

Republic of Kazakhstan

Country Economic Memorandum

**Getting Competitive, Staying Competitive:
The Challenge of Managing Kazakhstan's Oil Boom***

Background Paper No. 2:
**Economic Diversification in Kazakhstan,
with Special Emphasis on the Oil and Gas
Value Chain**

September 2003

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REPUBLIC OF KAZAKHSTAN

Economic Diversification, with Special Emphasis on the Oil and Gas Value Chain

Final Report (Draft) -- September 22, 2003

I. Mission Activities and Context

The mission was part of the preparatory work under a Non-Extractive Growth Analytical Report aimed at providing tools to the authorities that would assist their search for ways to increase the diversification of Kazakhstan's economy. Two field visits were carried out in June and August, 2003 to study the value chain issues related to promoting economic diversification in the context of Kazakhstan's Innovative Industrial Development Strategy.¹ During the June 17-24 field visit, multiple sectors amenable to value chain analysis were reviewed, and the Aide Memoire contained a preliminary analysis of Kazakhstan's wheat value chain.² In the August 4-13 field visit, the focus was on economic diversification of the oil and gas value chain in Kazakhstan.³

Based on these visits and meetings, this final report summarizes our findings in four types of analysis: (a) the domestic context for economic reforms; (b) an international benchmarking of Kazakhstan's export performance and economic diversification efforts with other transition economies from Eastern and Central Europe and Asia to identify diverse trajectories for upgrading and international

¹ An initial field visit related to the Non-Extractive Growth Report was carried out by Mr. Gary Gereffi (Director of Markets & Management Studies Program, Duke University, Durham, North Carolina, USA), Mr. Pedro L. Rodriguez (Senior Economist, World Bank), and Ms. Zhanar Abdildina (Economist, World Bank Office for the Republic of Kazakhstan) on June 17-24, 2003 (see Annex 1 for the list of meetings). A second mission was carried out on August 4-13, 2003 by Mr. Gereffi and Mr. Rodriguez (see Annex 2 for the list of meetings). The mission wishes to express its appreciation for the collaboration provided by government officials, and the representatives of local firms and multinational companies operating in Kazakhstan with whom we met. All these activities will serve as inputs for the World Bank Growth Report, which is part of the Joint Economic Research Program between the Government of Kazakhstan and the World Bank.

² "World Bank Mission on the Value Chain Aspects of the Innovative Industrial Development Strategy," Aide Memoire, June 17-24, 2003, Annex 2.

³ "World Bank Mission on Economic Diversification of the Oil & Gas Global Value Chain," Aide Memoire, August 4-13, 2003.

competitiveness; (c) an analysis of the oil and gas value chain in Kazakhstan, highlighting the main economic actors and long-term opportunities for increased value-added activities in the oil and gas sector; and (d) concrete recommendations for detailed policy instruments and actions the government may wish to consider in promoting its objective to develop support industries for the oil and gas value chain.

II. Kazakhstan's Development in Comparative Perspective

1. Selected Economic Background

The Republic of Kazakhstan has been one of the most vigorous reformers of the Commonwealth of Independent States (CIS). Basic price and trade liberalizations were carried out relatively early on in the transition, small and medium-scale enterprises were privatized, and the government established a framework to attract foreign direct investment (FDI) into its rich oil and mineral resource base. The country is also a leading reformer in the area of banking and the financial sector.

Although recently structural reform efforts appear to have slowed down, the country has experienced strong growth over the past few years, which has been mainly, but not exclusively, led by oil. Looking forward, the oil bonanza is likely to drive the Kazakh economy for the foreseeable future, as production levels of almost 1 million barrels a day in 2002 are expected to more than double by 2010. Naturally, the authorities are concerned with the so-called "Dutch disease," which through an appreciation of the exchange rate could increase the economy's already high dependence on a few extractive industries.

At the macroeconomic level, the authorities established an offshore national oil fund in 2001 to reduce the country's vulnerability to swings in the price of oil and to build up oil revenues for future generations. The Fund, which has accumulated more than \$2.1 billion, has been key in sterilizing capital flows that would have appreciated the exchange rate significantly. At the microeconomic level, the authorities are looking for ways to use Kazakhstan's oil wealth as a vehicle to promote a broad-based development plan that focuses both on non-extractive growth and on promoting human development (e.g., education, poverty reduction, health, and the environment).

In this regard, the authorities recently prepared an Innovative Industrial Development Strategy for 2003-2015, which identifies several main economic priorities including: diversification into non-extractive activities; export orientation; and a focus on relatively high-value activities in regional and global value chains. This program proposed the creation of an Innovation Fund and an Investment Fund, which, together with the existing Development Bank, should be used as vehicles to promote innovation, diversification and export orientation. Rightly, the program provides for these Funds to develop strategic interventions and pilots for their ideas over the next 12 to 18 months, rather than encouraging them to go into full-fledged operation.

The objective of economic diversification appears broadly appropriate. Although Kazakhstan's oil reserves could support a relatively long-lived boom (with a plateau of nearly 25 years), oil must still be viewed as a transitory rather than a permanent source of wealth for Kazakhstan. In addition, basic asset management principles suggest that oil assets should be invested rather than consumed, and fostering a broader spectrum of investments (i.e., promoting a diversified economy) is certainly an appropriate alternative 'asset' to oil.

The challenge of diversification is nonetheless daunting. The Kazakh economy is currently highly dependent upon a few export commodities. In 2002, oil production, transportation and processing accounted for about 16 percent of GDP, while oil and fuel products accounted for 56 percent of total exports. Metallurgy (ferrous and non-ferrous metals) and grains are the only other significant exports products.

Table 1 highlights Kazakhstan's dependence on resource-based exports. In 2000, 81 percent of Kazakhstan's exports were derived from natural resources (mostly oil), and 15 percent were basic capital-intensive products (i.e., processed metals). The country had virtually no labor-intensive or skill-intensive manufactured exports. Russia has a similar export profile, although not as biased toward resourced-based industries as Kazakhstan (only 60 percent of Russia's exports were in this category). Latvia's exports are more balanced between resource-based industries (53 percent) and manufactures, with 25 percent of the latter in labor-intensive products. Romania and Hungary rely on manufactured products for more than three-quarters of their exports; labor-intensive exports (mainly apparel) are most important in Romania, while 50 percent of Hungary's exports are capital- and skill-intensive complex manufactured items.

Table 1***Major export industries in Hungary, Romania, Latvia, Russia, and Kazakhstan in 2000***

(% of total export in current USD)

	Resource-based industries	Capital-intensive basic manufacturing	Capital and skill-intensive complex manufacturing	Labor-intensive manufacturing
Hungary	14	9	50	24
Romania	25	16	15	42
Latvia	53	12	9	25
Russia	60	14	6	3
Kazakhstan	81	15	2	1

Source: Béla Greskovits, "Beyond Transition: The Variety of Post-Socialist Development," April 2003, unpublished manuscript, Central European University, Budapest, Hungary. These figures are based on the United Nations Comtrade database. Shares do not add up to 100% because of the differences caused by the "special transactions" category.

Thus, Kazakhstan occupies an extreme position among CIS and East-Central European economies in its dependence on relatively unprocessed extractive commodities. To enhance its international competitiveness and long-run growth, industrial diversification is needed.

2. International Benchmarking

Comparative analysis is essential for any study of international competitiveness because countries and firms seek to learn from each other. In the case of Kazakhstan, the appropriate reference points are not the highly advanced economies, such as the United States, the European Union, or Japan. Rather the most relevant international competitors are likely to be the emerging industrial powers with major investments in Central Asia and the Middle East: Russia, Turkey, India, and South Korea. A second tier of competitors includes Central and East European economies like Hungary, Yugoslavia, and Romania. These countries make mid-price, mid-quality products, to a large

degree using and improving on existing technologies. Russia is particularly important, both as a market and as a competitor for many firms located in Kazakhstan.

Table 1 highlighted striking differences between the export profiles of Kazakhstan, Russia, Latvia, Romania, and Hungary, and we also see varied levels of economic diversification in the same broad region. However, this table is static. It does not reveal the process of change by which countries with a strong base in natural resources developed their manufacturing sectors, nor does it tell us the sequence in which distinct export industries evolved in each country.

To understand the dynamic aspects of economic diversification, international benchmarking must be done over time and at different levels of industrial disaggregation. In terms of analyzing the growth of world merchandise exports, products can be classified into five main categories at the 3-digit SITC (Standard International Trade Classification) level according to the mix of different skill, technology and capital intensities, as follows: (1) primary products; (2) resource-based manufactures; (3) low technology (including apparel); (4) medium technology (including automotive); and (5) high technology (including most electronics).⁴ In addition, one can distinguish major industries or product groups at the 2-digit SITC level to distinguish patterns of export specialization across countries.

In Graphs 1-5 (see Annex 3), the export trajectories of the five countries listed in Table 1 are laid out in terms of both levels of disaggregation mentioned above: the five types of merchandise exports according to product type and technology level, and the most important 2-digit SITC products for each country. The data for Kazakhstan, Russia, and Latvia are for 1993 to 2000, while the trends for Romania and Hungary cover the period from 1980 to 2000. The exports from these five countries of Central and Eastern Europe and Asia show quite different levels of industrialization, as well as distinct patterns and sequences of economic diversification.

⁴ This classification system is utilized in Sanjaya Lall and Manuel Albaladego, "China's Manufactured Export Surge: The Competitive Implications for East Asia," World Bank, East Asia Department, June 2003. Similar export classification systems are also used in United Nations Industrial Development Organization, *Industrial Development Report 2002/2003: Competing Through Innovation and Learning* (Vienna: UNIDO, 2002); and United Nations Conference on Trade and Development, *Trade and Development Report, 2002: Developing Countries in World Trade* (Geneva: UNCTAD, 2002).

In Kazakhstan and Russia, primary product exports dominate. Oil and related products account for more than 50% of Kazakhstan's exports of \$9 billion in 2000, ferrous and non-ferrous metals for 23%, and cereals (mainly wheat) another 7%. In Russia, petroleum products are just under one-third of total exports, and all primary products account for one-half of the \$100 billion export package in 2000. Medium-technology manufactured exports in Russia outperform both low-tech and high-tech manufactures. Thus, there is more economic diversification in Russia than in Kazakhstan, but it is still relatively modest.

About 80% of Latvia's \$2 billion of exports in 2000 are resource-based manufactures (especially cork and wood) and low-technology manufactures (textiles, apparel, and iron and steel products). Export concentration is quite high in these two categories, but the reliance on primary products is much lower than in Kazakhstan or Russia.

Romania and Hungary show relatively high levels of export diversification. In the case of Romania, exports plummeted from their peak of \$13.2 billion in 1988 to \$3.8 billion in 1991, as a result of the dismantling of Soviet-bloc markets after 1989, but by 2000 exports had climbed back to \$11 billion. Nearly 50% of Romania's exports were low-tech manufactures (especially apparel and footwear), and almost 40% were a combination of resource-based products and medium-tech manufactures.

Hungary has the most advanced export structure of the five countries reviewed here. Nearly 70% of its total exports of \$30 billion in 2000 are in medium-tech and high-tech manufactured products. The rise of high-tech manufactures from last place among the five product groups in 1996 to second place in 2000 is particularly impressive, with office machines (13.9%), electrical machinery and appliances (11.9%), and telecommunications (10.6%) all commanding significant shares of the country's total exports. Two main advantages enjoyed by Hungary that help to account for its export dynamism and diversification are high levels of foreign direct investment and its geographic proximity to the large consumer markets in the European Union.

The regional competitors examined in this international benchmarking analysis all began with primary products or resource-based manufactures as one of their two leading export categories at the beginning of the period reviewed here. Only Hungary and Romania have shown significant upgrading in terms of the rapid rise of their medium- and high-tech manufactured products, and in both cases,

foreign direct investment and close access to western European markets have promoted this diversification process.

III. The Oil and Gas Value Chain in Kazakhstan

1. The Value-Chain Framework

Value-chain analysis has become popular as a tool for international competitiveness in recent years because of the increasingly specialized and decentralized nature of production and trade in many global industries. The purpose of a global value chain analysis is to identify: who the lead firms are in global industries; how international supply chains are organized; where different types of high and low-value goods and services are located; and how countries can improve or maintain their positions within these industries. This helps us to find the *opportunities* for diversification, exports, and high-value production among firms located in a particular market, such as Kazakhstan.

Global value chain analysis is comprised of four dimensions: (1) an input-output structure of the main segments in the industry supply chain (Design → Production → Distribution → Marketing → Sales); (2) the geography or spatial location of the industry (local, national, regional, or global); (3) the governance structure or identification of the most significant “lead firms” in producer-driven or buyer-driven chains, and the nature of their production networks; and (4) an institutional analysis of the local and international conditions most propitious for specific value chains.⁵ Each of these dimensions involves a detailed discussion that is well beyond the scope of this report. Suffice it to say that the goods and services in any supply chain involve a combination of high and low value-added activities, and value chain analysis uses these to help determine how a country is inserted into the global economy, and the conditions under which a country might be able to improve or “upgrade” its position.

Industrial upgrading entails moving toward relatively high-value activities in value chains. In resource-based industries, this could

⁵ For a more detailed description of the theory, concepts, and definitions associated with the global value chain framework, along with a list of recent publications and tools for practitioners, see the website <http://www.globalvaluechains.org/>. For a recent set of studies, see Gary Gereffi and Raphael Kaplinsky (eds.), “The Value of Value Chains: Spreading the Gains from Globalisation,” *IDS Bulletin*, vol. 32, no. 3, July 2001.

involve increasing the level of processing of the raw material (e.g., petrochemicals instead of just oil), marketing more differentiated products (e.g., organic vegetables or shade-grown coffee), or expanding related and supporting industries (e.g., transportation equipment or specialized services, like maintenance contracts). In particular manufacturing industries, upgrading often implies moving from production to intangibles like research and development, design and marketing activities; more generally, upgrading involves the shift from labor-intensive industries to capital-, skill-, or knowledge-intensive ones.

In Kazakhstan, the value-chain framework can be used to analyze several features of the oil and gas value chain. Based on interviews carried out during the World Bank's August 4-13, 2003 field mission and other materials, a preliminary analysis of Kazakhstan's oil and gas value chain is outlined below.

2. Key Players and Supporting Industries in Oil and Gas

The rapid growth of the oil and gas sector in Kazakhstan, with several billions of dollars of expected investments over the next 5-7 years, provides abundant opportunities for developing relatively high-value support industries. It has already attracted international companies that possess and/or demand the best technologies and standards around the world.

Figure 1 outlines the key economic actors in the oil and gas sector in Kazakhstan. Major oil operators from the United States, Italy, Britain, Canada, France, Belgium, and Russia, among other countries, are all vying for a stake in the exploration and development of Kazakhstan's oil resources. A state-owned company, Kazmunaigaz, which directly or indirectly controls about half of the country's oil production, is positioned to play a significant role as a future partner or negotiator with the oil and gas multinationals. In addition to international oil operators, Kazakhstan has attracted the world's top providers of in-field oil services (including project management skills for construction, drilling, and repairs), oil and gas equipment and materials, and domestic firms engaged in a wide array of supporting industries.

Figure 2 highlights the pyramid of supporting industries for Kazakhstan's oil and gas sector. The pyramid is constructed of a series of layers, going from the most capital- and knowledge-intensive activities at the top (such as oil exploration and extraction, plant

design and engineering, and producing sophisticated equipment) to relatively labor-intensive activities at the base of the pyramid (such as providing basic materials and components, and construction of local roads, housing, and office buildings). Global competition tends to be toughest for the most specialized, capital- and knowledge-intensive activities. The job creation potential in terms of quantity of employment tends to be greater as one descends the pyramid, although the highest paying jobs are often linked to the specialized skills required for high-tech activities.⁶

Figure 2 illustrates the *long-term* opportunities for increased value added activities in the oil and gas value chain. The majority of local companies have been unable to upgrade into higher value added products in oil and gas. This is partly related to the advantages in terms of size, experience, and scale that large global companies have in comparison with domestic firms. However, another very significant barrier to upgrading in the oil and gas value chain is the requirement that all suppliers be *internationally certified* as a precondition for supplying the global firms. Only those local companies that are able to adopt the exceptionally stringent safety and quality protocols required by the industry will be able to take advantage of available opportunities.⁷

3. Strategic Assessment and Policy Options

Kazakhstan is in a very favorable situation due to high world oil prices and surging interest in the oil sector, and unless oil prices fall significantly or the investment climate in Kazakhstan deteriorates, they will be here for a number of years. Thus, there is no need for aiming at extracting short-term gains.

Multinational companies have a strong economic interest to expand the available cadre of qualified local staff and competent suppliers, but

⁶ Figure 2 is an oversimplification in terms of the distribution of skills and technologies in the oil and gas value chain. *Within* each of the layers or tiers of this pyramid of supporting industries, the skills and technologies utilized range from the low-tech to the high-tech ends of the spectrum. However, the relative proportion of knowledge-intensive, high-tech activities is likely to be much greater at the top of the pyramid than at the bottom; conversely, there is a greater proportion of labor-intensive, low-tech activities in the bottom layers of the pyramid than at the top.

⁷ Industry respondents frequently mentioned the "traceability" standard that is used by the companies that provide insurance to the oil and gas sector. If every step in the global supply chain cannot be traced back to a certified company, then insurers claim they cannot appropriately calculate the risk to the environment or human life that might be entailed by equipment failures or accidents in oil fields or pipelines.

even with sustained efforts this will not happen over night. Multinational oil and gas companies will buy local goods and services provided they meet international quality standards and cost no more than imports. Quality and safety are the primary consideration for the procurement decisions of these companies.

Figure 3 outlines the need to strengthen direct links between local and foreign companies, and to reorient the government role in the process. In the current situation, the government in Kazakhstan has been focusing on controlling the activities of foreign oil companies to make sure that the country extracts maximum gains from its proven and potential oil resources. Support of local firms has been sporadic and case-specific. In order to enhance economic upgrading in the future, the oil and gas scenario should be transformed in three ways: (1) direct linkages between foreign firms and local companies in Kazakhstan's oil and gas sector should be multiplied and strengthened; (2) the government should adopt uniform and clear standards for foreign and domestic oil companies in all areas, such as procurement, local content policies, and labor quotas; and (3) the government should provide more institutionalized and transparent support for local suppliers, who should be encouraged to gain international certification and develop regional export markets where possible.

The key policy objective should be to maximize the direct exposure of the *local labor force* and *local suppliers* to the technologies and standards of multinational firms. Government policies can facilitate upgrading of local suppliers by encouraging various forms of partnering between foreign and domestic companies. The government should reward efforts by multinationals to create opportunities for local employees to acquire skills and, over time, to gain managerial responsibilities.

Local suppliers able to link with foreign investors in the oil and gas sector will have the best opportunities to reach international quality standards. Opportunities for local suppliers to link-up with foreign companies can be promoted through a variety of means:

- **Joint ventures:** Removing disincentives to set up local companies (i.e., VAT exemption for foreign purchases); more broadly, structuring arrangements that makes it attractive for internationally recognized companies (e.g., Halliburton, FMC, Hurricane, Parsons/Fluor & Daniels) to make the investment to set up a more permanent suppliers and service business in Kazakhstan.

- **Procurement rules:** moving from agency/government enforcement to stakeholder enforcement (e.g., by ensuring wide local advertisement and public opening of oil and gas company bids, instead of imposing bureaucratic registration procedures).
- **Local content programs:** moving from complicated bureaucratic schemes that are costly and provide incentives for evasion, to easily verifiable approaches (e.g., formalized small and medium enterprise support programs)
- **Certification:** moving away from mandatory national certification processes to promoting international certification of domestic companies (e.g., accepting widely recognized international product/process standards as a substitute for national requirements).
- **Hard Budget Constraints.** Moving from propping up obsolete enterprises in machinery or other support industries for oil and gas, or from amalgamating small units into conglomerates that cross-subsidize each other, to applying rigorous hard budget constraints that lead to restructuring to become more productive or to liquidation.
- **Kazmunaigaz,** which directly or indirectly controls about half of the oil production, should be treated equally in relation to procurement and local content practices. However, this would require reviewing the tasks that the Government has delegated to this company many of which create conflict of interests.

New government institutions have been created in Kazakhstan (e.g., Investment Fund, Innovation Fund, Export Insurance Corporation, Center for Marketing Research) that will need to have clear roles/responsibilities in terms of facilitating greater links between the oil and the non-oil sector.

The Policy Matrix in Annex 4 outlines in more detail instruments that the government may wish to consider in promoting its objective to develop support industries for the oil and gas sector.

**VALUE CHAIN
ACTIVITIES**

Figure 1: Key Players in Oil & Gas Value Chain in Kazakhstan

*Oil exploration
development
production*

Oil refining

In-field services:

- project management
- drilling
- intervention
- repairs

Equipment

(e.g., pumps, valves, containers)

Materials

(e.g., steel & iron products, pipes, chemical additives, safety helmets & boots)

Certification services

Construction

(infrastructure)

-roads, ports, water, electricity

Logistics/Distribution

Marketing

Main Oil Fields

1. Tengiz/Atyrau
2. Kashagan
3. Karachaganak
4. Uzen
5. Aktyubinsk
6. Kumkol

Major Oil Operators

1. Tengizchevroil (ChevronTexaco) – USA
2. Agip – Italy
3. BG Kazakhstan – UK
4. PetrolKazakhstan (Hurricane) – Canada
5. Kazmunaigaz – Kazakhstan
6. Total Fina Elf - Belgium/France
7. Others

Oil Refineries

1. Atyrau
2. Shymkent
3. Pavlodar

Global Service Providers

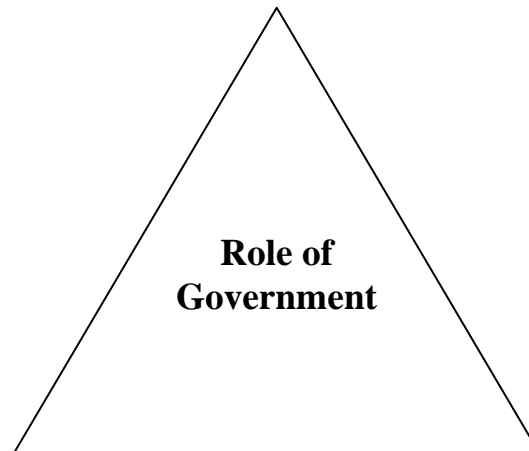
1. Parsons, Fluor & Daniels
2. Halliburton
3. Schlumberger
4. Baker-Hughes
5. Weatherford
6. Enka/Bechtel
7. Others

Other Foreign Service Companies

- Russian
- Turkish
- Chinese
- Indian
- Others

Domestic Supporting Firms

1. ABE Corporation
2. Byelkamit (joint venture)
3. Instalkom
4. 600 local suppliers on Ministry of Industry list



Private Certification

Organizations

+

Standards

- Moody International (USA)
- SGS (Switzerland)
- TUV (Denmark)
- Lloyad (UK)
- BM Trada (Russia)
- Kaz Standards
- Others

Process : ISO 9 000, ISO 14 000, ISO 18 000

Domestic: Gos/Kazstandards

Product: ASMI, API, others

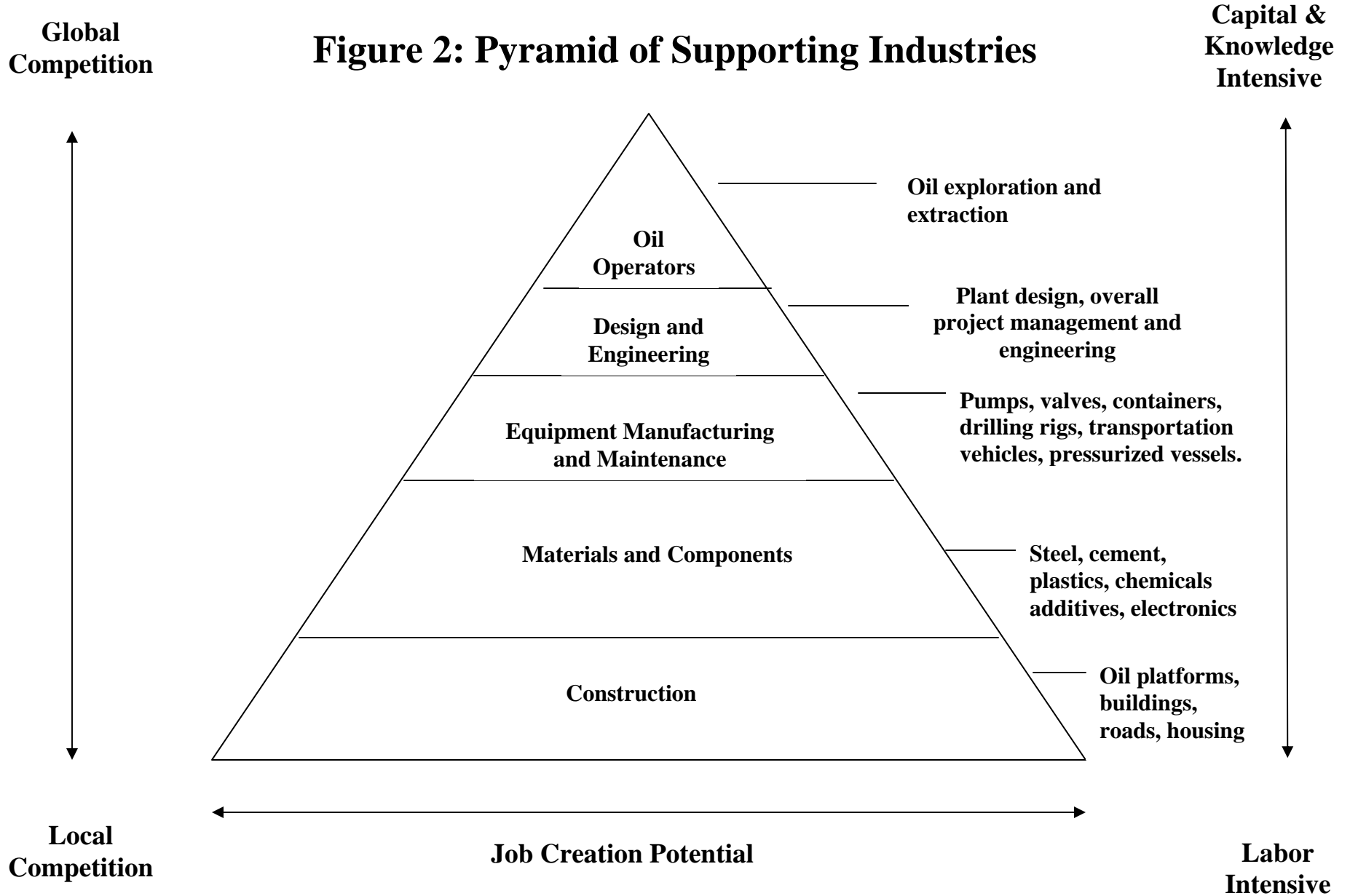
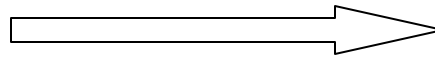
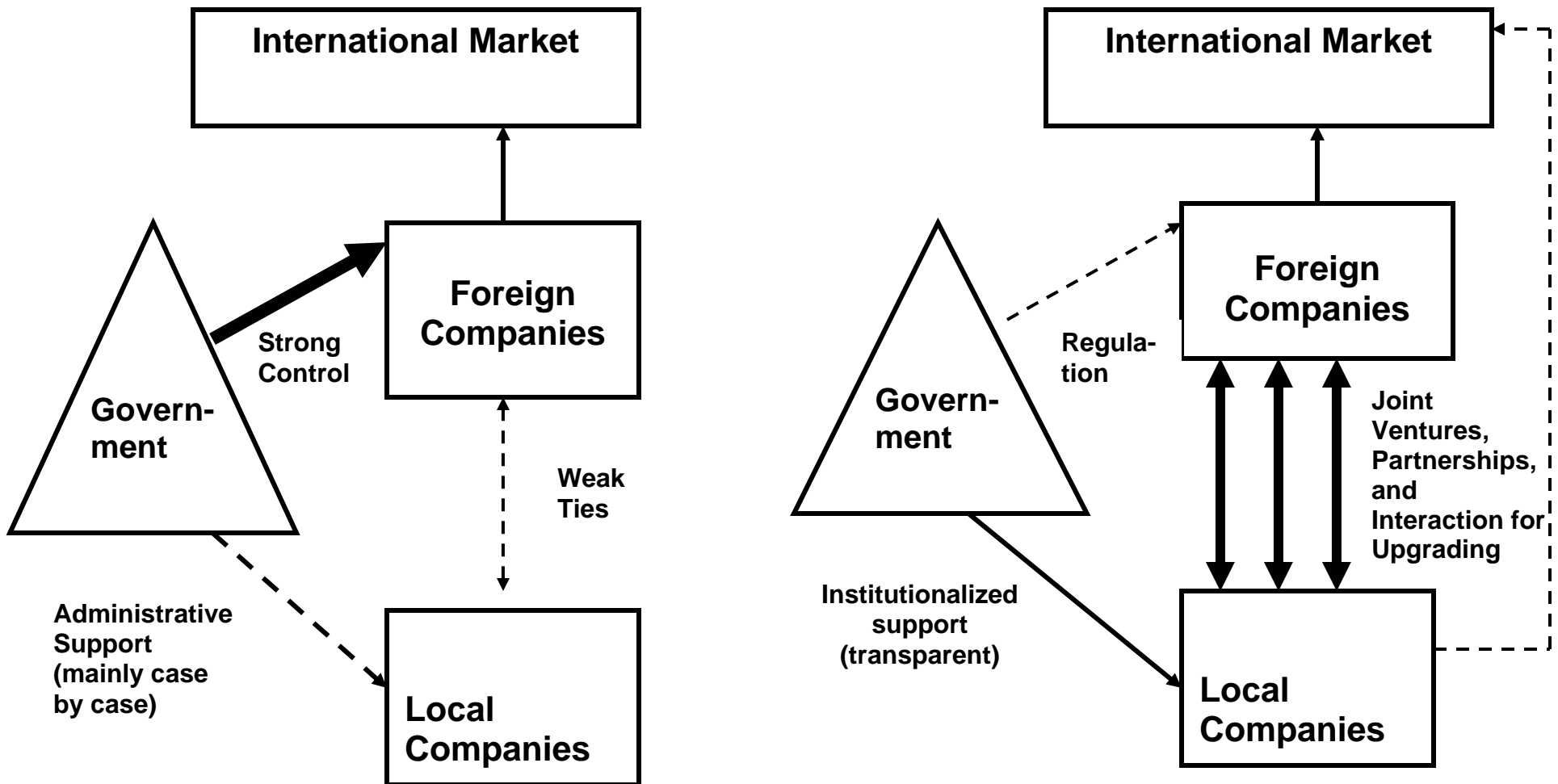


Figure 3: Links Between Key Players in Kazakhstan

CURRENT SITUATION



FUTURE



IV. Summary Recommendations

- 1) Kazakhstan has great opportunities for economic diversification in the oil and gas sector:
 - Extensive oil and gas reserves.
 - High current oil prices relative to historic trends.
 - All of the top companies in the oil and gas value chain are in Kazakhstan.

- 2) A key form of international knowledge transfer is to promote jobs for the people of Kazakhstan in the top western oil and gas companies and to reward companies' efforts to train and provide management opportunities:
 - Local training programs set up by these companies.
 - International training (sponsored by companies and the government).
 - Strengthening engineering and business management tracks in local universities.
 - Work permits and labor quotas could be useful to some extent, but the manner in which these are currently applied in Kazakhstan merit a thorough review.

- 3) Kazakhstan's companies will only be integrated into the oil and gas value chain if the quality of their output meets international product and process standards, including safety and environmental protocols. There are various mechanisms for promoting close interaction between local companies and foreign firms:
 - Joint ventures (such as Belkamt's technology and investment-based joint venture with U.S. and Italian partners), are the most effective way to transmit a full package of benefits to local suppliers.
 - Subcontracting relationships (such as those found in the construction industry with Turkish/Foreign companies like Enka).
 - SME development programs (such as Ispat Karmet, Agip, and Tengizchevroil).
 - Government grants to help local companies with training, certification, preparation of bids for international contracts, etc.

- 4) Government policy must strike a balance between exerting pressure on oil and gas multinationals for short-term gains (such

as taxes, jobs, and local content) and promoting the long-term partnerships needed for the creation of professional skills among local employees in the industry, a well established reputation for supplier excellence, and sustained competitiveness in the domestic and international markets.

- Multinational companies should be encouraged to provide as much skill training and local supplier development as possible but pressures and “red tape” in other areas must be lowered. The companies who perform well in these areas should be recognized by the government.
 - Local firms need a level playing field (currently the agreements on VAT reached with some operators are biased in favor of imports), but these companies also need exposure to international competition, and market and government pressures in order to be successful in the long term.
 - Kazmunaigaz, which directly or indirectly controls about half of the current oil production, should be treated equally in relation to procurement and local content practices. However, this would require reviewing the tasks that the Government has delegated to this company many of which create conflict of interests.
- 5) Achieving enhanced competitiveness and economic diversification in Kazakhstan’s oil and gas sector will require a serious long-term national commitment. This could be enhanced by tapping the World Bank’s international experience.

Annex 1

***LIST OF MEETINGS OF WORLD BANK MISSION ON
VALUE CHAIN ASPECTS OF THE INNOVATIVE INDUSTRIAL DEVELOPMENT STRATEGY***

Astana/Karaganda/Temirtau/Almaty, June 17-24, 2003

Mr. Mazhit Esenbayev, Assistant to President of RK
 Mr. Karim Masimov, Assistant to President of RK
 Mr. Sauat Mynbayev, Deputy Prime Minister
 Mr. Oraz Jandosov, Chairman, Agency for Regulation of Natural Monopolies

Ministry of Economy and Budget Planning:

Mr. Kairat Kelimbetov, Minister
 Mr. Yerbol Orynbayev, Vice Minister
 Mr. Arman Dunayev, Vice Minister
 Mr. Aset Isekeshiev, Advisor to Minister
 Mr. Nurlan Kusainov, Head, Strategic Planning Division
 Mr. Kuanysh Bishimbayev, Deputy Head, Investment Policy Division
 Ms. Madina Abylkasymova, Deputy Head, Strategic Planning Division

Ministry of Industry and Trade:

Mr. Adilbek Jaksybekov, Minister
 Mr. Abelgazy Kusainov, Vice Minister
 Ms. Kulpash Abdieva, Head of the Marketing and Import Substitution
 Division
 Mr. Kanat Absettirov, Chairman, Committee on Small Business Support
 Mr. Vladimir Chirkov, Deputy Chairman, Construction Committee
 Mr. Serik Bekmukhambetov, Head, Architecture and Construction Division,
 Construction Committee
 Mr. Baurzhan Zhanuzakov, Head, Economic Analysis Division, Construction
 Committee
 Mr. Satybaldy Tulegenov, Technical Norms and New Technologies Unit,
 Construction Committee

Ministry of Energy and Natural Resources:

Mr. Vladimir Shkolnik, Minister
 Mr. Bakit Erzhanov, Project Manager of Information Technologies Park
 Mr. Abzal Kusianov, Head, Import Substitution Section

Astana City Administration:

Mr. Rustem Musin, Deputy Director, Economic Department
 Mr. Kuat Zhakhin, Deputy Director, State Municipal Enterprise "Small
 Business Support Center"

Private Sector:

ASTANA

Mr. Nurlan Tleubayev, President, Kazakhstan Grain Union

Mr. Serik Maselov, Director, Astana-Agropromtekhnik (Astana Technopark)

KARAGANDA

Mr. Gennady Piven, Rector, Karaganda Technical University

Association of Machine Building and Metal Processing Enterprises in Central Kazakhstan:

Mr. Bolat Kenzhin, Director, Machine Building Enterprise #1

Mr. Vitaly Petrov, General Director of Association

Mr. Alexander Popov, Director, Vostokenergoremont

Mr. Sergey Styukov, Financial Director of Association

Mr. Vladimir Boger, Technical Director, Machine Building Enterprise #1

Mr. Yuri Styukov, Director, Trade House "Parkhomenko Plant"

Ispat Karmet

Mr. Bhuneveshwar Gupta, General Manager

Mr. Indranath Chatterjee, Manager-Finance

ALMATY

Mr. Erlan Sagadiyev, Chief Executive Officer, FoodMaster International LLC

Ms. Ekaterina Nikitinskaya, Executive Director, Confederation of Employers of RK

Ms. Alma Nurguzhaeva, Deputy Executive Director, Confederation of Employers of RK

Mr. Najat Kadyrov, Deputy Executive Director, Confederation of Employers of RK

Mr. Segey Kelbakh, Marketing Director, Almaty Heavy Machine Building Plant (AZTM)

Mr. Abay Sadykov, Managing Director, Asia Business Group

Ms. Asem, Director, Asia Business Informbank

Mission Members:

- Mr. Gary Gereffi, Director, Markets and Management Studies Program, Duke University
- Mr. Pedro Rodriguez, Senior Country Economist, World Bank
- Ms. Zhanar Abdildina, Economist, World Bank

Interpreter (s): Ms. Sholpan Spanova; Ms. Oxana Miller; Ms. Kulyan Janabaeva.

Annex 2

***LIST OF MEETINGS OF WORLD BANK MISSION ON
ECONOMIC DIVERSIFICATION OF THE OIL AND GAS VALUE CHAIN***

Almaty/Atyrau/Astana, August 4-13, 2003

GOVERNMENT

Mr. Daniyal Akhmetov, Prime Minister
 Mr. Kairat Kelimbetov, Minister, Minister of Economy and Budget Planning
 Mr. Erbol Orynbaev, Deputy Minister, Minister of Economy and Budget
 Planning
 Mr. Aset Issekeshiev, Deputy Minister, Ministry of Industry and Trade
 Mr. Kiinov, Deputy Minister of Energy and Mineral Resources
 Mr. Maksat Idenov, Advisor to the President on Caspian and Oil and Gas
 issues

ALMATY COMPANIES

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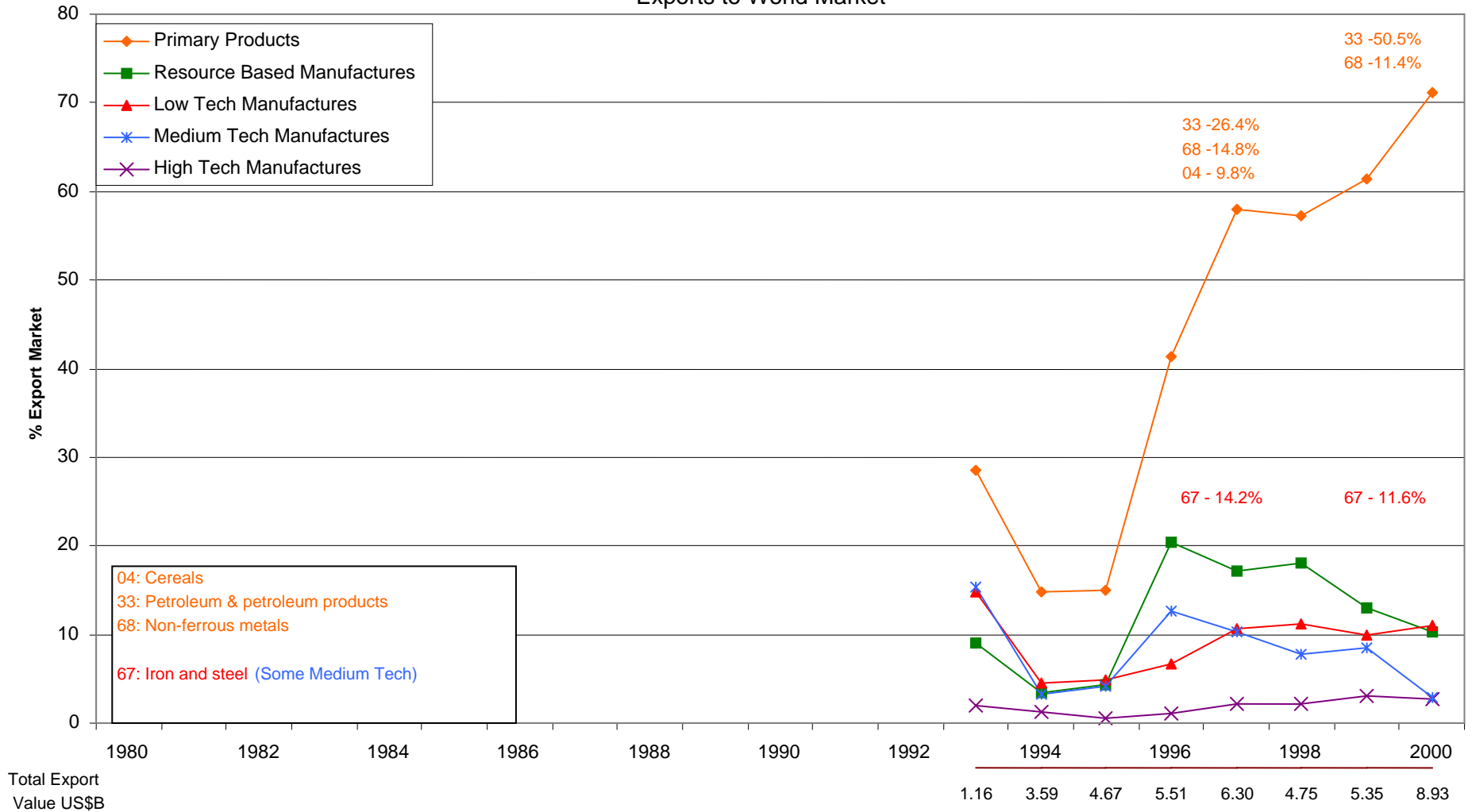
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Annex 3

GRAPH 1

Kazakhstan

Exports to World Market

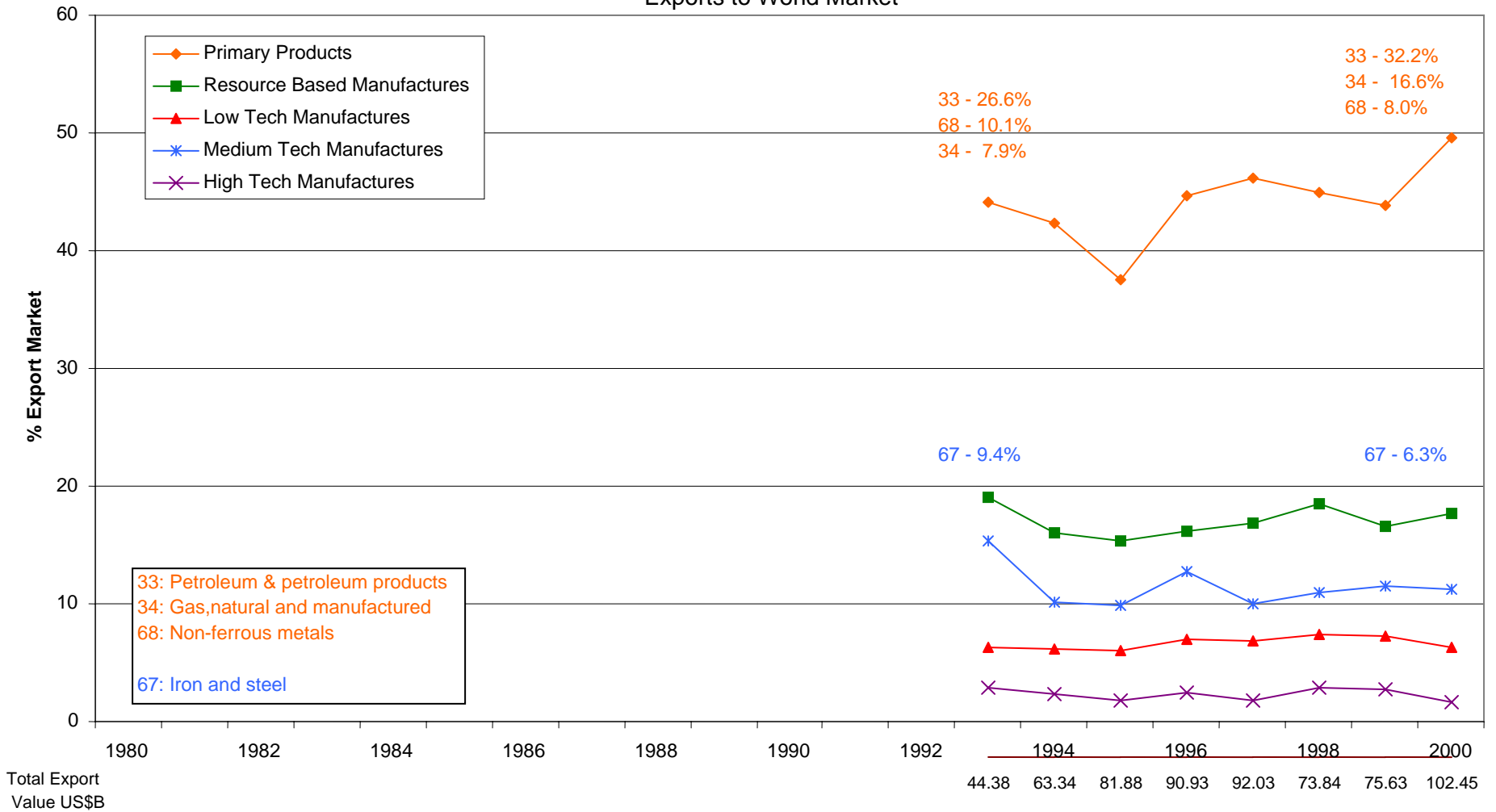


Source: World Trade Analyzer (Statistics Canada), based on the United Nations Comtrade database.

Graph 2

Russia

Exports to World Market

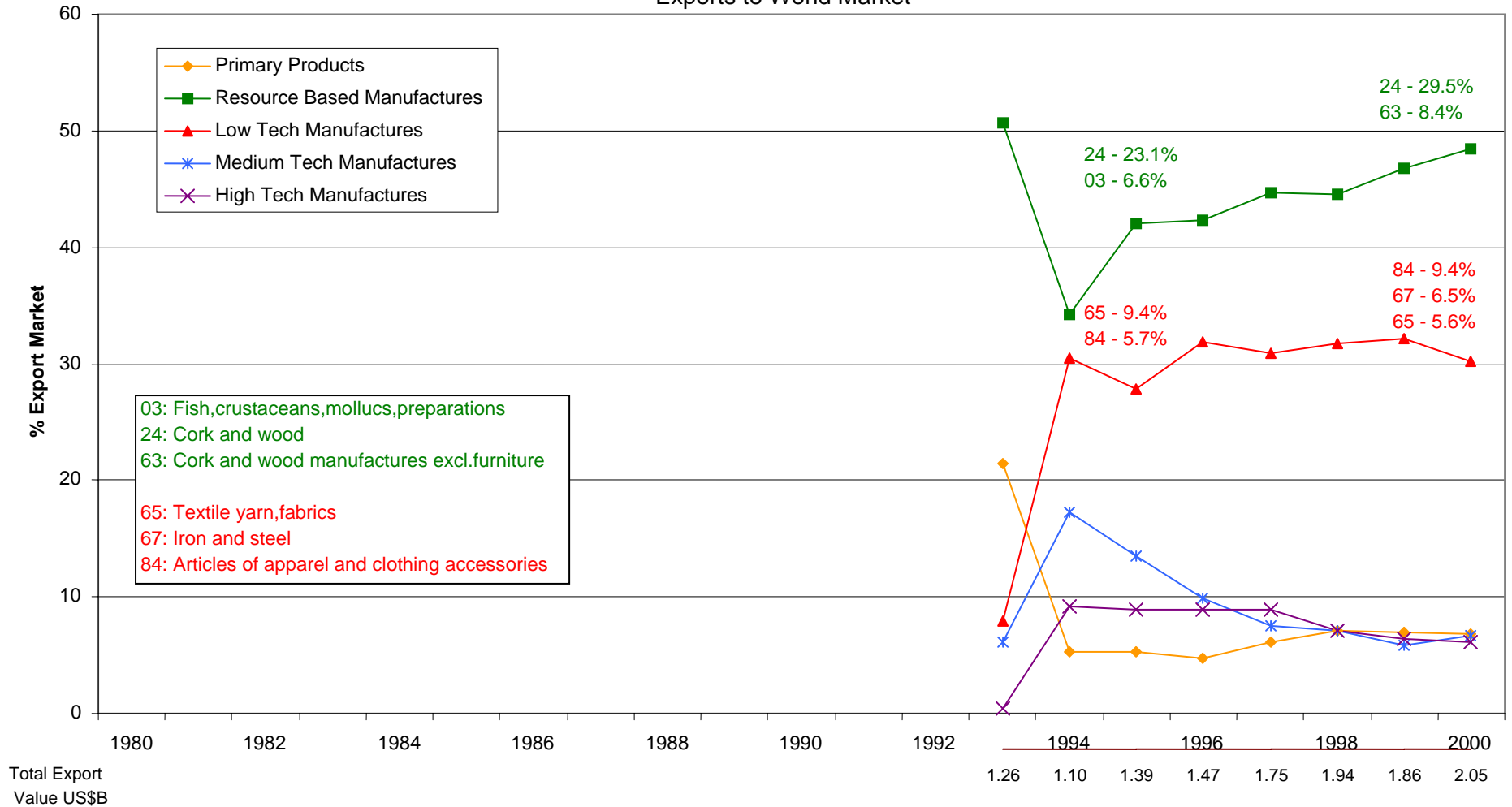


Source: World Trade Analyzer (Statistics Canada), based on the United Nations Comtrade database.

GRAPH 3

Latvia

Exports to World Market

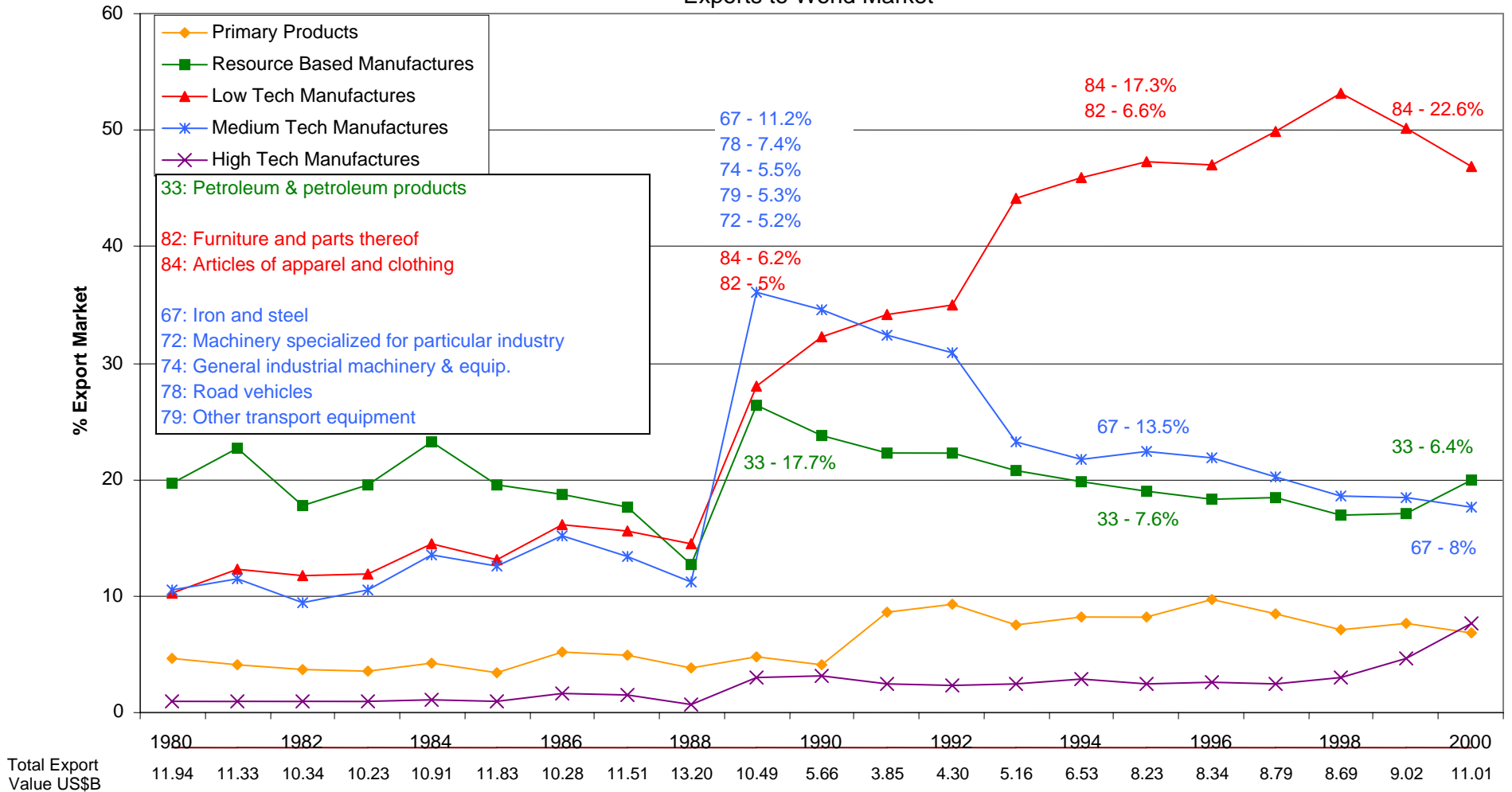


Source: World Trade Analyzer (Statistics Canada), based on the United Nations Comtrade database.

Graph 4

Romania

Exports to World Market

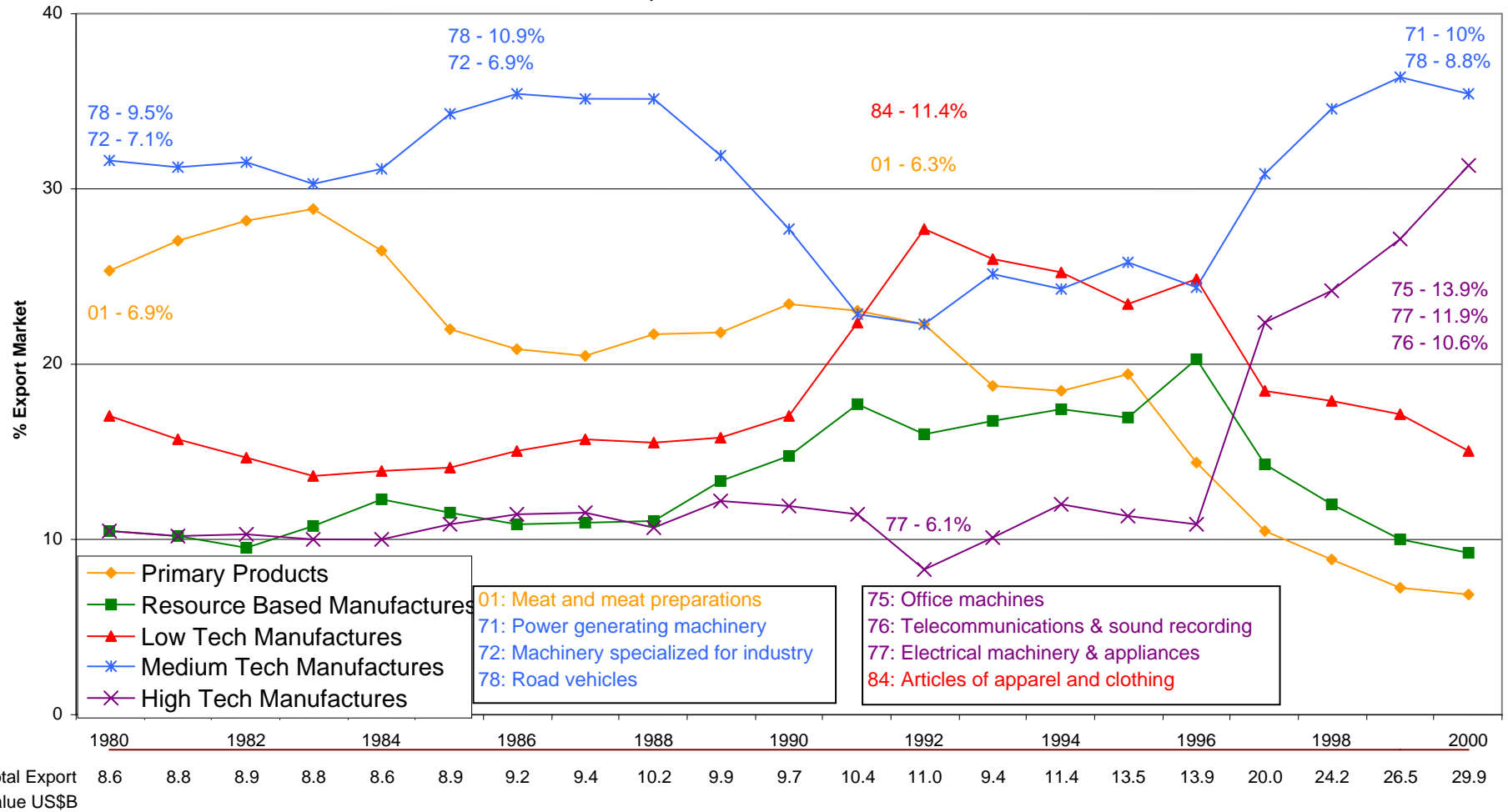


Source: World Trade Analyzer (Statistics Canada), based on the United Nations Comtrade database.

Graph 5

Hungary

Exports to World Market



Source: World Trade Analyzer (Statistics Canada), based on the United Nations Comtrade database.

Annex 4: Matrix of Diagnostic and Possible Actions

Policy Instruments	Recommended Action
<i>1. Foster Linkages between Local Suppliers and Foreign Firms</i>	
<p>Joint Ventures. Investment climate is too risky for service companies to set up (capital and knowledge) partnership in which local companies have a voice. In addition, tax exemptions provided to some of the operators on their purchases are a disincentive for joint ventures.</p>	<ul style="list-style-type: none"> ▪ Address the disadvantage that the VAT creates for local suppliers (irrespective of the ownership structure). ▪ Structure arrangements that make it attractive for internationally recognized companies (e.g., Halliburton, FMC, Hurricane, Parsons-Fluor & Daniels) to make the investment to set up permanent suppliers and service business in Kazakhstan: <ul style="list-style-type: none"> ○ Investment fund could provide equity to local partner when and if that is a barrier to form a joint venture ○ A tax credit scheme could be designed by which part of a foreign firm equity investment can be deducted from its tax liabilities.
<p>Procurement Rules. Current regulations appear to impose excessive transaction costs (mainly bureaucratic), but both foreign and local companies appear to be significantly frustrated. Local companies do not feel they have greater access to bids, while foreign companies complain about excessive bureaucracy.</p>	<ul style="list-style-type: none"> ▪ Commission an independent evaluation to reform procurement process (e.g., Decree 612 of June 7, 2002, role of the Accounting Committee, role of the Ministry of Energy) ▪ Create a formal forum for regularly discussing the manner in which reforms in the Procurement Agency are working, with participation of government, foreign oil companies and local firms. Use this mechanism to evaluate the potential impact of requiring that: <ul style="list-style-type: none"> ○ Price quotation be made C.I.F rather than F.O.B so that foreign and local quotations internalize transportation costs ○ Public advertisement and public award requirements for some

Policy Instruments	Recommended Action
	<p>procurement packages</p> <ul style="list-style-type: none"> ○ Written explanations for disqualification of local companies
<p>Local Content Policies. Rules and indicators for the required minimum local content are often unclear, which makes the operating environment uncertain. Some aspects of local content policies are not simple to monitor, and provide incentives for evasion rather than compliance. Other policies (like labor quotas) impose unreasonable costs or bureaucratic transactions and may, in some cases, undermine the operation of a foreign investor.</p> <p>Most large foreign companies have set up supplier development programs on their own initiative, but could be scaled-up.</p>	<ul style="list-style-type: none"> ▪ Commission an external (i.e., impartial) review of successful local content policies around the world and an inventory of Kazakh requirements. The review should include an assessment of the operation of labor quotas in Kazakhstan. It should also offer options for measuring local content for production-sharing agreements (PSAs). ▪ Simplify/ease procedures to obtain working permits and be flexible regarding the ratio of foreign vs. local workers (which may need to be higher at the start-up phase of a project, or for certain skills). ▪ Consider a formal requirement for new entrants into oil extraction/operation (foreign or domestic) to create explicit “supplier development programs.” Best if such program rely on SME development experts (e.g., IFC, Pragma Corp, EBRD, IPCB), or on Business Advisory Services that have been already piloted in Kazakhstan by donors (e.g., USAID, GTZ, and others). <i>IFC has supported an explicit supplier development program for Ispat Karmet and is prepared to design one for the oil industry.</i> ▪ Reward existing foreign companies that make an extra-effort in helping local suppliers (e.g., allow a tax deduction or tax credit against royalties or other payments for expenditures incurred in efforts to develop local industries).
<p>International Certification and Standards. International industry standards (e.g., ASMI for machine building) are not accepted by national authorities, and the prevailing national standards are</p>	<ul style="list-style-type: none"> ▪ Commit to a long-term restructuring plan of KazStandards and the overall institution of standards and certification. As an initial step, remove all licensing and certification power provided to companies. <i>The World Bank has supported such restructuring plans in Russia</i>

Policy Instruments	Recommended Action
<p>often obsolete. In addition, some certification authority is given to local companies.</p> <p>There is no critical mass of certified companies in Kazakhstan, thereby forcing local companies that want to maintain internationally recognized levels of accreditation and traceability to import basic materials.</p>	<p><i>and other neighboring countries.</i></p> <ul style="list-style-type: none"> ▪ Remove authority to certify standards from local companies because this implies a substantial conflict of interest. ▪ Reimburse part of the cost of advisory services that local companies incur in getting ISO 9000, ISO 14000, or other forms of internationally recognized certification—particularly product certification that may be required by foreign companies. <i>EBRD can share its experience with small grants like this in Kazakhstan.</i>
<p>Role of Business Associations. Current industry associations do not allow interaction between foreign and local businesses.</p>	<ul style="list-style-type: none"> ▪ Promote associations that include both local and foreign firms, and ensure they operate (e.g., meet frequently and provide informal ways for local and foreign companies to interact in different ways). <i>USAID could be a good partner in this area.</i> ▪ Reimburse part of the cost incurred by local companies in “company to company” activities (e.g., visits to potential operators, staff exchanges), and in participating in international fora.
<p><i>2. Establish Mechanisms to Promote Enterprise Restructuring and Modernization</i></p>	
<p>Enterprise Restructuring. Obsolete machinery and methods of production is the single most important barrier to accreditation, but more fundamentally it hinders local firms’ competitiveness in bids to international companies.</p> <p>Some enterprises appear to have excess labor.</p> <p>Several large companies have been combined into conglomerates, which</p>	<ul style="list-style-type: none"> ▪ Finance/reimburse part of the cost of developing a comprehensive “Restructuring Plan” for existing enterprises whose viability is clear (unviable enterprises should be closed). The plan should be developed by a sufficiently accredited firm in the company’s “niche” or field, and should encompass investments in human capital (as well as downsizing of the work force in large companies), organization structure, as well as investments in equipment or facilities as may be necessary. The plan should also be “bankable,” i.e., allow companies to raise

Policy Instruments	Recommended Action
<p>diffuses their ability to make investment decisions.</p> <p>No institutions monitor labor productivity in these industries (benchmarking them against similar industries), nor assess the advantages/disadvantages of vertical integration.</p> <p>The US/Kazakhstan program on the reconversion of military industry appear to have achieved some success.</p>	<p>financing with reputable banking institutions (foreign or domestic).</p> <ul style="list-style-type: none"> ▪ Development institutions could cofinance (on somewhat more favorable terms) projects that have been thoroughly evaluated by IFC, EBRD, or other institutions requiring extensive “due diligence” in project preparation. ▪ Market Research Center could assess competitiveness of local firms (on a voluntary basis) for a subsidized fee, and benchmark their current performance against key competitors.
<p>Level Playing field. Kazmunaigaz often has to support industries that are not yet up to international standards.</p> <p>The VAT does not offer a level playing field for local companies vis-a-vis imports. For instance, Tengizchevroil is exempted from VAT on their imports but has to pay VAT if purchasing from local companies.</p>	<ul style="list-style-type: none"> ▪ Treat foreign and KazMunaiGas equally in relation to procurement practices, local content policies, etc. ▪ Assess options to reform VAT system that would ensure a level playing field for local enterprises. Avoid addressing this issue through case-by-case exemptions which undermine the entire system of tax collection. ▪ Kazmunaigaz (and other national operators), and the government should demand international standards from its suppliers.
<h3><i>3. Selected Economic Policy Issues</i></h3>	
<p>Labor Market Policies. The labor market in Kazakhstan is tight, and there is a gap between the more experienced workers (who were not educated in western standards and are not always able to adapt to the changes) and recent graduates (excellent, but lack experience). Such a labor gap must be filled in whatever way possible.</p>	<ul style="list-style-type: none"> ▪ Commission an independent evaluation of the most serious shortages of labor in Kazakhstan and explore policies to train workers domestically or to allow immigration of specialized workers. ▪ In the short term, consider authorizing block work permits in clear cases of labor shortages (instead of case-by-case approvals).

Policy Instruments	Recommended Action
<p>Foreign companies already have significant incentives to train locals and empower them with key responsibilities, but this cannot always be done at the initial phases of investments, and it takes time.</p>	
<p>Market Information. There are no facilities for local enterprises to gather information on new markets. While own initiatives certainly will work (and should continue to be the driving cost), the associated sunk-cost could make this activity unaffordable.</p>	<ul style="list-style-type: none"> ▪ The Center for Market and Analytical Research can collect information on market opportunities
<p>Trade and Foreign Policy. Local companies are not in neighboring markets due to restrictions on their presence. Local companies should also be exposed to competition for them to feel pressure to invest, modernize, acquire better standards, and become efficient.</p>	<ul style="list-style-type: none"> ▪ Secure agreements with Azerbaijan, Russia, Uzbekistan, China, and other relevant partners on equal treatment for local companies (e.g., Kazakh companies should be able to participate in bids for Azerbaijan contracts, but also the other way around) ▪ Move rapidly towards WTO accession (see also standards section above). ▪ Expand key Kazakh embassies by including trade attaches (US, Italy, UK, Turkey, China, Russia, but more importantly in unexploited markets such as Uzbekistan, and other neighboring countries), and ensure embassy facilities provide temporary working space and business assistance for delegations of local enterprises. ▪ Reimburse part of the cost of assistance required by companies for the preparation of bidding packages for projects in neighboring countries