, major industrial and agricultural centres, airports, sea ports and river ports, major container terminals or depots and tourist attractions.

Russia's economic and transport links with Kazakhstan and other EurAsEC countries, and transit links from Europe to Asia, rely principally on the following motorways which, according to UN ESCAP classification, are parts of the Asian Highway network:

- AH7 (Yekaterinburg – Chelyabinsk – Troitsk – Kostanai – Astana – Karaganda – Burubaital – Merke – Chaldovar – Kara-Balta – Osh – Andizhan – Tashkent – Syrdarya – Khavast – Khudzhand – Dushanbe – Lower Pyandzh – Shirhan – Polekhumri – Jebul – Sarej – Kabul – Kandahar – Spinboldak – Chaman – Quetta – Kalat – Karachi);
- AH60 (Omsk – Cherlak – Priirtyshskoye – Pavlodar – Semipalatinsk – Taskesken – Ucharal – Almaty – Kaskelen – Burubaital);
- AH61 (Kazakh border – Ozinki – Saratov – Borisoglebsk – Voronezh – Kursk – Krupets – Ukrainian border);
- AH63 (Samara – Kurlin – Pogodayevo – Uralsk – Atyrau – Beineu – Oasis – Nukus – Bukhara – Guzar);
- AH64 (Barnaul – Veseloyarsky – Krasny Aul – Semipalatinsk – Pavlodar – Shiderty – Astana – Kokchetav – Petropavlovsk);
- AH70 (Ukrainian border – Donetsk – Volgograd – Astrakhan – Kotyayevka – Atyrau – Beineu – Zhatybai (– Aktau) – Bekdash – Turkmenbashi – Serdar – Guduroolum – Inche-Boroun – Gorgan – Sari – Semnan – Damghan – Yazd – Anar – Bandar Abbas).

The following roads link China with the borders of EurAsEC countries:

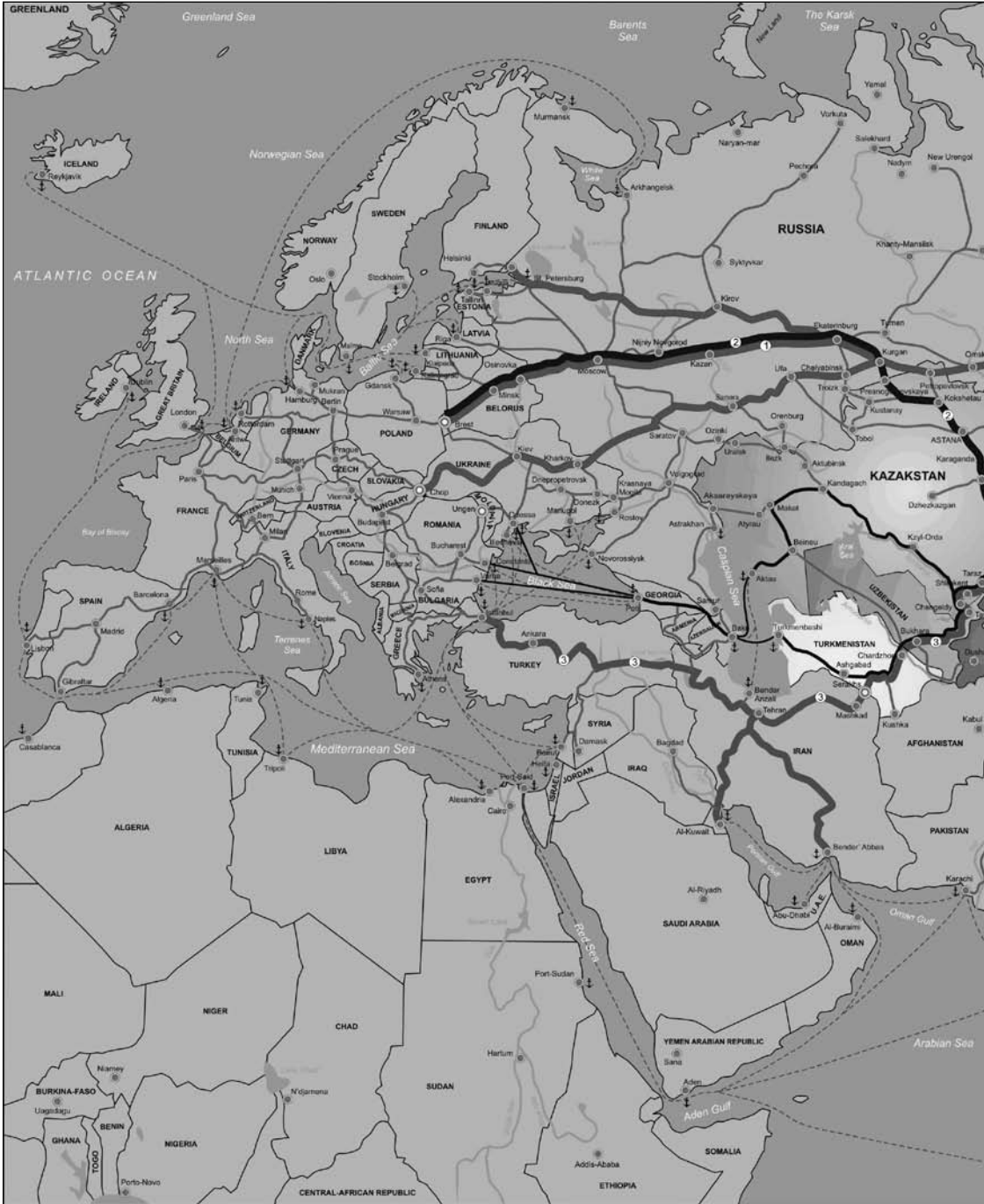
- AH5 (Shanghai – Nanjin – Sinyuan – Siang – Urumqi – Kuitun – Jinghe – Khorgos). This two-lane motorway is 4815 km long.

It has two branches:

- AH67 (Kuitun – Baketu), a 390 km long, two-lane motorway;
- AH68 (Jinghe – Alashankou), 94 km long.

2. **The Western Europe–West China project** (a proposal involving EBRD, ADB, WB, IDB, UNDP and others) is 8455 km long. About one quarter of the highway will be laid in Kazakhstan, and will allow transit not only to Russia and China, but also to South Asian countries via Uzbekistan and Kyrgyzstan. The project is expected to cost around \$2.3 billion.

3. **NELTI (New Eurasian Land Transport Initiative)** will facilitate the movement of cargo to the CIS, the EU and the United States along the Beijing – Urumqi – Bakhty – Astana – Moscow – Riga – Vilnius – Warsaw – Berlin



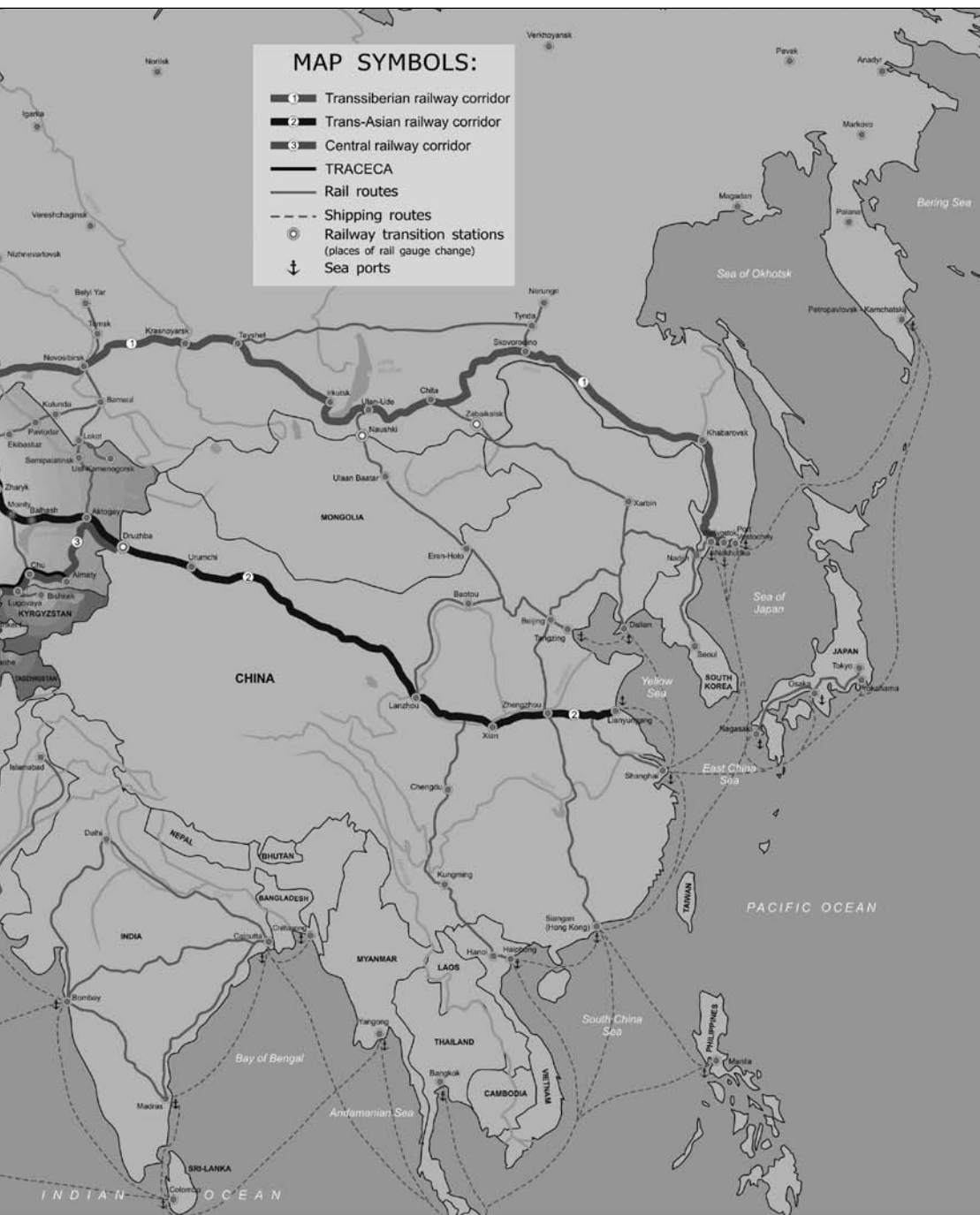


Figure 12.9. Main railways in Eurasia. *Source:* Kazakhstan transport and communications research institute (NII TK), International freight forwarding company Transsystem.

– Brussels route. This project is expected to increase cargo transit along the international motorways of Kazakhstan and Russia to 5.2 million tons per annum.

The NELTI is receiving wide media coverage. We believe, however, that its significance may be overestimated, and explain our reasons below.

In Russia, international road transport is increasing steadily and now accounts for up to 26% of all foreign trade shipments (transportation of high-value cargo). Russia's international road transport market is estimated to be worth roughly \$3-3.2 billion.

Analysis of the international road transport market by direction of travel reveals some interesting statistics. Taking the EurAsEC member countries of Belarus and Kazakhstan, the ratio by direction will be 3.5 to 1. This is unsurprising, since most trucks arriving in Belarus head for Western Europe and the Baltic countries. Freight moving from Russia to Kazakhstan by road does not exceed 1.3 million tons.

Foreign haulage firms operating in Russia account for a substantial percentage of Russia's road transport market, as follows: Belarus – 15%, Finland – 8% (mainly timber), Ukraine – 7%, Poland – 7%, Lithuania – 6%, Latvia – 4%, Germany – 0.2%, Italy – 0.03%.

In our view, there are significant obstacles to the development of road transit through EurAsEC to Western Europe. Firstly, it is very expensive for vehicle owners to operate in EurAsEC countries. For a journey to be profitable, a truck must be able to cover up to 1000 km during daylight hours. This requirement applies in Europe, therefore if a European carrier is contracted to undertake a transit shipment, special tracking systems will not allow it to travel at night for safety reasons. This is because of the poor state of road surfaces and the road network in general.

The high cost of operating in EurAsEC countries is also due to the following:

- road transport is extremely inefficient in these countries. According to experts, its average efficiency is four times lower than in developed countries;
- the road transport fleet consists mainly of old and obsolete vehicles, which do not meet specific requirements for cargo or other operations;
- logistics systems are not sophisticated enough to coordinate multi-modal shipments efficiently;
- cargo handling centres on long-distance routes lack the technology to handle large vehicles, and there has been a disproportionate increase in the operation of smaller vehicles in this sector. In addition, there is no spot freight system in place which could ensure that empty vehicles do not have loads to transport.

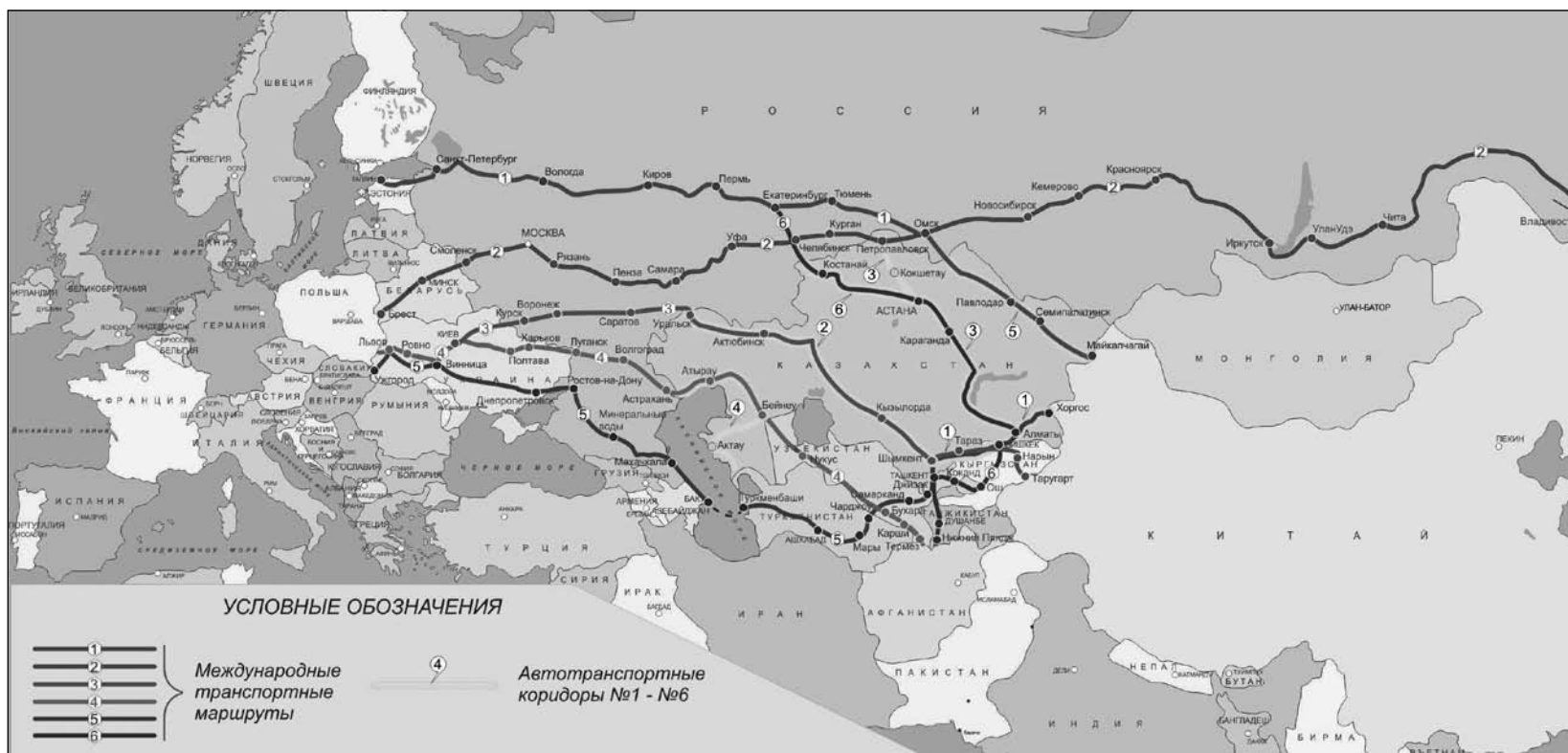


Figure 12.10. Motorway corridors and communications research institute. Source: Kazakhstan transport and communications research institute (NII TK).

4. Key issue affecting cargo transit on EurAsEC ITCs

Despite the transit potential of EurAsEC member countries (primarily, Russia, Kazakhstan and Belarus), and the existence of a system of international transport corridors (including railways and motorways), the fact remains that transit is not taking off: in the context of annual traffic from Northeast and Southeast Asia to Europe of over 17 million TEU, the several tens of thousands containers being shipped via the ITCs of EurAsEC are insignificant.

	2006	Use in 2006	2020
Belarus	100	50 (50%)	150
Kazakhstan	36	10 (28%)	100
Kyrgyzstan	3.8	1.9 (50%)	6.5
Russia	80	54 (68%)	150
Tajikistan	0.2	0.18 (90%)	0.5
Aggregate potential of EurAsEC	220	115.8 (51%)	470

Table 12.4.
Aggregate transit
potential of EurAsEC
member countries
(million tons)

Source: EurAsEC
Integration
Committee
estimates

The EurAsEC Integration Committee's estimate of aggregate⁴ potential transit capacity (see Table 12.4) shows that EurAsEC countries are, in some cases, a long way from utilising this capacity to the full. Since total potential capacity in 2006 is expected to double by 2020, the most urgent question is whether or not EurAsEC will be able to exploit this opportunity properly. What are the real causes of the huge gap between current usage and full capacity?

4.1. Sea vs land: 2:1

The competitiveness of any freight route is commonly calculated using the "trio" of commercial indicators: "time-service-tariff". The key reason for the failure to attract transit business to overland EurAsEC corridors is the undeniable commercial benefits of using sea freight from the eastern and southern provinces of China and other Southeast Asian countries.

The main competitive advantages that sea transit routes have over overland routes are:

- **Cheaper tariffs:** international shipping companies with an extensive and cost-efficient fleet at their disposal can keep their port charges and freight

⁴ Aggregate transit potential means the aggregate potential of the railway, motor, sea, inland water and air transport.

rates low (over the past decade, sea freight volumes have increased by half). In many cases, shipping cost is the main consideration for consignors as they strive to minimise the transportation component of the price of commodities in order to keep them competitive in the destination country. Following the recent 90% drop in the Baltic Dry Index, which is used in pricing raw material ocean freight rates (oil, metals, grains, etc.), the tariffs charged by shipping companies, at least in the near future, will be much more competitive than other modes of transport.

Box 12.5. Sea and rail container freight tariffs in Eurasia (ATC AIR Service data)

Destination port	USD/container			Delivery time, days
	20'DC	40'DC	40'HC	
Hamburg	1475	2500	2650	26
Kotka	1620	2700	2800	32
Tallinn	1925	3240	3415	32
Riga	1925	3300	3475	32
Klaipeda	1925	3300	3475	32
Novorossiysk	2025	3750	3875	32
St. Petersburg	1980	3170	3270	32
Vladivostok	1350	1950	1950	10

Loading port:
 Shanghai

These ocean freight rates can be compared with the rail freight rates offered to the same company. Transportation is by TSR; destination Moscow:

Destination	USD/container			Delivery time, days
	20'DC	40'DC	40'HC	
Moscow	3585	6510	6510	15

The insurance surcharge is \$300-550 per container (depending on the customs code of the commodity). These tables show that sea shipping costs are around 50% lower than rail freight.

However, the above appears to be true only for east-west transit. For north-south traffic, which is the other main direction for transit through EurAsEC countries, analysts believe that overland transportation costs can compete

with sea freight. According to estimates, it costs \$3500 to deliver one tonne of cargo from Germany to India through the Suez Canal, and takes 40 days. Container freight along the North-South ITC will cost \$2500 and take 15-20 days (Eurasian Transport Union, 2003).

- **Customer service and compliance with international quality standards:** in addition to their competitive rates, sea shipping companies offer a high standard of service, including cargo tracking, sophisticated logistics networks and guarantees of on-time and secure delivery. They use state-of-the-art technology, offer discounts to regular customers, etc.

However, overland transit has an important competitive advantage – it reduces delivery times. The shortest cargo delivery time from eastern China and other Southeast Asian countries to Western Europe by railway or motorway via EurAsEC countries is 2 to 2.5 times shorter than sea shipment via the Suez Canal. This advantage is less apparent, however, where delivery time is calculated on a cumulative basis for large shipments. For example, the average container capacity of vessels working on Asia-Europe routes increased by 30% to 7100 TEU between 2004 and 2007. According to KTZ, in 2007, an average container train was able to carry up to 270 TEU.

However, simple calculations alone are not sufficient in demonstrating the advantages of overland transit. Shorter delivery time is a critical factor for certain cargoes (perishable goods or urgent door-to-door shipments). In addition, faster delivery means quicker receipt of cash from the bank, shortening transaction times. In certain cases, each day that payment is delayed is critical, and consignors prefer shorter delivery time to lower shipping cost. Expediting delivery releases considerable financial resources, which are effectively frozen throughout the cargo's journey time. Therefore, *we view the time factor as an unquestionable competitive advantage that overland routes can offer for certain commodities, customers and even regions (e.g., China's rapidly developing XUAR, which has no viable alternative to rail and road transit).*

4.2. Barriers to fulfilling the region's transit potential

Given their geographic location and national economic interests, Russia, Kazakhstan and their neighbours have a direct interest in the Eurasian integration process extending beyond the boundaries of the post-Soviet space and involving the most important countries in the region. Projects being implemented in certain economic sectors provide solid foundations for regional economic integration, which begins in key sectors and eventually extends outwards to the institutional level. For this reason, the electricity and transport industries must be considered as economic priorities (Vinokurov, 2008).

Increasing the volume of freight transit using EurAsEC ITCs is made difficult in a number of ways. However, the issues are different for each mode of transport used in transit operations.

Below we discuss the main impediments to the full-scale integration of road and rail transport in EurAsEC member countries which are relevant to this report.

These problems are either physical or non-physical, with the following identified as the most acute:

Non-physical barriers are those non-technical barriers to trade, which, to a large degree, are “man-made”; these are:

- protracted customs procedures at border crossing points, which significantly increase waiting times for vehicles and rolling stock;
- random inspections, often requiring sealed transit containers to be opened;
- non-harmonised transit tariffs across the CIS – despite the signing of international agreements, transit tariffs still vary from country to country⁵;
- migration rules – the time drivers are allowed to stay in EurAsEC differs from country to country.

Physical barriers include:

- obsolescence and shortages of rail cars, containers and locomotives;
- non-compliance of existing infrastructure and technology with international quality standards (route handling capacities, etc.);
- inadequate processing capacity at border crossing points;
- poorly developed logistic and communications networks and motorway service facilities;
- different rail gauges – throughout the CIS, the 1520-mm gauge is used, whereas in Europe and Asia (China, Iran, Southeast Asia, etc.) the gauge is 1435 mm. This poses additional problems which compound the shortage of transshipment centres and insufficient handling capacity at border crossing points (see Table 12.5);
- insufficient capacity for cargo handling, consolidation and deconsolidation.

⁵ Expert opinions on the importance of this barrier differ. For example, the Commission on Transport Tariffs and the Transport Policy Council of the EurAsEC Integration Committee did not include the “tariff” problem in the List of Non-Physical Barriers in EurAsEC.

Table 12.5.
Physical and non-physical barriers to trade

Source: Trans-Asian Railway Route Requirements: Feasibility Study on Connecting the Rail Networks of China, Kazakhstan, Mongolia, the Russian Federation and the Korean Peninsula (UN ESCAP, 1996)

Shipping point	Route	Dis- tance, km	Number of border crossing points	Number of bogie change points
Lianyungang (China)	Via Kazakhstan and Russia	9200	4	2
Shenzhen (China)	Via Mongolia and Russia	11040	4	2
	Via Kazakhstan and Russia	10300	4	2
The Tumannaya river	Via China, Mongolia and Russia	8900	4	2
	Via China, Kazakhstan and Russia	9900	4	2
	Via China (Manchuria) and Russia	9000	3	2
Nakhodka (Russia)	Via Russia	10300	2	1
	Via Russia	10300	2	1
Rajin (North Korea)	Via China (Manchuria) and Russia	8900	4	2
	Via Russia	10300	3	1
Pusan (South Korea)	Via North Korea and Russia	11600	4	2
	Via North Korea, China, Mongolia and Russia	10780	6	2

In our discussion of the most significant physical and non-physical barriers to the use of EurAsEC's transit potential, we examine road and rail transport separately.

Initially, we focus on the legal and administrative problems that persist in relations between Belarus, Russia and Kazakhstan. The problems are even more acute for those engaged in freight transit in other EurAsEC countries. According to an agreement between Russia and Kazakhstan on road haulage, Chinese hauliers are practically banned from transiting cargo through Russia, and Russian trucks can travel no further than 50 km into China.

After the disintegration of the Soviet Union, all former republics inherited the same legal framework that had existed in Soviet times. As national institutions developed, each country adopted laws to protect and assist its own transport services market. There was, of course, nothing unexpected in

this process. However, certain national laws started to conflict with similar laws in other CIS countries. For example, after independence, freight carriers in Russia and Belarus had no legal problems working together, but by 2000, these two countries (which had been the first to declare the creation of a Unified Transport System) had adopted 28 incompatible laws pertaining to international road transport shipments alone, and in just three years there were 31 such laws.

It is also important to highlight developments that have had a positive impact in creating a unified transport system and encouraging transit:

- the full-scale commercialisation of the road transport sector, which is now dominated by private owners;
- equal access to domestic freight services markets for private and public carriers;
- unrestricted (or almost unrestricted) access to foreign cargo facilities (notably, however, each member country bans foreign operators from engaging in coastal freight transport);
- the freedom to select a carrier for the purposes of export and import contracts;
- the absence of legal restrictions on foreign ownership of road transport companies;
- the abolition of permits for return journeys between certain member countries.

The most significant differences in the development of national road transport sectors are:

- the varying potential of each country's road transport sectors: for example, Belarus is a net exporter of road transport services, and Russia is a net importer. The road transport capacities of other EurAsEC countries (Kazakhstan, Kyrgyzstan and Tajikistan) prevents them from fully satisfying demand for external transport services;
- the unequal pace of modernisation of the vehicle fleet to current European standards;
- variation between countries in the legislation governing the road transport sector⁶;

⁶ The most comprehensive legal framework covering relations between road transport operators is in Belarus. By contrast, there are still notable omissions in Russian transport law. Legislation that had existed under the Soviet Union (charters, regulations and rules) were retained practically intact as the basis for governing road transport operations until the summer of 2008, despite all documents being no longer in force. Progress in developing a new legal framework is slow.

- differing tax regimes and currency regulation for carriers and forwarding agents;
- unresolved incompatibility in customs procedures for cargo transported by road, especially in the time taken to clear customs and undergo transit cargo inspection;
- differences in the regulations governing transit in different countries (including those which have signed up to bilateral agreements on international road traffic);
- incompatible road tax and road pricing systems⁷; differing regulations governing access to the road transport market and shipping services (including licensing, professional permit systems and other methods of state regulation).

In order to improve the physical functioning of the transport system, a number of issues must be addressed:

- a joint agreement on multi-modal shipments should be drafted to improve the coordination of river, road and railway carriers, reduce waiting time and increase the utilisation of vehicles by introducing modern technology to organise and service cargo flows;
- transport logistics must be improved, information on the location and status of cargoes being transported via different ITC sections must be made transparent, and an up-to-date network of logistics centres must be built;
- a GLONASS-based cargo-monitoring system must be introduced;
- a unified, automated system must be created to regulate transportation and transit processes in the different ITC sections in EurAsEC. This should be integrated into nation- and industry-wide automated transport regulation systems;
- a uniform, intergovernmental electronic document management system must be introduced as part of the international standards system. Electronic documentation must be granted appropriate legal status;
- a universal glossary and package of supporting documents must be introduced;
- information on and commercial security of carriers operating on ITCs must be enhanced; and

⁷ *At present, there is no consensus on charges for the use of infrastructure. Most parties to the Agreement have no laws on toll roads. Belarus is the only country which has laws governing the operation of toll roads and a road-pricing mechanism.*

- fuel compatible with Euro 3 and Euro 4 emissions standards must be made available in Russia, Kazakhstan and Belarus, along with the building of necessary infrastructure; in addition, countries must introduce a fuel quality control system and impose stricter penalties for selling low-quality fuel. Vehicle weight is also an important issue in international transport law.

The above list includes realistic measures that EurAsEC countries could take to encourage transit by road along its ITCs. However, as discussed earlier, these countries account for only a very small part of transit shipments. Many of the problems listed are critical and must be eliminated in those ITC that provide access the western parts of EurAsEC countries.

We discuss below the problems that are preventing the development of rail transport along ITCs.

Firstly, there have been positive achievements: EurAsEC member countries benefit from an extensive railway infrastructure; regular traffic is properly administered; modern IT systems are being employed to a satisfactory level; freight technology is continually improving; and the railways are achieving significant time gains.

On the other hand, according to analysts, container traffic in EurAsEC member countries is not increasing as it should. Despite the unified tariff policy being applied across the CIS, variations in the funding of railways and the different methods used to calculate freight tariffs have resulted in significant fluctuations in transport costs. Moreover, container transport operators resent the manipulation of their profit margins. The reduction in transport tariffs, notably the cut in Russian railway tariffs in January 2007, did not have the anticipated effect of stimulating transit operations. In fact, in 2007, the volume of railway transit dropped by two times compared with 2006 levels, and was 17 times lower compared with 2004. This decrease is attributed to the growth of other freight transport services handling transit cargo.

Achieving stability in the journey times and cost of freight transit is another problem for the industry. Some analysts suggest that non-discriminatory conditions (compared with those of foreign competitors) should be introduced in documenting transit shipments. Up to now, the relatively poor standards and high cost of services provided by other operators in the transit chain (shipping companies, port services, railway administration in transit countries) have resulted in a continual increase in transit tariffs.

Deficiencies in container freight infrastructure also serve to alienate transit operators. There are few terminals capable of handling large containers; specialist transshipping equipment is in short supply; vehicle access to terminals located within cities is problematic; and the network of container depots has become smaller in recent years. Transshipment of containers

between different modes of transport causes significant time delays, and there is a permanent shortage of flat container trailers and vehicles and of large containers themselves. Protracted customs procedures at border crossings, inconsistent investment in different sectors of the transport chain and the sometimes poor state of major roads conspire to prevent this sector offering an integrated and high-quality logistics service to its potential customers.

The combination of all these factors explains the general reluctance among operators to use these routes for transporting freight.

In August 2008, the Russian Ministry of Transport introduced a special transit tariff for 40-foot containers being transported from Europe to China. The transit of each container from Europe via Brest (Belarus), Chop (Ukraine), Naushki and Zabaikalsk to China, would cost \$400. This tariff applied from August 10, to December 31, 2008, and was then extended into 2009. The ministry thereby virtually equalised the tariffs for loaded and empty containers being transported from Europe to China. Previously it had announced that the 2007 tariffs for loaded and empty 40-foot containers would be \$900 and \$400, respectively. We have no information on the effects of this measure so far.

Independent analysts and shipping agents have also identified issues which they see as disincentives to transit operators: cumbersome licensing procedures; the need to obtain numerous permits for each shipment; the long wait for permits and other documents to arrive from state agencies; lengthy procedures at EU border crossing points; the extensive paperwork required by customs authorities; lack of coordinated inspection procedures at vehicle border crossing points; extortion by inspection officials; compulsory escorting of loads, which must be paid for; local charges (related to vehicle weight, dimensions, deviation from a route, passing through certain cities or areas, etc.); extortion on motorways and in cities; robbery; poor maintenance of roads and of vehicles; absent or incorrect signposting on roads and in cities, etc.

In our opinion, non-physical barriers are the greatest impediment to the expansion of transit operations in the region, since they result in long delivery delays. Delays not only cost the operators money, and the trust of their customers, they also erode the main competitive advantage land transit has over sea transit.

There are two complementary ways to eliminate physical and non-physical barriers. Firstly, state transport policies (in the form of strategy documents) should focus on the most pressing problems affecting the country's transport sector, which in many cases can be resolved by investing government money in transport infrastructure, reforming institutions and eliminating institutional "bottlenecks". Secondly, integration groups can address shared problems in

a concerted way by prioritising mutually beneficial cooperation and employing common strategies.

In the next section we analyse these possibilities in more detail.

5. Transport strategies and targets for investment

5.1. National transport strategies and ITCs

One of the primary objectives of any government is to create the conditions in which the nation's economy can function effectively. Therefore, development of the national transport system, which is a key component of production infrastructure, is an essential prerequisite for sustainable economic growth. To eliminate the physical and non-physical barriers impeding freight transit in EurAsEC, member country governments have adopted national transport development programmes aimed at addressing the most urgent problems facing the transport sector.

Russia has adopted two national transport strategies in recent years. On May 12, 2005, the Russian Ministry of Transport adopted the Transport Strategy of the Russian Federation to 2020 (Ministry of Transport of the Russian Federation, 2005). Three years later, on November 22, 2008, the Russian Government adopted a similar strategy which extends until 2030 (Government of the Russian Federation, 2008). The amendment of the original document became necessary mainly because of the rapid change in the global economic situation. The importance of developing the national transport system was seen in a new light. Whereas in the original strategy the state merely intended to promote economic growth and prosperity by developing transport, in the 2008 strategy, the government's ambition for the transport sector is to "create the conditions that will make the national economy more competitive and improve the quality of life of the population" (Government of the Russian Federation, 2008). In other words, the state has assumed a more active role in the development of this critical sector.

The main objectives outlined by the government in its national transport sector development initiative are:

- to create a unified transport system in Russia based on developed and balanced infrastructure;
- to integrate the country into the global transport system and utilise spare transit capacity;
- to ensure that the provision and competitiveness of transport services reflect the country's commitment to innovative economic development.

Various studies are planned into the speed of cargo flows along trunk routes, delivery times, commodity structure, the development of transport logistics

centres, etc. Russia will participate in international projects and programmes aimed at extending inter-regional transport links (e.g. in Eurasia), enhancing international corridors and increasing cargo transit.

The export of transport services is an important component of Russia's GDP. The government anticipates that between 2007 and 2030, the measures included in the transport strategy will increase the export of transport services by 6.8 times in revenue terms to \$80 billion. Cargo weight transported is expected to increase from 28 to 100 million tons over the same period (see Table 12.6).

Mode of transport	2000	2005	2007	2010	2015	2020	2030
Total	21.8	18	27.9	34.2	42.7	60	100
Railways	20	17.4	27.2	33.1	40.3	53	76
Motor transport	0.5	0.5	0.6	1	2	2.5	3
Inland water transport	1.3	0.1	0.1	0.1	0.4	4.5	21

Table 12.6.
Forecast of cargo
transit via Russia
(million tons).

Source: Transport
Strategy
of the Russian
Federation
to 2030

Given the remit of this report, the integration component of the Russian Transport Strategy to 2030 is particularly interesting. The main objective of regional transport integration is to create a fully-functioning transport union and a unified transport system in EurAsEC. The strategy focuses upon:

- harmonising the legal framework of the transport sector and ensuring that technical and technological standards for transport are uniform across EurAsEC. These should also be in line with international standards, multilateral agreements and treaties on transport;
- eliminating discrimination in the provision of transport services and in the licensing, certification and registration of freight companies (and their representative offices or joint ventures) throughout EurAsEC, i.e., treating all companies within EurAsEC in the same way;
- removing restrictions to freight and passenger transit and utilizing the transit and transport capacity of EurAsEC efficiently;
- applying best practice identified in the CIS to the integration of transport systems, especially in the railway sector, civil aviation and the use of air space;
- applying uniform guidelines in the formulation of tariff policies.

Kazakhstan's Transport Strategy to 2015 was adopted in April 2006. The basic objective of this strategy is to "advance the development of the transport and communications sectors in line with the economic strategy of the state". The Kazakh Government identified the following objectives:

- to integrate the Kazakh transport system into the global transport system;
- to create a modern national transport infrastructure;
- to enhance and realise transport potential;
- to create a favourable investment climate in the transport sector.

The Kazakh government anticipates that its strategy will allow the country's transport sector to integrate easily and fully into the global transport system. The sector's assets will be modernized, and, it believes, the transport element of the price of goods can be reduced to 6.9%. Cargo transit will triple (compared with 2005) to 32.2 million tons. The speed of cargo traffic will increase by 15-20% on average, and by 20-30% on the main international transport corridors.

These ambitious plans will be implemented in two phases. During phase one (2006–2010), the state will invest public money and encourage private investment in transport infrastructure, tighten the legal framework, apply international standards, and further the integration of the national transport sector into the global transport system. During phase two (2011–2015), efforts will focus on "consolidating the successful implementation of the Strategy": the development programmes and institutional reforms introduced during phase one will be reviewed, and recommendations made in order to eliminate any remaining or emerging systemic problems. Following this, "the creation of an efficient transport system will be completed".

Belarus, Kyrgyzstan and Tajikistan do not have comprehensive strategies similar to those of Russia or Kazakhstan. However, these countries have addressed transport in their national development strategies, identifying goals for this sector and the means to achieve them.

The Belarusian government has formulated a transport policy to 2010, which aims to "create a competitive transport system and to develop transport and communication services and related infrastructure" (Government of the Republic of Belarus, 2005). In accordance with the Programme of Development in Belarus to 2010, adopted in 2005, and a number of other initiatives approved by the Cabinet of Ministers, the following measures will be implemented:

- the legal framework of the transport sector will be refined;

- all social groups and regions will have access to transport services;
- basic transport infrastructure will meet the needs of industry;
- management structures will be reformed and enhanced;
- competition in transport services markets will be encouraged (including passenger and freight transportation and rolling-stock repair);
- the government will create a favourable environment for investment in transport, replacement of rolling-stock, reconstruction and modernisation of transport infrastructure;
- the government will encourage international transportation and the export of transport services.

The Kyrgyzstan has adopted a Development Strategy for Kyrgyzstan to 2010 (Government of the Kyrgyzstan, 2007). Its chief objective in terms of **the development of transport infrastructure** is to “ensure that the motorway network operates to higher standards, enabling suppliers of goods and services to minimise their transport costs, ensuring that they have access to regional and local markets, and that local markets in labour and social services can be sustained”. The Government places great emphasis on the improvement of motorways, since road transport accounts for more than 95% of all cargo and passenger transportation. To this end, the Strategy to 2010 aims to:

- identify priority sections of road and set up schemes to finance the improvement of selected roads jointly with local, self-governing bodies;
- preserve the existing network of surfaced roads and gradually repair damaged roads;
- review existing road taxes and charges which pay into the Road Fund, and establish a second-generation Road Fund by introducing a tariff for accessing and using roads.

The Republic of Tajikistan’s transport system development programme is incorporated into the national Strategy for Economic Development to 2015 (Government of the Republic of Tajikistan, 2004). The Tajik Government’s main objectives for this programme are to create the conditions to accelerate the socioeconomic development of the Republic of Tajikistan by increasing cargo revenues; to ensure that the demand for transport services from different economic sectors and the population is met; and to improve the quality of transport services and reduce transport costs. The government therefore intends to:

- create a common transport space in the country which will support a unified domestic market;

- coordinate efforts to develop transport infrastructure, design and implement construction projects (building roads, communications infrastructure, airports, etc.), and purchase new vehicles;
- integrate the national transport sector into the global transport system and create competitive international corridors in the country taking full advantage of its geographic location and transit potential;
- introduce flexible transport tariffs responding to the needs of the users of transport services and the need to renew transport sector assets.

Tajikistan's emphasis on the improvement of motorways, as in Kyrgyzstan, is a response to the country's geographic location. It is interesting to note that the government intends to play a particularly active role in TRACECA.

5.2. Targets for investment

Any country aiming to realise its transit potential must have a comprehensive investment policy which addresses all the elements required to ensure the effective functioning of its transport corridors. These elements are discussed below.

1. Railways and motorways

The construction and modernisation of railways and motorways is an obvious focus for investment in the context of transport sector development. Modern road infrastructure is an essential prerequisite for increasing the speed of cargo and passenger flows, improving traffic safety, etc.

However, transport sector priorities differ between EurAsEC countries. For example, the transport development strategies of Kyrgyzstan and Tajikistan outlined above focus on the improvement of motorways – a reaction, no doubt, to the geographic location and landscape of these countries. In contrast, the transportation of transit and other cargoes in Belarus, Kazakhstan and Russia relies principally on railways, and this necessitates continual modernisation of railway infrastructure, electrification, and the construction of “straightening” sections in order to shorten distances.

Nevertheless, Belarus, Kazakhstan and Russia also have plans to improve their motorway networks. Given the increase in cargo flows, it is clear that the railways will soon be stretched to capacity. Moreover, provision of motorways is fully in line with the principles of interoperability and interconnectivity which ultimately determine how an entire transport corridor functions. Motorway transit requires that the high quality of roads, which facilitates high-speed travel, are reflected in standards of road infrastructure (gas stations, restaurants, motels, etc.).

2. Border crossing points and border infrastructure

Failure to consider transit endpoints – which, as a rule, are border crossing points – and ensure that border infrastructure is adequately maintained, can cause serious problems. In the case of Burachki in Latvia, for example, truck queues can stretch for 50 km. The roadsides are heavily littered and local residents are unable to sell their land and houses.

Experience in China, Finland, Romania and other countries, suggests that investment in border infrastructure (motels, restaurants, loading terminals, etc.) pays for itself quickly and can generate a significant profit.

In order for an ITC to operate efficiently, which first and foremost depends on the ability to transship cargoes to other routes, the corridor must have loading terminals, power transshipment complexes, an extensive network of access roads, and the ability to transfer cargoes between different modes of transport and manage the entire process with minimal documentation. Analysis of national transport systems in EurAsEC suggests that they lack these key infrastructural elements. Such infrastructure – which is highly valued by freight operators and which therefore pays for itself quickly – includes multi-modal loading terminals which serve both transit and non-transit shipments.

3. Building railcars and renewing rolling-stock

A critical target for investment is the renewal of EurAsEC's rolling stock, since most of the rail cars currently operating in these countries are several decades old. According to Russia's Ministry of Transport and the Kazakh Ministry of Transport and Communications, depreciation of the rolling stock in these countries is between 50% and 80%. The situation is even worse in other EurAsEC countries. However, this is only part of the problem: the Integration Committee of the EurAsEC's analysis of the dynamics of rail freight transportation indicates that, given the current growth in cargo flows, availability of (obsolete) rail cars will not be sufficient to meet demand (see Figure 12.1). The serious shortage of containers and flat container wagons may also prevent EurAsEC countries fulfilling their transit potential. The shortage of rolling stock is already causing difficulties. Around 95% of all containers are made in China. Since it is not economically viable to maintain a domestic container manufacturing industry (Chinese supplies are very cheap), other countries rarely produce them. China's supply is practically unlimited; many containers are hired out or used elsewhere under other schemes. European companies, therefore, have to return large numbers of empty containers to China, Korea and other countries, and the United States and Europe are keen to do business with anyone willing to take empty containers from them.

Depreciation of Russia's railway sector assets is estimated at 40-60%. The country also has a shortage of flat rail wagons suitable for carrying large

containers. The demand for flat rail cars is estimated at 2000-5000 units per annum. Although a boom in demand is unlikely, it is expected to grow steadily in the coming years. The other EurAsEC countries have no facilities to manufacture flat rail cars. There are several agreements between CIS railway companies under which the use of rail wagons is shared, and this has become common practice. Transport corridor projects require thorough pre-investment studies to plot the potential location of facilities, to predict cargo flows and identify customers. This generates a great deal of documentation requiring approval by the relevant bodies. The IT and communications industries have successfully implemented many efficient investment projects. Investment in electronic document management, database administration and other equipment at border crossing points would, as a rule, generate a steady revenue stream from the start.

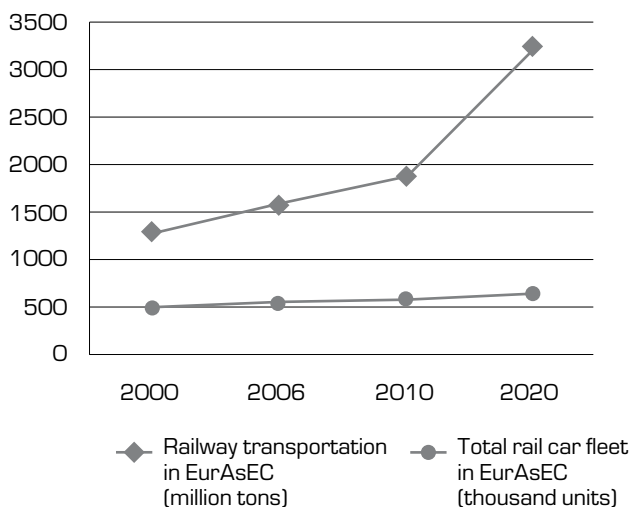


Figure 12.11. Railway freight transportation and the freight rail car fleet in EurAsEC.

Source: EurAsEC Integration Committee

6. The integration of the Eurasian transport system

We believe that the integration of national transport systems is key to the elimination of most of the obstacles that restrict EurAsEC's attempts to encourage greater use of its international transport corridors for transit. The post-Soviet space has a number of integration groups whose main aim is to overcome these physical and non-physical barriers.

6.1. EurAsEC initiatives

To address the above problems, the EurAsEC Integration Committee set up the Council on Transport Policy (CTP), to bring together the ministers of transport of all the EurAsEC countries (Belarus, Kazakhstan, Kyrgyzstan, Russia and Tajikistan).

EurAsEC countries are committed to jointly pursuing the following goals:

- coordination of activities aimed at developing the international transport corridors linking European and Asian countries;
- the development of transport infrastructure and standardisation of technical and technological parameters across all EurAsEC transport corridors;
- a coordinated policy to attract foreign investment in transport corridors;
- refining the legal framework regulating the crossing of borders in EurAsEC;
- a policy of harmonised tariffs and charges for freight and passenger transport, crossing borders, use of infrastructure, etc.;
- encouraging the establishment of joint ventures engaged in international freight and passenger transportation and forwarding services;
- coordinating activities to enhance traffic and cargo safety and protect the environment;
- identifying opportunities to improve multi-modal shipments;
- finding the optimal location for and building new international logistics centres.

EurAsEC's purpose is to develop Unified Transport System (UTS) and a Transport Union of its member countries. As work towards these goals has progressed, the need for extensive transport-related research has become apparent. On January 25, 2008, the Inter-state Council of EurAsEC (i.e., heads of government) adopted the UTS Development Concept. On December 2, 2008, to ensure that proposals relating to the UTS could be implemented, the 15th session of the Council approved the Measures for Developing the Unified Transport Space in EurAsEC 2008-2010, which include:

1) Developing a common transport services market

Between 2008 and 2010, in order to eliminate non-physical barriers in transport markets, national regulations within the EurAsEC pertaining to cargo and passenger transportation, and agreements between EurAsEC and third countries, will be fully harmonised. In addition, a shared information system for the transport services market will be created, and measures will be taken to ensure that the movement of passengers, luggage, freight and vehicles, including international transit, is unrestricted.

2) Joint development of transport infrastructure and a system of logistics centres in EurAsEC

In order to eliminate the physical barriers which are restricting transit and transport potential of EurAsEC, authorities will address deficiencies

in the region's transport infrastructure (mentioned above) in a consistent and effective manner. They will focus on joint priorities, including plans to reconstruct national transport route sections and to assess the condition of EurAsEC's motorways by organising car trips along them.

3) Developing the transit potential of EurAsEC. The importance to the region of commercial freight transit has prompted ongoing efforts by the CTP to refine and harmonise the laws and regulations governing transit operations and insurance for transport operators.

In May 2006, to streamline the procedure of setting tariffs for rail freight within EurAsEC countries, member country heads of state approved the *General Principles for Setting and Applying Railway Tariffs for the Transportation of Cargo between Railway Stations in EurAsEC Member Countries and the Procedure for Setting Decreasing Coefficients and Tariffs for Transportation of Cargo between Railway Stations*. All member countries have completed the internal procedures required to put these documents into effect – Kazakhstan was the last to do so on December 3, 2008.

Since January 1, 2007, the international vehicle weight certification system has been used throughout EurAsEC; this reduces delays by removing the need for trucks to be weighed at every border.

On April 18, 2007, the Inter-State Council of EurAsEC agreed that member state governments would recommend to their national customs and transportation authorities the introduction of a universal (AIGTR) waybill. This would act as a customs document for the purposes of transit through EurAsEC.

The introduction of this form is a provision of the Convention on International Customs Transit Procedures for the Carriage of Goods by Rail. The Convention applies in Belarus and Russia. Kazakhstan has begun the process of signing up to it.

In December 2006, the CTP drafted a list of international agreements and conventions on transport and communications, which EurAsEC member countries were recommended to join in 2007-2008 as part of the process of integrating their national transport sectors into European and global transport systems and fulfilling the transit potential of EurAsEC.

The 14th CTP session on May 22, 2008 in Minsk reviewed the progress in implementing these measures. It asked the Commission for Harmonising the Transport Laws of EurAsEC Member Countries to prepare a progress report as at January 1, 2009 and submit it to the 16th CTP session in May 2009.

In accordance with the Agreement on Implementing a Joint Policy on the Development of Transport Corridors in EurAsEC, an assessment has begun of the condition of motorways and railways included in the list of EurAsEC

trunk routes, and measures are being taken to eliminate restrictions on international road transport.

On January 24, 2008, the Integration Committee of the EurAsEC requested that the CTP and the Council of customs authority leaders redouble their efforts to ease restrictions on international road transport and present their results annually to the Integration Committee of the EurAsEC.

Following this request, the working group coordinating the customs and transport authorities of EurAsEC member countries met on September 2-5, 2008, to discuss the results of monitoring carried out during the first half of 2008. The group decided to present their findings on the easing of transport restrictions to the next session of the CTP and the Council of customs authority leaders.

6.2. CIS integration initiatives

The CIS Executive Committee is coordinating the integration of the transit and transport sectors of EurAsEC member countries. The CIS' transport policy identifies the following priorities:

- in accordance with the need to promote liberalisation and economic reform, all CIS governments adopt the agreed transport policy. The policy aims to create a common market to which all operators have equal access; to implement an agreed tariff and tax policy; to preserve and extend unified technical and technological standards for the transport sector; and to maintain a unified approach to cooperation with third countries and international organisations;
- the extension and harmonisation of transport laws by the legislature of the CIS (creating a legal basis for international relations in the transport sector; encouraging the exchange of views on laws and regulations governing the transport sector; conducting a comparative analysis of the transport laws adopted and the unification of such laws; and creating a unified legal framework for transport).

On September 15, 2004, the Council of the Heads of Government meeting in Astana adopted the Concept of Joint Transport Policy of CIS Member Countries to 2010, which outlines the following priorities:

- harmonisation of the transport laws of CIS countries based on international standards;
- cooperation on international transportation between various modes of transport;
- refinement of the tariff policy;
- development of transport logistics;
- efficient use of transit potential;

- the drafting and implementation of proposals for joint investment in key infrastructure facilities situated along international transport corridors;
- the implementation of an agreed policy on transport safety and environmental protection (CIS Executive Committee, 2004).

Clearly the integration initiatives of the CIS differ little from those of EurAsEC. Both wish to integrate national transport systems, eliminate restrictions to transit and improve the utilization of their transport capacity. These priorities were incorporated into the Concept of Future Development of the CIS adopted by CIS government heads in October 2007, in Dushanbe. The joint action plan formulated in Dushanbe states that every CIS country will strive to:

- create a network of international transport corridors;
- draft more effective tariff policies, reducing the fiscal and administrative burden on international freight traffic;
- enhance cooperation between modes of transport engaged in freight transit.

In section 6.4, we examine the potential efficacy of these integration initiatives in the CIS and EurAsEC.

6.3. Initiative 1520

Figure 12.12.
Major 1520-mm
gauge railways.

Source: Official
website of the
International
Railway Business
Forum 1520
Strategic
Partnership:
www.forum1520.ru



In May 2006, the first international 1520 Strategic Partnership rail industry forum was held in Sochi. An initiative of RZD, the forum was created to discuss transport integration in the seventeen countries which use the 1520-mm railway gauge (i.e., all the former Soviet republics, together with Finland and Mongolia). In these countries there is a total of more than 230,000 km of 1520-mm rail track, with 70% of all lines owned by RZD. By the end of 2008, three such forums had been held in Russia. They are recognised as a unique opportunity for discussion, attracting hundreds of rail industry players, including public officials and major companies.

The forums include round-table and panel discussions on a wide range of administrative and technical issues, analysts' reports and potential solutions. Various commercial agreements have been struck at these events between companies from the participating countries. The forums attract delegates not only from the "1520 Area", but also from Western Europe and the APR, who recognise the huge intercontinental importance of the 1520-mm gauge network and the investment opportunities that the region's transport system represents.

For the purposes of debating the issues and opportunities of the "1520 area", the forum divides the railways into two areas – Baltic and Central Asia. At the most recent forum in Astana (December 2008), RZD and KTZ signed a Joint Action Plan for cooperation between the two companies, and discussed opportunities for mutual investment in railcar construction and logistics infrastructure.

6.4. Outlook for transport integration

Given the initiatives now under way to integrate their national transport systems, it is clear that EurAsEC and CIS member countries are very committed to a concerted approach in reforming their transit and transport industries. We believe, however, that EurAsEC is more likely to succeed in easing restrictions on transit and utilising its transport capacity more effectively. There are several reasons for this:

- EurAsEC member countries are more uniform in approach, whereas CIS countries have shown different levels of commitment to a common integration policy, in particular, in the transport sector (a number of CIS countries are relatively "passive" and have not sought to engage in closer international cooperation). The Dushanbe meeting of the Council of the Heads of CIS Government in October 2007, revealed a lack of coordination in the activities of CIS member states. This meeting approved the Concept of Future Development of the CIS, which was designed to revive some "dormant" CIS initiatives (among them the integration of transport systems). Three of the 12 participating countries (Azerbaijan, Moldova and Ukraine) signed this document with the proviso that they can opt-out of

any obligations; Georgia and Turkmenistan refused to sign it at all (CIS Executive Committee, 2007).

- Since its inception, the CTP has taken a number of significant steps to foster the integration of transport systems in EurAsEC countries. In this report, we assess the activities of various bodies from the point of view of their relevance to EurAsEC members. The CIS as an organisation of ten former Soviet republics has also worked hard to further their integration (or at least to prevent disintegration).
- The Customs Union upon which the EurAsEC focuses represents the most efficient mechanism for eliminating non-physical barriers, encouraging freight transit, unifying tariff and customs policies, etc. Therefore, it is critical that the members of the Customs Union (Russia, Kazakhstan and Belarus at a time being) cooperate in the creation of an integrated transport system and a common transport policy. Tair Mansurov, Secretary General of EurAsEC, commented that all the procedures necessary to establish the Customs Union are being completed within the anticipated timescale, and the inception of the Customs Union in 2008-2010 is "absolutely feasible". (All-Russia Movement for a Fair Market, 2008).
- The bilateral agreements between EurAsEC countries, though they tend to be somewhat conservative and conventional, have nevertheless consistently proved to be an adequate basis for integration. A bilateral agreement may be a stimulus for action even where two countries are motivated only by self-interest. Even homogenous integration groups such as EurAsEC have their differences. Bilateral agreements are not a contradiction to the basic principle of integration groups; bilateral and multilateral agreements complement each other.

We also notice that *Initiative 1520* provides strong foundations for the integration of 1520-mm gauge railway networks, and the business forums held under its aegis (including special regional forums in Central Asia) have been instrumental in eliminating physical and non-physical barriers to transportation in CIS and EurAsEC countries.

In our opinion, the task of integrating the transport systems of Russia, Belarus, Kazakhstan, Kyrgyzstan and Tajikistan in the pan-Eurasian context will be better served in its initial stages by accelerating internal integration within EurAsEC. However, pan-Eurasian integration will not be possible without first eliminating barriers within the group. We would stress that the problems associated with creating a single economic space in EurAsEC are still not adequately resolved.

Although the integration groups have made significant progress in resolving the issues discussed in this review, concerted effort is required to remove many physical and non-physical barriers to commercial transportation.

EurAsEC countries must pursue a joint, well-coordinated investment policy to develop and modernise their transport infrastructure in the interests of all the member countries. It is clear that members of the group do not share exactly the same goals, and each member country's view of the benefits of increased transit will determine its contribution to EurAsEC's joint infrastructure projects. It is also important to take into account each EurAsEC member country's level of economic development and available resources (see Table 12.7).

EurAsEC countries	Number of investment projects	Approximate project cost (in \$ billion)
Belarus	4	1.5
Kazakhstan	5	8.7
Kyrgyzstan	2	0.42
Russia	56	40.52
Tajikistan	2	0.62
TOTAL:	69	51.76

Table 12.7.
Participation of EurAsEC countries in transport infrastructure projects until 2020

Source: EurAsEC Integration Committee

7. Faster, cheaper, smoother: the priorities for the development of ITCs in EurAsEC

One of the primary objectives of this report is to identify the most efficient international transport corridor routes in EurAsEC. This task is necessary because the construction and modernisation of transport infrastructure are very capital-intensive, and the region must therefore focus its efforts on the most effective and therefore potentially profitable routes.

The criteria for selecting the best potential ITCs in EurAsEC are:

- *the time factor* – selecting the shortest distance between the main points of loading (China and Southeast Asia) and freight destinations (Western European cities) will maximise the key competitive advantage of overland routes, i.e., speed of delivery. Speed of transit via ITCs depends on their state of repair, and, just as importantly, the number of border crossing points;
- *the positive, cumulative integration effect* – ITCs should preferably pass through the territories of EurAsEC countries that are members of the Customs Union; this will greatly reduce the non-physical restrictions upon commercial transport and could, in the foreseeable future, remove them altogether (by reducing tariffs, thereby reducing transport costs and increasing the competitiveness of overland Eurasian transit routes).

Countries must invest jointly in the renovation of transport infrastructure and the construction of service stations and logistics centres.

Given these criteria, the priority transit routes for EurAsEC are the Northern corridor of the trans-Asian railway (connecting with the Trans-Siberian Railway) and the Western Europe – West China motorway which is nearly 10000 km long. In addition, the North-South ITC should also be considered as EurAsEC's best potential route to South Asia.

This is in no way to suggest that alternative international routes should no longer be considered. Additional ITCs will be instrumental in realising the region's transit potential and diversifying cargo flows, i.e., serving more loading and destination points.

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EurAsEC: Transport Exchange and Positional Constituents

13

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There has been a lot written and said about the need for a more effective policy in the field of transport, freight and passenger traffic, as well as logistics in the EurAsEC member states. As a rule, representatives of EurAsEC countries adduce the same fairly trivial arguments while debating over the subject. First of all, they speak about the unique geographic position of each EurAsEC member state, which automatically defines it as a leading transit power. Secondly, they discuss the most convenient overland Eurasian routes for freight and passenger traffic to pass through the territory of each and every EurAsEC member state. Thirdly, the transportation systems of every country are quite suitable for their historic mission of becoming a stronghold for Eurasian transit. It must be noted, however, that while the stated claims have certain grounds, the present realia are quite different and the goals declared are still far from being achieved.

From our point of view, an issue of developing transportation links in the Eurasian transport service is not a priority. There are no such policy decisions that could become a basis for shaping priorities of transport and economic character. This brings up the question of what policy decisions have to do with the issue. Let's try to cast some light upon this aspect.

As reported in January 2008, the EurAsEC Interstate Council at the level of Heads of governments reached the decision on implementation of the Strategy for shaping a common transportation space. The Community foresees the merging of state transportation systems of every member country into an integrated system, which is based on the unified principles, standards and technical parameters. This concept, at a closer look y doesn't carry any political load. It is about the issues of legislation and investment activities, and statement of some economic function.

In the Soviet Era, this territory had a common transportation space, however, too many barriers emerged during the last 16 years. All countries gained sovereignty and introduced independent regulation of domestic economic activities independently, following the strategic and tactical tasks set by the country's leadership.

And again there evolves the need for harmonising the legislation, providing the compatibility of transportation systems establishing rules of competition,

developing a mutually beneficial and effective use of transit potential, and organising a barrier-free movement of passengers, luggage, cargo, and transportation vehicles between the EurAsEC member states.

However, the handling of these tasks alone demands that the integration grouping unites on new, mutually beneficial terms, improve and modernise existing infrastructural facilities, and construct new ones. Over time, some qualitative peculiarities appeared. If, in the past, a decision on constructing any facility affecting interests of several republics was taken in Moscow, nowadays, the process of coordinating investment projects between CIS or EurAsEC member states may drag on and be subject to long-lasting expertise with the most often explanation being a lack of funds.

Decisions on developing cooperation between transportation systems are taken, but they do not take the shape of anything tangible; the means of control over the implementation of taken decisions are not visible and neither is the financing of a joint key projects in this area. The progress in completing the set tasks is too low. It is hard to cite any specific examples of completed joint transport or infrastructural facilities. And I mean exactly the joint ones. Well, one may recall the commissioning of the bridge across the river Kigach in the near-border Russian-Kazakh zone.

We assume that singling out the special role of one of the EurAsEC member states in the part of conducting a transit policy is not justified. In our opinion, a transit policy must be streamlined across the territory of the Community as a whole. If the goal is to enhance integration processes on the post-Soviet area, then the projects must also be formulated with due consideration of common objectives.

Let's look at how transit issues are addressed in Belarus and Kazakhstan, that is, how the tasks are formulated in the major transportation documents – strategies, concepts and programmes. Kazakhstan's transport strategy till 2015 aims at "accelerated development of the transport and communications complex in accordance with the economic strategy of the state". The following goals and tasks have been identified:

- The integration of Kazakhstan's transportation system with the global one;
- The creation of a modern promising national transportation infrastructure;
- The development and effective usage of a transit potential;
- The shaping of a favorable investment climate in the transportation sector.

It is anticipated that Strategy implementation will lead to the "full and systemic" integration of the national complex into the world transportation

system, the total renewal of assets, and the and reduction of transport component in the cost of product to 6.9%. Over 10 years, volumes of transit may increase by three times and amount to 32.2 million tons of cargo. The transportation speed through communication lines will grow by 15-20% and through main international transport corridors by 20-30%.

The Strategy is divided in two stages. During the first stage (2006-2010), the state allocates budgetary funds and actively attracts private investments in development of transport infrastructure, improves regulatory and legal framework, implements international standards and assumes measures for deeper integration of Kazakhstan's transportation complex in the international system. The second stage (2011-2015) will focus on "securing a positive effect of the strategy's implementation", and monitoring development programmes and institutional reforms that were carried out during the first stage, as well as introducing recommendations of a systemic character. All this will result in the "formation of an effective transportation system of the country".

The development of transportation is one of the priority projects of Kazakhstan. In accordance with the Strategy, in order to increase railroad transit, the authorities mean to widen the traffic capacity of transit corridors to 100 million tons per annum to Turkmenistan, Iran, Turkey and European countries by 2015.

The plans of Astana and, in particular, the possibility of rapid cargo delivery to Russian and European customers, are of interest to Chinese shippers and freight owners are willing to pay for this service.

At the same time, the issue of developing transport infrastructure is still pressing. We believe this problem must be solved not only in Kazakhstan, but in Russia, China, and Belarus as well. Kazakhstan thinks that the current state of infrastructure and service that do not fully correspond to the level and status of transcontinental transportation links are the major restrictions for transit. Freight transportation by railroad has a high prime cost due to undeveloped infrastructure, worn-out state of the rolling stock, partial supply of the road and rail network with electric traction, etc. Without solving these problems, which imply a very heavy spending, it would be very difficult for Kazakhstan to create the image of an attractive transit country on the Eurasian space. Let's not forget that China, the neighboring region with Kazakhstan, has quite serious problems with the traffic capacity of transshipment facilities, which results in transit restriction.

On the other hand, Kazakhstan succeeded in improving the level of servicing freight owners, including the handling of container cargoes, customs examination procedures, etc. So, when transporting cargoes through Dostyk rail station, containers from Chinese railroads pass without significant delays.

Transportation of single containers is an exception to the rule, because it takes time to form a train. But delays of this kind take no longer than 5-7 days.

Speaking of infrastructure, it must be noted that Dostyk station, which borders with China, is being modernised at present (its transport capacity should amount to 25 million tons a year). A Zhetigen-Khorgos railroad (near the border with China) is planned. Khorgos should handle up to 25 million tons of cargo by 2020 and the total capacity of border crossings between the two countries should make up 50 million tons per annum.

According to the Strategy, in order to raise the level of railroad transit, regional logistic centres in Astana, Almaty, Aktau and Dostyk should be established by 2015.

The primary target of Belarusian transport policy up to and including 2010 is "to form a competitive transport system, step up transportation and communication services and develop a corresponding infrastructure".

In order to achieve the set goals the following steps are to be taken:

- Improvement of legal framework for transportation activities;
- Increase in affordability of transportation services, introduction of minimal social standards of transportation services to all levels of the population and regions of the country;
- Secure the compliance of basic transport infrastructure with the development of productive forces;
- Realisation of structural adjustments in transportation field in part of its renewal and improvement of management structure;
- Development of transportation services market competition in conveyance of passengers, freights and maintenance of rolling stock;
- Arrangement of conditions for attracting investments in transport development, implementation of investment projects on renewal of the rolling stock, reconstruction and modernization of transport infrastructure;
- Development of transport services' export and creation of favorable conditions for carrying out international transportation.

The aforementioned steps are foreseen by an array of state programmes: An "Integrated Programme for Securing Effective Use of Transit Capacity of Belarus in 2006-2010", a "National Programme for Development of Export for 2006-2010" and a "Programme for Development of Railroad Traffic Control Points at the State Border of Belarus for 2007-2015". A gradual implementation of these programmes will finally lead to stable growth in volumes of freight transportation by Belarusian railroad. In 2007, the country

transported 140.8 million tons of cargo (5.5% up as compared to 2006). Meanwhile, international transportation amounted to 98.2 million tons of cargo, including 49.3 million tons of transit. In 2008, Belarusian railroads transported 147.2 million tons of freights, including 47.9 million tons of local traffic, 50.6 million tons of transit, 33.6 million tons of export and 15.1 million tons of import. The decline in export volumes was mostly a result of decreased export transportation of construction materials, chemical and mineral fertilizers, oil and oil products. Approximately 1.6-1.8 million tons of cargoes are transported from West to East, but the volume of transportation in the backward direction is 4.4-4.5 times higher and makes up about 7 million tons.

Transportation through the Eurasian sector forms the basis of transportation services' export of the Belarusian Railway (BRW). They account for 35% of the total volume of transportation. The main transit freights are cargo oil, ferrous metals, fertilizers, coal, charred coal and iron ore. The bulk of the transportation volume falls on Russia (55%), including Kaliningrad area (24.7%); Latvia (25%); Lithuania (9.5%); Ukraine (8%) and Kazakhstan (2.5%).

Taking into account the economic development of Asian countries, BRW established a representation office in 2007 in Astana, the capital of Kazakhstan, aiming at a more detailed market research.

In order to increase the volume of railroad transportation from China to European countries and prove the competitiveness of the overland route, BRW took an active part in optimising the technology of container transportation by means of China-Mongolia-Russia-Belarus-Poland-Germany route. The train covers the distance of 9780 km in 15 days. On the initiative of BRW's official shipping agent, Belintertrans unitary enterprise, the railroad launched a regular container train called "Mongol Vector" covering the route Brest-Ulan Bator-Hohhot (China). There are more container trains available on the following routes: Berlin-Brest-Moscow ("East Wind"); Brest-Arys ("Kazakhstan's Vector"); Odessa/Ilyitchovsk-Minsk (Kolyadichi)-Klaipeda ("Viking"); Brest-Kaluga; Zhenishke (Kazakhstan)-Minsk-Klaipeda; Aksu 1 (Kazakhstan)-Minsk-Klaipeda.

According to Belarus, the tariffs for international freight transportation by BRW correspond to the concept of applying a unified tariff policy for railway services of CIS member states, approved by the CIS Council of Heads of governments in 1996. Regulations and rates of tariff policy are applied to transit and export-import transportations by BRW, except for Russia-Belarus deliveries. Special attention is paid to the improvement of tariffs for transportation of the basic range of bulk cargo, including coal, ferrous metals, oil products, mineral fertilizers, architectural and timber cargo. Special reduction factors and fixed rates for certain routes of transportation are applied to the aforesaid cargo.

BRW is also engaged in transportation between Scandinavian countries and states of the Black Sea through the Ninth Pan-European Transport Corridor (Odessa- Ilyitchovsk-Minsk(Kolyadichi)-Klaipeda) serviced by the combined transport train Viking.

Despite a growth in the volume of freight transportation, Belarusian transport and transportation lanes possess substantial reserves. However, in order to attract additional transit cargo traffic, it is required to offer consignors competitive tariffs, to secure the safety and reliability of cargo deliveries within the stipulated period, as well as implement modern logistics technologies.

The Integrated Programme for securing the effective use of transit capacity of Belarus in 2006-2010 foresees the need for establishing logistic centres, about 50% of which will be engaged in transportation. Another quarter of logistic centres will aim at securing the needs of domestic exporters, shipping their production in shot lots. Approximately 20 logistic centres will serve the export direction.

Belarusian developers of the programme note that ambitions of freight forwarders are not limited only to incorporating the centres into existing transportation schemes but overtaking cargo flows to Russia, Central Asia and China as well. In such a manner, Belarusian consignors strive to join the North-South transportation corridor with the further exit to the Middle East.

However, a concern exists over the feasibility of such a wide-scale idea. The EurAsEC member states have a common problem – the issue of land value. A method of land value calculation for terminals construction is quite inefficient and in many cases leads to an incorrect estimation and lack of bids from investors.

New logistic centres will be established on the basis of existing BRW cargo sites and freight terminals of several other organisations, and by means of constructing a range of modern logistic terminals. Free economic zones play a special role in solving this issue, being most attractive for investments in this field.

Belarus assumed measures that aim at the further improvement of regulatory and legal framework, including the introduction of modified and amended Agreement on International Railway Freight Traffic. One more agreement has been signed by Belarus and Russia on transit of goods transported between the two countries. A certain work has been conducted together with the European Commission in part of unifying customs documents, including the electronic ones, in order to further adjust to the European Convention on common transit procedure.

Russia and Belarus signed several interdepartmental and intergovernmental agreements on unified pricing for the railway service. Along with that, the Transport Ministries of both countries pointed out to aspects that do not

depend on freight forwarders but influence their work – customs and tax policy.

Addressing other aspects of transit development, it is necessary to mention that growth in freight transportation is also constrained by the absence of a common system of logistic centres on the territories of EurAsEC member states. In accordance to the draft project of the Strategy for Establishing and Developing the System of EurAsEC International Logistic Centres, approved in December 2008 by the 15th session of the Council for transport policy under the EurAsEC Integration Committee, the EurAsEC member states intend to create four basic networks of logistic centres that will be called "EurAsEC Transport Gates".

"West Gates" will be built on the territory of Belarus on the route from Brest to Minsk. "East Gates" will be situated in Kazakhstan, in Almaty and at Dostyk-Khorgos border crossing. "North Gates" will serve as terminals between St. Petersburg and Moscow. As for "South Gates", there are two location suggestions – the area of Kurgan-Tube in Tajikistan and the city of Osh in Kyrgyzstan.

Logistic centres in other cities of EurAsEC will be established simultaneously. In Kazakhstan, the centres will be located in Astana, Aktau and Almaty. Kyrgyzstan's Bishkek, Belarusian Minsk and Vitebsk, and Russian Kaliningrad, Nizhni Novgorod, Samara, Volgograd, Murmansk, Yekaterinburg will also serve as logistic centres. It is planned to put in operation 27 logistic centres by 2012. From 2013 to 2020, another 39 centres will be commissioned. These newly constructed centres would not satisfy the need for terminals. On the assumption that the planned volume of transportation will make up 800-820 million tons, 300 centres with the capacity of 2-2.5 million tons of handled cargo per year will be required.

In conclusion let's point out the following:

The implementation of projects within the EurAsEC integration group is subject to quite objective laws that are confirmed by the history of economic development of the Council for Mutual Economic Assistance (CMEA), the European Union (EU) and the North American Free Trade Agreement (NAFTA). There are real conditions and prerequisites for economic integration and the process of establishment of a common economic space, in which transportation systems play a vital role, complies with these objective laws.

In order to facilitate economic integration, it is necessary to accomplish at least six very important tasks, the mechanisms and instrumentality of which will not be discussed in this paper. The first condition or a prerequisite is closely connected with the economic development of the integrating countries. And the question is not in the size of their economy but in its structure, ratio and other similar indicators. That is why the discussion about development of

transportation systems should be based on the analysis of needs of domestic economy (what is needed, in what volumes, proportions, etc.). Only after defining these key conditions is it possible to streamline a national strategy with the strategy of the integration group.

In the second place, the process of integration is successful when the economies of integrating countries are on the rise. Within the crisis period, domestic issues become a priority putting implementation of large-scale international projects in question. This principle works for transportation systems as well.

The third important factor is the geographic proximity of the integrating countries. States have no opportunity to take an active part in international exchange and international division of labour if the geography raises an obstacle – very high transportation expenses raise the price for goods and integration makes no sense in this case. The EurAsEC member states are close to each other in terms of geography, but transportation costs are still very high.

The next important issue is the political will of the leadership of integrating countries. Integration is a kind of an event, phenomenon, process, that closely depends on the heads of the nations. It's them who are able to forward the projects, as heads of the European Union do and as Bill Clinton did when he got personally involved in NAFTA integration.

Early establishment of organisations, to which the countries gradually delegate certain powers, is a crucial, if not the most important, step towards the actual economic integration. Are there such organisations in the transportation field? No, not yet.

And the last but not least, integration processes run much faster if a special initiating centre is established in one of the largest cities of integration group, which unites other countries.

Transport – Energy Water System of Eurasia and Its Top Priority Projects

14

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With the current interest of legislative authorities to waterways, it would not take us long to see how the navigable rivers become connected in a united network

V. M. Lokhtin, 1914

1. Introduction: background and definitions

Railway monopoly in the post-Soviet Union territory is not natural. It was established on the basis of technical and economical ideology, beginning with GOELRO (Belyakov, 1998)¹ (State Commission for Russia's Electrification) plan. The railway transport originally strived to become a monopoly, and its main competitor is water transport. Therefore, in the middle of the XIX century, England witnessed railway companies buying shipping canals and reducing them to a size unfit for the passing of vessels.

Competition from water transport compels railways to cut traffic tariffs. Absence of competition encourages, overpricing. An observation of the American "automobile king" Henry Ford emphasises this point: "the railways were known for a good practice of not transporting goods by the most direct route. The goods were carried by the most circuitous routes possible for all the connecting lines could make some profit out of it. The losses, for sure, were passed customers". (Ford, 1989: 201).

The total transport expenditures, prior to Soviet Union fall, were exorbitant and starting from the 1960s were soaring. But the scientific and economic research of that time "proved" (with a reference to Friedrich Engels) that this fact should not be considered as a bad thing" (Mitaishvili, 1982: 46).

The strive of the USA and Western Europe railway companies for monopoly in the twentieth century was opposed by active state protectionism with regard to domestic water transport and waterways development (Agranat, Zhivilova, 1967).

Physical features determine the economic value of different transport modes. The main features of water transport are low energy-output ratio, low speed, high carrying capacity and seasonal fluctuation.

¹ The basis of GOELRO concept was "trunk railway".

Currently, the *energy-output ratio* of technological processes bears prevailing importance in technical-economic comparison, with *energy saving becoming the top priority*.

Relative energy intensity per thousand km of transportation by different transport modes comprise: 1 – for railway, 8-10 – for motor (on high quality roads; on low quality roads this ratio is 20-30 and over); 4-7 – for gas pipeline; 0.5 – for oil pipeline; 0.2-0.8 – for domestic water transport.

The energy intensity of water transport goes up with the accelerating speed of vessels and drops down with the growth of their load and draught. Energy intensity of consist of ships on the move is lower than that of a single ship. In other words, energy intensity depends on specific features of route (decreases with depth growth) and is subject to regulation (can be maintained at a required level) by managing load-draught and speed ratio.

Lower consumption of other resources is inherent for water transport, too (as opposed to different transport types).

Therefore, the low resources consumption of water transportation corresponds to its low speed.

But in the economic sense it is not the speed which is important but timely *delivery of a certain amount of goods*: early cargo delivery (at higher speed) causes additional costs (related to storage costs). It's not a low speed of cargo transportation that ties up material resources, but late delivery that evokes the delay of goods realisation. Speed of movement is relative to the carrying capacity of the transport. We should remember the terms used by economists at the beginning of the current century: cargo has a *head* (first cargo batch) and *tail* (last batch). Physical transportation speed determines cargo's head delivery terms to the customer, while the tail delivery terms are determined by the carrying capacity of used transport. The customer needs the whole cargo. Therefore, the terms of its delivery (speed in economic sense) are determined by terms of cargo tail arrival.

In 1914, due to the commencement of the "Volga-Siberia" waterway project, the study of both options of Siberian grain transportation by water and railway to Petersburg (in real volumes of that time) has shown, that the head of grain cargo would reach Petersburg by railway earlier than by water, and the tail later. In other words, the speed of the whole cargo by water is higher than that of by railway (Borkovskiy, 1914).

For instance, let's assume that 4000 tons of cargo can be transported from point A to point B by water (500 km) or by motor (300 km) transport. In the case of the former, one would need the cargo motorship "Volgo-Don", and the cargo would be delivered within 24 hours at one haul. In the latter case, it would take 400 rides of a KamAZ-53212 truck. He moves 3-4 times faster

than "Volgo-Don" and the first cargo batch (10 tons) would be delivered to point B within 4-5 hours, i.e. 20 hours faster than by water. But if there is one vehicle, then even making two rides a day (which is 1200 km, which in turn exceeds operating standards) would take 200 days to deliver the cargo. If there were two vehicles – 100 days, 10 vehicles – 20 days, etc., i.e. it would be much slower than by water transport.

The high carrying capacity of water transport in shipping season surpasses its winter idleness. Therefore, the usage of motor or even railway transport entails its regular year-round work, whereas the usage of water transport sometimes requires just a couple of rides.

Artificial waterways include not only canals but also ("sluice") rivers supported by dams for deepening.

Prior to the twentieth century, people only resorted to river sluicing when creating a deep waterway. The economic benefit was secured by costs reduction for transportation resources as compared to alternative types of transport (horse-drawn, railway). The bigger cargo-traffic along the route meant faster coverage of sluicing costs on account of resources saving (in total for national economy).

But at the beginning of the 20th century, with proliferation and development of electric power, it became possible to use the energy generated by damming. The notion of economical efficiency has obviously obtained another setting: the sluicing, expenses for which could not be covered by improvement in shipping conditions, could be compensated through additional benefits from water fall energy (Nikol'skiy, 1917: 43).

In given circumstances, resource-saving in transportations is no longer economically determinative. Thanks to hydro energy utilisation, an artificial waterway acquires a distinctive feature distinguishing it from other means of communication: *expenses for construction and operation of technical facilities are recovered neither through taxes nor by freight charges, but through usage of objectively free and inexhaustible natural productive force (the hydroelectric potential of the river).*

This was the reason why, for instance, a new system Rhine-Main-Danube (through navigation opened in 1992) replaced the old waterway between the Rhine and the Danube ("the Ludwig Channel") when it could no longer stand competition from the railways. Revenues from energy sales generated by 57 hydropower plants' which were part of the system, provided resources for this public-private construction project) (Herboth, Kessler, 1992).

And finally, owing to river flow regulation and other factors, the sluiced waterway, irrespective of cargo traffic, can solve various hydroeconomical, ecological and social tasks.

It is worth mentioning that among large-scale state projects in the USA in 1920-30s, which helped the country to overcome the Great Depression, were not only automobile roads and railways, but also projects on integrated (transport-energy) reconstruction of the Mississippi, Missouri, Ohio, Tennessee, Illinois and many other rivers. As a consequence by the beginning of the Second World War, the USA had a united deep waterways network. The output of the hydropower plants comprised 140-160 kWh per year. The number of large water reservoirs (volume – over 100 million m³) was over two hundred.²

2. Transport–Energy Water System (TEWS) of Eurasia

The concept of a “transport-energy water network (TEWN)” was put forward in 1990-91, relating to the USSR, as one would expect, and later to the Russian Federation (Belyakov, 1992).

The analysis of transport-energy complex as a united block in the economy had shown growth since the beginning of the 1960s of exceptionally unfavourable trends pointing at increase of complex resource intensity. Only the uniform development of deep waterways and hydroenergetics would allow it to be optimised.

Integration trends on Eurasian territory formulated the international willingness for the internal waterways of CIS rivers³ to join the United European system, resulting in the present time ideas and developments of TEWS gaining relevance in wider sense, which is applicable to the whole Eurasian continent (Kozlov, Belyakov, 2008) at the present time.

The transport-energy water system of Eurasia presupposes that:

- The main water transport arteries of the continent should be connected through canals in a network, and shipping conditions of rivers must be enhanced through their reconstruction into sluiced cascades (transport component);
- Hydropower plants on cascade steps (energy component) must introduce into operation the hydroelectric potential of rivers;

² At the end of the 20th century the number of such water reservoirs in USA comprised 702, in the RF – 104. Given that not all large-scale dams make large-scale water reservoirs and vice versa, statistics for water reservoirs is complemented by dams statistics: large-scale dams (over 15m in height): in 2000, China had 24119 (over 25 thousand nowadays), 6389 in USA, 2601 in India, 2467 in Japan, 871 in Spain, 820 in Canada, 554 in France, 540 in Mexico, 502 in Italy, 470 in Brazil, 427 in Turkey etc. The Russian Federation has 62 large-scale dams.

³ Resolution of Economic Commission for Europe #258 (Bucharest, 13–14.09.2006), has outlined “universal strategic policy in the area of internal water transport, which would include all interests of not only EC but also of third countries (Belarus, Kazakhstan, Moldova, Russian Federation, Serbia, Ukraine, Croatia)” and defined in particularly the necessity of the Dnepr–Vistula–Oder water route creation.

Besides transport and energy components in TEWS there are also hydroeconomic and ecologic components related to river flow regulating through water reservoirs and its territorial allocation over interbasin navigation channels.

3. United water transport networks

These networks – which are essentially transport–energy water systems, have been created and are being operated in America (USA and partly Canada) and in Eurasia: in the west of the continent (in Western Europe) and in the East (in China)⁴.

In the South of Eurasia, in Iranian territory, a shipping canal will be constructed between the Caspian Sea and the Arabian Gulf.

The development of the water transport network is carried through legislative support: for instance, dam construction in China without a navigation pass is prohibited by article 17, law on water usage.

Water transport networks appear to be indispensable components of united transport systems, constantly developing, receiving new parts and renewing old components.

Thus, as a result of opening a new through shipping route in the form of the Rein-Main-Danube system, the International Intercontinental Waterway had been formed. After the reunion of Germany, the territory of the former GDR is observing the reconstruction of old shipping systems (the Hanover-Berlin canal and other). The completion of waterworks facility construction "Three Gorges" in China on the Yangzi River, with unique navigation passes for crossing water level difference of 180 m (vertical ship's lift and 2 strings of 5-chamber sluices) filling the originated by it water reservoir, would connect another 1.2 thousand km of waterways with this water reservoir.

In Russia, on its European territory, an active part of TWES is the Integrated Deep-Water System (IDWS): the Volga-Kama Cascade and its connecting systems (see Figure 14.1). It's a complex project that was launched in the 1930s (but hasn't been finished). It provides shipping with draught up to 3.5 m and electricity production around 40 billion kWh per year. It also solves issues related to river flow territorial allocation and adjustment, as well as irrigation, water supply and other factors.

⁴ "All economically developed countries of Europe, as well as the USA and China have united shipping systems. Our country's falling behind time in this regard is clear and must be excluded". (Zacharov, Ragulin, 2001: 361).



Figure 14.1.
Integrated Deep-
Water System
(IDWS) European
Part of Russia

The Dnepropetrovsk cascade was a part of IDWS. Now it belongs to Ukraine. Yet, the connection of the Dnepr, Don and Oka, scheduled at the beginning of the twentieth century by state bodies, has not yet been implemented. The dimensions of IDWS waterways make "river-sea" shipping possible, allowing sending cargo from river ports of the RF to sea ports of Western Europe, while Western Europe waterways and former Soviet Union western waterways remain unconnected.

The Asian territory of Russia has no elements of TEWS. Large rivers have acceptable dimensions for shipping even without sluicing. The absence of navigable passes in hydrosystems of the Angar-Yenisey Cascade, Vilyui, Kolyma, Zeya, Bureya and others makes shipping through it impossible. Thus, in the west of the continent, although, shipping interrelations between Russian and Chinese waterways in the Amur basin are feasible, river basins are unconnected and the possibility of direct (without reload) water shipment in an east-west direction is unavailable.

The inland waterways connection of the whole continent in one interconnected network is needed for the establishment of Eurasian water transport network, i.e. TEWS formation in Russia, and substantially – connection of new deep-water lines (cascades on rivers, interbasin junctions) to functioning IDWS.

Creation of TEWS in Russia will enable in future up to one million km of deep waterways, connected with interbasin canals, of both latitudinal and longitudinal directions, to be put into operation.

3. Hydroenergy

The technical hydroenergy potential of the Russian Federation's rivers comprises 1670 billion kWh per year. At the present time, the average long-term production of all hydropower plants of the Russian Federation makes 167 billion kWh per year.

Unused technically available hydroelectric potential comprises 1503 billion kWh per year, which is 1.4 times higher than the production of all RF hydropower plants' production in peak 1990 (1082 billion kWh)

Establishment of TEWS in Russia will enable in future put into operation the river's hydroelectric potential to the tune of 1.5 trillion kWh/year with relevant saving of non-renewable fuel recourses and atmospheric oxygen, as well as greenhouse gases emission reduction.

4. Water resources

The Russian Federation's river water resources are huge. They comprise 9.5% of the world's river flow. However, a significant territorial and seasonal inequality is inherent to large volumes.

So, 48% of Russia's territory falls under high water supply sufficiency zone, and 27% – under low and very low water supply sufficiency zone. In a number of regions with extremely low-water periods, the vernal runoff (1-2 months) makes 80-95% of annual runoff.

The water deficit grows higher on the territories of Kazakhstan and Middle Asia adjacent to Russia. A number of regions in the Russian Federation's natural regimes of water objects are of danger of population and husbandry due to possible floods, underflooding, riverbed instability, and other damaging effects, which entails protection measures.

Establishment of TEWS in Russia presupposes the creation of water reservoirs systems on rivers and interbasin junctions, which would allow the reallocation of river flow through time and territories, as well as effectively carrying out protection from waters' damaging effects.

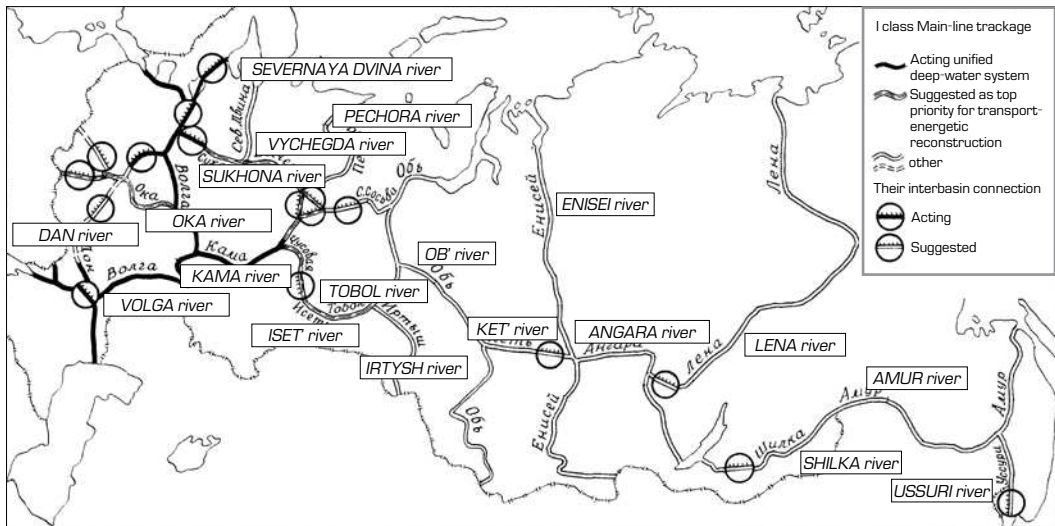
5. Principal Water Mains of Russia

As a basis for TEWS serve principal water mains initiated in 1909 by “Joint Committee for drawing out a plan on enhancing and development of the Empire’s water means of communication”. (1902-1912) (Belyakov, 1995). There are 8 mains: three latitudinal and five longitudinal. After the Joint Committee stopped its activity in project developments and state plan documents, the principal water mains targeted by it gained new names: the North-Russian Main was converted into the Middle-Union Main, the Middle-Russian Main was converted into the Middle Union Main, etc.

Since the beginning of the 1960s, when the USSR Ministry of river fleet obtained the Republican status, principal water mains directions have been forgotten. This brought about the realisation of paradoxically single-functional projects: the shipping function was excluded from the Dnepr and the Severski Donets junction project, which was planned to be a part of the South-Russian Main (and which is currently a functioning hydrologic system Dnepr-Donbass).

The following list of Russia’s principal mains network has been drawn up with a glance to the state plan documents, conceptual and design materials of the 1910-1970s, up-to-date socio-economic and political realias, as well as possibilities of “dispersed” water diversion of the Northern rivers and the Ob to the Volga Basin. The main names remain the same – latitudinal: the North-Russian, the Middle-Russian and the South-Russian, longitudinal: the Black Sea-Baltic, the Caspian-Baltic-White Sea, the Ob, the Yenisei, the Lena (see Figure 14.2).

Figure 14.2.
The Fundamental
Scheme of Eurasia
and Russia TEWS
Principal Mains



The North-Russian Main was completed in its western part. One of its branches goes from the Baltic Sea over the Neva River (just one step of the Neva hydropower plant being absent), Ladoga Lake and the Svir River; the other branch goes from the White Sea to Onega Lake (the Belomor-Baltic canal); both branches get connected in the Vytegra estuary. The main then goes over the Volga-Balt up to the beginning of the Northern Dvina sluice system (NDSS) where the accomplished part of the main ends.

Then the main goes over NDSS (reconstruction needed; realignment whenever possible), the Sukhona, the Northern Dvina, and the Vychegda rivers, then over a canal (included in the planned Kama-Pechora-Vychegda Reservoir) across the Vychegda-Pechora watershed to the Pechora, then along it up to the Pechora-Ob watershed, and after it to the Severnaya Sosva and further to the Ob and the Gulf of Ob.

Currently, there are no grounds to select a place for the Pechora and the Northern Sosva junction. However, this junction might firstly have an important meaning for internal water transport access to the Yamal peninsula and, secondly, be in service for partial diversion of the Ob basin water over the Pechora, the Kama-Pechora-Vichegoda reservoir into the Volga basin (one of "dispersed" territorial flow redistribution directions).

The Middle-Russian Main on the territory of Russia begins on the west of the Oka river. The development of a main along the Dnepr and further along the Pripyat (pours into the Kiev reservoir, Ukraine), the Dnepr-Bug system⁵, the Bug and Vistula rivers must be a subject for international agreements.

The main might meet the Dnepr as per the South and the West schemes. According to the South scheme:

- From the planned Kaluga reservoir on the Oka river;
- Over the Zhizdra river and watershed canal;
- Into the Desna river and further into the Dnepr.

According to the West scheme:

- the Oka river (the Kaluga reservoir);
- the Ugra river;
- watershed canal;
- the Osma river;
- the Dnepr (the Dorogobuzh reservoir).

The West scheme might be preferred due to certain political factors.

⁵ At present time Belarus is carrying out reconstruction of the Dnepr–Bug system, navigable passes adapted to "Eurobarge" – new sluices chamber width reaches 12.9 m).

The Oka needs transport-energy reconstruction. The main line passes along it and falls into the Volga and further into the Kama (it is preferably to fill in to the design reference marks of Cheboksarsk and Nizhnekamsk (Lower Kama) Reservoirs).

From Kama Reservoir it is required to build the Transuralsk navigable waterway along the route: the Chusovaya, junction channel, the Isset, the Tobol and the Irtysh.

It is expedient to implement the transition of the main line to the Ob in the following direction: the Om (Irtysh affluent) – channel – the Chaya (Ob affluent).⁶ This is one of the directions of the “distributive” water diversion from Ob to Kazakhstan and Central Asia.

Then the main line passes along the Ob and Ob-Yenissey junction. The latter must be built anew; yet at the end of 1950s, the local administrative and party-economic bodies applied for its renewal. Earlier, the Ket-Kassk direction of this junction was considered preferable, but currently, in view of the KATEK development, the Chulymsk direction can become the preferred choice.

Then – the rivers Yenissey and Angara (hydrosystems of the Angarsk Cascade are to get navigable passes) and Lake Baikal.

From Baikal the main line passes along the rivers Selenga and Hilku. Then it must overpass the watershed (Yablonovy Range) and further – along the rivers Ingoda, Shilka and Amur. Against Khabarovsk the main line branches: one branch passes along the Amur towards Nikolayevsk; the other passes along the rivers Ussuri and Sungache and Lake Hanka, therefrom, having passed the watershed leading to the Razdolnaya river (Suyfun), must approach Vladivostok.

At present, the considerable part of *the South-Russian main line* is outwith the Russian Federation (in the territories of Moldavia and Ukraine)

On the way to the Russian Federation, the main line passes along Seversk Donets from the border of Ukraine to the Don. Then approaching as the branch to Rostov – up the Don and along Volga-Don navigable channel (VDNC) it flows into the Volga and Caspian Sea. In this regard it is expedient to proceed with the construction of “Volga-Don-2”.

The Eurasia Canal along the Kuma-Manych valley is planned to be the south branch of the main line, but in fact it will have an independent transport implication. Moreover, it will discharge the operating VDNC.

In the current political conditions it is expedient to connect the South-Russian main line with the Middle-Russian meridian line Oka – Don (as the Class B

⁶ This direction was offered by I.A. Volkov in the context of development of “Sibrechput” (“Siberian river way”) and complex water problems solving of Ob–Irtysh interfluve – Volkov (1980).

Main Line) along the route Oka – Pronya – Ranova – Hupta – junction channel – Ryassa – Voronezh – Don (Gavrilov, Lavrov, 1934).

The further development of the main line is possible too – in terms of the international project of Aral Sea recovery: the channel between Caspian Sea and Aral Sea (Akhmedov, Spitsyn, 1991) can be given two functions – water transmission from Caspian Sea to Aral Sea and navigation (further the navigable waterways could pass along Aral Sea, the Syr Darya and the Amu Darya).

At the present time, the state borders separate the *Black Sea-Baltic Main Line*. Its main part is the river Dnepr, which starts on the territory of Russia and passes along the territory of Belarus, while the optimal junction place of the river Dnepr with the river Zapadnaya Dvina (between Orshey and Vitebsk cities) is located in the same place, then as far as the estuary it passes along the territory of Ukraine. The junction of Zapadnaya Dvina and the river Lovatya is in the borderland between the Russian Federation and Belarus.

On the territory of the Russian Federation, it is expedient to implement the transport-energy reconstruction of the river Lovat (as the future part of the Black Sea-Baltic water main line). Further to the north the main line would pass along the Volhov river, the Ladozhskoye lake and the River Neva to St. Petersburg. Prospectively, the reconstruction of the Dnepr on the territory of Belarus and RF, the construction of the junctions of Lovat with Zapadnaya Dvina and Zapadnaya Dvina with Dnepr and the completion of the main line, could become the interstate project ("Dneprovsk agreement" on multipurpose utilisation of water resources of Dnepr and Zapadnaya Dvina – Russia, Belarus, Ukraine).

A considerable part of the *Caspian Sea-Baltic-White Sea Main Line* (Volga and Volga-Baltic, Kama) is complete. It passes from the Caspian Sea up along Volga to the Kama estuary where it divides into two branches:

- One branch passes up the Volga, then along the Volga-Baltic;
- Further – North-Dvinsk Sluice System (NDSS – reconstruction is required), the rivers Suhona and Northern Dvina to the White Sea;
- The other branch of the main line passes up the Kama; transport-energy reconstruction of navigable waterways and construction of Kama-Pechorsk-Vychegodsk junction is required upward the Kama Reservoir. The main line passes along it to Pechora or Vycheгда and further along the routes of the Northern-Russian main line.

Ob main line, as the Joint Committee planned in 1909, in its south part was to pass along Irtysh. At the present time, the considerable part of Irtysh is in the territory of Kazakhstan. Therefore, the Irtysh gradual reconstruction from the

estuary to the city of Omsk is expedient with perspective of the Kazakhpart of Irtysh connection to the main line as well.

(“Irtysh agreement” on Irtysh transport-energy reconstruction and multipurpose utilisation of its water resources is expedient – China, Kazakhstan, Russia).

In this regard, on the RF territory, it is necessary to build the main line along the Ob itself together with the gradual reconstruction of Ob and its basin rivers (Ob is higher than the Novosibirsk reservoir, and it is also higher than Biya, Katun, Tom, Chulyum), and the Ob main line in its south part would have two branches (Ob and Irtysh) in the long term.

The *Yenisey main line*, as the Joint Committee planned in 1909, is to pass along the Yenisey from its upper reaches to the Arctic Ocean. The existing hydrosystems are to be complemented by effective navigable passes and further Yenisey reconstruction must have a complex, transport-energy character.

Lena main line. Taking into consideration recent design studies, and also the last decade’s socio-economic development on the territory of the Lena basin, the source of the Lena main line and its connection with the Middle-Russian main line is expedient to arrange by means of Angar-Lena connection between the rivers Ilim at the pressure head of Ust-Ilimsk reservoir and Kuta with the outlet to the Lena in Ust Kut. The problem with this connection is that it requires a complex decision: it is necessary to arrange the construction of navigable passes in the hydrosystems of the Angar Cascade, reconstruction of the Lena upward Ust Kut with subsequent cascade development down the Lena until it flows into the Laptev Sea.

6. Class B Main Lines, Access and Local Ways

Besides the main waterlines (Class A main lines) TEWS also includes secondary main lines (Class B Main Lines), access and local ways. In other words, TEWS must include all rivers, each river in prospect must become the waterway of relevant purpose, regulated by the reservoirs, and its hydraulic power must be put into operation.

The network of main waterlines and deep waterways of other classes can develop independently.

On the European territory of the RF, inasmuch as all regional centres are located along the rivers leading to Class A Main Line, these rivers must become Class B Main Lines. Class B Main Lines can be also considered as the connections of Suhona river (North-Russian main line) with the Volga.

In the Uralsk region, Class B Main Lines can be the rivers Pyshma, Miass from Chelyabinsk to the estuary, Tura, Tavda and also Ural, together with the channel Volga-Ural (perspective Russian-Kazakh project).

On the Asian territory of the RF, many rivers can acquire the significance of Class B Main Lines: Chulym (if it will not become a part of the Middle-Russian main line), Tom, Lower Tunguska and Vilyui with the construction of junction channel between them, Kolyma, etc.

All other rivers of the RF, depending on their transport-energy reconstructions, can become access and local ways.

7. TEWS and Other Transport Types

The transport system of the RF inherited from the USSR is characterized by the underdevelopment of the waterways system and, due to the lack of interbasin navigable connections, by consequential schemes of combined (water-railway) cargo transportation. The routes of the railways and highways and gas pipelines are laid everywhere, without regard to the perspectives of river reconstruction and transport use. In the course of TEWS development, the reconstruction and development of communications of all types must be implemented in a complex way:

- the development of water-railway-motor parallel guides is desirable. This will provide differential transportations according to the type of transport, cargo and passengers' requirements, and on the whole it will provide the most efficient and economic transportation system;
- the location of river hydrosystems and bridge crossings of land communications must be interlinked: bridge crossings, as well as crossings of the pipelines across the river, must pass across the dams;
- in winter, it is possible to organise cargo transportation over the river's (reservoir's) ice: rolling-stock trains on the slips led by a hauler with the run adapted to movement on the snow;
- the appearance of new hydropower plants during TEWS development will require the development of power lines ("electron transport" of fuel-energy resources), which will become a factor of combined and local energy systems development.

8. The Primary Projects on TEWS setting up in Russia

Setting up TEWS in Russia must connect to the operating Integrated Deep Water System the following new deep-water lines, while the hydraulic power of the rivers, put into operation, is sufficient for providing investment attractiveness of the projects.

1. The River Oka from Nizhny Novgorod to Orel with the prospect of a connection with Dnepr and a further outlet into the waterways system of the Western Europe (part of the Middle-Russian main line).



Figure 14.3.
The Integrated Deep
Water System of
ETR, the Oka and
the Main Lines of its
Connection with the
Dnepr

The project involves the construction on the Oka of a cascade of complex hydrosystems: upward the Moskva River estuary with the regulating reservoirs (3 or 4 levels), below – the cascade of low-pressure hydrosystems.

The implementation of the project will connect about 1100 km of deep waterway to IDWS, and will provide electric power output of 1.6 billion kWh/year at hydropower plants. This will efficiently increase the Oka water quality and environmental situation on the whole.

The task of the Oka reconstruction and its connection with Dnepr has an international importance. In the West, the task of connecting the inland waterways of CIS and Western European countries has already been set by the Economic Commission for Europe: in particular, the task of opening transparent navigation between Dnepr and Visla, further leading to Oder. At the present time, Belarus is realizing the reconstruction of the Dnepr-Bugsky Canal, and, in addition, the project of a waterway from Riga to the Black Sea has been developed in Minsk.

Since the Dnepr joins the structure of the South-Russian, the Middle-Russian and the Black Sea-Baltic main lines with its different parts, it is necessary to

organize the transport-energy reconstruction of the Oka in Russian territory as a part of the Middle-Russian main line connecting the Volga (IDWS) with the Dnepr.

The activities connected with the Dnepr reconstruction and its basin rivers must be coordinated, and a "Dnepr agreement" between Russia, Belarus and Ukraine is advisable.

2. The Upper Volga from Tver city to the Upper Volga lakes and Seliger lake (Class B Main Line). It is proposed to continue the cascade upward the Ivankovo Reservoir (3-4 levels, including Tverskaya, Staritskaya, Rzhevskaya), which will extend the Integrated Deep Water System to this part of the Volga and will provide access for the ships to the Upper Volga Reservoir and Seliger lake. In order to achieve this, reconstruction of the Upper Volga hydrosystem, the pressure head of river Selizharovka and lake Seliger will be required. The navigable channel, forming one reservoir, connects the Upper Volga lakes and Seliger lake.

The project implementation will provide new opportunities for water tourism ("ecological" cruises) and will provide electricity production of 0.65 billion kWh/year at hydropower plant (HPP), will regulate the Volga flow upward Ivankovo Reservoir and enlarge its water resources, which is important for Moscow's water supply.

3. Volga-Severodvinsk waterway from Volga-Balt to the esstuary of the Vycheгда river (a part of the North-Russian main line).

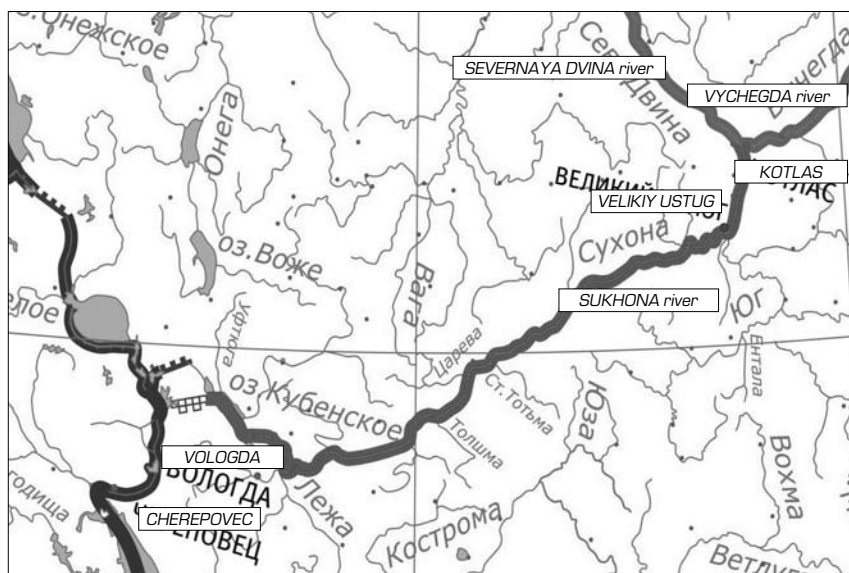


Figure 14.4. Volga-Severodvinsk waterway

Presently, the North-Dvinsk Sluice System (NDSS) starts from Volga-Balt (Sheksninsk Reservoir) with Topornin Sluice and ends with the Suhona estuary from Lake Kubenskoye (the dam and the sluice “Znamenitye”). The wooden constructions of the system are physically and ethically out of date. During the system reconstruction, it would be expedient to reroute it by building a summit canal directly from Sheksninsk Reservoir to Lake Kubenskoye.

It is proposed that the project also includes the rivers Suhona (5-6 levels) and Northern Dvina up to the Vychegda estuary (1 level is to be higher than the city of Kotlas), the electricity production will comprise 1.7-1.9 billion kWh/year at HPP.

4. Kama–Pechora–Vychegodsk junction, Vychegda river (the parts of the Northern-Russian and the Caspian-Baltic-White Sea main lines). It is a large, capital-intensive project, where there will be marked stages; it should be correlated to the railway project “Belkomur”.

The project of connecting Pechora, Vychegda and Kama in their upper reaches has a long prehistory, in the latest developmental works (the end of 1960s) the project of uniting the Kama–Pechora–Vychegodsk Reservoir with channels was aimed at Vychegda and Pechora water diversion across the Kama into the Volga.



Figure 14.5.
Kama–Pechorsk–
Vychegodsk junction
and River Vychegda
(down the Kama –
the Kama Reservoir,
IDWS)

While implementing the project, besides the development of the deep waterways system, there can be received a considerable electricity production at HPP and the possibility of flow redistribution between the basins of Volga, Pechora and Northern Dvina. Without taking into consideration the flow redistribution the HPP output at hydrosystems of Ust-Kulomsk (r. Vychegda), Pokchinsk (r. Pechora) and the Upper-Kama (the Kama) will comprise 1.3-1.4 billion kWh/year, and the HPP cascade output at Vychegda river below the Ust-Kulomsk hydrosystem (3-4 levels) will comprise 2.6-2.8 billion kWh/year.

5. The Transursalsk waterway (navigable junction of the Volga and Ob basins from the Kama Reservoir (IDWS) to Irtysh – a part of the Middle-Russian main line). The main route of the Transursalsk way: Chussovaya river, the junction channel, Isset and Tobol rivers.



Figure 14.6. Transursalsk waterway (the main route)

The construction of the junctions of Volga with Ob between Chussovaya and Isset has been started many times. The first was in 1815, the last – within the Second five-year plan of 1933-37 years. The project implementation will allow for improving the efficiently the water quality in the rivers Chussovaya and Isset, providing electricity output 2.3-2.5 billion kWh/year at HPP.

The rivers adjacent to the Transursalsk line are subject to the transport-energy reconstruction as well.

These rivers are:

- the Tobol upward the Isset estuary (taking into consideration the necessity of solving a set of water problems, the reconstruction of Tobol can become a joint Russian-Kazakhstani project);
- Miass, the Isset estuary can become Class B Main Line from Chelyabinsk to the estuary; Tura and Tavda (the Tobol estuaries), Sylva, etc.

The Transursalsk waterway can possibly have additional branches. At the eastern slope, this branch is Pyshma river, along which cargo can be transported, whose initial station or terminal is Yekaterinburg. At the western slope, the additional branch of the main line can pass from the Upper Makarov Reservoir along the Chussovaya into the Nyazepetrovskoye Reservoir and along the rivers Ufa and Belaya.

7. The Rivers of the Upper Ob Basin: Tom, Chulym (Class B Main Lines), upper Ob up to the estuary of Tom river (a part of the Ob main line), Biya, Katun (local ways).

The Ob basin is characterized by a set of water problems: lack of water resources, floods, low water quality, etc. It is possible to solve these problems

only on the basis of flow regulation with reservoirs, which are most efficient in the basin upper reaches and can be created in connection with the transport-energy reconstruction of the above-mentioned rivers. The work can be performed independently as separate projects.

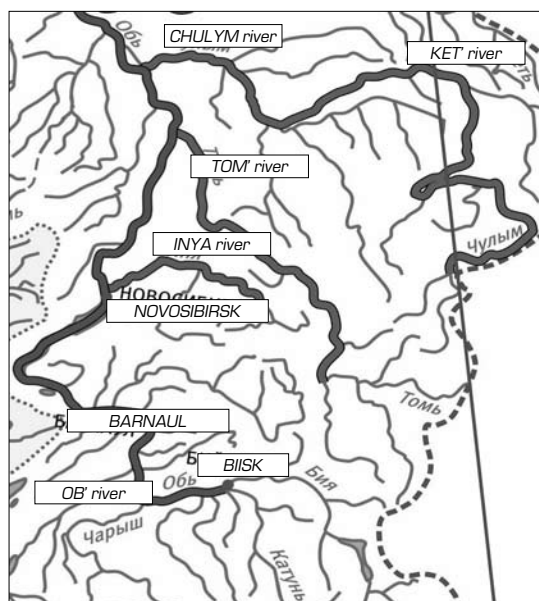


Figure 14.7.
The Upper Ob Basin
Rivers Proposed for
Transport-Energy
Reconstruction

- The river Tom from the city of Tomsk to the estuary of Mras-Su river can provide the deep-water outlet westward to the Kuzbas coal, solve water problems of Kuzbas (floods, lack of water, high water contamination rate). On completion of the Krapivinsk hydrosystem and construction of Tom and Kemerov hydrosystems (the Krapivinsk hydrosystem interrupts the continuity of the earlier-planned cascade and 1-2 additional levels may be required for recovery of the continuity) there will be received 643 km of deep waterways, electricity production of 6.6 billion kWh/year.

Besides Tom river, other Kuzbas rivers are subject to transport-energy reconstruction: affluent of Tom river, of the rivers Kondoma (0.6-0.7 billion kWh/year) and Mras-Su (0.6 billion kWh/year), as well as Inya river, which provides water outlet from Kuzbas directly to Novosibirsk (160-180 kWh/year).

- The river Chulyum. The development of KATEK brought the considerable technogenic pollution of Chulyum river, MPC of a number of harmful agents exceeds the norm tenfold. The Chulyum Cascade (14-16 levels) with the Chulyum-Yenisey junction will allow them to: create the deep waterway, which provides outlet to the Kansk-Achinsk coal in the western (Ob) and eastern (Yenisey) directions; get electricity production no less than 3.5 billion kWh/

year, arrange tankages for flood protection in the middle and the lower Ob; and increase the quality of water polluted by the operation of KATEK enterprises.

- The rivers Upper Ob, Biya, and Katun. For radical improvement of navigable conditions at the upper Ob (up to Tom river estuary), as well as for solving a set of the Ob problems (first of all, the problems of flood protection in the middle and the lower Ob) it is necessary, wherever possible, to implement the deep regulation of these rivers estuary. Earlier on the upper Ob it was proposed to create a cascade of 6 hydrosystems, among which only Novosibirsk Cascade alone has been built and is under operation

At present time, a large project of Altay (Katun, Yelandinsk) HPP is again proposed for implementation. On Katun, it is necessary to create regulating reservoirs but they should be based on TEWS development. Therefore, there are four river reconstruction projects implemented sequentially or in parallel.

Project 1, Biya river. Taking into account the Biya river flow regulation by Teletskoye lake, the water-transport use of Biya river considerable part (225 km of the total length 301 km) and Teletskoylake (78 km) and their recreational attractiveness as well, the transport-energy reconstruction of Biya river must be of high priority (cascade of 5-10 levels, 5.2-5.5 billion kWh).

Project 2, the Ob from the source to the Novosibirsk Reservoir. A cascade of 3-4 levels (4.6-4.7 billion kWh/year), while the Upper Ob Reservoir would prop the lower reaches of Biya and Katun.

Project 3, Katun river. A cascade along Katun with bottom-up development: the deep water-way would pass along the whole lower 100 km reach of the river and further to mountains. On the Katun reach lower than the range of Chermal HPP (1.6 billion kWh/year), which has recently been offered as the counter-regulator of Altay (Katun, Yelandinsk) HPP, there can be received electricity production of no less than 2.2 billion kWh/year (1-2 levels).

Project 4. Baturin and Kireyevsk hydrosystems on the Ob river (lower than the Novosibirsk Reservoir) 2.2-2.3 billion kWh/year.

8. The Irtysh–Ob Deep Water Main from China to the Northern Sea Route can become an international project.

According to the "Scheme of Irtysh river Complex Use" developed in 1950-60s, it was proposed to reconstruct the river into continuous cascade of 16 levels, including 12 levels on the territory of Kazakhstan, 4 levels inside Russia. The total HPP cascade output is about 19 billion kWh/year.

Presently, on the territory of Kazakhstan, 3 cascade levels have been constructed and are under operation: Bukhtarminskaya (with reservoir of over-year regulation), Ust-Kamenogorskaya, as well as the new Shulbinskaya

(the first HPP started its operation in 1987). Their total output makes about 5.5 billion kWh/year.

There are some concerns that China's water take-out from Black Irtysh river will lead to the impoverishment of Irtysh water resources. Besides, the quality of Irtysh water after crossing the borders of Kazakhstan and RF is low. These circumstances make the task of Irtysh Cascade development especially relevant.

9. The Yenisey–Lena Main is suggested as a special project, as the construction of Turukhansk hydrosystem (Evenki HPP) on Lower Tunguska river is planned for 2010. It is proposed to include this project in the context of Yenisey-Lena Main Development (Class B Main Line): rivers Lower Tunguska, Vilyui, junctions of Lower Tunguska with Vilyui and Lena, Igarsk hydro-system on Yenisey river (a part of Yenisey Main).

This complex project will include 2 large HPP: Turukhanskaya (Evenki) and Igarskaya on Yenisey river with an electricity production of 46.0 and 30.6 billion kWh/year respectively.

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Transcontinental Shipping Route Europe – Central Asia

15

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The Eurasian economic community is an international organisation created to provide the dynamic development of all its member states through agreed social and economic conversions and efficient usage of their economic potentials. One of the activity goals of EurAsEC in the area of economic policy is the formation of Integrated Transport System (ITS), which is combination of transport systems of the member states of EurAsEC. ITS formation includes the solution of several problems, one of which is the efficient usage of the transit-transport potential of the states of the Community, both in mutual transit in the communications with third countries and in transportations of transit cargos between third countries across the territory of the Community.

The UNECE forecasts 2.0-2.3 fold increase in trade volumes between the Caspian Sea and the Danube-Black Sea countries. In this context, South-Western region, linking Central Asia and Europe across the Azov-Black Sea basin (ABSB), becomes a priority for reaping benefits of the existing transit potential. Meanwhile, the biggest economic effect, due to decrease of transport component in the product price, could be achieved through the creation of a steadily working transcontinental shipping route Europe – Central Asia, connecting Caspian ports with the ports of European countries.

The development of such route is aimed at:

- The creation of a general market of transportation services and the Integrated Transport System of EurAsEC member states;
- The Realisation of geographic advantages for EurAsEC member states during the implementation of the transit transport-economic communications between Europe and Asia;
- Meeting the needs of mutual transit for EurAsEC member states in the communications with third countries, and transportations of transit cargos between third countries across the territory of the Community;
- A technical upgrade of transportation systems for the purposes of efficient operation, transportation safety and environment protection;
- The proliferation of more economic and ecologically friendly water transport for cargo transportation.

The provision of direct non-terminal communication between the ports of the Caspian Sea and European countries.



Figure 15.1.
The Scheme of
Transcontinental
Shipping Route
Europe – Central
Asia

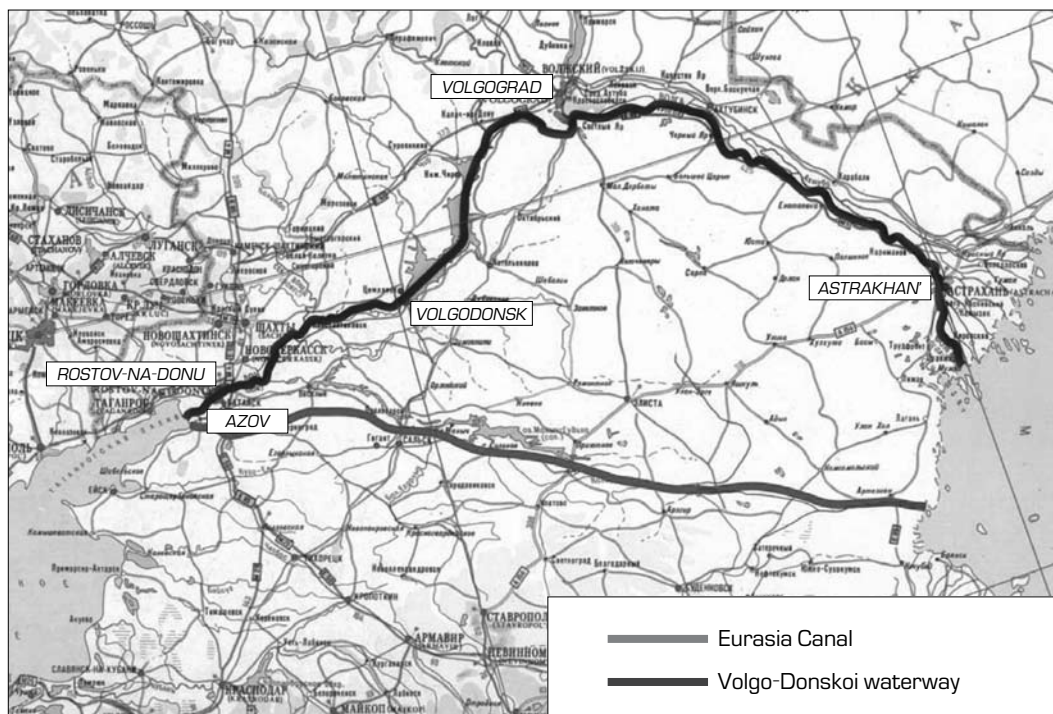
The western route branch goes along the Danube with a possible further outlet through the Main-Danube Canal (171 km) to the Main and further to the Rhine. However, the main bulk of transportations expected on the Danube reach 2,226 km long from the influx to Passau (Germany), which has guaranteed depths of more than 2.0 m and where the shipping is regulated by the “Convention of the shipping regime on the Danube” (the Danube Convention) which entered into effect on May 11, 1949. The Convention specifies that “the navigation on the Danube must be free and open for citizens, merchant ships and goods of all states on the basis of equality with regard to port and navigation duties and trade shipping conditions. In contrast to the Danube, the Main-Danube Canal has the status of an inland waterway and an insignificant width (12 m) of sluice chambers. There are 83 sluices on the waterway Rhine-Main-Danube (from Rotterdam to Sulina) with the length of 3503 km. The average passage time of ships/compounds between Rotterdam and Sulina makes: 10.5-13.5 days along the current, 17-18 days against the current. In the peak 1987 year, 3496 ships passed across Sulina and 10.1 million tons

of cargo have been transported, 2.9 million tons of which was transported in the direction of Black Sea, and 7.2 million tons of which was transported from Black Sea to the Danube. Prospectively, a radical improvement to shipping conditions on the Danube is related to bringing the guaranteed navigable pass depth up to 2.7 m by building more than 10 hydrosystems with sluice chambers of 310x34x4.5m.

The eastern route branch represents water-transport connection between the Caspian Sea and the Azov-Black Sea basin (ABSB). This connection, as stated in the address of Russia's President Vladimir Putin to the Russian Federation Federal Assembly of April 26, 2007, "... will not just provide the entrance for Caspian Sea countries to Black and Mediterranean Seas, i.e. to the world's oceans, but it is going to change qualitatively their geopolitical position and allow them to become the sea powers".

At the present time, there are two suggestions on the removal of limitations for transportations increase between Caspian and Azov-Black Sea basins: the construction of the second branch of the Volga-Don waterway (Volga-Don 2) and the Eurasia Canal. It should be noted that there are no technical designs for the Eurasia Canal and Volga-Don 2 as such; there are however conceptual ideas and preliminary planning available for these.

Figure 15.2. Options of waterways transport connection of Caspian and Azov Seas



Nevertheless, at this stage a number of issues could be noted providing fairly good summary of prospects of the water-ways transport communication development between Caspian Sea and Azov-Black Sea basin.

A transcontinental shipping route from Europe to Central Asia would be formed between the ports of the Caspian Sea and European countries irrespective of which option would be pursued. Still, its operational efficiency (a key demand on the part of stakeholders) would first of all be based on characteristics of Azov-Caspian communication, which would allow for the realisation of modern transport-technological schemes of cargo delivery, and would suffice to the requirements of cargo traffic, modern shipbuilding, and safety requirements of shipbuilding.

The Volga-Don route from the Azov Sea to the Caspian Sea (even in case of second sluice lines construction), unfortunately, does not allow for the implementation of modern high-speed technologies of container and rolling (motor transport) cargo transportation. Limitations for draft (no more than 3.6 m) exclude the possibility of using a lighter aboard the ship (LASH) non-terminal technologies due to long transit passage time (seven days on an average) coupled with the length of the route (about 1300 km), passage of 18 sluices and a large number of difficult reaches on the Nizhni Don (Lower Don). Besides, the geographic location of the route of the Volga-Don shipping canal has the main advantages of entering the inland waterways of Russia, thereby increasing the water-ways transport routes for foreign trade cargos of Caspian Sea countries by 600-800 km when compared to the route of the Eurasia Canal.

Using the Eurasia Canal for shipping, the transit passage time from Azov to the Caspian Sea (about 700 km, six sluices) would take no more than 2.5-3 days, and the navigation period will be no less than 10 months per year, compared to the 8 months of the Volga-Don route. The dimensions of the canal and navigation passes will allow for the wide usage requirements of modern ships (consist of ships) with a width of up to 28 m and a draft of up to 5.0 m.

An important conclusion is that the Volga-Don 2 and Eurasia Canal cannot be considered as competing options. Each has its own purpose, and its own role in the development of the transport system of Russia and ITS of EurAsEC. Volga-Don 2 goal is to provide the operation of the united deep-water system of the European part of Russia, cargos transportation between the Volga basin and ABSB. The Eurasia Canal aims to provide cargos transportation between Caspian Sea and ABSB.

The implementation of the Eurasia Canal Project will open several new prospects for developing transparent open-end routes from Western and Central Europe to the ports of Caspian basin, and will provide a new entrance

for the Central Asian countries into the markets of Europe. The route will make possible the realisation of modern technological transport projects allowing for:

- A reduction of cost of cargo transportations owing to using sea and river transport;
- The same, or even reduced time of goods delivery;
- A decrease in energy consumption of transportation products;
- Long-distance transportation of heavy and large-dimensioned packages without the costs for preparation of the route.

The new transcontinental route makes expedient the implementation of such transport-technological systems (TTS) as:

- LASH TTS on the basis of LASHs of dock type with capacity of six lighters of the type "the Danube – Sea", each having a weight-carrying capacity of more than 1000 tons;
- Barge-towing TTS with separate cargo and power modules;
- Ro-Ro TTS for providing transportation of trailers, containers and motor transport by fast-speed ferry vessels (cargos delivery "HH" (house-house) by motor transport);
- Container TTS, using feed container ships with a capacity of up to 400 – 500 TEU, allowing transport communication with main ocean container lines for servicing the Caspian Sea ports.

A significant contribution to the development of the transcontinental shipping route Europe – Central Asia can be made by the implementation of the perspective development plan of Ust-Dunaisk Port, a project of the sluice junction between the canal Danube – Black Sea on the area of established soils on the northern part of the Danube delta on the route Vilkovo – South-Western part of Zhebriyanski bay.

The construction of a deep-water port "Kuban" in the Taman Gulf of the Kerch Strait will not only provide transshipment of significant volumes of foreign trade cargoes to ocean- shipping facilities, but will also predetermine the construction of a new shipping canal between the North-Eastern part of Taman Gulf and the Azov Sea.

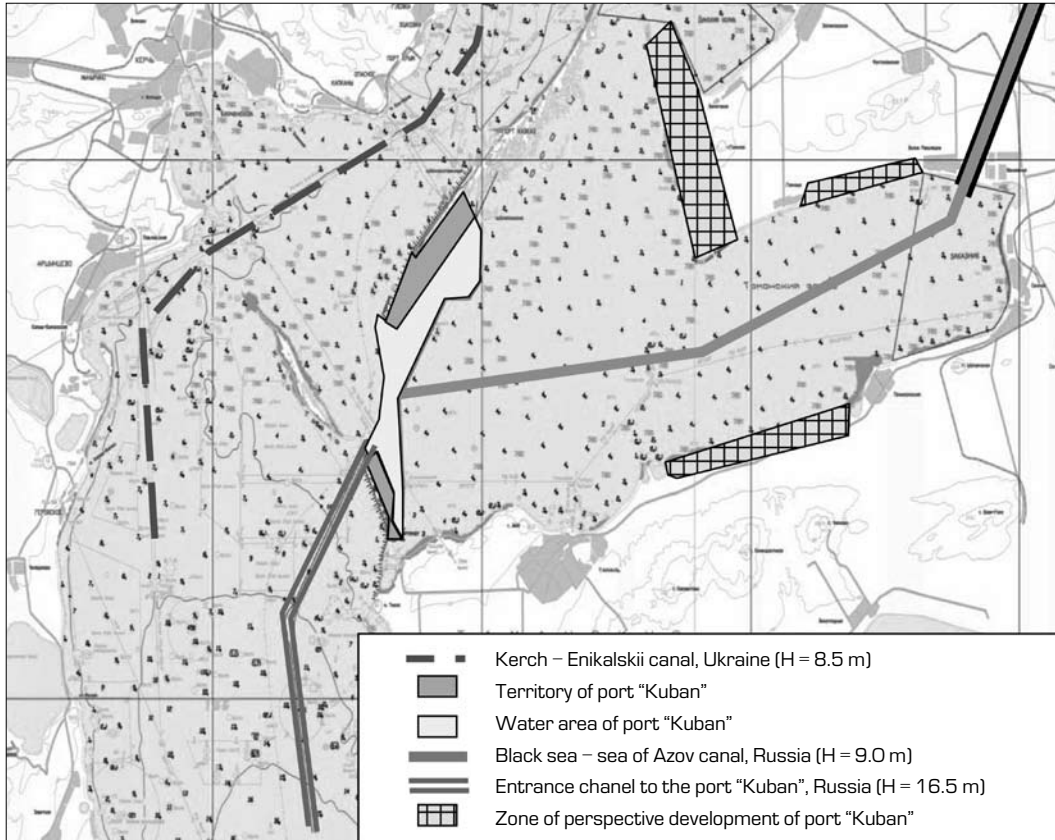


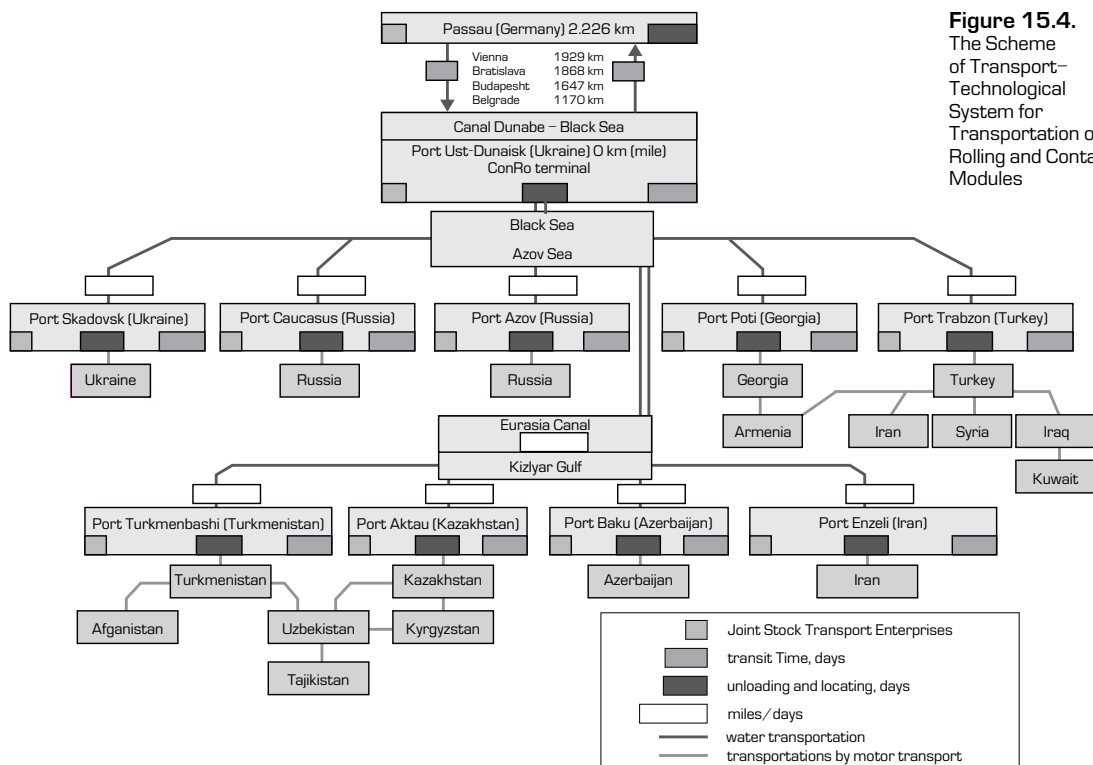
Figure 15.3.
The Scheme of
Perspective Port
“Kuban” and Azov–
Black Sea Canal

As an example, we will consider a multimodal transport-technological system (TTS) for the transportation of rolling and container cargo modules, which can be implemented on the basis of the shipping route described above for the purpose of:

- Optimising non-terminal cargo delivery through the “HH” scheme between the states of Europe and Central Asia;
- Decreasing loads on highways;
- Reducing the negative environmental impact.

TTS transport assets include:

- A fleet of motor trailers (MT);
- A fleet of twenty- and forty-foot containers;
- The Danube river ferry vessels with width 22.8 m, length 160-180 m, draft 1.9 m, speed 26 km/h, capacity about 80 AT.
- Ro-Ro Ships with draft up to 5.0 m.



River ferry vessels within the Black, Azov and Caspian Seas achieve the transportation of motor trailers within the Danube and the Eurasia Canal – by Ro-Ro ships. Transshipment from river motor ferry vessels to Ro-Ro ships and back is performed at Ust-Dunaisk Port. The transit time of cargo delivery (including handling operations) between the route terminals amounts to 13.5-16.5 days, against which the time of the Passage makes: across the Dunabe along the current – 6 days (against the current – 8 days), between Ust-Dunaisk and Eurasia Canal – 1.5 days, across Eurasia Canal – 3 days, from Eurasia Canal to the ports of Caspian Sea countries – 0.6-1.5 days.

Preliminary studies of other TTS, which can be formed on the basis of the reviewed shipping route, suggest a reasonably high efficiency of operation.

In this context, a transcontinental shipping route from Europe to Central Asia, expanding as far as Caspian Sea to the west, the seven (Danube) International Transportation Corridor (ITC), systemically interacting with "Cretan" transportation corridors №№ 4,7,8,9, ITC "North-South", TRACECA will bring in an important component in the system of Euro-Asian international transportation corridors, significantly improving the transit potential of EurAsEC member states.

VITALY
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16 Megalogistic Intermodal Transport Technological System Germany – Russia – Central Asia – Afghanistan – China

Intermodal Transport Technological Systems (TTS) make it possible to choose the appropriate transport system of cargo delivery and the cost and transit time of shipment, exploiting the advantages of each mode of transportation.

According to the prime cost of cargo transportations, water transport, in comparison with land transport, represents the cheapest mode due to the large cargo capacity of vessels and the low consumption of power resources as per unit of ton-mile (or ton-km) output.

Thus, a main motor hauler equal to a 40-foot container spends 1MJ per 1 ton-km, train – 0.6 MJ and sea container carrier only 0.1 MJ.

According to the French Agency on Environment and Energy Resources Management, it is possible to transport 50 tons of cargo by motor transport, 97 tons by railway, 127 tons by river transport and 250–300 tons (depending on cargo capacity of a vessel) by sea transport at consumption of one liter of fuel per one kilometer. In monetary terms, such an advantage of sea transport becomes even more obvious, as the large marine vessels consume heavy and accordingly cheaper fuel types.

At the same time, the direct “door-to-door” delivery by motor transport does not require any additional loading operations and excludes related potential commercial losses due to the goods damage and shortage, and often longer delivery time.

The constant technological improvement of loading operations and, primarily, the introduction of the containerisation and rolling method (Ro-Ro) of general cargo handling, has led to wide spread use of multimodal transportation such

as main-feed systems for sea transport and routing for railway transport applying logistical (optimization) schemes of cargo traffic formation.

Round the World (RtW) and transoceanic intercontinental container lines, as well as interbasin sea ferry communications and feed container lines, make it possible to find optimal transport decisions due to the combined use of various transport types with regard to both transportation cost and transit time, following the principle of "door-to-door" delivery.

An example of the design plan on the formation of international transportation corridors within the Eurasian united transport space using the modern megalogistic intermodal transport technological systems is shown below.

SCO States – Western Europe. Railway–Ferry Transport Complex

The increase in tonnage of the main container carriers between Europe and Far East to 12 thousand TEU (20-foot containers) has led to a reduction in the cost of traffic. As a result, transit container transportations by the Trans-Siberian Railway from the ports of Japan, South Korea and Southeast ports of China are becoming unprofitable. The same will regretfully happen to much aspired Great Silk Road with the use of the motor transport for direct traffic (except for specialised shipment of narrow nomenclature of expensive and urgent goods).

In 2007, even with very high prices for energy resources (bunker fuel) and freight charges for passing over the Suez Canal, the freight rates for transporting a 20-foot container between Western Europe (Hamburg) and Japan (Tokyo) in an easterly direction made 500, and in a westerly direction made \$1500, which is completely unattainable by the transportation prime cost for the Trans-Siberian railway version.

Moreover, marine fed transportations over the Baltic and Far East also demand additional charges when forming the entry rate. Today, it is widely known that the difference in freight rates in terms of Eastern and Western directions are caused by unbalance in foreign trade freight traffic.

At the same time, there are perspective transport directions for the realisation of the unique transit potential of the Trans-Siberian Railway. Thus, the economic regions of Beijing and North-West China, the states of Central Asia, and Afghanistan, using the transshipment points Zabaykalsk (Russia), Druzhba (Kazakhstan), Termez (Uzbekistan) and ferry terminal Ust-Luga (Russia) in the Baltic sea, can be connected to Western Europe with intermodal transport technological complex using the combined large-capacity sea ferries and piggyback shuttle trains. The Chart of such technological transport complexity is shown below with transport route characteristics in Table 16.1.



Figure 16.1.
The Chart of the
railway–ferry
transport complex
Germany – Russia –
Central Asia –
Afghanistan – China

Besides the cheapest types of transport (sea and railway), there is the option to cut the costs for transport services in the selected direction by excluding or minimizing empty runs of transport and equipment (containers, trailers). Large-scale cargo traffic from China is compensated by the import over export cargo prevalence for Siberia, Kazakhstan, Afghanistan and other countries of Central Asia from Western Europe.

Thus, the maximum synergetic effect, which is making it possible to compete with the large-capacity container carriers going to the ports of Western Europe over the Suez Canal, is reached due to integration in the consolidated transport technological corridor of transit cargoes in the Western direction from the Chinese economic regions, remote from seaports and import cargo traffics from the Western Europe and America (with transshipment point out of transatlantic lines in the Continent ports), for Siberia and the countries of Central Asia and due to using, in the shortest geographical distances, the advantages of sea, railway and automobile types of transport in step with establishing the transport logistical centres on routes.

Along with the transportation of cargo in 20 and 40-foot containers, there is an opportunity to realise a devout wish of motor transport patriots to revive the Great Silk Road and deliver cargoes “door-to-door” in piggy-back freighting mode.

Because of this, the cheapest rolling technology for freight operations (Ro-Ro) is used, and, accordingly, there is an opportunity to hire the local drivers, who

Terminals, ports	Time, day	Terminals, ports		Time, day	
Kiel (import to Russia, transit to SCO states)	0.5f/h *	Mukran (import to Russia, transit to SCO states and Afghanistan)		0.5 f/h	
Kiel – Ust-Luga 1300 km (740 miles)	1.8 t**	Mukran – Ust-Luga 1110 km (600 miles)		1.5 t	
Ust-Luga (import to Russia, transit to SCO states)	0.5 f/h	Terminals	Time, day	Terminals	Time, day
Yekaterinburg and other TLC (empty stock, export to China)	1.0 f/h	Ust-Luga (import to Russia, transit to SCO states)	0.5 f/h	Ust-Luga (import to Russia, transit to Uzbekistan, Afghanistan)	0.5 f/h
Ust-Luga – Zabaykalsk 7500 km	8 t	Almaty (empty stock, export to China)	1.0 f/h	Tashkent (transit, cotton)	1.0 f/h
Zabaykalsk, Beijing, Harbin	0.5 f/h	Ust-Luga – Druzhba 5500 km	6.0 t	Ust-Luga – Termez 4700 km	5.0 t
Zabaykalsk	0.5 f/h	Druzhba (transit to Northwest China)	0.5 f/h	Termez (transit to Afghanistan, empty stock to China)	0.5 f/h
Zabaykalsk – Ust-Luga 7500 km	8 t	Druzhba (transit to the Western Europe)	0.5 f/h	Termez (transit to the Western Europe)	0.5 f/h
Ust-Luga (transit, export of Russia)	0.5 f/h	Druzhba – Ust-Luga 5500 km	6.0 t	Termez – Ust-Luga 4700 km	5.0 t
Ust-Luga – Kiel 1300 km (740 miles)	1.8 t	Ust-Luga (transit, export)	0.5 f/h	Ust-Luga (transit, export)	0.5 f/h
Kiel	0.5 f/h	Ust-Luga – Mukran 1110 km (600 miles) Mukran	1.5 t 0.5 f/h	Ust-Luga – Mukran 1110 km (600 miles) Mukran	1.5 t 0.5 f/h
Round trip (sea + railway)	23.6	Round trip (sea + railway)	19.0	Round trip (sea + railway)	17.0
Transit time	11.8	Transit time	9.5	Transit time	8.5
Round trip ferry	6.0	Round trip ferry	5.0	Round trip ferry	5.0
Round trip of train	23.6	Round trip of train	19.0	Round trip of train	17.0
Overall distance of one way (km)	8870	Overall distance of one way (km)	6610	Overall distance of one way (km)	5810
including sea (%)	15	including sea (%)	17	including sea (%)	19
Service frequency	daily	Service frequency	every other day Ferry daily	Service frequency	every other day Ferry daily

Table 16. 1.

Transport characteristics of the railway-ferry transport complex Russia – Central Asia – Afghanistan – China

Note: * – f/h – time of freight handling;
** – t – travel time.

know the system, rules and geography of traffic in the terminal stations of the main line.

Each container train which is made of about 40 long-base flat cars 80 feet (24.4 m) in length each with maximum holding capacity 4 x 40 = 160 TEU will occupy up to 40% of the ferry holding capacity (24.4 x 40 = 976 running meters of the main deck at 2500 m of the overall ferry capacity in running

meters). The rest 1500 running meters of the ferry are used for transportation of cargoes at bilateral trade Russia – EU.

It is necessary to operate 43 trains and 11 sea ferries for the daily pull-out of piggyback shuttle trains and sea ferries in each direction. The carrying capacity of transit cargoes in the Western direction will comprise about 117000 TEU (1.4 million tons at average loading 12 tons/TEU), which is a tiny amount of large-scale container transportations in the direction of Asia to Europe over the Suez Canal (out of \$600 billion of turnover between Europe and Asia the Russian transit potential serves only 1% of transit).

Therefore, there are no doubts in cargo base sufficiency but on the other hand it is about half of average annual volume of container transit transportations with the Trans-Siberian Railway. The cargo base analysis of the bilateral trade only between Russia and Germany urge to assert that the carrying capacity of all 11 ferries after transit will be ensured with cargoes of the two-way trade Russia – EU.

Container/rolling transportations (piggyback) are predominantly combined transportation modes, which turn out to be effective and therefore competitive through the accurate logistical chains, effective organisation and interaction of all participants following the long-term contracts or interconnecting corporate structures.

When organising the transport long-distance projects, the integrated logistical chain, transformed in the non-stop conveyor, will make the intermodal transport “door-to-door” as reliable, flexible and easy to operate as the automobile one, but there will be an incomparably lower transportation costs and substantial savings of energy resources per unit.

Owners and operators of vessels, rolling stock of land types, equipment, terminals and obviously freighters and forwarders on a contractual basis, including other structures in the transport industry are to be engaged. In a nutshell, all transport assets have to be potentially incorporated into a single transportation chain corporately integrated in a holding.

Actually, there is an issue on the agenda to create the so-called universal carrier or freight integrator, which will own and operate all transport assets of multimodal TTS and bear responsibility for the final results of the transport project with regard to transportation quality market requirements and sufficient profitability and liquidity of all structural components and of a holding as a whole.

Such international transport holding for the implementation of the Transsiberian multimodal project involving owners of the Baltic ferry system (JSC Sovkomflot, Far Eastern ocean company, a branch of the Danish shipping company DFDS in Germany, Rosmorport), affiliated structures of the Russian

and Kazakhstan railways and motor transport enterprises, could be created in Moscow with a developed network of the regional affiliated transport logistical centres.

Within the framework of this project, the transport logistical centres (TLC or hubs) could be established in the main transport-industrial cities of the following route – Kiel, Hamburg, Mukran, Berlin, Ust-Luga, St.Petersburg, Moscow, Sverdlovsk, Tomsk, Omsk, Krasnoyarsk, Termez, Tashkent, Almaty, Druzhba, Zabaykalsk, Beijing and Harbin. That in turn will provide a framework to form a transport industrial zone or effective international continental transportation corridor fit for the processes of economy globalisation.

By delegating reasonable decision-making authority to regional (peripheral) affiliated companies, including the preparation of offers to set up a cargo base and, in particular, drawing up cargo plans for ferries and trains loading in each run, the key strategic and overall planning functions should be centralized. The modern state of development of information communication technologies provide solutions not limited only to the problems, of most effective use of the sea tonnage and a rolling stock, but also allow permanent control over the observance of safety standards and to trace promotion of each cargo module at all sites operated with the multimodal TTS.

Thus, already back in late 1980s, the drawing up of cargo plans of large-capacity container carries for each call port at container line Balt Orient Line Hamburg – Hong Kong was carried out by the company experts at the central office of a line of the Soviet-German JSC Transglob/Transnautic in Hamburg in real time.

Along with the function of the Transsiberian sector of TTC in such combinations as ferry/railway, the Baltic ferry complex enables the option to change the automobile cargo traffic of Russian-European bilateral trade over to marine, which will cut the idle time of motor transport at land boundaries and allow the introduction of the rolling transportation on the industrial scale, without using the routes of motor haulers and quite big contingent of drivers on the sea.

The corporate structure of the joint Russian-German motor transportation joint-stock companies will provide employment of labour forces due to the transportation of trailers between ferry call ports and start-end points of cargo traffic in the territory of Russia and the European Union.

It is in no doubt that, transport assets of the TTS considered, rolling-stock, sea ferry and terminals should predominantly correspond to the modern advanced standards and provide the highest level of competitiveness.

The fleet of container flat wagons should consist of long-base cars for 4 FEU (40-foot containers) each. Ferries should have the maximum cargo capacity, passenger complex for no less than 200 passengers and economic and large

power motors. Ferry bodies can be constructed at Baltiysk shipbuilding yard, St.Petersburg, with fitting-out in Germany. Sea ferry terminals should have technological systems of two-level motor transport (rolling cargoes) loading/unloading to minimize the time of ferry servicing in ports.

The main transport assets necessary for realisation of the megalogistic intermodal TTS Germany – Russia – Central Asia – Afghanistan – China are shown in Table 16.2.

Conveyance unit	Quantity	Price (€)	Investments (€)
Binary rail-motor passenger ferry RoPax* length – 200–220 m; width – 30 m; draught – 7.0 m; deadweight – 12500 t; register tonnage – 12000 BRT; capacity of main engines – 15000–18000 kW	12	85 million	1020 million
Long-base flat 80-foot car of Russian standard, holding capacity 4 TEU (2 FEU) * *	2000	72000	144 million
40-foot (FEU) container of International standard * * *	5000	4000	20 million
<i>Total:</i>			<i>1182 million</i>

Table 16.2.
Transport characteristics of the railway-ferry transport complex Germany – Russia – Central Asia – Afghanistan – China

* Binary rail-motor passenger ferry (RoPax), passenger capacity about 200 persons, 3 cargo decks with total cargo track length 2500 running meters. Main deck (about 1000 running meters) is meant for 64 cars of Russian standard or highway freighters located at 6 railway lines, top and bilge decks – for motor-cars and highway freighters. Out of 12 ferries 6 go for trip at line Ust-Luga – Kiel, 5 – Ust-Luga – Mukran and one ferry is for substitution in case of scheduled repairs and unforeseen circumstances.

** formation of about 43 piggyback shuttle trains, 40 cars each for daily trip of two trains in each direction of transit transportation, including the technological reserve for repair.

*** fleet of 40 and 20-foot containers provides loading of piggyback shuttle trains and delivery of goods to the end users.

Along with the mentioned investments, it has corporate shareholding in three sea terminals (Ust-Luga, Kiel, Mukran), boundary terminals (Zabaykalsk, Termez, Druzhba), transport logistical centres TLC (Sverdlovsk, Krasnoyarsk, Tashkent, Almaty, others are possible) and central office of the holding in Moscow.

Indicator-Based Monitoring of the Eurasian Integration Process: Preliminary Remarks

17

PHILIPPE
DE LOMBAERDE¹

Introduction

The purpose of this short article is to connect the discussion on the proposal of the Eurasian Development Bank to design an indicator system for monitoring the Eurasian integration process to the ongoing discussions about similar monitoring systems in other regions. I will explore the 'lessons' that can be drawn from these – not always successful – experiences and I will identify a number of issues that will have to be addressed in the course of the development of the EDB indicator system in order to make it a successful, relevant and sustainable system. As will be shown, these issues are of different types, not only methodological and technical, but also political. My remarks are organised in five points.

1. Monitoring Regional Integration: Technical versus Political Aspects

Although there might be a temptation to engage immediately in a technical discussion on the construction of indicators and the collection of statistics, the first point I would like to make is that the question of how to monitor regional integration cannot be reduced to a technical problem, or a set of technical problems.

The starting point for setting up an indicator system is rather of a political nature.² It is related to the underlying mandate for monitoring. The purpose of monitoring is usually the evaluation of regional integration policies, given the "implementation problem" faced by several regional initiatives, and to test the quality of regional governance.

When considering political and technical aspects of a monitoring system, it would not be correct, however, to deal with them separately and consider them as sequential (i.e. technical aspects following political aspects).

¹ This article is based on an intervention by the author at the 3rd EDB Conference on Eurasian Integration, Eurasian Development Bank, Almaty, Kazakhstan, October 15–17, 2008.

² This will be further developed in point 2.

The political and technical aspects are clearly linked. Several examples of such linkages can be mentioned:

- the number of aspects to be considered in an indicator-system are a function of the underlying mandate;
- the inclusion of (inter-regional) comparison and benchmarking is a political choice;
- the choice of weights in a monitoring systems and in the design of composite indicators cannot be based only on technical (statistical) criteria;
- the choice to include good governance indicators (like transparency, participation and accountability) is also a political choice.

2. The Monitoring Process: By Whom? For Whom? For What Purpose?

Monitoring is not an isolated (academic) activity. It refers to a series of relevant processes of information gathering, processing and dissemination with the aim to influence, scrutinize and/or evaluate regional integration policies or to secure their implementation. These processes take place in a monitoring system in which different actors participate: regional and national, public and private. These actors can be internal to the regional integration process (e.g. regional secretariats, regional parliaments, regional development banks) or external to the process (e.g. academics, NGOs) (Costea et al., 2008). The role of monitoring can be political, coordinating, academic, technical, financial, etc. In other words, monitoring can take place closer to or further away from the decision-making centres. Monitoring is thus not to be equated with evaluation, and displays both positive and normative aspects.

In some cases, the integration arrangements have built-in monitoring provisions. These are especially effective when, at the same time, the integration agreement itself includes explicit objectives.

The use of (extra-regional) benchmarks is a particularly sensitive issue and poses a series of methodological problems.

From an academic point of view, indicator-based monitoring is of particular value because it allows testing opinions and accepted opinions on 'progress', 'success' or 'failure' of particular regional integration processes.

It should thereby not be forgotten that regionalism or regional integration is a 'moving target'. The institutional complexity of the regional arrangements tends to increase with time. And shifts have been noticed from uni-dimensional regional organisations towards multidimensional and hybrid forms of regional cooperation (Hettne and Soderbaum, 2004). A good example of the latter, in the Eurasian context, is the Central Asia Regional Economic Cooperation.

Finally, it should be noted that the monitoring actors are not necessarily (intra-) regional actors. Extra-regional actors (like other regions, international organisations, international NGOs, academics) are possibly interested in the monitoring process.

3. Monitoring Experiences: Where Do We Stand?

When designing an indicator system for the Eurasian region, it might be useful to have a look at the number of (not always successful) monitoring experiences elsewhere.

Focusing on indicator-based experiences, most of them were promoted by (regional or international) organisations, including: EC, ECB, IDB, ALADI, COMESA, ECOWAS, ACP Secretariat, ASEAN and UNECA. Academic proposals include: Hufbauer and Schott (1994) and Feng and Genna (2003); and UNU-CRIS (RIKS, World Report).³ The academic proposals, together with the UNECA and ECB proposals incorporate a comparative element.

What can we observe from these experiences with indicator-based systems? From our reading, at least the following points can be made:

- There are very few sustained efforts, which is not very encouraging for the EDB;
- The political role of monitoring does not seem to be crucial for the regional integration process;
- Few actors are usually involved in monitoring;
- Different logical components of regional integration are targeted (De Lombaerde and Van Langenhove, 2006);
- Monitoring in practice seems to have different objectives (including: measurement of the level of regional integration, measurement of pre-conditions, assessment of the contribution of individual countries to regional integration, evaluation of regional integration policies, comparison, evaluation of donor-financed support programmes, strategic use in the context of interregional negotiation processes);
- Monitoring systems are often characterized by underdeveloped conceptual frameworks and poor selection criteria for the indicators (De Lombaerde, Pietrangeli and Weeratunge, 2008);
- The size of the indicator-systems varies considerably. A recent review of several systems revealed that indicator systems cover between less than ten and close to 150 variables (De Lombaerde, Pietrangeli and Weeratunge, 2008);

³ See: www.cris.unu.edu/riks/

- The same review revealed that one third of the included variables does not necessarily inform us about the regional integration processes.

Apart from the observations that can be derived from the indicator-based systems, some additional observations can be derived from monitoring experiences more in general:

- The increasing complexity of regional integration makes monitoring more challenging;
- The increasing complexity of regional integration seems to go hand-in-hand with increasingly complex monitoring systems. In the case of the EU, for example, the monitoring system consists of a whole array of interconnected processes, both at the level of internal monitoring (reporting, and auditing processes, EUROSTAT, Eurobarometer, Internal Market Scoreboard, good governance agenda) and at the level of external monitoring (by academics, think tanks, lobbyists, national and subnational parliaments) (Costea et al., 2008);
- The deepening of regional integration leads to a more political role of monitoring and a two-way interaction between the regional and national levels. Whereas initially, the national level (member states and other actors) monitors the regional level, when the regional integration process deepens, regional bodies start to monitor the implementation of regional commitments by member states (De Lombaerde, Estevadeordal and Suominen, 2008);
- Monitoring covers the full project cycle. It is not limited to ex post evaluation; it covers the whole cycle, from the policy preparation phase onwards;
- Built-in monitoring agendas are perceived as quite functional;
- The role and quality of national institutions is crucial for (good) monitoring. Especially in the case of young and shallow forms of regional integration (De Lombaerde, Estevadeordal and Suominen, 2008).

4. Technical aspects

The actual design of an indicator-based monitoring system is based on three pillars: the conceptual framework, data and methods.

The conceptual framework should guide the selection of variables and indicators. It can be based on one of the theories from the arsenal of theories available for the purpose, or on a combination of these.⁴ One should be aware of the fact that many of the available theoretical frameworks are rooted in

⁴ For an overview, see for example, Mattli (1999), Rosamond (2000), Wiener and Diez (2003), Laursen (2003), Söderbaum and Shaw (2003), Farrell et al. (2005), and Malamud and Schmitter (2007).

the European experience, so that transferability should be evaluated. Also, the teleological logic of frameworks like Balassa's (1961), should be critically assessed. Indicator systems should be sufficiently flexible to allow for region-specific variables. When there is an underlying understanding of the/a logic of the integration process, variables and indicators can be classified in categories (institutionalized integration versus 'real' integration, positive versus negative integration, by sectors, etc.) (De Lombaerde and Van Langenhove, 2005). In indicator-systems set-up to monitor regional integration, the indicators are supposed to reflect some aspect of the process. However, as experience shows us (see above), this is not always the case in practise. At the same time it is true that there will always be a grey area between those variables that should be 'in' and those that should be 'out'. Sometimes a simple transformation of variables can turn irrelevant variables into relevant variables. For example, inflation or growth rates that tell us something about the national economies of the member states can be transformed into (regional) convergence indicators.

Other issues come up when designing indicator-systems. For example, systems can be designed at the regional and/or national level of analysis. An example of the latter is the system proposed by UN ESCWA to assess the participation of each national economy in the regionalisation process in the Middle East (UN ESCWA, 2007). Another issue is related to overlapping memberships and poses serious problems to designing indicator systems. Still another issue is related to the question of whether composite indices will be constructed or not. These composite indices might well capture the multi-dimensional nature of the processes and they are easy to read and communicate. However, they might become rather abstract to interpret and the weighting of the different components of the index will always be arbitrary (De Lombaerde, Dorrucchi et al., 2008).

My final remark refers to data. When monitoring is based on quantitative data or on a combination of quantitative and qualitative information, one is faced with the problem of data availability. This problem is still more serious at the regional level than at the national level. For many variables that are not mere aggregations of national variables such as intra-regional flows of people, services and capital, or data on regional budgets and policies, systematic data are often still lacking, even in regions with relatively good quality data in general.⁵

5. Comparison and Comparability

My fifth and final point refers to the issues of comparison and comparability. Different contexts, different regional realities and different regional

⁵ See, for example, *OECD (2004) concerning lacking data on trade in intermediate goods, services and intra-firm trade.*

architectures exist. These differences, like e.g. the differences with respect to the European institutional architecture are often confused with differences in effectiveness, but should not.

Comparison should be sensitive to these differences, without adopting the opposite extreme position that specific contexts imply that different processes become incomparable. Different levels of regional interaction and interdependence, and other aspects of regionalisation can be compared.

Comparison can be based on traditional comparative indicators or on relative comparative indicators. The latter compare regional performance first with the region-specific objectives or benchmarks, and then, in a second instance, across regions. Combinations of both approaches are obviously also possible, as the indicator system proposed by UNECA has illustrated (UNECA, 2002). Finally, as the UNECA experience also shows, comparison is still a politically sensitive issue at the (inter-)regional level, although accepted practise at the (inter-)national level. When designing an indicator system with a comparative dimension, this should preferably be discussed previously with the major stakeholders.

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18 Visa-free Travel: an Indicator of Global Integration

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WHYTE

On January 10, 2006, Henley & Partners (hereafter 'Henley'), a Swiss firm specializing in international migration, consular and citizenship law issued a press release describing their analysis of worldwide visa regulations (van der Burg, 2006). The story, delivered by the Associated Press, was covered by news media around the world. In general, the press coverage was brief, and emphasised the facts that Danish, Finnish and American citizens had the greatest travel-freedom, as they could each visit 130 other countries visa-free, while Iranian and Afghan citizens had the least travel freedom, able to only visit 14 and 12 other countries respectively without visas. A full list of the 195 countries ranked by Henley, with the number of other countries that their citizens can visit visa-free, is given in Table 18.1.

Henley claimed that this was the first-ever ranking of international travel freedom, and had been compiled "by assessing some 40 000 combinations of countries and territories", and added that "visa restrictions play an important role in controlling the movement of foreign nationals across borders. ... Visa requirements... generally reflect the relations and status of a country within the international community" (van der Burg, 2006).

To be mathematically correct, Henley should not have said 'combinations', but rather 'permutations', because the existence of visa-free access for a national of country X travelling to country Y is distinct from the existence of visa-free access for a national of country Y travelling to country X. Given n countries, there are $n(n-1)$ permutations of nationality-destination pairs. Self-pairings are not included, because it makes little sense to talk about visa requirements for citizens of country X to travel to their own country (while internal passports and travel controls do exist in some countries, we are only interested in international travel here). Therefore each of the 195 countries listed by Henley have 194 other countries to potentially travel to, for a total of $195 \times 194 = 37830$ possible permutations, which was rounded to 40000 in Henley's press release.

The text of the press release focused on the top and bottom few countries in the ranking. By doing so, much information of interest may have been missed. The present paper will analyse the full data set in order to more fully understand the pattern of global travel freedom and to answer the question:

1. Finland, 130.	34. Poland, 106.	65. Trinidad & Tobago, 66.
Denmark, 130.	35. Slovenia, 105.	66. South Africa, 65.
United States, 130.	36. Israel, 104.	67. St. Vincent, 64.
4. Germany, 129.	37. Argentina, 101.	68. St. Lucia, 63.
Ireland, 129.	Brunei, 101.	Antigua & Barbuda, 63.
Sweden, 129.	Hungary, 101.	70. St. Kitts-Nevis, 62.
7. Britain, 128.	40. Andorra, 99.	71. Grenada, 60.
France, 128.	Brazil, 99.	72. Belize, 58.
Italy, 128.	Uruguay, 99.	73. Jamaica, 57.
Japan, 128.	43. Czech Republic, 98.	74. Solomon Islands, 54.
11. Belgium, 127.	Mexico, 98.	75. Guyana, 53.
Norway, 127.	45. Slovakia, 97.	Gambia, 53.
Spain, 127.	46. Costa Rica, 95.	77. Dominica, 52.
Switzerland, 127.	47. Lithuania, 94.	Mauritius, 52.
15. Netherlands, 126.	48. Venezuela, 92.	Seychelles, 52.
16. Austria, 125.	49. Estonia, 91.	Turkey, 52.
Canada, 125.	Latvia, 91.	81. Lesotho, 51.
Luxembourg, 125.	51. Vatican City, 87.	82. Tuvalu, 50.
New Zealand, 125.	52. Croatia, 84.	83. Kiribati, 49.
20. Portugal, 123.	53. Bolivia, 83.	Western Samoa, 49.
21. Singapore, 122.	Bulgaria, 83.	85. Botswana, 48.
22. Australia, 120.	55. Guatemala, 82.	Malawi, 48.
Greece, 120.	Panama, 82.	87. Fiji, 47.
Iceland, 120.	Paraguay, 82.	Sierra Leone, 47.
Malaysia, 120.	58. El Salvador, 81.	Vanuatu, 47.
26. Liechtenstein, 116.	59. Honduras, 80.	90. Kenya, 46.
27. South Korea, 115.	60. Nicaragua, 75.	Maldives, 46.
Malta, 115.	61. Romania, 73.	Swaziland, 46.
29. Cyprus, 113.	62. Barbados, 71.	Tonga, 46.
30. Hong Kong, 110.	Bahamas, 71.	94. Ghana, 45.
31. Chile, 109.	Macau, 71.	Zambia, 45.
San Marino, 109.		
33. Monaco, 108.		

Table 18. 1.
Countries of the world, ranked by Travel Freedom (i.e. the number of other countries their citizens can visit without a visa)

96. Nauru, 44.
97. Taiwan, 42.
98. Ecuador, 41.
Namibia, 41.
Papua New Guinea, 41.
Peru, 41.
Tanzania, 41.
Zimbabwe, 41.
104. Suriname, 40.
105. Kuwait, 39.
Mauritania, 39.
Uganda, 39.
108. Bahrain, 38.
Mali, 38.
Tunisia, 38.
111. Guinea, 37.
Ivory Coast, 37.
Niger, 37.
Qatar, 37.
Senegal, 37.
116. Benin, 36.
Cape Verde, 36.
Marshall Islands, 36.
Oman, 36.
120. Burkina Faso, 35.
Nigeria, 35.
Russia, 35.
Togo, 35.
United Arab Emirates, 35
125. Guinea-Bissau, 33.
Micronesia, 33.
Philippines, 33.
128. Belarus, 32.
Colombia, 32.
Palau Islands, 32.
Serbia-Montenegro, 32.
Ukraine, 32.
133. Liberia, 31.
Macedonia, 31.
Saudi Arabia, 31.
136. Morocco, 30.
137. Indonesia, 29.
Moldova, 29.
Thailand, 29.
140. Azerbaijan, 28.
Bangladesh, 28.
Central African Republic,
28
Georgia, 28.
Kazakhstan, 28.
Kyrgyzstan, 28.
146. Armenia, 27.
Chad, 27.
Rep. Congo, 27.
Cuba, 27.
Tajikistan, 27.
151. Cameroon, 26.
152. Bosnia & Herze-
govina, 25.
Dominican Rep, 25.
India, 25.
Madagascar, 25.
156. Egypt, 24.
Gabon, 24.
Mongolia, 24.
Uzbekistan, 24.
160. Algeria, 23.
Rwanda, 23.
162. Haiti, 22.
Mozambique, 22.
Sao Tome & Principe, 22.
Sri Lanka, 22.
166. East Timor, 21.
Jordan, 21.
168. Comoros, 20.
Equatorial Guinea, 20.
Eritrea, 20.
Laos, 20.
Nepal, 20.
173. Angola, 19.
Bhutan, 19.
Djibouti, 19.
Libya, 19.
Turkmenistan, 19.
178. Burundi, 18.
China, 18.
Ethiopia, 18.
North Korea, 18.
Vietnam, 18.
Yemen, 18.
184. Albania, 17.
Cambodia, 17.
Lebanon, 17.
Pakistan, 17.
Sudan, 17.
189. Dem. Rep. Congo,
16.
Syria, 16.
191. Iraq, 15.
Myanmar, 15.
Somalia, 15.
194. Iran, 14.
195. Afghanistan, 12.
- (van der Burg, 2006)

"Is it true that western/developed countries have much greater travel freedom than developing countries or those with dictatorial regimes, and if so, why?"

Strangely, travel freedom in terms of tourist travel has received little attention from academics. Some analysis has been undertaken for individual countries on the effects of tourist visa requirements and the potential impact of their abolition (Kirisci, 2005), but in general only news media and tourist industry journals have shown much interest in changes to visa regimes (Office of the Prime Minister, 2009).

Methodology

As the data were received 'as is', several qualifications need to be stated regarding the dataset and definitions of the terms 'visa' and 'visa-free'.

1) Henley does not state either its method or the date of data collection.

The press release talks of a 'study' conducted by Henley, but despite several requests, no details of this 'study' were given by Henley. The study may simply be the press release and accompanying ranking of 195 countries, or it may have been a more profound analysis conducted for a client. The source and date of the data for each country are thus unknown, and it is only possible to speculate on how and when the data was obtained.

Henley may have written to the embassies or foreign ministries of each of the 195 countries and requested information on which other countries' nationals were permitted visa-free entry. However, such an approach would be inefficient, time-consuming, and if answered at all, likely to result in late or incomplete information.

Another possible data collection method would be via travel industry channels, such as the "Travel Information Manual" (TIM) published by the International Air Travel Association (IATA). TIM is available both as a book and online (Timaticweb) at <http://www.timaticweb.com>. Several airlines (KLM) integrate Timaticweb into their own websites to provide visa and passport information to travellers. Australian travel agents use a similar online product called "Visalink" <https://visalink.com.au/frontpage.aspx>. Both TIM and Visalink allow users to enter the nationality of a traveller's passport, and the country to which he wishes to travel, and returns the visa requirements, if any. Neither system allows a user to obtain a listing of all countries to which a national of given country can travel visa-free, nor a listing of all countries whose travellers require a visa to enter a given country. So using a system like TIM or Visalink would still be labour-intensive as each of the 37830 permutations of nationality and destination country would have to be checked individually.

Given the difficulties in collecting the data, it cannot be assumed that the data are all from a single point in time. Visa regulations change over time,

sometimes without warning. If collecting data from individual governments, the time lag between the first and last of the 195 responses could not only be significant, but the first responding government might well have changed its regulations by the time the last government supplied its data. This is also a problem with TIM and Visalink, whose data are collected fairly continuously, but which cannot be relied upon to be up to date, or even synchronous. At best, it can be assumed that the data released by Henley gives a general indication of the situation in late 2005.

2) The data as released show only the total number of countries to which a given country's citizens can travel visa-free. The data does not include information on how many different nationalities can enter a given country visa-free, nor does it give information on individual nationality-destination combinations.

3) Visa regulations differ depending on the purpose of a traveller's visit, whether he is travelling alone or in a group, his intended length of stay, and other factors such as method of entry (air, land, sea) and port of entry. As Henley gave no indication of the criteria they applied to their data, the most simple criteria are assumed here: short-term individual tourist arrivals by air. This has the added advantage of fitting the data from TIM, whose online FAQ (Frequently Asked Questions) page states:

TIM should be consulted for airline passengers travelling for tourist or business purposes. TIM cannot be consulted for immigrants, persons wishing to adopt children, to study or take up paid employment abroad or individuals crossing borders overland. Those passengers should be referred to the consulate of the country concerned (IATA, 2009).

Nevertheless, it should be remembered that the activities allowed to a traveller in a foreign country as a tourist, with or without a visa, vary significantly between destination countries. Likewise different visiting nationalities may have significantly different conditions imposed upon them within the same destination country.

4) Henley's data covers 195 polities: all 191 UN member states of the time, plus two non-members Vatican City and Taiwan, and the two Chinese "Special Autonomous Regions" of Hong Kong and Macau. In contrast, TIM provides data for more than 216 countries and territories. The most notable territories missing from Henley's list include Puerto Rico, Greenland and French Polynesia as well as more controversial entities such as Northern Cyprus and the Palestinian Territories. These missing territories together account for only 0.2% of the world's population, so their absence from the Henley data is not significant. However, it should be noted that many territories have different visa regimes than their parent state (e.g. Hong Kong and Macau allow many

nationalities to visit without a visa, whereas few, if any, ordinary foreign citizens can travel to China visa free. Conversely, residents of such territories may have different travel privileges to other countries than nationals of the parent state (again, Hong Kong and Macau residents can travel much more freely overseas than mainland Chinese).

5) The requirement to possess a visa in order to visit a country obscures large differences in the cost, effort and documentation necessary to obtain one. Large differences also exist in the conditions of entry and duration of stay granted by one country to different nationalities who do (or do not) require a visa. Thus the existence of a visa-free travel privilege to a country for some nationalities does not necessarily mean that travel is any less restricted than for those nationalities requiring a visa.

6) Some visas, such as those required of New Zealanders visiting Australia, are a legal fiction, as for all practical purposes New Zealanders can visit (and work and settle) in Australia visa-free (DIMIA, 2008). It is not clear how Henley categorised such cases.

7) The requirement to possess a visa (or the existence of a visa-free privilege) may differ between different ports of entry, or modes of entry (foot, bicycle, motor vehicle, sea, air).

8) It must be remembered that entry to a country may be denied even to those in possession of a valid visa, or who otherwise qualify for a visa-free privilege.

A visa is "an endorsement on a passport etc. indicating that it has been examined and found correct, especially as permitting the holder to enter or leave a country" (*Shorter Oxford English Dictionary*, 2003: 3544). It is a pre-emptive check on the bona fides of the traveller and his travel purpose and itinerary. Visa-free travel is simply the absence of a requirement to hold a visa, and is usually considered a privilege.

Many visas require the traveller to submit his passport ahead of time to an embassy of the country he intends to visit. Other visas are purely formalities and are issued at land borders or ports of entry. These are often termed 'visa on arrival', and are little more than a simple form to complete, and an extra form of revenue generation for authorities, than a pre-emptive check on the visitor.

To obtain a visa issued by consular officials ahead of time, the cost, time and effort involved for a traveller can be significant. Even an innocuous tourist may be required to provide a detailed itinerary, details of persons he will visit, a list of languages he speaks, his parent's details, and proof of booking or payment for accommodation, transport or guiding services from authorised providers. Photographs and even fingerprints are also commonly required.

Visa costs vary greatly not only between different issuing countries, but also between applicants from different countries seeking entry to the same destination country. Some visas are issued free, or cost only a token amount. Others are issued on a cost-recovery or even a profit-making basis, the actual costs of which vary considerably depending on the wages levels of the officials and the work load involved. Some countries charge on a sliding scale based on the perceived wealth of the applicant's country (western countries pay more), on an ideological basis ('friendly' countries pay less), or on the basis of reciprocity, matching the prices charged to their own citizens by the other country. Some countries charge different fees for applications made at an embassy outside the applicant's home country, or have different requirements and costs for different ports or modes of entry.

A visa may be issued in a few minutes, or may take days or even weeks for various reasons. On the other hand, a visa may be as simple as the Special Category Visa (SCV) issued to New Zealanders visiting Australia, which is obtained by completing the normal passenger arrival card (DIMIA, 2008). The average New Zealander does not realise that he is applying for and being issued a visa, and no evidence is visible in his passport, apart from the normal entry stamp, but for Australian government purposes this technically counts as a visa.

Even with a visa, there is no right to enter a foreign country. Additional validation may even be required at the entry point: proof of onward travel, of sufficient funds, of acceptable health, or even of 'decency'. In the latter case, Singapore was notorious in the 1970s for subjecting long-haired male travellers to a haircut as a requirement of entry.

Eligibility for visa-free privileges may also be qualified. For visa-free entry to the US under the Visa Waiver Programme, travellers from eligible countries must now use machine-readable passports with digital photos. Passports issued after 26 October 2006, must also have microchips which store biometric information (Dept. of State, 2009).

Once within a destination country, visitors may also be subjected to travel restrictions, for political, military or anthropological reasons, such as the additional requirements necessary to visit Tibet in China, Aboriginal reserves in Australia, or inhabited (non-resort) islands in the Maldives.

Not all governments allow all other nationalities to visit, even with a visa. Malaysia, Brunei and several Middle Eastern countries prohibit visits by Israelis, while Syria prohibits entry even to non-Israelis whose passports show evidence of a visit to Israel. A traveller's own government may prohibit him from visiting certain countries. For example, Israel does not permit its own citizens to enter Palestinian-controlled areas, although foreigners can do so;

in the 1980s, ordinary Malaysian passports were not valid for travel to China; and today ordinary Chinese citizens can travel only to the 137 countries (as of February 2009) which have received 'Approved Destination Status' from Beijing (Graff, 2009).

Just as visa regulations vary enormously between countries, and between different nationalities seeking to visit a country, so do visa-free privileges vary. While the most common durations of stay for visa-free entry in the author's experience are 14, 30, 60 or 90 days, New Zealanders, with their invisible visa, can remain indefinitely in Australia, work and settle, and similar privileges exist among EU members.

In the analysis that follows, the ability to travel visa-free to other countries is termed 'travel freedom'. Thus the more countries that a given national(ity) can visit visa-free, the higher his (value of) travel freedom.

Initial Analysis

The nationals of any of the 195 countries listed by Henley could theoretically be able to visit between 0 and 194 other countries visa-free. Table 18.2, however, shows that the actual range of the data is between 12 and 130, with a mean of 57.6 and a median of 41. Of the total 37830 possible permutations of visitor nationality and destination country, only 11223, or 29.7%, allow visa-free travel. Fully 70.3% require a visa.

Figure 18.1 shows a frequency plot of the Henley data. The y-axis measures the number of countries whose nationals possess the level of travel freedom shown on the x-axis. In an ideal world, the graph would have a single bar at $x = 194$, with a height of 195. The real world is obviously less happy. The plot is asymmetric and bimodal. The larger mode is at the bottom tail of the distribution, with a smaller mode at the upper tail, both tails being compact in the sense of having few gaps between individual x-values. Between the modes, the data have smaller frequencies and are more spread out between individual x-values. There are no outliers, and no real gaps in the dataset, although only five countries have travel freedom values between 66 and 80.

A percentage cumulative frequency line is superimposed on the graph. From this can be seen that nationals of 50% of the world's countries have a travel freedom of at most 40. Equivalently, citizens of 50% of the world's countries have a travel freedom of at least 41.

n	195	Minimum	12	Sum	11223
Mean	57.6	Maximum	130	Theoretical Sum	7830
Median	41	Range	199	% of Theoretical	29.7

Table 18.2.
Data Summary

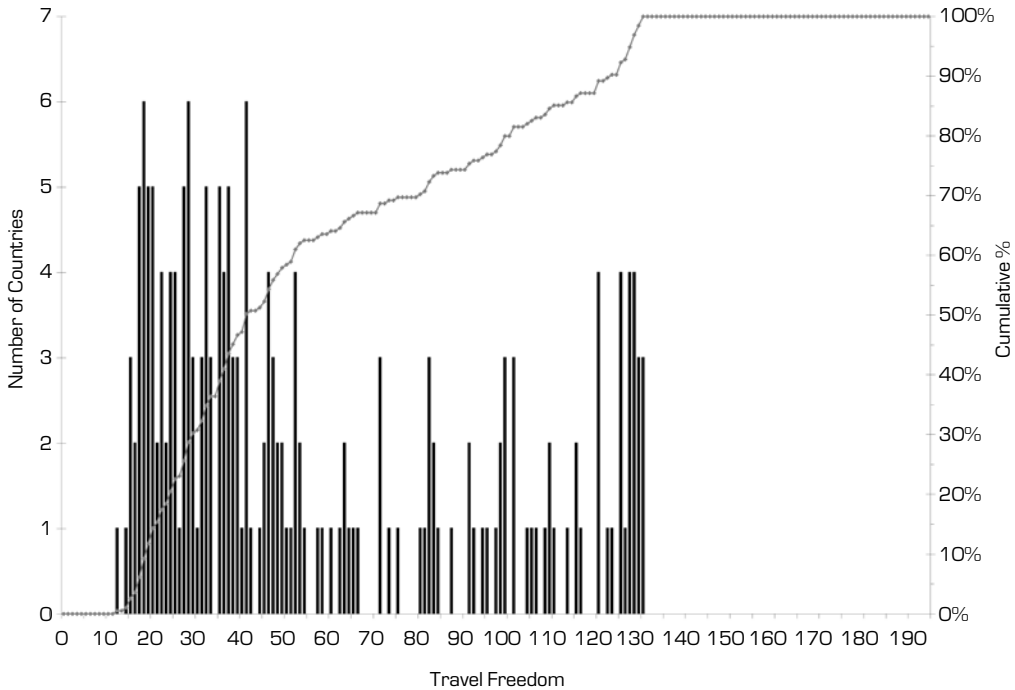


Figure 18.1. Frequency plot and percentage cumulative frequency of travel freedom values by country

Figure 18.2 plots cumulative travel freedom on the y-axis. This measures how many of the 11223 visa-free permutations exist for each value of travel freedom on the x-axis. For example, if the nationals of three countries enjoy a travel freedom of 25, this represents a total of $3 \times 25 = 75$ of the 11223 existing permutations, and 75 is plotted on the y-axis against 25 on the x-axis. The heights of all the bars sum to 11223. In an ideal world the graph would be a single bar at $x = 194$, with a height of 37830. Again a percentage cumulative frequency plot is superimposed on the bar graph. This indicates that the nationals of the countries in the upper tail provide most of the existing 11223 visa-free permutations: 50% of the 11223 visa-free permutations are enjoyed by nationals of the 50 countries with a travel freedom of at least 91. So 50% of travel freedom is enjoyed by the citizens of only 25.6% of the world's countries.

Mapping and Explaining Travel Freedom

To better visualise the Henley data, the data were divided into five classes, the maximum number easily distinguishable in print by the eye, and the results classes mapped. To ensure the class breaks did not influence the interpretation of the data, two different methods of classifying the data into five classes were used, and each mapped separately.

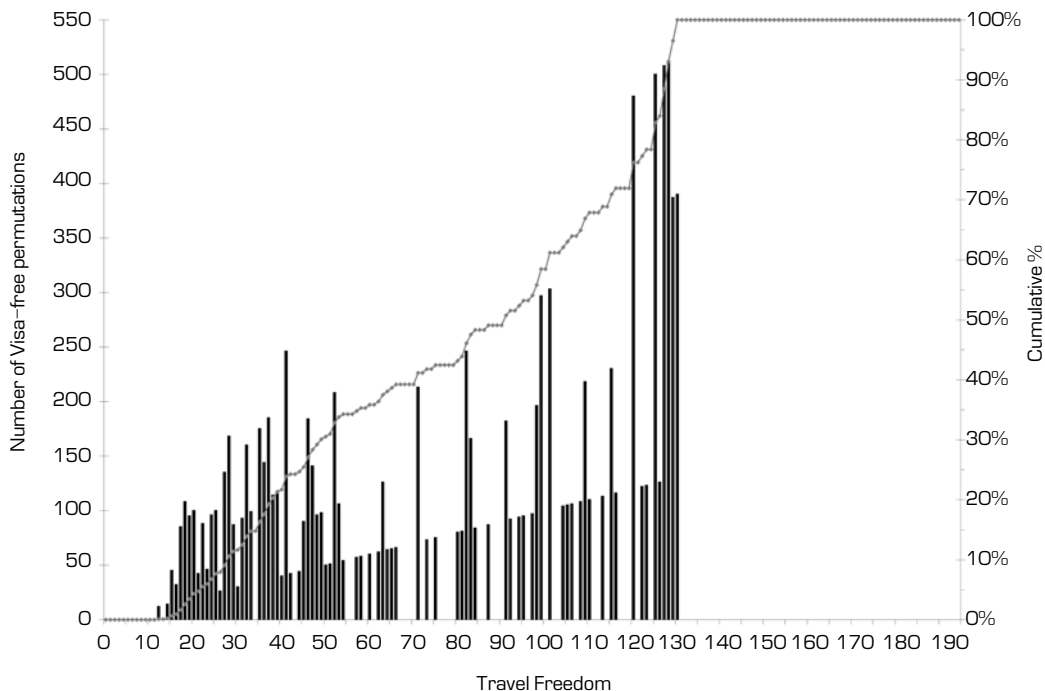


Figure 18.3 uses five classes with equal ranges of travel freedom. Travel freedom takes values between 12 and 130, for a total range of 119. The data were therefore divided into five classes with ranges of 24. It should be noted that the number of countries falling into each class varies considerably, from 19 to 76.

Figure 18.2.
Distribution of visa-free permutations vs. travel freedom value

Figure 18.4 again uses five classes, but divides the 195 countries into five groups of equal size, that is, 39 countries per class. However as the class breaks fall within clusters of countries having the same travel freedom, the class breaks were manually adjusted so that for any given value of travel freedom, all countries having the value fall in the same class. The resulting classes have between 37 and 40 countries each. While the number of countries in each class is now almost equal, the class ranges are significantly different, the narrowest class having a range of 12, the widest having a range of 47.

The maps use circles for the smallest countries like Monaco and Nauru, and ovals for archipelagic countries like Kiribati. All overseas territories not listed in the Henley data have been removed for clarity, except French Guiana, Greenland, and Western Sahara, whose absence would make the map look strange. These territories have been shaded as if they were integral parts of

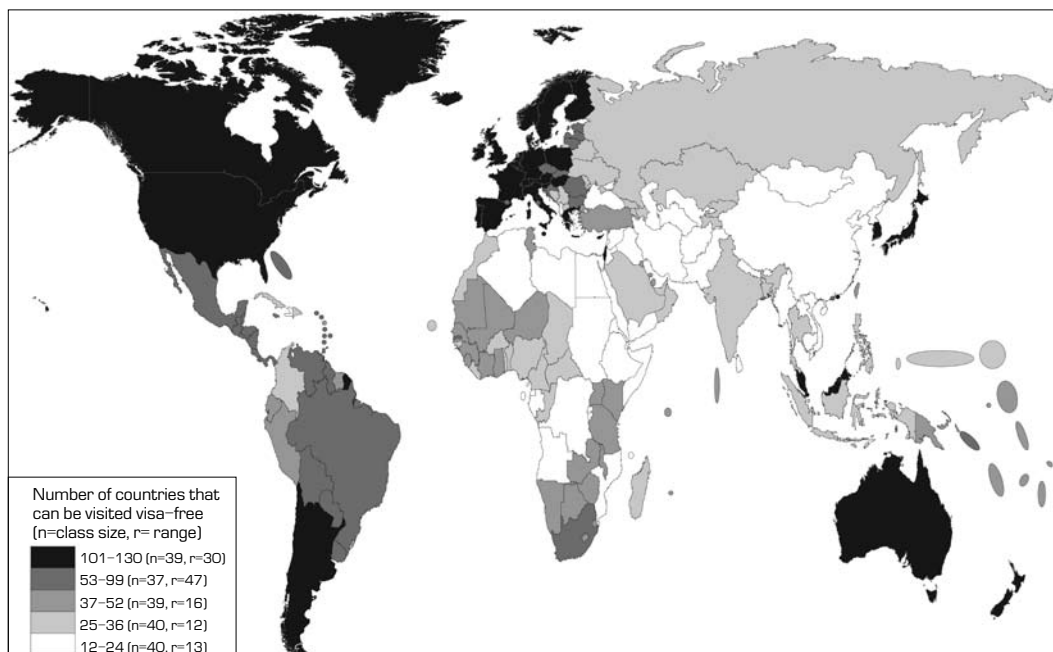


Figure 18.3.
Travel Freedom
by country (equal
class ranges)

their administering countries (France, Denmark and Morocco), even though their populations may not enjoy the same travel freedoms as the mother country.

Figure 18.3 shows, as expected, that western, developed countries have the greatest travel freedom. Anglo-America, Western Europe, Japan and South Korea, and Australia and New Zealand visually dominate the map, all with travel freedoms of 108 or more. Hong Kong and Singapore are not unexpected members of this class, while Chile and Malaysia perhaps are. The next two classes have only 19 members each, but include much of Latin America and Eastern Europe, along with Israel and South Africa. The fourth class, with 48 countries whose travel freedom is between 38 and 58, includes the more troubled South American countries of Guyana and Peru, along with much of Francophone West Africa, Anglophone southern and central Africa, and most of the Pacific island states. The lowest class, countries with a travel freedom of 35 or less, has 76 members, almost 40% of the world's countries, and includes four countries in the western hemisphere: violence-plagued Colombia, politically isolated Cuba, and impoverished Haiti and the Dominican Republic. Most of Africa also falls into this class, as does almost all of Asia, and all the former USSR except the Baltic States.

Next Map (see Figure 18.4) is visually less extreme. The range of the highest class has expanded a little, and now includes Argentina, several Eastern



European countries, Israel, and oil-rich Brunei. The second and third classes have expanded their membership, but the general patterns are similar, particularly in Latin America and Africa. The fourth and fifth classes, each with a small range (12 or 13) but 40 members each, have effectively split the fifth class from the previous map (range 24 with 76 members) into halves. The fourth class in the latter map includes the remainder of Francophone Africa, the stable, rich Middle Eastern states, almost all the former USSR, the more developed countries of ASEAN, along with India and somewhat surprisingly, Bangladesh. The fifth class includes poor, violence-plagued, of politically isolated countries, including only Haiti in the western hemisphere, Algeria, Somalia, Syria, Iraq, Yemen, Turkmenistan, Uzbekistan, Afghanistan, Pakistan, Burma, Indochina, China and North Korea.

Figure 18.4.
Travel Freedom
by country (equal
class sizes)

As expected, both maps indicate that countries that are westernized, wealthy (or developed) and politically stable have the greatest travel freedom while those that are poor, dictatorial or unstable have the least. In between the extremes a number of other factors come into play. Former colonial ties increase travel freedom, if not to the mother country, then at least between her former colonies. Thus the travel freedoms for Francophone and Anglophone Africa are higher than for former Italian, Belgian, Spanish or Portuguese colonies in Africa, as there is a reasonable degree of freedom of travel within those former colonial groupings. In the French case, this is also assisted by

the use of common currencies between neighbouring former colonies, and in fact the division of Francophone Africa in Figure 18.4 between the third and fourth classes almost exactly mirrors the division between the West African states using the West African Franc and the Central African states using the Central African Franc.

The high values of travel freedom in Europe are obviously heavily influenced by the European Union, which allows visa-free travel among its member states' citizens. Membership of the Union thus greatly increases a country's travel freedom, and the varying EU statuses of the East European countries in late 2005 is apparent on the maps, with Romania and Bulgaria, who only entered the EU in January 2007, having significantly lower travel freedom than the 10 states joining in May 2004 (the Baltic states, Poland, the Czech Republic, Slovakia, Hungary, Slovenia, Malta and Cyprus). Apart from Croatia which has certain entry privileges to the EU, the European countries outside the EU, namely the former Yugoslav states and Albania, have very low travel freedom.

In addition to the EU itself as a factor, is the Schengen agreement. This treaty regulates entry by third party nationals to the territory of signatory states. All EU states, except the UK and Ireland, are full members of Schengen, although Cyprus, Romania and Bulgaria have yet to implement its provisions fully. In addition four non-EU members are parties to the Schengen agreement. Norway and Iceland are full members, Switzerland partially implemented the agreement in December 2008, and will do so fully by the end of March 2009, while Liechtenstein should do so by the end of 2009. A national of a non-Schengen state either needs a single visa to visit any Schengen countries, or no visa for any of them. Thus, gaining visa-free privileges to the Schengen countries as a bloc will increase the travel freedom of foreign citizens by about 25.

A similar common visa (and visa-free) system has recently been implemented by four Central American countries: Guatemala, El Salvador, Honduras and Nicaragua. Outside nationals obtaining a visa for one country can use it to also visit the other three, while nationals with visa-free privileges for one country have likewise visa-free privileges to the other three.

While it may seem obvious that wealthy, stable, open countries have higher travel freedom than poor, unstable, authoritarian ones, it is useful to consider exactly why this is. Visas are used as a means to track and control the entry of visitors, and ensure the genuineness of their travel intentions. Controlling the entry of potential troublesome persons is easier and cheaper if done pre-emptively rather than *post-facto*. Visas provide a hurdle for entry by visitors who are not genuine tourists but rather potential asylum-seekers, likely to engage in illegal or undesirable activities, or who come from 'unfriendly'

countries. Visitors from countries whose nationals are likely to overstay, seek employment, engage in prostitution or drug dealing, become a burden on the judicial or social security systems, or whose travel documents are likely to need more thorough checking than can be done at a port of entry, are more likely to be required to apply for visas ahead of planned travel. As there is a strong correlation between these factors and the level of poverty, corruption, violence, instability and political openness of a country, it is not surprising that these factors can be readily identified from a country's ranking in the dataset.

The imposition of a visa requirement is not necessarily a negative. It can assist regulate arrivals over time and space to ensure that the needs of genuine refugees are recognised early, and appropriate social services can be budgeted for and delivered to the arrivals as needed. But in an imperfect world, visa processing to assist in the placement of refugees is too often and easily morphed into a bureaucratic process of exclusion.

Besides the greater likelihood of a visitor from a stable, wealthy, western country being a genuine tourist who will not cause trouble and will go home at the end of his visit, wealthy tourists are usually highly desirable due to the economic benefits they bring to a destination country. A visa requirement discourages spur-of-the-moment, and even planned decisions to travel, whether for business or pleasure, particularly if the visa requirement involves much effort or cost to the potential traveller, such as the need to visit an embassy in person to make the visa application, and then return days or weeks later to collect it. One study of destination competitiveness (Enright & Newton, 2005), although not mentioning visa requirements specifically, presumably factors it into a 'government policy' category.

If a country does not offer visa-free privileges to nationals of its main tourist markets, it would seem unlikely to remain a competitive destination unless it had very special attractions. Therefore countries like Australia, Egypt, India and China, with unique cultural or natural attractions can afford to require visas before arrival from all or most visiting nationalities, whereas the various island states of the Caribbean, all offering a very similar tourism product, cannot.

Countries like Malaysia, Singapore, Hong Kong and Thailand market themselves not only as 'exotic' tourism destinations in themselves, but, due to their role as airline hubs, also encourage stopovers those travelling between Europe and Australia, or Europe and America. By removing visa requirements for travellers on these intercontinental routes, these countries gain obvious economic benefits from the spending of travellers whose main destination is elsewhere. Dubai in the United Arab Emirates is now adopting a similar strategy, developing itself as an airline hub and offering an exotic

visa-free stopover destination for travellers between Europe, Africa, Asia and Australia.

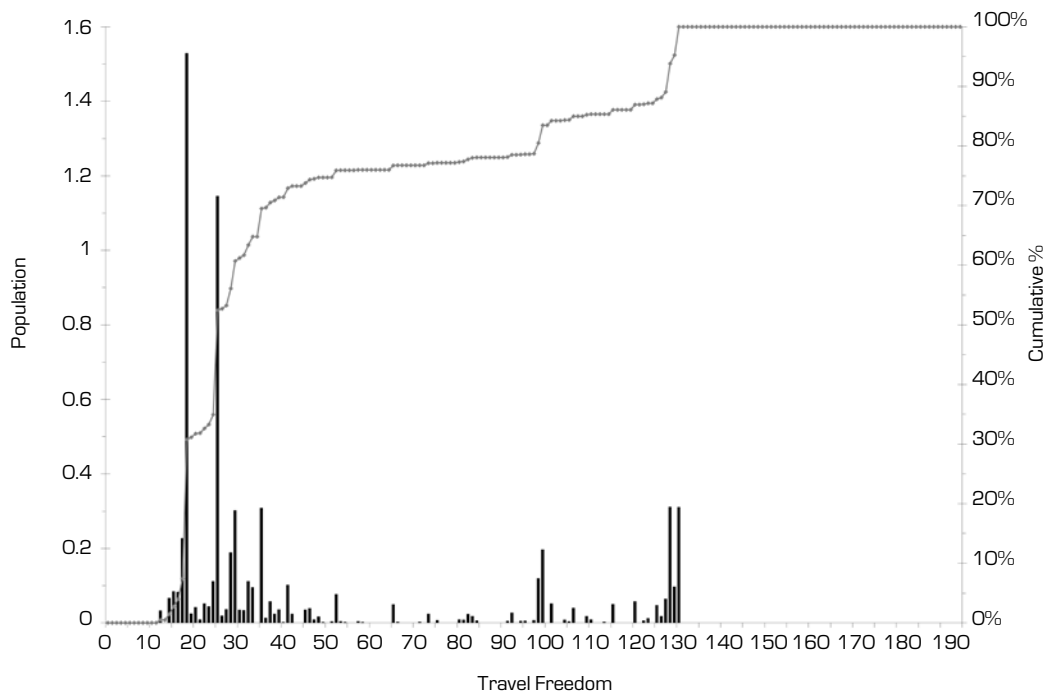
When visa-free privileges are granted to others by a country seeking to gain competitive advantage in the tourism market, these privileges are not necessarily reciprocated. Thailand and the United Arab Emirates may grant visa-free access to most short-term tourist arrivals, but their own nationals do not enjoy much travel freedom at all. In contrast, Australia is unusual for a western country in requiring all visitors to have visas (although, as noted, for New Zealanders this is purely a technicality), but its own citizens enjoy very high travel freedom.

Other factors that influence the granting of visa-free travel privileges include geographical proximity and international politics. Regional blocs like the EU, ASEAN and others may encourage or indeed require visa-free travel between member states, or insist that other countries treat all members of the bloc equally in terms of visa requirements. For example, the EU insisted recently that Canada extend visa-free entry to the new EU member states of Latvia, Lithuania and Estonia (Workpermit.com, 2007). Even without the existence of a regional bloc, geographical and cultural proximity are likely to encourage visa-free access between closely-linked neighbouring states simply because of the bureaucratic and economic burden of requiring visas (for an analysis of the effect of cultural distance on tourism, see Crofts, 2004). It may also be politically advantageous to remove visa requirements, simply to be seen as a friendly neighbour. Visa requirements may not only be removed, but can also be (re)imposed for political reasons. In 2003, New Zealand joined Canada, Ireland, the UK and US in reimposing visa requirements on Zimbabwean citizens in response to the policies of the Mugabe government. This multilateral reaction not only imposed travel controls on Zimbabwean government officials, but also helped control the influx of Zimbabwean citizens seeking asylum (ABC Online, 2003).

Travel Freedom and Population

The analysis of travel freedom above has been made on a country by country basis. It takes no account of the different populations of each country. China's low travel freedom is much more significant due to the size of the Chinese population so affected, compared to Bhutan, with a slightly higher travel freedom, but a much smaller population.

Of the ten most populous countries in the world, with 59.2% of world population between them, only two, the US and Japan, with 6.5% of world population, fall in the highest class of travel freedom on Figures 18.3 and 18.4. Brazil, home to 2.9% of world population, falls into the second highest class on both maps. The other seven, China, India, Indonesia, Pakistan, Bangladesh, Russia and



Nigeria, who are home to 49.8% of world population, all fall in the bottom class on Figure 18.3, and the bottom two on Figure 18.4. By including populations of each country in the analysis, a more realistic, and more highly skewed, picture results.

Figure 18.5. Population (absolute, and cumulative percentage) vs. travel freedom value

Populations in 2005 for each of Henley's 195 countries were obtained from the website of the US Census Bureau (2008). In Figure 18.5, for each value of travel freedom on the x-axis, the combined populations of the countries with that travel freedom are plotted on the y-axis. The populations of China and India, with travel freedoms of 18 and 25 respectively are now very dominant, so that the upper tail of the distribution, even with the large US and Japanese populations, appears hardly significant anymore. Again, a cumulative percentage line is superimposed on the bar graph, indicating, for any x-value, the percentage of the world's population with *at most* that travel freedom. From this it can be seen that 50% of the world's population has access to at most 25 other countries visa-free, while only 21.4% have access to at least half (97 or more of 194) of the other countries.

In Figure 18.6, the travel freedom of each country was multiplied by the size of its population to arrive at a "national travel freedom". For each value of travel freedom on the x-axis, the sum of the "national travel freedoms" for the countries with that value was plotted on the y-axis. In other words, each person

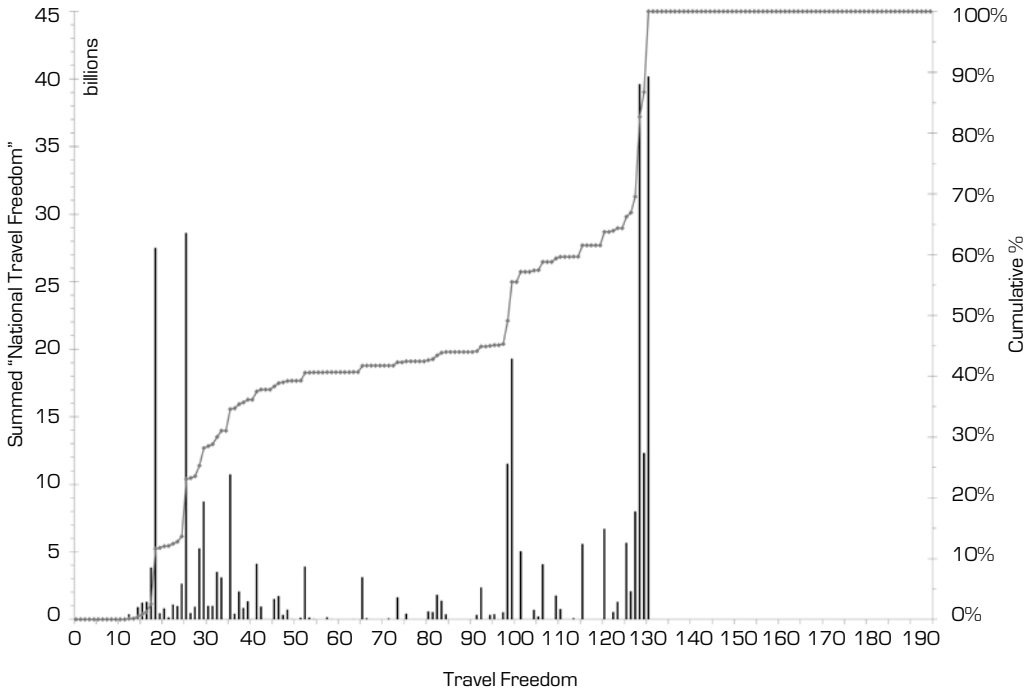


Figure 18.6. Summed “National travel freedom” (absolute, and cumulative percentage) vs. travel freedom value

in the world was assigned the value of his country’s travel freedom (e.g. 130 for American citizens, 18 for Chinese citizens) and the sum of these individual human values plotted on the y-axis for all people from countries possessing a given level of travel freedom. Note that while US population is 4.4 times smaller than that of China, the travel freedom of each US citizen is $130 \div 18 = 7.2$ times more than that of a Chinese citizen, and so the “national travel freedom” of the US is $7.2 \div 4.4 = 1.6$ times that of China. For this reason, the upper tail of the distribution in Figure 18.6 becomes dominant. Values of “National Travel Freedom” for selected countries are given in Table 18.3.

In an ideal world, with perfect travel freedom for all, this figure would be a single bar at an x-value of 194, with a height of 1270 billion. In figure, the sum of the heights of all the bars, representing the current value of ‘global travel freedom’, is only 303 billion, so that, when populations of each country are taken into account, only $303 \div 1270 = 23.8\%$ of all possible international trips can be made visa-free. This is lower than the 29.7% calculated purely on a country basis without considering population, but perhaps not as much lower as might have been expected.

As with Figures 18.3 to 18.5, Figure 18.6 also has a cumulative percentage line overlaid on the bar graph. This shows that while 50% of the “global travel freedom” is held by citizens of countries able to visit at least 99 others visa-free, these citizens make up only 19.5% of the world’s population. In simple

Rank	Country	National Travel Freedom (= population × travel freedom)
1	US	38.8 billion
2	India	27.4 billion
3	China	23.7 billion
4	Brazil	19.0 billion
5	Japan	16.3 billion
...		
14	Russia	4.97 billion
64	Uzbekistan	643 million
87	Kazakhstan	427 million
115	Tajikistan	198 million
120	Kyrgyzstan	146 million
139	Turkmenistan	90.0 million
...		
195	Vatican City	87000

Table 18.3.
"National Travel Freedom" values for selected countries

fractions, one fifth of the world's population enjoys half of its total travel freedom.

Finally, we can formally define a Global Travel Freedom Index (GTFI), that measures how many of the potential international trips that can be made by the combined global population are currently visa-free. The GTFI takes values between 0 and 100%.

Global Travel Freedom Index =

$100 \times \frac{\sum (\text{population of each country} \times \text{number of countries that its citizens can visit visa-free})}{\text{world population} \times (\text{total number of countries} - 1)}$

(world population × (total number of countries – 1))

From the Henley data, the GTFI for late 2005 is 23.8%

Conclusion

Not unexpectedly, visa-free privileges are generally granted to citizens of stable, wealthy democracies, and less likely to be granted to citizens of unstable, poor authoritarian states. This reflects a combination of positive and negative factors, such as membership of regional or other international blocs and the competitive advantages to be gained in the tourism industry by eliminating visa requirements on one hand, and the desire to control entry by asylum seekers, economic migrants, undesirables, and citizens of countries who are perceived as likely to abuse access privileges on the other.

On a country by country basis, there are a possible 37 830 permutations of visitor nationality and destination, of which only 11 223 (29.7%) were visa-free, according to the Henley data, circa 2005. After national populations are considered, of a potential global travel freedom of 1270 billion, only 303 billion (23.8%) actually exists, so that at an individual human level, less than a quarter of possible international movement permutations are visa-free.

Unfortunately the data released by Henley only indicate one side of the picture: the number of other countries that can be visited visa-free by a given citizenship. One other aspect is the number of different foreign countries whose citizens can visit a particular country visa-free; but ideally one would also like to know the visa (or visa-free) status of every possible visitor nationality-destination pair. Only with such a full dataset, with 37830 items of data, can the full picture of human travel freedom be understood. Until such time these data are collected concurrently, we can nevertheless still measure progress towards global integration by means of the proposed Global Travel Freedom Index. A modified dataset and thus a modified index could also potentially be developed for various regions to measure their own internal integration. By updating the data at regular intervals, say every few years, the Global Travel freedom Index can help measure progress towards an ideally integrated (and visa-free) world.

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