

# GLOBALIZATION AND ECONOMIC DIVERSIFICATION

POLICY CHALLENGES FOR ECONOMIES IN TRANSITION

EDITED BY ROB VOS AND  
MALINKA KOPARANOVA



UNITED NATIONS

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B L O O M S B U R Y

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**Policy Challenges for Economies in Transition**

*Editors*

Rob Vos  
Malinka Koparanova

B L O O M S B U R Y   A C A D E M I C

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# Chapter 1

## Introduction: Globalization, transition and economic diversification

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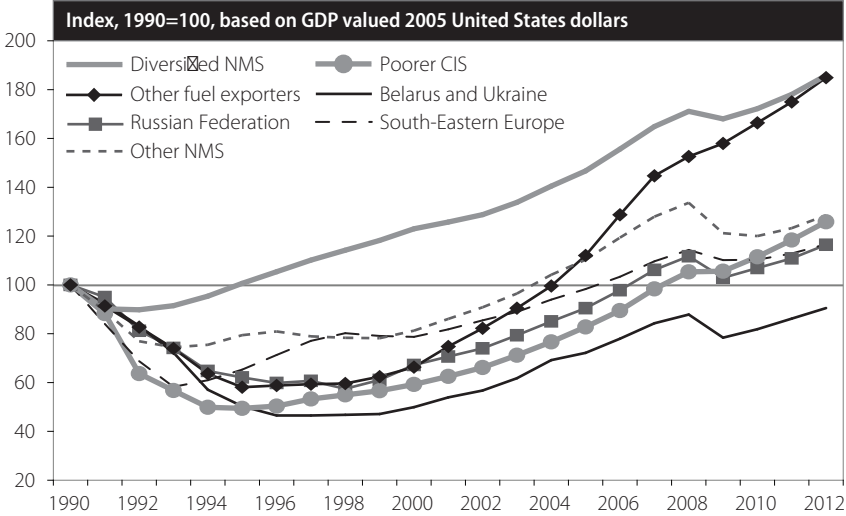
ROB VOS AND MALINKA KOPARANOVA

### EXTERNAL CONDITIONS AND GROWTH IN THE ECONOMIES IN TRANSITION

The transition countries in Eastern and South-Eastern Europe and Central Asia were hit harder than any other region in the world by the global recession of 2008-2009 (United Nations, 2010). Economic recovery started in the second half of 2009, but—for most of these economies—the crisis made painfully clear that the transition from a centrally planned to an open market economy has broad new prosperity which is highly sensitive to global economic shocks.

After the steep economic decline in the early transition period, the economies in transition found new, but diverging pathways to economic growth (figure 1.1). Six pathways may be distinguished. A first pathway is that of the countries which managed to build and consolidate more diversified economies, such as the Czech Republic, Hungary, Poland, Slovakia and Slovenia. These countries, now all new member States of the EU (NMS), saw relatively short-lived declines in the early transition years and also were less hit by the Russian financial crisis of 1998 and the global crisis of 2008-2009. A second group of NMS, including the three Baltic States, Bulgaria and Romania, took much longer (about thirteen years) to return to GDP levels of the pre-transition period and suffered a greater impact of the Russian and global financial crises. From the late 1990s, these countries did witness spectacular economic growth, but which was heavily dependent on foreign sources of financing and on expanding real estate and services sectors. Belarus and Ukraine may be seen to have followed a third pathway. Progress in introducing market reforms has

Figure 1.1:  
Trend in GDP of economies in transition, 1990-2011



Source: See Table 1.1 for source and country groupings.

been much slower and uneven across reform areas in comparison with the second group. Twenty years after the fall of the Berlin Wall these economies were yet to return to pre-crisis levels of GDP. A fourth group is formed by those countries whose growth is heavily reliant on the extraction and exports of fuel and other extractive primary commodities, in particular the Russian Federation, Kazakhstan, and Turkmenistan in Central Asia and Azerbaijan in the Southern Caucasus. These economies greatly benefited from the commodity price boom of the 2000s, but were also hard hit when world market prices collapsed with the global crisis, though the Russian Federation much more than the other fuel exporters. The economic recovery in these economies was supported by the recovery in commodity prices from mid-2009, as well as fiscal stimulus packages financed in part from reserves built up during the boom period. The fifth group consists of poorer countries in Central Asia and the Caucasus. Republic of Moldova may also be included in this group. These countries have been (and still are) dependent on a combination of agricultural exports, migrant remittances and/or official development assistance. Rising primary commodity prices equally helped lift their economies during the 2000s, while growth in neighbouring countries spurred migration and rising remittances (from the Russian Federation in the case of migrant workers from the Caucasus and Central Asia, and from Romania and Western Europe in the case of

Table 1.1:  
Economic growth in developed, developing and transition economies, 1990-2011

(Annual rate of growth of GDP valued in constant 2005 dollars)									
	<i>Early transition crisis 1990-1996</i>	<i>1997</i>	<i>Russian financial crisis 1998</i>	<i>1999-2001</i>	<i>2002-2007</i>	<i>2008</i>	<i>Global crisis 2009</i>	<i>2010</i>	<i>2011<sup>a</sup></i>
<b>World</b>	<b>2.3</b>	<b>3.7</b>	<b>2.5</b>	<b>2.0</b>	<b>3.7</b>	<b>1.6</b>	<b>-2.0</b>	<b>3.6</b>	<b>3.1</b>
Developed countries	2.0	3.3	2.8	1.8	2.5	0.1	-3.5	2.2	1.9
Developing countries	5.3	5.4	1.9	2.8	6.9	5.3	2.3	7.0	6.0
<b>Economies in transition</b>	<b>-5.4</b>	<b>2.4</b>	<b>-0.5</b>	<b>3.5</b>	<b>5.5</b>	<b>5.2</b>	<b>-7.0</b>	<b>4.2</b>	<b>4.1</b>
<b><i>Central and Eastern Europe (NMS)</i></b>	<b>-0.2</b>	<b>2.9</b>	<b>2.7</b>	<b>2.3</b>	<b>5.5</b>	<b>3.9</b>	<b>-3.6</b>	<b>1.7</b>	<b>3.3</b>
Diversified NMS <sup>b</sup>	0.9	4.5	3.7	2.1	5.1	3.8	-1.8	2.5	3.4
Other NMS <sup>c</sup>	-3.5	-2.5	-0.8	3.3	7.1	4.4	-9.3	-1.0	2.7
<b><i>Economies in transition excluding NMS</i></b>	<b>-8.5</b>	<b>2.0</b>	<b>-3.2</b>	<b>4.6</b>	<b>7.7</b>	<b>5.1</b>	<b>-6.7</b>	<b>3.8</b>	<b>4.0</b>
<i>CIS-11 and Georgia</i>	-8.8	1.3	-4.0	5.0	7.9	5.2	-7.0	4.1	4.1
Belarus and Ukraine	-12.0	0.1	0.5	4.6	8.2	4.3	-10.8	4.4	5.3
Major fuel exporters	-8.2	1.3	-4.9	5.1	7.9	5.3	-6.8	4.1	3.9
Russian Federation	-8.2	1.4	-5.3	5.0	7.5	5.2	-7.9	3.9	3.7
Other fuel exporters <sup>d</sup>	-8.5	0.9	0.5	6.2	12.0	5.5	3.5	5.4	5.1
<i>of which: Kazakhstan</i>	-7.7	1.7	-1.9	7.6	9.6	3.2	1.2	5.5	5.3
Poorer CIS	-10.8	5.8	3.1	3.4	8.3	7.1	0.2	5.6	6.1
Armenia, Georgia, Republic of Moldova	-15.1	6.1	1.7	3.2	10.0	5.0	-8.2	4.7	5.2
Kyrgyzstan, Tajikistan, Uzbekistan	-6.6	5.5	4.2	3.5	7.0	8.8	6.8	6.2	6.7
<b><i>South-Eastern Europe<sup>e</sup></i></b>	<b>-5.5</b>	<b>8.1</b>	<b>4.1</b>	<b>1.1</b>	<b>5.1</b>	<b>4.3</b>	<b>-3.7</b>	<b>0.1</b>	<b>2.3</b>

**Source:** United Nations (2011), *World Economic Situation and Prospects 2011*; and UN-DESA database of World Economic Situation and Prospects.

**a** United Nations forecast; **b** Includes Czech Republic, Hungary, Poland, Slovakia and Slovenia; **c** Includes Estonia, Lithuania, Latvia, Bulgaria and Romania; **d** Includes Azerbaijan, Kazakhstan, and Turkmenistan; **e** Includes Albania, Bosnia and Herzegovina, Croatia, TFYR of Macedonia, Montenegro and Serbia.



Republic of Moldova). Those revenue sources were affected by both the Russian financial crisis and the fall in world market prices during the global crisis. Yet, the economies in the Caucasus were harder hit by the global crisis than the Central Asian lower income countries, in part because the latter managed to implement stronger counter-cyclical fiscal policies and in part because they still have relatively closed economies both in terms of their openness to trade and global financial markets. The sixth group is formed by the transition economies in South-Eastern European countries which are natural-resource poor and which suffered from violent conflict in the early 1990s. The break up of the former Yugoslavia continued into the 2000s. The processes of redefining the institutional setting generally and restructuring of industries have been slow and this has moderated economic growth. Economic ties, in terms of trade, remittances and capital flows, are strongest with the EU and its recovery from the global crisis has been slow as a result of the protracted weakness of the EU economies.

The present volume collects a wide range of contributions spelling out the diverging growth paths and challenges the economies in transition have faced in rebuilding their institutional frameworks and reinserting themselves into the world economy. The different contributions emphasize different dimensions of the integration process (trade, finance and remittances) and of the institutional and policy reforms (of domestic markets and the regimes for trade and foreign direct investment, as well as restructurings of industries and agrarian reform), but all point to similar directions, namely the importance of forging stronger domestic economic linkages and economic diversification in order to reduce external vulnerability, gain more from openness to world markets, sustain higher rates of economic growth and ensure greater prosperity for its populations.

#### MARKET REFORMS AND DIVERSIFICATION

The economies in transition have come a long way in creating market mechanisms and opening up their economies. Several countries, formerly labelled as economies in transition, have progressed into well-functioning market economies and have become NMS of the EU.<sup>1</sup> Other economies

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1 As a result of the EU enlargements in 2004 and 2007, 10 countries from Central and Eastern Europe and the Baltic States are no longer considered part of the economies in transition. Since that time, the countries with economies in transition have included the countries in South-Eastern Europe (Albania, Bosnia and Herzegovina, Croatia, Montenegro, Serbia and the Former Yugoslav Republic of Macedonia) and the Commonwealth of Independent States (CIS).

in South-Eastern Europe and the Commonwealth of Independent States (CIS) still grapple with an unfinished agenda of market-oriented reforms, establishing regulatory market institutions, and removing hurdles towards deeper integration into the world economy. Their continued status as “economies of transition” suggests the process of market reforms and the creation of the right kind of regulatory market institutions is as yet incomplete. There is an ongoing debate as to what the best framework is and this debate has been intensified with the global economic crisis which revealed that deregulation of financial markets in many parts of the world had gone too far, now posing challenges as to how best to “re-regulate”. The urgent calls for renewing financial market regulation and supervision to stem the systemic excesses in by and large unfettered financial markets signal that even the world’s most sophisticated market economies operate far from ideally. As markets are dynamic, market institutions and regulatory frameworks should also be under continuous scrutiny and revision.

The unfinished agenda of market reforms in most economies in transition is much bigger. Many fundamental aspects of the transition are still incomplete. In some cases, there is still a need to create critical market institutions, establish competition policies, and restructure public enterprises. One basic thrust of all chapters in this volume is that the economies in transition should not aim at just establishing a functioning market economy, but at one which is capable of providing sustainable and equitable growth, and decent welfare to all citizens. Ensuring that these economies become more diversified—allowing prosperity to spread amongst all citizens—is one important ingredient to this end.

In *Chapter 2*, Paul Hare addresses the link between institutions and diversification in search of clarifying the circumstances under which economic diversification can be a desirable goal for a country. He argues that active policies can help overcome market failures, promote institutional development and by that, stimulate diversification. However, the effectiveness of policies may vary significantly between countries and suitable instruments may include a variety of measures, such as export promotion, efforts to improve market access, in particular with neighbouring countries, and policies to promote exports of services, especially in the smaller economies that are poor in energy resources. Hare argues that although partnerships between the State and the private sector are helpful in these policies, it is important that diversification efforts are subject to competition and performance criteria, with little State interference on selecting companies.

As the economies in transition have implemented major reforms of their markets and proceed further, it is critical to understand how the differences

in the business environment have affected their economic performance. *Chapter 3* by Simon Commander and Katrin Tinn concludes that there is no evidence to support the view that the “business environment” (as measured by conventional indicators) exerts a strong and measurable impact on performance. Their analysis is based on country and firm-level data sets. They do find, though, that country effects matter for economic performance and that these are a resultant of a variety of cross-country differences rather than just differences in institutional arrangements. These findings raise questions regarding the use of measures of the business environment in the design of policies. Commander and Tinn argue that although the indicators of the business environment are easy to understand and can be used for comparative analysis, they do not provide any clear evidence of being suitable for establishing criteria as to how economic reform policies should be conducted or priorities should be set.

#### INTEGRATION THROUGH TRADE AND FDI FLOWS

The fast pace of integration of the economies in Central and Eastern Europe and the Baltic States mainly has been the result of their persistent EU-oriented policies, which have shaped their production and specialization structures. In *Chapter 4*, Michael Landesmann addresses the differences in the trade specialization and foreign direct investments in the economies in transition, outlining the impact of the EU accession anchorage and economic reforms. He highlights the importance of the integration of the middle-income countries, such as the NMS, into international production networks and its crucial role in the technological and organizational upgrading of these economies. To gain interest of international companies in developing such production networks in the economies in transition, sufficient domestic capacities need to be available or will need to be developed through relevant trade and industrial policies. Given their current concentration of their output and trade in the primary sector, such policies are even more needed in most CIS countries. Hence the main challenge faced by these countries is to strengthen capacity for industrial processing of natural resources.

Using a gravity model to explain trade patterns of CIS countries, Malinka Koparanova and Hung-Yi Li argue in *Chapter 5* that the volume of international trade is below potential in all of these economies. The gaps between actual and potential trade to and from the CIS vis-à-vis the EU and China are mostly associated with existing non-tariff barriers, weakness of transport and energy infrastructure and the impact of exogenous shocks. To realize their

trade potential these countries would need to adopt a broader policy agenda which goes beyond trade liberalization and should include strengthening of market institutions and the improvement of infrastructure.

#### FOREIGN DIRECT INVESTMENTS AND ECONOMIC DIVERSIFICATION

FDI inflows have been a source of economic growth and structural change in the economies in transition, as shown by Kálmán Kalotay in *Chapter 6*. In *Chapter 7*, Saul Estrin and Klaus Meyer show in some more detail how FDI has contributed to productivity growth. Earning these gains, however, is neither automatic nor without problems. Multinational enterprises (MNEs) undertake FDI-related activities on the basis of their own company strategies, which complicate the selection of the right policy measures by host countries and which may not be consistent with the country's growth strategy. Estrin and Meyer suggest economies in transition should operate a policy regime which combines low wage inflation, improvement of the quality of institutions and reduction of barriers to entry for foreign investors, including allowing these to participate fully in privatization programmes. The policies should further aim at enhancing spillover effects of FDI, in particular vertical spillovers which are more important than horizontal spillovers, in contributing to economic diversification. Related factors to facilitate greater spillover effects are human capital development and better quality of local managerial capacity.

#### MIGRATION, HUMAN CAPITAL AND AGRICULTURAL DEVELOPMENT

Many of the policy aspects of diversification and integration are rooted in the quality of the human capital. In most of the economies in transition, this is not only a matter of having a well-educated labour force. Production processes will have to be adapted to put it to good use by moving towards more dynamic, high value-added sectors. This in itself will require greater diversification within clusters of economic activities that need to be matched by relevant job skills. To this end, government policies aimed at improving the quality of education and teaching curricula along with creating incentives to bring back migrants with higher education are crucial. As migrants can transfer back the specific job skills learned from abroad the gains from labour migration could be even greater than those from more trade. Migration may also generate the so-called "social remittances", namely, transfer of the up-to-date knowledge and business culture, and establishment of business networks.

In South-Eastern Europe and the CIS, the mobility of labour and people, in general, has increased dramatically since the early days of the transition. In the early 1990s, regional conflicts pushed many people into migration, but more recently economic factors have become the main driving force. Robust growth over the past few years has lifted the living standards in many countries causing some reversals in migration flows. In *Chapter 8*, Robert Shelburne and José Palacín analyse the trends and patterns in remittance flows to and from the economies in transition and point at the critical importance of transfers from migrant workers as a source of income and development financing for several of these. The authors conclude that in order to further enhance the developmental impact of remittances in these economies the institutional environment and especially the financial system should be improved, including through government policies aimed at minimizing the transaction costs of transferring remittances and providing incentives for the channeling of these funds into productive investments and employment generation.

Since diversification helps make growth more broad-based, it can help reduce poverty and inequality. Both poverty and inequality rose sharply in the early stage of the transformation of these countries after the fall of the Berlin Wall. Indeed, the transition to a market economy has brought severe hardship for many people in all economies in transition, but most in particular in the low-income CIS countries. During the 1990s, poverty increased sharply as a consequence of contracting economies, galloping inflation, widespread unemployment and falling real wages. Measured against national poverty lines, the poverty incidence stood at 62 per cent in Azerbaijan, 55 per cent in Armenia, 64 per cent in Kyrgyzstan and 83 per cent in Tajikistan in the second half of the 1990s. Poverty rates have come down as their economies started to recover and reached robust growth during 2003-2008. Poverty rates have fallen by as much as 20 percentage points or more in these countries, but even so, they remain high and poverty reduction should be a major policy concern. Active policies to reduce poverty and inequality will also be supportive of generating growth of domestic markets and higher levels of human capital which in turn will be supportive of a process of economic diversification. These policies, however, need to be tailored towards the specific characteristics of each country. In Central Asia, Max Spoor argues in *Chapter 9* that agricultural development should have a central role in growth and poverty-reduction policies, as many of the poor are concentrated in rural areas. Land reforms and farm restructuring have done little to reduce still widespread rural poverty or to reduce rural-urban income gaps. There is a need of a broader range of additional reforms and a

series of interventions in order to stimulate agricultural and rural economy in this region. These include financial institutions, land rental markets and technical assistance to agricultural producers, in combination with policies targeting the agricultural sector as a priority in the countries of Central Asia. For the countries in the southern Caucasus (Armenia, Azerbaijan and Georgia), where poverty had become increasingly an urban problem, regional policies to diversify industries in small towns are seen to be crucial.

### THE WAY FORWARD

Despite the differences in economic structure and natural endowments, the common challenge for the economies in transition is to broaden and diversify their growth base. In their efforts to do this, these countries need more active domestic policies and international support:

- to improve market access through trade policies and, in several cases, accession to the WTO;
- active industrial and other production sector policies, including support through improvements in infrastructure;
- measures to attract FDI and new technologies; and
- management of migratory flows and incentives for the productive use of earnings through worker remittances.

First, regarding further integration into the multilateral trading system, the economies in transition that are negotiating their WTO membership need continued assistance in their accession process. For the countries that are already WTO members, further assistance could be provided on such subjects as how to go about referring a dispute to the WTO dispute resolution mechanism and the application of anti-dumping measures. To improve market access for South-Eastern Europe and the CIS, international organizations need to support export and investment promotion activities in the region. Assistance could be provided in securing potential customers and business partners for exporters and in reaching the retail networks in potential markets.

Second, as for active industrial policies, there is a crucial role for the development of infrastructure, including revitalization of regional road and rail networks for the successful upgrading of industries and for increasing foreign trade of the economies in transition, particularly the landlocked countries of the CIS. This will require adequate resource mobilization, including from the multilateral development banks. Special attention should

be given to the further development of telecommunications, as the level of availability and quality of telecommunication services still lags well behind European standards in spite of improvements in the mobile phone networks. In addition, the energy shortages in the region should be addressed.

Third, in order to attract more foreign direct investment that would support the process of growth, technological innovation and diversification, economies in transition need to continue focusing on institutional reforms to ensure better functioning and regulation of markets, including by promoting competition, ensuring the enforcement of contracts and the rule of law, reducing border transaction costs, and embedding FDI policies into broader industrial development policies.

Fourth, there is a need to address the issues of protection of migrant workers and intensify the fight against human trafficking. The further development of banking systems, as well as non-banking transfer services in the regions, is needed in order to reduce transaction costs for remittances. Policies also need to be put in place to provide greater incentives to channelling those funds into productive investment. In light of the repercussions of the global economic and financial crises on donor countries as well as economies in transition, additional support from the World Bank and the IMF may be needed to strengthen the banking system in some countries, especially in those cases where the level of foreign-exchange reserves accumulated by the Central Banks is limited.

Fifth, especially in the poorer economies in transition, agrarian reform policies will need to be more pervasive and go beyond mere land and farm restructuring. They will need to include measures to address continued weaknesses in financial and land rental markets, to reduce transaction costs in inter- and intra-regional trade, to improve rural infrastructure, and to provide more effective technical assistance to agricultural producers. Given widespread rural poverty in Central Asia and the Caucasus, such reforms should be given priority, unlike has been the case in the first two decades of the transition process.

All of these policies will have to be tailored to specific country contexts and needs, and build on social consensus reached in each country in pursuit of the long-term goal of sustained high growth rates and higher living standards. The global financial crisis has made an already large challenge into a huge one, but—given the manifest vulnerability of the economies in South-Eastern Europe and the CIS to the whims of world markets—taking on the challenge of economic diversification has become all the more important and urgent.

## Chapter 2

# Institutions and diversification of the economies in transition

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PAUL G. HARE

### INTRODUCTION

Diversification, especially in the context of small, highly trade-dependent economies, has recently become quite a fashionable topic, and something that increasingly commonly forms part of the policy advice offered to low- and middle-income countries seeking to improve their economic conditions or strengthen their economies. However, diversification *per se* is not policy advice: it is merely a descriptive term. Moreover, as such, the more one thinks about it the more one realizes that its meaning is not terribly clear or precise. Hence there is scope for an investigation of the term with a view to clarifying its possible meanings, evaluating which, if any, make sense from the standpoint of practical economic policymaking, and assessing the circumstances under which economic diversification can indeed be a desirable goal for a country to pursue. That is the principal purpose of the present chapter.

Aside from its analytical content, the empirical focus is on a group of 20 countries, consisting of South-Eastern Europe (SEE) and the Commonwealth of Independent States (CIS). Including Romania and Bulgaria that are already EU member States (since January 2007), the SEE region includes eight countries; the remaining twelve countries belong to the CIS. For such a diverse region, one cannot reasonably expect to find uniform policy advice that would suit all countries, but we can hope to develop a common approach or methodology. Such an approach will build on a number of strands of evidence and analysis that are explored more fully in subsequent sections of the chapter:



- ideas about general requirements for sustained economic growth;
- ideas about engaging with the world economy, including desirable degrees of diversification;
- analysis of the institutions needed to support growth with diversification; and
- analysis of the accompanying policy tools and measures.

### CONDITIONS FOR GROWTH

As Table 2.1 shows in summary form, the 20 countries studied here represent an extremely diverse region in terms of their populations, geographical size, income per head and recent growth experience, resource endowments, access to markets (for example, whether landlocked), progress with market-oriented reforms and their political configuration (in so far as this influences the economy). In terms of reforms, it can be seen that a few countries have as yet made very little progress towards building a market-type economy, notably Belarus, Tajikistan, Turkmenistan and Uzbekistan.

Most SEE and CIS countries had a very bad decade economically in the 1990s, experiencing severe post-communist recessions which in some countries were greatly exacerbated by civil and/or international wars (see World Bank, 1996; EBRD, various years). Since 2000, economic performance in terms of real GDP growth has generally been much better and has exhibited lower variance. The strongest performers in the region until the global crisis hit these countries in 2009 enjoyed high growth of around 9 per cent per annum or higher for several years in a row. The high-growth performers included, for instance, Armenia, Azerbaijan, Kazakhstan and Turkmenistan. On the other hand, some SEE countries are still growing quite slowly—too slowly to bring down unemployment rapidly; these include Bosnia and Herzegovina, Montenegro, Serbia and the former Yugoslav Republic of Macedonia. Most of the region already has inflation down below 10 per cent per annum or is well on track to achieve that very soon. General government balances are mostly manageable, and are, on average, healthier than those of the new EU member States, such as Hungary and Poland. Also, it appears to be the case that the faster growing countries have lower shares of government in GDP. Last, indebtedness and the debt burden (measured by debt servicing as a percentage of export earnings) show a good deal of variation. Some of these key macroeconomic indicators for the SEE and CIS countries are shown in Table 2.2.

Table 2.1:  
**Characteristics of countries in South-Eastern Europe (SEE)  
 and the Commonwealth of Independent States (CIS)**

	<i>Pop</i>	<i>Ar</i>	<i>IPH</i>	<i>RGDP</i>	<i>NR</i>	<i>MA</i>	<i>RI+</i>	<i>PS</i>
<b>SEE</b>								
Albania	3.2	28.7	5,621	5.4	N	Y	3.0	63.3
Bosnia and Herzegovina	3.8	51.0	8,543	5.2	N	N	2.7	53.7
Bulgaria	7.7	111.0	10,126	5.7	N	Y	3.5	62.9
Croatia	4.4	87.7	14,059	4.9	N	Y	3.5	54.6
TFYR Macedonia	2.0	26.0	7,757	3.0	N	N	3.1	61.1
Montenegro	0.7	13.8	3,426*	3.5	N	Y	2.8	n.a.
Romania	21.7	238.0	10,001	6.1	N	Y	3.4	61.5
Serbia**	9.9	102.0	6,771	5.6	N	N	2.7	n.a.
<b>CIS</b>								
Armenia	3.2	29.8	5,414	12.9	N	N	3.3	70.3
Azerbaijan	8.4	86.6	6,949	18.2	Y	N	2.6	55.3
Belarus	9.7	207.6	9,037	8.5	N	N	2.1	44.7
Georgia	4.5	70.0	3,755	8.3	N	N	3.1	69.2
Kazakhstan	15.4	2,728.0	8,800	9.8	Y	N	3.0	60.5
Kyrgyzstan	5.1	200.0	2,051	3.3	N	N	2.9	61.1
Republic of Moldova	3.4	33.8	2,817	6.6	N	N	2.9	58.4
Russian Federation	142.2	17,075.0	11,988	6.4	Y	Y	3.0	49.9
Tajikistan	6.6	143.1	1,468	8.9	N	N	2.3	54.5
Turkmenistan	6.5	488.0	1,564*	13.7	Y	N	1.3	43.4
Ukraine	47.1	603.7	7,556	7.3	N	Y	3.0	51.1
Uzbekistan	26.0	448.9	2,295	6.0	N	N	2.1	52.3

**Sources:** EBRD (2007); *Index of Economic Freedom 2008*, Washington, D. C.: The Heritage Foundation.

**Notes:** \* Not in PPP terms; \*\* Including Kosovo; Natural resources—Y means the country has oil and/or gas in abundance; Market access—Y means the country is not landlocked; + – Average of 9 EBRD transition indicators for 2007 (1 means hardly any change from central planning, 4 means conditions virtually equivalent to a well-functioning market-type economy); IEF is the Index of Economic Freedom—it is scored from 0 to 100 (up to 10 points for each of 10 characteristics of each country), with higher scores meaning “greater freedom”.

**Abbreviations:** *Pop* = Population (millions); *Ar* = Area ('000 sq.km); *IPH* = Income per head (USD, 2006, PPP); *RGDP* = Real GDP growth (annual rate, 2001-2006, per cent); *NR* = Natural resources (Y/N); *MA* = Market access (Y/N); *RI* = Reform indicators (EBRD); *PS* = Political situation (2008 IEF).

Table 2.2:  
**Macroeconomic indicators for countries in South-Eastern Europe (SEE)  
 and the Commonwealth of Independent States (CIS)**

<i>Country/Item</i>	<i>Unemp</i>	<i>Infl</i>	<i>GB</i>	<i>GS</i>	<i>ED</i>	<i>EDS</i>
<b>SEE</b>						
Albania	13.7	2.5	-3.2	28.4	1,835	6.1
Bosnia and Herzegovina	41.0	7.5/7.0	2.9	47.9	6,137	4.1
Bulgaria	8.9	7.3	3.3	35.5	25,901	19.0
Croatia	10.5	3.2	-3.0	47.7	38,446	36.8
TFYR Macedonia	36.0	3.2	-0.4	34.1	2,411	21.7
Montenegro	19.7	3.0	3.6	41.9	867	3.0
Romania	5.2	6.6	-1.9	32.3	41,816	19.5
Serbia	33.2	12.5	2.7	42.1	19,606	22.9
<b>CIS</b>						
Armenia	7.4	2.9	-2.8	16.6	2,053	5.5
Azerbaijan	1.3	8.3	0.1	28.9	4,877	1.1
Belarus	1.2	7.0	0.5	48.0	6,875	4.0
Georgia	13.6	9.2	-3.0	29.2	2,000	5.6
Kazakhstan	7.8	8.6	7.5	20.4	73,455	32.2
Kyrgyzstan	9.6	5.6	-2.1	28.7	2,061	6.0
Republic of Moldova	7.4	12.8	-0.3	40.8	2,482	6.4
Russian Federation	7.2	9.7	8.4	31.3	309,700	25.1
Tajikistan	2.2	10.0	1.7	21.7	1,150	29.6
Turkmenistan	30.2	10.5	0.6	17.9	805	4.6
Ukraine	2.7	9.1	-1.3	43.0	54,286	5.1
Uzbekistan	0.3	14.2	5.2	29.2	3,872	11.1

**Source:** EBRD (2007).

**Abbreviations:** *Unemp* = Unemployment (end-2006, per cent); *Infl* = Inflation (consumer prices, 2006); *GB* = Government balance (share of GDP, per cent); *GS* = Government spending (per cent of GDP, 2006); *ED* = External debt (USD million, 2006); *EDS* = External debt servicing (per cent of exports).

Experience around the world suggests that countries do not sustain growth unless they ensure sound macroeconomic conditions. In practice, this is a multi-dimensional requirement, including low inflation, manageable budget and external deficits and credibly manageable levels of debt. As

usual, it is very hard to attach precise numbers to these factors, not least because the inter-relations between them are influenced by the dynamics of growth in a given economy.

Thus, if an economy is growing very slowly, say at 1-2 per cent per annum in real terms, and has a general government budget deficit of 5 per cent of GDP (that is to say, this is the deficit based on fully consolidated public sector accounts), with an accumulated public debt of, say 60 per cent of GDP, then the debt of the public sector is growing much faster than GDP, ensuring that aggregate public sector debt is a rising share of GDP. Servicing such debt then accounts for ever-rising shares of public spending, and becomes increasingly unmanageable. Conversely, in a country with the same government deficit and initial debt, but growing much faster, say at 10 per cent per annum, the debt grows more slowly than GDP and so declines gradually as a share of GDP. In this case, debt is not getting out of control.

Much the same sort of argument applies to a country's external accounts. Here the issue has to do with the interconnections between a trade deficit, the growth in external debt, and the two factors that can help to reduce the debt or make it more manageable, namely export growth and inflows of foreign direct investment (FDI). In the early 1990s, for instance, transition economies such as Hungary carried what seemed quite an unmanageable external debt. The debt was indeed very large in relation to GDP, but export growth in the early to mid-1990s was sufficiently rapid that the effective burden of the debt fell fairly rapidly, assisted by large inflows of FDI. Again, therefore, a large external debt can be handled in a country with fast-growing GDP and/or fast-growing exports, while the same debt in a country whose GDP and exports are stagnant or only growing slowly can prove catastrophic.

Inflation, too, is considered bad for growth, but the arguments as to when this is likely to be the case, and why, are quite complex and need careful examination. Two extreme cases stand out.

First, sustained inflation at high rates, such as well over 100 per cent per annum, is harmful because it renders any contracts expressed in monetary terms extremely risky and makes any long term business agreements difficult to sustain. Savings depreciate rapidly and debts are also eroded rapidly in real terms, since most contracts are expressed in nominal monetary terms, unadjusted for inflation in the general price level. At seriously high rates of inflation this shades into the extremes of hyperinflation (conventionally defined as inflation faster than 50 per cent per month), usually reflecting the near complete breakdown of monetary discipline and control, as in

Zimbabwe in the late 2000s. Serbia, though, also experienced a short spell of hyperinflation in the 1990s, and all of the CIS countries experienced annual inflation in excess of 1000 per cent in 1993 or 1994. None of these countries found such high inflation consistent with positive GDP growth.

Second, rapid and unpredictably variable inflation is damaging even when the average inflation rate is much lower than the above case. Thus, if inflation is just 20 per cent per annum, but fluctuates randomly between 5 per cent and 45 per cent, say, this is a nightmare for anyone planning a long-term business contract. It is hard to predict either the costs or the revenues associated, for example, with a new investment, and the likelihood is that such investment will simply not take place.

The very real problems highlighted here make clear why macroeconomic stability is important for sustained economic growth, but they do not amount to a firm prescription regarding the exact conditions required to achieve such stability. The EU's Maastricht conditions for entering the European Monetary Union (EU), taken together with the policies of the European Central Bank (ECB) for the Euro zone, provide one set of guidelines for macroeconomic stability. These conditions state that a country's public debt should not exceed 60 per cent of its GDP; that the government deficit should not exceed 3 per cent of GDP; and the ECB sets Euro zone interest rates to achieve, over the medium term, an inflation rate of at most 2 per cent per annum. The UK Government has a similar set of fiscal and monetary indicators as its policy framework, though the numerical targets differ from the EU's. From the point of view of market confidence and policy credibility, it is probably not a bad idea to build policy around specific targets like this, although there may not be anything in economic theory that might guide us to any particular numbers. Moreover, there is the further practical point that Governments running up against the constraints set by whatever framework they claim to be operating tend to find ways of "evading" them: targets are redefined, time periods over which some target is to be achieved are "adjusted", and so on (see Buiter and Grafe, 2003). In the end, the only effective form of public accountability in regard to the basic parameters of macroeconomic policy is the next general election. Hence, when advising other countries, it remains necessary both to emphasize the importance of macroeconomic stability and to be quite pragmatic and flexible as regards the proposed targets and implementation frameworks.

Investment, too, is generally found to be essential for growth. More concretely, *moderate to high rates of investment* (that is to say, typically in excess of 20 per cent of GDP), allocated efficiently and credibly funded (from

a mix of domestic and external savings), are very important. Let us now explore this notion more carefully. It is clear that high rates of investment are not sufficient for growth, since there are plenty of examples around the world of countries investing a lot and failing to grow. The 1980s, the last decade of the former Soviet Union, provides one of the more striking examples of this, since investment certainly occurred at respectable rates, mostly above 20 per cent of estimated GDP, while the economy experienced very weak growth for the whole decade. Thus investment not only has to be undertaken, but on average, it must be efficient and productive.

A simple equation from elementary growth theory for a closed economy, focusing on the supply side of the economy, makes this point very forcefully. The equation is:

$$g = s/v \quad (2.1)$$

where  $g$  is the rate of growth of real GDP,  $s$  is the savings ratio, and  $v$  is the (incremental) capital-output ratio of the economy concerned (see Solow, 1970). In a more complex model, additional factors such as depreciation of the existing capital stock, foreign trade and FDI, and sometimes the effects of technological change might also influence the growth rate, but we return to that later. For now, we remain with the equation as specified above. Consider three examples:

- a) Suppose  $s = 0.4$  and  $v = 4$ . Then  $g = 0.1$ , or 10 per cent per annum. Something like this fits China quite well, with its very high savings ratio and moderate investment efficiency.
- b) Suppose  $s = 0.25$  and  $v = 3$ . Then  $g = 0.083$ , or 8.3 per cent per annum. This fits quite a number of rapidly growing countries, possibly including Kazakhstan and the Russian Federation (though the Russian Federation has not been growing quite so rapidly). The aggregate savings (and hence investment) ratio is lower than that for China, while the assumed average efficiency of investment is somewhat higher than China's (that is to say,  $v$  is lower).
- c) Suppose  $s = 0.12$  and  $v = 6$ . Then  $g = 0.02$ , or 2 per cent per annum. A country in this situation is investing rather little, just 12 per cent of GDP, and is doing so very inefficiently, each unit of investment adding very little to GDP. The result is very slow growth, as can be found in many of the poorer developing countries.

To sum up, the equation above implies that to grow at a respectable annual rate, such as more than 5 per cent per annum, an economy needs some combination of a relatively high savings ratio,  $s$ , and a relatively low

capital-output ratio,  $v$ . Although originally developed for a closed economy, equation 2.1 remains valid for the open economy case, too. Hence, in thinking about the savings (and investment) ratio, we need to have in mind not just savings by the domestic economic agents—firms, households, government—but also external savings that are invested in the economy concerned. The latter takes various forms, the most common being foreign portfolio investment and foreign direct investment (FDI). Sometimes countries claim that they are “too poor to save” and that their development, therefore, will largely rely on inflows of FDI. In practice, this approach is unworkable, since virtually everywhere most investment is financed largely from domestic savings. Hence, domestic banks and financial markets need, above all, to mobilize and efficiently allocate domestic savings as a major element in the process of stimulating sustained economic growth.

Now consider the capital-output ratio,  $v$ . To put it simply, a low value for  $v$  means that a unit of investment generates substantial additional output on a continuing basis. This is what is meant by stating that investment needs to be productive. Most investment resources should be devoted to building factories, shops, offices and the like, associated with profit-seeking, mostly private businesses. In addition, much investment in infrastructure such as airports, port facilities, road and rail networks, public utilities, and so on is clearly productive in the same sense, provided that it does not take the form of “white elephants”; for example, building a “road going nowhere”, or a new port where there is no demand for its services. If  $v$  is high, meaning that, on average, investment is not very productive, then either there are general problems in the economy holding down the returns to private sector investment (for example, excessive corruption, regulatory barriers, etc.), or the mix of selected projects is heavily weighted towards unproductive activities like building presidential palaces and other such monuments, or perhaps to constructing large defence facilities.

Besides the need for a sound macroeconomic environment and a high rate of productive investment, sustained growth is also assisted by a *good business environment*, by efforts to improve *labour force quality*, and by *openness to the world economy*. The first two of these we discuss briefly here, while the third is reserved for the next section.

The notion of a good business environment can be considered in terms of the basic conditions for doing business, as in the World Bank’s annual *Doing Business* surveys, or in terms of outcomes (see World Bank, 2007). The basic conditions include such things as how long it takes to set up a business, whether credit is readily available, how much corruption new

businesses can expect to encounter, how frequently firms are “inspected” by various public authorities, and so on. Thus the conditions are very much about assessing how business-friendly the given country appears to be, and to that extent, how the various published indicators are both interesting and useful. However, they are far from the full story, since what really matters for growth is not so much these background conditions *per se*, but rather how they translate into new business formation, business closure and firm growth. In other words, what really count are the business outcomes.

Countries, including several in SEE and the CIS region, commonly misunderstand the notion of the business environment, and underestimate its importance for their economic prosperity. Most countries are able to assert correctly that their business environment has greatly improved in the previous five years, or over the previous decade, but sometimes when they do so they fail to appreciate that the improvement is from “bad” to “poor”. There might well be a notable improvement compared to their own past, but considered more objectively and in the context of a wide-ranging international comparison, they may still lie well behind current best practice. This might be even more the case when outcomes are examined, with new business starts occurring at low rates, the stock of firms still too low for the size of the economy, and too many long-established but poorly performing firms surviving long past their “sell-by dates”. Yet, growth occurs most successfully in economies with high business start-up and closure rates (in other words, most new firms fail, often quite rapidly), with a few new firms growing to become the success stories of the future. It is also extremely important that old firms should not enjoy extended protection that enables them to survive for too long.

Last, and often neglected, is the point about improving labour force quality. For most of the countries discussed in this paper, labour force quality cannot be a big issue, especially in the short term, since all the SEE and CIS countries inherited sound basic education systems from their socialist periods. Thus, for the most part, general literacy and numeracy can be taken for granted and educational provision and attainment to the secondary school level are already quite good. But in the medium and longer term, the structure of the workforce will naturally change towards requiring more relatively skilled and well educated workers, and this will entail substantial improvements in the educational systems of our region, especially at the higher levels—upper secondary, colleges, universities. Moreover, as Alam and others (2008, ch.4) point out, many existing advanced courses are not well designed to meet the needs of a flexible,



dynamic market-type economy, so substantial educational reform is still needed in most countries. Continuing to improve the labour force in step with the growth of the economy will be a major challenge for the future, though the details fall well outside the limited scope of this chapter.

One final point needs to be stressed to conclude this section. This is the simple remark that sustained GDP growth is generally the most effective way of reducing poverty. For a time it became “fashionable” to focus development efforts on poverty reduction, or to think about notions such as pro-poor growth, this being growth that in some (much debated) sense relatively favours poorer population groups. Even the International Monetary Fund (IMF), with its emphasis on country-led Poverty Reduction Strategy Papers (PRSPs), has found itself caught up in this heavily poverty-oriented thinking (see World Bank and IMF, 2004). The World Bank, too, has placed great emphasis on pro-poor growth, increasingly highlighting the need for sustained general growth (see Besley and Cord, 2007; World Bank, 2005). Of course, extreme poverty is a terrible thing, but here we merely wish to highlight our view that it will rarely be eradicated, or even much reduced in a sustainable way, except through general economic growth.

## INTEGRATION IN THE WORLD ECONOMY

Until 1990, the share of the socialist bloc countries in world trade was falling steadily, and of their total trade, most was with each other (see Maddison, 2001). This lack of engagement with the world economy, moreover, was a symptom of these countries’ generally poor economic performance, characterized by low productivity, poor rates of innovation, and real incomes lagging increasingly behind those of the developed world. After declining sharply in the early 1990s, trade of the CIS and SEE countries has increased substantially, though much is still trade “within the region” rather than trade with the wider world (see Shelburne and Pidufala, 2006; and Broadman, 2005).

We generally expect exports as a share of GDP to be lower in large, already diversified economies, than in small economies with a comparatively narrow domestic production base. To a large extent, this high export share in smaller economies is what enables consumption to be diversified even in a very specialized economy, since export earnings are used to pay for the required diverse imports. It is not uncommon to find, in a small economy, that exports easily exceed GDP, while in a large one they may only be 20-30 per cent of GDP. Further, in recent decades virtually all the

most successful growth experience has been export-led. Thus, deliberate and extensive engagement with the world economy has generally proved to be an effective development strategy, and has done more to lift people out of poverty than any amount of development assistance (as emphasized in WTO, 2008; see also Wolf, 2004).

Integration in the world economy involves a mix of elements: (a) trade in goods; (b) trade in services; (c) income flows: profits, dividends, remittances; (d) aid and other external support (grants and loans); (e) FDI; (f) other capital flows (short- and long-term lending and portfolio investments); and (g) flows of people: inward and outward migration. We consider each element in turn.

Countries usually start by liberalizing trade in goods and services, then later liberalize the capital account—this was the path followed by many of the transition economies, for instance. Trade liberalization itself usually entails a mix of measures for the countries in our region, often implemented in stages. The first and easiest stage is to dismantle most of the old controls and restrictions on trade in goods that were so prevalent in these countries when they were still centrally-planned economies. Next, it is important to rationalize, simplify, and lower the general level of tariffs on imports, since in most centrally-planned economies the structure of tariffs often featured some very high rates and was economically quite irrational (in the sense of encouraging inefficient trade, discouraging efficient trade). Then export promotion is also essential, since liberalizing imports without actively fostering exports can prove self-defeating to their cost, as several countries around the world have found (for example, countries in Africa in recent years; see Ackah and Morrissey, 2005; and Iyoha, 2005).

It is not necessary to dwell here on the next two items, income flows and aid, so we turn to capital flows. Early capital account liberalization was, for a time, strongly encouraged by the IMF and other international institutions, though the experience of numerous financial crises in the past decade affecting a wide range of countries (most recently the late 1990s crisis that hit hard the Russian Federation and some other CIS countries), together with the current turbulence in world financial markets, have led to considerable backtracking from this position. In any event, the liberalization of capital flows commonly starts by encouraging FDI, often linked to privatization programmes.

Migration flows generally depend on economic opportunities at home and abroad, as well as on the immigration policies of potential partner countries and/or on the porosity of their borders. A bad economic situation

at home, such as high and rising rates of unemployment, often stimulates out-migration, especially if an accessible neighbouring country offers attractive job opportunities. Albanians moving to work in Greece, or Armenians moving to work in the Russian Federation are commonplace examples of this phenomenon, but there are many more. Migration is sometimes politically problematic, though for the sending country it does frequently offer several benefits: (i) domestic labour market problems are eased; (ii) the migrant workers frequently send some of their income back home (remittances), and for some countries this is a major source of foreign currency; and (iii) migrant workers often acquire skills and knowledge which, when they return home, eventually benefit their home economy.

Aside from such economic stimuli, people also move for political reasons, to escape from efforts at ethnic cleansing, to escape civil war, to escape other forms of political repression. Bosnia and Herzegovina, for instance, still contains many internal refugees—internally-displaced persons—as a result of the Yugoslav wars of the 1990s. The former Yugoslav Republic of Macedonia also experienced severe ethnic tension between its Slav and Albanian population groups at the start of this decade, and several CIS countries have also suffered from ethnic conflicts that sometimes led to civil or even international wars during the early 1990s. All such events result in some migration, either within or between countries.

Returning to the principal theme of this section—foreign trade—liberal and open trading conditions are supported by WTO membership. From the SEE and CIS countries, WTO applications are in progress for: Azerbaijan, Belarus, Bosnia and Herzegovina, Kazakhstan, Montenegro, Serbia, Tajikistan, the Russian Federation and Uzbekistan. Ukraine's accession was approved in early 2008 and came into effect in July 2008. Other countries in the region are already WTO members, except for Turkmenistan which has not yet applied. As the Russian case illustrates, the WTO accession process can be long and arduous, with many twists and turns, each significant trading partner being free to bring to Geneva its own issues regarding trade with the Russian Federation. Thus, accession entails a mix of collective negotiation through the Accession Working Party, leading, eventually, to an agreed Accession Protocol; and a whole series of bilateral agreements with individual trade partners. Outstanding topics for the Russian Federation include agricultural support, domestic energy pricing and access to the Russian market for foreign services providers (such as banks).

Whether already WTO members or not, our countries mostly belong to a variety of Free Trade Areas (FTAs) and, in a few cases, Customs Unions

(CUs). Unfortunately, most existing FTAs and CUs in the region are badly designed, badly administered, and economically ineffective, offering too many opportunities for corruption. For the CIS countries, as well as for SEE, these issues are discussed comprehensively in Broadman (2005). There are still too many bilateral agreements, giving rise to a “spaghetti bowl” of trade agreements, each of which is characterized by somewhat different lists of products included in the agreement, and often by restrictive rules of origin. Some countries, notionally at least, belong to four or five such agreements, which must be both economically inefficient and administratively complex. Small countries simply do not possess the capacity to handle multiple agreements effectively, and, in any event, the potential economic gains are often not large enough to justify them.

If the region wants FTAs amongst various subsets of countries, they should be simple, with broad commodity and country coverage, with liberal rules of origin, and with few exclusions. For example, such an agreement has been discussed for the SEE countries for some years, but has only just in the past year or so started to be implemented.

## ECONOMIC DIVERSIFICATION

We now consider what economic diversification means, and whether—and if so, under what conditions—it is desirable. First, then, is the question of *meaning*. It is actually rather tempting to dismiss the whole idea of diversification as mere sloganeering, an idea that sounds quite appealing but which turns out to be lacking in substantial content. All economies that operate competitively and significantly in the world market are surely engaged in economic diversification all the time. After all, how else will firms compete, except by offering new innovative products onto the market, stopping the production of outmoded products that no longer attract sufficient demand, or by improving technology and cutting their costs? Nowadays, of course, these remarks apply just as much to the production and delivery of services as they do to the more familiar production of goods. For a national economy, the same is true except on a far larger scale, and with the additional point that some of the necessary changes occur through the entry and exit of firms.

So if, under normal conditions, a good deal of the economic change and adaptation that can reasonably be understood as falling under the heading of “economic diversification” occurs through the operation of market forces, why is diversification *per se* something that we should be especially

concerned about? The reason, I think, is that sometimes the market forces that we mostly take for granted fail to work sufficiently well. We elaborate on this point at the end of the section.

Meanwhile, we accept that diversification is potentially a problem, and consider how to define it. A *simple notion* of diversification is that it means a country should produce, and presumably export, a wider range of products than in the initial position; strictly, this definition also includes diversification into exportable services such as medical care, education, tourism (in such cases, customers come to get the service), and so on. A *more complex notion* of diversification is that a country should produce for export a wider range of goods and services, with the emphasis on high-technology, higher value-added, “modern” items.

Next, we consider whether diversification as an objective of policy is *desirable*. For resource-rich economies, a standard argument for diversification is to mitigate the effects of Dutch disease. This is the situation where resource exports push up a country’s equilibrium exchange rate and as a result either price out of the world market some or all of the country’s existing manufactured exports or create conditions where it is more difficult to expand such exports. Also, historically, many significant resource prices have been highly volatile, so reliance on resource exports for foreign currency to pay for imports can be risky. The risks can be mitigated by the creation of resource funds in good times, as has been done by Kazakhstan and the Russian Federation, among others. But it is also argued that economic diversification can help to make an economy less vulnerable to these risks. Sometimes, too, it is claimed that natural resource production/exports benefit from relatively little innovation and productivity gain, so that an economy specializing heavily in such sectors would typically experience slow productivity improvements. This is a further argument for diversifying into sectors that normally benefit much more from such gains.

Taken together, the above points appear to add up to a convincing case for active policies to promote economic diversification in resource-rich economies. But we need to proceed more carefully, as the arguments are less compelling than they seem to be. First, if an economy has abundant natural resources, then they are likely to be profitable exports and ample inputs of capital and labour need to be concentrated in the resource sector for it to develop successfully. This necessarily draws production factors away from other sectors, including manufacturing. Hence what we term the Dutch disease may often be no more than the normal adjustment of an economy doing well with natural resource exports. To this extent, active steps to

offset the impact of Dutch disease, perhaps following lobbying efforts by manufacturing firms losing out from the higher exchange rate, are to be resisted, as they can damage the competitiveness of the entire economy.

Second, the proper way to deal with resource price volatility is by purchasing insurance, and this is, in effect, what countries do when they establish resource funds (or, in agriculture, hold physical stocks of commodities). The implication is that in “good” periods, when resource revenues are high, domestic spending should still be controlled carefully so that the resource fund can be built up—usually in the form of a mix of foreign financial assets—and then in bad times some of the fund can be drawn down to maintain domestic spending. If we deal with price volatility by diversifying into other sectors, then we are unavoidably drawing production factors away from natural resource extraction and production and, in effect, passing up an opportunity to make good profits. To put it more bluntly, specialization in sectors where an economy might lack a fundamental comparative advantage is surely not a good way of managing the risks associated with fluctuating resource prices.

Third, despite the frequency with which the claim is put forward, there may be no solid evidence to support the view that the natural resource production is associated with especially slow rates of innovation and productivity improvement. Massive amounts of R&D are devoted to the oil and gas sector by the major international companies, perhaps rather less to extraction of metallic ores and timber. The world markets for natural resources are strongly competitive, and this must also support productivity gains.

As regards innovation, a more general remark is worth inserting here. This is simply that the SEE and CIS countries spend very little on R&D and other innovation-related activities, generally well under one per cent of GDP. This contrasts with EU spending goals to achieve R&D spending of 3 per cent of GDP by the next decade, though at present many EU member States only spend 2 per cent or less of their respective GDPs on R&D (taking public and private R&D spending together). In the long run, the entire region studied in this paper will need to raise innovation spending substantially.

Returning to our argument about diversification, these remarks seem to undermine quite substantially the standard case sketched above for economic diversification in resource-rich economies. This does not mean, on the other hand, that diversification should be considered a bad thing, or economically damaging; rather, it simply implies that we need to think about it more carefully than hitherto, to think about why we want to encourage it, and what the real (as opposed to imagined) costs and benefits might be.

The discussion to this point has focused on the case of resource-rich economies. For others, notably for small open economies, domestic production is often narrowly based, with few significant exportables. This again is a source of potential economic vulnerability, hence arguing for diversification.

Regardless of the arguments about whether or not diversification should be pursued, there is quite clearly no point in doing it unless the resulting new goods or services are produced to a good quality standard, sufficient to be internationally competitive. Moreover, in my view, it is usually very unwise for the Government to attempt to dictate or select which sectors to favour, since Governments have a very poor track record in such matters, and are frequently mistaken in their judgements. Perhaps surprisingly, in practice we cannot even know in advance which sectors should be regarded as high technology or “modern”, so again, it is not a good idea for Governments to choose. For what we think of as “high tech” products and services might be produced and delivered using very “low tech”, quite mundane technologies, while apparently basic and commonplace goods could be produced using high levels of automation and extremely sophisticated equipment. Governments are generally poorly equipped to know about these things, so they should not normally be involved in making such choices. Ideally, therefore, it is better to rely on market mechanisms to “choose” the new sectors in which to develop production and exports.

However, markets do not always function as well as we are inclined to assume, and often need “help”. There are several reasons for this situation, including imperfect and/or unequal information on the part of market participants, their inability to finance desired transactions, problems in the legal area to do with protection of property rights and business contracts, regulatory deficiencies, and so on. These and other issues fall under the heading of “institutions”, the subject of the next section.

## THE ROLE OF INSTITUTIONS

Institutions are relatively stable social arrangements, often embodying various kinds of norms, customs and conventions (see North, 2005). In the economic domain they frequently possess a number of special characteristics such as influencing the behaviour of economic agents, embodying shared expectations, and assuming the form of a “repeated game”. The last point is especially important, and means that economic agents (buyers and sellers in the simplest cases) do not think of their business transaction as being



“one off”. Instead, they expect to be engaged in a whole series of similar transactions, and this then provides incentives for them to follow the rules, operate fairly, and so on. In this sense, the “rules of the game” can often turn out to be self-reinforcing, a useful characteristic (this can be true even without the help of a “State”, as Greif, 2006, and Dixit, 2004, have shown in various examples of informal trading networks).

Institutions, which can be either informal or formal, operate at different levels and in different contexts. At the most basic level can be found the social norms and customs that govern most everyday behaviour, whether explicitly economic or not. Next are the various resources and assets of a society, and the rights, powers and responsibilities associated with each of them. Last, we find the specific organizations which embody the institutional arrangements of the given society/economy. These include individual firms (which can be either formal or informal), households (mostly informal and customary, but usually with some formal legal underpinnings, for example marriage law, family law, inheritance law, etc.), business associations, economic departments and agencies of the Government, the courts, and the military establishment (see Acemoglu and Robinson, 2006).

From an economic standpoint, institutions need to provide for three key functions, namely, the protection of property rights (both from other private agents and from the State itself) (on the rule of law, see Dam, 2006); supporting transactions (for example, contract law, improve information flows, accommodate risk, etc.); and facilitating cooperation and coordination, especially where it is beneficial for society but would not likely result from the unrestrained market mechanism (see Bardhan, 2005).

For the economies in transition, especially the SEE and CIS countries studied here, what we might call the “institutional transition” is especially critical. For in essence, the transition from plan to market involves the replacement of one set of economic institutions—that which corresponds to central planning—by a new one corresponding to the requirements of a well functioning market-type economy (see World Bank, 2002; also IMF, 2005, chap. 3). This is a far bigger change, occurring over a far shorter timescale, than the regular evolution of institutional arrangements that goes on all the time in any economy. Hence, it should not have been too surprising that some of the new institutions needed for the market were slow to be established, slow to take root in many countries. Building a market-type economy entails creating a whole new set of “shared expectations” about how business decisions are taken and economic transactions are conducted. To give just one example by way of illustration, respecting and protecting private



property rights is completely taken for granted in well established market economies, but for most of the SEE and even more so for the CIS countries it was an entirely new concept, still not deeply embedded in these societies.

Moreover, decades of central planning not only left the SEE and CIS countries with the “wrong” institutions, it also left behind a legacy of uneconomic production in two important senses: (i) much production was poorly located or in branches of production where the economy concerned had little chance of producing competitively, so transition began with this massive structural problem; and (ii) each economy contained amazingly few enterprises, most of which were far too large—the size structure of firms was completely different from what one observes in any “normal” market economy, with hardly any small and medium-sized firms to be found. Against this background, one can see that efforts to diversify might have rather more resonance in our region than elsewhere.

In the context of efforts to diversify an economy, well designed institutions can help in several ways:

- They can provide market information, especially about new export opportunities (for example, embassies could do this);
- They can improve flows of technical knowledge and the ability to use it (through higher education, R&D activities—both public and private, manpower training);
- They can facilitate easy entry and exit of firms to and from the market, and support restructuring efforts for those established firms that have a viable future;
- Institutions to develop, plan, and upgrade infrastructure (for example, transport links, port and airport facilities, border crossings, telecoms, energy supplies, factory and office space, etc.);
- Provision of credit and other financial services, through a competently regulated banking system and financial markets;
- *Simple, clear* regulatory framework, with stable rules, covering such matters as competition policy, health and safety aspects of production, regulation of technical standards and product quality, service standards and customer guarantees, etc.;
- *Simple, clear*, stable tax system, with low tax rates for business.

In the last two points, simplicity and clarity were emphasized, reflecting my view that especially in smaller and less prosperous countries it makes economic sense to adopt policy frameworks that are administratively manageable and less susceptible to corruption and lobbying than more complex frameworks

can be. Sometimes this will imply the adoption of simple policies that may not, in a formal economic sense, be strictly efficient or optimal in an ideal world. The point, however, is that the world is not particularly “ideal”, and we have to make practical accommodations to that reality.

Naturally, in any economy, institutional conditions and how effectively particular institutions function are influenced by the prevailing political configuration. Specifically, there are major issues to do with the credibility of the State. For instance, how do we know whether a successful firm will not be taken over by the State? Or whether a failing firm will not be protected unfairly due to its political connections? Or whether a regulator will be allowed to perform its tasks without State interference? Or whether banks will be directed to issue credit to firms “officially favoured”? Unfortunately, none of these examples is remote from reality, as numerous cases of all of them can be highlighted across the region studied in this paper. Also, and quite damaging in economic terms, the prevalence of such phenomena encourages entrepreneurs to direct their efforts to seeking State favours rather than towards improving their market position.

Assuming that the State has sufficient credibility to enable a market-type economy to function tolerably well, what should the State do in regard to promoting economic diversification? As a starting point, we can suppose that the State and its various agencies are already providing the basic institutional conditions outlined above, facilitating and supporting private sector economic development. Beyond this, one could then argue quite straightforwardly for doing nothing. Then the market mechanism will be left to stimulate whatever diversification occurs, in the light of perceived opportunities and capabilities. In an already well-diversified economy, with good infrastructure and a good quality workforce, this seems the right approach. In a transition economy there may well be more reason to promote diversification more actively, given the legacies referred to above.

Also, if the economy is poorly diversified and there are perceived to be genuine market failures impeding more diversification (and the costs of maintaining a narrow production base appear to be high), then a more active approach may well prove justified. The difficult question then concerns how exactly to go about designing such an approach, as far as possible without generating economically damaging side-effects? In thinking about this, it seems to me that we should be guided by four key principles:

- First, identify the main market and institutional failures that are preventing diversification from occurring “naturally”, through the normal market mechanism. This is the most difficult issue in the transition economies

because of their legacy of missing market institutions and enormous structural imbalances. (On the analysis of this notion of identifying key institutional “bottlenecks”, see Rodrik, 2007, chap. 2).

- Second, accept that neither the State nor the private sector can know *ex ante* which new activities will turn out to be successful in the market—so if government support is offered in some form, direct or indirect, it must be expected and accepted that there will be some failures.
- Third, it is useful to think in terms of forms of partnership between State agencies and the private sector in order to promote selected new activities (this also raises the related issue of “how to select?”).
- Fourth, wherever it is feasible, such partnerships should be based on *competition* (for example, there can be several independent bids to develop each new proposed activity) and *performance* (that is to say, it is important to withdraw support rapidly from obviously failing activities).

#### IMPLICATIONS AND CHALLENGES FOR ECONOMIC POLICY

Suitable policies to promote and support economic diversification will vary enormously between countries, ranging from inaction (in a large, already well-diversified economy with good institutions) to a variety of active measures (in small, narrowly-based economies with relatively poor and weak institutions). In any event, some of the desirable policies have little to do with diversification *per se*. For example, completing the process of trade liberalization, simplifying the tax and regulatory system, ensuring that the financial system delivers adequate funding for investment, and improving the infrastructure all need to be done regardless of the question of diversification.

Next, if identifiable market failures are constraining diversification, policies to alleviate these failures are required. In practice this is often the most difficult aspect of the diversification agenda, because it is usually extremely hard to identify with much assurance the relevant failures. For if we assess a particular economy as being insufficiently diversified, it is rarely clear why that is the position, and the possible reasons may or may not indicate a specific market failure. Even if there is a market failure, it might not be remediable by government policy alone, and one must always bear in mind the dangers of government failure. Replacing a known market failure with some form of government failure will not necessarily improve market outcomes, so a degree of caution is advisable.

For transition economies, this issue is especially difficult. We sketch two examples here to illustrate the meaning, both relevant to the diversification “problem”. The first has to do with the legacy of large, unprofitable business enterprises, and the issue of their restructuring; the second has to do with encouraging new business formation. Normally one would expect a turnover of businesses in a well functioning economy, with perhaps two to three per cent of jobs being lost each year (mostly in small and medium businesses), these being replaced by the expansion of the more successful surviving firms, plus the creation of new firms. Hence, over a typical decade of such restructuring, 20-30 per cent of the jobs available at the end would not have existed at the start; more dynamic economies restructure even more rapidly. This sort of restructuring was perceived—rightly—as being especially problematic for many transition economies because the initial position was worse and because there was little or no experience of new business formation (some in the SEE countries, almost none in the CIS).

The initial position was much worse than in a normal market-type economy since, following the price and trade liberalization of early transition and, especially within the CIS, the disruption of established trading patterns, the countries were left with a large stock of essentially non-viable large enterprises. According to some early estimates, this could have accounted for up to half of the entire production in some countries. In such circumstances, it was evidently politically impossible for all these loss-making firms simply to be shut down, though in the longer term this would usually be their fate. In principle, one would have liked to see a programme of gradual closures of these failing firms and the restructuring of those still able to operate commercially, accompanied by vigorous measures to promote new business formation. In practice, several CIS countries faced steeply falling GDPs at least until the mid-1990s and this did not provide a favourable environment for new businesses to start up, and the regulatory conditions were also not very supportive as business-friendly reforms were occurring quite slowly in most of the region. As a result, most Governments—even if they were willing to acknowledge the inefficiency of many of their “legacy” large businesses—were unwilling to force their early closure. Quite the contrary, in fact, as Governments actively kept them going to avoid the massive unemployment that would otherwise have resulted (for understandable political reasons). Now, more than 15 years after the start of transition, many of the large, former State-owned enterprises (SOEs) still survive and the business environment is still not as supportive as it needs to be to foster sufficiently rapid rates of new firm

formation. Hence, efforts towards economic diversification have to keep in mind these not too favourable background conditions.

As indicated earlier, it is not possible to design a single policy package suitable for all of the SEE and CIS countries. Given their different characteristics and problems, it makes more sense to consider suitable policies for three main types of country in the SEE and among the CIS, namely:

- Resource rich countries—for example, Kazakhstan, the Russian Federation, Turkmenistan
- Countries that are both large and relatively poor in energy resources—for example, Ukraine
- Countries which are both small and poor in energy resources—for example, Armenia, Bosnia and Herzegovina, Republic of Moldova and the former Yugoslav Republic of Macedonia, etc.

The last category is probably the hardest to deal with, so we focus on that group here. What this group calls for is a mix of policies that should include vigorous export promotion, extensive efforts to improve access to markets, especially with immediate neighbours, and efforts to promote exportable services such as tourism and possibly some forms of health care. In addition, partnerships between the State and the private sector to support new activities, as outlined above, would be helpful.

To elaborate, for a small country to improve its living standards in a sustainable way, its engagement with the world economy needs to grow rapidly, starting with exports. Export promotion supports this through several channels: provision of information about foreign markets and the conditions of access to them; credit lines for exporting businesses, including export credit guarantees to reduce the risks of exporting; organization of trade fairs and exhibitions both at home and in key foreign markets; support for advertising and other marketing activities; support for skills development (including language skills) needed to facilitate exporting.

In addition, countries seriously seeking to expand their exports—and here we mean a large expansion such as a doubling or more, not merely a modest 5-10 per cent rise—need to pay attention to relevant parts of their economic infrastructure and regulatory framework. Regarding the former, port facilities, airports, and border crossings might all need new investment to expand their physical capacity, while regulatory conditions should ensure that exporting is quick and reliable, without needing excessive documentation and administrative checks that can so often provide

opportunities for corruption. Likewise, goods should not be held up at borders for “administrative reasons”. Problems of this sort simply ensure that much potentially profitable trade never takes place.

Broadman (2005) argues cogently that both SEE and the CIS countries need what he terms extensive “behind the border” reforms in order to facilitate more rapid growth of foreign trade. What he means by this is that trade policy should not just be seen as a matter of tariff policy and non-tariff barriers, but it includes the issues just noted above, as well as other policies to do with business taxation, the financial system and banking reforms, and so on; in other words, policies that support business activity in general, and hence, exports in particular.

Policies outlined thus far concern what an individual country can do for itself, and this is always important. But to trade successfully, there must be trade partners willing to buy the goods and services on offer. Hence, access to markets is also vital. This is part of what we discussed earlier in connection with the WTO, and then FTAs and Customs Unions. Regardless of the formal institutional arrangements, though, trade partners must be willing to engage in trade without imposing excessive tariffs or other barriers of their own, fiscal or administrative. If neighbouring countries are not very friendly, as is the case for some SEE and CIS countries, then movement in this area can prove difficult. It must nevertheless be pursued relentlessly.

Last, what to promote and how? I have already argued that the State is rarely good at selecting either “good” firms or “good” sectors. Also, our countries still have an inheritance of “bad” firms, most of which are by now privatized. Privatized or not, many of these firms still survive through forms of direct and indirect support that come under the general heading of the “soft budget constraint”; this includes the toleration of delayed tax and social security payments, extension of additional credits, sometimes even direct budgetary subsidies (though these are much less common than they were in the early 1990s). Some of these firms can be made economic through additional investment and the modernization of production technology and/or the product range, perhaps with the help of a foreign partner (FDI), and where possible this should be done. Others should gradually be scaled down and closed. This is a form of diversification unique to the transition economies, especially those that have reformed more slowly than the countries of Central Europe.

Besides dealing with these inherited firms, the key to diversification in small countries lacking natural resources is to free up the business environment to stimulate large increases in the rate of new business

formation. It would seem most appropriate to measure success in this area in terms of outcomes, in other words, by asking how many firms there are in the given economy, and what their size distribution looks like. As a rule of thumb, one might think of a fairly well-functioning economy as one with around 50 firms per 1000 people, most of these firms being tiny, most of them surviving for quite short periods, with constant renewal of the stock especially at the smallest end of the size range (some ideas about sensible numbers in SEE are provided in Falcetti and others, 2003, Table 1). While it is easy to set targets for simplifying regulation, taxes, credit conditions and the like to stimulate new business formation, it is advisable to assess the effectiveness of such policies not in terms of the number of pages deleted from the regulations, but in terms of their eventual impact on the stock of firms, and hence, on employment and income generation.

Given rapid rates of firm formation, from time to time clusters of related firms will spring up, either in a given region or a given sector, and sometimes these clusters will achieve export success. When this starts to happen, that is the time for supportive government intervention to be brought into play, with funding for related R&D, marketing, IT systems, workforce training programmes, export development and such activities coming on stream.

## CONCLUSION: INSTITUTIONS AND DIVERSIFICATION

Economic diversification is important for sustained growth, and it is normally brought about through competition and the market mechanism. However, there can be market and institutional failures of various kinds that “lock” a country into a very narrow production pattern. This is especially likely in the context of the transition economies discussed in this chapter, with their unfavourable legacy of inefficient businesses, an extremely skewed size distribution of firms (hardly any small and medium firms at the start of transition), and limited experience of promoting new business formation. In such cases, as we have argued above, active policies can help to overcome market failures, promote institutional development, and hence stimulate more diversification.

It is important that diversification efforts be subject to competition and performance criteria, with little State interference to favour particular firms. For the State is rarely capable of “selecting” good firms to support, and when it tries it is most likely to fall victim to lobbying from politically well-connected owners and managers. Bowing to pressure from such lobbies will rarely yield economically desirable outcomes. Equally, the State is rarely



able to “select” good sectors for an economy to diversify into. Rather, it should provide an economic environment that supports business activity in general, and only once a new area shows signs of taking off should it provide some helpful reinforcement as outlined here.

Diversification is a normal part of a successful, sustained path of economic growth, so this implies that the right general conditions for growth—discussed in the second and third sections of this chapter—need to be in place. This is true even in the transition economies of SEE and the CIS, though we have acknowledged earlier that their backlog of restructuring makes diversification both more urgent and more difficult than in more “normal” economies. That said, the ensuing growth should then raise incomes and living standards generally, and hence also reduce poverty.

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## Chapter 3

# The role of the business environment in explaining the performance of countries and firms

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### INTRODUCTION

It is widely accepted that the business environment has an impact on the performance of firms. As such, empirical investigation of these conjectures can proceed at both firm and country levels. This has been enabled by the large scale collection of firm level datasets by organizations such as the European Bank for Reconstruction and Development (EBRD), as well as the collection of country-level datasets that attempt to measure dimensions of the business environment, such as those put together by Heritage Foundation, the Global Competitiveness Report or the World Bank's annual "Doing Business" survey. Simply stated, the common underlying assumption of all these exercises appears to be the belief that countries and firms facing "better" business environment can be expected to perform better.<sup>1</sup> There is also now a growing volume of empirical studies that have in turn used these various datasets to verify this basic conjecture. The bulk of this literature has concluded that there is an identifiable and robust association between performance and the nature and extent of constraints that countries and firms face.

This chapter attempts to evaluate the robustness of these conclusions using two complementary types of data. The first is a country level dataset, namely the World Bank's annual "Doing Business" survey that covers 175 countries. For this survey, a questionnaire organized around a hypothetical business case is administered to a range of expert respondents in each country. The full set of Doing Business indicators are then put together in an aggregate ranking that aims to summarize a country's ease of doing business. While this survey has relatively few observations over time—data

collection only started in 2003—it has large country coverage and has already been widely used in cross-country analysis. In this chapter, the Doing Business measures are primarily used to try and establish whether there is any link from country-level measures of the business environment to country-level performance.

The second type of data comprises a large firm level dataset—the 2002 and 2005 rounds of the Business Environment and Enterprise Performance Survey (henceforth BEEPS)<sup>2</sup>—that includes measures of firm performance, variables relating to ownership, competition and export orientation as well as perceptions of the business environment. The dataset covers between 6,000 and 9,000 firms in 26 transition countries. As the two rounds of the survey provide data on firms over a six-year period, they allow examination of the relationship over time between performance and a range of explanatory variables, including the business environment. They can also throw light on the links from constraints to actions, like restructuring and product innovation.

The chapter is organized as follows. The second section proceeds at country level and asks whether the Doing Business indicators can help explain differences in performance across countries. The third and fourth sections then turn in detail to analysis of the BEEPS firm-level dataset. As we find that both the country and firm level findings provide scant support for the view that the business environment exerts a strong and measurable impact on performance, in the fifth section, we ask why this might be the case. The next section examines the possible implications for policy and the final section concludes.

### COUNTRY-LEVEL ANALYSIS<sup>3</sup>

For the country-level analysis, the dataset that is used is the World Bank's Doing Business survey. Doing Business employs a template questionnaire targeted at local professionals in a variety of fields, including lawyers, officials and consultants. The questionnaire is organized around a hypothetical business case and then administered to a range of expert respondents in each country. It has now been administered up to five times between 2003 and 2007. In 2007, over 5000 experts were contacted in 175 countries. Information on ten indicators—namely, starting a business, employment regulation, enforcing contracts, getting credit, closing a business, registering property, protecting investors, dealing with licences, paying taxes and trading across borders—was collected in 2007. However, information on

only five sets of indicators has been collected for all years since 2003.<sup>4</sup> The full set of Doing Business indicators are also put together in an aggregate ranking that aims to summarize a country's ease of doing business.

Doing Business stresses that use of a template enables cross-country comparison. It has also been claimed that expert opinion is able to provide representative information superior or equivalent to information generated by firm surveys. However, given that most expert respondents are based in the major urban centre(s) and are likely to deal with particular types of firms, this is open to question. Certainly, for large countries—like Brazil or India—to have unique indicators seems a heroic assumption. There are also a number of quite restrictive assumptions made about the representative firm.

A further assumption in Doing Business is that there are underlying linear and monotonic relationships. For example, the Doing Business indicators could be expected to be positively related to performance when included additively in a regression. Further, institutional frictions appear to be expected to have a similar impact irrespective of the country's general level of development and sectoral specialization. Assumptions of linearity clearly motivate the construction of most of the Doing Business indicators. For example, the “strength of investors' protection index” is a simple average of the “extent of disclosure index”, the “extent of director liability index” and the “ease of shareholders' suit index”. The “extent of disclosure index” is itself the sum of binary indicators such as: disclosure of family ownership, disclosure of voting arrangements, availability of ownership and financial information publicly available, etc. Such linearity may, however, be questionable.

The philosophy behind Doing Business has causality running from institutions to performance. Identifying these effects raises obvious issues of endogeneity. Nevertheless, it has been claimed that improvements in country level indicators tend to be associated with improvements in a country's performance<sup>5</sup>. Further, while performance can be summarized by country-level growth, there is evidently a set of hypothesized relationships between the Doing Business indicators and intermediate outcomes. These are indicated in Table 3.1. For example, improvement in the “credit information index” could be expected to increase domestic credit. Higher domestic credit could in turn be expected to yield higher growth<sup>6</sup>.

## BUSINESS ENVIRONMENT AND COUNTRY PERFORMANCE

This section first looks at the relationship between country-level performance and the Doing Business indicators. The relationship between

**Table 3.1:**  
**Hypothesized relationships in Doing Business**

<i>Indicator</i>	<i>Intermediate outcome and expected sign of the relationship</i>	
<i>Constraints in starting a business</i>	Firm creation (-) Investments (-) Job creation (-) Informal economy (+)	Corruption (+) Efficiency of production (-) Tax revenues (-)
<i>Constraints in dealing with licences</i>	Construction sector (-) Cheaper offices (-) Cheaper warehouses (-)	Informal economy (+) Government expenditure (+)
<i>Rigidities in hiring and firing workers</i>	Productivity (-) Informal economy (+) Business costs (+) Adjustment to new technologies (-)	Adjustment to macroeconomic shocks (-) Adjustment to migrant inflows (-) Benefits of trade liberalization (-)
<i>Constraints in registering property</i>	Property rights (-) Property market (-) Credit (-)	Investment (-) Corruption (+) Informal economy (+)
<i>Ease of getting credit</i>	Credit (+) Non-performing loans (-)	Investment (+) Small enterprises and women (+)
<i>Strength of protecting investors</i>	Equity investments (+) Entrepreneurship (+)	Investment (+) Size of stock market (+)
<i>Constraints in paying taxes</i>	Informal economy (+) Quality of public services (-) Corruption (+)	Government revenue (-) Investment (-)
<i>Constraints in trading across borders</i>	Trade (-) Corruption (+)	
<i>Constraints in enforcing contracts</i>	Bank credit (-) Interest rates (+) Entry of new firms (-)	Employment (-) Government expenditures (+) Integrity of court system (-)
<i>Constraints in closing a business</i>	Investments (-) Credit (-) Non-performing loans (+)	Entrepreneurship (-) Productivity (-) Job creation (-)

**Source:** Commander and Tinn (2008).

intermediate outcomes and performance is then analysed. The country-level analysis is done in the spirit of the cross-country growth analysis of Barro and Sala-i-Martin (1998). However, due to limited availability of data, only the relationship between growth over the period 2003-2005 and the Doing Business indicators available for 2003 can be explored. The following functional relationship was estimated:

$$Growth = \ln(GDP_{2005} / GDP_{2003}) = \alpha + \beta \ln(GDP_{pc,2003}) + \gamma DB_{2003} + \delta X + \varepsilon \quad (3.1)$$

in which the growth measure is the log difference of real PPP-adjusted GDP. On the right-hand side of the equation are included the log of PPP-adjusted GDP in 2003, the Doing Business indicators available for 2003 and an additional set of controls  $X$ . These are secondary school enrolment and government expenditure to GDP; the latter being a measure of the size of government. The procedure is to run separate regressions that include the Doing Business variables from each of the four available categories—starting a business, employing workers, enforcing contracts and closing a business—which are entered separately (Columns 1-4) and then jointly (Column 5).

Table 3.2 reports the results. No statistically significant association with the expected sign can be found. The coefficients on procedures to start and time to close a business are weakly significant but wrongly signed.

Table 3.2:  
Country-level growth regressions, 2003-2005:  
Coefficients on Doing Business indicators

<i>Indicators</i>	(1)	(2)	(3)	(4)	(5)
Starting business: procedures	<b>0.0045*</b>				0.0039
Starting business: time	0.0001				0.0000
Starting business: cost	0.0000				0.0000
Employing workers: rigidity employment		-0.0002			-0.0003
Employing workers: firing cost		0.0000			0.0000
Enforcing contracts: procedures			0.0004		-0.0003
Enforcing contracts: time			0.0000		0.0000
Enforcing contracts: cost			0.0001		0.0001
Closing business: time				<b>0.0091*</b>	<b>0.0094*</b>
Closing business: recovery rate				0.0005	0.0001

**Source:** Authors' calculations based on the World Bank's Doing Business survey 2003-2005.

The coefficients marked **bold** and with \* denote coefficients that are statistically significant at 10 per cent p-value. None of the coefficients is significant at 5 per cent level.

Yet, the existence of a relationship between institutions identified by Doing Business and growth cannot be completely ruled out. For a start, it is only possible to look at the growth rate over a very short period of time that could have been affected by business cycles. Second, the impact of institutions on growth is far more likely to be a longer term phenomenon and might not affect performance immediately. Third, only a subset of the Doing Business indicators was available for 2003. It is also not possible to address the issues arising from potential reverse causality due to the absence of suitable instruments. The countries that have a potential to grow faster may have more incentives to develop institutions. However, this would likely result in overestimating the strength of relationship between the Doing Business indicators and growth. As there is no association, the importance of this is unlikely to be critical.

Turning to the second component of the analysis, as the Doing Business indicators might affect growth through their impact on intermediate outcomes, similar regressions relating intermediate outcomes to the indicators are reported. The most recent available data on the intermediate indicators are related to the contemporaneous Doing Business indicators. The estimates also use as controls the log of PPP-adjusted GDP, government expenditure to GDP and secondary school enrolment. These results are reported in Table 3.3. The results in the first column include only one relevant group of Doing Business indicators. The second column reports results when Doing Business indicators from all relevant categories are jointly included. Exceptions are stock market capitalization and the stock turnover ratio where the second column gives the impact of the overall investor protection index and first column gives the impact of subcomponents of the investor protection index individually.

Table 3.3 shows that there are some, but very few, statistically significant associations. Better legal rights are positively associated with private credit, capital inflows and FDI. However, these relationships are absent for private bank credit, where it might have been expected to be stronger than with the broader measure of private credit. Legal rights are also found not to be associated with higher investment. Better private and public registry coverage appears to be positively associated with higher private credit and private registries with private bank credit when only the “Getting Credit” indicators are included. However, the significance disappears when all potentially relevant indicators are included in the regression. The same applies for the recovery rate when closing a business and bank credit, as well as for procedures for registering property and enforcing contracts and the broader private credit measure. Better investor protection is associated with higher stock market capitalization but not with stock market liquidity

Table 3.3:  
Intermediate outcomes and Doing Business indicators

<i>Left-hand side variables and Doing Business indicators</i>	<i>Regressions with one Doing Business indicator category included</i>	<i>Regressions with all relevant Doing Business indicators jointly entered</i>
<b>Private credit to GDP</b>		
Dealing with licences: procedures	-0.495	0.031
Dealing with licences: time	-0.073	-0.016
Dealing with licences: cost	0.002	0.001
Getting credit: legal rights	<b>5.020**</b>	<b>5.077*</b>
Getting credit: credit information	-0.034	0.720
Getting credit: public registries	<b>0.631*</b>	0.442
Getting credit: private registries	<b>0.527**</b>	0.236
Registering property: procedures	<b>-3.337**</b>	-1.386
Registering property: time	-0.079	-0.063
Registering property: cost	<b>1.732**</b>	1.060
Enforcing contracts: procedures	<b>-0.729*</b>	-0.090
Enforcing contracts: time	-0.002	0.005
Enforcing contracts: cost	0.077	0.032
Closing business: time	1.475	-0.372
Closing business: cost	0.522	0.272
Closing business: recovery rate	1.135	0.527
<b>Private bank credit to GDP</b>		
Dealing with licences: procedures	-0.885	-0.585
Dealing with licences: time	-0.089	-0.084
Dealing with licences: cost	0.002	0.004
Getting credit: legal rights	3.443	5.122
Getting credit: credit information	0.229	0.555
Getting credit: public registries	0.675	0.530
Getting credit: private registries	<b>0.488**</b>	0.247
Registering property: procedures	-1.771	0.252
Registering property: time	-0.102	-0.070
Registering property: cost	<b>1.648*</b>	1.355
<b>Private credit to GDP</b>		
Enforcing contracts: procedures	-0.691	-0.031
Enforcing contracts: time	0.006	0.024
Enforcing contracts: cost	0.098	0.186
Closing business: time	1.533	-0.404
Closing business: cost	0.505	0.133
Closing business: recovery rate	<b>1.097**</b>	0.467



<b>Table 3.3 (cont'd)</b>		
<i>Left-hand side variables and Doing Business indicators</i>	<i>Regressions with one Doing Business indicator category included</i>	<i>Regressions with all relevant Doing Business indicators jointly entered</i>
<b>Construction to GDP</b>		
Registering property: procedures	0.162	
Registering property: time	0.008	
Registering property: cost	-0.007	
<b>Gross fixed capital formation to GDP</b>		
Dealing with licences: procedures	<b>-0.214**</b>	-0.171
Dealing with licences: time	-0.008	-0.011
Dealing with licences: cost	-0.001	-0.001
Getting credit: legal rights	0.143	-0.072
Getting credit: credit information	-0.461	-0.655
Getting credit: public registries	0.023	0.001
Getting credit: private registries	-0.027	-0.027
Registering property: procedures	0.204	0.018
Registering property: time	0.000	-0.005
Registering property: cost	-0.089	0.039
Enforcing contracts: procedures	<b>-0.104*</b>	-0.103
Enforcing contracts: time	0.000	0.001
Enforcing contracts: cost	-0.031	-0.021
Protecting investors: investor protection	-0.201	-0.035
<b>Gross private capital flows to GDP</b>		
Getting credit: legal rights	<b>13.920**</b>	<b>12.740**</b>
Enforcing contracts: procedures	-0.972	-0.391
Enforcing contracts: time	-0.025	-0.013
Enforcing contracts: cost	0.038	0.054
<b>Net foreign direct investments to GDP</b>		
Getting credit: legal rights	<b>1.037**</b>	<b>1.034**</b>
Enforcing contracts: procedures	-0.039	-0.012
Enforcing contracts: time	-0.002	-0.001
Enforcing contracts: cost	-0.016	-0.020
<b>Export to GDP</b>		
Trading across borders: documents export	-0.922	
Trading across borders: time export	0.082	
<b>Import to GDP</b>		
Trading across borders: documents import	-0.509	
Trading across borders: time import	-0.135	

<b>Table 3.3 (cont'd)</b>		
<i>Left-hand side variables and Doing Business indicators</i>	<i>Regressions with one Doing Business indicator category included</i>	<i>Regressions with all relevant Doing Business indicators jointly entered</i>
<b>Stock market capitalization to GDP</b>		
Protecting investors: disclosure	<b>7.579**</b>	
Protecting investors: director liability	<b>14.024**</b>	
Protecting investors: shareholder suits	-0.046	
Protecting investors: investor protection		<b>21.757**</b>
<b>Stock market turnover ratio</b>		
Protecting investors: disclosure	0.823	
Protecting investors: director liability	5.643	
Protecting investors: shareholder suits	-2.406	
Protecting investors: investor protection		3.417
<b>Size of informal economy</b>		
Starting business: procedures	<b>0.888*</b>	0.690
Starting business: time	-0.012	0.034
Starting business: cost	-0.028	-0.034
Employing workers: rigidity	0.059	0.087
Employing workers: non-wage cost	0.069	0.005
Employing workers: firing cost	0.002	-0.024
Enforcing contracts: procedures	0.049	-0.011
Enforcing contracts: time	0.004	0.003
Enforcing contracts: cost	-0.071	-0.089
<b>Size of informal economy</b>		
Employing workers: rigidity	0.069	
Employing workers: firing cost	0.016	

**Source:** Authors' calculations based on the World Bank's Doing Business survey 2003-2007.

The coefficients marked **bold** and with \* indicate statistical significance at 10 per cent level and with \*\* at 5 per cent significance level.

as measured by the stock market turnover ratio. Note that it is hard to argue that the causality of these statistically significant relationships runs from institutions to better credit and stock market development, as the development of these markets will have naturally created a need for better regulation. Other relationships appear even weaker. For example, there are no significant and predictably-signed associations with registering property indicators and construction, export and import with the trading across borders indicators, informal economy and starting business, employing workers and enforcing contracts and unemployment with employment

indicators. Investment is unrelated to most Doing Business indicators, while there is a weak association with procedures to deal with licences and enforcing contracts.

#### FIRM-LEVEL ANALYSIS

For this part of the analysis, information from the 2002 and 2005 rounds of the BEEPS is used.<sup>7</sup> The BEEPS is a stratified random sample of firms in 26 transition countries. Around 90 per cent of the BEEPS sample in both years comprised small and medium enterprises. Most firms had been privatized or were always private.<sup>8</sup> The 2002 round of the BEEPS surveyed over 6,100 firms while the 2005 round covered nearly 9,100 firms in the same countries. Table 3.4 provides some simple descriptive statistics. The average age of the firms in the sample was around 15 years. Average firm size in employment ranged between 105 and 143. The value of sales increased significantly between 2002 and 2005 although the average value of fixed assets declined in the same period. Changes in labour productivity were positive in both reference periods and of similar magnitudes. Exports also grew in both periods and comprised, on average, between 9-11 per cent of total sales. The lower part of Table 3.4 also reports the average scores and standard deviations for the constraints where 1 indicates no obstacle and 4 is a major obstacle. Each firm's top manager was asked to provide their perception of the constraints. Tax rates and administration, uncertainty about regulatory policies and the cost of financing were clearly viewed as important obstacles with scores in excess of 2.5. There is substantial variation in mean values across perceived constraints and the standard deviations are large in almost all instances.

To analyse the determinants of the efficiency with which the firms generate sales revenue from inputs, an augmented Cobb-Douglas revenue function is used:

$$\ln y_{it} = \beta_0 + \sum_k \beta_k \ln x_{it} + \rho Z_{it} + \delta I_{it} + \theta C + \zeta T_{it} + \varepsilon_{it} \quad (3.2)$$

where  $y_{it}$  represents the revenue of firm  $i$  in period  $t$ ,  $x$ s represent the capital and labour inputs,  $Z_{it}$  is a vector of the business environment and structural variables (business constraints, export orientation of the firm, extent of product market competition and firm ownership), the  $I$ s,  $C$ s and  $T$ s denote a set of dummy variables for industries, countries and years, respectively, and  $\varepsilon_{it}$  is an independently distributed error term. Equation (3.2) allows efficiency to vary across institutional and structural variables, industries, countries and time.

Table 3.4:  
Descriptive Statistics

	2002			2005		
	<i>Obs</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Obs</i>	<i>Mean</i>	<i>Std. Dev.</i>
<b>Panel A: Summary Statistics</b>						
Sales	4504	2290	10428	6665	3376	17503
Employment	6122	143	505	9097	105	364
Fixed Assets	3388	2384	33893	4637	1622	10582
Number of Competitors	6029	0.82	0.39	8479	0.82	0.39
Ownership [Privatization]	6153	0.15	0.36	9098	0.14	0.35
Ownership [New Private]	6153	0.55	0.50	9098	0.66	0.47
Ownership [State]	6153	0.14	0.35	9098	0.09	0.28
Ownership [Other]	6153	0.02	0.12	9098	0.01	0.09
Ownership [Foreign]	6153	0.14	0.35	9098	0.10	0.30
Exports as % of Sales	6055	11.16	25.05	9039	8.76	22.34
Workforce Ratio: University/ Secondary Education	5289	1.36	4.67	6930	1.24	3.83
Company Age	6153	14.70	18.70	9090	15.55	17.46
University/Secondary Education x Age	5289	19.47	114.49	6925	22.84	124.76
Permanent Employment 3 Years ago	6066	134.73	501.85	8967	101.51	405.07
Part-time Employment 3 Years ago	5872	6.96	44.21	8873	5.65	31.70
% change in Fixed Assets (3 year period)	5717	16.30	46.66	8787	11.90	32.17
% change in Exports (3 year period)	6026	5.44	33.76	9030	4.44	29.81
% change in Employment (3 year period)	6059	34.89	135.99	8967	30.30	133.53
% change in Sales (3 year period)	5832	21.69	62.74	8764	12.99	39.25
% change in Sales per Worker (3 year period)	5753	14.69	74.90	8645	12.35	89.17
<b>Panel B: Average constraints</b>						
Access to financing	5810	2.33	1.16	8647	2.26	1.14
Cost of financing	5864	2.53	1.13	8698	2.51	1.13
Tax rates	6060	2.76	1.11	8951	2.75	1.10
Tax administration	5953	2.54	1.14	8895	2.47	1.13
Customs/foreign trade regulations	5649	2.04	1.12	8267	1.91	1.07

Table 3.4 (cont'd)						
	2002			2005		
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
Business licensing & permit	5906	2.02	1.08	8776	1.98	1.04
Labour regulations	5946	1.74	0.94	8886	1.87	0.98
Uncertainty about regulatory policies	6000	2.85	1.09	8819	2.53	1.12
Macroeconomic instability	5998	2.76	1.11	8823	2.52	1.12
Functioning of the judiciary	5728	2.06	1.08	8417	2.06	1.10
Corruption	5713	2.24	1.16	8497	2.16	1.14
Street crime, theft & disorder	5857	1.96	1.07	8661	1.82	1.01
Organised crime mafia	5663	1.81	1.09	8394	1.64	0.97
Anti-competitive practices	5871	2.25	1.11	8739	2.30	1.11
Infrastructure	6122	1.54	0.70	9043	1.54	0.73
Average of all constraints	6134	2.24	0.67	9064	2.17	0.66

**Source:** Commander and Svejnar (2008).

When estimating (3.2), an obvious issue is how best to control for the potential endogeneity/selection issues related to some of the explanatory variables. To deal with this, an instrumental variables (IV) approach is used. For several key variables, lagged three-year differences can be used as instruments. For each year in each firm, there are also data on the number of workers with university and secondary education and the ratio of these two inputs (skill ratio) is also used as an instrument.<sup>9</sup> The use of a skill ratio relies on the exogeneity of the ratio of wages of the more and less educated workers at the firm-level, and on variation in this wage ratio across regions and countries.

Equation (3.2) is estimated in levels on the pooled 2002 and 2005 samples of firms containing between 5,624 and 5,897 observations. The IVs are the age and location of the firm, the skill ratio interacted with the three main regions covered by the data<sup>10</sup>, the skill ratio interacted with firm age and the three regions, a three-year lagged number of full time employees, the change in fixed assets in the preceding three years, and the change in the export share over the preceding three years. These variables have been used as instruments for the levels of the capital and labour inputs, categories of ownership and the export orientation of the firm. The IVs are found to be good predictors of all the potentially endogenous variables and pass the J (Sargan) over-identification test. The extent of competition in the firm's product market is viewed as exogenous to a given firm.

Finally, in order to assess the robustness of the results with respect to the business environment, an average value of each constraint is used. The average has been based on responses either by all other firms in a given industry in each country and year, or by all other firms of a given size in a given industry in each country and year. The standard errors of all estimates are clustered by year, country, industry and firm size.

Commander and Svejnar (2008) reports the full set of baseline IV estimates without the explanatory variables capturing the business environment constraints. They show that the labour and capital coefficients are both positive and statistically significant, and their sum approaches unity. The coefficients on both the privatized and new private firms are negative and, in the latter case, marginally significant in most specifications. By contrast, foreign ownership has a large and positive coefficient that is significant at the 1 per cent level. The positive effect of foreign ownership is maintained but the significance of the negative effect of new private ownership disappears when the export share and competition variables are entered. Interestingly, when controlling for ownership, the export share variable loses all significance. When most or all of the explanatory variables are entered simultaneously, competition has a small, positive and significant (at 10 per cent level) impact on performance, with foreign ownership exerting a strong and positive impact on performance as well. Being privatised or being a new private firm remains negatively signed but insignificant relative to State-owned firms. These augmented specifications also generate acceptable values of the J and F tests related to the selection of IVs in the first stage of estimation. The preferred (all-encompassing) specification signals the importance of foreign ownership and, to a lesser extent, competition on performance.

The next stage is to consider directly the impact of business environment constraints on firm performance. For each constraint, the average of responses of other firms in the same two-digit sector, firm size (small, medium and large), country and year are used. Most constraints are actually not highly correlated; for those that display high pair-wise correlation only one of constraint variables is entered. This leaves nine constraints whose effects are now analysed.

In keeping with much of the literature and despite the obvious omitted variable problem, the nine constraints are included in the performance regression, individually, as an average of all nine constraints and with all constraints entered together without country, year and sector fixed effects.<sup>11</sup> When entered individually, all except one of the constraints enter negatively

and most are significant at 1 per cent or 5 per cent levels. These specifications appear to replicate the conventional wisdom that the business/institutional environment matters. The regression with the average value of all nine constraints also yields a negative and statistically significant coefficient. When all the constraints are entered simultaneously in the IV estimation, the infrastructure and, to a lesser extent, tax rate and macro instability constraints remain negative and significant, but others lose significance or become positive and significant. Hence, correcting—at least in part—for the possible omitted variables problem, the negative effect of most business environment constraints on performance disappears.

Table 3.5 includes country, year and sector fixed effects whose omission may have biased the estimates.<sup>12</sup> But while most of the constraint terms entered individually retain their negative sign, only one—corruption—is significant. The effect of the average of all constraints is statistically insignificant, as are all the constraint coefficients when they are entered simultaneously. It is the country as well as country *cum* year fixed effects in particular that serve to knock out the significance of the individual constraints. Hence, controlling for country-wide differences in the “business environment”, the negative effects of most constraints disappear.

The analysis was extended by also looking at the possible impact that interactions of constraints might have on performance, in line with recent explorations in the literature (see, for example, Aghion and others, 2006). The intuition here is that, say, corruption may or may not have a direct impact itself, but may exert an effect through its association with other constraints related to government policies and regulations, such as the functioning of the judiciary, uncertainty about regulatory policies, labour regulations, business licensing, and tax administration and tax rates. However, neither when the interactions were entered one at a time, nor when all were entered simultaneously, were statistically significant results found.

One important result from the analysis is that country differences, presumably in the overall business environment, but also in other aspects, matter for firm performance while the within-country cross-firm differences do not. Closer inspection of the country fixed effects reveals that the rankings are not stable and have a number of unexpected features, suggesting that the country effects are also capturing other sources of heterogeneity. For these reasons, it is desirable to control for country effects as they capture many features of heterogeneity, rather than excluding them or attributing the cross-country heterogeneity to just a single factor, such as an aspect of the business environment.

**Table 3.5:**  
**Revenue Efficiency—Impact of Individual Constraints**

IV Estimation with Year, Country and Sector Fixed Effects											
	1	2	3	4	5	6	7	8	9	10	11
Log Employment	0.586 [0.190] <sup>c</sup>	0.590 [0.184] <sup>c</sup>	0.608 [0.177] <sup>c</sup>	0.604 [0.184] <sup>c</sup>	0.541 [0.192] <sup>c</sup>	0.512 [0.195] <sup>c</sup>	0.540 [0.201] <sup>c</sup>	0.605 [0.182] <sup>c</sup>	0.585 [0.183] <sup>c</sup>	0.592 [0.185] <sup>c</sup>	0.458 [0.221] <sup>c</sup>
Log Fixed Assets	0.369 [0.204] <sup>a</sup>	0.367 [0.195] <sup>a</sup>	0.349 [0.187] <sup>a</sup>	0.361 [0.191] <sup>a</sup>	0.422 [0.201] <sup>b</sup>	0.462 [0.201] <sup>b</sup>	0.397 [0.216] <sup>a</sup>	0.341 [0.198] <sup>a</sup>	0.368 [0.195] <sup>a</sup>	0.365 [0.197] <sup>a</sup>	0.511 [0.228] <sup>b</sup>
Ownership [Privatized]	-0.237 [0.387]	-0.422 [0.426]	-0.411 [0.422]	-0.407 [0.440]	-0.379 [0.469]	-0.337 [0.486]	-0.414 [0.444]	-0.413 [0.406]	-0.446 [0.429]	-0.306 [0.375]	-0.327 [0.527]
Ownership [New Private]	-0.489 [0.273] <sup>a</sup>	-0.530 [0.261] <sup>b</sup>	0.518 [0.256] <sup>b</sup>	0.493 [0.263] <sup>a</sup>	-0.496 [0.276] <sup>a</sup>	0.448 [0.272] <sup>a</sup>	-0.597 [0.275] <sup>b</sup>	-0.517 [0.257] <sup>b</sup>	0.604 [0.184] <sup>c</sup>	0.604 [0.184] <sup>c</sup>	0.604 [0.184] <sup>c</sup>
Ownership [Foreign]	1.765 [0.516] <sup>c</sup>	1.577 [0.538] <sup>c</sup>	1.560 [0.526] <sup>c</sup>	1.479 [0.520] <sup>c</sup>	1.514 [0.571] <sup>c</sup>	1.504 [0.596] <sup>b</sup>	1.644 [0.545] <sup>c</sup>	1.591 [0.502] <sup>c</sup>	0.361 [0.191] <sup>a</sup>	0.361 [0.191] <sup>a</sup>	0.361 [0.191] <sup>a</sup>
Log (1 + Export / Sales)	-0.385 [0.528]	-0.250 [0.543]	0.237 [0.534]	0.146 [0.531]	-0.219 [0.568]	-0.116 [0.561]	-0.167 [0.565]	-0.103 [0.504]	0.361 [0.191] <sup>a</sup>	0.361 [0.191] <sup>a</sup>	0.361 [0.191] <sup>a</sup>
More than 3 Competitors	0.091 [0.051] <sup>a</sup>	0.092 [0.151] <sup>a</sup>	0.094 [0.050] <sup>a</sup>	0.090 [0.052] <sup>a</sup>	0.096 [0.052] <sup>a</sup>	0.099 [0.052] <sup>a</sup>	0.117 [0.055] <sup>b</sup>	0.092 [0.049] <sup>a</sup>	0.096 [0.051] <sup>a</sup>	0.090 [0.051] <sup>a</sup>	0.118 [0.059] <sup>b</sup>
Cost of Financing	0.009 [0.032]										-0.024 [0.066]
Infrastructure		-0.035 [0.049]									-0.002 [0.043]
Tax Rates			0.019 [0.031]								-0.069 [0.047]
Customs/Foreign Trade Regulations				-0.002 [0.032] <sup>c</sup>							-0.072 [-0.072]
Business Licensing & Permits					-0.056 [0.037]						-0.046 [0.004]
Macroeconomic Instability						-0.012 [0.037]					0.004 [0.043]
Corruption							-0.0062 [0.035]				-0.053 [0.050]



Table 3.5 (cont'd)											
	1	2	3	4	5	6	7	8	9	10	11
Street Crime, Theft & Disorder								-0.053 [0.035]			0.015 [0.059]
Anti-competitive Practices									-0.034 [0.041]		-0.054 [0.053]
Average of all Constraints										-0.055 [0.055]	
Constant	1.470 [0.436] <sup>c</sup>	1.585 [0.388] <sup>c</sup>	1.601 [0.404] <sup>c</sup>	1.482 [0.392] <sup>c</sup>	1.559 [0.402] <sup>c</sup>	1.373 [0.402] <sup>c</sup>	1.742 [0.436] <sup>c</sup>	1.680 [0.436] <sup>c</sup>	1.603 [0.374] <sup>c</sup>	1.616 [0.402] <sup>c</sup>	1.481 [0.0453] <sup>c</sup>
Observations	4992	5121	5091	4741	4968	5059	4843	4938	4981	5127	4305
J-Test p-value	0.95 0.325	0.76 0.385	0.71 0.399	0.34 0.560	0.59 0.444	0.68 0.409	0.90 0.342	0.45 0.501	0.79 0.374	0.95 0.331	0.79 0.373
First stage F-tests											
Log Employment	88.55	93.33	93.98	85.51	92.10	93.40	91.99	89.96	91.48	93.75	78.81
Log Assets	35.66	38.42	37.92	34.58	37.45	37.77	36.53	36.35	37.79	38.27	29.71
Ownership [Privatized]	18.39	18.74	18.61	17.86	18.67	18.38	18.52	19.02	20.67	18.69	17.86
Ownership [New Private]	56.54	58.75	59.08	54.54	58.58	59.26	57.07	56.92	58.21	59.27	49.83
Ownership [Foreign]	9.83	10.16	10.19	9.86	10.13	9.89	9.72	9.79	10.02	10.24	8.83
Log (1 + Export / Sales)	15.03	15.59	15.52	14.57	15.08	14.79	14.00	14.32	15.10	15.31	12.55
Durbin-Wu-Hausman Test p-value	8.89 0.000	9.78 0.000	9.40 0.000	9.55 0.000	9.59 0.000	9.63 0.000	10.85 0.000	10.41 0.000	10.11 0.000	9.36 0.000	9.78 0.000

**Source:** Commander and Svejnar (2008).

**Note:** All models were estimated using IVs for Log Employment, Log Assets, Log (1 + Export/Sales) and three Ownership Dummies. The IVs are: Firm's age, skill ratio (college/high school), skill ratio—age interaction, location (city), % change in fixed assets in previous period, % change in exports in previous period, full time employees in previous period. The skill ratio and the skill ratio—age interaction were also interacted with regional (CEB, SEE and CIS) dummies. The constraint variables at the firm level represent the average of the constraint reported by the other firms in the same year, country, 2-digit sector classification and firm size (small, medium, large). The average of all constraints is based on all 15 constraints in the BEEPS survey.

Robust standard errors, clustered by year, country, industry and firm size (small, medium and large) in brackets

**a** significant at 10%; **b** significant at 5%; **c** significant at 1%.

In view of the findings based on manager perceptions of the business environment, it is interesting to ask whether other measures of the business environment produce similar results. To this end, the firm-level data were also merged with the Doing Business indicators that have been used in the first part of this chapter.<sup>13</sup> When entering the Doing Business indicators individually into the IV regressions in a specification with country, industry and year fixed effects, only four of the twelve indicators generated the expected negative coefficients. In the IV regressions without fixed effects, only two of the twelve indicators had negative effects. Moreover, the indicators with the negative coefficients were not the same ones across specifications. In other words, widely used country-level indicators of the business/institutional environment do not provide strong evidence of a negative relationship between the constraining environment and firm performance.

#### MEASURES OF THE BUSINESS ENVIRONMENT AND POLICY

It has been claimed that indicators of the business environment, such as Doing Business, allow countries to sort out reform priorities and act on them. It has also been suggested that benchmarking to other countries helps motivate reform. Indeed, while our analysis has raised a set of questions concerning the ability of country level indicators to measure institutional frictions and their impact on economic performance, it can still be argued that collecting these indicators can be helpful in giving countries further incentives to improve their institutions, especially in the absence of better measures.

Table 3.6 summarizes the direction of the policy changes in countries in the period from 2003 to 2006. The numbers reported are the percentage of countries in a country group where a particular Doing Business indicator has improved in the reference period. First, all the indicators have improved in a substantial proportion of countries in all regions. Negative changes are significantly less frequent. Only in the cases of rigidity in employing workers and the time to close a business have these indicators worsened in a number of countries. Second, the improvements have been most frequent in lower-middle income countries.

An obvious issue concerns the consistency of changes within and between indicators. Table 3.7 looks at changes for two sets of Doing Business indicators—enforcing contracts and starting a business—and finds that countries that reform improve on both time and procedure counts. The only case where the time has decreased while the number of procedures has increased is Kenya. Furthermore, given the potential linkages between starting business and enforcing contracts, the reduction in time has occurred

Table 3.6:  
Share of countries where Doing Business indicators have improved or worsened

	<i>Starting business</i>		<i>Employing workers</i>	<i>Enforcing contracts</i>		<i>Closing business</i>
	<i>Procedures</i>	<i>Time</i>	<i>Rigidity index</i>	<i>Procedures</i>	<i>Time</i>	<i>Time</i>
<b>All</b>						
Improved	32	57	53	8	22	5
Worsened	1	1	16	0	0	9
<b>High income</b>						
Improved	23	47	53	0	13	3
Worsened	0	0	10	0	0	13
<b>Upper-middle</b>						
Improved	36	50	41	9	18	0
Worsened	0	0	27	0	0	9
<b>Lower-middle</b>						
Improved	41	73	61	15	34	7
Worsened	0	2	15	0	0	10
<b>Low income</b>						
Improved	26	53	50	5	18	9
Worsened	3	0	13	0	0	6

**Source:** Authors' calculations based on the World Bank Doing Business Survey 2003-2007.

Table 3.7:  
Share of countries where Doing Business indicators have improved or worsened

	<i>Starting business</i>			<i>Enforcing contracts</i>		
	<i>Both improved</i>	<i>Both worsened</i>	<i>Opposite change</i>	<i>Both improved</i>	<i>Both worsened</i>	<i>Opposite change</i>
All	31	0	1	8	0	0
High income	23	0	0	0	0	0
Upper-middle	32	0	0	9	0	0
Lower-middle	39	0	0	15	0	0
Low income	26	0	3	5	0	0

**Source:** Authors' calculations based on the World Bank Doing Business Survey 2003-2007.

simultaneously in 16 per cent of cases for the overall sample, in 10 per cent of cases for the high income countries, 9 per cent for upper-middle, 32 per cent for lower-middle and 16 per cent for low income countries.

Improvements of institutions in less developed countries could of course be explained by the fact that potential for improvement in these countries is higher. As the indicators lack an adequate time dimension and the impact of improvements could be expected to come with a lag, it is difficult, if not impossible, to analyse the relationship between any of these apparent improvements and economic performance.<sup>14</sup> It is, of course, possible—despite the lack of cross-sectional correlation between income per capita and several Doing Business indicators—that these improvements will have an effect on future economic performance.

It is also hard to analyse whether—and to what extent—these improvements have been triggered by the incentives created by publishing the Doing Business indicators. In addition to being potentially driven by the endogenous choice of local policymakers, these improvements could also be due to other factors, such as the introduction or development of new technology. For example, switching to use of computers could allow a reduction in time, and possibly procedures, required for any regulatory process without any underlying changes in policy.

From a policy perspective, measures of the business environment, such as Doing Business, could have several advantages. The measures are generally quite specific and understandable—as for example, reducing the “number of procedures required to start a business”—compared to improving a broader measure, such as an index of regulatory quality. Yet, there are also a number of concerns regarding the use of country rankings to identify reform priorities.

First, with any measure in a cross-country ranking, it is questionable whether a bad ranking really means a particular institution being bad in absolute terms. Suppose that in most countries, the time and procedures to pay taxes is not an important obstacle. This should not imply that being ranked badly in this category will make improving this particular institution a main priority. While clearly a hard task, identifying a “desirable level” of time and procedures in this category would be more helpful.

Second, there are further concerns about which institutions are more important. As discussed by Marimon and Quadrini (2006), start-up costs may be a more important obstacle than enforcing contracts. So even if a country scores relatively poorly in the latter, the former should remain a priority. Yet, promoting the reduction in start-up costs and foreign entry in a country that is far from a technological frontier could actually be harmful

for technology adoption (Aghion and others, 2006). An even bigger risk is that by overlooking potential non-monotonic relationships, a particular reform could even have a negative impact on performance if pursued in the wrong context. This suggests that more detailed analysis of country specific conditions will be important before giving priority to a particular reform.

Third, some Doing Business indicators clearly depend on a country's location. As trade is always bilateral, improving the institutions to trade across borders is likely to have a more substantial effect if its trading partners have developed or are developing their institutions as well. This suggests that such reforms could be more beneficial if implemented in several countries simultaneously. Furthermore, local policy makers are likely to have incentives to improve their institutions for trade, if the country has a large share of foreign trade in their GDP rather than because they rank low in the Doing Business indicators. A similar argument applies for protecting investors. This indicator is important only if a country has achieved some development of its financial markets. This in turn could again depend on the willingness of international investors to invest in a particular country. This is likely to be affected by exogenous factors like a country's proximity to developed countries or even the size of the country.

Fourth, setting priorities in reform requires a clear sense of the underlying objective. As we have shown, the Doing Business indicators could be expected to influence growth but also a set of intermediate outcomes. As such, it is not very obvious how to get a sense of where actual priority reforms lie. In this regard, the Doing Business indicators offer a type of laundry list of reforms relatively loosely connected by the underlying supposition that the creation and growth of businesses is good for a country's performance. But, as Hausmann and others (2005) have pointed out, eliminating all distortions is rarely, if ever, feasible while partial reforms may have consequences that are unintended and, in some instances, adverse. While they argue that emphasis should be placed on targeting the most binding constraints, for this to be plausible requires identifying not only the desired outcome variable—namely, growth—but also the constraints. This is, of course, a challenging task on both empirical and policy grounds. Even so, our more general point that the Doing Business indicators and rankings have no coherent way of organizing priorities—and that the assumption that change in any indicator will always be beneficial—remains a valid critique.

Finally, if there are inconsistencies between different indicators of the business environment—as indicated above—due to problems of measurement, the potential for policy mistakes when trying to identify reform priorities will be even higher.

## CONCLUSION

This chapter addresses an important issue: the part played by the business environment in explaining the performance of countries and firms. In recent years, it has become common to attribute a great deal to the business environment where “bad” business environments—as measured by the extent of regulation or corruption—are argued to have a measurably adverse impact on performance. To explore whether this is warranted, the chapter used two types of datasets relating to countries and firms.

The first part of the chapter looked explicitly at whether country-level indicators of the business environment helped explain performance. It was not possible to find any evidence that the Doing Business indicators—an example of widely used country-level measures—were robustly related to GDP growth, although there was some limited correlation between the indicators and intermediate outcomes at an aggregate level.

Firm-level data using the BEEPS were then analysed with a view to understanding the effects on performance of a firm’s ownership of various factors, including the business environment. To minimize problems of endogeneity, instrumental variables were used, as well as the average values of perceived constraints. The impact of the business environment variables was found, however, to be very limited. Few variables retained any explanatory power once entered simultaneously rather than singly or once country, year and sector-fixed effects were introduced. The analysis showed that country effects—but not business environment constraints—mattered for performance. However, these country effects are clearly capturing other sources of cross-country heterogeneity, rather than a single factor, such as the institutional environment.

Finally, the chapter looked at whether measures of the business environment should be used to motivate and design policy. While it appears that there are some clear advantages from easily understandable indicators, including the ability to benchmark to other countries, it is not obvious how this should affect the ordering of reform priorities or the particular weights that should be attached to specific policy actions.

## NOTES

- 1 For example, Djankov and others (2006) argue that when using a simple average of country rankings from “Doing Business” as an aggregate measure of the business environment, an improvement in a country’s indicators from being in the lowest quartile to the best would imply a 2.3 per cent improvement in annual growth.
- 2 The dataset is collected by EBRD and the World Bank and has had three rounds, 1999, 2002 and 2005. A fourth round was completed in 2008.
- 3 Sections 2 and 3 draw extensively on Commander and Tinn (2008).
- 4 Starting a business, employment regulation, enforcing contracts, getting credit and closing a business.
- 5 For example, Djankov and others (2006) using a simple average of country rankings argue that an improvement in a country’s indicators from being in the lowest quartile to being in the top quartile would imply around a 2.3 per cent improvement in annual growth.
- 6 The positive relationship between credit and growth is supported by a large theoretical and empirical literature (see Levine (2004) for a literature review in this area).
- 7 This section is drawn from Commander and Svejnar (2008) which provides a more detailed analysis.
- 8 Quota sampling was used for foreign-owned and State-owned companies and set at 10 per cent of the total sample for each category. The distribution between manufacturing and service sectors was according to their relative contribution to GDP in each country. Firms subject to government price regulation and prudential supervision were excluded, as were firms with 10,000 employees or more, as well as firms that started operations in 2002-2004.
- 9 The rationale for this instrument comes from an assumed exogeneity of input prices (wages); see Marschak and Andrews (1944).
- 10 The regions are (a) Central Europe and the Baltics, (b) the Commonwealth of Independent States (CIS), and (c) South-Eastern Europe.
- 11 See Commander and Svejnar (2008) for full results. Note that this model appears to be misspecified compared to one that includes these fixed effects as the labour coefficient is small and insignificant, and the p values on the J test are very small.
- 12 The significance of the coefficients on inputs, ownership, exports and competition correspond to those in the base estimations.
- 13 These are: the number of procedures to register a business, time to register a business, cost of registering a business, rigidity of employment regulations, restrictions on firing workers, cost of firing a worker, number of procedures to enforce a contract payment after default, time to enforce a contract payment after default, cost of enforcing a contract payment after default, time to effectuate bankruptcy, cost of effectuating bankruptcy, and recovery rate in a bankruptcy.
- 14 An attempt is made in Eifert (2007) using four data points, 2003-2006. However, the lack of an adequate temporal dimension makes drawing conclusions very problematic.

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## Chapter 4

# International trade and economic diversification: Patterns and policies in the transition economies

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### INTRODUCTION

Two groups of transition economies are the focus of this chapter. The first is the group of Central and Eastern European economies which have joined the European Union (EU) in 2004 and 2007 and which are often referred to as the new member States (NMS)<sup>2</sup> and the second group is comprised of the follower countries of the Soviet Union, except the Baltic States, also known as the group of newly independent States (NIS).<sup>3</sup>

Many studies have pointed out important differences between the economic development of these two groups of countries since the fall of the Iron Curtain and the beginnings of their transition to become market economies:

- The NMS had, from the beginning of their transition, a perspective of full membership of the EU. This perspective had an enormous impact upon their development. The NIS countries did not have such a perspective.
- The economic reforms which initiated the transition towards a market economy started earlier and were more consistently implemented in the NMS; from the mid- to late-1990s these were pushed along by the requirements of the economic conditions of the Copenhagen criteria (which have to be fulfilled to acquire candidate status for EU membership) and then the requirement to take over the *Acquis Communautaire*. In contrast, the economic reform processes in the NIS proceeded in fits and starts and showed distortionary features linked to the political-economic structures which developed in the various countries.
- All countries of transition underwent a phase of “de-industrialization” in the initial phase of transition, as the heavy emphasis on industry under

the socialist system gave way to the development of the tertiary sector and the interlinked specialization structures of the CMEA (Council for Mutual Economic Assistance) broke apart. However, in the NIS countries, the process of de-industrialization went much deeper and was much more prolonged (similar to the countries of South-Eastern Europe) while industry recovered in the NMS from the mid-1990s onwards and they then became—in parts—popular locations for multinational investment.

- Trade structures between the NMS and the NIS already differed in the early 1990s and these structures diverged further strongly after that.

The plan for this chapter is as follows: in the following two sections the differences between NMS and NIS are discussed in terms of the impact of the EU accession anchorage and the continuity and direction of economic reform processes insofar as these two features have an impact upon the development of production and specialization structures. In the third section, the differences in trade patterns between the two groups of economies (market orientation, export specialization and degree of concentration on principal export products, as well as other features of trade specialization) are analysed in detail. The fourth section refers to differences in trade patterns of the NIS with respect to intra-NIS trade, trade with the EU and trade with the rest of the world. Section five picks up the topic of (or lack of) trade diversification and patterns of economic development, and the final section discusses possible scenarios which could also be targeted by means of policy strategies.

## “LES GRANDES DIFFÉRENCES” BETWEEN THE NMS AND NIS

### *Relationship to the European integration process:*

From the beginning of the transition processes in the Central and Eastern European countries (CEECs, that is to say, the countries which later became the NMS) it was clear that there would be an EU accession perspective for these economies. The timetable for such an accession was not clear for a long time, as well as which groups of countries would join when. But that there was a perspective for accession was in no doubt given the strong incentive felt both by the EU-15 and the CEECs that the division within Europe created by the Iron Curtain should be overcome.

To extend the accession perspective beyond that to the NIS countries was a more complex issue: on the one hand, there was the issue of

“Enlargement overreach” which meant that the European Union could not—mostly for reasons of popular perceptions which got translated into the political process—manage to expand by more than a certain number of new members.<sup>4</sup> On the other hand, there was the issue of whether the NIS countries were themselves prepared to move in the direction of an EU accession perspective. It was (and still is) clear that there is considerable heterogeneity amongst the NIS with regard to their aiming towards EU accession or even a closer relationship with the EU: on the one hand, there are Georgia, Republic of Moldova and Ukraine which strive towards an EU accession perspective but it became clear that the EU was not in a state to offer full EU membership for the foreseeable future; on the other hand, there are the Caucasian and Central Asian economies and, of course, the Russian Federation for which the issue has not even been raised and which are the subject of much looser partnership or neighbourhood policy agreements. These arrangements exert a very different influence on institutional and economic structural integration and convergence processes than does a full membership perspective; we shall return to this below.

Given the two factors, enlargement overstretch from the EU’s side and lack of political will of or vis-à-vis the NIS countries, it was clear that an EU accession perspective did not provide for the NIS economies the same type of “international integration anchor” it provided for the CEECs.

The EU accession perspective is a very particular international integration anchor: it is characterized by what the literature calls “deep integration”, that is to say, a very strong commitment towards institutional integration, as becoming an EU member means the takeover of a large amount of legislative and institutional rules and regulations which deeply shape the institutional and behavioural landscape of a country. And, of course, it asks, albeit with some transition arrangements, for the full integration of product, capital and labour markets and imposes strong rules with respect to the conduct of macroeconomic policy (these strengthen over time as new incoming members are all obliged to also adopt an EMU membership perspective).

The EU accession perspective is not only important for the country in that it shapes people’s expectations and behavioural adjustments within the country, but also, crucially, because it shapes perceptions of important international actors which are relevant for the country’s economic destiny. In particular, trading partners and (actual and potential) investors are strongly affected by an EU accession perspective.

Institutions and behaviour of economic agents will be influenced by the presence or absence of an “EU accession anchor” and this in turn may affect a country’s development pattern with regard to production and trade

specialization. International trade and investment links across countries are based on contractual relationships apart from the economic incentives which drive such links. For certain types of transactions, the economic incentives are so great that even weaknesses in contractual foundations of such links do not deter a high level of such international transactions. For other transactions, where easier substitution possibilities exist or for which the nature of the contractual arrangement is more important, it will strongly affect the volume of such transactions. It is easy to see that these two factors can explain that certain transactions will be much more affected by the type of “institutional anchorage” which EU accession (or an expectation of EU accession) will provide than other transactions. For example, substitution possibilities are lower if a country exports some rare commodity (such as oil, gas, rare metals, uranium, etc.) as compared to other commodities which can be supplied by many producers and where often small relative price or quality differences decide on demand. Further, transactions which have to rely more strongly on the assurance of ownership rights (such as foreign direct investment or activities which rely more on intellectual property rights) will be more affected by contractual transparency and guarantees for stability of such rights. We shall argue that this perspective can provide a powerful approach why institutional developments in one or the other direction, either through international mechanisms of institutional anchorage (EU accession perspective) or through domestic reform constellations, can affect strongly the developing patterns of international trade specialization and those of international investment flows.

### *Foreign direct investment and the speed and quality of reforms*

It is clear that by many indicators the reform paths of the NMS and the NIS have not only been different in timing but also in quality, that is to say, one cannot simply say that the NIS are traversing the same reform path of the NMS only with a time lag of, say, 5 or 8 years. (A lot of evidence on this has been compiled in the paper by Ferto and Soos, 2008.)

Havrylyshyn (2008) presents a table using the EBRD Transition Progress Indices for the different groups of transition economies which is reproduced here (see Table 4.1). He separates two types of indices measuring the progress of transition (LIB and INST)<sup>5</sup> and he also distinguishes two groups of NIS economies (the NISL which include Belarus, Turkmenistan and Uzbekistan, and the NISM which include the rest; where NISL stands for NIS countries with limited reforms and NISM for those with moderate reforms).

Table 4.1:  
EBRD Transition Progress Index for Liberalization (LIB) and Institutions (INST)

	LIB			INST		
	1994	1999	2005	1994	1999	2005
Central Europe	3.7	4.2	4.3	2.7	3.1	3.3
Baltic States	3.7	4.1	4.3	2.3	2.9	3.2
South-Eastern Europe	3.0	4.0	4.1	1.7	2.2	2.5
NISM	2.2	3.7	3.9	1.4	2.1	2.2
NISL	1.9	2.0	2.3	1.4	1.6	1.5

**Source:** Havrylyshyn (2008) based on EBRD Transition Reports (various years).

**Note:** LIB is the average of indicators EBRD describes as “first phase”-price, trade, forex and small-scale privatization; INST is the average of other EBRD indicators. The distinction is analysed in the 2002 Report. The EBRD indicators range from 1.0 (when representing central planning conditions) to 4.3 (when considered a fully-functioning market economy). NISL is comprised of NIS countries with very limited reform progress, which include Belarus, Turkmenistan and Uzbekistan, and NISM those with moderate reforms and consist of all the other NIS countries.

Furthermore, in papers written for the INDEUNIS project,<sup>6</sup> detailed country-level analyses attempted to show the relationship between lagging reforms and the pattern and speed of structural change. From Table 4.1 we can see that transition economies achieve rather quickly high values of the LIB indicator, while there can be a sustained gap remaining between the fast-reforming economies and the slow-reforming economies with respect to the INST indicator.

Returning once more to the argument that institutional anchorage and reliability and transparency of contracts might affect patterns of international specialization, let us refer to the volume and (sectoral) pattern of foreign direct investment (FDI) inflows.

Table 4.2 gives some information about FDI inflows (per capita) into various NMS and NIS countries. We can see that the inflows have been much lower in the depicted NIS than the NMS. Of course, GDP per capita is also lower in the NIS, but even accounting for that, the FDI flows are significantly lower than in the NMS. Given that many studies (see for example, Hunya, 2008) have shown that FDI played a vital role in the structural change and upgrading processes, and also in the re-industrialization processes of the NMS; furthermore, that they shape significantly the productivity growth and exporting activity in the NMS, we can deduce that the lower level of FDI inflows is one of the significant factors explaining the differences in export composition and export growth between the NIS and the NMS.

Table 4.2:  
FDI inflow per capita

In Euros										
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>NMS</b>										
Czech Republic	322	577	526	616	884	183	393	916	467	646
Estonia	369	207	310	442	226	607	574	1675	998	1353
Hungary	291	303	293	430	313	186	359	611	538	403
Latvia	132	136	188	62	115	116	222	247	580	698
Lithuania	232	130	118	143	222	46	181	242	427	418
Poland	147	177	270	167	114	106	274	218	399	337
Slovakia	117	74	387	329	817	356	454	362	617	388
Slovenia	98	50	75	207	863	135	333	236	255	531
<b>CIS</b>										
Azerbaijan	115	60	17	31	180	353	344	161	-56	-410
Armenia	61	35	35	24	36	33	62	60	112	140
Belarus	18	41	13	11	26	15	13	25	29	133
Georgia	53	17	32	28	39	68	92	83	192	273
Kazakhstan	68	100	93	213	184	124	223	105	324	483
Kyrgyzstan	20	9	-1	1	1	8	28	7	28	29
Republic of Moldova	18	10	38	32	25	18	34	44	54	94
Russian Federation	16	21	20	21	25	49	86	72	181	69
Tajikistan	.	.	.	.	6	4	33	6	39	41
Turkmenistan	.	.	.	.	16	14	44	52	90	.
Ukraine	13	9	13	18	15	26	29	134	96	156
Uzbekistan	.	.	.	.	3	2	6	3	6	7

**Source:** WIIW Database on Foreign Direct Investment (2008); IMF, World Investment Report.

**Note:** Negative numbers in this table can occur in case of credit flows.

Hence, FDI flows (with some exceptions) were rather low in the NIS as compared to the NMS countries. We would argue that trust in contractual agreements (supported either through an anchorage in domestic sustained reform processes and/or in international institutional structures such as the EU or the World Trade Organization (WTO)) can be an important explanatory factor to account for differences in FDI flows to particular countries. Furthermore, we would also claim that the pattern of FDI across sectors will be affected by such institutional characteristics. The argument here relies again on the degree of substitutability of one international location of international investment compared to another with regard to

various location characteristics and in relation to the particular type of activity or industry. Location-type characteristics not only include factors such as size of the market, geographic position and infrastructure affecting the ease of international production linkages and market access, but also, quite prominently, the reliability of contractual relationships. The degree of location-type substitutability is influenced by all of these location-type characteristics as well as the features of the industries or sectors in question, in particular whether they rely on scarce natural resource inputs and other inputs which have to be provided locally (qualifications of the work force, supplier networks, etc.). As the substitutability issue of particular industries depends *inter alia* on the availability of scarce natural resource inputs (which reduces *ceteris paribus* the location-type substitutability of resource-based industries as compared to other types of industries) we can easily see that the sectoral pattern of FDI will be affected by the institutional factors emphasized above and the availability of natural resources. Once the sectoral pattern of FDI gets determined through this interaction, FDI itself deepens and entrenches certain specialization patterns (through the learning effects it induces in the sectors which attract FDI as well as the build-up of supplier networks and the lack of such learning effects in other sectors which are ignored by foreign investors).

There are, of course, other factors which play a role in the rather small presence of FDI in NIS countries: the longer period it took to recover from the initial transition crisis, the lower levels of income which restrict the market for more sophisticated consumer goods (in which multinational corporations (MNCs) have a comparative advantage), the protracted period of de-industrialization which in turn restricts the market for sophisticated intermediate inputs and machinery, etc.

Nonetheless, we do observe that there are FDI inflows into these markets for a number of reasons: first, FDI is forward-looking and hence investors are interested not only in the current market size but also in the “market potential” (of the domestic market but also of the “regional markets” which can be supplied from this base), that is to say, future market growth. Second, location advantages and disadvantages of international production facilities change over time: for example, it is quite clear that the CEECs have become less attractive as locations for highly labour-intensive activities seeking the advantage of low-wage costs. Third, there is a typical pattern across all transition economies of foreign investors plugging important gaps in the supply structures of these economies: such gaps are particularly evident in areas of services provision (particularly business and financial services) and



also in certain activities in which technological knowledge is vital to provide the types of (internationally-standardized) services which consumers demand (such as in telecommunications). All these are areas where the ability of domestic producers to compete with international firms is rather low and hence international suppliers or multinationals traditionally reap rather high profits.

Amongst other issues related to the difference in the reform processes in the NMS and the NIS, the “political economy of resource rich countries” has been well-researched. Rent seeking and rent absorption by political elites is much easier when control over a natural resource base can be obtained than is the case with other types of economic activities. Of course, there could also be forms of non-market control which would matter in other types of activities: for example, privileged access to import licences or to scarce foreign exchange or to public procurement contracts. But all these routes of rent-seeking get challenged when there is a general move towards a higher degree of market liberalization, the build-up of foreign exchange reserves and in the wake of trade liberalization which has been happening in all transition economies. However, even in such circumstances, the possibility to control raw material sites and differentiated access to scarce infrastructure (pipelines, transport routes, etc.) remains. Hence, the sheer existence of a rich raw material resource base allows an elite to keep control over an important area in which rent-seeking and rent absorption can persist even under conditions of international liberalization. The “resource curse” in transition economies derives mostly from this source and not so much from the Dutch Disease phenomenon which have been judged by Roland (2002) as being less of an issue in the case of the Russian Federation.<sup>7</sup>

### *Differences in economic and trading structures*

Notwithstanding the heterogeneity within each group of countries, it is clear that there were already important differences in economic structure between the NMS and the NIS at the starting point of the transition in 1989 and the general assessment is that such differences have grown rather than diminished over time.

Figures 4.1a-b show the developments in GDP and in industrial production from 1989/90 in the NMS and NIS economies. It is clear that GDP recovered earlier and industrial production was less severely affected by the “transformational recessions” and follow-up crises in the NMS as compared to the NIS economies. Particularly the contraction of industrial

Figure 4.1a:  
Gross domestic product at constant prices

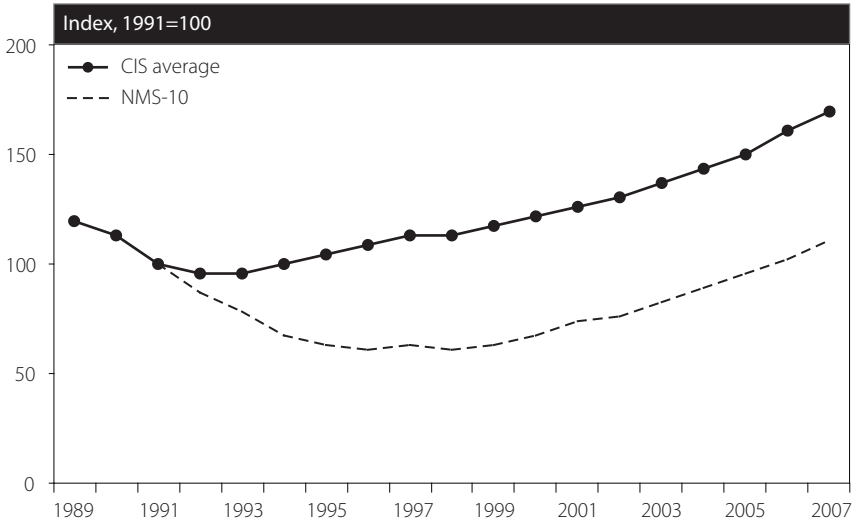
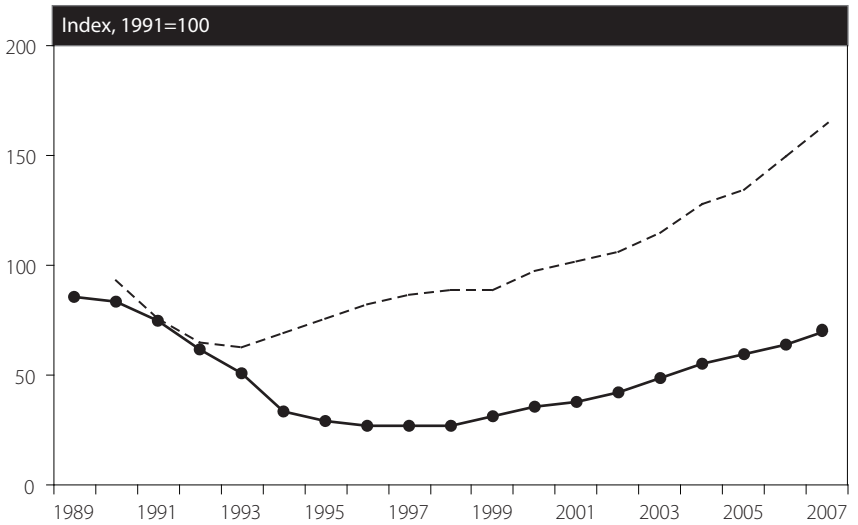


Figure 4.1b:  
Trends in industrial production



Source: WIIW and Interstate Statistical Committee of the CIS.

Note: 1989-1990 refers to national income of the USSR.

production (a similar phenomenon could be observed in the Western Balkan region which went through a conflict period following the disintegration of the former Yugoslavia) has had long lasting—and some might say “irreversible”—effects on the longer-run structure of production and trade specialization. The impact of the turbulent phases of the disintegration of the Soviet Union together with the much more drawn-out (and less completed) process of market reform has left its mark on production and trading structures of the NIS economies even once they embarked on a phase of recovery from about 2000 onwards. We should keep in mind the legacy of this deep process of “deindustrialization” together with the lower levels of FDI activity in the NIS when we examine the differences in the structures of trade specialization between the NMS and the NIS economies in the following.<sup>8</sup> Most of the NMS countries, on the other hand, went through a significant process of “reindustrialization” from the mid-1990s leading to a level of industrial production and a rather diversified picture of industrial production which substantially exceeded that before transition. Some of the NMS economies are now considered important industrial production locations within the intra-European division of labour.

#### *Market orientation*

In characterizing trade specialization of NMS and NIS economies, we should start with indicating the significant differences in market orientation. As is well known, the NMS economies are heavily oriented in their trade links (both exports and imports) towards the European Union markets. Table 4.3 shows that the NMS (except for the Baltic States) sell between 50 and 70 per cent of their exports to the EU-15 and another 10 to 25 per cent to NMS, and only about 15 to 35 per cent to the rest of the world (including the NIS). Hence the NMS are, in their trade orientation, very strongly oriented towards the EU market which dominates their exporting activity and this affects the overall composition of production of tradable activities of these highly open and small market economies. There is also a high degree of intra-industry trade which characterizes trade of the NMS with the other EU member countries and which has been well documented in the literature (see, for example, Landesmann and Woerz, 2006). In contrast, the NIS are selling between 15 and 55 per cent to the enlarged EU-25 and a higher percentage to other markets (between 10 and 50 per cent to other NIS markets and between 15 per cent and 50 per cent to the rest of the world: the export structure of the NIS is hence relatively balanced between these three types of markets). To conclude, the EU is a significant market for the NIS but far from being as dominant as for the NMS.

Table 4.3:  
Trade orientation of NIS and NMS

	2000			2004			2006		
	EU-25	CIS	ROW	EU-25	CIS	ROW	EU-25	CIS	ROW
<b>A. Regional composition of destination of NIS exports</b>									
Armenia	37.0	23.0	39.9	35.6	16.3	48.1	46.8	19.7	33.5
Azerbaijan	63.1	13.5	23.4	50.9	17.0	32.1	55.8	14.6	29.6
Belarus	28.0	60.1	11.9	36.7	53.1	10.3	45.5	43.6	10.8
Georgia	23.7	39.8	36.5	17.2	50.7	32.1	18.9	39.8	41.3
Kazakhstan	25.3	26.1	48.7	34.9	20.2	44.9	43.2	14.6	42.2
Kyrgyzstan	37.2	41.1	21.7	3.9	38.3	57.8	4.0	47.7	48.3
Republic of Moldova	26.4	58.5	15.2	30.1	51.0	18.9	35.0	40.3	24.7
Russian Federation	52.8	13.4	33.7	50.4	16.2	33.4	56.6	14.0	29.3
Tajikistan	35.2	54.0	10.8	.	.	.	.	.	.
Turkmenistan	18.9	52.4	28.6	.	.	.	.	.	.
Ukraine	29.4	30.7	40.0	29.7	26.0	44.3	28.3	33.0	38.7
<b>B. Regional composition of destination of NMS exports</b>									
Czech Republic	68.6	16.4	15.0	68.1	17.5	14.4	64.5	17.9	17.5
Estonia	68.5	11.8	19.7	62.3	17.2	20.5	47.6	17.0	35.3
Hungary	75.2	6.2	18.7	70.7	8.6	20.6	57.6	11.8	30.6
Latvia	64.6	16.0	19.4	52.0	20.6	27.3	43.4	31.3	25.3
Lithuania	47.9	24.1	28.1	45.5	21.2	33.3	38.0	25.1	36.9
Poland	69.4	9.9	20.7	67.4	11.7	21.0	62.7	13.4	23.8
Slovakia	59.1	29.4	11.5	59.7	25.5	14.8	57.8	27.2	15.0
Slovenia	63.9	7.4	28.7	58.2	8.3	33.5	59.1	9.7	31.2

Sources: WITS and UN COMTRADE.

### *Concentration of exports*

Tables 4.4 and 4.5 present information about the stark differences in the concentration of merchandise exports between the NMS and the NIS countries. Table 4.4 shows the shares of the top 3, 10 and 15 industries (at the 3-digit NACE level) in exports to the EU-25 in 2004-2006 of both the NMS countries and the NIS countries: what we see is a striking difference in the concentration of the export structure towards very few products (defined at the NACE 3-digit industry level) of the NIS countries.

If we take the shares of the top 3 exported commodities to the EU-25, we find that these account for about 25 (Czech Republic) to 50 (Latvia) per cent

Table 4.4:  
Export structure—shares of top 3, 10 and 15 industries, 2004-2006

Percentages			
	<i>Top 3</i>	<i>Top 10</i>	<i>Top 15</i>
<b>NMS—Exports to EU-25<sup>a</sup></b>			
Bulgaria	44.7	65.3	72.7
Czech Republic	25.7	49.3	61.5
Estonia	29.7	57.2	66.7
Hungary	35.5	59.4	68.9
Latvia	52.3	69.8	76.3
Lithuania	40.6	63.5	71.4
Poland	26.9	49.6	60.0
Romania	37.2	61.7	71.4
Slovakia	28.9	56.1	67.0
Slovenia	28.6	55.0	66.7
<b>NIS—Exports to EU-25<sup>a</sup></b>			
Armenia	75.4	99.0	99.4
Azerbaijan	82.4	94.4	97.0
Belarus	66.9	83.3	88.5
Georgia	68.9	92.8	96.3
Kyrgyzstan	42.7	84.0	92.5
Kazakhstan	80.9	97.8	98.9
Republic of Moldova	58.2	89.2	94.0
Russian Federation	70.3	91.1	94.0
Tajikistan	88.7	99.7	99.9
Turkmenistan	90.9	98.5	99.6
Ukraine	43.7	74.5	80.4
Uzbekistan	79.2	97.3	98.7
<b>NIS—Total Exports, 2006</b>			
Armenia	48.1	76.7	86.2
Azerbaijan	86.5	92.8	94.7
Belarus	43.7	58.1	64.7
Georgia	24.4	62.7	77.5
Kazakhstan	71.7	83.7	89.3
Republic of Moldova	29.4	53.5	63.6
Russian Federation	60.9	80.0	84.8
Tajikistan (2000)	78.9	95.2	97.8
Turkmenistan (2000)	79.8	96.1	97.9
Ukraine	28.7	50.8	57.6

Sources: WITS and UN COMTRADE.

a 2004-2006 refers to three-year average values.

Table 4.5:  
Exports to EU-25—Herfindahl-Hirschman measure of concentration

	2000	2001	2002	2003	2004	2005	2006
<b>NMS</b>							
Bulgaria	0.323	0.320	0.300	0.292	0.290	0.281	0.292
Czech Republic	0.184	0.180	0.183	0.183	0.184	0.196	0.204
Eastern Europe	0.305	0.235	0.216	0.201	0.211	0.227	0.244
Hungary	0.246	0.243	0.237	0.236	0.251	0.248	0.245
Latvia	0.350	0.320	0.313	0.319	0.355	0.394	0.355
Lithuania	0.268	0.303	0.280	0.253	0.298	0.306	0.284
Poland	0.201	0.196	0.192	0.198	0.206	0.193	0.200
Romania	0.331	0.343	0.342	0.321	0.292	0.269	0.247
Slovakia	0.211	0.210	0.246	0.269	0.246	0.208	0.214
Slovenia	0.197	0.197	0.204	0.196	0.213	0.234	0.224
<b>NIS</b>							
Armenia	0.695	0.532	0.629	0.680	0.484	0.538	0.535
Azerbaijan	0.860	0.807	0.844	0.660	0.693	0.625	0.639
Belarus	0.295	0.292	0.308	0.397	0.487	0.579	0.610
Georgia	0.437	0.425	0.461	0.549	0.420	0.472	0.598
Kyrgyzstan	0.958	0.930	0.702	0.546	0.440	0.344	0.347
Kazakhstan	0.547	0.585	0.548	0.469	0.456	0.515	0.587
Rep. of Moldova	0.415	0.432	0.401	0.379	0.439	0.375	0.372
Russian Federation	0.433	0.424	0.431	0.432	0.427	0.480	0.509
Tajikistan	0.604	0.797	0.869	0.848	0.760	0.526	0.877
Turkmenistan	0.797	0.768	0.806	0.868	0.823	0.827	0.858
Ukraine	0.293	0.293	0.290	0.266	0.338	0.317	0.320
Uzbekistan	0.616	0.729	0.859	0.755	0.746	0.622	0.500

**Sources:** WITC, WIW calculations.

**Note:** The Herfindahl-Hirschman Index is calculated as the sum of the squares of the market shares (in total exports to the EU-25 markets) of individual industries. The measure ranges between 0.0 and 1.0; the higher the index, the greater the degree of market concentration.

of the NMS exports to the EU-25. For the NIS, the percentages range from 43 (Ukraine) to 90 (Turkmenistan). The share for the Russian Federation is 73 per cent. Taking the top 15 industries (out of a total of 95) these account for 60 to 75 per cent of NMS exports to the EU-25 and 80 (Ukraine) to nearly 100 per cent for the NIS. Considering NIS total exports we see a somewhat lower concentration, a point we shall return to later.

Another measure of concentration is the Herfindahl-Hirschman (HH) index, depicted in Table 4.5. It shows again a significant difference between

the NMS and the NIS as regards the degree of concentration of their exports to the EU-25 region. Differences in features of export concentration and trade specialization in relation to other markets than the EU-25 market will be discussed further below.

### *Commodity composition of exports*

We now move to discuss the commodity composition of exports and also the specialization structures (including exports and imports) of NMS and NIS by looking at both commodity composition per se and at commodities (or industries) classified by means of different taxonomies (identified by factor content and by skill content).

Annex figures A.4.1 and A.4.2 present the export structures of the NIS and the NMS by broad commodity groups (agriculture including food processing, minerals and metals, fuels including petroleum products and manufacturing). We distinguish exports to the EU-25 markets as well as exports to the rest of the world. There is a distinct difference in export composition between two groups of NIS economies as well as between the NIS countries and the NMS. One group of NIS (composed of Azerbaijan, Belarus, Kazakhstan, the Russian Federation, Tajikistan and Turkmenistan) has a predominant export specialization towards fuels (including petroleum products) and minerals and metals (unprocessed). This group shows a very small share of manufacturing products in its exports, although the share increases somewhat when non-EU-25 exports<sup>9</sup> are considered (Belarus is an exception in that it exports a large share of manufactures to other—mostly NIS—markets while more than half of its exports to the EU-25 consists of petroleum products). The second group of NIS countries (comprising Armenia, Georgia, Kyrgyzstan, Republic of Moldova and Ukraine) shows a larger share of manufactured products (as we shall see below, a substantial share of these countries are metals-related) and a significant group has a large share of agricultural or food-processing exports. Petroleum products also feature in some of these economies but not to the same extent as for the first group.

For the NMS, by contrast, manufacturing exports are by far the dominant share in total exports and the difference in this respect to both groups of CIS economies is quite striking.

Annex figures A.4.3 and A.4.4 present details with respect to the export structure within manufacturing products. In their trade with the EU-25, the NIS economies are strongly specialized in exports of mineral and metal products, food (including drinks and tobacco), and textiles (including clothing and footwear). The more advanced NMS economies (Czech

Republic, Estonia, Hungary, Poland, Slovakia and Slovenia) have a strong export-orientation towards machinery, electrical goods and transport equipment, while the less advanced economies amongst them (Lithuania, Latvia, Bulgaria and Romania) also have large shares of exports of textiles (including clothing and footwear) and food products (including beverages).

Also, differences in factor intensity of exports are quite striking between NMS and NIS (see annex figures A.4.5-A.4.8). The NMS have a much more balanced structure with respect to the two taxonomies of trade in manufactures, that is when classifying exports and imports by factor content into capital, labour, or technology-intensive industries (taxonomy I) or by implicit skill-intensity according to relative requirements in production for the use of low, medium, or highly-skilled workers (taxonomy II).<sup>10</sup>

The difference comes out quite strikingly if we look at revealed comparative advantage (RCA) indicators.<sup>11</sup> Here we see that the NIS have almost uniformly strong relative trade surpluses in capital-intensive industries and a few countries (Armenia, Republic of Moldova, Turkmenistan) in labour-intensive industries and strong deficits in technology-intensive industries.<sup>12</sup>

The NMS, on the other hand, reveal surpluses in labour-intensive industries and some countries (Bulgaria, Slovakia, Slovenia and the Baltics) also in capital-intensive industries, but the latter surpluses are much less pronounced than those of the NIS. They also show much milder deficits (with Hungary, showing a surplus, being the exception) in technology-driven industries than the NIS economies.

If we take the skill-based taxonomy, the basic difference between the two sets of countries is the deficit in almost all NIS countries in industries with a relatively high share of medium-skill, blue-collar jobs, where the NMS have a surplus (with the exception of Bulgaria and Romania; these two economies have surpluses in industries with low-skill content). The deficit in industries with the highest-skill content exists for both groups of countries (although the deficits are smaller in the case of most of the NMS) and quite a few of the NIS economies have—like Bulgaria and Romania amongst the NMS—surpluses in low-skill intensive industries (Armenia, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tajikistan, Ukraine and Uzbekistan).

In sum, despite a certain amount of heterogeneity within each of the two groups of countries, the NIS have a much higher degree of export specialization than the NMS.

At the commodity level, we found two groups amongst the NIS economies: those which rely heavily on fuels and fuel product exports,



and another group which relies either on metals or on agricultural and textile (and textile products) exports; the latter are rather labour-intensive industries. In all the NMS economies, on the other hand, there is a very strong export specialization on manufactured goods in general and for the advanced NMS we find a strong orientation towards machinery, electrical engineering and transport equipment within manufacturing.

Using two types of taxonomies (applied only to trade with the EU-25), we see further marked differences between the NIS and NMS. RCA indicators (which compare both export and import structures) show a very strong reliance on capital-intensive industries (consistent with the specialization on fuels, fuel products and metals) and a strong deficit in technology-intensive industries in the NIS. The NIS economies also tend to be strongly specialized in export production that is intensive in the use of low-skilled workers and have a large trade deficit in manufactures whose production is intensive in the use of high- (and even medium-) skilled workers.

The NMS economies, in contrast, have a much less pronounced inter-industry specialization in its trade with the EU-25. There is only a weak specialization in labour-intensive and capital-intensive manufactures, and the more advanced NMS have no deficit of significance in their trade of high-technology or high-skill products. The less-advanced NMS, including Bulgaria, Romania and some of the Baltics, however, continue to have trade deficits of that nature.

Finally, previous research found that very significant upgrading of NMS producers in intra-industry trade was taking place, as evidenced by both rising market shares and rising relative unit values across the spectrum of manufacturing industries, but particularly in medium-to-high technology industries (see Landesmann and Woerz, 2006).

### *Does trade specialization differ by trading partner?*

We mentioned already earlier that for some NIS economies the (direct)<sup>13</sup> dependence of goods exports to the EU-25 is quite high: Armenia, Azerbaijan, Belarus, Kazakhstan and the Russian Federation all export more than 40 per cent of total merchandise exports to the EU-25 markets, while Belarus, Georgia, Kyrgyzstan and Republic of Moldova export more than 40 per cent to other NIS markets. A significant share (close to or more than 40 per cent) of exports from Armenia, Georgia, Kazakhstan, Kyrgyzstan and Ukraine go to the rest of the world. Hence, the shares of exports from the NIS to these three types of destinations is more balanced than in the case of

the NMS (whose exports are mainly oriented towards EU-25 markets). The question raised in this section is whether the type of trade specialization and export concentration of NIS countries differs by region of destination.

Without entering into great detail, the answer to this question can be summarized as follows (see Landesmann (2008) for empirical detail):

- The composition of exports from the NIS economies to the EU is rather similar to that to the rest of the world. They are both highly concentrated on natural resource-based products (fuel and fuel derivatives, metals, precious stones, materials, etc.). To the extent there is a difference, the concentration of raw material exports is even higher in trade with the rest of the world than with the EU-25.
- NIS economies trade different products with each other, reflecting an intra-NIS division of labour in that export structures reflect their comparative advantages towards each other. The Russian Federation, for instance, sells a much higher share of manufactured products to NIS markets than to the EU-25 or the rest of the world. Motor vehicles, machinery, railway locomotives, rubber and plastics products are among the top 15 products exported to NIS markets. None of these products feature on the lists of the most important export products to non-NIS markets.
- A number of NIS countries sell more manufactured goods to non-EU markets than to EU markets. The opposite is the case for the NMS. The difference reflects revealed comparative advantage of NIS countries in trade of the machinery, electrical goods and transport equipment with non-EU markets relative to its trade with EU markets. This is not the case for most NMS countries, as a result of their high integration into sophisticated production networks in such industries within the EU.
- Compared with their exports to the EU-25, the intra-NIS trade tends to have a higher share of skill-intensive products. This is the case for all NIS countries except Armenia and Georgia. NIS trade with the EU consists of products of lower skill intensity, as one might expect.

#### SPECIALIZATION AND TRADE DIVERSIFICATION: SOME COMMENTS

We have seen a significant difference between NIS and NMS economies in their respective trade orientation towards EU and non-EU markets. This difference is understandable given the respective geographical positions of

the two groups of economies and also because of the different historical links (after all, NIS countries all emerged from a single country, the Soviet Union, which means a tighter economic link than simply belonging to the same trading bloc such as the CMEA). Whatever explains the difference in market orientation, it shapes patterns of industrial specialization and trade.

An orientation towards high income markets means a catering towards more advanced demand structures both for final and intermediate products. The upgrading effect of orienting a country's trade links towards high-income markets has been a well-documented feature of post-war strategies of Asian economies (first Japan, then other East Asian economies, and more recently China); and also the Central and Eastern European economies (the NMS) are the beneficiaries of their close links with the high-income Western European markets. These historical examples have shown that there are two types of strategies with which a strong orientation towards high income markets can be attained (sometimes in spite of geographic distance to these markets): one is an explicit industrial and trade policy which encourages and supports domestic enterprises to make major efforts to succeed in highly competitive high-income markets, as was the case with Japan, Republic of Korea and other East Asian economies after WWII. The other is the reliance on Western multinationals which have the technological, logistic and organizational know-how as well as the market acquaintance with high-income markets and have the ability to support the build-up of successful exporting platforms in catching-up economies. With both these two strategies, special effort is required to succeed in production activities which have the benefit of strong learning potential but which might not reflect the static comparative advantage positions of low- or medium-income countries (and especially of natural resource-rich countries). This special effort has been made on the one hand by using industrial and educational policies shaping the corporate cultures and strategies of countries such as Japan and Republic of Korea and, on the other hand, by putting policies in place designed to attract foreign multinationals in countries such as Malaysia, China, Hungary, Slovakia, etc.

As regards the NIS, very little attempt has been made so far to adopt either of these two types of strategies, although recently there has been increased talk of and preparations for an "industrial policy" being directed towards "diversification" boosted by the availability of funds which have accumulated in the wake of the energy price and commodity price booms. Although in the energy-rich NIS countries there are, on the one hand, funds available to execute such a strategy, the pattern of comparative

advantage and the countries' positions in the international structure of trade specialization seem to have become very deeply ingrained with little sign of diversification. The reason for this is partly narrowly economic (the comparative advantage phenomenon itself) and partly political-economic as argued in our previous discussion regarding the push towards distinct patterns of international specialization given the institutional and the legal-contractual situation in a country. In such a situation one needs a major push to overcome political-economic resistance to adopt an effective strategy of this type.

Is there anything wrong with specializing on natural resource-intensive production and trade? In principle, no, as the development of a more diversified industrial and export structure can proceed (and even benefit) from an abundant natural resource endowment. In this respect, lessons can be drawn from successful country strategies where a strong raw material base has been used to develop forwardly linked production stages and processing industries. This was the case in the Scandinavian countries in relation to wood-based industries, or in the Netherlands and Denmark in relation to agriculture-based industries. Other examples include the sophisticated engineering industries and skills which can develop around energy resources (both non-renewable and renewable ones) in the United Kingdom and Norway (oil), Denmark (wind) or Israel (solar). However, the technologies which are often needed in such industries are highly sophisticated and hence, technology transfer mechanisms (such as foreign direct investment) or a highly-sophisticated domestic technological and skill infrastructure are essential.

Is there scope for intra-regional diversification? As mentioned above, international evidence suggests that the fastest technological (and product quality) upgrading takes place when exporters are directing their exports towards high-income markets (the recipe of the fast catching-up Asian economies and, more recently, of the NMS). However, there is no reason why trade integration among low-income or medium-income countries cannot also contribute to trade (and production) diversification and upgrading, especially when the group of countries are all undergoing fast and sustained economic growth (see the recently strong increase in intra-Asian trade flows). Such intra-regional trade integration could help diversification, particularly in cases in which trade structures with more advanced economies are "locked in" in very pronounced specialization patterns (such as the currently overwhelming specialization of NIS on fuels, metals, and other raw or lightly processed materials). In fact, the analysis of product

structures and of skill content of exports of NIS conducted here has shown that in the cases of many NIS countries, exports to other NIS countries are of the more processed (and less raw material-intensive) variety and also have higher skill content. Furthermore, export structures to other NIS countries are less concentrated and hence more “diversified”. This would indicate that given the high degree of specialization on raw materials in trade with the EU and the rest of the world, the NIS might benefit at this stage from the greater scope for “diversification” in their trade with each other, especially as high-income growth resulting from a commodity price boom on world markets gives a boost to intra-NIS trade. Thus, although one should not ignore the scope for increased intra-regional trade and the impact it can have on some degree of diversification in trading and production structures, one should also acknowledge the fact that historical examples suggest that a “climbing up the ladder” process is, firstly, strongly encouraged by a strong interaction with high-income markets and, secondly, that it is greatly helped by the role which international firms can play in technology transfer, organizational upgrading and market access.

Is there scope to extend international production networks to NIS countries? The integration of middle-income countries (such as the NMS or East Asian economies) into international production networks has played an important role in the technological and organizational upgrading processes of these economies. It is through supplier linkages that important advances are being made in technological know-how, product specification and access to high-income markets. The interest by international companies in developing such production networks will be there as long as domestic capacities in the form of potentially suitable domestic firms, workers with the right skills and appropriate transport and logistics facilities exist (or can be developed) which do keep transport and transaction costs below the necessary threshold level. It is clear that different types of industries (such as software development as compared to industries which need to transport heavy goods) will be differently affected by the availability or the lack of such domestic capacities and this will shape the development of international production networks in different countries and regions. For instance, it is generally recognized that the availability of language and engineering skills, on the one hand, and the lack of good transport infrastructure, on the other hand, led to the boom in the outsourcing of software development to India, while China—with its good coastal infrastructure and the supply of cheap and disciplined manufacturing workers—became an important hub for international production networks in manufacturing. Hence, the

integration into international production networks and their development in particular industrial areas and locations can, to some extent, be steered through policies which encourage the development of the appropriate domestic capacities.

This brings us to the role of trade and industrial policies in countries which are rich in energy and/or other raw materials. As discussed earlier, in such countries the danger of a “lock-in” into an undiversified structure of trade specialization is high, especially under conditions in which the international and domestic political-economic environment reinforces such a lock-in. However, trade and industrial policies can improve such environments and have an effect on political-economic constellations. The current negotiations on WTO membership of a number of NIS countries is a case in point, as are trade and partnership agreements with the European Union. It is beyond the scope of this chapter to discuss the nature of such agreements in detail and what impact they could have on industrial and trade development patterns in NIS economies. It is not straightforward that liberalization per se would lead to “diversification”, as trade liberalization can also support further specialization on the lines of existing, static comparative advantages. The degree to which trade liberalization enforces the degree and nature of specialization (or of “diversification”) should be seen in connection with the other environmental conditioning factors discussed throughout this chapter (state of reform, contractual reliability, state of infrastructure and availability of other local capacities, policies to attract foreign investors, etc.). There is therefore the possibility to use a combination of what Dobrinsky (2008) has labelled as “knowledge-oriented industrial policy” to influence the pattern of trade specialization or diversification which would lead to a desired development pattern.

#### WHAT IS TO BE DONE?

We have emphasized in this chapter that progress in economic structure and trade performance (in the direction of diversification) is importantly linked to institutional features and the speed-up of reform processes in the NIS. We made the argument that a lack of either an international reform anchor such as the prospects of EU accession or of a sustained attempt towards domestic reform processes leading to contractual security and attractiveness to foreign investors across the whole range of economic activities will lead to a lopsided development of trading and FDI activity and to entrenched specialization structures on raw material intensive forms of production.

This, in turn, supports political-economic power structures which favour the control of the raw material base with all that this entails in the weighing of different economic interests in the political process. In a different situation are small, low-income countries such as Georgia, Kyrgyzstan or Republic of Moldova which do not have a strong raw material base and which further have a geographical disadvantage being landlocked countries and/or lacking adequate transport infrastructure. In these economies, major efforts of reform might not lead to a strong attraction for FDI and the dependence upon the large regional trading partners will remain high.

In the following we shall assume that in the majority of the NIS countries (with the possible exception of countries which might—against current odds—be given an EU-accession perspective following the likely West Balkan enlargement) the speed of reforms and also the changes in the political-economic structures will follow at best a “gradual” or at worst a “stagnant” pattern. We take this to be the more realistic scenario as there is not much reason to expect a big jump in the speed of reform processes (that is to say, full convergence with NMS in this respect) as this would go against the interests of the current political and economic elites. Under these circumstances we can think of three possible scenarios.

**Scenario A:** The NIS economies remain locked into their rather undiversified trade structure and heavy dependence on natural resource production. There will be little movement into either upstream (processing) stages or diversifying away from their current structures of specialization.

**Scenario B:** In this scenario NIS countries follow the developmental paths of other economies (such as Scandinavian countries in the first half of the twentieth century) to add processing stages as well as intermediate and capital goods production (including specialized machinery) linked to the raw material sectors. This strategy can also be followed in the case of agriculture which allows the creation of the forward linkages through the development of food processing and beverage industries. In the development of such processing stages there is no ceiling as to technology and product quality upgrading and hence potentially allowing a shift into high value-added activities.

**Scenario C:** Despite being highly volatile, there has been an upward trend in energy and other primary commodity prices, which has created an, on average, long-term bonanza in terms of real income growth. As the economies (with some exceptions) remain semi-liberalized (that is, with still strong influence from State controls and/or powerful business groups), Governments may shy away from a full opening-up of domestic markets



to foreign competition. Increasing real incomes, however, will induce greater demand for product differentiation and, with the benefit of either a large domestic market and/or some degree of domestic market protection, domestic production could start to cater for the more differentiated and growing demand structure in domestic and regional (that is, NIS) markets. This form of diversification can be strengthened through mutual reinforcement of growth processes in other NIS markets which allows for a deepening of intra-NIS trade flows which—as we saw in the analysis here—is more diversified than extra-NIS trade flows.

Just before the eruption of the current global economic crisis, one could argue that the energy-rich CIS countries found themselves in Scenario C. GDP growth was high in these economies and there is scope for diversifying domestic production structures catering to the more differentiated demand side as incomes rise (indications are that, while income distribution becomes more unequal, there is also some widening of purchasing power across a wider section of society). Especially the larger economies become also attractive for foreign investors who cater to the growing domestic demand. They are of the “market-seeking” variety and recent evidence (for example, the Russian Federation) does suggest that the sectoral allocation of FDI has indeed become more diversified as the domestic market grows in depth and width. What this scenario does not produce, or at least not at the speed which we have encountered in the NMS, is the development of a diversified export capacity. The reason for this is that the conditions which make economies attractive as diversified “export platforms” are not in place. This is also true for a wide range of sectors which would have the potential to be integrated into international production networks, but where the state of institutional/legal reform, of infrastructure or the political-economic conditions do not provide the incentives to do so.

If Scenario C remains the most likely scenario through which the resource-rich NIS countries can experience a certain degree of “diversification”, it will be unlikely that they will be able to exploit the full upgrading potential. The use of this potential would require a removal of the features which created the lock-in effect into the current energy and raw material-based patterns of international trade specialization as discussed at length in this chapter. The removal of these features, together with a shift towards an effective use of “knowledge-oriented forms of industrial policy”, would allow the NIS economies to move towards Scenario B or to an even more dynamic Scenario D in which the raw material base becomes less important and patterns of intra-industry trade and horizontally-differentiated trade



become dominant (as is increasingly the case for the NMS) and which are the features of most fully-developed, high-income market economies. As regards the group of (relatively small) NIS economies which are not energy- or raw material rich (Belarus, Georgia, Kyrgyzstan, Republic of Moldova), they are heavily dependent upon trade and production linkages across the region and hence their development would be furthered through low inter-regional barriers to business activity and, of course, an attempt towards upgrading of infrastructure, educational capabilities and in the quality of institutions. Production and export diversification will benefit also from “market diversification”, that is to say, to benefit from linkages to high-income markets in Europe and abroad, but also from regional production and market integration.

## NOTES

- 1 The author would like to thank Doris Hanzl for very effective research assistance and Robert Stehrer for a number of calculations with the trade statistics. Finally, Beate Muck provided assistance with the production of the graphs and Ms. Grob with the formatting of the paper. All the above are at the Vienna Institute for International Economic Studies (WIIW).
- 2 The group of Central and Eastern European NMS economies consist of Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia; we shall refer to these also as the EU-10.
- 3 The newly independent States of the former Soviet Union (NIS), which belong to the Commonwealth of Independent States (CIS), include Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. In 2009, Georgia officially left the CIS, but in the analysis in this chapter it is included as part of the NIS.
- 4 The feeling of an Enlargement overreach strengthened as the actual Enlargement date approached and it played a significant role in some member countries throughout the debates regarding the passing of the EU’s new Constitution which later turned into the Lisbon Treaty.
- 5 LIB stands for a group of indicators which represent the degree of market liberalization and include the degrees of price, trade, and forex liberalization, as well as small-scale privatization. The LIB indicator is also interpreted as representing “first phase reforms”. The INST indicator comprises factors which represent institutional changes of a market enhancing nature, with values from 1.0 representing central planning to 4.3 which represents a fully functioning market economy. It is also interpreted as reflecting “second phase reforms”. Each annual EBRD Transition Report explains these indices in some detail. Havrylyshyn (2008) discusses how these indicators correlate with economic performance indicators.
- 6 The INDEUNIS project looked at the lessons learned from the industrial restructuring experiences of the NMS for a subset of NIS economies. See <http://indeunis.wiiw.ac.at/> for the research output from this project. See also the collection of papers in the volume edited by Grinberg and others (2008).

- 7 Roland (2002) finds that in the Russian Federation, through the use of various government funds and relatively sound fiscal and monetary policy (including the pay-back of large amounts of international debt), the Dutch Disease phenomenon has not been a big issue despite ballooning oil and gas revenues.
- 8 Apart from the more severe impact of the disintegration of the Soviet Union on the production structures of the NIS compared to the impact of the dissolution of the CMEA on the NMS, one would have to mention a number of other historical factors which account for the different responses of the two sets of economies to the strains of the transition process, such as the much longer Communist experience in the NIS and the relative lack of experience with a market economy prior to that.
- 9 Detailed information regarding compositional differences in export structures of NIS economies to EU-25, other NIS and rest of the world markets are contained in the background study to this chapter (see Landesmann, 2008; particularly annex figure A1).
- 10 See annex Table A.4.1 for the classification of industries according to the indicated taxonomies.
- 11 The RCA indicator used here is the following one:  $RCA_i = \ln(x_i / m_i) / \ln(x_T / m_T)$  where  $x_i$  and  $m_i$  refer to exports and imports respectively of industry  $i$  and  $x_T$  and  $m_T$  refer to total (goods) exports and imports of the country in question. These RCAs can also be calculated for trade relationships with particular groups of trading partners, such as the EU-25, or with other NIS countries in which case the  $x_i$  and  $m_i$  refer to total goods trade by that country into that region and, equivalently for exports and imports of industry  $i$ . This has also been done in order to check whether there are important differences in comparative advantage structures in relation to different groups of trading partners.
- 12 A classification of industries into five groups using taxonomy I is reported in annex Table A.4.1. The annex figures A.4.5 and A.4.7 report only the results regarding three of the five groups as these reveal the strongest differences between the NMS and NIS pattern of trade specialization. The two groups of industries we do not report refer to “marketing-driven” industries which are those which have (in OECD countries) a rather high share of expenditure on marketing and a group of “mainstream” industries which is a residual category, oriented more towards consumer goods as are also the “marketing-driven” industries. The technology-intensive group is characterized by relatively high spending on R&D. The classifications used for these taxonomies have been compiled by Peneder (2003) by means of factor analysis methods.
- 13 We speak here of “direct dependence” as we do not track trade links which connect countries via other ports of destination, such as fuel being exported from one country, then being refined in another and the petroleum product sold in a third.

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ANNEX

Figure A.4.1:  
Export structure, NIS countries Commodity trade with EU-25

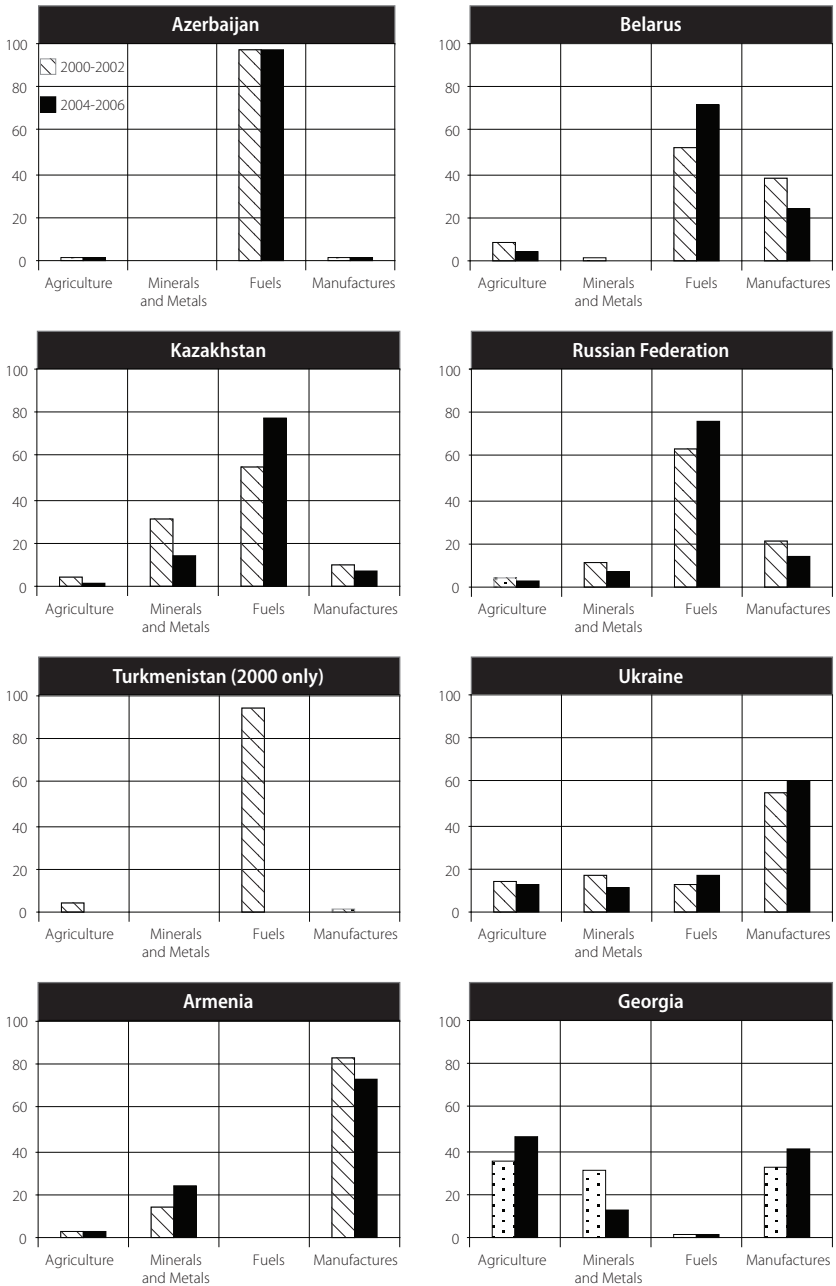
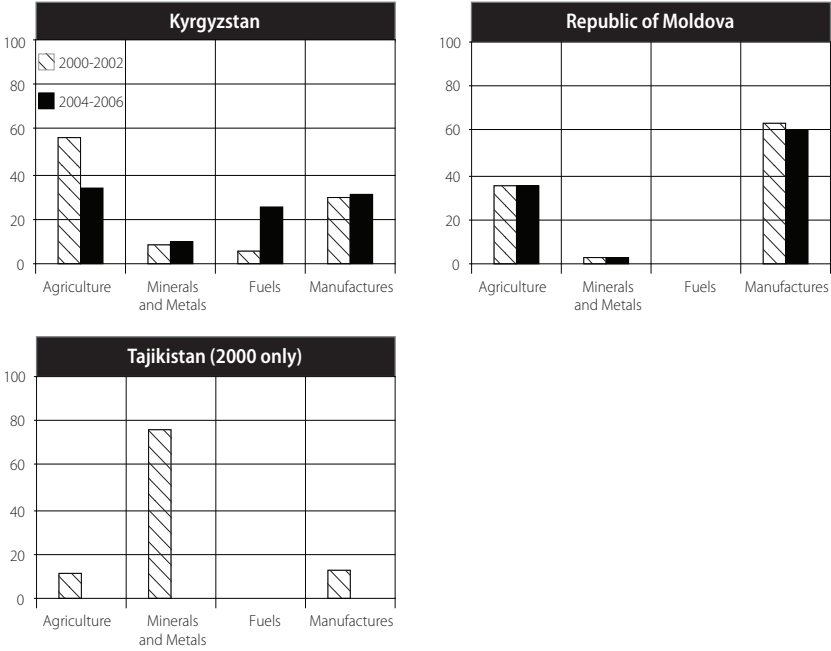


Figure A.4.1 (cont'd)



Source: WITS database, WIIW calculations.

Figure A.4.2:  
Export structure, NMS-10 countries Commodity trade with EU-25

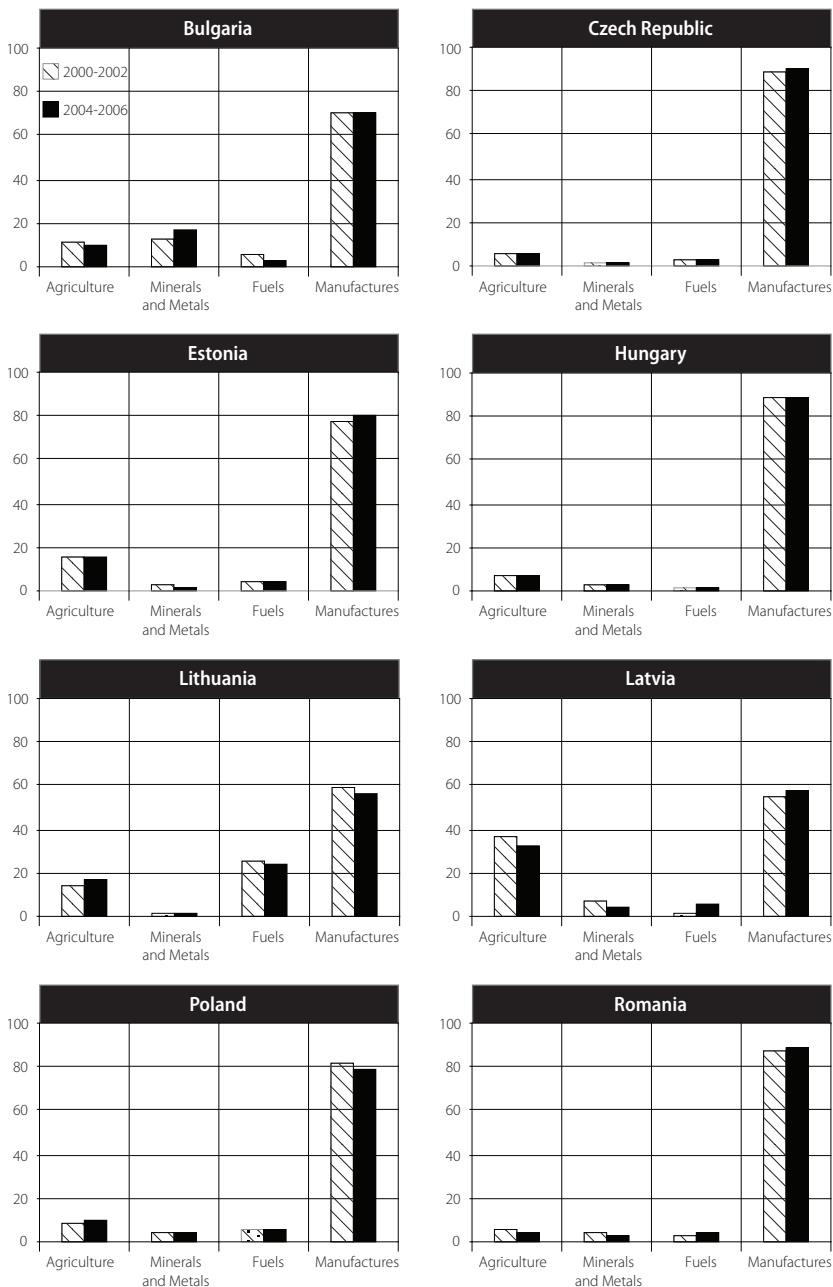
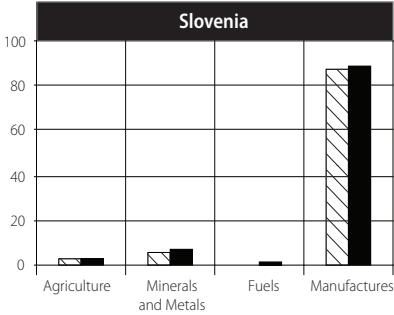
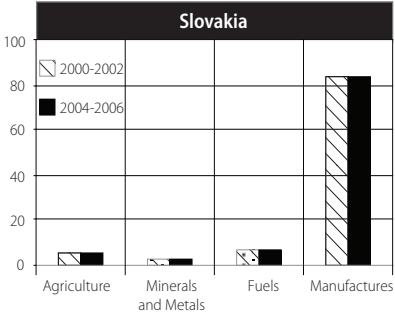


Figure A.4.2 (cont'd)



Source: WITS database, WIIW calculations.

Figure A.4.3:  
Export structure in manufacturing , NIS countries Exports to EU-25

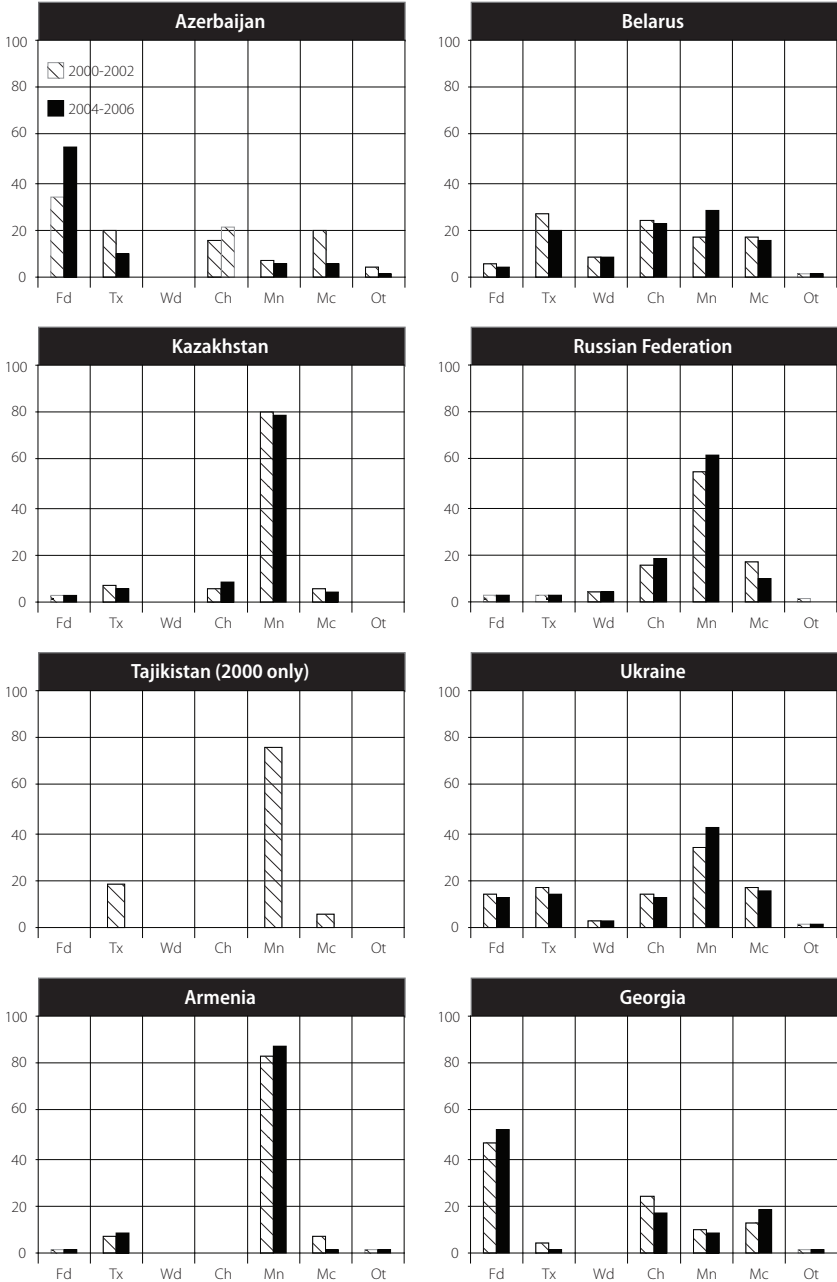
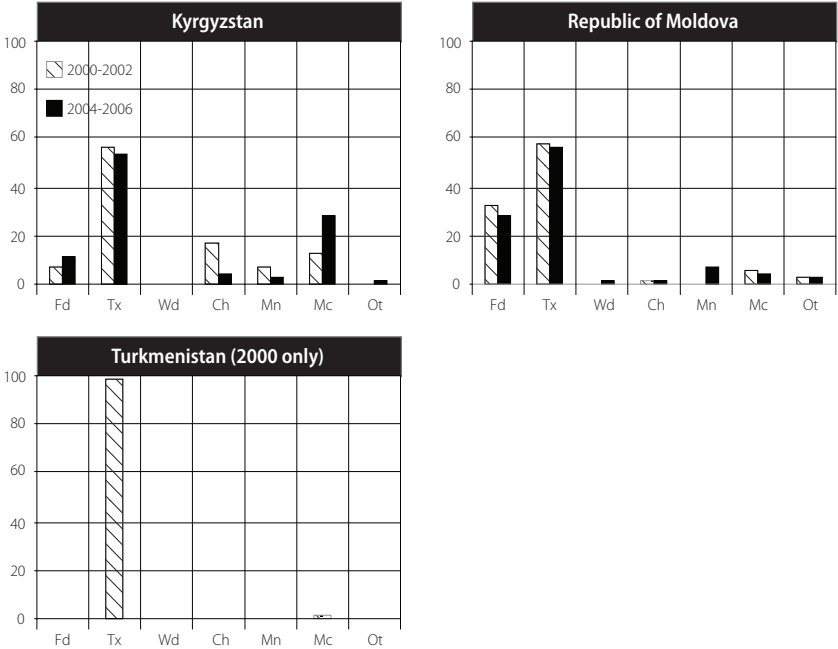




Figure A.4.3 (cont'd)



Source: WITS database, WIW calculations.

Legend: Fd: Food, Tx: Textiles, Wd: Wood, Ch: Chemicals, Mn: Mineral; Mc: Machinery; Ot: Other.

Figure A.4.4:  
Export structure in manufacturing, NMS-10 countries Exports to EU-25

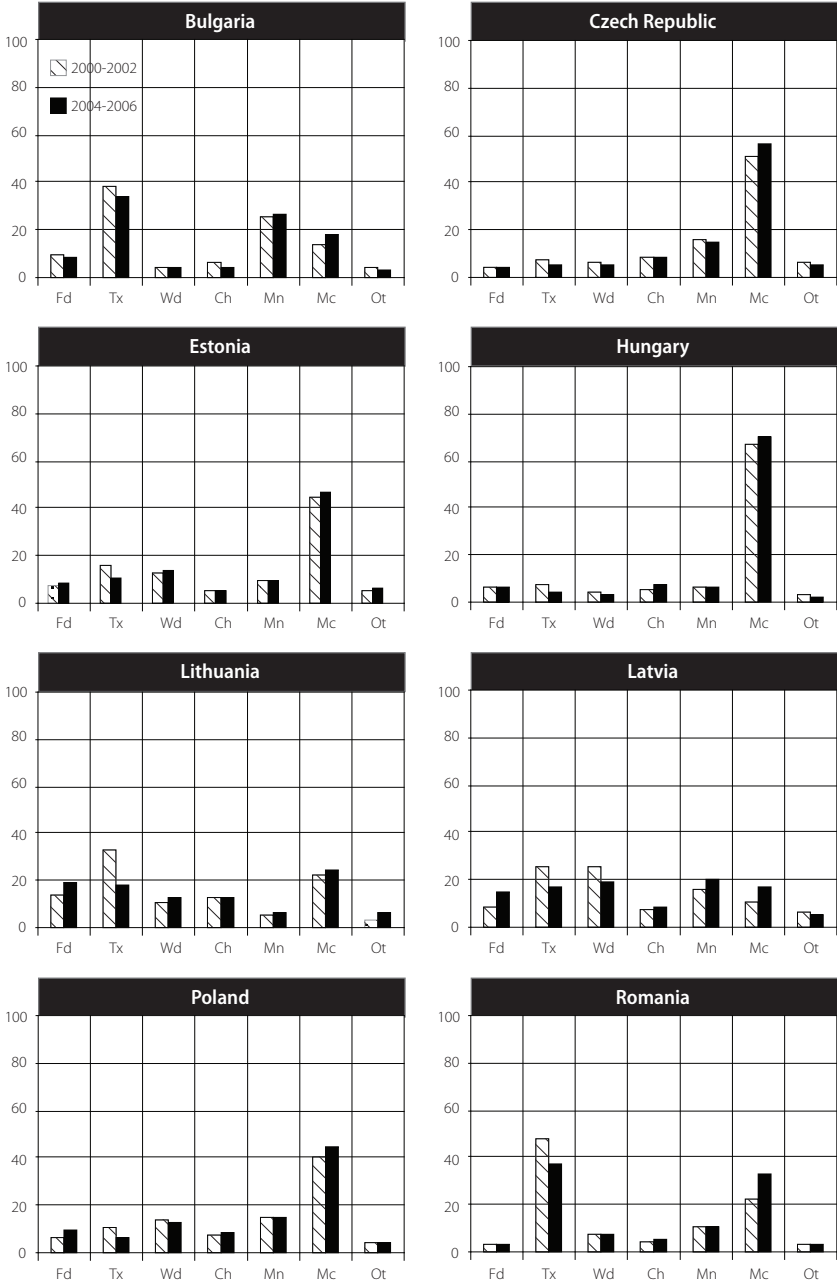
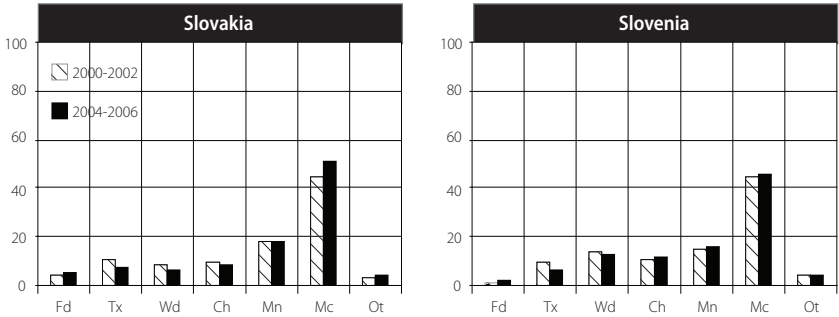


Figure A.4.4 (cont'd)



Source: WITS database, WIW calculations.

Legend: Fd: Food, Tx: Textiles/Clothing/Leather/Footwear, Wd: Wood/Pulp/Paper, Ch: Chemicals and Rubber, Mn: Mineral and metal products; Mc: Machinery/Electrical equipment/Transport equipment; Ot: Other.

Figure A.4.5:  
Exports to EU-25 by factor content of industries, 2000-2002 and 2004-2006 (average shares in percent)

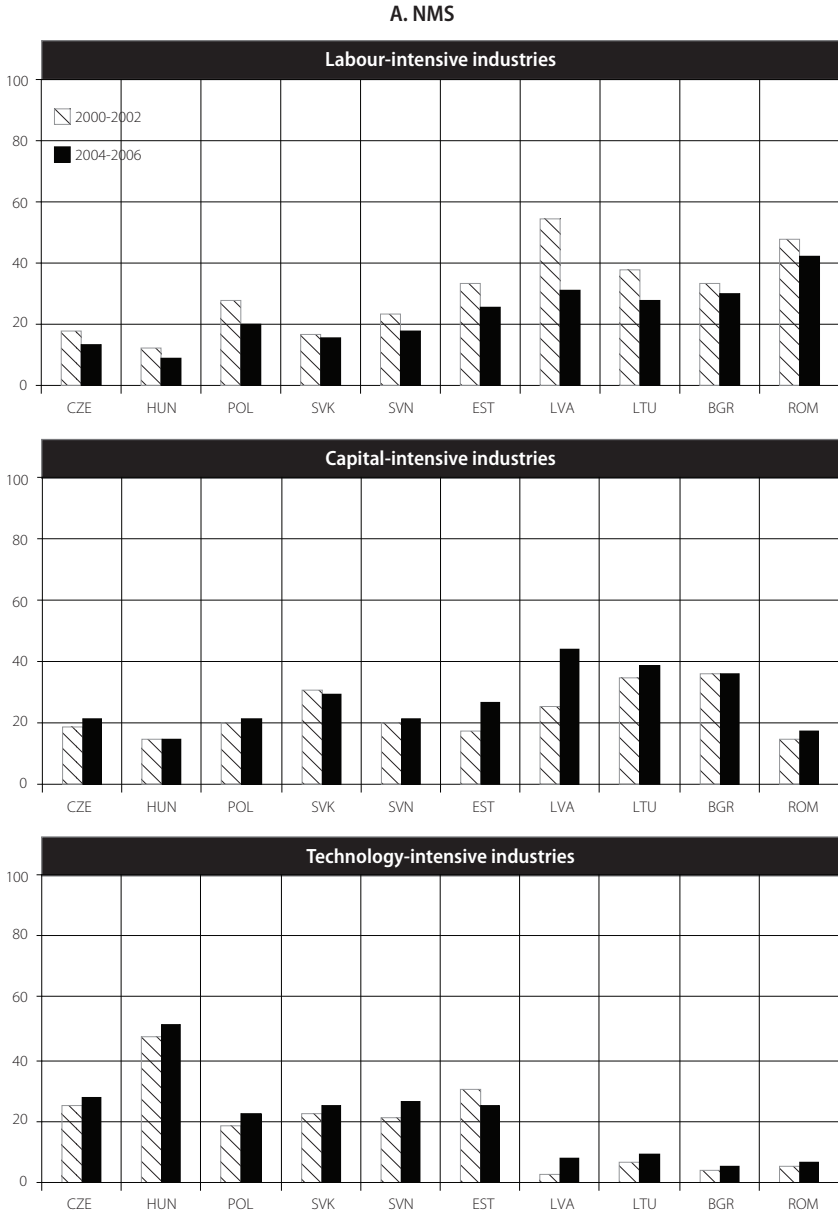
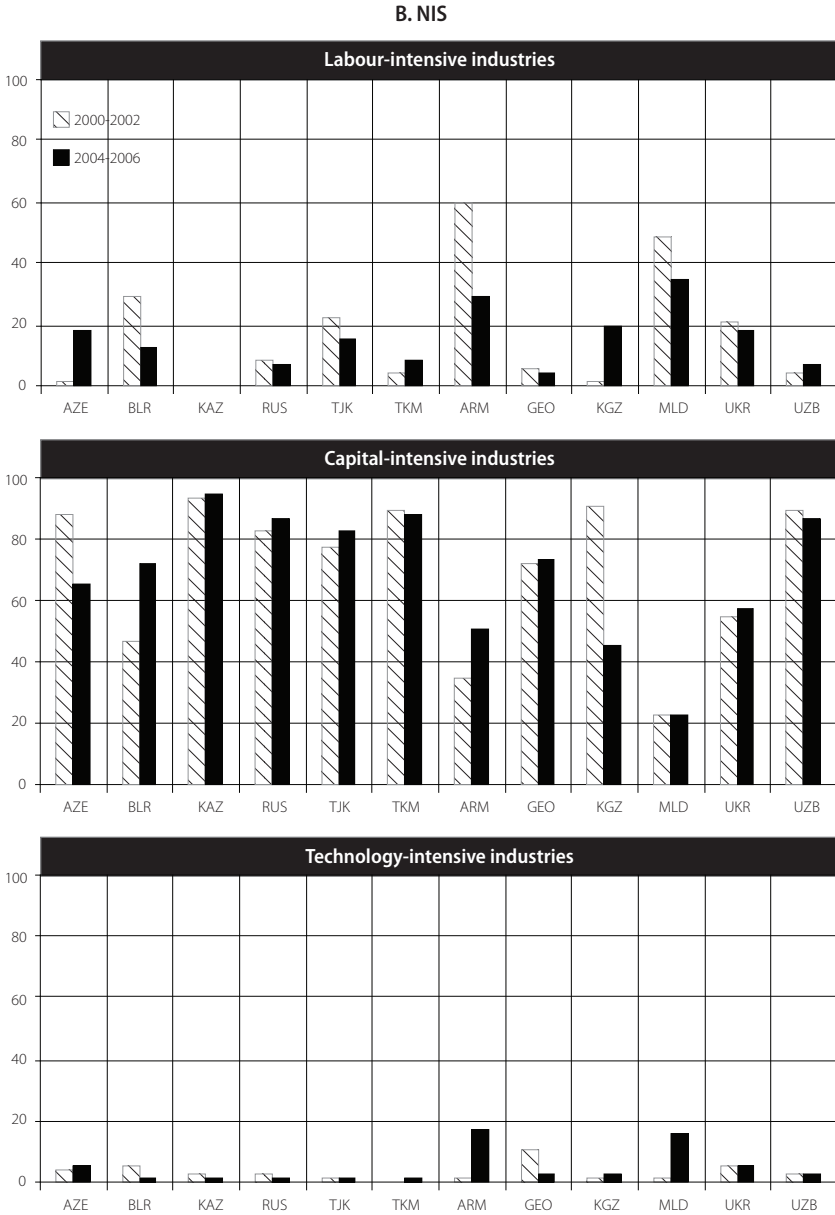


Figure A.4.5 (cont'd)



Source: WITS database, WIIW calculations.

Legend: ARM: Armenia; AZE: Azerbaijan; BGR: Bulgaria; BLR: Belarus; CZE: Czech Republic; EST: Estonia; GEO: Georgia; HUN: Hungary; KAZ: Kazakhstan; KGZ: Kyrgyzstan; LTU: Lithuania; LVA: Latvia; MLD: Republic of Moldova; POL: Poland; ROM: Romania; RUS: Russian Federation; SVK: Slovakia; SVN: Slovenia; TJK: Tajikistan; TKM: Turkmenistan; UKR: Ukraine; UZB: Uzbekistan.

Figure A.4.6:  
Exports to EU-25 by skill-intensity of industries, 2000-2002 and 2004-2006  
(average shares in percent)

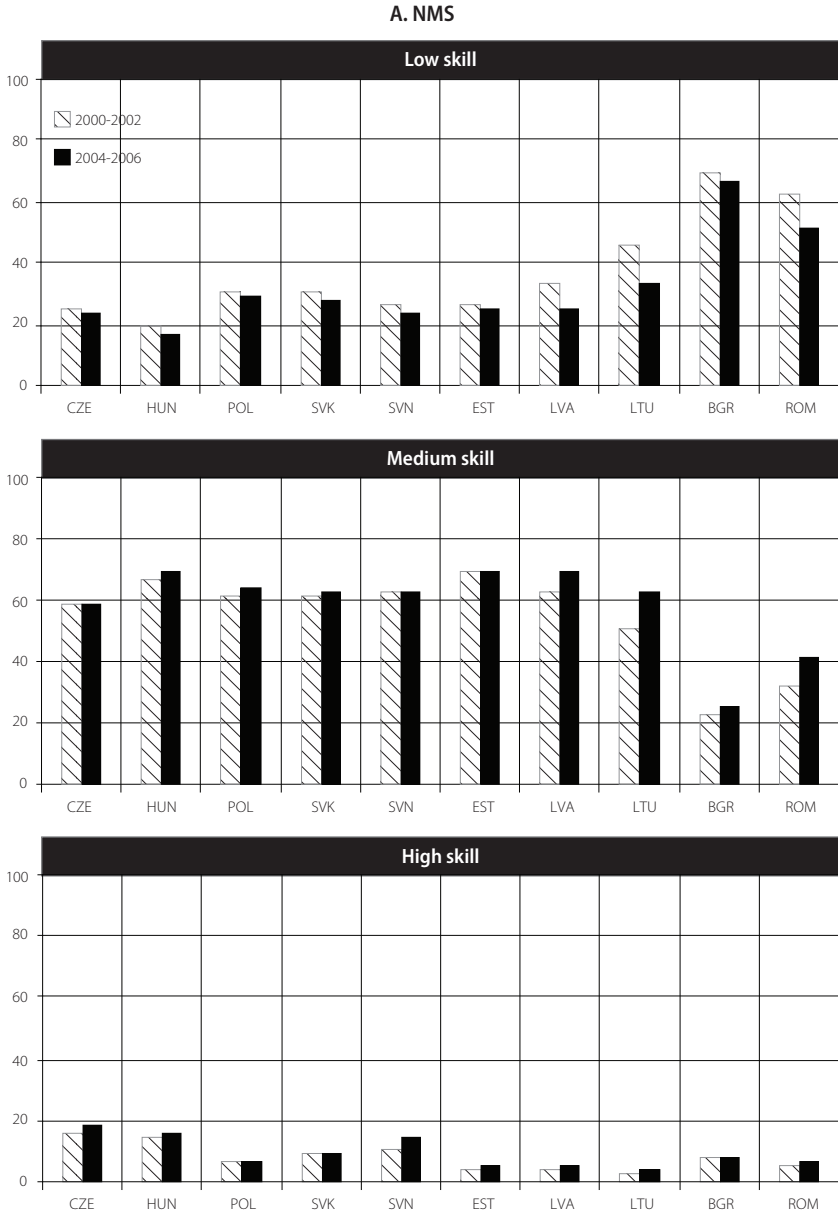
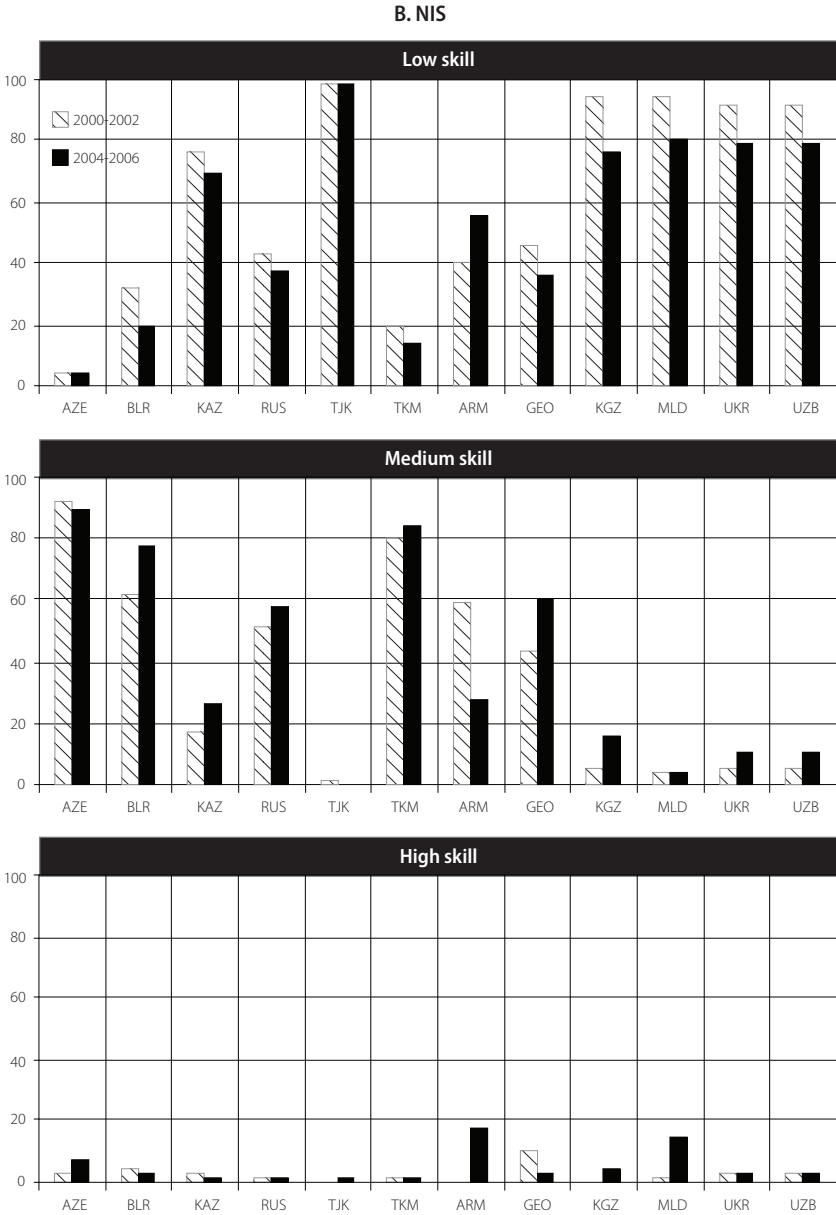


Figure A.4.6 (cont'd)



Source: WITS database, WIIW calculations.

Legend: ARM: Armenia; AZE: Azerbaijan; BGR: Bulgaria; BLR: Belarus; CZE: Czech Republic; EST: Estonia; GEO: Georgia; HUN: Hungary; KAZ: Kazakhstan; KGZ: Kyrgyzstan; LTU: Lithuania; LVA: Latvia; MLD: Republic of Moldova; POL: Poland; ROM: Romania; RUS: Russian Federation; SVK: Slovakia; SVN: Slovenia; TJK: Tajikistan; TKM: Turkmenistan; UKR: Ukraine; UZB: Uzbekistan.

Figure A.4.7:  
**Revealed comparative advantage (RCA) in trade with EU-25 by factor content of industries, 2000-2002 and 2004-2006**  
 (average shares in percent)

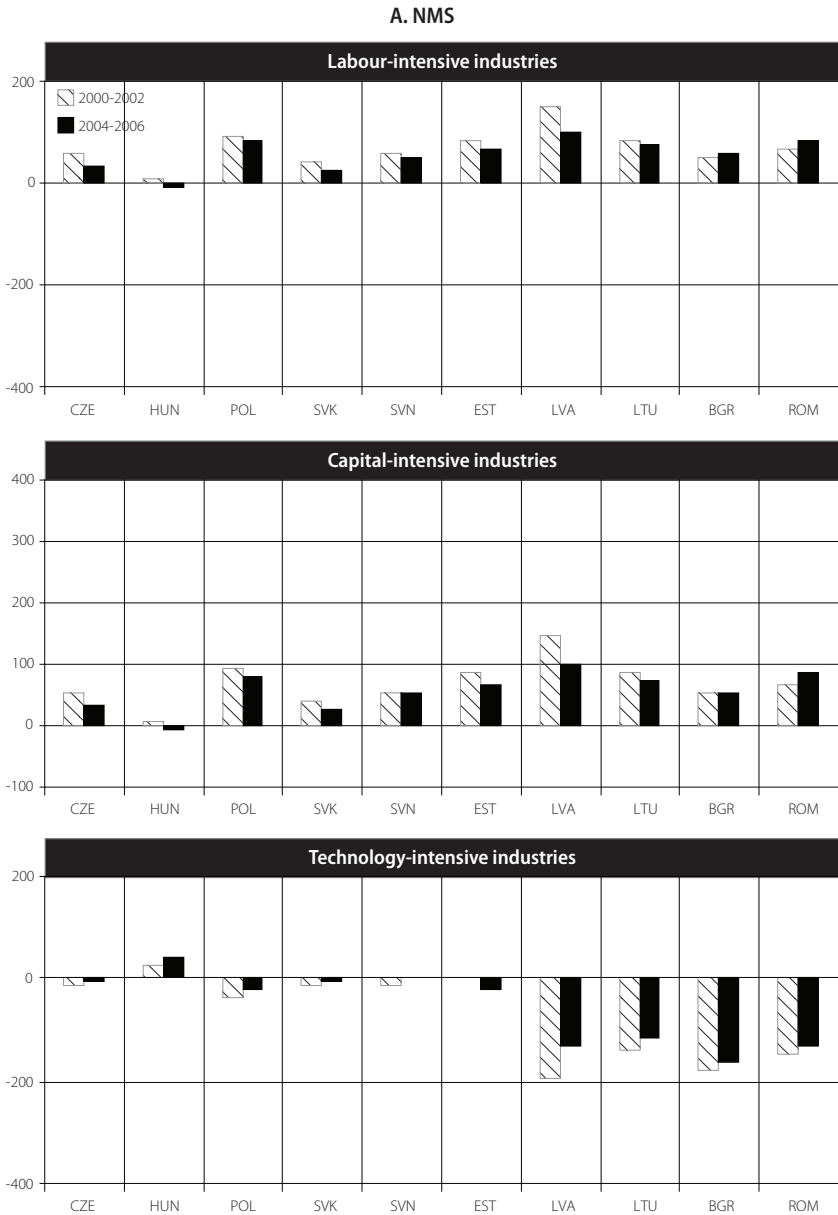
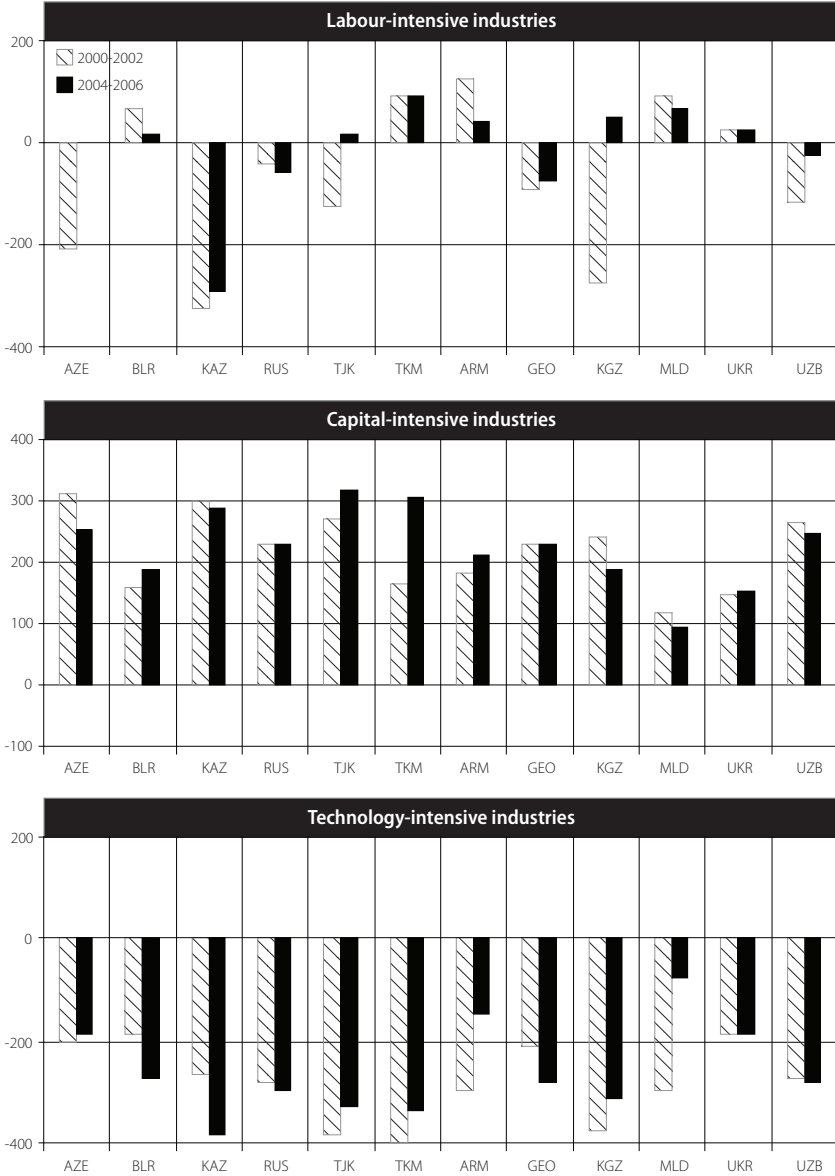




Figure A.4.7 (cont'd)

B. NIS



Source: WITS database, WIW calculations.

Legend: ARM: Armenia; AZE: Azerbaijan; BGR: Bulgaria; BLR: Belarus; CZE: Czech Republic; EST: Estonia; GEO: Georgia; HUN: Hungary; KAZ: Kazakhstan; KGZ: Kyrgyzstan; LTU: Lithuania; LVA: Latvia; MLD: Republic of Moldova; POL: Poland; ROM: Romania; RUS: Russian Federation; SVK: Slovakia; SVN: Slovenia; TJK: Tajikistan; TKM: Turkmenistan; UKR: Ukraine; UZB: Uzbekistan.

**Figure A.4.8:**  
**Revealed comparative advantage (RCA) in trade with EU-25 by skill-intensity content of industries, 2000-2002 and 2004-2006**  
 (average shares in percent)

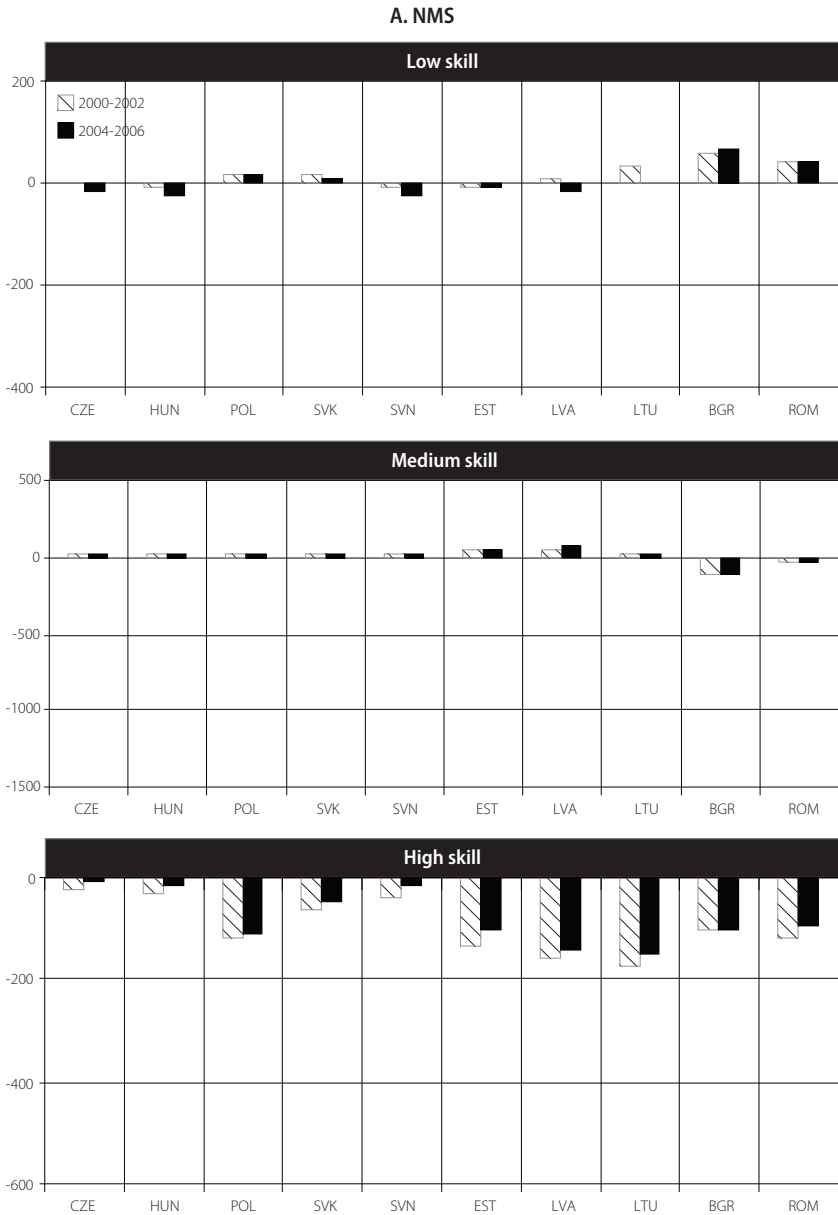
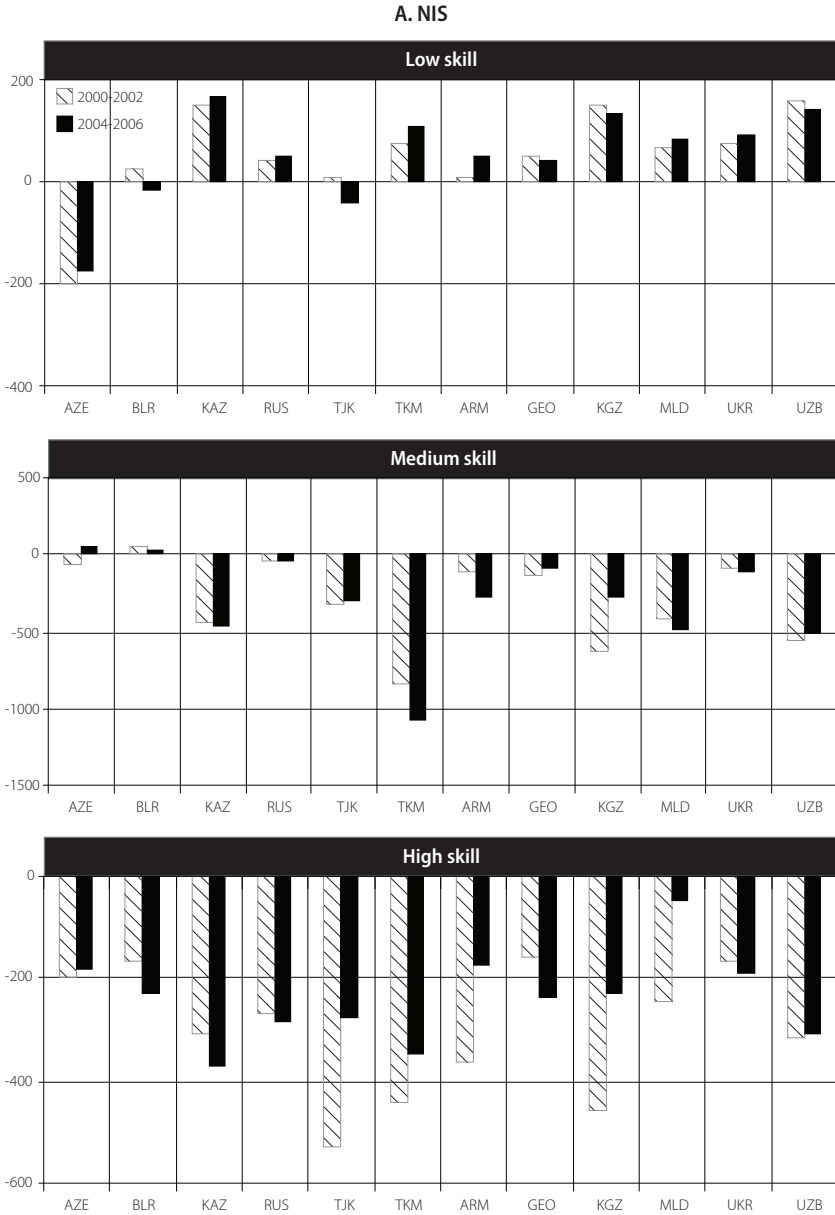


Figure A.4.8 (cont'd)



Source: WITS database, WIIW calculations.

Legend: ARM: Armenia; AZE: Azerbaijan; BGR: Bulgaria; BLR: Belarus; CZE: Czech Republic; EST: Estonia; GEO: Georgia; HUN: Hungary; KAZ: Kazakhstan; KGZ: Kyrgyzstan; LTU: Lithuania; LVA: Latvia; MLD: Republic of Moldova; POL: Poland; ROM: Romania; RUS: Russian Federation; SVK: Slovakia; SVN: Slovenia; TJK: Tajikistan; TKM: Turkmenistan; UKR: Ukraine; UZB: Uzbekistan.

**Table A.4.1:**  
**Taxonomy used in industry classifications by factor content and skill intensity**

	<i>NACE rev.1</i>	<i>Taxonomy I Factor inputs</i>	<i>Taxonomy II Factor inputs</i>
Meat products	151	4	1
Fish and fish products	152	4	1
Fruits and vegetables	153	4	1
Vegetable and animal oils and fats	154	4	1
Dairy products; ice cream	155	4	1
Grain mill products and starches	156	4	1
Prepared animal feeds	157	4	1
Other food products	158	4	1
Beverages	159	4	1
Tobacco products	160	4	1
Textile fibres	171	3	1
Textile weaving	172	2	1
Made-up textile articles	174	2	1
Other textiles	175	1	1
Knitted and crocheted fabrics	176	1	1
Knitted and crocheted articles	177	1	1
Leather clothes	181	2	1
Other wearing apparel and accessories	182	2	1
Dressing and dyeing of fur; articles of fur	183	2	1
Tanning and dressing of leather	191	4	1
Luggage, handbags, saddlery and harness	192	4	1
Footwear	193	4	1
Sawmilling, planing and impregnation of wood	201	2	2
Panels and boards of wood	202	2	2
Builders' carpentry and joinery	203	2	2
Wooden containers	204	2	2
Other products of wood; articles of cork, etc.	205	2	2
Pulp, paper and paperboard	211	3	3
Articles of paper and paperboard	212	1	3
Publishing	221	4	3
Printing	222	4	3
Coke oven products	231		
Refined petroleum and nuclear fuel	232	3	3
Nuclear fuel	233		
Basic chemicals	241	3	3
Pesticides, other agro-chemical products	242	5	3

Table A.4.1 (cont'd)			
	<i>NACE rev.1</i>	<i>Taxonomy I Factor inputs</i>	<i>Taxonomy II Factor inputs</i>
Paints, coatings, printing ink	243	1	3
Pharmaceuticals	244	5	4
Detergents, cleaning and polishing, perfumes	245	4	3
Other chemical products	246	5	3
Man-made fibres	247	3	3
Rubber products	251	1	1
Plastic products	252	1	1
Glass and glass products	261	1	1
Ceramic goods	262	2	1
Ceramic tiles and flags	263	3	1
Bricks, tiles and construction products	264	2	1
Cement, lime and plaster	265	3	1
Articles of concrete, plaster and cement	266	1	1
Cutting, shaping, finishing of stone	267	2	1
Other non-metallic mineral products	268	1	1
Basic iron and steel, ferro-alloys (ECSC)	271	3	1
Tubes	272	1	1
Other first processing of iron and steel	273	3	1
Basic precious and non-ferrous metals	274	3	1
Structural metal products	281	2	2
Tanks, reservoirs, central heating radiators and boilers	282	4	2
Steam generators	283	2	2
Cutlery, tools and general hardware	286	4	2
Other fabricated metal products	287	1	2
Machinery for production, use of mech. power	291	1	4
Other general purpose machinery	292	1	4
Agricultural and forestry machinery	293	1	4
Machine-tools	294	2	4
Other special purpose machinery	295	1	4
Weapons and ammunition	296	1	4
Domestic appliances n. e. c.	297	1	3
Office machinery and computers	300	5	4
Electric motors, generators and transformers	311	1	3
Electricity distribution and control apparatus	312	5	3
Isolated wire and cable	313	1	3
Accumulators, primary cells and primary batteries	314	1	3

Table A.4.1 (cont'd)			
	NACE rev.1	Taxonomy I Factor inputs	Taxonomy II Factor inputs
Lighting equipment and electric lamps	315	1	3
Electrical equipment n. e. c.	316	2	3
Electronic valves and tubes, other electronic comp.	321	5	3
TV and radio transmitters, apparatus for line telephony	322	5	3
TV, radio and recording apparatus	323	5	3
Medical equipment	331	5	3
Instruments for measuring, checking, testing, navigating	332	5	3
Optical instruments and photographic equipment	334	5	3
Watches and clocks	335	4	3
Motor vehicles	341	5	2
Bodies for motor vehicles, trailers	342	2	2
Parts and accessories for motor vehicles	343	3	2
Ships and boats	351	2	2
Railway locomotives and rolling stock	352	2	2
Aircraft and spacecraft	353	5	4
Motorcycles and bicycles	354	1	2
Other transport equipment n. e. c.	355	1	2
Furniture	361	2	2
Jewellery and related articles	362	2	2
Musical instruments	363	4	2
Sports goods	364	4	2
Games and toys	365	4	2
Miscellaneous manufacturing n. e. c.	366	4	2

**Legend:****Taxonomy I (Factor content):**

1. Mainstream
2. Labour intensive industries
3. Capital intensive industries
4. Marketing driven industries
5. Technology driven industries

**Taxonomy II (Skill intensity, main use by type of worker):**

1. Low-skilled workers
2. Medium-skilled/blue collar workers
3. Medium skilled/white collar workers
4. High-skilled workers

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## Chapter 5

# Explaining patterns of trade between the CIS and the EU and China

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MALINKA KOPARANOVA AND HUNG-YI LI

### INTRODUCTION

Trade integration of the economies in Eastern Europe and the Commonwealth of Independent States (CIS) with the world economy has advanced rapidly over the past two decades. Driven largely by the economy-wide reforms towards establishing a market-oriented framework, the opening up of the markets in these countries was accompanied by general improvement of the international environment that led to rapidly growing world trade. In the 1990s the volume of world exports grew at a rate of over two and a half times that of world GDP, marking a significant acceleration in trade flows over the preceding decade that considerably facilitated trade integration of the economies in transition into the world economy as well. Trade from and to the CIS has also increased, especially in the aftermath of the financial crisis in the Russian Federation in August 1998, with volume growth rates of both exports and imports exceeding that of world exports and imports by 2 and 10 percentage points, respectively, and penetrating new markets worldwide.

A growing literature on trade openness<sup>1</sup> of the economies in transition, in particular in Central and Eastern Europe, is assigning significant importance to structural factors like economic size and geographic distance in combination with trade policies and reforms initiated from the late 1980s and early 1990s which have pushed towards greater integration into the world economy. These factors are found to have paved the way for a high degree of integration of these economies with the EU in particular (Bussière, Fidrmuc and Schnatz, 2008). Trade linkages of the economies in the CIS with the rest of the world have strengthened at a much weaker pace,



though some more progress has been observed alongside the rapid recovery from the protracted transitional recession that had characterized the second half of the 1990s. While the economic literature on trade patterns in the CIS highlights the geographical reorientation of trade away from intraregional trade (Havrylishyn and Al-Altrash, 1998; Djankov and Freund, 2002), there are few empirical studies that have tried to identify what determines the changes in these patterns (Elborgh-Woytek, 2003 and Babetskii and others, 2003). Most available studies apply the gravity approach to study trade patterns. Findings tend to be highly sensitive to the model specification and econometric techniques that are used. Panel data models that account for the cross-country heterogeneity have been found useful in analysing patterns of trade (Matyas, 1997; Egger, 2000; Baltagi and others, 2003; Cheng and Wall, 2005).

This chapter aims to make a quantitative assessment of trade linkages to and from the CIS that have evolved over the period 1995-2007. It evaluates the determinants of changes in trade openness of these economies with respect to the EU and the emerging markets in Asia, with special reference to China as an important destination and origin of trade flows. The chapter uses panel data to estimate alternative specifications of a gravity model of trade. The models are estimated using a database on bilateral trade flows from the United Nations Commodity Trade Database (COMTRADE), macroeconomic indicators from the World Bank, World Development Indicators (WDI), and an index to measure the progress in exchange rate and trade policies in the CIS from the European Bank for Reconstruction and Development (EBRD); all observed at annual frequencies over the period 1995-2007.

The empirical analysis yields three key findings. First, openness of the CIS—defined as the ratio of total trade to GDP—is found to be determined by the income, size and distance between the trading partners along with trade policy variables, reflecting the progress of exchange rate and trade liberalization in these countries. Second, the empirical results suggest that integration of the CIS into the EU follows a different pattern when compared with the trade linkages between the CIS with China. Much of these differences can be attributed to transportation costs, the effects of the WTO membership and the shock of the Russian crisis in 1998. Third, there are significant gaps between the actual and potential trade of the CIS. A large part of this unused trade potential is caused by existing non-tariff barriers, the weakness of transport and energy infrastructure throughout the CIS, and is significantly related to the high transportation costs of the

landlocked CIS countries. All these results are observed after controlling for additional influencing factors, such as common language, common borders, membership in the WTO and similarities between the trading countries.

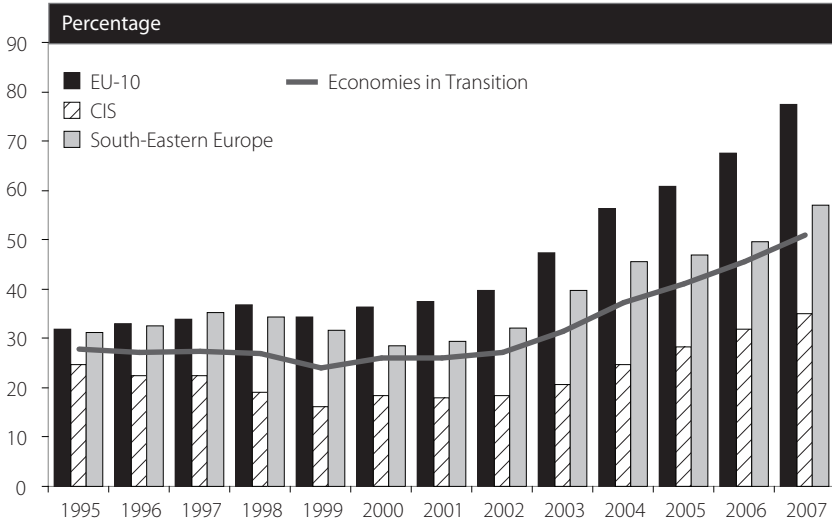
The remainder of the chapter is organized as follows. The next section looks at the dynamics of openness of the economies of the CIS and identifies the main reasons behind the deepening of their integration into world markets. It continues with an analysis of the main trends in export and import performance of the CIS during 1995-2007. The third section presents the gravity approach to explaining trade patterns, while the subsequent section describes the data used for the application of the methodology and presents the empirical results. The final section presents the conclusions derived from the empirical findings and their policy implications for the economies of the CIS.

#### STYLIZED FACTS ABOUT TRADE, GROWTH AND REFORMS IN THE CIS

Trade linkages of the CIS have changed dramatically since the start of the transition of these economies from centrally planned to market-based economies. From activities of the former Soviet Union and within an isolated block of economies—the Council for Mutual Economic Assistance (CMEA)—trade at present reflects the exchange of goods and services between companies from sovereign States within a new institutional and legal setting. These unprecedented changes have caused growing integration of the region towards the world markets. The dynamics of the ratio of foreign trade to GDP—measured as the ratio of foreign trade (exports and imports) to GDP—is a reflection of the strengthening of the trade linkages of the CIS with the world economy. Although this ratio has gone up since the start of the transition, its evolution is more complex than that of the economies in South-Eastern Europe or Central and Eastern Europe (see figure 5.1).

There are a number of factors that have shaped the pattern of trade openness of the CIS economies. In the first place, the recovery from the initial transitional slump took longer and was more protracted than in the Eastern European countries as reforms were implemented with delays following “stop and go” policies in many economies, and in a number of CIS economies there are still incomplete reforms, particularly in the institutional environment (EBRD, 2007). Second, the significantly lower level of openness in the CIS than in the rest of the economies in transition is explained largely by their geographical location, the weakness of their physical infrastructure and institutions, different barriers to trade,

Figure 5.1:  
Openness of the economies in transition by groups, 1995-2007



Source: Authors' calculation, based on data from UN COMTRADE database and World Bank World Development Indicator (WDI) database, 2009.

governance problems in customs and transportation, political tensions among countries in the region and restrictions to market access. Third, despite some policies to strengthen trade linkages between the EU and the CIS, such as the European Neighbourhood Policy, the accession of the Eastern European economies and the Baltic States to the EU and their relations with the EU have played a much more proactive role in supporting deeper integration of these countries into world markets. Last, but not least, the financial crisis of the Russian Federation in August 1998 had an adverse impact on growth and trade capacity in the CIS region. As a result, impulses to openness in the CIS economies have either been delayed or interrupted during this period along with many obstacles deteriorating trade activities.

The pattern of openness of the economies in the CIS mirrors the trade performance in the region, which has been influenced by both domestic and international factors. After a precipitous decline, triggered by the dissolution of the Soviet Union and the dismantling of the CMEA in the beginning of the 1990s, trade of the economies in the CIS rebounded. In general, two periods can be distinguished in evolution of the region's trade with the rest of the world. A first period, which covers from the beginning of the transition to 1999, is characterized by weak trade growth of the CIS, as external demand was subdued and access to foreign funds was limited. Exports contracted

sharply during this period as domestic markets adjusted painfully to new exchange rate and trade regimes within emerging institutions. For many countries in the region, external financing tightened, leading to a significant drop in output. Moreover, the contractionary macroeconomic policies of those days put further downward pressure on import demand. As a result, imports declined sharply, exceeding considerably the decrease of exports.<sup>2</sup>

In the second period, trade rebounded, with growth rates of both exports and imports exceeding 21 per cent per year in value terms on average between 2000 and 2007 (see Table 5.1). This considerable momentum was built up on the back of a strong depreciation of the currencies in many countries of this region following the Russian Federation financial crisis in August 1998, which boosted the growth of exports. In addition, increased capacity utilization after the initial transitional recession and strong external demand both from the EU and developing countries supported this growth. The volume of exports grew at an annual rate of over 8 per cent during 2000-2007, exceeding growth of output as a sign of deepening trade integration.

During the second period, improved external conditions for financing in combination with rising prices for commodities, in particular oil, gas, metals and cotton—which dominate the exporting lists of many economies in the CIS—have boosted export revenues in the resource-rich economies, such as Kazakhstan, the Russian Federation and Ukraine. In turn, robust growth in the largest economies, such as Kazakhstan, the Russian Federation and Ukraine, have strengthened trade linkages with the neighbouring countries of the region, causing a significant acceleration of intraregional trade growth (see Table 5.1).

More accommodating macroeconomic policies and improved confidence as a result of several years of reforms have supported strong economic activity in this period, with aggregate GDP growing by more than 7.6 per cent per year. As a result, domestic demand became the backbone of regional growth for a number of consecutive years, prompting rising import demand for both consumer and investment goods. Exchange rate policy and trade liberalization in the CIS contributed significantly to the reorientation of trade flows to and from the countries within the region. Exports within the region declined drastically from about 80 per cent in the former Soviet Union to 28.9 per cent in 1995 and went down even further in the following years (see figure 5.2).

Among destinations outside of the region, exports from the CIS to EU markets increased most strongly. The enlarged Europe became a direct neighbour to four countries of the CIS—namely Belarus, Republic of

Table 5.1:  
Foreign trade in the economies in transition by direction, 1995-2007

Per cent and billions of dollars										
	Exports					Imports				
	Growth rate				Value	Growth rate				Value
	1994-1999	1999-2005	2006	2007	2007	1994-1999	1999-2005	2006	2007	2007
<b>Economies in transition, to and from</b>										
<b>World</b>	<b>-1.6</b>	<b>21.2</b>	<b>21.6</b>	<b>21.9</b>	<b>512.8</b>	<b>-5.3</b>	<b>19.7</b>	<b>34.0</b>	<b>38.6</b>	<b>418.4</b>
Developed market economies	0.5	22.4	25.1	12.1	296.0	-3.5	18.9	36.0	36.2	209.1
EU-27	0.5	24.9	26.0	11.9	258.5	-4.5	19.1	36.6	34.5	171.9
EU-15	0.8	25.9	28.0	11.6	190.0	-2.8	18.8	34.0	34.6	130.9
New EU member States	-0.2	22.5	20.8	12.6	68.5	-9.8	20.3	45.5	34.1	41.0
Economies in transition	-8.5	18.6	13.4	45.3	104.7	-7.0	17.4	22.0	33.8	111.0
Commonwealth of Independent States	-9.1	18.3	12.3	46.2	97.9	-7.3	17.4	22.2	33.5	106.5
Russian Federation	-10.7	15.1	15.9	34.0	28.4	-3.5	18.8	33.6	22.3	58.6
South-Eastern Europe	7.9	22.7	30.4	33.6	6.8	4.3	17.5	17.6	40.5	4.5
Developing countries	5.6	20.8	18.5	34.3	103.8	2.4	28.0	48.7	51.6	95.3
China	3.4	23.7	17.2	13.8	23.4	4.2	50.9	63.7	71.7	44.8
<b>South-Eastern Europe, to and from</b>										
<b>World</b>	<b>3.7</b>	<b>13.7</b>	<b>8.2</b>	<b>22.2</b>	<b>20.3</b>	<b>8.3</b>	<b>14.8</b>	<b>2.4</b>	<b>20.9</b>	<b>43.7</b>
Developed market economies	2.7	12.8	6.1	18.0	13.6	7.8	13.2	-5.9	19.8	28.6
EU-27	1.7	13.2	6.0	19.3	12.8	7.6	13.6	-6.2	20.0	26.7
EU-15	3.7	12.9	4.1	16.2	9.4	7.3	12.8	-6.9	22.3	19.3
New EU member States	-4.2	14.2	12.3	29.0	3.4	8.5	16.0	-4.6	14.5	7.3
Economies in transition	2.6	19.1	16.5	31.2	4.1	17.1	18.6	25.3	10.9	7.2
Commonwealth of Independent States	-22.3	10.5	24.0	34.0	0.3	22.2	18.5	36.7	-4.1	3.5
Russian Federation	-21.7	7.3	10.9	47.4	0.2	24.9	19.7	40.0	-6.0	3.0
South-Eastern Europe	11.3	20.1	16.0	30.9	3.7	12.5	18.8	13.3	30.1	3.7
Developing countries	1.4	15.8	-6.1	4.7	1.3	2.7	25.3	20.8	38.3	7.3
China	-23.4	54.5	5.1	-39.2	0.1	24.6	50.0	29.9	30.0	2.4

**Table 5.1 (cont'd)**

	Exports					Imports				
	Growth rate				Value	Growth rate				Value
	1994-1999	1999-2005	2006	2007	2007	1994-1999	1999-2005	2006	2007	2007
<b>CIS countries to and from</b>										
<i>World</i>	<b>-2.0</b>	<b>21.7</b>	<b>22.2</b>	<b>21.9</b>	<b>492.5</b>	<b>-7.7</b>	<b>20.8</b>	<b>39.9</b>	<b>41.0</b>	<b>374.7</b>
Developed market economies	0.3	23.1	26.2	11.9	282.4	-6.8	20.9	48.1	39.2	180.5
EU-27	0.4	25.9	27.2	11.5	245.7	-8.6	21.5	51.1	37.6	145.2
EU-15	0.5	27.1	29.5	11.4	180.5	-6.2	21.2	46.5	37.0	111.5
New EU member States	0.1	23.0	21.2	11.9	65.2	-16.2	22.8	69.1	39.3	33.7
Economies in transition	-8.9	18.5	13.2	46.0	100.6	-8.0	17.3	21.8	35.7	103.8
Commonwealth of Independent States	-9.0	18.4	12.2	46.3	97.5	-7.9	17.3	21.6	35.3	103.0
Russian Federation	-10.5	15.2	15.9	34.0	28.2	-4.5	18.8	33.2	24.3	55.6
South-eastern Europe	1.0	28.4	55.1	37.0	3.1	-18.2	7.2	67.8	123.1	0.8
Developing countries	5.7	21.0	19.0	34.8	102.6	2.4	28.4	51.8	52.8	88.1
China	3.5	23.5	17.2	14.2	23.3	2.9	51.0	66.9	74.9	42.4
<b>Russian Federation, to and from</b>										
<i>World</i>	<b>-1.7</b>	<b>22.0</b>	<b>22.0</b>	<b>20.7</b>	<b>352.4</b>	<b>-10.1</b>	<b>21.5</b>	<b>36.0</b>	<b>50.5</b>	<b>199.4</b>
Developed market economies	-0.1	22.7	26.5	11.4	227.2	-11.2	22.7	40.0	43.5	114.1
EU-27	0.0	25.8	27.8	10.8	196.4	-12.3	22.4	39.7	42.0	87.1
EU-15	-0.5	27.0	29.3	12.3	146.3	-10.2	21.9	39.3	42.5	72.3
New EU member States	1.2	23.1	23.7	6.6	50.1	-20.9	25.1	41.6	39.9	14.8
Economies in transition	-7.0	19.4	8.8	61.5	55.5	-11.4	13.4	-1.6	72.5	30.5
Commonwealth of Independent States	-7.1	19.1	6.4	62.9	53.0	-11.3	13.5	-2.2	71.3	29.9
Russian Federation										
South-Eastern Europe	-1.8	29.8	84.4	38.2	2.6	-17.5	0.6	91.6	170.2	0.6
Developing countries	1.6	21.9	16.6	33.2	66.4	0.1	28.0	57.4	56.6	53.7
China	0.7	24.7	20.6	1.0	15.9	0.7	41.8	78.0	89.4	24.4

<b>Table 5.1 (cont'd)</b>										
	<i>Exports</i>					<i>Imports</i>				
	<i>Growth rate</i>				<i>Value</i>	<i>Growth rate</i>				<i>Value</i>
	1994-1999	1999-2005	2006	2007	2007	1994-1999	1999-2005	2006	2007	2007
<b>Non-Russian Federation CIS, to and from</b>										
<b><i>World</i></b>	<b>-2.6</b>	<b>20.8</b>	<b>22.8</b>	<b>24.9</b>	<b>140.2</b>	<b>-4.9</b>	<b>20.1</b>	<b>44.0</b>	<b>31.6</b>	<b>175.3</b>
Developed market economies	2.2	24.9	24.9	13.9	55.2	2.4	18.2	63.2	32.4	66.4
EU-27	2.0	25.9	24.8	14.4	49.3	-1.0	20.1	70.4	31.3	58.1
EU-15	5.5	27.6	30.2	7.4	34.2	3.9	19.9	60.1	28.0	39.3
New EU member States	-3.3	22.4	11.6	34.2	15.1	-10.7	20.6	99.2	38.8	18.9
Economies in transition	-10.5	17.6	18.0	30.5	45.1	-5.9	19.2	31.1	24.7	73.3
Commonwealth of Independent States	-10.7	17.6	18.4	30.5	44.6	-5.9	19.1	31.1	24.6	73.2
Russian Federation	-10.5	15.2	15.9	34.0	28.2	-4.5	18.8	33.2	24.3	55.6
South-Eastern Europe	7.5	25.6	-12.6	31.2	0.5	-21.1	24.1	37.9	40.5	0.2
Developing countries	15.9	19.3	23.9	37.7	36.2	6.2	28.8	44.4	47.3	34.3
China	12.5	20.6	7.2	58.5	7.4	10.5	67.1	55.9	58.3	18.0

**Source:** Authors' calculations, based on data from UN COMTRADE database and International Monetary Fund, *Direction of Trade Statistics* (DOTS), 2009.

Figure 5.2:  
**Geographical distribution of exports and imports**  
 (average shares in percent)

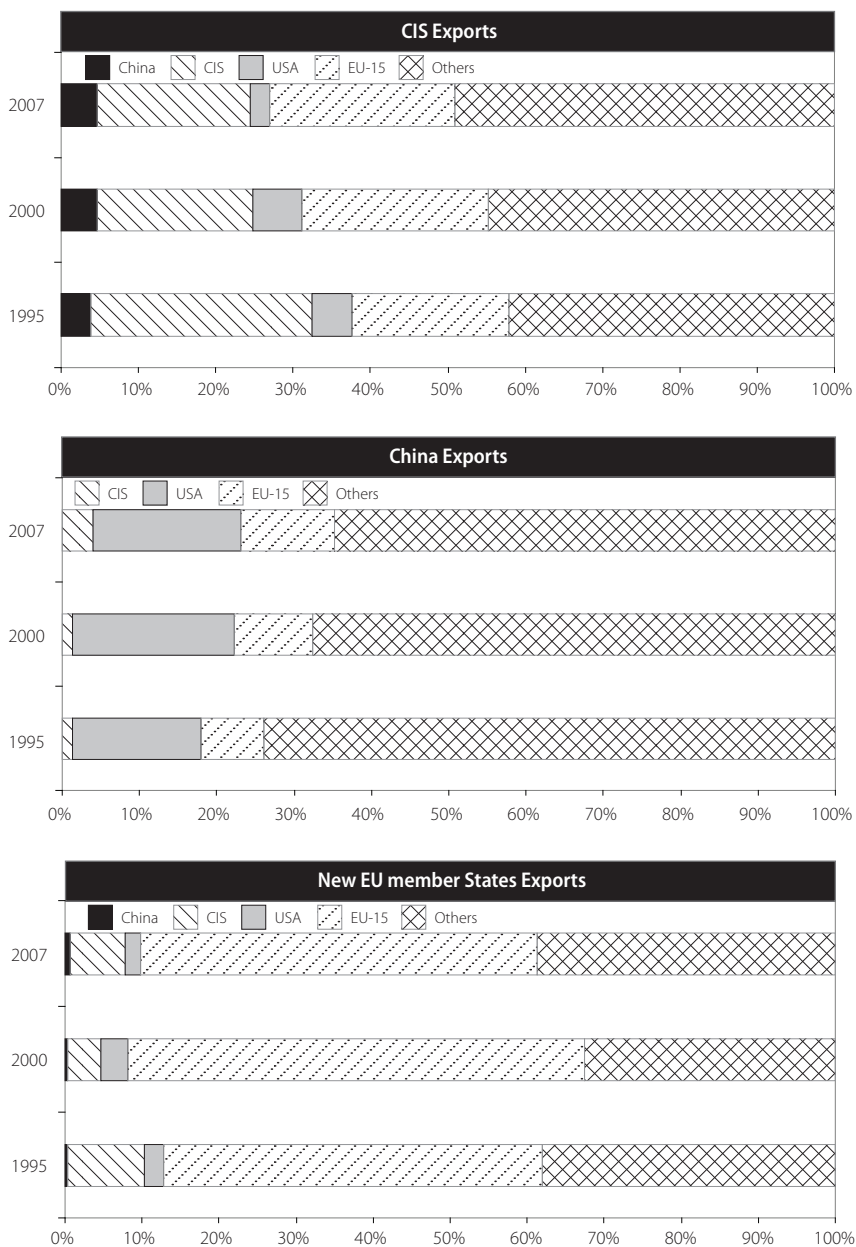
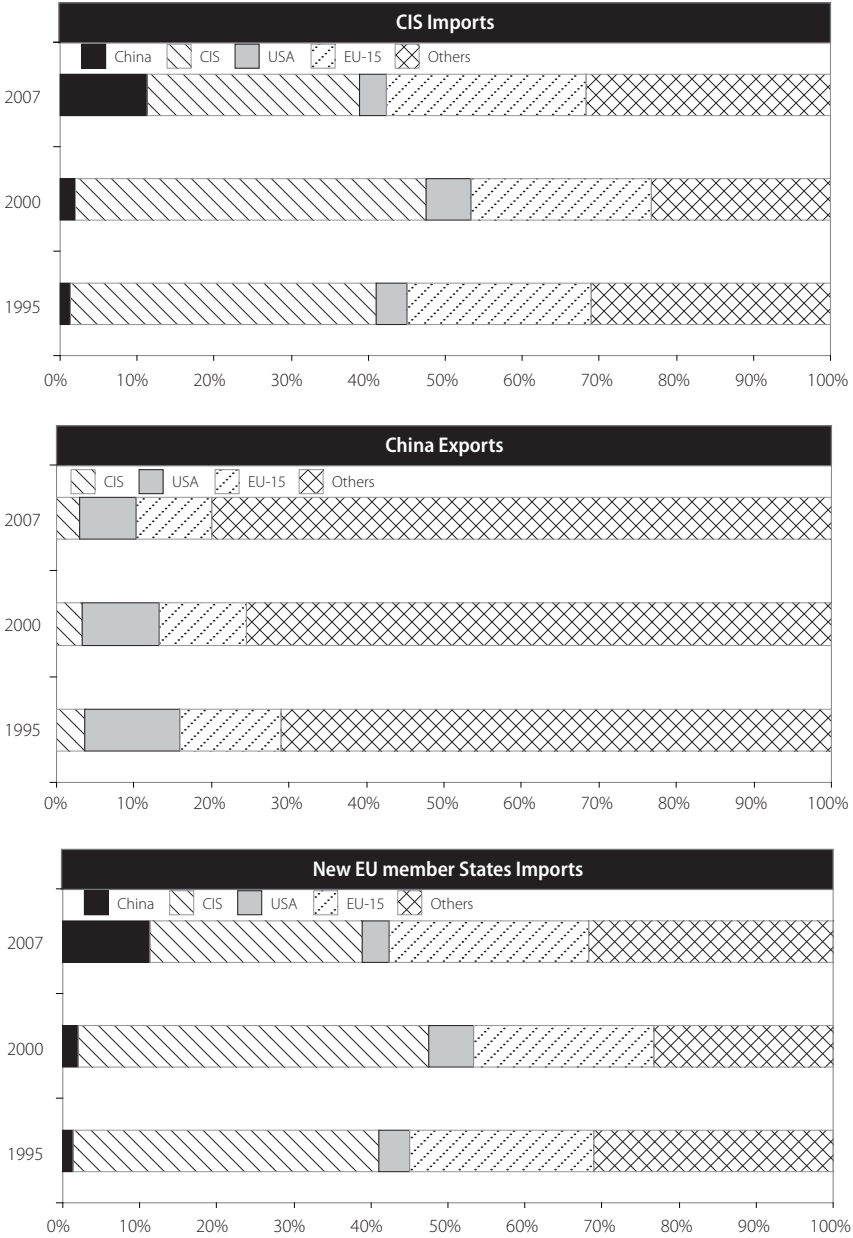




Figure 5.2 (cont'd)



Source: Authors' calculation, based on data from International Monetary Fund, *Direction of Trade Statistics* (DOTS), 2009.

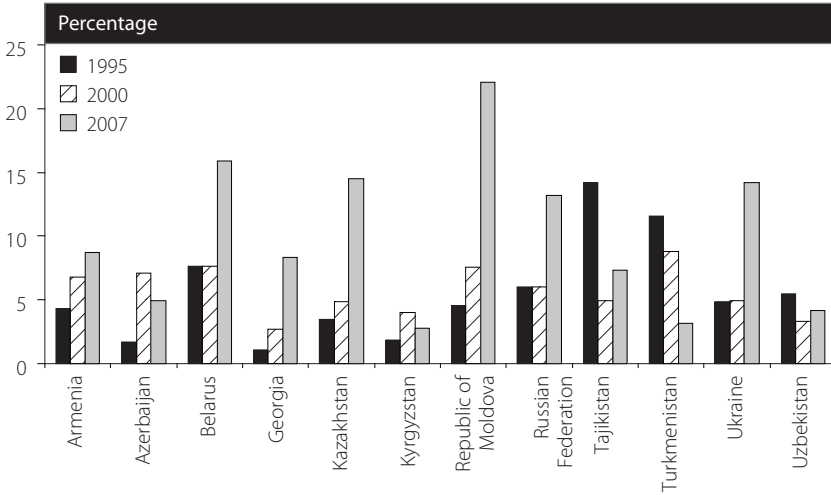
Moldova, the Russian Federation and Ukraine. Growth of exports to the EU was promoted in part by the Partnership and Cooperation Agreements between the EU and the CIS countries since the 1990s and the more recent European Neighbourhood Policy with a number of CIS, namely Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova and Ukraine.

The markets of developed economies continue to attract a large share of the CIS export—around 60 per cent of total exports for the past three years. Meanwhile exports from this region to developing countries, such as China, accelerated mirroring the rapid growth of external demand for primary commodities. Rising oil prices are an important factor in the growing market shares of CIS exports, particularly from the Russian Federation, in the EU and South-Eastern Europe. However, this geographical trade pattern varies widely across the CIS. While the share of intraregional exports in total exports is between 15 and 17 per cent for countries such as Azerbaijan, Kazakhstan, the Russian Federation and Tajikistan, it is above 30 per cent for Armenia, Belarus, Georgia, Kyrgyzstan, Republic of Moldova and Ukraine. As a result of the geographical reorientation of trade, the CIS as a group started to open up to the international markets, in particular to the EU. This process accelerated in the years after the Russian crisis. At country level, however, the opening up of markets vis-à-vis the EU shows diverging trends. In Azerbaijan, Kyrgyzstan and Turkmenistan trade linkages have weakened, while those in Belarus, Georgia, Kazakhstan, Republic of Moldova, Russian Federation and Ukraine strengthened (see figure 5.3).

The geographical proximity of the CIS to China, on the one hand, and reforms to establish market-oriented economies in these countries for over more than a decade, on the other, have strengthened trade linkages between these countries. A major part of this process is attributable to the export-oriented growth strategy adopted by China over a long period that led to continued strong demand for primary commodities. In light of this, China's import demand for oil, gas and metals, which are the main export commodities from Azerbaijan, Kazakhstan, the Russian Federation, Ukraine and Turkmenistan, grew significantly after 2001.

Liberalization of exchange rate and trade regimes, including integration into the multilateral trading system through accession to the World Trade Organization (WTO), has helped establish stronger trade ties between the CIS and rest of the world. Armenia, China, Georgia, Kyrgyzstan, Republic of Moldova and Ukraine are members of the WTO, while five countries from the CIS are in the process of negotiating accession. At the time of writing,

Figure 5.3:  
**Openness of the Commonwealth of Independent States  
 in its trade with the European Union**

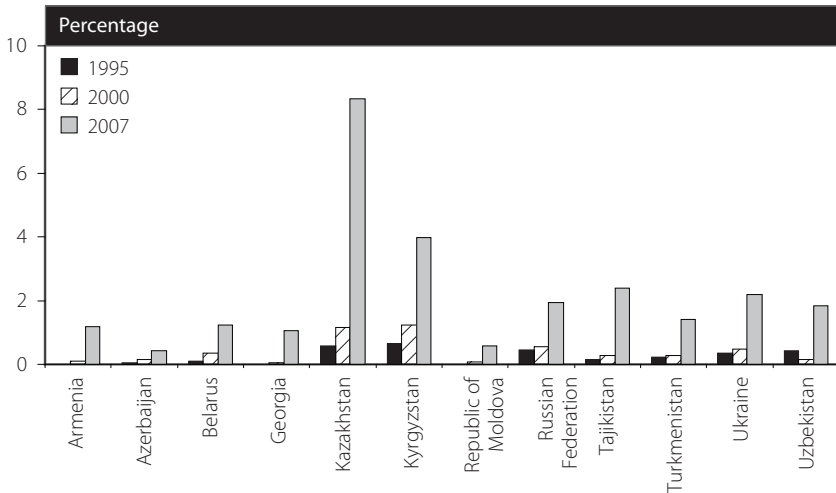


Source: Authors' calculation, based on data from International Monetary Fund, *Direction of Trade Statistics* (DOTS) and *World Economic Outlook* (WEO), 2009.

the Russian Federation was in an advanced stage of negotiation. Bilateral negotiations on market access have contributed to the harmonization of domestic legislation and commercial practices, and progress made in reforming the custom code has led to a transformation of the tariff system in these countries. Looking at country level, all economies of the CIS have strengthened their trade linkages with China, with Kazakhstan and Kyrgyzstan leading significantly in this integration (see figure 5.4).

The described pattern of trade to and from the CIS has been the result of a series of basic reforms to introduce market principles along with improved terms of trade in many of these countries. In the CIS, a rapid transition following a big bang approach to liberalize the economy was implemented through political reform, liberalization of prices and foreign trade, hardening of firms' budget constraints, privatization, structural reforms, and reforms of the financial system with a significant withdrawal of the State at the onset of reforms. The crisis in August 1998 in the Russian Federation, however, adversely affected this process and more abrupt changes in trade regimes followed. Moreover, complimentary measures aimed at restructuring enterprises were less systemic in the CIS as compared to those in China and were largely implemented with delays. By contrast, in China a gradual and dual-track approach to economic development introduced export and

Figure 5.4:  
**Openness of the Commonwealth of Independent States in its trade with China**



**Source:** Authors' calculation, based on data from International Monetary Fund, *Direction of Trade Statistics (DOTS)* and *World Economic Outlook (WEO)*, 2009.

import policies within a package promoting growth and modernization, while sustaining the role of the State as important both in the design and implementation of policies.

Despite the differences in the strategies and approaches of these reforms, trade liberalization has played a key role. Institutional settings of the CIS converged during the 1990s to those established in China at the end of the 1980s.<sup>3</sup> Trade reforms included the elimination of State monopolies in foreign trade and the opening to entrance of private agents, more flexible exchange rate policies and progress towards making national currencies convertible, and policies to attract foreign direct investments, to export-oriented sectors, in particular. The strategy of gradual liberalization of trade activities prevailed in China since the 1980s and, in general, in some of the CIS since the beginning of the 1990s. After a series of reforms China became a WTO member in December 2001 (see Qian, 2003).

Against this general overview of trade developments in the CIS, several questions arise as to the integration of these economies over the period since the onset of the transformation to market-led economies:

- How strong are the trade linkages between the economies of the CIS and the EU, and the CIS and emerging Asian markets, in particular China?

- What are the determinants of these patterns of integration of the CIS vis-à-vis EU and China? What role have the policies for exchange rate and trade liberalization played in these countries over the investigated period?
- What are the differences between these two patterns of integration and their policy implications?
- What is the potential of trade linkages from and to the CIS to the two gravity centres?

In seeking answers to these questions this study makes inferences on the level of trade openness and the potential that the region could develop in order to gain more benefits from strengthening trade linkages with the EU and China. This is done by applying the gravity approach<sup>4</sup> to specify a series of panel data models and estimate the main determinants of trade openness over the period 1995-2007.

## ECONOMETRIC MODEL

### *A brief overview of the gravity approach*

In order to address the questions of strengthening the trade linkages of the CIS, the relationships between the trade openness of these economies to the EU and China, on one side, and a set of variables, on the other, as possible determinants are specified using gravity models. Since the pioneering standard gravity model of international trade developed independently by Tinbergen (1962) and Pöyhönen (1963), and its further specification as an augmented gravity model by Linnemann (1966), the application of the Newton's gravity law has largely expanded in applied economic research, including such areas as the analysis of foreign direct investments, remittances, etc. There is a growing body of literature for the assessment of economic integration agreements, the influence of national borders, currency unions, languages and other measures of trade costs and trade distortions<sup>5</sup> on bilateral trade activities, which has turned the gravity models into "the workhorse for empirical studies" (Eichengreen and Irwin, 1998, p. 33). Although gravity models focused on the empirics of international trade in the beginning, later they received several theoretical underpinnings, including a microeconomic foundation first developed by Anderson (1979) and Bergstrand (1985 and 1989) and embedded in new trade theory by Deardoff (1998), Helpman and Krugman (1985) and Helpman (1987).

Results of empirical international economics using the gravity approach have endured the tests of many years of research and much of this success is attributable to the simplicity of this approach and the attention paid towards more precise specification, such as the application of longitudinal panel data models as an econometric technique in order to avoid distorted estimations. The simplicity stems from using the gravity equation, derived in Newtonian physics, to relate—similar to the force of gravity—the size of trade flows between countries to the size of these countries and the distance between them. It postulates that trade flows are proportional to the economic “mass”—measured by national income—and inversely proportional to the cost of transportation—measured usually by the distance between the countries. At the same time, the gravity equation has undergone a series of modifications from the augmented model (which by definition includes population in addition to economic size and distance as independent variables) to account for other factors that may influence patterns of bilateral trade (see for example, Cheng and Wall, 2005).<sup>6</sup> As a result, gravity models were revived in the 1990s with strong emphasis on the econometric properties beyond the goodness of fit of the equation and exploring further trade, its causality with growth, the effect of currency unions on trade, among other factors (see for example Frenkel and Wei, 1998; Frenkel and Romer 1999; Rose and Stanley, 2005).

### *Gravity approach to openness*

As a first step of the empirical analysis of trade patterns of the CIS, we estimate gravity equations that identify the determinants of the openness of these economies to the countries from the EU and China, respectively, on two panels. The dependent variable, trade openness, is defined as the ratio of the sum of exports and imports to GDP, all valued in purchasing power parity (PPP).<sup>7</sup> Given the description of the trade performance and reforms during the period under investigation discussed above, it may be hypothesized that the variation in degrees of trade openness is related to economic size (as measured by output and population of the trading countries), transportation costs and the exchange rate and trade policies of the trading countries. In addition to the standard gravity model specifications applied in other studies of trade openness of the economies in transition, such as those by Havrylyshyn and Al-Atrash (1998), Elborgh-Woytek (2003) and Babetski and others (2003), this study suggests controlling for a number of other CIS-specific factors. The following log-linear specification of the gravity model has been applied to identify the determinants of trade openness:

$$\log TO_{it} = const + \alpha \log Y_{it} + \beta \log P_i + \gamma \log D_i + \delta TI_{it} + \rho \log SI_{it} + \sum v_m DM_{imt} + e_{it} \quad (5.1)$$

where  $TO_i$  is trade openness of  $i$  country to the EU and China respectively,  $Y_i$  is GDP per capita in PPP of country  $i$ ;  $P_i$  is population of country  $i$ ;  $D_i$  is distance between country  $i$ 's capital city and Frankfurt or Beijing, as proxies of the vicinity to EU or Chinese markets respectively;  $TI_i$  is trade liberalization index, as measured by the EBRD index of exchange and trade liberalization;  $SI_j$  is similarity index between country  $i$  and its trading partners;  $DM_{im}$  is a set of  $m$  binary dummy variables, which take the value of one if there are common borders of country  $i$  with the EU and China respectively or if country  $i$  is a member of a free trade area or WTO, and zero otherwise;  $t$  is subscript referring to time; and  $e_{it}$  is a standard error term. The similarity index is introduced to capture the relative size of the trading partners following Baltagi and others (2003) and is defined as:

$$SI_{ijt} = 1 - \left( \frac{Y_{it}}{Y_{it} + Y_{jt}} \right)^2 - \left( \frac{Y_{jt}}{Y_{it} + Y_{jt}} \right)^2 \quad (5.2)$$

Within this framework, trade openness of the economies of the CIS is identified towards two destinations: the EU and China. The gravity type regression is estimated to account for openness as being affected by country size (approximated by national income and population), distance between the trading countries, reflecting transportation and other costs related to trade, and policies to account for exchange rate and trade liberalization implemented in these countries. The measurement of GDP in purchasing power parity (PPP) is done to ensure greater comparability as well as to avoid the influence of currency over- or undervaluation on the value of output.

As the opening up of the CIS has been under the influence of different exchange rate policies and different speed of trade liberalization, an index accounting for such difference, the EBRD index of exchange and trade liberalization, has been added to the independent variables of the model specification. The WTO membership and the existence of common boundaries with both the EU and China are also taken into account as some of the CIS are WTO members while others have borders with EU countries or China. Therefore, introducing binary dummies which are unity if the countries are WTO members, have land borders with the EU and China, or zero otherwise can be instrumental in explaining variations in the trade flows of the CIS.

Consistent with the literature, the coefficients on the variables accounting for the size of the trading partners, in particular GDP, is supposed to be positive. The effect of population on the volume of trade has often been debated in the empirical literature and the sign has been found to be either positive or negative, but according to Linnemann (1966) and Baldwin (1994) one should expect it to be negative. Trade and exchange rate liberalization in the economies in transition has been introduced with the aim of strengthening export and import linkages. Hence, it is expected that these policies influence trade openness positively. The similarity index is also expected to be positively related to trade flows, as the larger the index, the more similar the trading partners are in terms of level of GDP, which in turn enhances the scope for intra-industry trade (Baltagi and others, 2003).

An important part of the empirical analysis includes verification of the extracted information from the gravity regressions on the data for the trade openness of the CIS and its determinants observed during the period 1995-2007. To account for both cross-country differences and intertemporal dynamics in trade flows, the gravity equations are estimated on panel data. Also, the robustness of the results is checked by comparing different estimation procedures: the ordinary least squares (OLS), fixed effects (within-estimators), random effects and the Hausman-Taylor estimator (1981). This way, some of the caveats in estimating trade patterns with the OLS, such as eliminating country-specific effects and their possible correlation with the explanatory variables, are removed in the subsequent estimators in the fixed-effects model and Hausman-Taylor estimator. The selection between the fixed effects model and the random effects model is based on a Hausman specification test, which is used as a classic test to identify the proper model. As a significant correlation was found between the unobserved country-specific random effects and the regressors, the random-effects model is ruled out. As the gravity models include distance as a dependent variable, the fixed-effects model cannot estimate this important variable because it is time-invariant. Therefore, the Hausman-Taylor estimator in this case is used to isolate the effect of distance in the specification.<sup>8</sup>

Having found the proper specification of openness of the CIS and its determinants that fit the data, the empirical analysis moves to the next stage of estimating the trade potential of these countries. Simulations are performed on a revision of the trade liberalization index in order to reflect further developments in trade policy in the CIS. This is done by upgrading the index for the economies in the CIS to that of the Eastern European economies which are at an advanced stage of integration. These indices



are reported annually by the EBRD and are based on scores varying in the range between 1 and 4+, where 1 signifies an economy with no reforms and 4+, a developed market economy.

## DATA AND REGRESSION RESULTS

### *Data*

The dataset used in this study covers the period 1995-2007, which is the longest period with methodologically consistent macroeconomic indicators that could be compiled on the economies of the CIS.<sup>9</sup> Data on bilateral trade flows are from the United Nations COMTRADE database and the International Monetary Fund Direction of Trade Statistics (IMF DOTS); macroeconomic indicators are from the World Bank World Development Indicators (WDI), expressed in 2000 US dollars; an index measuring progress in liberalizing foreign exchange and trade in the CIS was taken from the EBRD; and population data were obtained from the United Nations Population Division.

EBRD's trade liberalization index is a composite of the following indicators: (a) a score for the degree of control on exports and imports and access to foreign exchange, (b) a measure of the degree of liberalization of the current account of the countries, and (c) a score for the degree of quantitative and administrative import and export restrictions. It is updated annually by the EBRD and published in its Transition Report. The scores are based on a classification system, which ranks the countries depending on the degree the level reached compared with that for the average developed economy.

### *Estimation results*

Two sets of panel data regressions were estimated to identify possible determinants of trade openness of the CIS vis-à-vis, respectively, the EU and China. The estimations followed a strategy of specifying first the fundamental factors as income and distance (standard gravity model) and then population (augmented model). In the second step, controls were introduced for common borders between the trading partners, WTO membership and time dummies. The results are presented in Tables 5.2 and 5.3.

In columns 1 and 3 of Tables 5.2 and 5.3, the coefficients of standard and augmented gravity models are reported based on the OLS estimates with

Table 5.2:  
Determinants of openness of the CIS to the EU, 1995-2007

Variables	Model 1, OLS pooled	Model 2, Panel fixed effects	Model 3, OLS pooled	Model 4, Panel fixed effects	Model 5, Hausman- Taylor
lnGDP	0.79** (0.18)	0.96** (0.17)	1.47** (0.41)	0.71** (0.15)	0.68** (0.15)
lnPopulation		-5.0** (1.03)	-3.86** (0.79)	-1.71** (0.46)	-1.46** (0.62)
lnDistance	-0.47** (0.12)		-0.54** (0.15)		-0.22 (1.04)
Similarity index			0.90 (0.55)	0.79 (1.80)	0.57 (2.19)
Trade Liberalisation Index			0.41** (0.05)	0.56** (0.10)	0.45** (0.04)
WTO			0.13 (0.12)	0.02 (0.12)	0.37 (0.18)
Common Border			1.11 (0.09)		0.18 (0.36)
1999 Dummy			-0.22* (0.05)	-0.19 (0.11)	-0.16 (0.12)
2000 Dummy			-0.18 (0.10)	-0.14 (0.11)	-0.13 (0.12)
Adjusted R <sub>2</sub>	0.45	0.38	0.76	0.62	
Wald chi <sub>2</sub>					161.14
P-value					0.0000

**Source:** Authors' calculations based on COMTRADE data, WDI and EBRD several years.

**Note:** Robust standard errors in brackets; \*\* and \* indicate regression coefficients are significant at the 1 and 5 per cent level, respectively. In the OLS data are pooled and country dummies are introduced, which are significant according to the results of an F test for a joint significance; results are omitted.

country-specific dummies. The coefficients for income and distance have the expected signs and both are statistically significant. Controlling other variables, such as the similarity index between trading partners, the trade liberalization index, the dummies for WTO members and time shocks in 1999 (following the August 1998 crisis in the Russian Federation, which has affected the whole region) contributes significantly to the explanatory power of the regression models.

Importantly, the trade policy variable is significant and has the expected sign. Moreover, the reforms of the exchange rate and trade regimes of the CIS are found to have had the same importance on trade of the CIS with the EU as that with China. However, trade between the CIS and the EU

**Table 5.3:**  
**Determinants of openness of the CIS to China, 1995-2007**

<i>Variables</i>	<i>Model 1, OLS pooled</i>	<i>Model 2, Panel fixed effects</i>	<i>Model 3, OLS pooled</i>	<i>Model 4, Panel fixed effects</i>	<i>Model 5, Hausman- Taylor</i>
InGDP	1.51** (0.29)	1.52** (0.25)	1.06** (0.30)	1.00** (0.25)	0.89** (0.15)
InPopulation		-0.40 (1.53)	1.71 (1.68)	1.71 (1.46)	0.009 (0.69)
InDistance	-0.77** (0.012)		-0.67** (0.011)		-0.46** (0.12)
Similarity index			1.14** (0.67)	1.20** (0.80)	1.57** (0.89)
Trade Liberalisation Index			0.45** (0.19)	0.46** (0.11)	0.169** (0.07)
WTO			0.66* (0.22)	0.71** (0.20)	0.79** (0.20)
Common Border			3.49 (2.23)		0.88 (0.64)
1999 Dummy			-0.33* (0.11)	-0.32* (0.11)	-0.38* (0.054)
2000 Dummy			-0.27* (0.10)	-0.26* (0.11)	-0.29* (0.09)
Adjusted R <sub>2</sub>	0.35	0.24	0.67	0.42	
Wald chi <sub>2</sub>					87.58
P-value					0.0000

**Source:** Authors' calculations based on COMTRADE data, WDI and EBRD several years.

**Note:** Robust standard errors in brackets; \*\* and \* indicate regression coefficients are significant at the 1 and 5 per cent level, respectively. In the OLS data are pooled and country dummies are introduced, which are significant according to the results of an F test for a joint significance; results are omitted.

does not appear to have been influenced by WTO membership, while the opposite is the case in its trade with China. This could be explained by the differences in the trade arrangements between the CIS and the EU, on one side, and China on the other (see the discussion in the second section of this chapter).

The similarity index of the trading countries also has a different impact when comparing trade of the CIS with the EU and that with China. The upshot of the 1998 Russian financial crisis also has influenced trade with China and the EU in different degrees. The regression coefficients for both variables are statistically significant in the case of trade with China. The

significant and positive sign for the similarity index reflects stronger ties between the CIS and China through increased intra-industry trade as compared with trade with the EU where this index is not significant. The negative sign for the 1999 time dummy reflects the adverse trade effects of the cumulative Asian and Russian financial crises. The coefficient on population is not with the expected sign for the trade openness of the CIS to China, but it is not significant either.

In columns 2 and 4 of Tables 5.2 and 5.3, estimates are reported for the fixed-effects model specifications. As these models correct for the heterogeneity in the panels and the correlation between the residuals and the fixed effects, the coefficients on income and population are lower than in the OLS estimates. An important result of the estimation is that the effect of the trade liberalization remains statistically significant and has a positive impact on trade openness. Another key finding from the fixed-effects models is that openness has been adversely affected by the shock of the Russian and Asian crises in 1999 and 2000.

As a final check of the results regarding the determinants of the pattern of trade openness of the CIS to the EU and China, the Hausman-Taylor estimator is applied. The results, presented in column 5 of Tables 5.2 and 5.3, confirm that trade openness of the CIS to the EU is determined by income, population and changes in trade and exchange rate policies during the period 1995-2007. In the case of trade with China, however, the gravity model results suggest that the degree of openness is determined by income, distance, trade liberalization, WTO membership and the effects of the Russian and Asian crises.

## CONCLUSIONS AND POLICY IMPLICATIONS

Summarizing, we conclude that the gravity model fits the data well for the trade patterns of the CIS with the EU and China. The elasticities of trade openness with respect to output and geographical distance are plausible and in a range not dissimilar to those found in the broader empirical results of trade gravity models.<sup>10</sup> Regarding the determinants of trade patterns between the CIS and the EU and between the CIS and China, we find three key results.

First, while there are important similarities in the factors that determine the trade openness of the CIS to the EU and China, geographical distance appears to have an unambiguous negative effect on openness between the economies of the CIS and China, reflecting high transportation and transaction costs

associated with their trade. Second, trade and exchange reforms in the CIS have positively influenced in a similar degree trade with both the EU and China. Third, an important factor in explaining the variations in openness of the CIS to China, however, is the participation in the multilateral trading system as reflected by the positive influence of WTO membership. In contrast, the degree of trade integration with the EU is not affected by the access to the multilateral trade system. This result is consistent with the current EU policy towards the CIS, including many bilateral agreements, some of which were discussed in the second section of this chapter.

These findings suggest further that potential trade between the CIS and the EU on the one hand, and between the CIS and China on the other, is much larger than observed trade. Using the model parameters, we estimate that the potential level of trade between the CIS and the EU is 70 per cent larger than actual trade and that potential trade with China is 90 per cent larger. The largest gaps are observed for Kyrgyzstan and Georgia, followed by Armenia, Kazakhstan, Republic of Moldova and Uzbekistan. By contrast, the potential trade is closer to actual for Azerbaijan, Belarus and Tajikistan, albeit still exceeding 40 per cent.

Despite methodological problems in estimating potential trade (Bussière, Fidrmuc and Schnatz, 2008), we take these results as indicative of a significant potential for further trade expansion. There are a number of key reasons for trade staying well below its potential. In the CIS, inadequate transport infrastructure is a major impediment to trade as many of these countries are landlocked. Several years of underinvestment in transport infrastructure and political conflicts on cross-border issues in the region have reduced significantly the competitiveness of these economies owing to increased transport costs and higher inventory costs to compensate for irregular supply. A number of obstacles, including physical bottlenecks, excessive documentation requirements, delays at border crossings, unofficial payments, unexpected closures of borders, etc. have been hampering trade from and to the CIS. In addition, in many of these countries reforms of customs and other agencies through better inter-agency coordination and cross-border cooperation are still in the beginning stages. Implementation of measures to improve cross-border services can have a large impact on trade of the smaller economies in the CIS—which have the largest trade gaps—as a 10 per cent reduction in the duration of export procedures is estimated to increase exports by 4 per cent. Reducing the length of export procedures by one day could result in additional exports earnings ranging from \$7 million for Tajikistan to \$46 million for Armenia.<sup>11</sup> Also,

integrating border management procedures for trade and transport within the countries—through strengthening administration and developing logistics services—as well as between them could significantly boost the exchange of goods from and to these countries at lower costs. Along with transport infrastructure, new investments in energy, water supply, sanitation and telecommunications should complement this process as there are significant bottlenecks in electricity supply in some countries which threaten economic growth and reduce trade.

## NOTES

- 1 In this study trade openness is measured in “purchasing power parity”, that is to say, “real openness”. This indicator, as noted in Berg and Krueger (2003), corrects for a downward bias of the effects of openness on growth due to productivity gains in the traded sector and their effects on relative prices of non-tradables. Also, this is a way to avoid changes in the ratio due to exchange rate fluctuation as was the case in many of the economies in transition during the investigated period, and hence to focus on analysing long-term trade potential rather than current levels.
- 2 For a detailed analysis on the trade developments of the economies in transition during the period 1989-1999 see UNECE, *Economic Survey of Europe 2000*, chap. 4.
- 3 For an overview of the reforms in China, see Qian (2003).
- 4 The “gravity equation” developed from Newtonian physics has been applied widely in social sciences. In particular, it has gained empirical success in explaining international trade since the independent studies of Tinbergen (1962) and Pöyhönen (1963).
- 5 See for example Brada and Mendez (1983) and McCalum (1995).
- 6 For a statistical overview of the gravity models explaining the various forms that have been used to estimate bilateral trade, see Cheng and Wall (1995).
- 7 In this work, openness is measured as a ratio of exports and imports to GDP in PPP, that is to say, “real openness” as defined by Berg and Krueger (2003). This indicator corrects for a downward bias of the effects of openness on growth due to productivity gains in the traded sector and their effects on relative prices of non-tradables. Also, using GDP in PPP allows for cross-country comparisons and analysis of long-term trade potential rather than current levels because in many economies in transition the exchange rates of their currencies fluctuate significantly, causing changes in the openness to be measured as a ratio to GDP in nominal terms from year to year.
- 8 For more details on panel data models and the use of different estimators see Baltagi (2008).
- 9 By now, the economies of the CIS have already implemented the SNA 93 that allows comparative analysis across countries.
- 10 The empirical results on the gravity models in this study are consistent with similar research on transition economies (see for example, Babetski and others, 2003) although the models vary in the applied estimation methods.
- 11 For more details of this evidence, see UNECE and UNESCAP (2008), Joint study on developing Euro-Asian transport linkages.

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## Chapter 6

# Patterns of foreign direct investment in economies in transition

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### INTRODUCTION

Modernizing the economy through structural change has been a key prerequisite for Central and Eastern Europe's successful reintegration into the world economy after the fall of the Berlin Wall in 1989 (Landesmann, 2000, 2003). The relevance of foreign direct investment (FDI) to that restructuring has been an issue of debate (UNCTAD, 2003). Immediately after transition had started and—in many cases—independence had been gained, liberalization of trade and capital flows became the first vehicles of reintegration with the world economy (EBRD, 1999). Most economies in transition took radical steps towards trade liberalization and eliminated State monopolies of international trade. A major reorientation of trade, both in terms of partners and products, followed.

From the mid-1990s, inward FDI gained importance in the restructuring of an increasing number of Central and Eastern European countries (UNCTAD, 2003). Beyond its contribution to financial resources, investment, technology and providing access to markets, FDI in economies in transition has also played a role in the strengthening of the private sector and the emergence of market-oriented entrepreneurship, as well as in the elimination of macroeconomic distortions inherited from earlier centrally-planned systems (Kalotay, 2001). Industrial restructuring accelerated when privatization involving FDI was stepped up (Hunya, 2000). The process of restructuring was uneven, however, involving a double dichotomy: one of difference in performance between modern, foreign-dominated industries on the one hand, and traditional industries with both domestic and foreign companies on the other; and another dichotomy between countries with high penetration of FDI and those with low penetration (Hunya, 2001).

Almost two decades after the start of transition, and with the accession of ten economies in transition to the European Union (EU), now is a timely moment to take stock of what happened to FDI flows to economies in transition in the longer run, and how it has contributed to structural change which was needed to successfully reintegrate into the world economy. For that purpose, this chapter analyses the main patterns of FDI flows to economies in transition over the period 1991-2006. This study does not cover in its discussion of structural changes in FDI the period of the global crisis that emerged in 2008. It does include, however, a case study of the automotive industry, which was forced to undergo major downsizing and restructuring in 2008-2009, before rebounding in 2010. The study also analyses trends in aggregate FDI flows for the period between 1992 and 2009.

The analysis covers both the economies in transition that have become new EU member countries and those of South-Eastern Europe and the Commonwealth of Independent States (CIS).<sup>2,3</sup> The analysis will consider the divergences in quantity and structure of FDI across the economies in transition. For this purpose, the economies in transition will be grouped into four categories: (1) the new EU members that joined the union in 2004<sup>4</sup> and 2007; (2) South-Eastern Europe (except Bulgaria and Romania which became EU members in 2007); (3) the Russian Federation (a category of its own), and (4) the other members of the CIS and Georgia. It is further relevant to distinguish three phases of the transition process and the role of FDI: (a) 1991-1995, the early transition period when most of the initial adjustment took place and when privatization programmes generally allowed only limited participation of foreign investors;<sup>5</sup> (b) 1996-2000, the period of major progress in terms of international integration and with greater opening to foreign investors, especially in the future EU member countries; and (c) 2001-2006/2007, the period when EU enlargements were prepared and realized and both privatization-related and greenfield FDI increased.

FDI has been important for the reintegration of economies in transition into the world economy because, unlike trade, FDI is not a one-off transaction. Productive capacities created through FDI remain in the host country for the long term. Moreover, transnational corporations (TNCs), the main agents of FDI, participate in almost two-thirds of world trade: one third through their sales to third parties, and one third through their intra-group transactions, with each part equivalent to about \$4.7 trillion out of a value of total world trade of \$14.1 trillion in 2006 (UNCTAD, 2007).

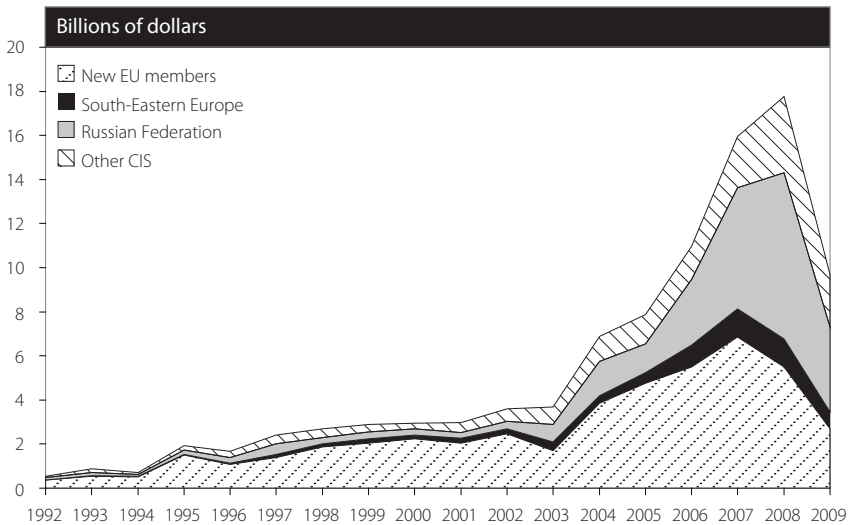
The discussion of this chapter starts with an overview of total inward FDI from a quantitative point of view. The second section looks at the role

of FDI in financing gross fixed capital formation. The third section analyses the patterns of cross-border mergers and acquisitions (M&As) from three perspectives: their link with FDI through privatization, their industry patterns, and their geographical patterns. The fourth section looks briefly at the case of the automotive industry. The final section concludes with some policy considerations. All data presented in this chapter are derived from UNCTAD's FDI/TNC and cross-border M&A databases, unless otherwise stated.

### GROWTH AND THE SPREAD OF FDI INFLOWS

Over the period 1992-2008 the FDI flows to economies in transition sustained a strongly upward trend, except in 1994 and 1996. Growth in FDI followed a particular sequence: it spread first in Central Europe (the future EU member countries), then it spread south to South-Eastern Europe and subsequently it went east to the CIS. In this process, the rise of the Russian Federation to a status of major global recipient of FDI (it received \$75 billion in 2008 alone) has been probably the most spectacular phenomenon. Nevertheless, new EU members still accounted for almost half (49 per cent of the group's cumulative total of close to \$1 trillion over the period 1992-2009), as shown in figure 6.1. The Russian Federation follows with 27 per cent, the rest of the

Figure 6.1:  
FDI inflows to economies in transition, by group, 1992-2009



Source: UNCTAD, FDI/TNC database.

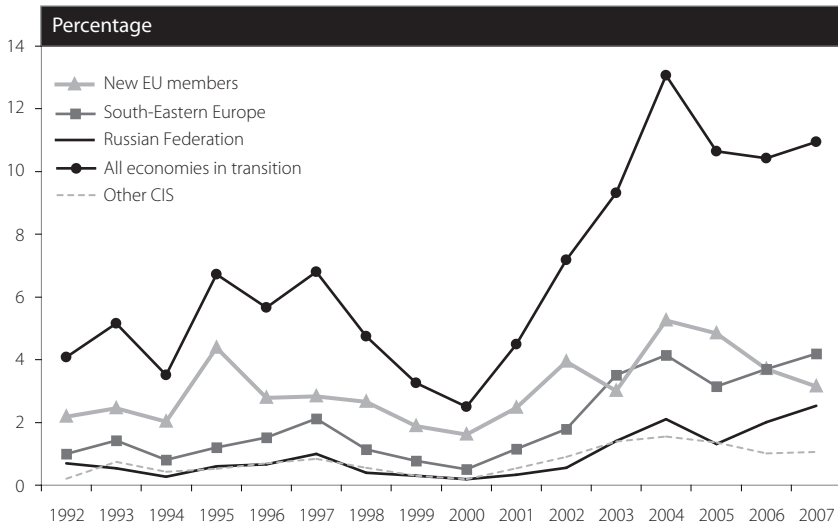
Note: Data exclude FDI in special purpose vehicles (SPVs).

CIS with 17 per cent, and South-Eastern Europe with only 7 per cent. The fact that Bulgaria and Romania are now listed as new EU members is one of the reasons that the stock of FDI in South-Eastern Europe is small.

Thanks to the fast growth of FDI inflows, the share of economies in transition in global FDI increased steadily up to 2008, except for a few years in the late 1990s. The share of FDI flows to the economies in transition in the world total quadrupled from 4 per cent in 1992 to 16 per cent in 2008 (figure 6.2). In 2009, the share declined to 14 per cent. The share of the new EU members has been declining since 2005, however, albeit from a high level, while that of the Russian Federation increased sharply between 2006 and 2008. The relative decline of the new EU members may be related to restructurings of productive capacity that have not only attracted new investments but also led to rationalization of investment (Hunya and Sass, 2005). The increase in FDI to the Russian Federation is mostly linked to its strong GDP growth (for market-seeking investors) and the high prices of its primary export commodities (for resource-seeking FDI) (UNCTAD, 2007).

The spread of FDI flows was related to differences in the phasing of transition in general, and FDI attraction in particular, in different economies in transition (Holland and others, 2000). The first surge of inflows in the 1990s, for example, was linked with the privatization efforts of the would-be EU member countries (with the exception of Bulgaria and Romania), while

Figure 6.2:  
Share of economies in transition in global FDI inflows, 1992-2009



Source: UNCTAD, FDI/TNC database.

the second surge in inflows after 2000 was more related to the opening up of South-Eastern Europe, including Bulgaria and Romania, to privatization-related FDI, and the increased attractiveness of the natural resource-rich CIS economies (Kalotay and Hunya, 2000).

Despite the overall rise and spread of FDI in the economies in transition, the flows have been characterized by lumpiness and volatility. A first issue in this respect is the lesson learnt at the end of the privatization process (after 1995) in various new EU member countries and the subsequent slowdown of FDI inflows. This matter of lumpiness may also be expected to be an issue in other countries that are presently undertaking large privatization programmes and FDI may drop considerably when those programmes are completed.

A second issue relates to the post-EU accession slump of FDI. Other countries joining the EU in the future may suffer a similar fate. Indeed, there was a new take-off of FDI in the accession countries after 2000 when the timetable for becoming an EU member was announced. That new surge was followed by a second slowdown after 2004, especially when FDI started to shift from manufacturing to services (Kalotay, 2006). For countries that aspire to accede to the EU at a later stage, it is vital to be aware of the strong association between EU accession and fluctuations in inward FDI. The CIS countries, for which future EU membership is not an option in the foreseeable future, will be more interested to know what drives FDI in the post-privatization stage and beyond the attractiveness of natural resource exploitation.

The third issue is the somewhat unexpected rise of FDI to the Russian Federation and other CIS after the oil price hikes. If this rise is not fully warranted by improvements in the business environment, can we say that the increase has been entirely on account of the rise in oil and other commodity prices? Increasing State ownership in certain industries in the Russian Federation and other CIS countries raises the question whether privatization is no longer a key factor in attracting FDI.

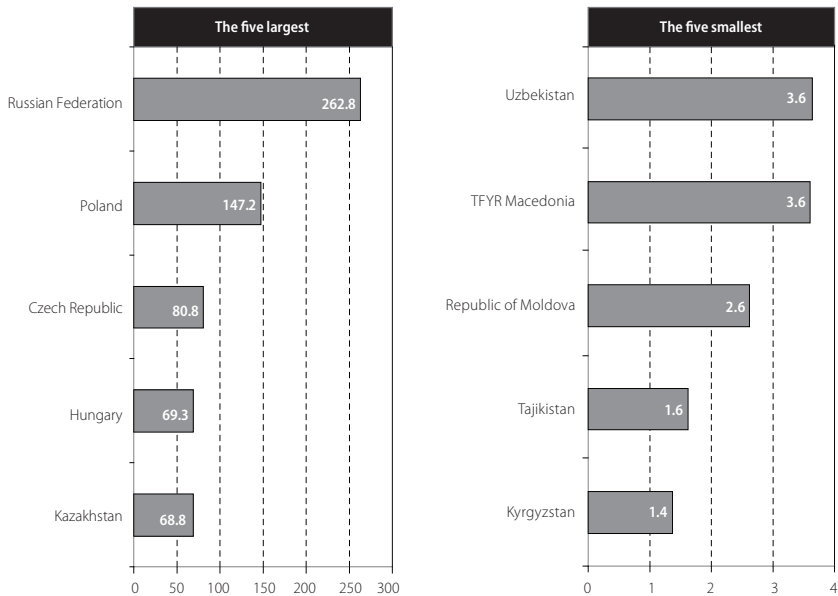
A fourth issue is related to the crisis of 2008-2009. The crisis has affected FDI around the globe, but in many countries the decline appears to have been restricted to one year only, with moderate to strong rebounds in 2010 in most developing countries and economies in transition. Such resistance also has been present in the Russian Federation and other CIS countries. The crisis set in earlier in the economies of the new EU member countries and in South-Eastern Europe, as these are more deeply integrated with the Western European economies, where the effects of the global crisis were felt early on.

The largest open issue is the unequal spread of FDI and the marginalization of various countries in transition. There are indeed large differences in cumulative inflows (figure 6.3). The large economies, such as the Russian Federation and Poland, saw massive inflows of \$263 billion and \$147 billion in 1992-2009, respectively. “Early bird” economies which have relied on FDI from an early stage of transformation also have seen large FDI inflows (Kalotay, 2001), such as the Czech Republic and Hungary. In contrast, the small, low-income economies, such as Kyrgyzstan, Tajikistan, the Republic of Moldova and the former Yugoslav Republic of Macedonia, have only received tiny amounts of FDI, summing to less than \$4 billion over 18 years (figure 6.3).

THE ROLE OF FDI IN FINANCING DOMESTIC INVESTMENT

Given the vast amounts of resources needed to restructure manufacturing industries and the economy at large, FDI inflows have been particularly important in the economies in transition in financing new investments to enact the structural change (Holland and others, 2000). The importance of

Figure 6.3:  
**The five largest and smallest cumulative FDI inflows in economies in transition, 1992-2009** (billions of dollars)

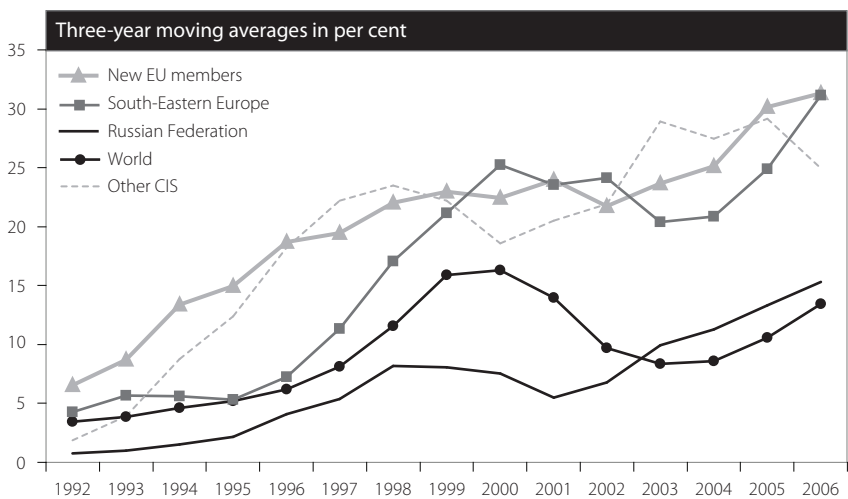


Source: UNCTAD, FDI/TNC database.

FDI in this sense can be proxied by looking at trends in the ratio of FDI to gross fixed capital formation (GFCF). This ratio for economies in transition has been well above the world average and has been increasing over time (figure 6.4). To smooth annual fluctuations in the data, three-year moving averages have been used in the trends shown in figure 6.4. The average FDI inflows-to-GFCF for the world increased during the 1990s, reaching a peak of 16 per cent in 2000. Thereafter, it fell to below 10 per cent in the aftermath of the dotcom crisis during 2002-2004, to increase again to between 10 and 15 per cent during 2005-2008. The decline in the ratio was much less pronounced in the economies in transition in the early 2000s, and in some sub-groups, such as South-Eastern Europe, it was not felt at all.

Not all economies in transition have relied heavily on FDI to finance domestic investment (figure 6.5). Among those countries heavily relying on FDI are the two “early birds” in attracting large amounts of FDI (Estonia and Hungary), a “late star” (Bulgaria), an oil-economy (Kazakhstan), and a low-income country characterized with very low GFCF (Tajikistan). Countries with relatively low FDI-to-GFCF ratios include, not surprisingly, the two large economies (the Russian Federation and Ukraine) as large volumes of FDI flows in absolute terms are still small relative to the size of their economies. Low ratios are also found in the economy in transition with the highest per capita income (Slovenia) and two countries that face

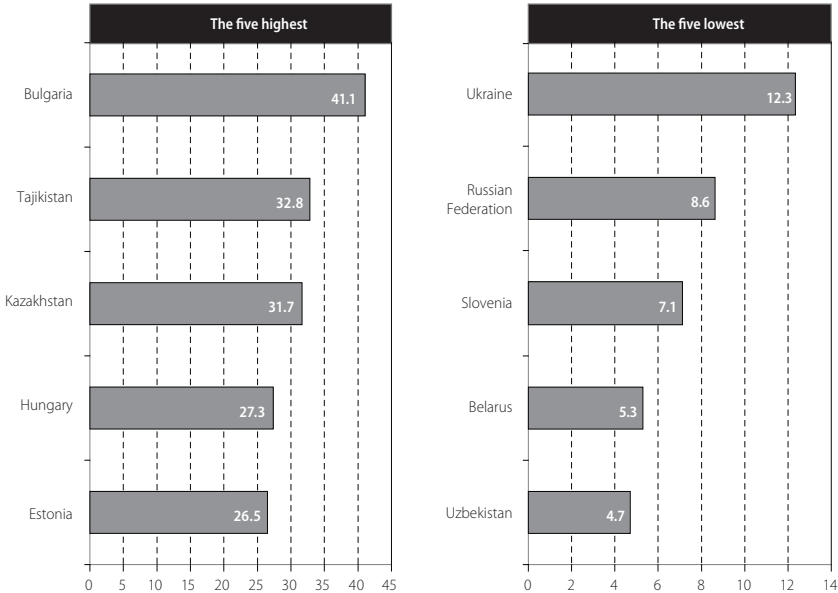
Figure 6.4:  
Ratio of FDI inflows to GFCF in economies  
in transition and the world 1992-2008



Source: UNCTAD, FDI/TNC database.



Figure 6.5:  
**The five largest and smallest cumulative FDI inflows  
 in economies in transition, 1992-2009 (billions of dollars)**



Source: UNCTAD, FDI/TNC database.

political problems in attracting FDI (Belarus and Uzbekistan). The country comparison did not include Bosnia and Herzegovina, Montenegro and Serbia, owing to missing data for most years of the period under analysis.

The observed pattern raises the question whether the speed and degree of FDI penetration has driven the speed of the transition or whether the causality is the other way around.

### INDUSTRY AND GEOGRAPHICAL PATTERNS OF CROSS-BORDER M&As

Of the various channels through which national economies integrate into the global economy (trade, finance, migration), FDI is often considered as a forceful vehicle to promote structural change and upgrading of production processes (Ozawa, 1992; UNCTAD, 1999, 2002). Dynamic structural change can be described through the “flying geese” metaphor (Damijan and Rojec, 2007; Kalotay, 2004). According to the flying geese hypothesis, economic activities should move from more developed to less advanced economies of the same region: the former should always specialize on production at the frontier of technological innovation, while shifting matured industries to the latter. In Europe, the main direction of such movement would be from

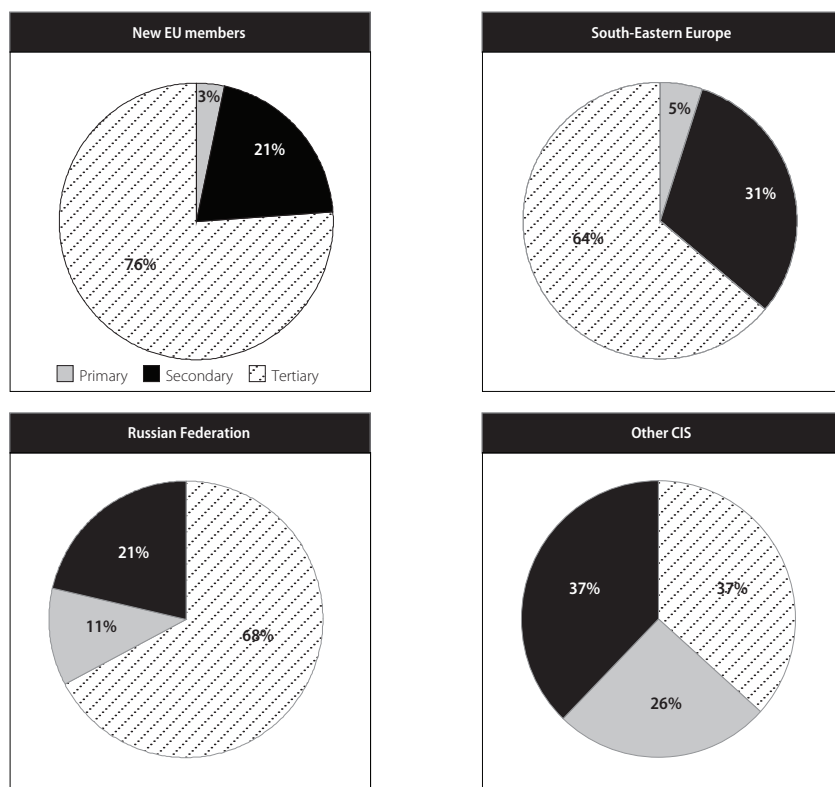
North and West to South and East. Along the axis from the West to the East, one should thus be able to detect a movement of mature industries (starting with textiles, then automotive, and, subsequently, electronic industries). During the transition from a centrally planned to a market economy when the domestic private sector is still nascent, FDI can play a pivotal role in fostering the indicated structural change (Kalotay, 2001). If the flying geese hypothesis holds, one should be able to detect it in the pattern of FDI.

To test this hypothesis, the subsequent analysis will look at the pattern of cross-border mergers and acquisitions (M&As) by industry and regions as a proxy of pattern of all FDI flows. This is considered a reasonable proxy, since trends in M&As and total FDI tend to be closely related. In addition, FDI and M&As have been through privatization processes in the case of the economies in transition. This link has been asymmetric though: privatization was always a main driver of FDI in early transition, even though FDI did not necessarily play a key role in privatization during that phase. A further reason to look at trends in cross-border M&As is more detailed data are available for the related financial flows than for FDI as a whole.<sup>6</sup>

The drawback of using M&As as a proxy for FDI is that it leaves out greenfield investment and thus underestimates the role of FDI in industries such as electronics that tend to be main targets for greenfield projects. However, Greenfield investment data are more difficult to come by and they also cannot be obtained as the difference between total FDI and estimates of the value of M&As, because of differences in data collection methodologies.<sup>7</sup>

Figure 6.6 shows the different patterns in the sectoral and industry composition of cross-border M&As over the period 1991-2006. First, data on the cross-border M&A sales in the new EU member States confirm the prevailing hypothesis that they are service economies (Stare, 2005). During 1991-2006, 76 per cent of M&As were related to the services sectors. As can be seen in Table 6.1, across the three sub-periods (1991-1995, 1996-2000 and 2001-2006), telecommunications and banking were leading industries for M&As in all periods (except for banking in the early 1990s). The share of business services was constantly increasing, to almost 10 per cent in the early 2000s, while the share of electricity, gas and water has fluctuated along with trends in privatizations in the early 1990s and in the 2000s. M&As in motor vehicle industries were important in the early 1990s, but their share declined due to a shift towards greenfield projects. This is the pattern followed by a group of economies that underwent dynamic structural change toward higher value-added activities.

Figure 6.6:  
Sectoral composition of cross-border M&A sales in economies in transition, 1991-2006  
(percentage)



Source: UNCTAD, cross-border M&A database.

Table 6.1:  
Share of selected industries in total M&A sales of new EU members, 1991-2006

Percentage	1991-1995	1996-2000	2001-2006
Mining and petroleum	0.5	3.9	3.2
Food, beverages and tobacco	12.2	6.6	1.9
Motor vehicles	19.9	1.8	0.5
Electricity, gas and water	16.3	3.8	13.7
Transportation and telecommunications	21.3	32.3	26.2
Financial services	7.9	28.0	23.2
Business services	0.0	2.0	9.5

Source: UNCTAD, cross-border M&A database.

Second, the pattern in South-Eastern Europe resembles that of the new EU countries (figure 6.6) with a predominance of M&As in services, but where foreign acquisitions of manufacturing businesses has been more important. M&As with firms in the food, beverage and chemicals sectors took the highest shares in the early stages of the transition, while those in telecommunications dominated in 1996-2000 with the start of the large-scale privatization programmes. Foreign investment in financial services became increasingly important from the mid-1990s onwards. M&As thus followed the kind of modernization path of the new EU member States, but in a less pronounced manner.

Third, the pattern of cross-border M&As in the Russian Federation has been markedly distinct. Acquisitions in the primary sector have dominated, averaging 68 per cent of the total over the full period (figure 6.6), but increased sharply in the more recent period, with the share of mining and petroleum reaching 73 per cent in the early 2000s (Table 6.3).

**Table 6.2:**  
**Share of selected industries in total M&A sales of South-Eastern Europe, 1991-2006**

Percentage			
	1991-1995	1996-2000	2001-2006
Mining and petroleum	0.0	0.1	5.6
Food, beverages and tobacco	23.5	2.5	6.0
Motor vehicles	18.3	1.7	23.0
Electricity, gas and water	0.4	67.4	24.3
Transportation and telecommunications	1.1	18.7	32.9
Financial services	7.9	28.0	23.2

**Source:** UNCTAD, cross-border M&A database.

**Table 6.3:**  
**Share of selected industries in total M&A sales of the Russian Federation, 1991-2006**

Percentage			
	1991-1995	1996-2000	2001-2006
Mining and petroleum	10.5	7.5	73.0
Food, beverages and tobacco	0.0	12.8	5.9
Coke and petroleum	0.0	12.6	0.8
Metals	11.9	1.2	0.8
Motor vehicles	0.0	0.0	0.3
Transportation and telecommunications	64.9	50.4	7.6
Financial services	7.3	3.0	5.4

**Source:** UNCTAD, cross-border M&A database.

In the early stage of the transition, most M&As went into transportation and telecommunications; their share has been declining since. The relative importance of M&As in other sectors, food, beverages and tobacco and financial services, has fluctuated across the three periods (Table 6.3), while foreign participation in the automotive industries has been negligible. The rising importance over time of investments in extractive industries would be structural change in reverse by the flying geese hypothesis.

Fourth, in the case of the other CIS countries, no sector dominated cross-border M&A sales during 1991-2006 (figure 6.6). Moreover, there are no clear-cut trends with the relative importance of sectors of destination fluctuating across the sub-periods (Table 6.4). Mining and petroleum had the highest shares, taking almost half of all transactions in 1996-2000 and about one third in 2001-2006). Transportation and telecommunications became important in 1996-2000, while the share of metals and finance rose sharply in the early 2000s. This sketches a picture of limited structural change, with natural-resource-based activities continuing to dominate.

The EU-15 is the main origin of FDI for all economies in transition (figure 6.7). Minor shares originate from the United States.

M&As in the new EU mostly originated from other EU members (especially France, Austria and Germany) and to a lesser degree from other developed countries (United States). The shares of Germany and the Netherlands declined significantly from their initially high levels. That of the United States was relatively stable, while that of France has fluctuated. The importance of FDI from the United Kingdom and Poland increased notably, while that of Austria increased sharply.

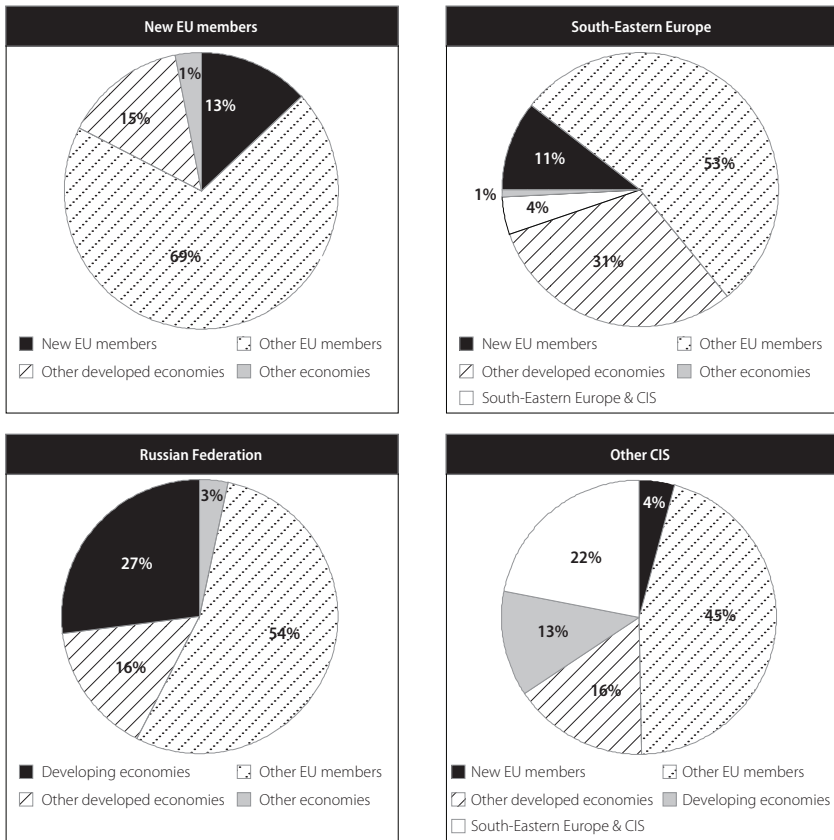
Sources of cross-border M&A related investments in South-Eastern Europe are more evenly spread. Yet, the EU-15 (especially Germany and

Table 6.4:  
Share of selected industries in total M&A sales of other CIS, 1991-2006

Percentage	1991-1995	1996-2000	2001-2006
Mining and petroleum	1.4	48.4	33.2
Food, beverages and tobacco	24.8	0.5	0.5
Metals	0.0	0.6	29.9
Electricity, gas and water	0.0	6.8	1.8
Transportation and telecommunications	0.0	23.6	15.5
Financial services	0.0	0.5	13.8
Business services	7.3	3.0	5.4

Source: UNCTAD, cross-border M&A database.

Figure 6.7:  
**Geographical composition of cross-border M&A sales in economies in transition, 1991-2006**  
 (percentage)



Source: UNCTAD, cross-border M&A database.

Italy) dominate, next to other developed countries (United States). In the 2000s, France, Hungary and Norway have emerged as major investors.

The EU-15 (especially the United Kingdom and Germany) is also home to the main foreign investors in the Russian Federation, but developing countries (especially China and India) come in second, while other developed countries (United States) are third in importance. The recent rise of resource-seeking China has been most notable, while India's share initially moved down before moving up again. Investments from the United Kingdom also have been subject to fluctuations: they went up with the major investment of BP into its BP-TNK joint venture in the late 1990s and down again when the transaction was completed.

M&As in other CIS countries predominantly originated from the EU-15 as well (especially the Netherlands, which alone represented 32 per cent of the total), but investors from other economies in transition (the Russian Federation and Kazakhstan) came in second place. The shares of the Netherlands and the Russian Federation have increased over time. M&As from China and Japan have been mainly motivated by the search for control of natural resources and have increased over time.

#### THE CASE OF THE PRE-CRISIS AUTOMOTIVE INDUSTRY

Electronics and automotive industries are particularly important from the point of view of enhancing competitiveness and technological upgrading and their development in emerging economies is often driven by FDI (UNCTAD, 2002; Szanyi, 2006; Pavlínek, 2002). They tend to mark flying geese patterns (Damijan and Rojec, 2007; Kalotay, 2004). The two sectors tend to differ, however, in the sense that FDI in electronics tends to induce technological upgrading but contributes little in creating linkages with local suppliers, while the automotive industry does tend to strengthen domestic linkages. Building up automotive industries therefore has high potential for economies in transition which aim at strengthening inter-industry linkages in parallel with their integration into the world economy. In practice, the start-up of those activities tends to be as second-tier suppliers (Ferenčíková and Fifeková, 2006). The automotive industry further tends to have a strong clustering effect on the host economy (Radosevic and Rozeik, 2005).

In the economies in transition, practically all new projects were related to FDI, for a lack of “national champions” pushed with government support, as was the case in the industrial development of Japan and the Republic of Korea.<sup>8</sup> In the early stages of transition, countries with production capacity inherited from communist times mostly opted to privatize existing factories, as the Czech Republic and Poland did. The countries that lacked the initial production capacity invited greenfield FDI projects to set up automotive industries (Table 6.5). Over time, however, greenfield investment has become the main form of FDI in this sector. It is important to note that in the longer run, differences between modes of entry (privatization versus greenfield projects) do not matter very much, as most privatization projects were in fact “brownfield” projects; that is, the initial M&A sales were followed by new investments made by the new owners (Meyer and Estrin, 2001). In both cases, foreign owners were quick in improving management and organizational practices (Pavlínek, 2002). The main differences between

**Table 6.5:**  
**Examples of large car assembly projects in economies in transition, 2007**

	<i>Location</i>	<i>Producer</i>	<i>Established</i>	<i>Form of entry</i>
Czech Republic	Mlada Boleslav	Volkswagen/Skoda	1991	Privatization
	Kolin	Toyota/PSA	2002	Greenfield
	Novosice	Hyundai	2006	Greenfield
Hungary	Esztergom	Suzuki	1991	Greenfield
	Győr	Audi	1992	Greenfield
Poland	Bielso Biala	Fiat	1991	Privatization
	Poznan	Volkswagen	1993	Greenfield
	Warsaw	Daewoo FSO	1996	Privatization
	Gliwice	General Motors/Opel	1998	Greenfield
Romania	Pitesti	Renault Dacia	1995	Privatization
Russian Federation	Togliatti	GM/AvtoVAZ joint venture	2002	Privatization
	Vzhevolovsk	Ford	2002	Greenfield
	Moscow	Renault	2005	Privatization
Slovakia	Bratislava	Volkswagen	1993	Privatization
	Trnava	PSA/Peugeot	2003	Greenfield
	Zilina	Hyundai/KIA	2004	Greenfield
Slovenia	Novo Mesto	Renault	1991	Privatization

*Source:* UNCTAD.

the two modes of entry lie in the level of local value added after the entry of foreign investors, which tended to be high in privatized plants and low in greenfield projects, with a tendency of convergence at later stages. It is also worth noting that the degree of integration with local businesses has depended much on the technological sophistication of the assembly factories. In Hungary, for instance, high-technology projects such as Audi have induced much less local sourcing than lower-technology projects such as Suzuki (UNCTAD, 2002).

FDI in the automotive assembly has accentuated differences in structural change across the transition economies, with more dynamics in countries with such FDI (the Czech Republic, Hungary, Poland, the Russian Federation, Slovakia and Slovenia), than those without (most of the rest of the CIS) (Table 6.5). Future or ongoing large projects such as the Mercedes A car project in Hungary (IHT, 2008), or the series of new car projects in the Russian Federation in 2008 (UNCTAD, 2008a), still tend to



target the same countries with already significant FDI inflows, increasing even further the differences between the “haves”, where car assembly is growing fast as a result of successful projects (Table 6.6), and the “have nots”, where production is still zero. In the former group, policymakers can afford choosing between future industrial development strategies based on quick technological upgrading with limited local content, or more limited technological progress combined with a faster increase of local linkages and local jobs. Among the “have nots” group, policymakers face tougher choices: they have to raise the question as to what degree it is realistic to expect attracting FDI to set up an automotive industry or whether it is more feasible to try and catch up in the development of other industries.

Table 6.6:  
Production of passenger cars in selected countries, 2005-2007

Number of units				
	2005	2006	2007	Change 2007/2005 (%)
Czech Republic	596,774	848,799	925,778	55.1
Poland	540,100	632,300	695,000	28.7
Slovakia	218,349	295,391	571,071	161.5
Hungary	148,553	187,633	287,982	93.9
Romania	174,538	201,663	234,103	34.1
Slovenia	138,393	119,212	174,209	25.9

**Source:** European Automobile Manufacturers' Association.

## IMPACT OF THE CRISIS ON FDI

The crisis of 2008-2009 has highlighted the downside to championing certain industries that promote dynamic structural change (the automotive and electronics sectors in particular), namely their vulnerability to the global business cycle. The crisis revealed the need for a restructuring of the global car industry. Automobile production in economies in transition was directly affected, independent of their level of efficiency. It is still unclear whether the global restructuring will imply a reduction in production capacity in the economies in transition, or whether they will be able to regain a competitive edge in the post-crisis era.

Many of the new EU members were most severely affected by the crisis being deeply integrated in the world economy. As the manufacturing export platforms of new EU member countries were all dominated by foreign affiliates, or they were the only players (as was the case in automotive), the

**Table 6.7:**  
**Year-to-year changes in manufacturing output and exports,**  
**selected countries, February 2009**

Percentage points			
	<i>Change in manufacturing output</i>	<i>Change in manufacturing exports</i>	<i>Change in the exports of transport equipment</i>
Bulgaria	-24.3	-39.2	-41.0 <sup>a</sup>
Czech Republic	-23.4	-22.2	...
Estonia	-32.7	-26.0	-54.0
Hungary	-26.1	-30.4	-48.1
Latvia	-24.3	-29.3	...
Lithuania	-17.9	-21.8	-31.9
Poland	...	-24.8	-25.7
Romania	-14.5	-15.9	...
Slovakia	-28.2	-31.0	...
Slovenia	-24.1	-25.1	-42.3 <sup>b</sup>

**Source:** Kalotay and Filippov, 2009.

**a** Machinery and transport equipment.

**b** January 2009.

degree of decline can be gauged from general output and export statistics. In February 2009, at the trough of the crisis, Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Slovakia and Slovenia had all suffered major declines in industrial output (over 20 per cent), total manufacturing exports (over 20 per cent) and exports of transport equipment (over 40 per cent).

The decline not necessarily marks the end of the car manufacturing industry in economies in transition. In fact, manufacturing output and exports have rebounded along with the global recovery; in some cases, the rebound has been spectacular. The more relevant question at this point is whether the economies in transition will see the emergence of many new FDI projects in the near future. New investment projects have arrived in Hungary; one by Mercedes Benz announced during the crisis in 2008 and others followed in 2010 with the announcements by Audi and Opel to expand their existing production capacities (Die Presse, 2010). This could signal the potential for recovery of FDI elsewhere.

## POLICY CONSIDERATIONS

Since the beginning of the transition, many of the countries of Central and Eastern Europe and the CIS have undergone important structural change,

often linked to the entry of FDI. In the early phases of transition, much of the structural change took the form of enterprise restructuring in line with the new, market-based institutional framework. This phase was followed by a phase of structural change characterized by industrial restructuring in line with a deeper integration into the international division of labour. Structural change proceeded at different speeds, with the future EU members advancing faster than other countries in transition (Szanyi, 2004).

The level of FDI inflows and the nature of structural change are strongly influenced by the strength of the relationship of the economies in transition with the EU. The countries that have joined the EU saw inward FDI adjust to the requirements for accession to the EU (Kalotay, 2006, 2008). Potential candidate countries have followed a similar path, but at a slower speed. As for CIS members, the main structural changes in the current phase of FDI flows reflect their status of external suppliers of industrial inputs, especially raw materials. The flow of FDI was disrupted by the crisis of 2008-2009, but rebounded in 2010. The implications for the process of structural change remain to be seen.

FDI has been an agent of structural change in the new EU member countries in particular. In other economies in transition, such as those in South-Eastern Europe and in parts of the CIS, the volume of FDI has been much smaller and so has its role in driving structural change. FDI contributed to the conservation of dependence on extractive industries in the Russian Federation. On the basis of these findings, one has to ask whether policies to attract FDI and benefit from it have been sufficient and have been the right ones from the point of view of desirable structural changes in the recipient economies. The uneven record of FDI in structural change raises the question of whether there is a need for a stronger link between investment promotion and industrial policy.

The relationship between the quantity and the quality of FDI still needs to be better understood, especially in order to draw lessons for investment promotion, which for the moment is more articulate on quantity than on quality. Moreover, the fact that FDI and private ownership are no longer so clearly interrelated, and FDI can grow in parallel with more State ownership, raises the question of how policies to attract FDI have to be modified in the face of the rise of State-owned FDI.

Finally, and probably most importantly, there is an important number of economies in transition that have little access to FDI flows. In those countries, the question whether FDI can be a driver of dynamic structural change is not yet on the agenda because of the insignificance of FDI at present.

The question is rather how these countries can overcome the three types of handicaps they are suffering from. Can they mitigate their geographical handicap through infrastructure development? Can they circumvent their lack of market size by targeted export promotion strategies? How can they overcome present policy shortcomings and design more effective policies to attract FDI?

All these questions now have to be raised in the context of a potentially longer-term slowdown and financial crisis of the world economy (UNCTAD, 2008b). It is known from the experience of past financial crises that FDI is more resistant to the downturn than international portfolio flows and bank loans. But even so, financial crises affect the willingness and capacity of TNCs to invest abroad over prolonged periods. It is also a question as to what degree the contagion of crisis spreads to economies in transition as host countries of FDI. While some of them with relatively isolated economies can withstand the crisis well, smaller economies with deep integration into the world economy may be vulnerable to a more prolonged downturn.

The FDI downturn has created a major policy challenge for governments worldwide and economies in transition in particular. The crisis has further highlighted the need for more pro-active policies aiming at upgrading production capacities to higher value-added activities, especially in the form of investment in knowledge and innovation and incentives to promote R&D in foreign affiliates.

## NOTES

- 1 The author would like to thank Saul Estrin, Klaus Mayer, Malinka Koparanova, Milica Uvalic, Rob Vos and other participants in the session “Enhancing economic diversification through foreign direct investments” of the Conference on Strengthening Integration of the Economies in Transition into the World Economy through Economic Diversification, held in Geneva from 2-4 April 2008, for their useful comments on an earlier version of this paper.
- 2 This study does not analyse FDI in those territories that have declared independence, but have not been recognized by the international community at large.
- 3 This study uses the term CIS to designate all countries of the former Soviet Union except the Baltic States. It is true that of the 12 countries in question, only nine are full members of the CIS. Officially, Ukraine is only a “participant State”, Turkmenistan is only an “associate State”, and on 17 August 2009 Georgia ceased to be a CIS member. However, the term “CIS” is still more appropriate to use than the looser term of “former Soviet Union”.
- 4 With the exception of the non-transition economies of Cyprus and Malta.
- 5 With the exception of Hungary and Poland.

- 6 Furthermore, as is the case in data for the Russian Federation, for instance, foreign portfolio investments tend to exceed FDI and have a particular sectoral bias (that is to say, most going into financial services and little into extractive industries). For these reasons, studying data on the industry composition of total foreign capital inflows could be misleading if the interest is to look more specifically at FDI.
- 7 FDI data register financial flows related to investment by TNCs on a net basis (net of disinvestment) and in the year when the projects are effectively paid. Cross-border M&As, in turn, are registered in the year when they are officially realized and are valued on a transaction basis, which makes it difficult to combine the two types of measurement.
- 8 There were attempts at the beginning of transition to support “national champions” in the Russian Federation (Pavlínek, 2002), but later on even Russian firms opted for joint ventures with Western partners.

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## Chapter 7

# Foreign direct investment in transition economies: Strengthening the gains from integration

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### INTRODUCTION

This chapter aims to understand the factors leading multinational enterprises (MNEs) to invest into transition economies, and to analyse the likely impact of their investments in terms of integration of the host into the global economy. Of particular concern will be the potential for foreign direct investors to influence the diversification of the host economy. On the basis of this analysis, we provide policy recommendations for the host economies on how best to influence the flows of foreign direct investment (FDI) in a manner likely to increase economic diversification and the integration of transition economies, notably from the regions of South-Eastern Europe and the Commonwealth of Independent States (CIS).

An enormous literature has emerged in economics and international business to analyse the determinants and impact of foreign direct investment in source and host economies, including in transition economies. Issues discussed include FDI patterns (Meyer, 1995; Meyer and Pind, 1999; UNCTAD, various years), the determinants of FDI (for example, Carstensen and Toubal, 2004; Bevan and Estrin, 2004; Bevan and others, 2004), the performance of foreign owned firms (summarized in Djankov and Murell, 2002 and Estrin and others, 2009), and the impact of FDI on other local firms (for example, Konings, 2001; Javorcik, 2004; Sinani and Meyer, 2004). In this chapter, we review the findings from this literature to discuss the role and policy environment of FDI and economic integration in the Balkans and CIS.



FDI is undertaken by multinational firms, and they do so for a reason that is primarily grounded in their own strategy, not in consideration of political or development agendas. Globalization has enhanced opportunities for MNEs to expand their reach and to establish FDI, for instance by the opening of markets, and thus increased competition not only in emerging markets but also in developed countries. A few decades ago, firms may have grown by building strong positions in several industries in their home country, or by establishing semi-autonomous operations in foreign markets. However, more and more companies pursue a global strategy that integrates operations across locations, and specifically aims to take advantage of the opportunities presented by the diversity yet close integration of countries around the world. Ghemawat (2007) helpfully identifies three types of strategies by which MNEs create value:

- *Adaptation*, that is, by adjusting to the differences around the world and acting locally in each country of operation;
- *Aggregation*, that is, the centralization of parts of their operation at regional or global levels, and thus the realization of scale economies and benefits of integration innovation; and
- *Arbitration*, that is, the movement of goods or services from locations where they are comparatively cheap to where they are in demand, for instance by global purchasing or offshoring.

In recent years, many MNEs have intensified their utilization of these strategic opportunities by shedding peripheral product lines and expanded their core businesses, often by acquisition, to achieve global leadership (Meyer, 2006). Operations in emerging economies can contribute to such objectives via:

- access to local markets through local production and/or sale of imported products (especially adaptation and aggregation type strategies); and
- access to local resources such as low cost labour, natural resources, or (less common) human capital, and thus providing a global supply base (for arbitration strategies).

FDI flows to transition economies developed rather slowly. Initially FDI was concentrated in the Visegrad countries (Czech Republic, Hungary, Poland and Slovakia), which were perceived as leading in terms of institutional development as well as the privatization process. EU accession helped to establish this virtuous circle of institutional development, FDI and economic growth. The FDI flows to the Balkans and CIS began to grow somewhat later, perhaps reflecting the lower levels of institutional development and higher

levels of perceived risk. However, by 2004 FDI levels had been catching up, though FDI stocks—and thus the presence of multinationals within the domestic economy—remained lower. The sectoral distribution indicates the significance of privatization in the early flows, especially of utilities and infrastructure, and the importance of resource investments and investments in the growing service sector in the period since 2000.

The chapter contains a further four sections. In the first, we present a model of FDI determinants and then survey the literature about the potential impact of FDI on host economies and the evidence for the Balkans and the CIS. Our conclusions contain policy recommendations about how to stimulate FDI of a type likely to increase host economy competitiveness and economic performance.

#### THE DETERMINANTS OF FDI TO TRANSITION ECONOMIES

In this section, we develop and test a formal econometric model of the factors driving FDI between the major developed source economies and the economies in transition. Our framework suggests that countries which had developed sound economies and strong institutional fundamentals were more easily able to attract FDI. Location, market size and natural endowments are also important. We test these ideas on data for FDI flows from 18 market economies to 11 transition economies, based on the work by Bevan and Estrin (2004) and Bevan and others (2004).

#### *Conceptual framework*

The theoretical and empirical literature indicates that the main factors determining FDI are host country market size, input costs—notably of natural resources and labour—and the investment risk associated with both the economic and the political environment (see, for example, Singh and Jun, 1995). Expected profitability will also be higher if inputs costs, for example for labour or energy, are lower than in the donor economy. For most transition economies, the key resource is labour, which is regarded as having relatively high levels of skills (see EBRD, 1999). However, firms only prefer low wage locations if the reduced labour cost is not compensated by lower labour productivity, or an overvalued currency. We include in our regression unit labour costs, denominated in the source currency.

Studies of FDI in emerging economies have also considered indicators of economic and political risk (see Lucas, 1993; Jun and Singh, 1996), notably

macro-economic stability, institutional stability and political stability. FDI and openness of the economy will be positively related (see Caves, 1974; Singh and Jun, 1995), proxying the liberality of the trade regime in the host country and the higher propensity for multinational firms to export. Finally, there may be financial and capital constraints on FDI. To control for these, we include an indicator of the relative opportunity cost of capital in the donor and host country.

### *Specification*

An MNE's decision to locate in a foreign market depends on the trade-off between the incremental fixed costs of investing in production capacity abroad and the costs of exporting output from the domestic source country. The gravity approach suggests that these elements are captured by the relative market sizes of the two economies and their distance from each other. Distance is as a measure of the transaction costs of undertaking foreign activities, for example, transport and communication costs, of cultural and language differences, and the informational costs of institutional and legal factors.

Denoting the year by  $t$ , the source country by  $i$  and the host country by  $j$ , we estimate the following specification:

$$FDI_{ij}^t = f(GDP_{ij}^t, distance_{ij}, trade_j^t, r_{ij}^t, risk_j^t) \quad (7.1)$$

where  $GDP_{ij}^t$  represents the size of the source (host) country,  $ULC_j$  is unit labour costs in the host country,  $r_{ij}$  measures the interest rate differential between the source and host countries,  $trade_j$  measures the openness of the host economy, and  $risk_j$  is a vector of institutional, legal and political factors in the host country. Superscript  $t$  represents time. We estimate equation 7.1 both in contemporaneous form and with a one-year lag for the independent variables.

The dataset covers the period from 1994 to 2000. Each observation point constitutes an FDI flow in thousands of Euros between a source country  $i$ , that is to say, the EU-14 with Belgium and Luxembourg merged, Republic of Korea, Japan, Switzerland or the United States of America, and a recipient country  $j$ , that is to say, Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia or Ukraine. The selected source countries are the major suppliers of FDI flows; their combined FDI outflows in 1998 accounted for 87 per cent of total world FDI outflows. The selected host countries received 82 per cent

of total FDI inflows to the Central and Eastern European countries (CEEC) in 1998 (UNCTAD, 1999). Information on FDI flows to transition countries is incomplete during this period so that we concentrate on those countries that are involved in the enlargement process. Extending the data to other source countries would result in a high proportion of zeros or missing values. We use the unit labour cost in the host country denominated in euros and distance is measured by the distance between the capital cities of country  $i$  and country  $j$  in kilometres. The trade variable is the proportion of total imports by the host country that were sourced from EU member states as a percentage of the host country's GDP. To capture differences in capital costs and the impact of financial and capital constraints on FDI, we use the differential between the end-year bond rate yield in source country  $i$  and the end-year deposit rate in host country  $j$ .

Investment risk of the economic environment within the host country may deter investment. Previous studies use many different variables to capture this effect, including variability in growth and inflation, exchange rate risk, and indicators of institutional development (Resmini, 2001). We use an evaluation of country risk of the host economy that can be purchased by MNEs to assist them in making their location decisions. We use the credit rating of country  $j$  derived from various issues of *Institutional Investor* (1994-2000), published biannually in March and September and ranging from 0 to 100 indicating a country with the highest creditworthiness.

## Results

We estimate regression equations based on the specification of equation 7.1. Random effects were used because Hausman specification tests do not support the use of fixed effects. In Table 7.1, we report the coefficient estimates for the basic equation with contemporaneous explanatory variables in column (1) and with a one-year lag in column (2). The chi-square values allow us to reject the null hypothesis of joint insignificance of the coefficients. The positive and significant coefficients for source and host GDP and the negative and significant coefficient for distance indicate that FDI is determined by gravity factors. Hence, our results are consistent with a transactions cost analysis of FDI in which flows are attracted between relatively large economies, but the gains from overseas production diminishes with distance from the source economy. We also find that unit labour costs are negative and significant indicating that FDI flows are greater to locations with relatively lower unit labour costs, independent of distance

**Table 7.1:**  
**Determinants of FDI inflows to transition economies**

<i>Independent variables</i>	<i>FDI<sub>ij</sub> (levels)</i>	<i>FDI<sub>ij</sub> (lagged form)</i>
GDP <sub>i</sub>	0.02*** (3.66)	0.02*** (3.72)
GDP <sub>j</sub>	0.003*** (10.65)	0.003*** (10.45)
r <sub>ij</sub>	0.32 (0.55)	0.33 (0.52)
trade <sub>j</sub>	221.7 (1.46)	293.37* (1.71)
risk <sub>j</sub>	0.69 (0.53)	0.51 (0.33)
Distance <sub>ij</sub>	-0.06*** (-4.28)	-0.06*** (-4.52)
ULC <sub>ij</sub>	-272.29** (-2.19)	-255.15* (-1.86)
Constant	160.4 (1.2)	134.72 (0.88)
No. of obs.	981	829
No. of groups	198	198
<b>R</b> <sub>2</sub> : within	0.1339	0.1357
between	0.2712	0.2672
overall	0.2163	0.2318
Wald X <sup>2</sup>	197.52	187.88

**Source:** Authors' calculations based on data from UNCTAD and EBRD Transition Report various issues.

**Note:** The parentheses contain the *t*-statistics; \* Significance at the 10% level, \*\* Significance at the 5% level, \*\*\* Significance at the 1% level.

or host country size. However, relative capital costs are not a significant determinant of FDI flows, perhaps because investing companies rely on their own resources and capital markets in their home countries for financial resources. Our finding that unit labour costs are negatively associated with FDI supports the hypothesis that foreign investors are cost sensitive. Resmini (2001) does not obtain this result for transition economies, perhaps because her tests use manufacturing wages and do not control for productivity or exchange rates. Our work suggests that we observe unexpectedly high levels of FDI between particular CEEC and countries of Western Europe that have not previously been major sources of FDI because of the differential in real unit labour costs and the relatively short distances between countries, for example between Germany and Poland, between the Czech Republic and

Hungary or Austria, and between Finland and Estonia. Table 7.1 also shows that FDI and trade are complementary because countries having higher trading shares with EU countries also receive significantly more FDI. This result holds only in the lagged specification which also has a better fit.

Table 7.1 suggests that FDI flows are not influenced significantly by market evaluations of country-specific risk. One possible explanation is that important elements in companies' evaluation of risks are already contained in the other variables. For example, exchange rate risk is included, to some extent, in the unit labour cost variable and the distance variable may account for the difficulty in assessing an unfamiliar environment and culture. Alternatively, this may not be the appropriate measure of risk.

To address this issue, Bevan, Estrin and Meyer (2004) analyse the impact of institutional development on FDI in transition economies using a variety of measures in the EBRD's transition indicators. They identify specific factors by disaggregating institutional development and find that FDI is facilitated by:

- the development of private-owned businesses in place of State-owned firms;
- the development of the banking sector, but not necessarily the non-banking financial sector;
- the liberalization of foreign exchange and trade, but not necessarily of domestic markets and prices; and
- the development of legal institutions, but not necessarily restricted to competition policy.

Their results are surprising in that domestic price liberalization and the development of competition policy do *not* appear to be significant in motivating FDI, perhaps because some foreign investors have been attracted by the possibility of earning monopoly rents. Moreover, they do not find strong evidence for the importance of informal institutions, once formal institutions have been controlled for. In other words, development of formal institutions appears to be closely associated with informal institutions.

#### HOW MIGHT FDI INFLUENCE ECONOMIC PERFORMANCE AND INTEGRATION IN TRANSITION ECONOMIES?

The impact of FDI on host economies is complex as foreign investors interact with, and thus influence, many local individuals, firms and institutions, but on average, the *net* effect may well be less than many observers expect.

Any FDI project closely interacts with local businesses; most of the impact on the host economy is transmitted through this interaction. Beyond this, FDI also impacts on other aspects, including macroeconomic variables, the host economy's institutional framework as well as the natural and social environment. Most of these interactions are bilateral. On the one hand, foreign investors adapt to the local institutional, social and natural environment in designing their strategies. On the other hand, they would—intentionally or not—influence the environment through, for instance, political lobbying, setting good examples of labour standards or polluting the environment. The FDI project in turn is designed by an MNE located outside the country. The structure and strategies of this MNE thus shape the project and its interactions with the local environment.

In this section, we focus on the economic impact of FDI. We start with a synopsis of macroeconomic effects, followed by an analysis of respectively horizontal and vertical spillovers to local firms. The section concludes by discussing the variation in spillovers generated by different types of investors.

### *Macro economy*

At the country level, scholars have attempted to relate the inflow of FDI to macroeconomic growth in terms of GDP on the basis of endogenous growth models. For instance, Borensztein, de Gregorio and Lee (1998) find a complementary effect of countries' absorptive capacity, measured by proxies for human capital, which positively moderates the relationship between FDI inflows and GDP growth. In particular, a minimum threshold level of human capital is required to benefit from inward FDI. Balasubramanian, Salisu and Sapsford (1996) find that such positive effects are more likely in countries with an export-oriented trade regime, compared to countries with import-substitution regimes.

The positive effect of FDI on economic growth arises via several macroeconomic variables: balance of payment, employment, gross domestic investment and international trade. FDI is commonly believed to have a positive effect on each of these variables, yet theoretical considerations suggest also countervailing effects and the *net* effect is often hard to establish empirically:

- FDI imports capital, but at a later stage capital is repatriated through profit remittance or project discontinuation—and in this way, the host country pays for the costs of capital. However, FDI capital is appreciated by hosts because it tends to be less volatile than other forms of capital inflow (UNCTAD, 1999, chap. 6).

- FDI creates employment, especially if it is invested in greenfield operations. Moreover, additional jobs may be created in local suppliers. Yet FDI may also crowd out local firms that use more labour-intensive methods of production and thus more employment. The policy-relevant *net*-employment effect is thus hard to assert (Dunning, 1993, chap. 13; UNCTAD, 1999, chap. 9). In the case of acquisitions, the employment effect is even harder to assert because it requires an analysis of *what* would have happened to the local firm *if* it had not been taken over by the foreign investor (Estrin and Meyer, 2004).
- FDI increases gross domestic investment, yet part of it may be domestically funded or the capital inflow may increase the exchange rate and thus costs of international borrowing; both effects can lead to crowding out of local investment.
- FDI generates exports. Yet FDI also generates imports, especially in the case of market-seeking FDI and in the case of outsourcing operations that process imported components. MNE are typically more internationally oriented, but this affects both sales and procurement. Thus, the *net* effect of the trade balance may be much smaller than data on exports by FDI may suggest (UNCTAD, 1999, chap. 8).

Overall, the effect on macroeconomic variables varies with specific features of an FDI project, such that evidence on macroeconomic relationships may not be transferable from one context to another. Rather, we need to understand the microeconomic effects of FDI to identify which FDI and under what circumstances benefits the host economy.

### *Horizontal spillover effects to local firms*

Hirschman (1958) argues that poor countries would benefit from pursuing unbalanced industrial growth promoting in particular the development of industries with strong backward and forward linkages. The benefits that local firms may attain arise through several channels:

- *Demonstration effects* work through the direct contact between local agents and MNEs operating at different levels of technology. After observing an innovation adapted to local conditions, local entrepreneurs may recognize their feasibility, and thus strive to imitate them.
- FDI contributes to human capital formation, especially through training and *labour mobility*. Trained local employees may move to local firms or set-up own entrepreneurial businesses. Many successful local firms



trace their origins to entrepreneurs or top managers that had prior links to MNEs (Altenburg, 2000). Even where few employees move, those that move may make a substantive contribution to local business.

- FDI may help local firms to access *export markets* (Aitken, Hanson and Harrison, 1997; Greenaway, Sousa and Wakelin, 2004). MNEs are more likely to share general trade knowledge, as it is less industry-specific and not part of their core capabilities and its diffusion to local businesses does not endanger their own competitive advantage. Moreover, foreign investors may help in building trade channels and a country-of-origin reputation that local followers may use for their exports (Altenburg, 2000).

Foreign investors may support local supplier industries and *markets for specialized inputs*, such as labour and materials. Beyond the quality of physical products this may enhance in particular the quality of services provided by suppliers, such as just-in-time delivery and low default rates.

Negative spillovers on local firms are also possible, notably through *crowding-out effects*. Foreign investors may gain market share at the expense of local firms. This would leave the local firms, at least in the short run, with excess production capacity and thus low productivity and low profitability. Moreover, foreign investors may source internationally and thus weaken the local industry's domestic supplier base.

Empirical research has in particular focused on the productivity benefits that local firms may attract from foreign investment in their industry. This literature bypasses the fact that knowledge flows are not measurable directly by estimating local firms' productivity as a function of, among other factors, the presence of foreign investors in the industry. This stream of research was initiated by Caves (1974), and Meyer and Sinani (2009) identified 66 studies using this approach. Several of these studies were conducted in CEE countries, which we review further here.

This literature has evolved in several stages, notably to employ more complex datasets and more sophisticated analytical techniques, and to incorporate moderating variables that may influence this relationship (Meyer, 2008). Important references include Caves (1974), Blomström and Persson (1983), Kokko (1996), Sjöholm (1999), Haddad and Harrison, (1993) and Aitken and Harrison (1999).

More recently, this line of work has been extended to understand the conditions that may facilitate the emergence of positive spillovers. Thus, scholars have analysed how the characteristics of the potential recipient firms influence their received benefits. Early discussions on FDI spillovers have focused the technological gap hypothesis which suggests that developing

countries can benefit more the further they are from the technological frontier. However, several studies point out that local firms' benefits crucially depend on their own ability to utilize received technologies. Following Cohen and Levinthal (1990), this work has in particular focused on the concept of absorptive capacity (for example, Sinani and Meyer, 2004). Combining the technological gap hypothesis and the notion of absorptive capacity, the relationship between the gap between foreign and local firms and the benefits attracted of local firms is likely to be curvilinear (Liu, Siler, Wang and Wei, 2000).

Spillovers are also predicted to vary across different types of foreign investors and FDI projects (Meyer, 2004), yet such evidence is harder to establish because of data-availability constraints. However, foreign investors have been shown to vary in their impact on local productivity based on their level of ownership and their investment motivations (Driffield and Love, 2007).

Görg and Strobl (2001) review this literature using a Meta-analysis of 21 studies and find that these methodological issues substantially affect the results, such that early cross-sectional studies may have overstated the actual effects of FDI. Moreover, they point to important variations of spillovers across countries. Meyer and Sinani (2009) provide an updated meta-analysis of this literature and found that on average these studies do *not* find statistically significant spillovers benefiting local firms. Their study focuses on the contextual moderators on the foreign presence to local firm productivity relationship, and they find a U-shaped curvilinear relationship between spillover benefits and the level of income of the country. On average, the effect is negative for middle-income economies, but positive for both low- and high-income economies. Both Görg and Strobl (2001) and Meyer and Sinani (2009) suggest that the significant positive effects found (and thus policy advice) in many early studies can be attributed to the use of cross sectional data, a technique that has now been shown to create upward biases. The curvilinear relationship has implications for countries at low middle-income range, which includes the transition economies. They are in the range where horizontal spillovers are least likely; moreover, they may be declining as the countries develop further.

### *Vertical spillover effects to local firms*

Local firms may benefit from *vertical linkages* in a supply chain, benefiting from knowledge transfers to suppliers and customers. MNEs may make

a deliberate effort to improve the quality of local suppliers, especially for components that cannot be cost-efficiently imported due to high transportation costs or where the local industry has a natural cost advantage (for example, for labour intensive components). These effects also benefit firms in other industries, for instance providers of business services, such as accounting or legal services. Similarly, they may support their customers, for instance by providing training in sales and marketing.

We have much less empirical evidence on this matter, mainly because the datasets required to analyse vertical interactions along the supply chain are fairly complex and hard to obtain. Lall (1980) provides the first major study on vertical spillovers. Building on Hirschman (1958), Lall develops the theoretical arguments on why backward linkages would emerge, and he provides probably the first systematic empirical evidence.

An innovative approach to study vertical linkages has been used by Belderbos, Capannelli and Fukao (2001). They analyse local content ratios of Japanese overseas manufacturing affiliates across 14 countries to identify project and country-specific determinants of the extent of interaction with local suppliers. They find that more linkages exist for older affiliates, acquisitions and joint ventures, and in less developed countries also by less R&D-intensive foreign investors. Moreover, local content requirements appear to have a positive effect while FDI established to jump tariff barriers has less local content.

Javorcik (2004) employs industry-level input-output data from Lithuania, and finds higher productivity in supplier industries to industries with high foreign presence. This productivity effect is larger when the foreign investors are domestic market oriented rather than export oriented. At the same time, she finds no evidence of spillovers within the same industry. Driffield, Munday and Roberts (2002) use similar data from the U.K. and investigate both forward and backward linkages. They find that domestic firms purchasing from foreign investors would benefit, while those supplying foreign investors would not. They suggest that, perhaps, foreign investors are able to appropriate any gains from productivity increases of their suppliers.

### *Sources of variation in FDI impact*

MNEs vary for instance with respect to the centralization of decision making, organizational cultures, and human resource management practices. Consequently, subsidiaries in transition economies would vary

in their interactions with other units of the MNE's network. This in turn affects interactions with local businesses, for instance, the development of local supply networks, investment in human capital, employee mobility, and the stages of the value chain located in the host economy.

Some of these variations are due to industry-specific features (Grosse, 2005). Infrastructure FDI, for instance in transport or telecommunication, can greatly enhance productivity in other sectors of the economy, yet at the risk of foreign control—possibly even monopoly—if the sector is not appropriately regulated. Similar benefits and risk arise from financial sector investment. Services such as information technology operate in more competitive markets and may benefit a wide range of other business. In manufacturing, major variations arise from the need or opportunity to produce close to the market due to high transportation costs or low scale economies.

An aspect of particular relevance for MNE spillovers is *intra-firm knowledge transfer*. Knowledge sharing within the MNE is a precondition for knowledge spillovers. Typically, investors would transfer “know-how” to their affiliates to enhance efficiency and productivity. Yet, they would keep tighter control over their “know-why”, because such knowledge could—if diffused to other firms—threaten the international market position of the firm. Knowledge spillovers would also rise with higher value-added activities, such as complex manufacturing processes, rather than mass assembly of, for example, garments or shoes. In particular, research and development (R&D) is commonly believed to generate positive spillovers.

Another source of variation is the mode of entry. In a *joint venture*, two partners share their resources in return for access to the partner's resources. This can lead to mutual learning, and thus extend linkages and knowledge spillovers in the local business community. Yet MNEs would be more concerned about unwanted technology diffusion and thus be more reluctant to share crucial knowledge with local employees. *Greenfield* projects create new businesses and thus have direct positive effects on employment and domestic value added, and increase competitive pressures on local competitors. *Acquisitions*, on the other hand, are at the time of entry fully operating enterprises. The new owners may or may not continue traditional business relationships, possibly drawing on their existing suppliers, which would strongly impact on local industries.

For policymakers this implies that they ought to consider explicitly what type of FDI would benefit the host economy, rather than focusing on quantitative targets for FDI. Moreover, evaluation of policies should analyse what types of investors, and with what type of projects, would consider the

local environment (including political institutions) attractive, while avoiding undue market power that foreign investment firms may try to negotiate for themselves. At the same time, the local regulatory framework has to provide for conditions that are conducive to local entrepreneurs' ability to take advantage of the potential for interaction with foreign investors.

Thus, theoretical arguments and empirical evidence suggest that there may be greater potential from vertical spillovers than from horizontal spillovers. However, local firms need to be in a strong position to benefit: they need to have the absorptive capacity to convert exposure to latest technology into productivity advances, and they need to have bargaining power to convert increases in productivity to value accrued to the local firm itself, rather than the foreign investor.

## THE IMPACT OF FDI ON TRANSITION ECONOMIES

In this section, we survey the findings on the impact of FDI in transition economies, notably the countries of the Balkans and CIS. Firstly, we focus on company performance, and in order to compare foreign ownership with other ownership forms, we concentrate on studies about the impact of sales of firms to new owners, including foreigners, that is acquisition, partially or in full. Subsequently, we review the less extensive literature on spillovers from foreign owned businesses to other local firms.

### *Impact on acquired firms*

In their survey, Estrin and others (2009) find that privatization to foreign owners raises productivity, measured by total factor productivity (TFP) relative to State-owned firms in all the transition economies. The effect of privatization to domestic private owners is by and large also found to be positive, but it is quantitatively much smaller than that of foreign ownership. Concentrated (especially foreign) private ownership has a stronger positive effect than dispersed ownership. Foreign ownership also generally tends to have a positive effect on profitability. Studies of employment find that privatization in the post-communist economies is not associated with a reduction in employment.

Estrin and others (2009) identify 22 studies that analyse the impact of ownership on TFP or rate of change of TFP in the transition economies, using value added, total product or sales revenues as the dependent variable and either dummy variables or per cent share ownership as measures of

different types of ownership. They judged 14 studies to be of high quality in terms of data and econometric methods and they concentrate their discussion upon these papers. Of these 14 papers (Table 7.2), seven cover South-Eastern European economies (including Slovenia) and five include data from the CIS.

Except for two of the three studies of Slovenia, all the studies uniformly suggest that privatization through acquisition by foreign owners increases efficiency. This effect of foreign ownership is strong and robust across regions. The effect of domestic private ownership is by and large also found positive in Southern Europe and in Ukraine but it is quantitatively much

**Table 7.2:**  
**Studies of spillover effects of FDI in Central and Eastern Europe**

<i>Authors</i>	<i>Countries</i>	<i>Data year</i>	<i>Horizontal spillovers</i>	<i>Vertical spillovers</i>
Djankov and Hoekman 2000	Czech Republic	1992-1997	+ (all) - (dom)	
Zukowska-Gagelmann 2000	Poland	1993-1997		
Konings 2001	Bulgaria, Poland, Romania	1993-1997	- (Bulgaria) - (Romania) n.s. (Poland)	
Bosco 2001	Hungary	1993-1997	- n.s.	
Kinoshita 2001	Czech Republic	1993-1998	+ n.s. (all) - n.s.(dom)	
Sgard 2001	Hungary	1992-1999	+	
Schoors and v.d. Tol 2002	Hungary	1997-1998	+ n.s.	
Damijan and others 2003	Eight Eastern European countries	1994-1998	+ (Romania) - (Slovenia) n.s. (six others)	
Yudaeva and others 2003	Russian Federation	1993-1997	+	
Javorcik 2004	Lithuania	1996-2000	n.s.	+ backward
Sinani and Meyer 2004	Estonia	1994-1999	+	
Lutz and Talavera 2004	Ukraine	1998-1999	+	
Vahter and Masso 2005	Estonia	1995-2000	+ (time t) n.s. (time t-1)	
Halpern and Muraközy 2007	Hungary	1996-2003	- n.s.	+ vertical
Gersl and others 2008	Ten Eastern European countries		- (CZ, LT, BG, RO) + (PL)	backward: - (LV, RO); + (SL, EE) forward: - (HU, SL)

**Source:** Estrin and others (2009).

smaller than that of foreign ownership (the quantitative effects are not shown in a tabular form). The Russian Federation appears to be different from Ukraine in that Sabirianova, Svejnar and Terrell (2005) and Brown, Earle and Telegdy (2006) find with large data sets the effect of domestic private and mixed ownership to be negative or insignificant, but there are still positive and significant effects from foreign ownership. Similarly, Commander and Svejnar (2007) use a large firm-level data set from 26 transition economies and find an insignificant average (across countries) effect of domestic private ownership relative to that of the State ownership. In general, the effect of domestic private ownership on company efficiency appears to be more positive in the CEE region than in the CIS, but never as great as foreign ownership.

Studies on the Russian Federation and the Czech Republic, such as Sabirianova and others (2005), that examine the dynamics of productive efficiency show that foreign-owned firms improved efficiency faster than domestic private and State-owned firms in the 1990s and early 2000s. This differential effect is not detectable, however, in Commander and Svejnar's (2007) study of the 2002-2005 panel data from the 26 transition economies. It is hence possible that foreign owners brought about a sizable increase in efficiency in the period immediately after acquiring the local firms in the 1990s, but that later on the rate of change in efficiency has been, on average, similar in all the principal types of ownership of firms.

In summary, the TFP effect of privatization to domestic owners has been much smaller than the TFP effect of privatization to foreign investors. This result has held, both for the transition economies which led the way in reforms and for the economies which approached institutional change more slowly in CIS and the Balkans. One can imagine three possible explanations. Firstly, the finding may reflect in part the limited skills and access to world markets on the part of the local managers. This issue is likely to be more serious in economies which are less well integrated into the global economy. Secondly, it may reflect the poor relative performance of domestically owned private firms rather than an excellent performance of MNEs in transition economies. For example, domestically-owned privatized firms may have also been the ones where performance-reducing activities such as looting, tunnelling and defrauding of minority shareholders have been most frequent. Finally, in a number of countries the nature of the privatization process initially prevented large domestic private owners from obtaining 100 per cent ownership stakes and insiders or the State often owned sizeable holdings. It often took these large shareholders several years to squeeze out

minority shareholders and, in the process, the large shareholders sometimes artificially decreased the performance of their newly acquired firms in order to squeeze out the minority shareholders at low share prices.

### *Spillovers to local firms*

The number of spillover studies is small for transition economies, and the evidence is as contradictory as in the general literature (Table 7.2). The meta-analysis on horizontal spillovers by Görg and Strobl (2001) suggests that transition economies are significantly more likely than industrialized countries to experience positive spillovers. However, Meyer and Sinani's (2009) recent and larger meta-analysis did not confirm this. After controlling for the level of income, they did not find dummies for groupings of countries to have any significant effect, and transition economies are in fact on the declining part of their U-shaped curve.

The inconsistency of results is underlined by the fact that studies covering multiple countries tend to find different results in different countries (Table 7.2). Konings (2001) finds negative effects in Romania and Bulgaria, but non-significant effects in Poland. Damijan and others (2003) find positive effects in Romania—contrary to Konings—yet negative effects in Slovenia and no significant effects in six other countries. A recent study at the Czech National Bank finds positive horizontal effects in Poland, but negative or insignificant effects in nine other countries (Gersl and others, 2008).

Regarding vertical linkages, the evidence is clearer though only a small number of studies are available due to the complexity of the datasets required. A pioneering study in this area has been Javorcik (2004) who analysed vertical spillovers in Lithuania, and finds very strong backward linkage effects. Similar supportive evidence has been provided by Halpern and Murokozy (2007), though the evidence in Gersl and others (2008) is less clear.

Thus there are no clearly generalizable findings on given horizontal spillovers from this literature. Although potential benefits are large where leading MNEs transfer technology to transition economies, it is likely that in many cases competition effects suppress potential benefits because local firms are too weak to react constructively to the opportunities offered. Especially in early stages of the transition, local firms may lack the absorptive capacity in terms of managerial leadership and organizational knowledge to take initiative to learn from foreign investors, and to translate such learning into strategic change improvements of productivity.



On the other hand, one can be optimistic about vertical spillovers. Here, foreign investors would have incentives to help their local suppliers or customers to overcoming cognitive and inertial barriers to strategic change and innovation, and thus to achieve performance improvements.

## CONCLUSIONS

We conclude by considering some of the policy implications. We can consider these at three levels: with respect to global integration; to spillovers (horizontal and vertical); in order to increase diversification; and to conform to MNE strategies. First, our findings strongly indicate that it is important for the transition economies to integrate into the world economy by increasing FDI flows. The main reason is because FDI raises productivity of former State owned firms more than via any other alternate ownership form. For example, the positive benefits exceed those which would result from private domestic investment.

In the second section, we outlined the determinants of FDI flows, and noted that many are not easily open to policy manipulation by the host economies (for example, distance or source economy GDP). However, host economy GDP and unit labour costs are both significant determinants of FDI, and this indicates that economies that seek to encourage FDI should operate a policy regime that leads to a high and sustained economic growth combined with low wage inflation. In addition, there is clear evidence that FDI is increased by strong domestic institutions, notably with respect to property rights, capital market structures and corporate governance. Host economies that wish to enhance FDI flows in South-Eastern Europe and the CIS need to improve further their institutional development, and the EBRD as well as other indicators for this region suggest there is a considerable way to go. Host economies should also introduce policies to create an environment sympathetic for foreign investors, including opening privatization to them.

It is also important to consider policies likely to enhance spillovers from FDI. Vertical spillovers seem more likely to contribute to diversification than horizontal spillovers. Host economy policies may aim to increase the spillover benefits from FDI; for instance, strengthening the absolute capacity is grounded in the quality of human capital and especially of management. This highlights the importance of education policies and management training and development policies. Spillovers also rely on labour mobility, which indicates the critical role of flexible labour markets and freedom of entry of new firms. Policies to reduce labour inflexibilities and to enhance

free movement of labour from FDI firms to domestic organizations are very significant. Of equal importance are policies to encourage entrepreneurship, including a reduction of barriers and improved access to finance, because in this way employees of foreign firms can use their knowledge to develop new firms to which their skills can be transferred.

The positive relationship between institutional development and FDI has to be combined with Meyer and Sinani's (2009) curvilinear relationship between FDI and spillovers to extract policy advice. In advanced economies, these effects would be cumulative: an improvement of institutions will attract more FDI, and raise the spillovers gained from any one foreign investment project. In less advanced economies, the relation is more complex. A small improvement in economic freedom, or a reduction in corruption, may reduce the spillover benefits, while at the same time increasing the volume of FDI. Such countries thus have to be more cautious in designing liberalization programmes. In particular, they need to avoid situations where foreign investors directly or indirectly reap the benefits of residual protectionism.

Finally, in order for host economy governments to frame economic policies in order to influence FDI decisions of MNEs in their favour, they need to understand and engage with the objectives of MNEs. MNEs operate in such a manner as to achieve all their own objectives by following their own strategies. These can be classified for example according to Ghemawat's (2007) "three A" strategies. Host economy Governments need to design their policies to encourage FDI on the basis of this understanding. This implies, for example, that to attract MNEs following *adaptation* strategies, policy makers should seek to increase access to local markets either by the MNE's local production or through the sale of inputs. Governments should also encourage export-oriented production on the basis of local resources such as low cost labour or natural resources, so as to encourage the use of the host economy as a global supply base for *arbitration* strategies. These policies may also, eventually, facilitate *aggregation* strategies when MNEs locate hubs for regional or global activities in one of the transition economies because of its unique combination of factors of production.

## NOTE

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## Chapter 8

# Remittances and development in transition economies

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### INTRODUCTION

Migrant remittances are an increasingly important source of income for the transition economies. For several of these economies, remittances form the largest source of foreign exchange income and exceed capital inflows. Remittance inflows have allowed domestic consumption and investment to be substantially higher than what would have been possible otherwise. At the same time, the outflow of labour has alleviated employment problems in economies in transition, reducing the high unemployment rates which emerged from the start of the transition process in the early 1990s. The opportunity costs of the outflow of workers probably have been low given the weakness of labour market conditions.

This chapter begins by describing the magnitude of remittance flows and their trends over time for the different transition economies. The subsequent section assesses differences and similarities between patterns of remittances received by the transition economies and those by other emerging and developing economies. Next, we discuss problems hampering labour migration and the safe and efficient transfer of funds back home, as well as the possible impact on development and related policy challenges. The chapter concludes with a number of policy recommendations as to how to reduce barriers to labour migration, increase the efficiency of wiring remittances and enhance their developmental impact.

The accuracy of official estimates for remittance flows that appear in the balance of payments statistics has been questioned by numerous experts, and these problems equally affect the analysis of remittances to transition economies. In the appendix to this chapter, we present an alternative method for estimating the level of remittance inflows for the CIS economies.



## TRENDS IN REMITTANCE FLOWS TO TRANSITION ECONOMIES

Remittances to the developing and transition economies have increased rapidly and more than doubled during the 2000s. World Bank estimates that remittance flows totalled \$256 billion in 2007, equalling almost 2 per cent of their combined GDP, up from just 1 per cent in 1990 (World Bank Remittances Database, July 2008). For all of the economies in transition, including the current ten new Member States of the European Union (NMS-10), remittance inflows are estimated to have reached \$52 billion in 2007, almost one fifth of all remittance inflows to the developing and transition economies.<sup>1</sup> Of this amount, half, or \$25.7 billion, were inflows to the NMS-10, \$15.5 billion were inflows into the twelve CIS economies (including Georgia), and the remainder, \$10.8 billion, went to the six South-Eastern European economies (SEE-6). Detailed country-level data are provided in appendix Table A8.1. The significance of remittances (as a percentage of GDP) varies considerably within each of these three groups. For example, in the NMS-10, remittance inflows are low (less than 1 per cent of GDP) in higher income countries, such as in the Czech Republic, Hungary, Slovakia and Slovenia, but high (more than 5 per cent of GDP) in the poorer economies of the NMS-10, such as Bulgaria and Romania. In Poland and the three Baltic economies, remittances accounted for between 2 and 3 per cent of GDP in 2007. The two EU candidate economies in South-Eastern Europe, Croatia and the Former Yugoslav Republic of Macedonia, receive remittances to the tune of between 3 and 4 per cent of GDP. In the rest of the SEE-6, remittances are much more important at above 10 per cent of GDP. In the five richest economies of the CIS, which have per capita incomes (valued at purchasing power parity (PPP)) of more than \$5,000, the level of remittance inflows is small relative to GDP (less than 1 per cent). In the poorest six CIS countries, remittances are more than 5 per cent of GDP. The remaining CIS economy, Azerbaijan, is somewhere in the middle with a per capita income of \$6,273 and remittance inflows that were 4.1 per cent of GDP in 2007. Remittances in the transition economies along with others in wider Europe are presented in figure 8.1. Higher shares of remittances as a percentage of GDP are represented by the darker gray.

Migration and remittances inflows appear to be of greater importance in some of the transition economies as compared to other emerging and developing economies at similar levels of development. This is likely so, because of the economic collapse during the transition process and the resulting high rates of unemployment and the generally liberal migration regimes that prevailed in the CIS and parts of Europe. In addition, workers

Figure 8.1:  
Remittance inflows in wider Europe, 2006-2007



**Note:** Data derived from Appendix Table A8.1.

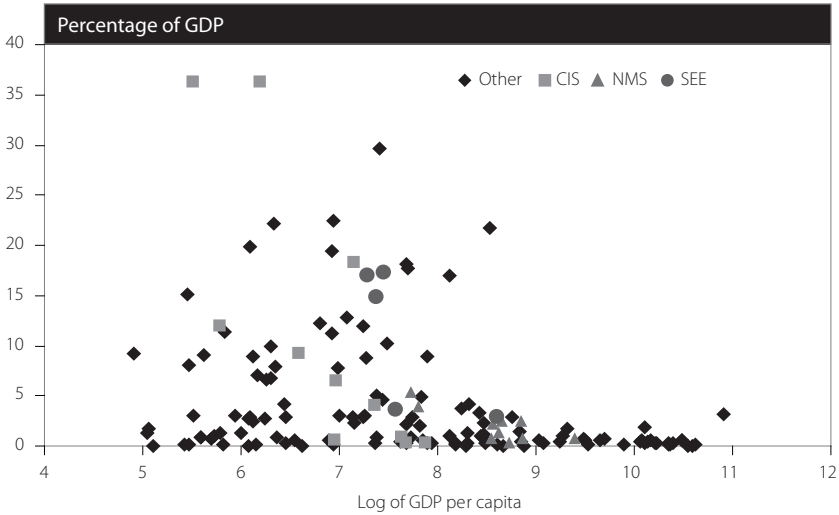
from the economies in transition generally possess relatively high levels of human capital, but earn rather low wages providing a strong push factor to trying to make a better living abroad.

However, the diverging patterns are not easy to detect in cross-country comparisons. An examination across all countries suggests that there is a strong inverse relationship between the share of remittance inflows as a percentage of GDP and per capita income. Accordingly, transition economies would be expected to have a higher share of remittance income than the advanced economies, but a smaller share than low-income developing economies. Figure 8.2 plots remittances as a percentage of GDP against per capita income. In this comparison, there does not seem anything fundamentally atypical about the relative importance of remittances for transition economies.

#### DETERMINANTS OF BILATERAL REMITTANCE FLOWS

The earlier discussion would suggest, however, that the relationship between remittance inflows and per capita income would show a steeper slope for transition economies. Apart from the earlier mentioned factors, this could further be the case because of geographical vicinity, language similarities,

Figure 8.2:  
Remittances and income per capita, 2006



Source: World Bank, Remittances Database (2008).

Note: Group definitions: d=other, tc=CIS, tn=NMS, ts=SEE.

and preferential migration agreements. Empirical analysis also shows that migration flows can be described reasonably well using the gravity model framework which has become standard in trade analysis (Peridy, 2006; Lueth and Ruiz-Arranz, 2006). Unfortunately, reliable and comparable data on bilateral remittance flows are difficult to come by, impeding the estimation of an adequately specified gravity model of remittance flows for transition economies.

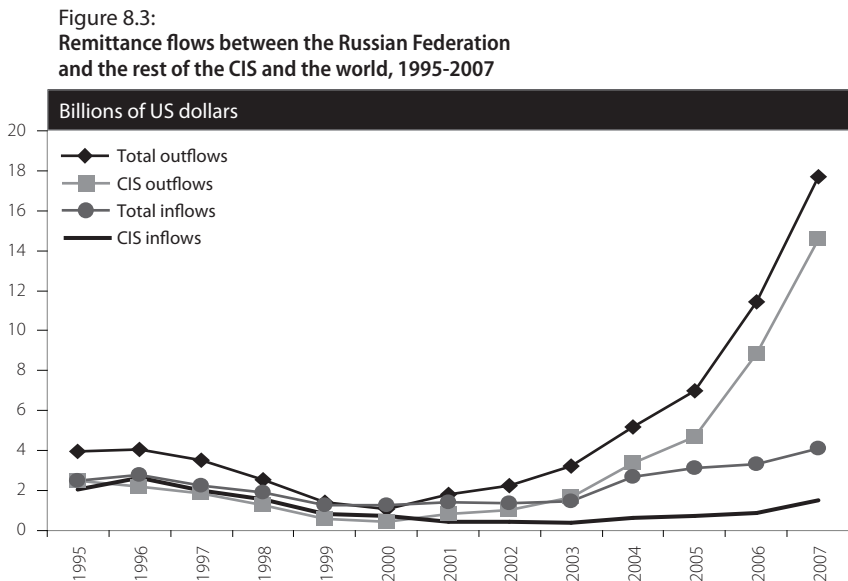
Working around these data limitations, Shelburne and Palacín (2007) used available bilateral data on monetary transfers to and from the Russian Federation as a proxy for remittances and examined these two-way flows to 28 countries. They focused on the size of the net transfers (inflows minus outflows) and hypothesized that net flows should be positively correlated with the per capita income of the partner country. The problems of measuring remittance flows, as well as the alternative measure, are detailed in appendix A8.2 to this chapter.

The alternative estimates show that emigrants from South-Eastern Europe and the European CIS primarily go to Western Europe and the United States, while those from the Central Asian CIS move to the Russian Federation and, to a much lesser degree, Kazakhstan. These trends are to be expected; the only small surprise might be the fact that remittance inflows

to the European CIS, such as the Republic of Moldova and Ukraine, are much larger from Western Europe than from the Russian Federation.<sup>2</sup> Remittances to the Russian Federation used to come mostly from the other CIS countries, but nowadays mainly originate from outside the CIS. Using financial transfer data as a proxy for remittances, the United States is the largest source country for Russian remittances followed by Germany, Italy and the United Kingdom.

Remittance flows are mostly one-directional; that is, a country is either a remittee (recipient country) or a remitter (source country). The Russian Federation forms an exception, however, being both a major remitter (second in the world in 2007) and a major remittee (twenty third in 2007). On balance, the Russian Federation has large net outflows of worker remittances with the relative size of the outflows increasing from 130 per cent of inflows in 2001 to 432 per cent in 2007. Payments of remittances from the Russian Federation to other CIS countries increased from 189 per cent of the inflows in 2001 to 946 per cent in 2007. Thus, as shown in figure 8.3, whether looking at Russian remittances to the world or to the CIS, outflows are now much larger than inflows.

Existing empirical analysis suggests that remittances are generally expected to flow from higher to lower income countries. This follows from



Source: Shelburne and Palacín (2007).

the observation that richer countries pay higher wages which attracts workers from countries with lower average wages. In the absence of sufficient data to estimate a gravity model, we study this hypothesis using the net remittances index (NRI) and relate this index to differences in income levels. The NRI is calculated by standardizing the net flow of remittances from country  $i$  to country  $j$  by the size of the total flow (inflows plus outflows). The NRI between countries  $i$  and  $j$  is thus defined by the following equation which is reminiscent of the intra-industry index used for trade analysis of two-way flows:

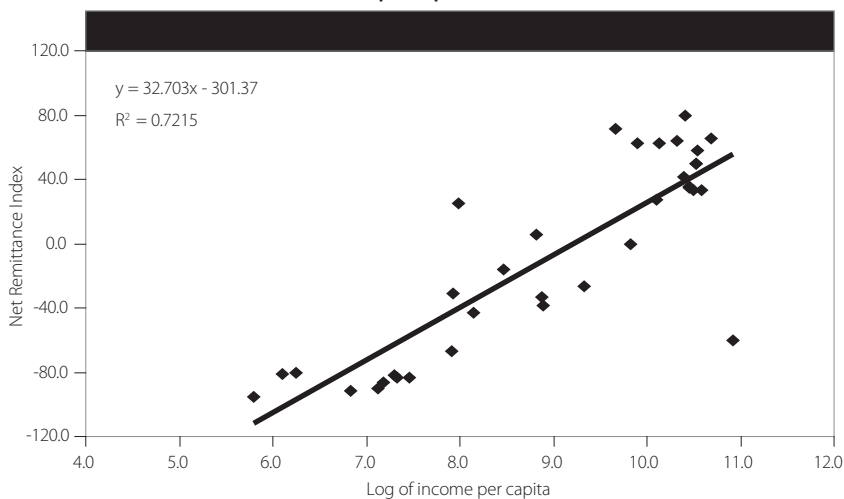
$$NRI_{ij} = ((RI_{ij} - RO_{ij}) / (RI_{ij} + RO_{ij})) \times 100 \quad (8.1)$$

Remittance inflows from country  $i$  to  $j$  are represented by  $RI_{ij}$  while  $RO_{ij}$  represents remittance outflows from  $i$  to  $j$ . This NRI index can vary from  $-100$  to  $+100$ ; it would have a value of zero for countries where inflows equal outflows and a negative value when outflows exceed inflows.

In figure 8.4 this remittance index (NRI) is plotted against the per capita income of the countries sending and receiving money transfers to and from the Russian Federation during the period between the second quarter of 2006 and the first quarter of 2007. There is a strong positive relationship between the NRI and the per capita income of the partner country; the  $t$ -statistic is over 9 (statistically significant at the 99.9 per cent level) and the correlation coefficient is high ( $R^2 = 0.72$ ). Thus, the Russian Federation primarily receives remittances (technically money transfers) from countries richer than itself and primarily sends remittances to countries poorer than itself. The one observation that stands out in figure 8.4 is Switzerland (at the lower right), as the unexpectedly high level of outflows is unlikely to be due to Swiss workers sending remittance transfers back to Switzerland. This observation suggests that the dataset used may include non-remittance flows, but hopefully this kind of contamination of the data is limited. In addition, data for Switzerland was available for only one quarter during the analysed period.<sup>3</sup> If Switzerland is dropped, the empirical fit improves with the  $t$ -statistic increasing to 12 and the correlation coefficient to 0.84.

Kazakhstan also has sizable flows of migrants moving both in and out of the country. Large numbers of immigrant workers come from other Central Asian countries owing to geographical vicinity and also because of less overt discrimination than they face in the Russian Federation, a comparable climate, and the similarity of the Kyrgyz and Uzbek languages to Kazakh. In addition to the legal migrants, there are an estimated 400,000 illegal migrants (or 2.5 per cent of the population) in Kazakhstan today (The Economist, 2007). Although immigration only recently began to exceed emigration, Kazakhstan has been a net remitter for some time as its

Figure 8.4:  
**Relationship between the net remittance index  
 for the Russian Federation and per capita income**



*Source:* World Bank, Remittance Database and Shelburne and Palacín (2007).

emigrants have provided minimal amounts of remittance inflows. All of the remaining CIS are, on net, mostly recipients of remittance flows.

### THE DEVELOPMENTAL IMPACT OF REMITTANCES

Although remittances might be intuitively viewed as a positive factor for growth and/or poverty alleviation, there are those that have hypothesized that these flows may actually reduce growth (Chami, Fullenkamp and Jahjah, 2003; and Burgess and Haksar, 2005). There are many channels through which remittances could exert a negative impact on development, such as through Dutch disease effects (erosion of export competitiveness through real exchange-rate appreciation),<sup>4</sup> brain drain,<sup>5</sup> or reduced incentives for family members receiving funds to work. The importance of a brain drain is dependent on local labour market conditions since when there is persistent unemployment, the loss of the labour resources may have very minor opportunity costs for the sending economy.

Likewise there are numerous channels through which migration and remittances could promote development in addition to the obvious benefit of additional external financial resources. These include improved education and health for the impoverished families receiving them, improved job skills learned abroad, and increased commercial ties that could stimulate

trade and investment (Chammartin, 2008; Herander and Saavedra, 2005). Broadly speaking, migrants reduce the information costs incurred in developing economic relations between countries and this information transfer is a significant ingredient of economic development.

Furthermore, remittances have been found to be less volatile than other sources of foreign exchange, and therefore they may reduce the chances of a financial or currency crisis. Remittances are generally large in countries that are considered to be a higher investment risk and have relatively poor access to international capital markets (as judged by low or non-existent credit ratings).<sup>6</sup> By improving credit ratings, remittances contribute to a better investment climate and can thereby attract other financial inflows. Undoubtedly the degree to which remittances can promote development is dependent on complementary domestic economic policies which channel these flows into appropriate activities while also addressing their macroeconomic implications (McCormick and Wahba, 2000; Taylor, 2006; Ballard, 2003). More recent econometric analysis has generally concluded that remittances have had no effect (IMF, 2005) or a positive and statistically significant impact on growth (Mansoor and Quillin, 2006; Ang, 2007) and/or poverty reduction (Adams and Page, 2003; Acosta and others, 2007).

Estimating the impact of remittances on economic variables such as growth and poverty is complicated by the statistical problem of endogeneity since during periods of low growth or high poverty more people may emigrate or those already outside may send more assistance home. Thus, empirically, large remittances may be associated with economic distress. In fact, this counter-cyclical response of remittances to periods of economic distress is often cited as one of the important benefits of these flows as they smooth out pro-cyclical capital movements. In addition, several important channels such as increased education or health spending would only affect growth after a very long lag and would therefore not show up in standard cross-country growth regressions as they are typically performed. The degree to which emigration and remittances can reduce poverty is dependent to a significant degree on the skill composition of the migrants. Although migrants appear to come from the higher skilled groups and from those with extra motivation and energy, it is still the case that remittances go to poor or liquidity-constrained households and appear to increase their spending on education and health. Some survey evidence shows that despite their higher spending, remittance receiving households also save more than other households. Ensuring that these savings are channeled into productive investment is one of the major policy challenges facing the transition economies. Even the poor that do not emigrate may benefit

from the increased job opportunities that are opened up when the more skilled leave; although this effect may be weakened if skilled and unskilled labour are complementary instead of substitute factors. Generally, given the statistical problems involved, the positive impacts of remittances are more apparent in micro household studies than in cross-country growth analysis. Remittances have also been alleged to be a significant factor in local housing markets (as in the case of Armenia) and are often correlated with construction activity (IMF, 2005) or housing price movements (Palacín and Shelburne, 2005).

Despite a number of unanswered empirical questions regarding the effects of remittances, the underlying evidence tends to suggest that the institutional environment, especially the financial structure, is important in determining the developmental impact of remittances. Thus the relevant policy questions confronting the transition economies concern what type of government policies can and should be implemented to best ensure that remittances contribute to productive investment and poverty alleviation. Whether the objective is investment or consumption for poverty reduction, there is a need to minimize the transaction costs of transferring these funds back home and eliminate the opportunities for theft or fraud. The prospects of high transfer costs negatively affect the decision to send funds home as these costs effectively diminish the amount that is received. In other words, inefficiency of the domestic financial sector acts as a tax on these financial flows.

There are essentially three options for transferring funds back home. The cheapest but most risky is to carry or mail the cash across the border. If the worker is not returning, relatives, friends or even transport workers like bus drivers can be used. Physically sending or carrying the cash is especially used by illegal migrants to avoid having to fill out any documents, those poorly educated and unskilled who are especially unfamiliar with banking and money transfer services, and those with limited knowledge of the local language or customs. The second option is to use a money wire service such as Western Union; currently this appears to be the most popular mechanism in the CIS. The fees are generally low amounting to only a few percentage points, there are usually several currency options, and the transfer is quick with the funds available in a day or two.<sup>7</sup> The third option is to transfer funds through the banking system. This option is generally more expensive and many migrants do not have bank accounts where they work nor do their families back home. Nevertheless, in the transition economies remittances are increasingly moving through official banking channels as the financial systems in these economies develop and as residents' confidence in the banking system is restored after falling during the banking system collapse



following the 1998 Russian financial crisis. Overall, the availability, speed, reliability and transaction costs are the major considerations in determining which of these methods is used to transfer funds.

There are a number of initiatives these governments can take, such as better regulating financial transfer companies to ensure that they are financially sound and provide consumers adequate (and honest) pricing information. It is difficult for consumers to compare between different services since they often use different exchange rates and pricing mechanisms. Improving the transparency of these different pricing structures can increase competition in the financial services industry and thereby lower prices for consumers. Some basic guidelines for improving the safety and efficiency of remittance services are provided in the recent 2007 BIS/World Bank General Principles for International Remittance Services. Many of these recommendations have yet to be adopted by a number of the economies in transition. At the same time it must be acknowledged that different countries have different needs and objectives, and that there are often trade-offs between making transfers cheaper and easier for consumers and the needs of governments to ensure the financial integrity of transfer enterprises and to properly limit illegal and terrorist transfers.

In order to ensure that funds which are not immediately spent are available to the home economy for investment purposes, it is basically necessary to keep them in the formal financial sector. Generally it has been found that if the funds are initially transferred by the formal financial sector then consumers have a tendency to keep (save) them in the formal sector as well. Unspent funds that were transferred by carrier or mail generally are not later deposited in the formal sector. Thus developing and properly regulating the transfer sector is an important step in ensuring that unspent funds will be kept in the formal sector and be available for investment. Therefore, progress in making domestic financial systems more competitive could serve to increase both the total amount of transfers and the share that circulates through formal channels, in effect raising the pool of resources available for future lending. In this way, remittances could make a positive contribution to the growth of the capital stock either through its impact on widening the deposit base of the banking system or directly through financing business investments.

The formal infrastructure to channel remittances in the CIS is undergoing rapid transformation, spurred by the large amounts being transferred, the number of operators active in this business segment and the growing level of competition (Quillin and others, 2007). There is also some evidence that remittances have been used by some banks in recipient countries to

build a customer base.<sup>8</sup> The transfer of remittances allows banks to gather information about their customers, which in turn facilitates cross-selling of other financial products. International experience provides a number of policy schemes that seek to channel remittances to specific uses, attracted on the basis of low or zero transfer fees and perhaps tax advantages aiming at investment in social and business projects. Governance issues will need to be addressed firmly before such projects are undertaken in the transition economies. Strengthening the financial system would appear to be a priority task to create the necessary framework conditions. Obviously all the normal policy advice for improving domestic financial markets by increasing access, improving corporate governance, eliminating unnecessary regulation, etc. are therefore relevant for improving the developmental impact of remittances. A possible extension of this institutional development would be involvement of microfinance institutions in the remittance transfer process and the provision of financial services to recipients, although this may require significant regulatory changes.<sup>9</sup>

The vast majority of funds sent home are used for consumption purposes and this has typically played a significant role in reducing poverty. These transfers may contribute to human capital investment in the economy if used to support education by paying fees or by reducing child labour. Improvements in diet and access to medical services can also upgrade the stock of human capital. There is increasing attention in the developmental literature about policy initiatives which can channel remittances into supposedly more productive activities. However, given the fairly low income of many recipient families, it is not clear that a reduction in their consumption levels in order to further enhance other types of investment would be optimal for the maximization of social welfare over time. It must be recognized that remittances are private flows and public policy should focus primarily on increasing the alternative uses available and lowering their costs so that families using their own preferences can maximize their welfare over time.

Finally, any discussion of improving the developmental impact of remittances must address the welfare of the migrant workers. In many cases they are exploited and denied basic rights afforded to domestic workers. Generally it is desirable that these migration flows occur within a regional or bilateral framework that safeguards the migrants' working conditions and rights. Workers from the NMS have their employment rights outlined in their accession agreements and currently the CIS economies are in discussions about regulating migration issues. At a minimum, it would appear that all countries should adopt ILO conventions 97 and 143 which

address concerns such as migrant workers' rights to join unions, earn social security or their obligations to pay taxes; a number of the CIS economies have yet to ratify these. In addition, complementary domestic legislation also needs to be considered.

## CONCLUSIONS

Remittances are an important source of financial resources for the transition economies. They have allowed these economies to consume and invest at higher levels than would have been possible otherwise. For most, they are considerably larger than aid flows, and for the less developed in the group they are even more important than private capital inflows. These conclusions are, however, also true for many developing countries and the analysis presented here was unable to determine if remittances are any more or less important for the transition economies than for developing and emerging economies more generally. Despite their significance, the empirical evidence is far from conclusive that remittances actually promote growth and poverty reduction. However, there are reasons to believe that cross-sectional analysis of this type is unable to fully capture the growth promoting and poverty reducing effects of remittances. Emigration of skilled workers can negatively impact the home economy in a number of ways, but given the very high levels of unemployment that were present in the transition economies due to the shocks of economic and political disintegration that occurred with the breakdown of economic planning, this loss of human capital resources has probably been of a minor consideration. For the transition economies, the binding constraint in using these financial flows to further their economic development appears to be shortcomings in their financial institutional architecture. Overall, a well-functioning banking system encourages remittances and their use for investment purposes but in the transition economies financial depth is low and capital markets are not well developed. Improvements in the level of development of their financial sectors would appear to be a major challenge in their ability to more fully capture the potential developmental impact of these flows.

### *Postscript: The impact of the global crisis of 2008-2009 on remittance flows to economies in transition*

In 2008, the world economy experienced its most severe financial shock since the Great Depression of the 1930s, followed by the world's deepest

economic downturn since the Second World War. Although residents and financial institutions in the transition economies owned few of the United States' sub-prime mortgage-backed securities at the heart of the crisis, these economies were some of the most negatively impacted in the world. GDP growth in the transition economies which had increased annually by 7.8 per cent in the five years prior to the crisis declined to 5.2 per cent in 2008 and negative 6.6 per cent in 2009 before recovering moderately to 4.0 per cent in 2010. More specifically, growth was negative and unemployment increased significantly not only in the Russian Federation but also in Western Europe; these were the destinations for the majority of migrant workers in the transition economies.

This global turbulence had a significant effect on remittances flows amongst the transition economies. Data presented in the body of this chapter do not extend beyond 2007 and therefore do not cover the global economic and financial crisis. However, some general observations can be made on overall trends and their implications, which may have some longer-run impacts on their development. On the basis of World Bank data, remittances inflows continued to grow in dollar terms in practically all of the economies in transition in 2008, except for Kazakhstan where inflows were rather modest. However, as the crisis intensified they fell sharply in 2009. The decline was especially large in the CIS countries, in particular in those where the significance of remittances is higher. Thus, remittances shrank by 36 per cent in the Republic of Moldova, 28 per cent in Kyrgyzstan and 31 per cent in Tajikistan. Given the rapid rate at which remittances had been growing, the declines from trend were thus considerably larger than these absolute declines from 2008 levels. Preliminary figures for 2010 show only a modest recovery in inflows and they remain well below 2008 levels.

Remittances proved to be a channel for the transmission of the crisis rather than a factor of stability in these low-income countries which generally had a very limited direct exposure to international capital markets. Previous research had generally concluded that remittances are a stabilizing influence because they are much less volatile than capital flows. This resulted from the fact that the crisis situations examined were often domestic with the result that capital inflows ceased while remittances often increased as more unemployed workers migrated to unaffected countries or those already abroad increased their transfers to help relieve the increased hardship at home. This global crisis, however, was centred abroad and was much deeper in the major migrant destination country, the Russian Federation, than in many of the peripheral migrant source countries of the CIS. Thus, the

economic situation during this crisis was significantly different from the situations that underlined this previous research; and the fact that remittances tend to amplify the crisis in some of the migrant source countries should come as no surprise. The importance of the Russian Federation as a source of remittances had some additional implications; foremost was the fact that the Russian Federation was one of the world's most negatively-impacted economies. The sizable seasonal migration that was easily reversible and the sectoral specialization of migrants also explain the sharp reversal of remittances, which was further amplified by the devaluation of the rouble. The dynamics of remittances during the crisis showed that the excessive geographical concentration of migrant flows remains a factor of vulnerability for the low-income countries in the region.

## NOTES

- 1 These figures are from the World Bank remittance database except for the values of Turkmenistan and Uzbekistan which are based on the alternative estimation procedure proposed by Shelburne and Palacín (2007) and discussed in appendix A8.2 to this chapter.
- 2 Previously unpublished bilateral remittance data obtained from the central banks of the Republic of Moldova and Ukraine are provided in Shelburne and Palacín (2007).
- 3 Data was also unavailable for one or more of the quarters of the analysed period for several other countries. Nevertheless, these countries were not dropped from the sample because leaving them in should not affect the measurement of the remittance index.
- 4 Given that remittance flows are generally quite persistent, the nature of any Dutch disease effects may be different from the temporary effects often associated with cyclical changes in resource prices.
- 5 The average skill level of migrant workers has been found to be above those of the general population of the source countries.
- 6 The IMF (2005) finds that remittances are positively associated with an improved credit rating on sovereign debt.
- 7 A study of the costs of sending funds from the United States to a number of CIS including Azerbaijan, Belarus, Georgia, Republic of Moldova and the Russian Federation found that it was similar to sending funds to other developing countries (Martinez, 2005). However, Ratha and Shaw (2006) calculate the costs of sending \$200 to be rather high at 9.4 per cent from Kiev to Moscow and 4.3 per cent from Moscow to Kiev.
- 8 A study of workers' remittances in Armenia shows that official channels are more widely used in transactions originating from the Russian Federation than from Western Europe, due to much lower transaction costs, as banks have specifically targeted this type of business (Roberts and Banian, 2005).
- 9 A thorough discussion of various experiences in this area and the various policy dilemmas is undertaken by Johnson and Sedaca (2004).

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## APPENDIX A8.1

Table A8.1:  
Remittance Inflows by value and percentage of GDP, 2004-2007

	<i>Millions of U.S. Dollars</i>				<i>Percentage of GDP</i>			
	2004	2005	2006	2007	2004	2005	2006	2007
Armenia	813	940	1,175	1,273	22.8	19.2	18.4	13.9
Azerbaijan	227	693	813	1,287	2.6	5.2	4.1	4.1
Belarus	256	255	340	363	1.1	0.8	0.9	0.9
Georgia	303	346	485	705	5.9	5.4	6.3	6.9
Kazakhstan	165	178	188	223	0.4	0.3	0.2	0.2
Kyrgyzstan	189	322	481	715	8.5	13.1	17.0	19.1
Republic of Moldova	705	920	1,182	1,498	27.1	30.8	34.7	34.1
Russian Federation	2,495	2,919	3,091	4,100	0.4	0.4	0.3	0.3
Tajikistan	252	467	1,019	1,250	12.2	20.2	36.0	37.3
Turkmenistan	11	16	30	49	0.1	0.1	0.2	0.2
Ukraine	411	595	829	1,170	0.6	0.7	0.8	0.9
Uzbekistan	651	909	1,723	2,827	5.4	6.4	10.1	14.0
<b>CIS-11 Total</b>	<b>3,983</b>	<b>5,641</b>	<b>8,265</b>	<b>11,360</b>	<b>2.2</b>	<b>2.4</b>	<b>2.7</b>	<b>3.0</b>
<b>CIS Total</b>	<b>6,478</b>	<b>8,560</b>	<b>11,356</b>	<b>15,460</b>	<b>0.8</b>	<b>0.9</b>	<b>0.9</b>	<b>1.0</b>
Albania	1,160	1,290	1,360	1,359	15.3	15.4	14.9	13.2
Bosnia and Herzegovina	2,072	2,052	2,157	2,514	22.2	20.4	18.9	18.6
Croatia	1,221	1,222	1,233	1,788	3.4	3.1	2.9	3.5
Serbia and Montenegro	4,129	4,650	4,703	4,910	15.6	16.4	14.2	11.3
TFYR Macedonia	213	2727	267	267	4.0	3.9	4.2	3.6
<b>SEE Total</b>	<b>8,795</b>	<b>9,441</b>	<b>9,720</b>	<b>10,838</b>	<b>10.4</b>	<b>10.3</b>	<b>9.4</b>	<b>8.6</b>
Bulgaria	1,722	1,613	1,707	2,087	7.0	5.9	5.4	5.3
Czech Republic	815	1,018	1,186	1,300	0.7	0.8	0.8	0.8
Estonia	167	265	402	426	1.4	1.9	2.4	2.0
Hungary	307	280	363	363	0.3	0.3	0.3	0.3
Latvia	230	381	482	552	1.7	2.4	2.4	2.0
Lithuania	325	534	994	994	1.4	2.1	3.3	2.6
Poland	4,724	6,482	8,496	10,671	1.9	2.1	2.5	2.5
Romania	132	4,733	6,718	8,533	0.2	4.8	5.5	5.1
Slovakia	424	424	424	424	1.0	0.9	0.8	0.6
Slovenia	266	264	282	300	0.8	0.8	0.7	0.7
<b>NMS-10 Total</b>	<b>9,112</b>	<b>15,994</b>	<b>21,054</b>	<b>25,650</b>	<b>1.3</b>	<b>2.0</b>	<b>2.3</b>	<b>2.2</b>
<b>CIS and SEE Total</b>	<b>15,273</b>	<b>18,001</b>	<b>21,076</b>	<b>26,298</b>	<b>1.8</b>	<b>1.6</b>	<b>1.5</b>	<b>1.5</b>
<b>EIT-28 Total</b>	<b>24,385</b>	<b>33,995</b>	<b>42,130</b>	<b>51,948</b>	<b>1.6</b>	<b>1.8</b>	<b>1.8</b>	<b>1.8</b>

Sources: World Bank Remittances Database, IMF Balance of Payments Statistics Yearbook, Shelburne and Palacín (2007).

## APPENDIX A8.2

## PROBLEMS IN MEASURING REMITTANCE FLOWS

Remittances are generally defined as the sum of three entries in the standard presentation of the balance of payments. These are: (1) workers' compensation under the income account (of the current account) which includes income earned abroad by seasonal or short-term workers (foreign residents for less than a year), (2) workers' remittances under the current transfers (of the current account) which includes income earned abroad by migrants (foreign residents for over a year) and sent home, and (3) migrants' transfers under the capital transfers account (of the capital account) which includes the repatriation of financial assets when migrants return home<sup>a</sup>. Generally, individual transactions or transfers of this type are not officially recorded (as items such as imports) and must be estimated by various means. The inclusion of compensation of employees (working abroad) in remittances makes sense from a strict balance of payments sense where transactions are recorded between domestic<sup>b</sup> and foreign residents since domestic workers temporarily working abroad are still considered as domestic residents and thus their wages earned in the foreign country represent a payment from a foreign resident to a domestic one. However, in terms of some issues such as providing foreign exchange for the home country, the values for official remittances overstate the contribution of this factor since some of that income is used to purchase items, especially food and rent, in the foreign location. Survey estimates using workers from Tajikistan in the Russian Federation find that approximately one-half of foreign-earned income goes towards living expenses in the foreign country (World Bank, 2006).<sup>c</sup>

Of these three components, using the unweighted average for the transition economies, over one-half of total remittance inflows are accounted for by worker remittances; compensation of employees accounts for approximately another third, while migrant transfers represent slightly less than ten per cent. For remittance outflows, worker remittances and compensation each account for slightly over a third while transfers represent about a fourth. As shown in Table A8.2 these percentages vary by country and somewhat by year. Although country circumstances vary and thus the significance of the different types of remittances will also vary, the large differences between countries probably significantly reflects the different reporting requirements and methodological procedures used to estimate remittances.

Table A8.2:  
Remittances by component, 2006

Percentage of total						
	Inflows			Outflows		
	Rem	Comp	Tr	Rem	Comp	Tr
Albania	86.5	13.5	0.0	0.0	100.0	0.0
Bosnia and Herzegovina	71.2	28.8	0.0	75.0	25.0	0.0
Croatia	55.9	41.4	2.8	9.9	14.2	75.9
TFYR Macedonia	74.1	25.9	0.0	87.6	12.4	0.0
<b>SEE Total</b>	<b>71.7</b>	<b>27.5</b>	<b>0.7</b>	<b>22.4</b>	<b>21.8</b>	<b>55.8</b>
Armenia	11.6	87.2	1.2	12.1	84.3	3.6
Azerbaijan	81.5	15.8	2.7	49.7	41.5	8.8
Belarus	0.0	51.9	48.1	0.0	2.7	97.3
Georgia	31.5	64.9	3.5	16.7	79.2	4.2
Kazakhstan	38.9	5.7	55.4	65.9	31.7	2.5
Kyrgyzstan	98.9	0.0	1.1	30.3	13.2	56.5
Republic of Moldova	51.0	48.5	0.5	7.6	58.8	33.6
Russian Federation	24.8	53.3	21.9	40.1	52.8	7.1
Tajikistan	99.6	0.4	0.0	99.5	0.5	0.0
Ukraine	34.9	65.1	0.0	6.7	30.0	63.3
<b>CIS Total</b>	<b>46.8</b>	<b>42.5</b>	<b>10.7</b>	<b>45.9</b>	<b>46.9</b>	<b>7.3</b>
<b>Economies in Transition (unweighted average)</b>	<b>54.9</b>	<b>35.8</b>	<b>9.3</b>	<b>35.6</b>	<b>38.4</b>	<b>26.0</b>

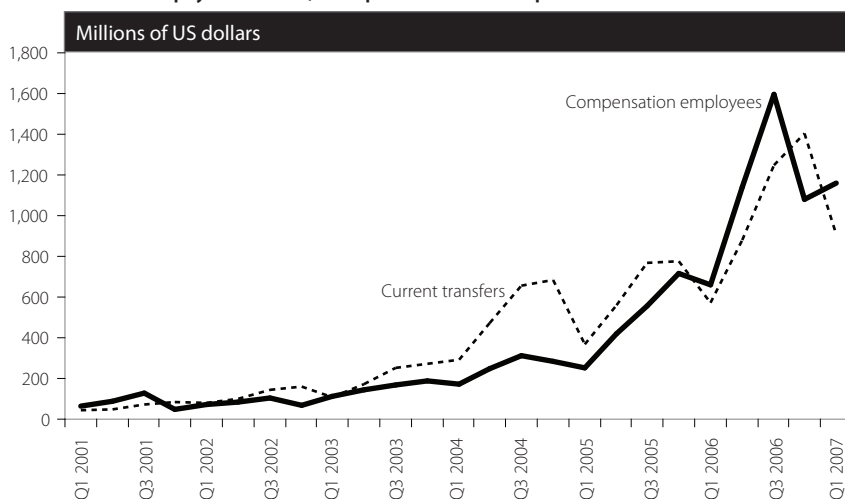
Source: IMF Balance of Payments Statistics Yearbook.

Abbreviations: Rem, Remittances; Comp, Compensation; Tr, Transfers.

The distribution of remittances by component often follows a seasonal pattern. This can be seen in the quarterly remittance outflows from the Russian Federation to the other CIS as shown in figure A8.1. There appears to be more seasonality in current transfers than in compensation; intuitively the opposite might be expected. Current transfers, which refer to payments made by permanent (long-run) migrants in the Russian Federation back home to their families in the CIS, would not be expected to display that much seasonality. However, compensation of employees which are payments to short-term non-residents would be expected to peak in the summer and decline in the winter when there are fewer employment opportunities in sectors where the presence of migrants is particularly strong, such as construction, agriculture and retail informal trade.

Montenegro, Serbia, Turkmenistan and Uzbekistan do not provide balance of payments data consistent with IMF methodological procedures

Figure A8.1:  
Migrant remittances from the Russian Federation, quarterly  
balance of payments data, first quarter 2001–first quarter 2007



Sources: World Bank Remittances Database, IMF Balance of Payments Statistics Yearbook, Shelburne and Palacin (2007).

and their balance of payments (BOP) data do not appear in the IMF's *Balance of Payments Statistics*<sup>d</sup>, nor do the latter two provide remittances data on their websites or in other official documents. In some of the other transition economies, remittance estimates are provided for only one or two of the three remittance categories. For example, Belarus does not provide data on the workers' remittances component, the Kyrgyz Republic does not provide data on the compensation of employees component (for inflows), and Tajikistan and Ukraine do not, in general, provide data on the migrants' transfers component. Tajikistan reports as remittances only those funds that go through official channels (World Bank, 2006). In addition, for some countries there are significant differences between what the authorities report in their balance of payment statistics and what they report in their national income accounts. For example, Azerbaijan's estimate of remittances in calculating their national income accounts for some years are almost twice what are reported in their balance of payments statistics (Damazo, 2007); the former are estimated from household survey data while the latter are derived largely from bank transfer data.

In the other transition economies which do fully report remittance flows there is a general sense that the official statistics underestimate the true magnitude of the flows; this is especially the case for the Central Asian CIS.

Data on remittances are generally difficult to obtain due to the fact that these are private flows that often move through unofficial and unmonitored channels which are not reported. When the income is transferred back to their home countries, it may be recorded if the transfer goes through a bank or wire service; however, often the cash is physically carried over the border. Many of the migrant workers are illegal and thus do not report their earned income to their host country nor most probably to their home country for tax purposes. In some cases such as Georgia, remittances are subject to income taxes and thus there is an obvious incentive in concealing these flows (Martinez, 2005). Also since the Russian Federation taxes migrants (those working over a year) at the flat rate of 13 per cent and seasonal workers at 30 per cent, there is an obvious incentive for migrants to remain undocumented and avoid official money transfer services which could potentially report them to the Russian authorities.<sup>e</sup> The importance of tax avoidance is demonstrated by the increase in recorded remittances inflows to Tajikistan from \$4 million in the first quarter of 2002 to \$56 million in the first quarter of 2004, after the elimination of a 30 per cent tax on remittance transfers.

In the case of trade data, if a given country does not provide data, it is possible to estimate the missing data from the trade statistics of its trading partners. However, this procedure requires that the data be provided on a bilateral basis and official remittance data are generally not provided on a bilateral basis. For example, none of the transition economies publish remittances data on a bilateral basis. The degree to which it is calculated but unpublished on a bilateral basis is generally not made explicit in documentation provided by central banks concerning their statistical methodology. This is typical not just for the transition economies but for most economies, even the advanced ones. For example, an IMF request to see if there was any bilateral remittance data which was sent to 33 developing countries yielded data from only 11. However, three of those providing bilateral information were from the CIS—Kazakhstan, Republic of Moldova and Tajikistan. In addition, officially published Russian Federation statistics provide a breakdown between remittances to and from two country aggregates—the CIS and non-CIS countries<sup>f</sup>. Thus, the general absence of published bilateral remittance data eliminates the possibility of obtaining any missing data from another country or double-checking available data.

Given these shortcomings, the need to improve remittances data is widely recognized and alternative methodologies for estimating them are being developed. The G-7 Finance Ministers established an international working group led by the World Bank, and the United Nations Statistics Division has a Technical Sub-Group on the Movement of Natural Persons which are

examining these issues. The general conclusion of these groups has so far been that transfers should be defined in terms of residence and thus should be described as personal transfers instead of workers or migrant transfers. A so-called Luxembourg Group has been set up to examine compilation methods and this group has so far concluded that numerous data sources need to be incorporated into remittances calculations. In addition, they found that household surveys and modelling approaches may also be useful with the optimal use of these different techniques being dependent on individual country circumstances. A number of the CIS countries, including Azerbaijan, Belarus, Republic of Moldova and the Russian Federation, have recently implemented procedures or surveys to improve the reporting of remittances. More specifically, Belarus has been examining ways to measure remittances sent through relatives or in letters; Republic of Moldova conducted a household survey on remittances in September-October 2004; Azerbaijan has added a question about remittances to its household spending survey; and the Russian Federation has revised the reporting requirements of banking institutions (Martinez, 2005). In addition to more accurately collecting remittance data, there is a need for standardizing the definition of remittances. For example, should mortgage loans taken out in a country where a migrant works and invested back home in real estate be considered as a remittance? If this type of flow is included, then one of the major advantages of remittances, that is, of not producing a future repayment obligation, would no longer apply.

#### ALTERNATIVE ESTIMATES OF REMITTANCE FLOWS TO THE CIS

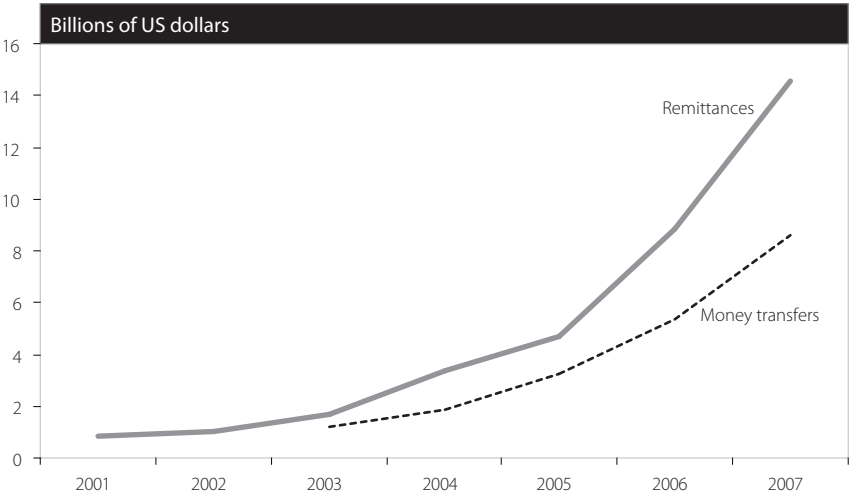
Given the acknowledged problems surrounding the reported remittance data, a number of central banks have begun to complement financial flow data obtained from the financial industry with information obtained through population surveys. Researchers have also explored new ways to estimate remittances including ways to estimate bilateral flows. For example, the World Bank (Ratha and Shaw, 2006) has had an ongoing project to estimate bilateral remittances using the estimated stock of foreign migrants. This section summarizes and updates a procedure developed by Shelburne and Palacín (2007) to estimate the remittance inflows of the CIS-11 using a new data series provided by the Central Bank of the Russian Federation of their cross-border payments made through postal offices and money transfer companies. The major advantage of this data set is that it provides this financial flow data on a bilateral basis. The procedure essentially uses

this money transfer data to determine the distribution of money transfers to each of the CIS-11 and then applies that distribution to the Russian Federation’s reported remittance outflows to the aggregate CIS which it routinely reports. Combining these two pieces of data produces an estimate of Russian bilateral remittance outflows to each of the CIS-11.

Figure A8.2 shows that the trends in reported remittances and money transfers from the Russian Federation to the CIS-11 are quite similar. Over time there seems to be some increasing divergence, but that is wholly on account of increasing absolute levels. When taking natural logarithms, it can be shown that both series show stable, linear trends (Shelburne and Palacín, 2007).

The distribution of money transfers amongst the CIS-11 are calculated from the Russian Federation’s reported data and placed in the first data column of Table A8.3 while reported Russian Federation remittances to the CIS-11 are placed on the top data row of the table. The calculated distribution is then applied to the CIS-11 total to fill in the remaining (white) cells of the table. These data provide new estimates for remittances and are important because they include estimates of remittance inflows for Turkmenistan and Uzbekistan, for which thus far neither official data nor reliable estimates were available.

Figure A8.2:  
Remittances and money transfers from the Russian Federation to the CIS-11, 2001-2007



Sources: World Bank Remittances Database, IMF Balance of Payments Statistics Yearbook, Shelburne and Palacín (2007).

Table A8.3:  
**Estimation of remittances from the Russian Federation to CIS countries based on data on cross-border payments through postal offices or money transfer companies, 2000-2007**

Millions of U.S. Dollars									
	<i>Distribution</i>	2007	2006	2005	2004	2003	2002	2001	2000
<b>Total</b>	<b>100.0</b>	<b>14,553</b>	<b>8,868</b>	<b>4,679</b>	<b>3,351</b>	<b>1,663</b>	<b>1,050</b>	<b>836</b>	<b>445</b>
Armenia	11.0	1,600	975	515	369	183	116	92	49
Azerbaijan	7.6	1,110	676	357	256	127	80	64	34
Belarus	0.8	121	73	39	28	14	9	7	4
Georgia	6.5	947	577	305	218	108	68	54	29
Kazakhstan	1.5	212	129	68	49	24	15	12	7
Kyrgyzstan	8.3	1,214	739	390	279	139	88	70	37
Republic of Moldova	9.4	1,368	834	440	315	156	99	79	42
Tajikistan	19.0	2,771	1,689	891	638	317	200	159	85
Turkmenistan	0.3	49	30	16	11	6	4	3	2
Ukraine	16.1	2,337	1,424	751	538	267	169	134	72
Uzbekistan	19.4	2,827	1,723	909	651	323	204	162	87

**Sources:** Shelburne and Palacín (2007).

These estimates of Russian Federation remittances to the CIS-11 can be compared with derived estimates of CIS-11 reported inflows from the Russian Federation in order to check for the consistency of the remittance data being reported. The countries of the CIS-11 do not officially report their remittances from individual countries, such as the Russian Federation, but these can be estimated from a number of sources of information. Based upon a request of information by the authors of this chapter, the central banks of Kazakhstan, Republic of Moldova and Ukraine provided unpublished data on remittances and/or money transfers to their countries on a bilateral basis, which included flows from the Russian Federation.<sup>9</sup> The share of Russian Federation's remittances of the total inflows of the other CIS-11 can be derived from miscellaneous central bank data or from published survey data. More specifically, this includes balance of payments data published by Belarus (National Bank of the Republic of Belarus, 2008), a central bank study by Armenia (Central Bank of Armenia, 2007), EBRD surveys for Azerbaijan (B&A and EBRD-Azerbaijan, 2007), Georgia (B&A and EBRD-Georgia, 2007), Republic of Moldova (B&A and EBRD-Republic of Moldova, 2007), and an ADB survey for Kyrgyzstan and Tajikistan (ADB, 2007). Estimates were made for cases where there were conflicting overlaps and for years for



which there was no information. The Russian Federation share is generally in the range of one-half to three-quarters; however, the share is significantly below one-half for Kazakhstan and Ukraine. These Russian Federation share estimates are combined with the remittance inflow data in appendix Table A8.1 to produce estimates of remittance inflows coming from the Russian Federation for each of the CIS-11; these estimates are provided in Table A8.4.

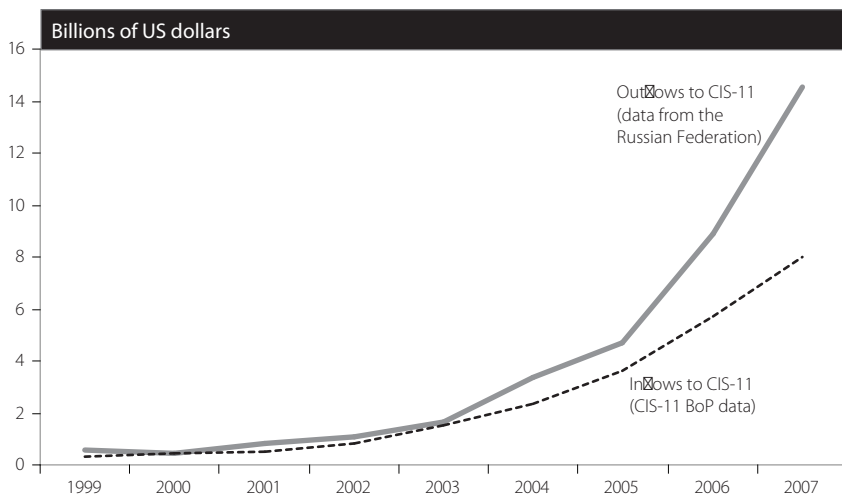
Table A8.4:  
**Estimation of Remittances from the Russian Federation  
to the CIS-11, based on CIS-11 data, 1999-2007**

Millions of U.S. Dollars									
	2007	2006	2005	2004	2003	2002	2001	2000	1999
<b>Total</b>	<b>8,004</b>	<b>5,691</b>	<b>3,618</b>	<b>2,374</b>	<b>1,530</b>	<b>835</b>	<b>539</b>	<b>417</b>	<b>349</b>
Armenia	1,040	904	746	645	544	104	75	69	75
Azerbaijan	1,034	653	557	182	137	145	84	46	43
Belarus	169	150	79	65	46	22	14	4	6
Georgia	325	223	159	140	108	106	83	126	166
Kazakhstan	48	54	25	35	32	44	37	26	14
Kyrgyzstan	565	380	254	149	62	29	9	7	14
Republic of Moldova	626	508	373	207	102	82	61	45	28
Tajikistan	1,225	999	458	247	143	77	--	--	--
Turkmenistan	49	30	16	11	6	4	3	2	--
Ukraine	98	67	42	40	28	17	12	6	2
Uzbekistan	2,827	1,723	909	651	323	204	162	86	--

**Sources:** Shelburne and Palacín (2007).

Figure A8.3 shows the difference in the estimated outflows from the Russian Federation to the other CIS countries against the estimated inflows (from the Russian Federation) of the other CIS-11. Although the dollar value of the discrepancy between the two series has increased with their continued growth, a logarithmic plot (not shown here) would indicate that both series show very similar and stable upward trends. The remittance flows as reported by the Russian Federation are, on average, about 40 per cent higher than those reported by the CIS-11. Without additional information, it is impossible to be conclusive as to whether the Russian Federation overestimates the outflows or whether the CIS-11 countries underestimate the inflows. Considering what is known about the statistical methodological procedures in the various countries and unofficial survey estimates, however, there is reason to believe that several of the CIS-11 countries underestimate remittance inflows.

Figure A8.3:  
**Comparison of outflow and inflow recordings of remittances  
 from the Russian Federation to the CIS-11, 1999-2007**



*Source:* Shelburne and Palacín (2007).

A country level examination of the discrepancy between the estimates derived from the Russian Federation data and that derived from the individual CIS-11 countries reveals significant differences. Using the four-year average over 2004-2007 to even out any one year effects, the estimated outflows from the Russian Federation are 60 per cent greater than the sum of the estimates of the CIS-11. However, there is little discrepancy between the two sets of estimates for Armenia and Azerbaijan and, of course, none for Turkmenistan and Uzbekistan since these two were both derived from the same set of data. If one is allowed to assume that the outflows from the Russian Federation are correctly measured, Belarus would overestimate its remittance inflows by a factor of two, while Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova and Tajikistan would underestimate theirs by 50 per cent. The Ukrainian estimate, however, is only five per cent of the estimate derived from the Russian Federation data.

Given the close integration of the economies of the Russian Federation and Belarus and the relative ease and safety of carrying cash between the two, in addition to the fact that the Russian Federation-based estimate relies heavily on money transfers, we speculate that the estimate of Belarus is probably not that inaccurate. The Ukrainian-based estimate would appear to be grossly inaccurate; however, this is especially the case when

one considers a number of factors likely to increase remittances such as a common long border, significant wage differences, and the relatively large population. Both of these latter two conjectures (that is to say, Belarus and Ukraine) are generally supported by World Bank estimates of remittances based upon migration stocks. By making further adjustments in both sets of estimates for these two countries, the overall discrepancy between the two data sets may be reduced by half so that the Russian Federation-based estimates would be only 30 per cent larger.

Studies of remittances to and from transition economies based on survey data have also concluded that remittances are heavily under-reported, possibly by as much as a factor of two (see, for instance, Korovilas, 1999, for a study on Albania, and Roberts and Banaian, 2004, on Armenia).

## NOTES

- a These are IMF balance of payments standard presentation codes 2310, 2391 and 2431 for inflows (credits), and 3310, 3391 and 3431 for outflows (debits).
- b In this paper the term domestic refers to the home or source country of the worker and the term foreign refers to the destination country in which he has moved to work. In terms of remittances, the source country is the foreign country (where the migrant works) and the destination (where the remittances are sent to) is the home country.
- c Those goods that are consumed in the foreign location of work should ideally be included as imports in the domestic country's balance of payments, but this is not commonly estimated and included in official import statistics. In addition, taxes paid to the foreign Government may also not be properly accounted for.
- d The IMF nevertheless does provide estimates of remittance inflows for Montenegro and Serbia.
- e Current legal initiatives under discussion envisage the convergence of rates at the lower level, as part of a general programme to discourage illegal immigration and to attract more skilled workers.
- f Ukraine provided a CIS/non-CIS breakdown up to 2005 but has since ceased to do so.
- g These data are discussed in detail in Shelburne and Palacín (2007).

## Chapter 9

# Agricultural reforms, growth and poverty reduction in Central Asia<sup>1</sup>

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MAX SPOOR

### INTRODUCTION

The objective of this chapter is to analyse the linkages between agricultural development and rural poverty reduction in Central Asia, which includes Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. It argues that agricultural development should have a central place on the overall growth, development and poverty reduction agenda of this region in order to substantially bring down rural poverty. In the following section, the incidence of income poverty in these countries is discussed. Poverty is still pervasive, especially in rural areas. The third section links observed rural poverty reduction to land reform, farm restructuring and the development of efficiency and higher productivity. Persistent rural poverty owes to insufficient efficiency and productivity gains resulting from the individualization of landholdings. The reasons behind the lack of progress in rural poverty reduction appear to be related to incomplete reforms, fragmented markets, and weak or missing rural institutions. The final section concludes.

### INCOME POVERTY IN CENTRAL ASIA

Income poverty is high in Central Asia, if compared with the Western parts of the Commonwealth of Independent States (CIS) (Belarus, Russian Federation and Ukraine). Kazakhstan has performed reasonably well, reducing the share of the population living on less than \$2.15 per day from 31 per cent in 2001 to 21 per cent in 2003. In the other countries, the poverty incidence is still much higher, in particular in Kyrgyzstan and Tajikistan (see Table 9.1).

Table 9.1:  
Poverty in Central Asia, 1999-2003

Percentage of total						
		<i>Poverty Rate (\$2.15 per day poverty line)</i>	<i>Number of poor (x 1,000)</i>	<i>Poverty Rate (\$4.30 per day poverty line)</i>	<i>Number of Vulnerable (x 1,000)</i>	<i>Total Population (x 1,000)</i>
Kazakhstan	2001	31	4,622	73	10,884	14,909
	2003	21	3,124	66	9,820	14,878
Kyrgyzstan	2000	78	3,834	97	4,768	4,915
	2003	70	3,536	96	4,850	5,052
Tajikistan	1999	91	5,624	100	6,180	6,180
	2003	74	4,665	96	6,052	6,304
Uzbekistan	2000	54	13,397	89	22,080	24,809
	2003	47	12,027	86	22,007	25,590

**Source:** World Bank (2005a).

Historically, the republics in Central Asia belonged amongst the poorest parts of the Soviet empire. For the USSR as a whole, an estimated 11 per cent of the population was living below the poverty (or low-income) line in 1989. The Kazakh SSR was close to the Soviet average, but the poverty incidence was much higher in Kyrgyzstan, Turkmenistan, Uzbekistan and Tajikistan (Table 9.2). In some cases, such as in Kazakhstan and Kyrgyzstan, industrial wages were higher than the Soviet average, accentuating the urban-rural inequality immediately prior to transition. The breakdown of the Soviet Union and the transition to a market economy led to an industrial collapse of industry. Poverty skyrocketed and became widespread. Data for the period 1993-1995 indicate that a human tragedy took place behind these “tectonic changes” and transition seemed—initially—to have many losers and few winners (Milanovic, 1998).

Table 9.2:  
Poverty incidence in the USSR, 1989

Percentage	
Kazakhstan	15.5
Kyrgyzstan	32.9
Tajikistan	51.2
Turkmenistan	35.0
Uzbekistan	43.6
USSR	11.1

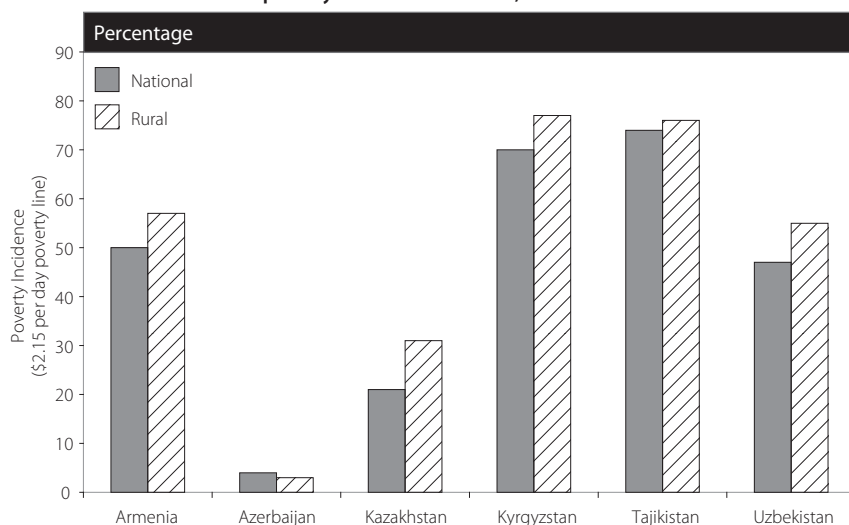
**Source:** Pomfret (1998).

On the basis of (still rather incomplete) household budget survey (HBS) data, Milanovic (1998, p. 69) has estimated that the poverty headcount in the Central Asian States rose from 4 per cent in 1987-1988, just prior to the collapse of the Soviet Union, to 45 per cent in 1993-1995<sup>2</sup>. In these early years of the transition, economic growth was still negative in most countries and a highly skewed distribution of income and assets emerged during the economic decay. In absolute terms, the number of poor increased from 6.5 million to 30.7 million people.

The poverty incidence varies greatly across countries. For example, 74 per cent of the population of Tajikistan still lived in poverty in 2003, despite a substantial reduction achieved between 1999 and 2003. Where poverty rates are lower, there are large shares of the population with incomes close to the poverty line, which are therefore highly vulnerable to fall into poverty, such as is the case in Kazakhstan where 66 per cent of the population lived on less than \$4.30 per day in 2003. In Kyrgyzstan, Tajikistan and Uzbekistan the shares of the population in such vulnerable position were even substantially higher: 96, 96 and 86 per cent, respectively.

In all the Central Asian countries, rural poverty is higher than the national average (figure 9.1). In contrast, poverty has become increasingly an urban problem in the more urbanized societies of the southern Caucasus (Armenia, Azerbaijan and Georgia) (Falkingham, 2003 and Spoor, 2004a).

Figure 9.1:  
Rural and national poverty rates in Central Asia, 2003



Source: World Bank (2005a).

In Central Asia, the risk of becoming poor is much higher for those living in the countryside than those in the cities (Spoor, 2004a). The rural relative poverty (RRP) risk is slightly higher than the urban RRP. The International Fund for Agriculture and Development (2002) compared rural poverty between relatively poor transition countries: Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Republic of Moldova, Romania and the former Yugoslav Republic of Macedonia. It concluded that the most vulnerable rural dwellers were farmers in upland and mountainous areas, agricultural wage earners, rural women, the elderly, ethnic minorities, internally displaced persons (IDPs) and refugees (Spoor, 2004a, pp. 59-60). This most likely also holds for Central Asia. In nearly all Central Asian countries, the poverty incidence is highest among households with many children, youths, single-headed households, unemployed and low-skilled workers with irregular income. In rural areas, agricultural wage earners, those without land, and women have the highest probability of being poor.

In late 1991, on the eve of their independence, the five former Soviet Central Asian states faced different initial economic conditions. Some of them were rich in endowments of mineral resources, such as oil in Kazakhstan, natural gas in Turkmenistan and, to a lesser extent, in Uzbekistan, precious metals in Kazakhstan, Kyrgyzstan and Uzbekistan, and thermal potential in Kyrgyzstan and Tajikistan, though still highly underutilized at that point in time. Furthermore, all of these countries had relatively high levels of human development, including near 100 per cent literacy rates. Yet, they also faced considerable problems: (i) a low level of industrial and technological development; (ii) a predominantly rural population with low incomes; (iii) higher degrees of poverty than elsewhere in the former Soviet Union; (iv) high population pressures in certain areas, such as in the Ferghana valley, despite the large overall land size of the region but of which large parts consist of rather inhospitable deserts and steppes; and (v) emerging environmental problems, such as water pollution and soil degradation, caused by indiscriminate use of irrigation water for agricultural production, especially, of cotton.

Most of the remaining territories are largely uninhabitable deserts, steppes, and mountains. Access to fertile (usually irrigated) land is therefore limited. The population of Central Asia grew rapidly during the 1980s, but after 1991 trends have been diverged between the countries of the region. Tajikistan, Turkmenistan, and, to a lesser extent, Uzbekistan, continued to experience high population growth. Kazakhstan, Kyrgyzstan, and Uzbekistan initially saw considerable emigration flows of, in particular, Russian and, to some extent, German minorities, who left as they faced (oftentimes very)

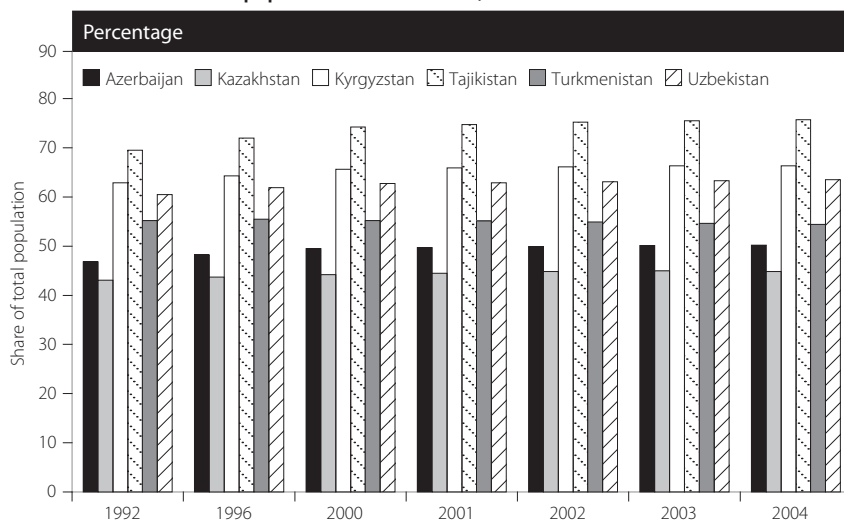
nationalist sentiments during the early transition years. Countries such as Turkmenistan and Uzbekistan have seen very little rural-urban migration, explained in part by long-standing traditional values (Patnaik, 1995). During the transition period, temporary cross-border migration increased with workers travelling to other CIS countries, in search of employment and higher wages (see also chapter 8).

Overall, however, the rural population has increased during the transition period and all five Central Asian States still have large rural populations, aggravating the phenomenon of rural poverty (Lerman, 2007). For example, in Uzbekistan, the most populous country in the region, more than 60 per cent of the population is rural, while in Tajikistan the share of the rural population even increased (see figure 9.2).

Rural dwellers are largely dependent on the agricultural sector. Available evidence suggests that agricultural labour comprises 30-40 per cent of the economically active population in rural areas (figure 9.3), but this figure likely underestimates the population's dependence on agriculture.

Yet, the relative share of agriculture in GDP has declined quite rapidly in Kazakhstan and, to a lesser extent, in Turkmenistan, mainly as a result of fast-growing extractive sectors, such as oil and gas. In countries without hydrocarbons, such as Kyrgyzstan, the role of agriculture, measured by its contribution to GDP, has remained more or less constant (figure 9.4).

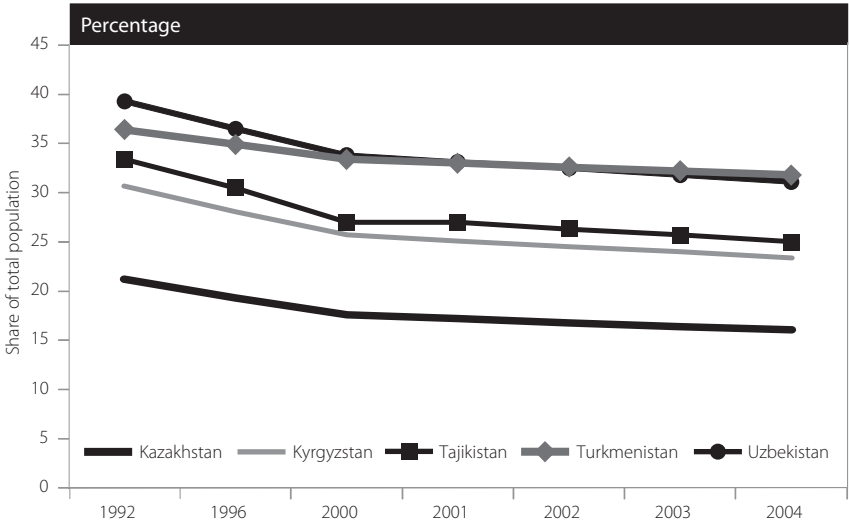
Figure 9.2:  
Share of the rural population in Central Asia, 1992-2004



Source: World Bank (2005a).

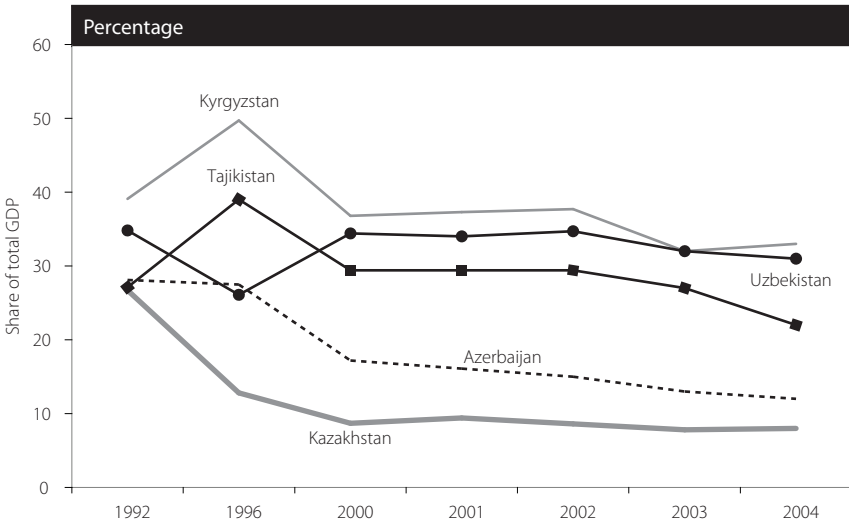


Figure 9.3:  
Share of agricultural labour in Central Asia, 1992-2004



Source: FAOSTAT (2007), <http://www.fao.org>.

Figure 9.4:  
Share of agricultural GDP, 1992-2004



Source: FAOSTAT (2007), <http://www.fao.org>.

In Uzbekistan, despite growth in industry and services, the share of agriculture in GDP also has remained fairly stable (at nearly one-third of GDP), mainly on account of the growth of cotton and wheat production.

Improving agricultural productivity thus would seem key to resolving much of Central Asia's poverty problem. It should be noted that policies addressing rural income poverty would need to be supported by complementary actions because other dimensions of living conditions also deteriorated significantly during the first phases of the transition. The populations of the Central Asian countries have suffered from deteriorating access to education, public health services, water and sanitation, education, as well as from weakening social safety networks (social transfers, pension and unemployment benefits) (Spoor, 2008). Collective and State farms used to play an important social role in the lives of rural dwellers. However, with their dissolution, many social services deteriorated as well, because local governments were unable to deliver these services as much as before. Local governments have been lacking financial resources as the tax base in many rural areas remains weak and, following the decentralization of social service provisioning, local authorities get little support from the central Government.

Bearing this in mind, the next sections will focus on the pattern of growth and the implications for income poverty and to what extent agrarian reform policies in Central Asia have been effective in reducing rural poverty.

#### UNEVEN GROWTH AND POVERTY REDUCTION

As said, all six Central Asian countries went through a deep economic crisis in the early 1990s. The economic decline caused a rapid increase of poverty. From the mid-1990s a visible recovery set in, but with an uneven effect on poverty in different parts of the economies.

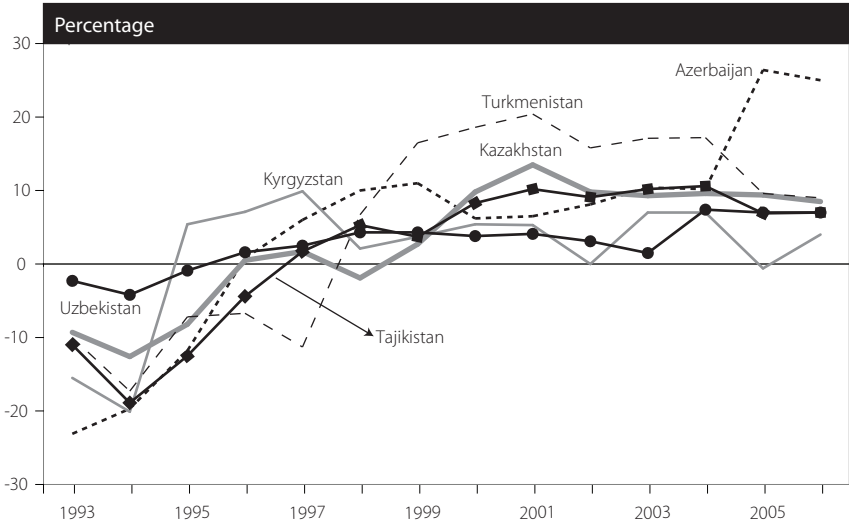
In the first stages of the transition many industries collapsed. Under the Soviet system they had been kept artificially viable through the subsidized transfer price system, which—inter alia—ignored or underpriced transportation costs. These subsidies disappeared with market reforms. Furthermore, in 1992-1993 the newly independent States in Central Asia were cut off from the substantial transfers they had been receiving from the “all-union” budget when still part of the Soviet Union. This pushed the Central Asian countries in a deep financial crisis in the first stages of the transition.

High inflation caused real wages and the share of wages as a source of income declined drastically. Many workers were pushed into vulnerable

self-employment in informal sector activities. Macroeconomic stability was restored in the second part of the 1990s, and economic growth resumed with an interruption in 1998, when some of the southern Caucasus and Central Asian countries were hit by the impact of the Russian financial crisis. The process of economic recovery started in a context of a much worsened income distribution. During the 2000s, until the global economic crisis of 2009, the Central Asian economies boomed, especially those driven by the oil and gas sectors and which benefited from rising international commodity prices (figure 9.5). Growth was impressive in all six economies, even though Kyrgyzstan suffered an interruption following the 2005 “Tulip” Revolution. Growth was particularly fast in Azerbaijan, Kazakhstan and Turkmenistan owing to the huge impact of expanding oil and gas sectors. Growth in the six economies averaged 9.4 per cent per year during 2001-2003 (the period for which we will present data on rural poverty reduction), while that for the period 2000-2006 averaged 9.0 per cent per annum.

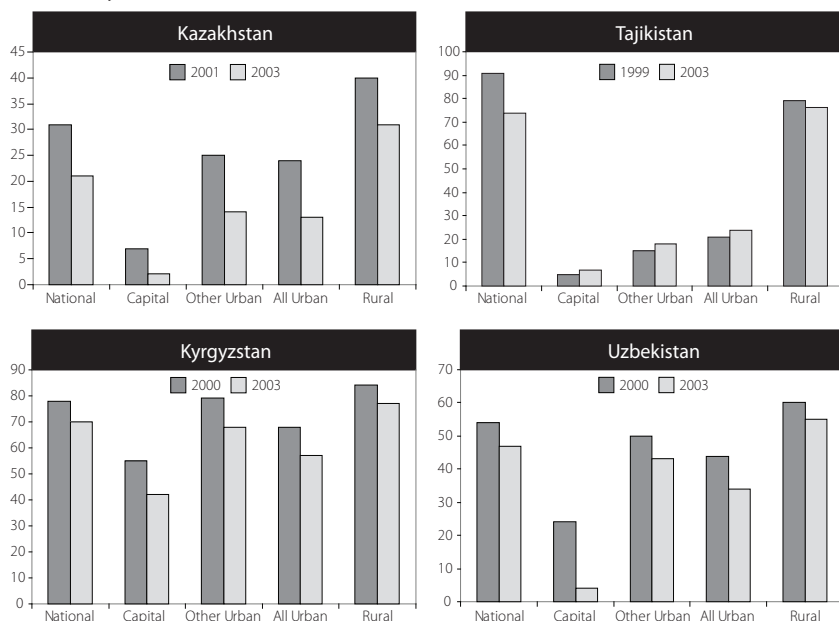
Poverty fell substantially, even if unevenly, during the first stages of the growth acceleration of the 2000s. The World Bank (2005a) has estimated the different degrees of poverty reduction in the capital cities, other urban areas and rural areas. Figure 9.6 presents some of these estimates for Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan.

Figure 9.5:  
GDP growth in Central Asia, 1993-2006



Source: EBRD (2006).

Figure 9.6:  
Poverty incidence in selected Central Asian countries, 1999-2003



Source: World Bank (2005a).

Any regular visitor to these countries will have observed a visible reduction of poverty in the main cities, but still widespread poverty in rural areas. For example, in Kazakhstan, the poverty incidence had fallen to a mere 2 per cent in Astana in 2003, while in rural areas 31 per cent of the population was living below the poverty line (of \$2.15 per day). In Uzbekistan, the difference was even larger, as the poverty incidence in Tashkent was 4 per cent, while it was 55 per cent in rural areas. In Tajikistan the urban-rural divide was just as striking, as the poverty rate was 7 per cent in Dushanbe and 76 per cent in rural areas, with very little change since 1999.

Comparing these trends with those of the other lower income countries of the CIS, it appears that the Republic of Moldova has been the only country where rural poverty declined at more or less the same pace as that in the capital city. This outcome possibly has been influenced by the positive effects of its comprehensive land reform of 1998-1999 on rural incomes. The reform provided access to land to large numbers of rural poor (Weeks and others, 2005). The same holds for Azerbaijan (Sedik, 2006; World Bank, 2006a).

Armenia and Georgia initially had lower rural poverty rates compared with those in Central Asia. Both countries were more urbanized on the

eve of transition, with, respectively, 34 and 45 per cent of their populations residing in rural areas. Those shares increased slightly thereafter, as some urban dwellers returned to rural areas in the initial years of the transition.

In most countries, poverty in intermediate cities was still widespread in the early 2000s. Many of the regional capitals and smaller towns traditionally had relied on one or two main industries as sources of income and employment, but these typically did not survive after the introduction of the market economy in 1992. Many lost their jobs while not being able to fall back on any form of safety net. The income earned from exploiting the subsidiary plots of land (*datcha* gardens) available to these urban populations proved insufficient to offset the income shock that many city dwellers suffered in the early stages of the transition.

The elasticity of poverty reduction with respect to income growth tends to be twice as high in urban areas than in rural areas (World Bank, 2005a). In the Central Asian countries this also seems to hold. There are two reasons for this. First, the linkages between the urban and rural sectors and between industrial and agricultural sectors are weak. Second, productivity growth in agricultural and agro-industrial sectors has been low, because reforms have been incomplete, certain markets and institutions are still missing and, more generally, the rural sector has not been high on the policy agenda of Governments in the region.

The wide disparity in living conditions is further reflected in the persistence of regional pockets of poverty. Poverty is particularly high in the mountainous areas, such as in the cases of Armenia, Georgia, Kyrgyzstan and Tajikistan, where the quality of land is poor, grazing areas are degraded and transport and communications remain difficult. Elsewhere, regional pockets of poverty are characterized by a lack of access to land or where many internally displaced persons or refugees are housed. In Uzbekistan, for example, poverty is high in those southern and north-western regions where the soil is salinized and crop yields are low. World Bank (2005a) gives an overview of regional pockets of poverty in Kazakhstan, Kyrgyzstan and Uzbekistan. In Kyrgyzstan, poverty in the mountainous area of Naryn remained high and virtually unchanged, while economy-wide poverty fell by 4 percentage points between 1999 and 2003.

## LAND REFORMS

Agrarian reforms in the region, in particular those involving redistribution of land holdings, have led to individualized property and agricultural production

methods. The more radical reforms took place in Armenia and Georgia in the early 1990s and in Azerbaijan, Kyrgyzstan and Republic of Moldova in the late 1990s (Lerman, 2003, 2007; Lerman, Csaki and Feder, 2004; Spoor and Visser, 2001; Swinnen and Rozelle, 2006; Wegren, 1998, 2005).

Land reform and other agricultural policies transformed the highly inefficient production of the large-scale State and collective farms in the former Soviet Union (FSU). The old system included a “parasitic symbiosis” between large-scale collective production and land-intensive household production on subsidiary plots and *datcha* gardens (Spoor and Visser, 2001, 2004). The large farms were taxed by the State procurement system and subsidized through administered pricing of inputs, while they also had an important social function in rural areas, providing social services and transfers, something which has not been substituted sufficiently by municipal institutions.

The post-1991 agricultural sector reforms in the FSU have focused on the privatization of assets, in particular of land, and the transformation of the existing State and collective farms. The reforms undertaken were quite diverse in content and implementation (see Table 9.3). Privatization took the form of asset distribution to workers or cooperative members, restitution of properties to former owners, sales (with a variety of conditions attached), and leasing arrangements (such as physical plot or share distribution). Farm restructuring led to new forms of association, such as cooperatives, joint stock companies, partnerships, associations of peasant farms and peasant farmers.

The differences in land reform cannot merely be understood through a categorization of “slow”, “gradual” and “rapid” reformers. The diverse outcomes were also influenced by other factors, such as (rural) elites trying to cling to power (as in the cotton sector), the strength of incentives to break away from the “safe” environment of the collective farm, and the complex link

Table 9.3:  
Agricultural and land reforms in Central Asia

	<i>ECA Policy Reform Index</i>	<i>ECA Land Reform Index</i>	<i>Watershed year of land individualization</i>
Kazakhstan	6.2	5	2003
Kyrgyzstan	7.4	8	1998
Tajikistan	5.2	6	1999
Turkmenistan	1.8	2	1998
Uzbekistan	4.0	5	2004

**Source:** Lerman (2007).

between farm organization and large-scale surface irrigation systems (as has been the case in Tajikistan, Turkmenistan and Uzbekistan).

### *Extent and impact of the land reforms*

The speed, extent and impact of land reforms have been very diverse. For example, considerable progress was made in implementing land reform—in the sense of forming privately owned family farms—in Kazakhstan and Kyrgyzstan, but much less in Uzbekistan and very little in Turkmenistan. Tajikistan implemented a partial land reform after the peace agreement of 1997. In several instances, land reforms implied not much more than notional or cosmetic changes in land ownership. This has been the case in particular in Tajikistan, Turkmenistan and Uzbekistan.

State farms were transformed into joint venture companies or cooperatives, and collectives became limited liability partnerships or leasehold companies. Yet these changes meant nothing more than removing the old nameplate above the main gate and replacing it with a new one. Land was also “privatized” in different ways, making it difficult to assess what share of agricultural land is currently in private usufruct or *de jure* ownership.

We will discuss the land reforms in these countries ordered by the degree in to which these have changed the agrarian structure in terms of privatization of land and farm restructuring. In descending order of impact and change, in accordance with the agricultural policy and land reform indices developed by the World Bank (see Table 9.3), we discuss the cases of Kyrgyzstan, Kazakhstan, Tajikistan, Uzbekistan and Turkmenistan.

In *Kyrgyzstan*, land reform started as early as 1992 but it has been a stop-and-go process. With the economy increasingly depressed and a collapse of distribution systems, the privatization programme was suspended until early into the 1993 agricultural season. That year, land reform again showed modest progress, particularly in the (mostly formal) transformation of State farms into joint venture companies. In early 1994, the Kyrgyz Government gave new impetus to the reform process, reducing the procurement quota that private farms had to sell to the State. Land was still State-owned, but private farms were given usufruct rights for 49 years, which shortly after were extended to 99 years. Private land ownership became a much debated issue in the Kyrgyz parliament over the subsequent years, which upheld a moratorium on sales until 2003, after which it was finally lifted. Initially medium-sized peasant farms were formed, but by the late 1990s, a much larger number of 60,100 peasant farms emerged (and smaller average size), growing to 84,600 with an overall acreage of nearly a quarter of the agricultural land in 2002.

Agrarian reform also progressed with ups and downs in *Kazakhstan*. Though initiated in the early 1990s, privatization progressed only gradually. The reforms regained impetus in 1994-1995. Initially, “privatization” mostly meant establishment of joint stock companies with only internal stockholders (managers and workers), although here, the amount of land available for private use by households within these enterprises substantially increased. Many of the former State and collective farms were transformed into corporate private farms (though still with State ownership of land), in particular after the introduction of a bankruptcy law in the late 1990s. Quite a number of these enterprises, however, had functioned under the same operational regime as before, just touting a new name. From the late 1990s, the number of individual farms increased substantially. The number of individual (peasant) farms rose from 22,500 (covering 7.8 million hectares) in 1995 to 67,400 (covering 26.8 million hectares) in 2000. By 2005, the number had reached 148,000 farms (with a total acreage of 35 million hectares). Nevertheless, as in the Russian Federation, in *Kazakhstan* an important corporate sector of large farm enterprises in the wheat and livestock sector still remains.

In *Tajikistan*, the process of land reform stagnated during the civil war (1993-1997), and picked up again after peace was restored in the country. By early 2000 more than half of the State and collective farms had been dismantled and about 45 per cent of arable land was in the hands of households and peasant farms. While the number of individual farms did not grow, the total acreage rapidly increased. In 2005 it was estimated that there were 23,300 peasant farms, with a total acreage of 4.7 million hectares (see Table 9.4). Such farms are of two types: share-based collective farms and individual or “family-owned” farms for which firm leaseholds have been granted (World Bank, 2006b). The transformation of the former into the latter was visible, but this process was only gradual.

Within a decade, *Tajikistan* managed to make more progress with land reform than *Uzbekistan* and *Turkmenistan*. Yet, the reform is by no means complete and many obstacles remain in improving the institutional framework, particularly in the cotton sector (World Bank, 2006b). The most recent data indicate that the major share of arable agricultural land is now controlled by peasant farms.

*Uzbekistan* went through a lengthy process of dividing large farms and forming medium-sized farms. The reform process accelerated only after 2003, pressed by the necessity to deal with the enormous indebtedness of many of the “post-collective” enterprises, the *shirkats*. In the Soviet era, members of collective farms and workers on State farms had a small family



Table 9.4:  
Individual peasant farms, Central Asia

		Number	Acreage	Average size	Share of agricultural land
Kyrgyzstan	1995	17,300	744,000	43	7.8
	2000	60,100	1,040,500	17	23.1
	2002	84,700	1,077,200	13	23.3
Kazakhstan	1995	22,500	7,800,000	348	3.9
	2000	67,400	26,800,000	398	25.0
	2005	148,000	35,000,000	236	32.6
Tajikistan	1995	200	9,000	45	0.2
	2000	9,300	859,600	92	..
	2005	23,300	4,690,000	201	..
Uzbekistan	1995	14,200	193,100	14	0.8
	2000	31,100	665,700	21	3.2
	2006	181,700	4,747,000	26	22.8
Turkmenistan	1995	..	224,000	..	..
	1998	..	252,000	..	..
	2002	357,000 <sup>a</sup>	1,500,000	5.6	..

**Sources:** GosKomStat (2006); World Bank (2006b); Lerman & Stanchin (2003); Spoor (2004b).

**a** Leasehold farms within 'peasant associations'.

plot, on which they produced a substantial part of the household cash income. With the transition in 1991, additional land was privatized in this manner, leading to an increase in the size of private household plots and *dacha* gardens and orchards (which had also existed in the Soviet era). More importantly, it led to the use of contracting schemes within the collectives that remained (see Spoor, 2004b, 2006b).

After the mid-1990s, only a very gradual process of forming individual peasant farms took place in Uzbekistan, very often with land being assigned to the best informed or most influential cadres of the former State or collective farms. In 1995, there were 14,200 such "leasehold" peasant farms. By the year 2000, this number was estimated at nearly 31,100. These farms covered 665,700 hectares, with an average landholding of 21 hectares. By early 2006, by which time the bankrupt *shirkats* had practically all been liquidated, the number of individual farms (named *fermer*) had grown to 181,700 (with an acreage of 4,747,000 hectares of mostly arable land). These medium-sized *farmers* are partly exempted from taxes but are still obliged to sell a substantial part of their output (cotton and grain) to the State at "negotiated" (below-market) prices, while their inputs come from the

former *shirkats* (now reformed into associations of *farmers* and *dekhans* or water users associations). Hence, this is a land reform in which production has been largely individualized, but with much of the institutional environment, at least for crops such as cotton and wheat, unchanged (Veldwisch and Spoor, 2008).

*Turkmenistan* has been the “slowest” reformer when it comes to macroeconomic policy and overall market reforms. It has been almost a non-reformer of the agricultural sector. Though it is the only country in which the right to private property is constitutionally entrenched, in practice, privatization and farm restructuring here has been limited. Apart from the household plots, of which acreage gradually expanded during the 1990s, private farms emerged, in ownership and in leasehold. This privatization, however, is less real than it may appear, as much of the produce is still sold through the omnipotent State order system. Producers have little freedom to determine their crop mix, and many prices continue to be administratively controlled. As in the other republics, by 1995 only a small share of arable land was in private use, in the form of household subsidiary plots, namely 119,600 hectares. Private farms had only 98,000 hectares. By 1998 individualization of landholdings was only covering 252,200 hectares, evidence of the minimal transformation of the sector in terms of land reform.

Lerman and Stanchin (2003) present survey data showing that there were 5,200 private farms in total in Turkmenistan in 2002. These farmers first acquired a long-term lease on land and, thereafter, a land title (inheritable, but with no sale permitted). After the late 1990s, the former collective and State farms, as in Uzbekistan some years earlier, were transformed into peasant associations. The families of the 357,000 members of these associations received paper shares and leasehold contracts (for limited time periods) on the land they could till. These remained within the strict State procurement system, however, with only a small group of private farmers given the freedom to choose their crop mix.

### *Impact of individualization on production efficiency*

The transition towards individualized agricultural production, through the land reforms that took place, was accompanied by the expectation that individual farming would lead to productivity improvements and a shift towards cash crops in accordance with a profit maximization strategy. Given their comparative advantages in producing fruit, wine and vegetables, it was

expected that countries like Azerbaijan, Georgia, and Uzbekistan (as well as Armenia and the Republic of Moldova) would shift to a higher share of these products in agriculture. To investigate whether this did in fact occur, data from FAOSTAT over the period 1992-2005 for cotton, wheat, maize, potatoes, vegetables and grapes were analysed. Furthermore, we contrasted crop mix developments with production trends in the livestock sector.

The following analysis of harvested area, yields and production volumes divides the period after independence into two sub-periods: 1992-1997 and 1998-2005. The main reason for doing so is the fact that 1998 was a year in which the economies were severely hit by the Russian financial crisis (although it did not directly affect the agricultural sector), and it also was the point in time by which most of the land reforms had been completed or were well under way (except in Turkmenistan). Furthermore, we divided the countries into two groups, namely those already with more advanced land and agricultural policy reforms. For this exercise we have included Azerbaijan, the country most comparable with those in Central Asia. The first group with a moderate to high degree of reform consists of Azerbaijan, Kazakhstan and Kyrgyzstan (AKK). The second group with lesser reform progress consists of Tajikistan, Turkmenistan and Uzbekistan (TTU). We will focus first on the impact of the reforms on agricultural production in the first group. For the group of slow reformers, we will subsequently put emphasis on the implications for cotton production, an important crop in those countries.

### *Crop production*

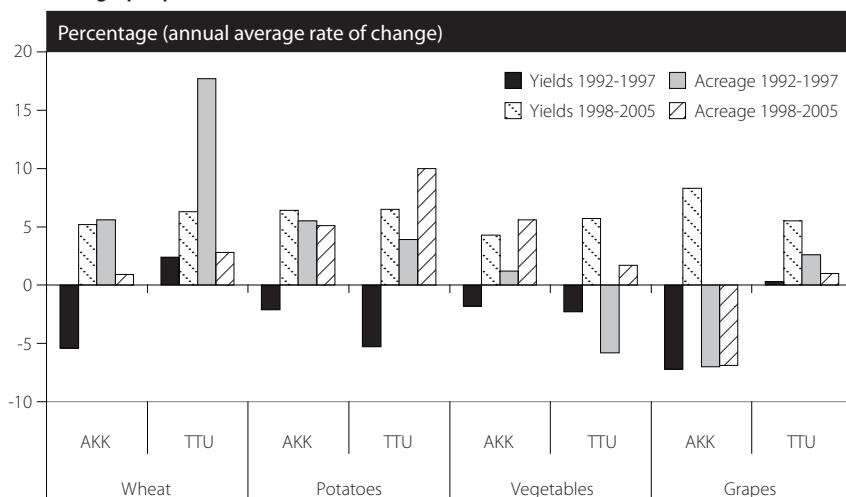
Output of most fodder crops, except for maize, fell with the collapse of (strongly subsidized) livestock production during the early stages of the transition. Most of these crops had previously been produced on the large collective farms. Individualization of agriculture led, on one hand, to production increases in wheat and potatoes (driven in particular by the expansion of harvested area and to a lesser extent by improved yields). This seems to represent a “risk-aversion” or “food self-sufficiency” response by peasant farmers. On the other hand, individual farms began producing substantially more vegetables and fruit in line with comparative advantages. It should be noted that the shift was mainly towards low-investment cash crops, such as tomatoes and watermelons, rather than high-investment cash crops such as grapes (fresh and for wine production), which also require links with and the development of agro-industry (Spoor, 2006a).

*Wheat* production expanded rapidly following the reforms in several of the Central Asian countries as part of an uneven pattern. Five of the countries

more than tripled their wheat production, while the most important one (Kazakhstan) dropped to slightly more than half of its original production. Kazakhstan saw its wheat production drop from 18.3 million tons in 1992 to only 4.7 million tons in 1998. Its wheat production subsequently rebounded to 10.9 million tons in 2005, contributing to a slight positive growth of wheat production for the region as a whole. The absence of solid regional markets has contributed to these trends. The lack of a regional market can be attributed to a combination of factors, including nationalist economic sentiments, high transaction costs, risk averse behaviour of farmers in some countries and a state-directed focus on food self-sufficiency, sometimes at high cost (in Turkmenistan and Uzbekistan). Growth in the period 1992-1997 was very much based on State-induced increase in acreage for wheat production in the case of the faster reformers, while yield growth (in both groups of countries) was predominant in the period 1998-2005 (figure 9.7).

Even stronger expansion is evident for *potatoes*, a traditional food staple, in particular in the Trans-Caucasus, but also in Kazakhstan. Again, comparable with wheat, the initial growth of potato output was caused more by acreage expansion than yield growth, although this case is less clear-cut than for wheat. Potatoes were likely produced first and foremost

Figure 9.7:  
Trends in yields and acreage in wheat, potatoes, vegetables  
and grapes production in Central Asia, 1992-2005



Source: FAOSTAT (2007), <http://www.fao.org>.

Abbreviations: AKK = Azerbaijan, Kazakhstan and Kyrgyzstan (faster agrarian reformers); TTU = Tajikistan, Turkmenistan and Uzbekistan (slower reformers).

on household subsidiary plots in TTU and on the newly formed peasant farms in AKK. Overall output has expanded substantially, for both groups of countries, based on growth of acreage during the first period, and expansion of acreage and higher yields during the second period.

With the increased individualization of agricultural production, and in particular the opening of domestic and external markets, vegetable and fruit production was expected to substantially increase, and with intensification of production on small farms' land, productivity was also forecast to rise. This expectation was not met during the first stages of the transition. The data show a sharp fall in acreage, yield and production of vegetables up to 1997, with overall production dropping from an aggregate level of 9.5 million tons in 1992 to 7.0 million tons in 1997. After this year there was a rapid expansion and recovery, with production rising to 12.7 million tons in 2005. The initial drop in TTU was sharper, especially because of a steep decrease in acreage. Yields in both groups dropped on average in the first period (see figure 9.7). Yields and acreage increased substantially in both groups during the second period, mainly on account of an increase of yields, more so than as a result of the expansion of acreage in TTU. This can be explained by the fact that reflects the most production was taking place on the subsidiary plots which faced severe restrictions on land size expansion.

*Grape* production is marketed both for fresh markets and the wine industry. In Armenia, grapes are also important for local brandy production. In Georgia and Republic of Moldova they are mainly used for wine, while in Tajikistan and Uzbekistan they are mostly destined to fresh consumption.

The expectation was that with the privatization (or individualization) of vineyards after the various land reforms, grapes would have become an important cash crop on the small peasant farms. However, case studies in other CIS countries, such as Armenia and Republic of Moldova (Spoor, 2006a, 2007), have shown that grape production requires substantial investment, regular renewal of plants, and well-developed supply relations with wine factories. Because finance is a bottleneck in many of these rural economies, peasant farms tend to have sub-optimal grape production. Such farmers may even cut their vineyards to plant crops such as wheat (Spoor, 2007).

Data for Central Asia show that the harvested acreage of vineyards dropped from 597,000 hectares in 1992 to 385,900 hectares in 2005, with Azerbaijan exhibiting the largest fall. Production also dropped, from 2.7 million tons in 1992 to 1.8 million tons in 2005 (with a trough of 1.4 million tons in 1998, the year of the Russian crisis, which possibly negatively affected fruit exports). The picture for vineyards and their output is quite different

from that for vegetables. Wine production is more specialized and more intensive in the use of both capital and labour. This may explain why it does not seem to have picked up, despite existing comparative advantages.

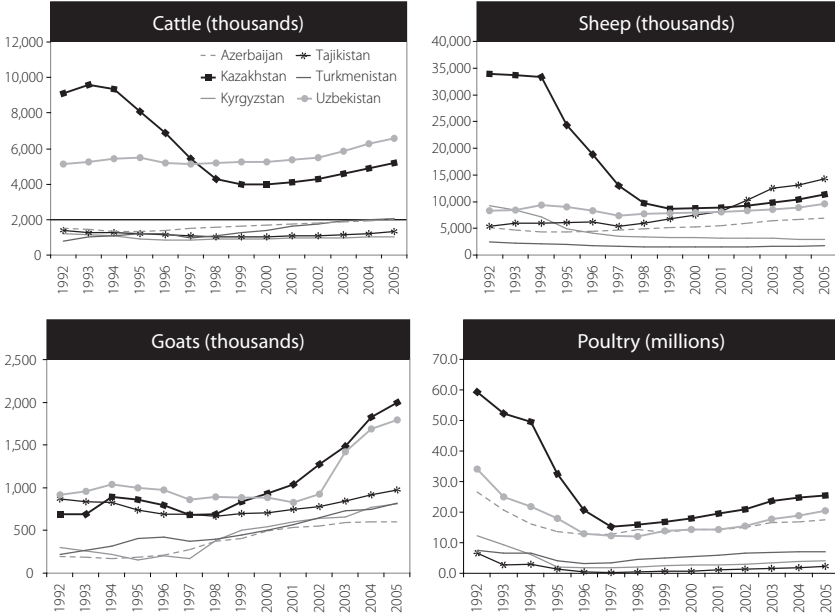
### *Livestock*

Livestock production (cattle, sheep, goats and poultry) responded more strongly in the countries that went through a more profound process of land and agricultural policy reform than those which did not or only partially. We will only discuss the former case, and attempt to link the development of the livestock sector with land holding individualization. The latter case will be dealt in our discussion below of missing markets and institutions.

The development of the *livestock* sector in Azerbaijan, Kazakhstan and Kyrgyzstan has been strongly influenced by the economic crisis of the early 1990s. In particular cattle, but also sheep and poultry, was held by large collective and State farms (apart from the livestock numbers held on subsidiary plots, such as milk cows, pigs and chicken). Centralized fodder production collapsed rapidly, while demand for meat dropped, as purchasing power fell rapidly. Fodder prices spiralled, leaving many of these farmers no choice other than to slaughter their animals. The *cattle* stock dropped particularly in Kazakhstan, and much less in the other two countries. Since the late 1990s, numbers are rising again, in both peasant farms (all three countries) and corporate farms (Kazakhstan). In the former (and on household plots) in particular, milking cows are held, while the latter specialize more in meat-producing cattle.

The changes in the *sheep* sector have been equally dramatic. Sheep have traditionally been important in most of these, as they can survive on relatively marginal dry lands, savannas and mountain pastures. In Kazakhstan and Kyrgyzstan, sheep herds have reduced dramatically. In Kazakhstan, the number of sheep dropped from 33.9 million in 1992 to 8.7 million in 1999, recovering gradually thereafter to 11.3 million in 2005 (figure 9.8). In Kyrgyzstan, the stock of animals plunged from 9.2 million in 1992 to 4.0 million in 1996, after which the decline was more gradual, reaching 2.9 million in 2004-2005. It seems that the lack of access to common grazing grounds, insufficient fodder and reduced demand for mutton caused this downturn. For several grassland areas, the decline may be considered positive as it, by and large, eliminated overgrazing, except in areas close to the cities. Azerbaijan reached its lowest point much earlier (in 1995), after which there was sustained growth in numbers, leading to a substantially larger herd in 2005.

Figure 9.8:  
Stock of live animals, 1992-2005



Source: FAOSTAT (2007), <http://www.fao.org>.

Goat herding provides a good indicator of the growing importance of small-scale farming. There is strong correlation between progress with the individualization of land holdings and increases in the stock of goats. Holding goats is closely linked with household food security owing to the production of milk and related products (such as cheese). Goats are the only form of livestock for which the numbers have by far surpassed initial 1992 levels in all countries. For example, in Kyrgyzstan, the number of goats rose to 808,000 heads in 2005, up from 150,000 in 1995 after an initial decline from the 300,000 registered in 1992. In Kazakhstan, where goats are still held in a more extensive manner, there was no decline and current levels were thrice those at the start of transition in 2005. Growth has been similar in Azerbaijan. The other side of the coin, however, could be that the increase in the number of goats is a hidden indicator of the persistence of rural poverty, as it is mostly the poor families that keep goats. Goats provide an important source of nutrition and the animals can survive in the often difficult (environmental) conditions of the areas where many of the rural poor live.

Also *poultry*, in particular chicken, forms an important protein source for rural families. Here again, our analysis of production trends reveals a highly

diverse picture. In general, poultry production tended to be dominated by large farm enterprises, which obtained fodder from other large companies. With the reforms, it shifted to household plots and peasant farms in most countries, depending on the degree of restructuring and individualization of landholding. Figure 9.8 shows a substantial drop in chicken stock in most countries. Again it reached a trough around 1997, with a gradual recovery thereafter owing to economic growth, increased incomes, and rising demand for meat.

### *Market and institutional reforms*

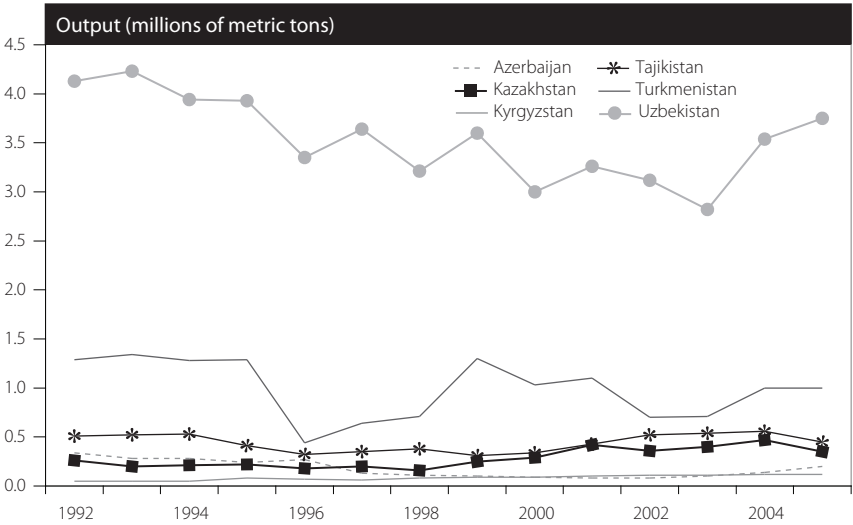
In Tajikistan, but also in particular in Turkmenistan and Uzbekistan, incomplete reforms resulted in fragmented, and sometimes still monopolistic markets, with a high degree of political interference and high transaction costs. The most striking example of such environment can be found in the production, domestic marketing (with still existing State procurement systems) and export of cotton, which is a crucial crop in all three countries. It is less important in Kazakhstan and Kyrgyzstan which produce cotton in smaller quantities and only in particular regions (the southwest in both cases). This explains our emphasis on analysing here the developments in the group of slow reformers (TTU), as defined previously.

*Cotton* (“white gold”) remained a key crop in a number of the Central Asian countries, in particular in Turkmenistan and Uzbekistan, followed by Tajikistan, and to a much lesser extent by Kazakhstan and Kyrgyzstan. Total production of raw cotton in 1992 was 6.6 million tons, making the region one of the world’s most important cotton-producing regions. It had fallen somewhat to 5.9 million tons in 2005, after a substantial downward trend that lasted until 1998 (when production was 4.6 million tons). Of the region’s total production in 2005, 3.8 million tons came from Uzbekistan and 1.0 million tons from Turkmenistan, although there may be substantial over-reporting in the latter (figure 9.8). The cotton acreage fell somewhat in the first period (from 2.9 to 2.6 million hectares), partly owing to the expansion of the wheat sector.

Cotton output dropped in the group of slow reforming countries until around 1998, after which there was a gradual recovery in Tajikistan (after the civil war ended), while in Turkmenistan and Uzbekistan another downturn followed during 2000-2003. Yields fell from 2.1 tons per hectare in 1992 to 1.6 tons per hectare in 1998, but by 2005 had recovered to nearly the original level (2.0 tons per hectare). In the three countries under review



Figure 9.9:  
Cotton production in Central Asia, 1992-2005



Source: FAOSTAT (2007), <http://www.fao.org>.

(Tajikistan, Turkmenistan and Uzbekistan), during most of the period, cotton was produced by large farm enterprises (such as the *shirkats* in Uzbekistan). Furthermore, State influence remained strong in production decisions, and State procurement guaranteed surplus extraction and revenue generation for the central State budgets. In the past few years, under the influence of the dismantling of these *shirkats*, production has now shifted towards medium-sized commercial farms, which—however—still operate in a strongly State-intervened market environment. It is worth noting that Kazakhstan increased its output significantly after 2001, partly because of higher farm efficiency and higher domestic prices, and partly because of cross-border sales of Uzbek cotton.

Cotton could have developed as a high-yield cash crop in the current agro-ecological conditions of much of Central Asia, but the restrictive institutional environment (in particular in Turkmenistan and Uzbekistan) has not promoted high yields (World Bank, 2005b). In particular, there has been little incentive for a strong supply response, despite the increased demand for Central Asian cotton in international markets, such as from China. Lack of public and private investment, poor rural infrastructure and insufficient (or inefficient) marketing and processing facilities also have hindered this. Rural poverty is widespread amongst small cotton farmers and workers, which is surprising given that income per hectare is so high.

The current political economy of cotton production with substantial State and private interests pushing towards surplus extraction has kept wages of cotton workers and farm-gate prices for producers low over a prolonged period. The *kolkhozniki*, as the agricultural workers are known, are by far the poorest group in society, as is most evident in Tajikistan, Turkmenistan and Uzbekistan. While cotton potentially is a high-earning cash crop in the region, paradoxically it is produced in areas where poverty is highest. Cotton production, moreover, has had significant degrading effects on land and water resources, in particular in the Aral Sea Basin (Spoor, 1998, 2003 and 2005). This has accelerated the deterioration of livelihood conditions in this area.

### *Taxation and State procurement*

Taxation of the agricultural sector has a complex history in Central Asia. During the Soviet era, production was governed by accounting prices, bearing no relation to scarcity or surpluses. Taxes were mostly paid by collective and State farms in the form of a turnover tax. Agricultural output was implicitly taxed through the overvaluation of the exchange rate, but this “price discrimination” was compensated by large subsidies on inputs. Because of the non-convertibility of national currencies, some countries—even after independence—continued to siphon off agricultural incomes in this way, particularly in the cotton sector (see below for a detailed analysis of Uzbekistan). In recent years, however, there has been a convergence of domestic and world market prices, reducing the implicit tax. Many of the agricultural product markets in most of the countries under review have been liberalized, while State procurement has disappeared. However, this is not the case for wheat and cotton in Turkmenistan and Uzbekistan, and only to some extent in Tajikistan where the cotton market is dominated by the “cotton futurists” (Mughal, 2006).

In Uzbekistan, cotton and wheat remained under the State procurement system, as they were seen as strategic crops. A similar situation exists in Turkmenistan. Cotton financed, in large part, Uzbekistan’s import substitution model of industrialization and its transition to energy self-sufficiency. A large part of the surplus in cotton production has been invested in the natural gas sector.

Farm enterprises, including the emerging “private” farms, face serious payment problems in terms of arrears, lack of cash, and under-valuation of produce. This seems to be the case in all three slow reforming countries,

although no specific data is known for the case of Turkmenistan. In Tajikistan, the debt problem of the large farms (something which inspired the Uzbek move towards medium-sized farms) has now been redistributed to the small leasehold farms, who are currently confronted with completely unsustainable debts towards the “futures companies” or “futurists”.

The State procurement system that is still partly in force in all three countries was and still is clearly open to rent-seeking behaviour. In the cotton sector, in particular, this has led to a “political economy” dominated by vested interests that try to keep the status quo intact, no matter the improvements achieved in the sector over the past decade. Uzbekistan still retains obligatory procurement quotas (before for the *shirkats* and now for their offspring, the individual commercial farms) for cotton and wheat (see Spoor, 2005). In practice, these quotas are higher than those mandated because of existing trade monopolies, which make it difficult to sell anywhere else than to the State (or a parastatal) agent. In Turkmenistan, there has been even less reform, while the State monopoly in Tajikistan has been replaced with a small group of “futurist” cotton wholesale companies.

A number of countries have replaced formal taxation on agricultural producers by a land tax, which is more transparent and preferable over implicit or other taxes. However, many other forms of taxation, such as transport and district taxes, emerged with the decentralization of public administration and fiscal decentralization. New taxes were introduced to bolster the often weak tax base of the rural areas. Furthermore, apart from formal taxation, the institutional environment of domestic and regional trade remains characterized by widespread informal taxation and bribes.

These factors substantially increase transaction costs in various markets, which for some producers and trades have become prohibitive, impeding them to participate in the market. At the regional level, customs services remain cumbersome and problematic, despite many meetings between Governments to improve these. Improvements have been achieved in reducing transaction costs within countries. However, implementation of new legislation in some countries, such as Kazakhstan and Kyrgyzstan, remains difficult as local habits die hard.

#### *Land rental markets*

Under the Soviet regime, all agricultural land—except for the subsidiary household plots and *datcha* gardens—was held by State and collective farms, and also owned by the State. Hence, many rural dwellers had access to land, but not as individual producers, and certainly not as ones who could take decisions on crop mix. Lands were not owned by the “tiller”. Various land

reforms changed this situation fundamentally. Nevertheless, tenure security is not (yet) well developed, except in Azerbaijan and Kyrgyzstan, despite major improvements. Throughout the region, institutions are still weak and rural markets work in fragmented and inefficient manners, often with high transaction costs. Transaction costs can be prohibitive for the development of markets and the active participation of producers therein, as evidenced in the case of Armenia's land rental markets (Spoor, 2007).

Land sale markets are still thin, in part because of continuing restrictions and in part for various other reasons, such as the traditional cultural significance of land, even for households involved in migrant and non-farm labour, and the low market value of land. Nonetheless, land rental markets have emerged in the region (Swinnen, Vranken and Stanley, 2006; Spoor, 2007). Many expect they will help improve equity and efficiency in small farm production if certain conditions are fulfilled. Swinnen, Vranken and Stanley (2006) observe that in countries in Eastern Europe and Central Asia where large corporate farms are dominant, such in Bulgaria, Kazakhstan, Republic of Moldova and Tajikistan, the role of these large players in the land rental market is "a cause of concern", as the rents they pay tend to be less (and seldom in cash) than those paid by family farms that rent land (see also World Bank, 2006b).

Survey data analysed by Swinnen, Vranken and Stanley (2006) suggest that imperfections of land rental markets in various countries have different causes. These may vary from a lack of credit, lack of knowledge of the market, little supply of land, and high transaction costs to insufficient trust in authorities (for instance, in their capacity to enforce contracts). The study by Swinnen, Vranken and Stanley concludes that public and/or private investment in rural infrastructure, off-farm labour opportunities, the improvement of human capital (through education and training), and the provision of safety networks would reduce the labour constraints in rural markets and stimulate land rental markets.

#### *Financial institutions in rural Central Asia*

Rural financial institutions are still weakly developed, as shown in a recent study on rural finance (Asian Development Bank, 2006, pp. 66-89). Access to formal banking services is still limited for most rural dwellers. This gap seems to be filled by informal money lenders and increasingly also by other non-bank institutions, such as microfinance institutions (MFIs).

After independence, many transition economies aimed to develop a modern, two-tiered banking system, but progress towards this goal has been far from smooth. Part of the Soviet legacy was that State-owned banks still

held many non-performing loans to preferred companies or sectors. Rather than liberalizing the banking sector, new—but inadequate—regulatory frameworks were installed. In the early 1990s the number of banks rapidly increased in all of the countries. However, many of these were very small and financial supervision weak.

This led to a number of banking crises in the mid-1990s, including in Kyrgyzstan. The crises deeply undermined trust in the newly emerging financial sectors. New reforms took place by which minimum capital requirements were increased, State-owned banks privatized and regulations on foreign equity participation in domestic banking system eased (Asian Development Bank, 2006). This halted the “mushrooming” of banks, with the number of banks even sharply falling in some cases, such as in Kazakhstan (Table 9.5).

Table 9.5:  
Structure of the banking systems in Central Asia

	Total Number of Banks	State-Owned	With Foreign Equity	Wholly Foreign Owned	Number of Branches
Kazakhstan (2004)	36	1	4	10	354
Kyrgyz Republic (2003)	20	1		2	152
Tajikistan (2003)	..	1	4	1	209
Uzbekistan (2004)	33	5	5		803

Source: Adapted from ADB (2006, p. 71).

Despite the expansion of the formal banking sector in most countries, rural areas were hardly on the financial map. Bank activity has been highly concentrated in the capital cities. Given the distance and poor communication and transport infrastructure, this has made it even more difficult for large proportions of the rural population to access formal credit and savings facilities. In Kyrgyzstan, just three banks operate in rural areas, while in Tajikistan only two banks make a noteworthy contribution to rural financial markets. In Kazakhstan, there is minimal engagement of banks in rural areas, whereas Uzbekistan scores slightly better, with seven banks active in rural areas, reflecting the still very active role of the state in strategic crops such as cotton and wheat (Asian Development Bank, 2006). Banks view rural dwellers with low incomes as unprofitable. Also, as rural economies are mostly concentrated on agriculture and livestock activities, with a weakly developed non-farm economy, they are perceived as being risky borrowers.

The Asian Development Bank report contends that the banks have displayed highly “risk averse” behaviour. Throughout most of the 1990s, they maintained very high interest rates and extended only short-term loans, despite their substantial cash resources. High interest rates were generally prohibitive to farmers, and formal banks tended to be unwilling to deal with peasant farmers because of (observed) high transaction costs. Land was (and very often is) not accepted as collateral, even where property rights are relatively secure. This is due to the low market value of land. Furthermore, popular distrust of banks remain, in particular among the rural population. The distrust is remnant of the negative experiences with emerging banks during the 1990s.

While agriculture is still the most important source of income for much of the rural population of these countries, access to bank loans is limited, especially for the non-cotton sectors. The Asian Development Bank (2006, p. 77) estimates that only between 3 per cent and 12 per cent of total bank lending is for agriculture. The estimate does not include the financing of cotton production provided by processors. In Turkmenistan and Uzbekistan, finance for this strategic crop is largely still in the hands of the State agricultural banks, which are also not taken into account here, while in Tajikistan cotton is financed by a monopoly bank. If the finance provided by this bank (and the State banks in Turkmenistan and Uzbekistan) were taken into account, the share of agricultural loans would be substantially higher. This, however, would hide the fact that many small producers are excluded from formal financial services, especially in the small *dekhan* farms.

Only a small range of non-bank financial institutions (NBFIs) exists in the Central Asian countries. Tajikistan purportedly has ample NBF activity in rural areas, but there is little actual data to evidence this. In Uzbekistan, only a small number of (international) NGOs are active in microfinance, as the activity is restricted by law. The EBRD, which is mainly involved in large infrastructural loans, has also been active in microfinance provision in the densely populated Ferghana Valley. In Kazakhstan, some 30 private NGO-type MFIs together manage a \$6 million loan portfolio (Asian Development Bank, 2006). However, they entered the rural financial markets only recently and are still very small and unstable. What is more, prevailing legislation in Kazakhstan did not favour the expansion of MFI activity in the 2000s. Similar non-governmental MFIs are important in rural Kyrgyzstan, where three relatively large NBFIs are active in rural areas, constituting an important source of rural credit.

These include the Kyrgyz Agricultural Finance Corporation, which was established with the support of the World Bank in the late 1990s. The Kyrgyz

Agricultural Finance Corporation was recently privatized and is being transformed into a formal banking institution. Credit unions are another form of NBFI, but up to now they have contributed little to Central Asian rural financial market development. This is due to inadequate regulatory frameworks, which have created a situation in which credit unions are mainly seen as a source of cheap credit and, as such, have attracted rent-seekers. Default rates on their loans have therefore been high. Informal finance seems to be the main source of finance in rural areas. Such financial service providers take many forms: kin and friends, “informal rotating savings and credit associations”, and especially agricultural processors. The processors offer cash advances to farmers for delivering agricultural produce in the harvest season. In the Kyrgyz Republic this is widespread in the cotton sector, and in Uzbekistan it is the predominant form of rural finance.

## CONCLUSIONS

In this chapter we have shown that rural poverty is still widespread in Central Asia, despite the spectacular growth of some of these economies from the late 1990s. Not much of this income growth has trickled down to the rural areas, where most people in the region continue to live. Insufficient progress in the development of agricultural and other rural production activities has hampered poverty reduction. Most countries have implemented land reforms and restructured farms. The reforms have reached farther in Kazakhstan, Kyrgyzstan and Tajikistan than in Uzbekistan and Turkmenistan. In the latter two countries there has been more re-regulation than de-regulation of agricultural and rural markets and institutions (see Trevisani, 2008 for the case of Uzbekistan). But also where reforms have been more pervasive, the greater individualization of production initially did not lead to much of the expected efficiency gains and productivity increases. In fact, during the 1990s there was a strong contraction in farm output of many crops and farmers became more risk averse. From 1998, the negative trends were reversed in part, but for most of the agricultural sector output levels had not yet returned to pre-1991 levels by the mid-2000s.

The lack of actual reforms beyond the land and farm restructuring has been an important reason behind the disappointing performance of the agricultural sector. Further reforms are needed to develop more adequately working markets and institutions in order to stimulate agricultural production and a thriving rural economy. Such reforms should address present weaknesses in financial and land rental markets and establish

mechanisms to provide technical assistance to agricultural producers. High transaction costs continue to hamper inter- and intra-regional trade. Given widespread poverty and the high shares of rural population, such reforms should be a number one priority unlike has been the case in the first two decades of the transition process.

## NOTES

- 1 The chapter is based on a detailed report prepared for the SEUP/FAO, which benefited substantially from the research assistance of Koen Voorend, and the elaborate comments made by David Sedik and Rob Vos.
- 2 The estimates do not include Tajikistan which was still in the midst of a civil war during that period.

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