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THE EDB SYSTEM OF INDICATORS OF EURASIAN INTEGRATION:

GENERAL FINDINGS

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Abstract

For almost two decades, regional cooperation and integration has remained one of the most talked about issues of economic policy of the post-Soviet countries. There are hundreds of initiatives and projects that aim for deepened cooperation between countries in the region. At the same time, to determine the effectiveness of integration strategies a comprehensive system is needed to monitor and assess the current processes of economic, political and social interaction between countries. This can be done with the help of a system of quantitative and qualitative indicators of regional integration. A large scale research project by the Eurasian Development Bank, completed by the end of 2009, led to the creation of such a system. It is intended that the EDB's System of Indicators of Eurasian Integration (SIEI) should become an instrument to monitor and assess regional integration projects in the post-Soviet space.

Introduction¹

Objectives of the System of Indicators of Eurasian Integration

Regional integration is a process of complex transformation characterised by the intensification of the relationships between countries. It produces new forms of governance that coexist with the traditional forms of state governmental institutions at the national level. Currently, regional integration is viewed as a multifactor process which includes, in addition to economic cooperation, the issues of politics, security, and social and cultural interaction. Trade and economic integration remain the foundation of the majority of the existing integration schemes.

For almost two decades, regional cooperation and integration has remained one of the most talked about issues of economic policy of the post-Soviet countries. There are hundreds of initiatives and projects that aim for deepened cooperation between countries in the region. At the same time, to determine the effectiveness of integration strategies a comprehensive system is needed to monitor and assess the current processes of economic, political and social interaction between countries. This can be done with the help of a system of quantitative and qualitative indicators of regional integration. A large scale research project by the Eurasian Development Bank, completed by the end of 2009, led to the creation of such a system. It is intended that the EDB's System of Indicators of Eurasian Integration (SIEI) should become an instrument to monitor and assess regional integration projects in the post-Soviet space (Vinokurov 2010).

In the context of globalisation, the number of regional blocs, groups and associations tend to grow, and these are currently approaching two hundred. These associations help smaller economies strengthen their competitive positions with regard to large and major economies. As a result, the following questions arise: how does regional integration influence the position of those countries that are members of particular regional associations and those that are not? What are the real benefits and costs of integration processes? And what is the general vector of integration? What has been achieved? And where have integration efforts not been successful? Answers to these questions can be given if regional integration is monitored and its effects are

¹ This paper was published in: Vinokurov, E. (ed.) (2010) *EDB Eurasian Integration Yearbook*. Eurasian Development Bank: Almaty, pp. 136-153.

assessed with the help of special instruments. Today, globally, these instruments are the systems of regional integration indicators. Undeservingly, the CIS region did not possess any of these comprehensive studies and measurements. Although integration processes in the post-Soviet space are specific, there are some objective signs of integration such as the existence of regional organisations (the CIS, EurAsEC), the Customs Union, and visa-free entry between most member countries.

Integration includes money transfers, investment, technology, education and many other aspects. For various reasons, only a few of these factors can today be used to assess the real value and effect of this cooperation for the region as a whole, and for each country separately. The SIEI consists of nine general and two consolidated indices that are aimed at assessing integration in the region, and cover various aspects of the regional integration process. The SIEI is built around several sets of indicators, including the integration of trade and labour markets, and cooperation in key functional areas (agriculture, education, and energy); convergence of the main characteristics of the post-Soviet economies; and qualitative performance parameters of the CIS integration groupings developed based on an expert poll. The results are valuable for the assessment of both the integration process during the last decade and the potential for integrational interaction between the countries. The SIEI includes a broad range of indices that reflect both country-to-country interaction and integration in the post-Soviet space as a whole and in its sub-regions.

The data given in this first version of the SIEI show the dynamics of integration processes in the decade 1999-2008. They help determine the "reference point" for the development of post-Soviet countries after the collapse of the Soviet Union in the 1990s. Have they simply followed a downward spiral of disintegration, or managed to reverse this trend by achieving a new level of interaction? By the beginning of the 2000s, most post-Soviet countries already had a basic structure of new economic order. Most important in the analysis of post-Soviet integration is to determine the potential effect of the existing institutional environment on the dynamics of interaction. Again, it is critical not only to demonstrate that an institutional "interregnum" and a lack of stability lead to disintegration, but to study how countries with already established (and existing to date) institutions can interact.

The SIEI will be useful for the systemic assessment of the integration effects on the CIS countries involved in the process as well as for the monitoring of the integration processes in dynamics. The SIEI should be viewed not only as a theoretical study, but also as an applied policy-making tool. It should be of interest to the public agencies in the CIS countries, regional integration organisations, academia, and scholars of regional integration around the world.

SIEI Methodology

The EDB's System of Indicators of Eurasian Integration consists of three sets of indices which correspond to the three main aspects of regional cooperation:

- (a) analysis of regional integration as the *integration of markets*. In this case, the integration of countries is assessed from the point of view of mutual flows of commodities, services and production factors. This set includes two groups of indices:
 - general indices: trade integration and labour migration integration;
- functional integration: integration in the three key socioeconomic sectors of CIS countries (electric power, agriculture, and education).
- (b) analysis of regional integration as the *convergence of economic systems*. In this case, the subject of evaluation is the convergence of the countries' main quantitative development characteristics in four key areas: macroeconomics (growth dynamics), financial policy, fiscal policy, and monetary policy;
- (c) analysis of *institutional cooperation*. In this case, the subject of evaluation is the countries' performance in formal integration projects within the post-Soviet space, taking into account the broad range of goals of the respective structures.

Composition of SIEI

Indicators of regional integration in trade, labour migration, electric power, agriculture, and education.

Assessment of the level and dynamics of the integration of markets

Convergence of economic systems

Indicators of regional integration in macroeconomics and financial, fiscal and monetary policy.

Assessment of the level and dynamics of the convergence of economies

Consolidated index of integration of particular countries with the CIS-12 region - Consolidated index of integration within the five regions

Institutional co-operation

Assessment of co-operation based on expert poll and data from integration organisations.

Co-operation of countries in formal integration projects within the post-Soviet space, taking into account their respective goals

The integration of markets and the convergence of economies are assessed using a system of consolidated indices which are calculated using national statistics. The evaluation of institutional cooperation is based on an expert poll carried out by the EDB and data supplied by various organisations, and is less formalised. Where regional integration is being considered as the integration of markets or the convergence of economies, three types of indices are calculated: (i) integration of country pairs; (ii) integration of a country with a group of countries; and (iii) integration within a group of countries. Each of these indices needs to be interpreted separately. The integration of country pairs characterises the extent to which two particular post-Soviet countries are interconnected by means of cross-border trade or migration, or as a result of convergence of their economic indices.

The integration of a country and a group of countries characterises the convergence of any of the twelve post-Soviet states and any of the five large regions within the post-Soviet region; these regions may be of particular interest from the point of view of practical integration activity and

each include several countries. The experience of implementing regional projects in the post-Soviet space (successful or less successful) has allowed us to define five of these regions:

- 1. CIS-12 (all post-Soviet countries);
- 2. EurAsEC-5 (the five members of EurAsEC: Russia, Kazakhstan, Kyrgyzstan, Belarus and Tajikistan);
- 3. EurAsEC-3 (the three largest EurAsEC countries that are making attempts at forming an "integration core" in the region: Russia, Kazakhstan and Belarus);
- 4. SES-4 (group of the four largest post-Soviet economies: Russia, Ukraine, Belarus and Kazakhstan, so called after the inconclusive project to form a Single Economic Space in the same format in 2003-2004);
- 5. CA-4 (the four Central Asian states participating in integration projects in the region: Kazakhstan, Kyrgyzstan, Uzbekistan and Tajikistan. Turkmenistan is excluded as it does not take part in CIS and Central Asian integration).

Integration within a group of countries is viewed as a "mean" level of inter-dependence of countries belonging to any of the five regions, including any changes in the level of integration over time. Generally, the SIEI includes nine indices of regional integration: trade, labour migration, electric power, agriculture, education, macroeconomic convergence, monetary policy, fiscal policy, and financial policy, and a number of cooperation indices based on an expert poll. The first five indices characterise the level and dynamics of integration of markets, and the other four the level and dynamics of economic convergence.

Some aspects of integration cannot be mapped onto each other, and connections between them are not straightforward; therefore, for the purposes of the SIEI, the focus should be on separate indices rather than their aggregates. However, we have developed two types of consolidated indices that give a wider picture of regional integration in the post-Soviet space and include all the nine indices: the consolidated index of a country's integration with CIS-12, and the consolidated index of a country's integration within any of the five regions. The overall structure of the SIEI is shown in *Table 1*:

The Structure of the SIEI

	Integration of markets		Economic convergence	Regional co- operation	Consolidated indices
	General indices: trade and labour migration	Functional integration: education, agriculture and energy	Macroeconomic conversion, financial policy, fiscal policy, and monetary policy	Set of informal indices based on an expert poll	
Country to country	X	X	X		
Country to region	X	X	X (weighted and non-weighted indices)		Index of a country's integration with CIS-12
Region	X	X	X		Index of integration of five regions
Formal integration projects				X	

The indices of market integration and economic convergence were calculated for 1999-2008 (where possible; some early data is missing). The evaluation of regional cooperation is provided as at the time of this report.

General Findings

Our analysis of the dynamics of SIEI measurements over the past decade prompted the following four conclusions.

First, integration in the post-Soviet space progresses at an uneven pace, both geographically and structurally. In recent years, there was a sharp upturn in labour migration and student exchange, whilst integration in the trade, energy and agriculture sectors slowed down and the macroeconomic indices of post-Soviet countries were becoming increasingly divergent. It should be understood, however, that these negative trends are partially attributable to the rapid pace of

growth of the post-Soviet economies, i.e. an economy's size grows faster than its ties with other economies. Second, the consolidated integration index for CIS-12 suggests that the level of integration has decreased; at the same time, EurAsEC-5 (and especially its core, EurAsEC-3) has become more integrated in the 2000s.

Third, leadership in integration ratings belongs to small countries – Kyrgyzstan, Armenia and Tajikistan. The consolidated index of integration for larger countries, especially Russia, is much lower. Again, the reason is the larger economy size which renders the relative role of economic ties with other post-Soviet countries less important.

With a few exceptions, the ratings of post-Soviet countries' involvement in regional integration remained stable over the decade. In parallel with that, the level of integration within some groups of post-Soviet countries, as the respective consolidated indices show, vary considerably, which is attributable primarily to the dynamics of economic convergence. The indices of integration of markets also remained stable during the last decade.

Forth, integration of markets in the CIS is characterised by the existence of distinct spatial clusters. Particularly, the level of integration in the energy, agriculture and education sectors is higher in Central Asia than in the rest of the post-Soviet space, although this difference shrinks over time. In terms of trade and labour migration, the most intensive interaction normally develops between neighbouring countries. Notably, Russia is not the sole "integration centre" in the post-Soviet space: for example, Kazakhstan has become a desirable destination for many migrant workers from other countries. There is no indication, however, that spatial clusters have any significance for the convergence of post-Soviet economies whose dynamics is determined principally by the evolution of their domestic economic policies.

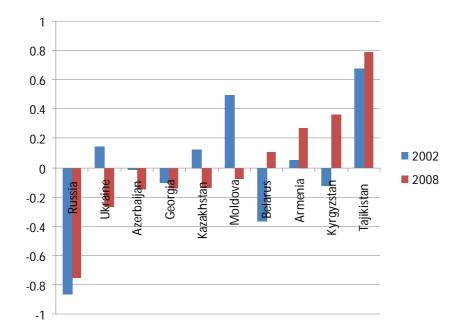
Leaders of Integration in the Post-Soviet Space

Figure 2 shows the consolidated indices of integration of individual countries with CIS-12. The indices are calculated for 2008 and 2002 (i.e. the present time and the first year of observation that data on all the nine integration aspects is available for), for ten post-Soviet countries. Uzbekistan and Turkmenistan were excluded due to a lack of data. Higher value of the index corresponds to higher level of integration. The values vary within a range of –1 to 1. The scale is calibrated so that the mean value corresponds to zero: accordingly, countries with a low level of

integration have negative indices and highly integrated countries have positive indices. In the above chart we can easily identify three unquestionable leaders.

Figure 2

Consolidated indices of integration of post-Soviet countries with CIS-12 (2002 and 2008)



Tajikistan remains the country which is most integrated with the rest of the post-Soviet space. This can be explained by the exceptional importance of trade (first of all, with Russia) for Tajikistan and its active part in labour migration. Cooperation with other post-Soviet countries in the key sectors of functional integration, especially electric power, is critical to Tajikistan. Its high rating is due to its natural characteristics: small size, absence of any hydrocarbon export potential, and landlocked location. Tajikistan plays an active role in most integration groups in the post-Soviet space.

Kyrgyzstan and Armenia ranked second and third, respectively, in the 2008 rating. Integration of these small countries with the post-Soviet space was on the increase during the last six years. Kyrgyzstan is widely involved in trade and labour migration, and benefits considerably from

integration in the education and agriculture sectors. Unlike Tajikistan or Armenia, Kyrgyzstan does not view Russia as the only principal partner, and integration with neighbouring Kazakhstan is just as beneficial to this country. Like Tajikistan, Kyrgyzstan is an active member of all key integration groups within the CIS. Armenia is primarily interested in trade integration, which has progressed remarkably in recent years. Armenia's part in formal integration projects is somewhat limited, partly due to the obligations imposed by the WTO; however, its interest in integration with other post-Soviet countries remains strong.

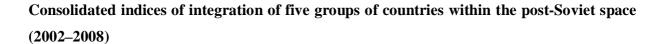
The countries in the fourth and fifth positions in the rating, Belarus and Moldova, demonstrate directly opposite integration dynamics. The level of Moldova's integration with the CIS countries dropped sharply, and the country fell from second to fifth position among the ten post-Soviet states. At the same time, this index grew considerably for Belarus. The latter, traditionally, has been one of the key players that determined the destiny of post-Soviet integration, and the Belarusian economy is closely connected with that of Russia. Moldova, by contrast, has always been sceptical of integration in the post-Soviet space, and has not participated in any large integration project (with the exception of GUUAM and the CIS proper).

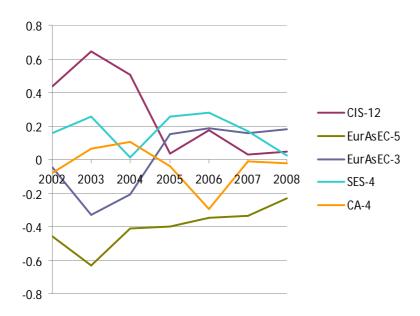
Kazakhstan, Azerbaijan, Ukraine and Russia round out the rating. These are large economies with a diverse structure of foreign trade, in which economic ties with the post-Soviet space tend to become less important. These are fairly rich countries; three of them are exporters of fossil fuel (Kazakhstan, Azerbaijan and Russia). Only Kazakhstan and Russia play active roles in formal integration initiatives. Azerbaijan and Ukraine, by contrast, have always taken a restrained stance towards integration projects within the CIS and have consented to very limited participation (e.g., for Ukraine, the limit of their participation is the free trade zone). That Russia occupies the last place in this rating should not be a surprise: this, the largest post-Soviet economy, stands on a par with the rest of the post-Soviet space in terms of population size, and outdoes it in terms of GDP. Georgia also belongs to this group of "lagging" countries, mainly due to political reasons.

General conclusion is that the distribution of post-Soviet countries by the consolidated index remains stable: the groups of leading and lagging countries have not changed much since 2002. This suggests, on the one hand, that the economic ties within the CIS are fairly stable, and on the

other hand, that the lagging countries (i.e. the largest economies) do not make full use of their integration potential.

The second exercise was to calculate consolidated indices of integration within the five regions that we had selected for the purposes of our analysis. *Figure 3* shows the results of the calculations for 2002-2008 (i.e. the period for which data is available for all nine aspects of integration). Again, the index varies within a range of –1 to 1 and the mean value corresponds to zero. Negative indices correspond to low level of integration and vice versa. There are three main trends. First, the level of integration within CIS-12 has reduced compared with the other groups. Second, the level of integration of CA-4 and SES-4 remains unchanged. And, third, EurAsEC-3 and especially EurAsEC-5 demonstrate generally positive dynamics of regional integration and cooperation. By 2008 EurAsEC-3 surpassed all other groups, and this group is now the absolute leader in integration all over the post-Soviet space (which is not only attributable to the growth of the EurAsEC-3 index, but also to a decrease in the SES-4 index). EurAsEC-5 still occupies the lowest position in the rating, although its performance improved considerably.





Integration of Markets

The results of integration in particular areas are as follows. During the period under review, integration increased in labour migration and education; at the same time, there was a decrease in the trade, energy and agriculture indices. These results are partly due to the selected "basis for comparison": population growth in the region is apparently slower than GDP growth. At the same time, this situation indirectly proves that the extensive social integration of post-Soviet countries has been preserved or has even increased – social integration creates potential catalysts for integration in other areas.

It was not possible to identify any unquestionable leaders in all aspects of integration among country pairs or groups. Moreover, the structure of mutual links varies greatly across different CIS markets. To some extent, this is illustrative of the diversity of interests and resources involved in integration in the CIS. The leaders in terms of integration with CIS-12 in various categories are Belarus, Kyrgyzstan and Tajikistan – the most active participants in post-Soviet

integration projects. The countries showing the biggest increase in integration levels are Kyrgyzstan, Tajikistan and Ukraine.

In all the three areas of functional integration (energy, agriculture and education), integration levels are much higher in Central Asia than in the post-Soviet space in general, which can be explained by the existence of extensive infrastructural links and a common social space. However, the dynamics of regional integration was negative in all these cases.

As for trade and labour migration, the level of integration of markets in Central Asia is lower than in the CIS in general. With a few exceptions (e.g., in education), the dynamics of integration in large regions followed the overall trend dictated, apparently, by the largest post-Soviet economies. At the same time, the difference between integration levels in particular regions (again, with a few exceptions) remained stable during the last decade.

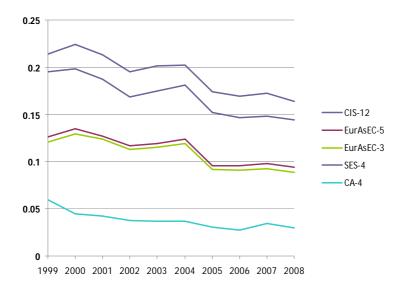
 $\label{eq:Table 2} Table~2$ The dynamics of integration of markets in the post-Soviet space

Index	Leading country pair (2008 index)	Leading country pair (increase in index)	Leading country in integration with CIS-12 (2008 index)	Leading country in integration with CIS-12 (increase in index)	General dynamics of integration in CIS-12
Trade	Russia-Ukraine	Kazakhstan- Ukraine	Belarus	Kyrgyzstan	\
Labour migration	Kazakhstan- Kyrgyzstan	Kazakhstan- Kyrgyzstan	Tajikistan	Tajikistan	1
Energy	Uzbekistan- Tajikistan	Russia- Ukraine	Tajikistan	Ukraine	↓
Agriculture	Kazakhstan- Azerbaijan	Kazakhstan- Turkmenistan	Kyrgyzstan	Turkmenistan	↓
Education	Kyrgyzstan- Uzbekistan	Uzbekistan- Kazakhstan	Kyrgyzstan	Kyrgyzstan	1

Note: an increase in the index (↑) is interpreted as an increase in integration

The geographic proximity of Central Asian countries does not directly influence trade integration, and the leaders in terms of trade integration with CIS-12 are Belarus, Kyrgyzstan, Tajikistan and Moldova – that is (except Belarus), comparatively small economies with no access to global markets. The reasons are obvious. Although the CIS-12 markets are priorities for Belarus, Tajikistan and Moldova, for the larger economies in this region, trade with these small countries is less important quantitatively than trade with other partners. And, since the SIEI focuses on symmetric integration, this automatically reduces the index. The lowest levels of integration with CIS-12 are demonstrated by Azerbaijan and Russia, whose main interests lie outside this region's markets.

Figure 4 The dynamics of trade integration in the five regions

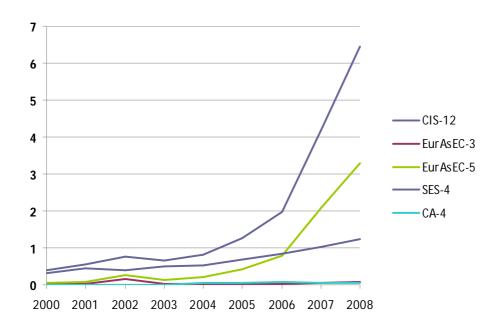


Tajikistan is leading in labour migration indicator concerning CIS-12, which can be attributed to the large outflow of labour resources to Russia in relation to the country's own population. The next three positions are occupied by Kyrgyzstan, Moldova and Armenia. Notably, the lowest labour migration index belongs to Belarus. In other words, the integration of different post-

Soviet markets is non-uniform, i.e. intensive commodity exchange does not necessarily lead to dynamic movement of factors of production.

Figure 5

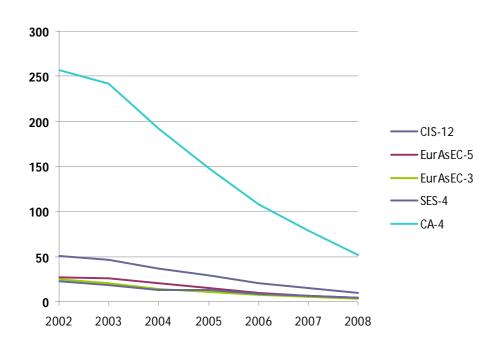
The dynamics of labour migration integration in three regions



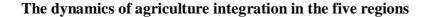
The dynamics of trade in electric power in the post-Soviet space lags far behind the growth of CIS economies. In most country pairs, this index shrank during 2002-2008. The only exception was Ukraine whose integration with EurAsEC-5 and EurAsEC-3 progressed slightly, whereas its integration with CIS-12 slowed (this process is also driven by trade in electric power with Russia). The dynamics of integration in the regions also follows these trends. The energy integration index was decreasing in all five regions over the last seven years. This decrease was especially pronounced in CA-4 which, nonetheless, remains a leader in integration of electric power markets. It should be stressed that we are speaking about integration of power markets lagging behind economic growth, not the shrinkage of absolute trade figures. Paradoxically, the negative dynamics of this index, in our opinion, can be explained by the rapid economic growth of the region during the decade under review. The countries mainly used the generated power

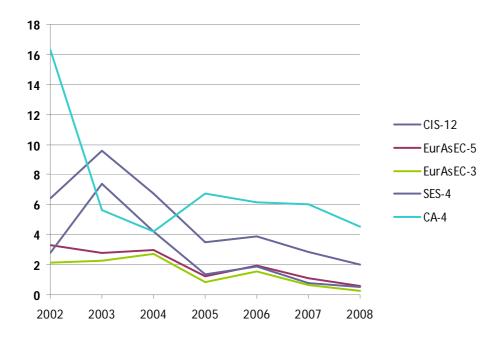
domestically, and reduced export volumes when necessary. The creation of a common electric power market in the CIS is expected to help overcome this trend.

Figure 6The dynamics of energy integration in the five regions



The leader in agriculture integration (based on data on cross-border trade in cereals) in the post-Soviet space is Kazakhstan. This country is present in all three leading country pairs: Kazakhstan-Azerbaijan, Kazakhstan-Turkmenistan and Kazakhstan-Kyrgyzstan. In this case, integration of neighbouring Central Asian and Caspian states is presumably based on the export of cereals from Kazakhstan. Kyrgyzstan is the leader in integration with CIS-12, which appears to be caused by the large volume of cereals export in relation to its economic size. The lowest levels of integration with CIS-12 and other groups are demonstrated by Russia, due to its enormous economy and powerful agriculture sector. As with energy integration, trade in cereals in the post-Soviet space lags far behind the growth of national economies.



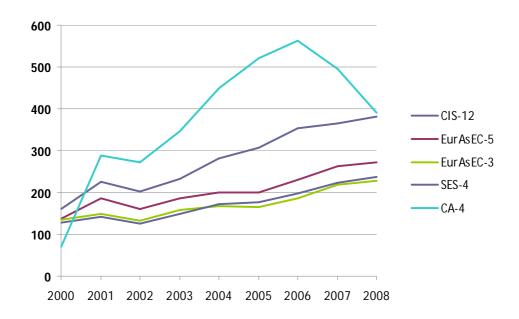


For assessing education integration we used the number of students who study abroad. The most intensive student exchange is recorded between geographically and culturally close countries (Kyrgyzstan-Uzbekistan, Kazakhstan-Kyrgyzstan, Georgia-Armenia). Large countries like Russia or Ukraine are traditionally very attractive for students from all over the CIS, but their number remains insignificant relative to these countries' population. The highest index of integration with CIS-12 is demonstrated by Kyrgyzstan, and Kazakhstan ranks second. Belarus ranks third, and this appears to be due to student exchange with Russia. This exchange is rather negligible in relation to Russia's population size, yet it is important for Belarus. The same three countries (in reverse order) are leading in EurAsEC-5, EurAsEC-3 and SES-4 integration. The patterns of student exchange (as far as university education is concerned) varied greatly across the CIS in the last nine years, depending on particular country pairs. The largest increase in this index was recorded in the Uzbekistan-Kazakhstan country pair, followed by Kyrgyzstan-Kazakhstan. As for the index of integration of countries with the five regions, positive dynamics was recorded in all country-region pairs. The biggest increase in integration with CIS-12 was

demonstrated by Kyrgyzstan and Belarus. The same countries are leading in integration with SES-4, EurAsEC-3 and EurAsEC-5; and in CA-4 the leaders are Kyrgyzstan and Uzbekistan.

Figure 8

The dynamics of education integration in the five regions



The analysis of integration dynamics in five regions also shows distinct positive trends. The only exception is CA-4, in which the integration index decreased significantly in recent years. Nevertheless, CA-4 remains the leader in education integration over other regions.

Economic convergence

Unlike the integration of markets, the convergence of post-Soviet economies varies greatly depending on particular country pairs or country-region pairs. Convergence is largely not driven by any geographic factors, since the closeness of the parameters of the economic policies bears no relation to the geographic proximity of the converging countries. On the whole, we can conclude that the macroeconomic indices of post-Soviet states were diverging over the last decade, whereas their monetary policies converged.

In any case, the calculated results of economic convergence are somewhat less instrumental in identifying consistent and sustainable trends than in the case of the integration of markets. At the same time, the convergence of economies is an important characteristic, at least from the prospective of the potential for integration and cooperation, and therefore deserves scrutiny. The main results of our analysis are summarised in *Table 3*. It can clearly be seen that, unlike the integration of markets, the convergence of economies is principally associated with factors lying beyond the integration process itself. The key role belongs to reform strategies selected by particular countries, and macroeconomic regulation practices that make them become closer. However, it should be stressed that, for example, without the synchronisation of business cycles or comparable parameters of the monetary system the development of a well-coordinated policy for economic integration is not really possible. Therefore, internal economic processes that assist the convergence of countries should be viewed as critical aspects of integration.

 $\begin{tabular}{ll} \it Table 3 \\ \it The dynamics of convergence of post-Soviet economies (data for non-weighted indices) \\ \end{tabular}$

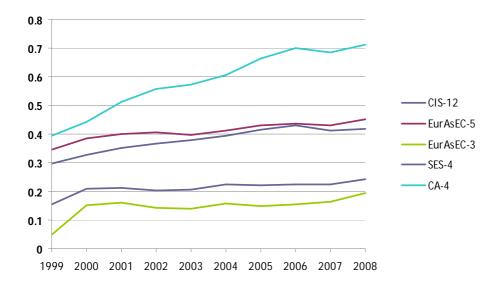
Index	Leading country pair (2008 index)	Leading country pair (in terms of shortening the distance)	Leader in convergence with CIS-12 (minimum distance, 2008)	Leader in integration with CIS-12 (in terms of shortening the distance)	General dynamics of distance in CIS-12
Macroeconomics	Kyrgyzstan- Tajikistan	Moldova- Turkmenistan	Armenia	Georgia	1
Monetary policy	Belarus- Tajikistan	Belarus- Tajikistan	Russia	Belarus	↓
Financial policy	Kazakhstan- Armenia	Kazakhstan- Armenia	Ukraine	Kazakhstan	\rightarrow
Fiscal policy	Armenia - Uzbekistan	Armenia- Azerbaijan	Azerbaijan	Armenia	\rightarrow

Note: increasing the distance (↑) means lowering the convergence level

From the point of view of macroeconomic convergence, calculations suggest that the macroeconomic indices of post-

Soviet states tend to diverge rather than converge. The leaders in convergence are the comparatively small groups SES-4 and EurAsEC-3, and the maximum distances are demonstrated by CA-4 countries; therefore, the dynamics of growth in Central Asia, even without Turkmenistan, varies greatly from one state to another. CA-4 has also demonstrated the biggest decrease in the macroeconomic convergence index in the past decade. By contrast, in SES-4 and EurAsEC-3, after the initial "push" towards divergence in 1999 (probably a result of the consequences of the 1997-1998 crisis), the index has remained at practically the same level.

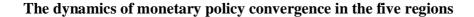
 $\label{eq:Figure 9} Figure \ 9$ The dynamics of macroeconomic convergence in the five regions

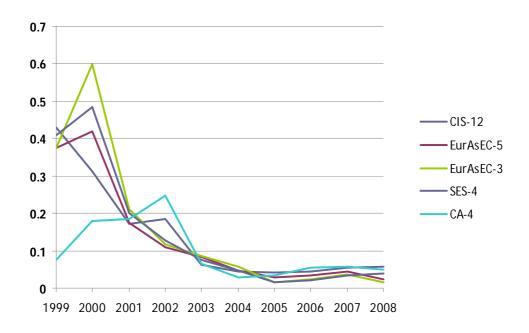


Note: an increase in the index is interpreted as a decrease in convergence

Our analysis of monetary convergence of country pairs, as with macroeconomic indices, suggests that the effect of internal economic changes prevails over that of cross-border cooperation. In 2008, the lowest distance was recorded in the Belarus-Tajikistan country pair. Kyrgyzstan-

Azerbaijan ranked second. It is worth mentioning Ukraine-Moldova: this country pair has the highest level of divergence, yet it demonstrates a high level of integration in mutual trade. This can be explained by the differences in their monetary, credit and currency policies. At the country-to-region level, Russia has the least distance from CIS-12, followed by Belarus and Tajikistan. The greatest distance was recorded for Moldova. In EurAsEC-5 and SES-4, the least distance was recorded for Belarus, and in EurAsEC-3 and CA-4 for Tajikistan. In contrast to the growth dynamics, the second decade after the disintegration of the Soviet Union became a period of convergence of the monetary policies of all the five post-Soviet regions. Whereas in the early 2000s there were considerable fluctuations in the indices of the five groups, since 2004 the indices have been practically identical and have stabilised at a very low level (the latter confirms the closeness of the indices). The dynamics can be explained by the convergence of the characteristics of the monetary and credit policies of all the countries and, to a lesser extent, the influence of global currency markets. It should be remembered that, in the beginning of the 2000s, CA-4 was far ahead of the other groups in terms of monetary policy convergence, but by 2002 demonstrated the highest level of divergence. At present, as we have mentioned, the differences between the regions are negligible.





Note: a decrease in the index is interpreted as an increase in convergence

The characteristics of financial policies in the second half of the 2000s were converging in practically all the groups of countries. The only exception was CIS-12 whose divergence index remained practically unchanged. This scenario was determined by the development of national banking systems which resulted in their "qualitative breakthrough". The practice of cross-border investments by the banking institutions of Russia and Kazakhstan could have played a role in this, although this conclusion was not confirmed by a more detailed analysis. The results obtained for the fiscal policy sector also suggest that convergence or divergence of countries does not depend on their geographic position, the level of integration of their markets, or their participation in integration groups. The index does not allow us to identify a trend towards the convergence or divergence of fiscal policies. There are significant differences between the national fiscal systems of CIS countries which reflect the differences between their macroeconomic regulation and state administration systems. Moreover, these systems remain

highly unstable, which has a negative influence on internal economic development and the potential for integration alike.

We additionally calculated some weighted indices (each calculation method is described in the respective section). Generally, the leadership in convergence is held by large countries: in CIS-12, these are Kazakhstan (macroeconomics), Belarus (monetary policy), Ukraine (financial policy) and Russia (fiscal policy). This is a logical result as these countries principally determine the mean index. To an extent, another modified index serves to measure the convergence of large countries "with themselves". However, Russia does not always become the leader in convergence, and this means that the results are not straightforward. The greatest distances from CIS-12 are demonstrated by Turkmenistan (macroeconomics), Moldova (monetary policy) and Kyrgyzstan (financial and fiscal policy). These are either small or closed economies. Both approaches (weighted and non-weighted indices) have their merits and demerits. Therefore, economic convergence should be assessed by both methods, and the results should be treated as complementary.

Expert poll

We have also conducted an expert poll (August 2009) in an attempt to assess the efficiency of three integration structures, namely the CIS, EurAsEC and SCO, from the point of view of various aspects of interaction and integration. Based on the results of these enquiries, we have drawn the following conclusions.

First, the experts considered the CIS and SCO the most efficient organisations from the point of view of political cooperation and security. In the case of the CIS, political cooperation was highlighted by 51% and security by 22% of the experts. The same assessments for the SCO were 37% and 39%, respectively. The experts also noted the efficiency of the CIS in social development (11%) and electric power (8%). Bearing in mind that political cooperation is a considerable part of activities of EurAsEC (as 16% of experts believed), this organisation demonstrated better results in promoting trade and investments (37%), energy (27%) and banking in the member states.

Second, the experts generally agreed that the CIS and SCO are more oriented towards developing common political approaches and decisions (and excel at that), whilst EurAsEC is

more efficient in promoting the concerted efforts of member states in particular economic sectors. Notably, the resources available to the CIS are inadequate for the tasks it has to perform (over 60% of the experts assessed the availability of resources as "below average"). EurAsEC and SCO have adequate resources at their disposal.

The experts also commented on the adequacy of an organisation's structure for its goals on the one hand, and the efficiency of its interaction with the respective bodies and organisations of its member states on the other. Interaction is more efficient in the case of those organisations whose structures are better suited to their goals (EurAsEC and SCO). The experts agree that integration organisations should specialise in particular areas in order to avoid doubling-up and competition, and be able to concentrate their resources and efforts on the aspects at which they excel. This kind of specialisation can be observed already, albeit in indirect forms.

The experts were also asked to point out the major challenges to integration in the CIS. In their opinion, the size of an economy or the level of development of business in a member state does not exert much influence on integration. On the other hand, integration is most sensitive to internal policies, foreign policy priorities, the quality of state administration, and the level of economic development of member states.

Further Development of the System of Indicators of Eurasian Integration

In accordance with EDB's Charter, its mission is to contribute to economic growth in member states and to promote trade and economic integration among them. The Bank is to become a consolidating element of the financial infrastructure and a catalyst to facilitate integration processes in its member states (EDB Charter, available at www.eabr.org).

The EDB is the regional development and integration bank. The statutory objectives explain the Bank's special interest in the analysis of integration processes with a natural focus on the post-Soviet space. It is our aim that the SIEI becomes the Bank's flagship research project and an integral part of its analytical products dedicated to regional Eurasian integration.

The EDB has been working on this research project from the beginning of 2008, i.e. for two years. After a decision on the project had been made, an international working group was formed comprising experts from EurAsEC, the CIS, the Bank, representatives of governmental agencies

and research institutions, as well as leading international experts on regional integration measurement and monitoring. The working group included Sailau Baizakov (Deputy Director, Institute for Economic Research, Astana), Michael Emerson (Senior Researcher, Centre for European Policy Studies, Brussels), Alexander Libman (Associate Professor, Frankfurt School of Management and Finance, and Institute of Economy, Russian Academy of Science), Philippe De Lombaerde (Research Fellow, United Nations University, Bruges), Natalia Maqsimchook (Chief Specialist, Economic Analysis Department, EDB, and coordinator of the working group), Yerzhan Moldabekov (Lead Specialist, Economic Analysis Department, EDB), Aleksandr Rudik (Deputy Head, Department for Social and Humanity Development, Secretariat for Integration Committee of EurAsEC, Almaty), Maria Shevchuk (Deputy Head, Department for Economic Policy, Secretariat for Integration Committee of EurAsEC, Moscow). Evgeny Vinokurov (Deputy Head of the Analytical Department / Head of Economic Analysis Unit at the EDB) led the project. The working group produced a comprehensive methodology for the System of Indicators, taking the global best practice into account.

This helped collect various statistical data and develop the SIEI database in 2009, and in the second six months of 2009 the system of indicators was calculated and this project report was prepared. The authors of this report are Evgeny Vinokurov (project leader), Alexander Libman, Philippe De Lombaerde, Natalia Maqsimchook, and Yerzhan Moldabekov. In the future, the Eurasian Development Bank plans to collect data and compute the integration indicators on an annual basis. The respective report will then be prepared and presented to governmental agencies, international organisations, researchers, the mass media, and the general public. We hope that the comprehensive SIEI, which has been prepared based on an elaborate methodology of regional integration measurement and assessment, will be of interest not only as a theoretical product, but also as an applied instrument of foreign policy fostering positive integration processes in Eurasia.

References

EDB (2006) EDB Charter, available at www.eabr.org/eng/about/foundation/documents/, as of May 2010.

Vinokurov E. (ed.) (2010) *The EDB System of Indicators of Regional Indicators*. Almaty: EDB. Available at: www.eabr.org/eng/publications/SIEI/, as of July 2010.