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Institutional Harmonization in the Context of Relations Between the EU and Its Eastern Neighbours: Costs and Benefits and Methodologies of Their Measurement

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Contents

Abstract

This paper studies costs and benefits of institutional harmonisation in the context of EU relations with its neighbors. The purpose of this paper is to outline the likely forms of institutional harmonisation between the EU and its Eastern neighbors and provide an overview of the methodologies that can be used in measuring its effects (costs and benefits). This paper serves as a background for two measurement exercises – one on benefits and another on costs – that are to be undertaken during the second stage of research.

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Introduction

This working paper contains the results of the first stage of research conducted within the framework of the Workpackage #11 of the ENEPO project called "The costs and benefits of institutional harmonisation". Following the work package's title, the authors aim to identify the costs and benefits of institutional harmonisation between the EU and its Eastern neighbors.

The first stage of research, presented here, is devoted to the discussion of the concept of institutional harmonisation, its application in the context of relations between the EU and its Eastern neighbors, discussion of possible costs and benefits of such harmonisation, and methods to measure the effects. This research serves as a background for the second stage of the project which is devoted to measuring the costs and benefits of institutional harmonisation between the EU and its Eastern neighbors.

For the purposes of this paper the notion of "Eastern neighbors" (which we abbreviate as EN countries) is understood as countries covered by the European Neighborhood Policy plus Russia, i.e. we analyze Armenia, Azerbaijan, Belarus, Georgia, Moldova, Russia and Ukraine.

Chapter 1 begins with a brief discussion of the concept of institutions and institutional harmonisation. Then it proceeds to an enquiry into what institutional harmonisation between the EU and its neighbors may mean and what shape it may take. Based on this analysis, assumptions about the shape of harmonisation are developed (to be used in further analysis). This is followed by a brief discussion of possible costs and benefits of the suggested path of harmonisation and some methodological remarks on their measurement. In Chapter 2, limitations and problems of institutional harmonisation are discussed. Chapter 3 is devoted to a discussion of methodologies to measure the magnitude of non-tariff barriers (NTBs). This analysis will be further used for estimating the benefits of institutional harmonisation in the context of gaining improved market access. Chapter 4 discusses methodologies to measure costs of institutional harmonisation and their empirical estimates. The analyses in Chapters 3 and 4 serve as a background for the development of respective models to measure costs and benefits during the second stage of the research.

Chapter 1.
Institutional harmonisation and its costs and benefits in the context of EU cooperation with its neighbors

By Anna Kolesnichenko, CASE Ukraine

1. Concept of institutional harmonisation and its applications to European integration

1.1. What is institutional harmonisation?

It has become an established fact that institutions are an important factor of economic performance of economies. Numerous empirical studies showed a positive correlation between the level of development of institutions of countries and performance of their economies across space and over time (the earliest and most famous of them done by the Nobel Prize winner Douglass North (North, 1990)).

The link between institutions and growth stems from the very notion of institutions: according to North's theory, they are formal rules, informal constraints, and enforcement mechanisms that provide the basic structure by which human beings create order and attempt to reduce uncertainty in exchange. By reducing uncertainty, institutions help reduce transaction costs and, hence, the profitability and feasibility of engaging in economic activity.

In the context of harmonisation within and with the EU, institutional harmonisation can be considered as a part of Europeanization – a process of internalization of European values and policy paradigms. It takes place within the EU itself, as well as beyond its borders. Enlargement, for example, stimulated Europeanization in the acceding states. The European Neighborhood policy attempts to bring the same forces into play beyond EU frontiers.

We would argue that the success of the institutional harmonisation can be measured by the degree of Europeanization achieved, i.e. whether the changes have been internalized. Simple mechanical replication of institutions that does not lead to their internalization will not bring much benefit and might actually harm the "importing" country. If the institutional changes are not internalized, the harmonisation can result in the emergence of a large gap between the official institutions and unofficial ones. The EU appreciates this challenge and tries to seek ways to increase local ownership of the integration effort. In particular, in the Action Plans within the ENP it suggests the joint setting of priorities and joint monitoring of reform performance.[1]

1.2. What institutional harmonisation with the EU may mean - lessons from existing arrangements

In the economic domain, institutional harmonisation with the EU means adopting the rules and policies that govern the EU economy. The highest degree of harmonisation can be achieved by joining the EU; yet, other arrangements that involve a certain degree of harmonisation are also possible. The existing arrangements vary in their degree of integration and coverage. After membership in the EU, the strongest degree of integration is achieved within the European Economic Area (EEA), followed by EU-Swiss bilateral cooperation, the EU-Turkey Customs Union and different free trade arrangements (such as the Euro-Mediterranean FTA or FTA with Chile). In addition, there are examples of sectoral arrangements, such as Mutual Recognition agreements in particular sectors. We will briefly discuss each arrangement and try to draw lessons for neighbor countries.

Option 1 – accession to the EU (membership)

Although this option is not realistic in the timeframe of our analysis, it is worth discussing as a benchmark case as it represents the maximum of what can potentially be attained. During accession negotiations for the 10 countries that joined the EU in 2004, the parties negotiated 31 chapters as a part of the accession. They included free movement of goods, services, persons and capital, as well as company law, competition policy, agriculture, fisheries, transport policy, taxation, economic and monetary union, statistics, employment and social policy, energy policy and others.

In the economic sphere, institutional harmonisation with the EU means, first of all, adoption of the EU's rules in the four domains of its internal market – goods, services, capital and labor. Harmonisation and mutual recognition are the main

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[1] Chapter 2 discusses the limitations of institutional harmonisation in the context of the ENP.

instruments here. Harmonisation means adopting EU *acquis;* while mutual recognition means that states give each others' laws and standards the same validity as their own. In addition to harmonisation in the areas of the "four freedoms", the acceding states need to take on rules in other areas of the European common market. For example, they must comply with EU competition *acquis*, and before accession, the European Commission tests whether enterprises operating in the candidate countries are accustomed to operating in an environment such as that of the Community.

It is clear that the scope and the depth of institutional harmonisation between the EU and its Eastern neighbors will be smaller than in the case of accession states. In some sectors, harmonisation can be deep, and in these cases it will be interesting to look at accession countries' experiences. Yet, in a number of sectors, no harmonisation is likely to occur without the prospect of membership. It makes sense then to return to a discussion of accession experiences once it is decided which sectors will see deep harmonisation.

Option 2 – European Economic Area

The European Economic Area (EEA) is an example of institutional harmonisation with the EU without membership. Currently, the EEA includes Iceland, Lichtenstein and Norway. The EEA works on the basis of a multilateral agreement between EEA members and the EU. According to the agreement, EEA members adopt all EU *acquis* related to the functioning of the EU common market (with the exception of Fishery Policy and Common Agricultural Policy). With regard to third countries, EEA states are free to set their own tariffs and conduct their own trade policy (including anti-dumping measures, or concluding mutual recognition agreements).

The major disadvantage of this arrangement is a quite weak influence on EU decision making (EEA countries can only participate in "decision shaping" through consultations in working groups). Plus, adoption of the full body of the EU Common market related *acquis* may be disadvantageous for some sectors[2]. Finally, adoption of all EU *acquis* requires an advanced administrative and institutional capacity. On the positive side, one can mention, of course, unimpeded access to the EU internal market. EEA states also participate in a range of EU programs and institutions, for example, standardization bodies.

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[2] The issue of sectoral coverage will be discussed later, yet at this point it is worth noting that it could be difficult to avoid some losses in some sectors in any deal on integration/harmonisation with the EU. Thus far, the "package approach" has been a major feature of European integration, that involved not only exchange of one-sector concessions, but also cross-sectoral deals. The basic initial deal between France and Germany that formed the European Coal and Steel Community (ECSC) is the most evident example to this end.

Experience of EEA countries shows that one can fully participate in the EU internal market without EU membership. Yet, it would be difficult for the EU Eastern neighbors to fully adopt this model in the near future mainly due to the lack of administrative capacity and also because their economies substantially differ from the EU economy (both by level of development and structure) much more than the economies of EEA countries. Yet, some elements of this model could be borrowed. For example, neighbor countries could participate in standardization bodies in the areas in which they aim for substantial harmonisation with the EU.

Option 3 – EU-Switzerland cooperation

EU-Swiss bilateral cooperation is based on a free trade agreement and a range of sectoral agreements on the free movement of persons, elimination of technical barriers to trade, public procurement, civil aviation, transport, agriculture, research and others. Switzerland adopts EU's *acquis* only in the sectors covered by agreements plus related policies (public procurement, for example).

Such a harmonisation "a la carte" has its obvious advantages, as partners may choose sectors in which it is beneficial for them to have harmonized policies. At the same time, it can pose problems, as it limits the scope for package deals that involve concessions in different sectors and, thus, limits the scope for harmonisation. In order to limit the "cherry-picking" by Switzerland, the EU introduced a so-called 'guillotine clause' so that Switzerland cannot opt out of one agreement without having all others suspended. Moreover, the limited scope of harmonisation does not ensure genuinely free market access; for example, if competition policy is not fully harmonized (which is the case in Switzerland), it leaves room for launching antidumping cases and prohibiting market access.

Despite all these limitations, however, Swiss authorities recently confirmed their preference for continuing the cooperation based on bilateral sectoral agreements, because they think at the moment this option is the most efficient in promoting Swiss interests (Swiss Integration Office, 2006). This approach, based on the search for best options of promotion of state interests, as opposed to a search for the optimal shape of integration, could be very useful in the case of EN countries, as it helps to focus on the substance and purpose, rather than form of integration and harmonisation.

To summarize, the Swiss model of cooperation could be attractive to neighbors because of its selective nature. At the same time, their interests in relations with the EU may be different from those of Switzerland. For example, for EN countries institutional harmonisation with the EU may serve as a road to modernisation; in such a case, it could be in their interest to have more comprehensive harmonisation. In

particular, adopting EU horizontal policies in areas such as competition can stimulate important market reforms in these countries. Therefore, in defining the scope and the depth of their institutional harmonisation with the EU, one of the major parameters should be the extent to which each particular measure helps in the reform and modernisation of their economies.

Option 4 – EU-Turkey Customs Union

Another option that Eastern neighbors could contemplate is a customs union (CU) with the EU. A CU means full trade liberalization accompanied by an application of a single external tariff. To date, the EU has only one such agreement with a non-member country – Turkey[3]. According to the agreement, the two parties eliminated tariff and non-tariff barriers to each other's industrial goods, and Turkey adopted the Community's Common Customs Tariff for imports from third countries. However, the customs union does not cover agriculture (except processed agricultural products), services and public procurement. Turkey harmonized its legislation in the areas of the protection of intellectual, industrial and commercial property rights, competition, state aid, public procurement and taxation, as well as settlement rights and services with that of the EU. The decision on implementing the customs union contains quite detailed prescriptions on what parts of the *acquis* should be adopted (or with which the Turkish legislation should comply) and when.

The record of implementation of the CU agreement shows mixed results. On the one hand, as Ulgen and Zahariadis (2004) ague, it helped to transform Turkish industry by introducing stronger competition, which led to improvements in productivity, and changed the structure of Turkish industry through its integration in international production and distribution networks. Furthermore, it helped to modernize Turkey's economic legislation, which also facilitated creation of a favorable business climate.

On the other hand, a customs union has important downsides. First is the possibility of trade diversion. In the case of Turkey, this does not seem to have been the case, as Ulgen and Zahariadis (2004) argue. Yet, other countries should carefully consider the possibility of such an effect of the CU. Second, Turkey has no influence on its tariff policy and has to follow the trade policy of the EU. For example, it had to conclude free trade agreements with all third states with which the EU had FTAs. In the case of a CU with a partner as large as the EU, the situation is exacerbated by the very unequal character of the relationship, as the EU does not adjust its trade policy to Turkey's interests.

All these limitations make it difficult to recommend a CU as a suitable arrangement for EN countries. The most important argument in their case is that the

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[3] To be exact, the EU has other two CU agreements – with Andorra and San Marino, European microstates.

majority of them carry out a significant amount of trade with non-EU countries (very often between themselves, and particularly with Russia), so that trade diversion could bring substantial losses. At the same time, it is instructive to look at the Turkish case because of the similarity of its level of institutional development with that of the EN countries. Unlike EEA countries, which are able to adopt all economic *acquis* and get full market access, Turkey represents the case of a partner with less developed institutions that not only faces the challenge of adopting EU economic requirements, but also diverse challenges of development and economic modernisation.

The first lesson from the Turkish experience is that harmonisation of standards is not enough to gain market access; what is also important is conformity assessment. Ulgen and Zahariadis (2004), for example, show that Turkish products often face difficulties entering the EU market due to a lack of conformity assessment, which arises due to weaknesses in the Turkish certification and accreditation system and, consequently, lack of trust on the part of the EU.

Second, despite adoption of EU product standards and different trade-related *acquis*, Turkey is not saved from EU antidumping investigations and other trade defense measures. According to the CU agreement, application of these instruments can be suspended if the EU-Turkey Association Council finds that Turkey has implemented competition, state aid control and other relevant parts of the *acquis* related to the internal market and ensured their effective enforcement (European Commission, 1995). As with the conformity assessment, Turkey is not there yet.

Third, it is important to ensure that the depth and coverage of market access is beneficial for both parties. For example, the EU-Turkey customs union does not cover agriculture and services, which substantially limits the benefit of the CU for Turkey.

Finally, the Turkish case also shows that it is better not to build economic cooperation on political assumptions: i.e. Turkey considered the CU as a stepping stone to EU membership. Yet, the road to EU membership appears to be rather long (and still not secure), and at the same time Turkey has had to bear different economic and political costs of the CU.

To summarize, it is difficult to advise creation of a customs union with the EU for EN countries due to serious drawbacks of this arrangement, first of all, the possibility of trade diversion. At the same time, useful lessons could be drawn from the Turkish experience. On the one hand, it shows that the CU did stimulate harmonisation and reform of the Turkish economy in line with EU requirements. At the same time, weak institutional capacity prevented Turkey from fully enjoying the benefits from such an arrangement (for example, due to a lack of conformity assessment). Other limitations of the arrangement - the possibility of imposition of antidumping duties, exclusion of important sectors (agriculture and services) from the arrangement - further weakened its positive effect. These shortcomings are not necessarily features of the customs

union per se, yet they could be instructive for the EU's Eastern neighbors for shaping their economic agreements with the EU.

Option 5 – Free trade area (FTA)

The EU has a multiplicity of FTAs: in addition to the EEA, it has been advancing FTAs with developing countries in the Middle East, North Africa, Latin America, the Caribbean and other regions. The most interesting, from the point of view of EN countries, could be the Euro-Mediterranean Free Trade Area (EMFTA), as it applies to another group of EU neighbors. Creation of the EMFTA is a part of the Barcelona process – the process of cooperation and integration between the EU and the Mediterranean countries. The EMFTA does not exist yet – its creation should be completed by 2010. Currently, countries participating in the process have association agreements with the EU that define the mechanisms of completing the EMFTA.

Compared to other forms of cooperation and integration, an FTA is the weakest in terms of the depth and scope of institutional harmonisation. In the case of Mediterranean countries, Association agreements provide only for liberalization of trade in manufactured goods, but not in services or agriculture. Empirical estimates show that liberalization in agriculture in Euromed countries could bring between 0 and 0.5% of GDP (IARC, 2006). The small magnitude of the effect stems mainly from the expected shrinkage of the agricultural sector in Euromed countries, partly because of stronger competition from subsidized imports from the EU. As for the services sector, welfare gains from liberalization are estimated at approximately the same magnitude – at about 1% of GDP; yet, due to the effect on FDI and a stimulating effect on domestic reforms, services liberalization could bring benefits many times larger (up to 50% of GDP) (IARC, 2006). It was only recently that the EU and its Mediterranean partners started to advance the agenda of liberalization in agricultural products and services[4].

The depth of harmonisation envisaged by the Euromed Association agreements is also insignificant: unlike in the EU-Turkey customs union agreement, Euromed agreements do not have any requirements for adopting EU *acquis*, except for rules of origin. Also, provisions on state aid, competition and other horizontal issues have a declarative character. An advance on these issues is made in the Action Plans in the ENP framework, which, for example, set a clear agenda for harmonisation of product standards (through implementation by Euromed partners of the Agreement on Conformity Assessment and Acceptance of Industrial Products (ACAA)), and also contain quite detailed and concrete provisions on customs, state aid and competition policy.

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[4] See, for example, Euromed (2005).

The main conclusion that one may draw from the Mediterranean countries' experience is that gains from a simple FTA limited to liberalization of trade in goods are going to be limited, and EN partners should consider "enhanced" types of agreements. In particular, they could investigate the possibilities and possible effects of liberalization of trade in services and agriculture.

Conclusions on other countries experience

- Based on the review of some lessons from the existing arrangements, one can conclude that EN countries should opt for a wider integration agreement than just liberalization of trade in manufactured goods and consider other sectors.
- Harmonisation should be based on the realistic assessment of integration options, and not assumptions. It should also focus on achieving the interest of EN countries and not so much on the name and design of the integration model.
- Transposition of EU standards into national legislation does not give automatic market access; they also need to be effectively implemented.
- The sectoral approach could be attractive, as it offers flexibility; yet it also poses limits on integration.
- A customs union is stronger in promoting institutional harmonisation than an FTA, yet its drawbacks make it an unattractive option for EN countries.

1.3. Options for institutional harmonisation of EU Eastern Neighbors

The institutional harmonisation in the neighboring countries with the EU is going to be driven by the agenda of facilitating market access, especially in the goods sector, and integration in infrastructure sectors, notably energy and transport. Some integration is also likely in certain service sectors (first of all, financial and telecom services), and possibly, to a much smaller extent, in agriculture.

The absence of a membership prospective for the EU neighbors is likely to limit the degree of institutional harmonisation of these countries with the EU compared to that achieved in the case of accession. The impossibility of acceding to certain institutions and insufficient leverage are two broad reasons that will limit the degree and scope of integration and its effects. For example, neighbor countries will not be able to participate in EU institutions such as the Council and the European Commission (although some observatory status is perhaps possible). At the same time, it would be difficult for the EU to impose conditionality on these countries comparable to that it was able to apply to the accession countries. The promise of full integration in the EU

has legitimized the EU's demands on adoption of its norms and institutions by acceding countries. It is not going to be the case with the neighboring countries; rather, their integration with the EU will be selective in terms of coverage and will be based on mutual benefit in each particular field.

The current debate on the prospects of integration and cooperation between the EU and its Eastern neighbors falls within the framework of the European Neighborhood Policy (ENP). The ENP was developed in 2004 with the general objective of avoiding the emergence of new dividing lines between the enlarged EU and its neighbors. The ENP covers all of the EU's Eastern neighbors, except Russia, and ten Mediterranean countries. Russia refused to join the ENP, but develops its relationship with the EU through a Strategic Partnership covering four "common spaces".

The official economic objective of the ENP is to help the neighbors develop and modernize their economies by anchoring them to the European model of economic governance. The EU proposes doing so by creating enhanced FTAs and extending access to the EU internal market to its neighbors and undertaking deep integration in several sectors, first of all, energy and transport. The key promise of the ENP is that economic integration can go beyond free trade in goods and include "behind the border" issues: eliminating non-tariff barriers and progressively achieving comprehensive convergence in trade and regulatory areas such as technical norms and standards, sanitary and phytosanitary measures, rules of origin, customs procedures, and others.

ENP Action Plans have been the main instruments guiding the implementation of the ENP. The EU concluded them with all Eastern neighbors except Belarus, with which cooperation is limited due to the undemocratic regime in the country. In its recent communication on the ENP, the European Commission states that "over time, the implementation of the ENP Action Plans, particularly on regulatory areas, will prepare the ground for the conclusion of a new generation of deep and comprehensive Free Trade Agreements (FTA) with all ENP partners"[5]. These FTAs will cover a substantial part of trade in goods and services, including sectors important for ENP countries, and will include strong legally-binding provisions on trade and economic regulatory issues[6].

Action Plans for EU Eastern Neighbors envisage the following with regard to institutional harmonisation:

As the above summary of provisions demonstrates, the harmonisation agenda is quite wide in scope and encompasses all major horizontal policy areas. The depth of harmonisation, however, differs, with the highest demands for standards of industrial products, SPS and competition policy.

The second major route for neighbors' engagement is sectoral integration. The analysis of Action Plans suggests that transport and energy will see the deepest degree

[5] European Commission (2006), p. 4.
[6] Ibid.

Table 1.1. Key provisions on institutional harmonisation in the economic domain as defined in ENP Action Plans for EU Eastern Neighbors

Trade general	Exploration of possibilities for establishment of a free trade agreement
Horizontal issues:	
Customs	Harmonisation and simplification of customs legislation and procedures
Trade in EU harmonized areas	Adoption of European and international legislative and administrative practices for standards, technical regulations and conformity assessment in EU harmonized areas, especially in priority sectors of cooperation for both parties
Trade in EU non-harmonized areas	Elimination of discrimination in EU non-harmonized areas, increasing information exchange
SPS	Modernisation of SPS through: adoption of WTO requirements on SPS, gradual convergence with EU practices
Company law and establishment	Convergence and effective implementation of key principles of company law, accounting and auditing with international and EU rules and standards
Services	Gradual liberalisation of trade in selected service sectors
Movement of capital	Ensuring the free movement of capital related to direct investment
Movement of workers	Abolishing discrimination towards migrant workers as regards working conditions, remuneration or dismissal
Taxation	Developing the tax system in accordance with general EU and international principles
Competition policy	Convergence with EU principles on competition, in particular through establishing full transparency of state aid, increase in capacity and independence of competition authorities
Intellectual and industrial property rights (IPR)	Ensuring full conformity of IPR legislation with TRIPS and its effective enforcement; development of cooperation with EU law enforcement bodies in field of IPR
Public procurement	Ensuring compliance of the public procurement system with EU procurement legislation and principles, in particular transparency, information provision, access to legal recourse, and awareness, as well as limited use of exceptions
Statistics	Adoption of statistical methods fully compatible with European standards
Sectors:	
Transport	Approximation of legislative and regulatory frameworks with European and international standards, in particular for safety and security (all transport modes); co-operation in satellite navigation; conclusion of agreements on air services with the EU; development of the Pan-European Corridors and Areas
Energy	Energy policy convergence towards EU energy policy objectives; gradual convergence towards the principles of the EU internal electricity and gas markets
Information Society and media	Adoption of audiovisual legislation in full compliance with European standards with a view to future participation in international instruments of the Council of Europe in the field of media; approximate digital television and audio broadcasting to European standards
Environment	No exact requirements on convergence, but demands to ensure that conditions for good environmental governance are set and implemented; enhance co-operation on environmental issues
Science and technology, R&D	Encourage integration into the European Research Area and into Community R&D Framework Programs

of integration and harmonisation in the near future. EU neighbors can potentially go as far as full integration in the European energy and transport networks. Most importantly, there is a strong mutual interest in integration in these sectors: in particular, in the energy sector, integration would allow enhancing energy security for both the EU and its neighbors. The EU is also interested in integration in the aviation sector to gain better market access in the ENP countries[7], while the latter hope it will help upgrade the sector and attract investment in it. As in the case with market access of goods, the most important effect of integration in these sectors for the neighbor countries is going to be the stimulus for internal liberalization and reform of these sectors that the integration will demand.

The EU's partnership with Russia is developed within the framework of the "Common European Economic Space" that was agreed on at the Russian-European summit in May 2002. At the St.Petersburg Summit in May 2003, the EU and Russia decided to develop four common spaces: a common economic space; a common space for freedom, security and justice; a space for cooperation for external security; and a space for joint research and education. At the Moscow Summit in May 2005, a package of Road Maps was adopted that outline the actions necessary to implement the common spaces. The general provisions of the common economic space (CES) are similar to the provisions of the ENP Action Plans, but are put in different wording. The major difference is that it does not speak of Russia's adopting EU's *acquis*, but rather about "dialogue" and "approximation". So, the Road Map on the CES, is concerned with the creation of an "integrated market". As with ENP countries, the CES includes proposals on creation of common networks in several sectors: telecommunications, transport, energy, space and environment. Cooperation in the energy sector is likely to be a priority.

1.4. Proposed institutional harmonisation package for EU Eastern neighbors

Based on the provisions of the ENP documents, specifics of the EU Eastern neighbors and drawing on the lessons of other countries, we suggest that institutional harmonisation between the EU and its neighbors in the medium term will involve the following:

- FTA in industrial products, involving full harmonisation of product standards and regulation in EU harmonized areas and adoption of a Mutual Recognition agreement in non-harmonized areas;

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[7] The Action Plans, in particular, suggest possible joining by Ukraine, Moldova and Georgia of the European Joint Aviation Authorities. The EU has also concluded in March 2007 an aviation agreement with Russia that provides for elimination of Siberian overflight charges starting from 2013.

- Partial liberalization of trade in agricultural products (in sectors that are able to comply with EU SPS requirements);
- Partial liberalization of trade in services. The service sector in EN countries constitutes between 32% and 60% of GDP (Table 1.2), which means that liberalization in services trade can have strong economic effects.
- Integration in EU energy and transport networks.

Table 1.2. Composition of GDP, %, 2004

	Agriculture	Industry	Services
Armenia	25,4	39,1	35,6
Azerbaijan	13,5	54,3	32,2
Belarus	15,7	38,3	46,1
Georgia (2003)	20,5	25,5	54,1
Moldova	23,4	21,4	55,2
Russia (2003)	5,2	34,2	60,7
Ukraine	13,7	40,1	46,3

Source: http://www.europa.eu.int/comm/trade/issues/bilateral/datapdf.htm

2. Effects of institutional harmonisation

The experience of previous integration initiatives, both in the EU and in other parts of the world, could give insights into what to expect from institutional harmonisation in the EU neighboring states. This chapter starts with an overview of the theoretical underpinnings on the impact of institutional harmonisation on the performance of the economies, to which examples from empirical studies have been added. The focus of the analysis is on the effects for countries that import institutions, i.e. countries that integrate with the EU. The analysis begins with a description of benefits from institutional harmonisation and then turns to costs.

2.1. Benefits

There are different channels through which institutional harmonisation with the EU is going to benefit a country. The most important of them are:

- better market access
- increased investment
- increased competition
- reduced corruption

The ultimate result of all these effects is higher economic efficiency and welfare.

1) Improved market access

Institutional harmonisation, especially in the economic sphere, will improve the mutual market access between the EU and the partner country. This effect comes due to the reduction in non-tariff barriers as a result of harmonisation in economic regulations and standards. In the case of European integration this means harmonisation of the partner country's institutional settings with the requirements of the European internal market. These include product standards and regulations, competition and state aid policy, and other areas regulated by the EU's *acquis*. Once a partner country harmonizes these areas with EU requirements, its companies can freely sell goods in the EU market. To its turn, better market access brings efficiency gains that promote growth.

Lejour et al (2001) distinguishes two channels through which market access can have a positive effect on economic efficiency and growth. One channel is through better exploitation of comparative advantage, when better market access (through the removal of NTBs) leads to a change in relative prices and, therefore, makes prices more informative of real comparative advantages of countries, thus encouraging a more efficient trade pattern; this, in turn, leads to economic growth. The second effect works through the change in terms of trade for both partners due to the removal of the loss that the NTB generated (unlike tariffs, NTBs do not generate income to any parties involved and are a pure efficiency loss). According to estimations by Lejour et al (2001), improvement of access of CEE countries to the EU market leads to a 5-9% GDP welfare improvement in CEE. Maliszewska (2004) obtained a similar result – 3-7% GDP. There exist a range of other estimates of effects from better market access through the removal of NTBs, which are discussed in detail in Chapter 3.

2) Increased investment

The estimated efficiency and growth gains from the institutional harmonisation are going to be larger if one incorporates its dynamic effect, in particular, on investment. First, institutional harmonisation makes the environment in the partner country more familiar to investors. Secondly, as the quality of imported institutions will be better than of old domestic ones (as we assumed for ENP countries), the business environment will become more hospitable to investors. For example, a successful adoption of EU norms on property rights or competition is likely to substantially increase the attractiveness of ENP economies for investment. Thirdly, the effect of "tying hands", as discussed above, increases credibility and stability of government policies. All these effects result in the reduction of the risk premium and, thus, of interest rates. A lower risk premium will attract risk-averse investors and will also bring efficiency gains due to higher certainty. Furthermore, the reduction in interest rates will make investment more affordable. All these effects will stimulate capital accumulation and growth.

According to their estimates, CEE countries were going to gain between 1.5 and 18.8% depending on assumptions about the investment risk reduction (in a more optimistic scenario integration into the EU market led to a reduction of the risk premium in the CEE).

Baldwin et al (1997) estimated for the CEE that the effect from the reduced risk premium would increase the welfare gain from 1.5% (obtained due to the elimination of all trade barriers and adoption of a common external tariff) to 18.8% (this result is obtained under the assumption that the risk premium decreases by 15%). CEPS (2006, p. 72) estimates for Ukraine give about a 4-5% welfare improvement from the reduced cost of capital (CEPS estimates the fall in the risk premium at 17%).

3) Increased credibility of reforms and certainty in the economy

The credibility of reforms is a major condition necessary for their success. If economic agents do not believe the announced reform plans, they will not adjust their economic behavior accordingly, and thus, the reform will not have the desired effect. The credibility problem arises either when the government's policies are inconsistent or when the government's motives are unclear; when the anticipated political costs of the policies are high; and finally, when the macroeconomic environment is unstable (Rodrik, 1989, as cited in Piazolo, 1999). The literature suggests several strategies to deal with the credibility problem: to signal commitment, to change governmental incentives and to reduce the scope of governmental maneuvering.

Integration with a more advanced partner, such as the European Union, can help enhance the credibility of reforms. In particular, Piazolo (1999) argues that integration with an advanced partner such as the EU gives an opportunity to use all of the above mentioned strategies to improve credibility. First, commitment to integrate serves as a signal of a government that limits the scope of its maneuver, including deviation from reforms. Second, integration involves obligations that reduce the possibility of arbitrary changes of policies. Finally, integration may change the incentive structure of the government (i.e. when integration brings valuable benefits to the government), so that it becomes reluctant to deviate.

A similar argument is developed by Whalley (1996), namely that the objectives of the countries that seek regional integration are not limited to economic gains from trade, but also include a multiplicity of other goals, including securing irreversibility of reforms. For example, according to Whalley (1996), it was not so much market access, as the need to secure the irreversibility of reforms that was behind Mexico's negotiations of NAFTA.

Previous enlargements of the EU can provide insights on how these effects operate. In the process of accession of CEE countries, the Europe Agreements served as guides for implementing domestic reforms and advancing the integration agenda.

A failure to comply with them could substantially delay the integration process, which was regarded as very undesirable by the acceding countries. In such a way, the Europe Agreements served as a powerful reform catalyst and a disciplinarian device. The accession of Romania and Bulgaria confirms the very strong effect of accession to the EU on the credibility of domestic policies. In 2005, the EU began talking of postponement of accession of these countries, as they had not reformed sufficiently; the EU was especially concerned about the pervasive corruption. The fear of such a delay prompted the Bulgarian and Romanian governments to intensify their efforts.

4) Increased competition

Integration into the European market and the accompanying institutional harmonisation can spur competition in the economy. This effect lay at the core of the original idea of the EU common market. The positive effect on competition comes through trade liberalization, as a common market demands the removal of protective trade barriers and exposes companies to strong competition from other companies in the united market. Also, adoption of EU competition and state aid rules is going to have pro-competitive effects. Finally, integration and harmonisation with the EU can help the government overcome domestic protectionist pressures by referring to the need to comply with the demands of integration. Finally, competition promotes efficiency and growth (although there are still many unresolved questions in the empirical research on the effect of competition on growth[8]).

5) Reduction in corruption

Related to the concept of "tied hands" is another effect from harmonisation with the EU – reduction in corruption. The restrictions that harmonisation imposes leave less room for discretionary interpretation of rules and, thus, decrease opportunities for corruption. Moreover, increased competition due to freer trade reduces monopoly rents and, therefore, removes incentives for companies to bribe politicians. There are a large number of studies that show that corruption undermines the effectiveness of investment and slows down the long-term growth of an economy[9].

Concluding remarks on benefits

As the above overview suggests, the ultimate result of the work of the above effects is an increase in efficiency of resource use and, thus, in productivity and growth. Therefore, an additional boost to economic growth can serve as the main measure of the effect of institutional harmonisation.

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[8] See Aghion and Griffith (2005) for a good overview of different studies and an attempt to reconcile them.

[9] It has many other negative effects, such as aggravation of poverty and inequality (as it hurts the poor the most), reducing aid efficiency, threatening security etc.

2.2. Costs

Institutional harmonisation of neighbors with the EU may involve some costs. Harmonisation in the economic domain – adaptation of standards, policies and regulations – will require companies to make additional investments and the government to conduct a lot of work on harmonisation of legislation and its implementation.

The assessment of the costs of harmonisation is a very difficult exercise, both conceptually and technically. The major methodological difficulty lies, as with the assessment of benefits, in separating the effect of integration from the effect of the general reform and modernisation effort. Another difficulty is the definition of the cost. For example, whether expenses on improvement in product safety should be considered as a cost or as an investment Or whether compliance with higher environmental standards should be treated as a cost or as investment? From a long-term prospective, many expenses on improvement of product safety, environmental quality, administrative procedures and the like are not costs, but rather investments, as they lead to improvement of the economic environment and quality of life. Therefore, a more appropriate name for the "costs" would be "investment in the short run". These should be clearly separated from costs that emerge due to unproductive losses.

There were some attempts to estimate the costs of compliance in the CEE countries in the course of their accession to the EU. The cost of compliance in the agricultural sector was especially high. So, in Poland the cost of dairy sector adjustment were estimated at PLN 15.5 bn (EUR 3.7 bn) in 1999 (CEN, 2003, p. 126); the investment in the area of environment – at EUR 30.4 bn (Ibid p. 155)[10]. The total cost of compliance in the agricultural sector in Poland and Lithuania was estimated at 2-2.5% of GDP (CEPS, 2006, p. 89).

In order to help accession countries to make the adjustments, the EU provided a lot of institutional and financial help. In the case of neighbor countries, the amount of support is likely to be substantially lower. Therefore, in their harmonisation effort with the EU they should carefully calculate costs and weigh them against the expected benefits in order to shape and schedule their harmonisation effort accordingly.

Chapter 4 discusses the costs of institutional harmonisation and the ways to measure them in more detail.

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[10] At the same time, it is expected that by 2020 the accumulated benefits from improvement of environmental standards will accrue to EUR 41- 208 bn (mainly due to improved health of the population).

3. Note on quantifying the effects from institutional harmonisation

Measuring the effects of institutional harmonisation is a challenging task. The major methodological difficulty lies in separating the effects of institutional harmonisation from the effects of the general reform effort and modernisation that would take place anyway. To the best of our knowledge, there are no studies that suggest a methodology for disentangling these two effects. What the existing studies do is seperate the impact of the quality of institutions on growth in general. The most frequently applied method for measuring the effects of integration, including harmonisation of institutions, is the Computable-General Equilibrium (CGE) model. To assess the impact of institutional harmonisation institutional variables are translated into tariff equivalents.

Another methodological difficulty lies in the very broad spectrum of effects from institutional harmonisation, not all of which are easily measurable. Yet, as the overview of the effects in the previous section suggests, many of them do impact economic growth and welfare one way or another. Therefore, growth in welfare could be considered as a general indicator of the effect of institutional change.

The limited nature of neighbors' integration with the EU also poses some methodological challenges, as it means partial harmonisation. This necessitates making some assumptions as to the degree and the coverage of harmonisation. For the purposes of our analysis we assume that harmonisation will be the most advanced in the economic domain, which is, in fact, what the EU itself has announced, i.e. that economic integration will be the priority area of the ENP. The second major assumption concerns the degree and form of the integration – namely, that it is going to be the movement towards full market access in the majority of economic sectors. This assumption is also based on the already disclosed plans of the EU and its ENP partners.

In sum, for the purposes of measuring the effects of the institutional harmonisation of the Eastern neighbors with the EU, we will concentrate on the welfare and growth effects stemming from improved market access. The estimation of costs of harmonisation will be based on the same assumptions.

Chapter 2.
Possible problems with institutional harmonisation and the ways of overcoming them

By Vladimir Dubrovsky, CASE Ukraine

"Critically important, the same institution will operate differently in an open access order than in a limited access order. … Since institutions are made up of rules, behavior patterns, and shared beliefs, the same observable rules may have very different outcomes if the behavior and beliefs associated with them are different. … the fact that the same institution may work differently in a limited and open access social order provides a fundamental insight into the transition process."

(North et al., 2006).

At the beginning of the transition in the former Soviet block there was a widespread belief that "importing" of modern Western institutions (understood mostly as formal rules, organizational structures, and so forth) augmented with "capacity building" and extensive advisory aid would result in a well-functioning democracy and market economy. The record has been mixed so far. While the policies were mostly successful in the Eastern European aspirants for EU membership, the experience of CIS countries is less convincing. Very often, importation of foreign formal institutions did not produce the expected results and was even sometimes counter-productive. In this chapter we try to find out what is special about CIS countries that makes institutional harmonisation with Western models so difficult and what can be done to deal with these peculiarities, in particular, in the context of their relations with the EU.

2.1. Some theoretical underpinnings

A recent work by North et al (2005, 2006) provides a very insightful and convenient framework for analysing development in general and transition in

particular. We think this approach very clearly demonstrates the nature of the problems CIS countries face in their development.

According to North et al. (2005, 2006), all contemporary states can be classified into two fundamentally different groups. In the first one, a ruling coalition preserves its power through paternalism, namely granting various players rents in exchange for political support and abstaining from violence. This kind of social order is called a "limited access" one, since rents can only be generated and preserved through some limitations on entry. The second kind of social order is called "open access", because it is based on political and economic competition. Of course, in any real-world state both of these arrangements are present to a certain extent. What makes a difference is their balance. But, most importantly for our purposes, the same formal institutions may work differently depending on the fundamental balance between an "open access social order" and a "limited access social order" characteristic to a particular country. Therefore, the key question of effective (not only formal, but de-facto) institutional harmonisation becomes how to achieve the transition from a limited access to an open access order.

North et al. (2005, 2006) show that the limited access order has been the prevailing mode of social organization for thousands of years, and it was only in the 17th-18th centuries that open access societies began to emerge in Western Europe. The process was gradual, and economic and political opening went hand in hand. According to the authors, the key to transition has been the impersonalisation of exchanges among elites, which became possible due to the emergence of the rule of law for elites (so that elites respected obligations based on their allegiance to an organization). Other pre-conditions of transition involved perpetual forms of organizations for elites (i.e. emergence of an organization as a legal entity) and political control of the military. Once these preconditions are met, the success of transition depends on the existence of civil society (i.e. the number and variety of organizations) and is supported by competition in the economic domain.

Based on the North et al. classification, we can infer that EU Member States have an open access order, while CIS countries have strong elements of a limited access order (of course, with variation from one country to another). Therefore, the institutional harmonisation of Eastern neighbors with the EU, in fact, represents a transition from one order (limited access) to another (open access), and it is in this context that we will try to analyse the challenges and solutions for harmonisation.

2.2. Institutional and societal peculiarities of the CIS

Historically, the Russian Empire, the USSR, and later the CIS countries have managed to preserve a limited access order despite the importing and formal

implementation of modern European institutions. Specific institutional and societal arrangements that have emerged in the process of such an adjustment are remarkably persistent. They can potentially adjust other kinds of new institutions in a similar way that would de-facto preserve limited access despite formal changes, therefore making the reforms ineffective or fake. In this chapter we will briefly describe these phenomena that are, in our opinion, characteristic (although not necessarily unique) to the CIS countries, and can essentially affect institutional harmonisation

1. **"Soft" rule of law.** It means discretionary implementation of (often impracticable) legislation. There is an aphorism of the 19th century Russian historian Karamsin that has become a sort of proverb in the Russian Empire, and then in the USSR and succeeding countries: "the severity of the Russian laws is mitigated by their optional (i.e. discretionary) enforcement". As long as there are no means for punishing all of the breakers of impracticable legislation, it is enforced arbitrarily, at the discretion of a government official. Moreover, soft rule of law puts every person or firm that is subject to a certain law or regulation into discretion of that official, thus generating potential for rents. Yet, rich people or those with connections can reduce their "costs of compliance" by using their capital and ties, which only reinforces the limited nature of the social order. Soft rule of law, therefore, supports the limited-access order and its most prominent feature in CIS countries.

2. Limited access order is interconnected with a **weak civil society and generally low social capital.** As Putnam et al. (1993) pointed out, any kind of personal discretionary power tends to crowd out social capital, since it provides people with alternative ways of settling the issues. For example, people in Southern Italy while being used to patron-client relationships lack social capital, which prevents local democratic institutions from working as effectively as those in Northern Italy. Many kinds of modern institutions that are likely to be imported in the process of harmonisation imply civil mechanisms that are supposed to complement, support, or check the correspondent state institutes. For example, the policy of decentralization of governance is usually motivated with an assumption that the people can better control and scrutinize local authorities, thus decentralization should improve transparency. However, this is true only provided the social capital is high enough. In CIS countries it is not necessarily the case.

3. Yet another important societal peculiarity is a persistence of reputation-based interpersonal networks of reciprocal exchange with "favors of access" - **"blat" networks** that penetrated Soviet society (Ledeneva, 1998). They have emerged as an essentially informal institutional arrangement able to reduce the transaction costs of illegal (but still not illegitimate) exchange. Under the prevailing extortion such networks appear as a necessary defensive strategy that the people use to

protect their interests from *'vlast'* (discretionary administrative power). However, once emerged as a means for protection of contracts independent from the law, such networks may equally serve to circumvent any kind of legislation and to conduct any kind of unlawful deals. Therefore, they eventually undermine and crowd out the rule of law necessary for a market economy (Litwack, 1991).

Taken together, these interrelated phenomena cast serious doubts on whether the new rules imported in the process of institutional harmonisation with the EU can be implemented properly, work effectively, and not further help in maintaining a limited access order. In particular, while planning harmonisation initiatives, one should be aware that:

- the bureaucracy is far from being "Weberian". It is often unable to implement new restrictions in a proper way, while both the people and state officials possess (and inherited) vast experience in circumventing or ignoring excessively restrictive regulations;
- governments in CIS countries serve primary elites, not the population; correspondingly, they resist implementation of certain kinds of modern institutions;
- despite formal "openness", new entry and competition can be restricted in some informal ways, so the liberalization is partly or fully offset. Moreover, privileges can erode the effectiveness of formal restrictions;
- people may be unready to use the opportunities provided by the "open access" institutions – democracy and the market.

As a result, the attempts to impose new formal institutions may even sometimes have a perverse effect and help further solidify informal institutions of the limited access order, further weaken the rule of law and social capital, further corrupt the bureaucracy, and strengthen informal social arrangements for unlawful transactions.

2.3. Risks to harmonisation as demonstrated by previous experiences

Past experiences of introduction of Western institutions in the now CIS countries could be instructive of what to expect from institutional harmonisation with the EU. One of the major lessons from the past is that attempts at implementation of exogenously designed formal institutions may be counter-productive if they create or amplify the gap between formal and informal institutions. This happens, for instance, when the practices that were tolerated or even prized suddenly become persecuted; or some new rules and practices that have not grown up within the society suddenly get imposed; or previously punishable practices become legalized while still perceived by many people as illegitimate. Such attempts took place many times, of which we

take as examples the Petrovian reforms in the early 18th century in Russia; the Bolsheviks policies in the USSR in the 1920s; and the tax reform of 1997 in Ukraine, which has brought about complications that have been quite typical for CIS countries as a whole. In all of these cases the following problems were observed that have largely distorted, if not perverted, the outcomes of reforms.

1. Increase in inequality and privileges

As long as the gap between formal and informal institutions increases, large, powerful, and potentially dangerous groups create pressure to release them from the harshness of reforms, and very often succeed. Such a fragmentation often provides them with rents. This corresponds to the logic of a limited access order that has to buy political support for rents. But it means that from the viewpoint of transformation to an open access order such institutional changes can be rather counterproductive.

For example, in 1996 the package of "European-like" tax legislation was prepared in Ukraine under the supervision and with vast technical assistance from international organizations. The drafted laws seemingly met modern Western standards and were designed in a way that should facilitate further harmonisation with EU standards. In 1997 the package was broken down, but most of the laws were eventually adopted, although with numerous substantial amendments. Already at the stage of draft bills they were pierced with hundreds of corrections mostly providing for various privileges, which made them worse than the pre-reform legislation. Later on, permanent manipulation with privileges and attempts to open (and later on, fix) the tax loopholes (all together constituting hundreds of amendments per year!) have made this legislation terribly unstable. Even in 2004, seven years after, there were more than 30 corrections of tax legislation within a single year (IFC, 2005). Such instability became an additional and, in many cases, the most cumbersome business impediment in Ukraine for many years. Later, huge privileges were also granted to some industries and territories (in the latter case – with a reference, above all, to the alleged European experience). As of 2006, the system of taxation remained highly unstable and primarily confiscatory, since tax authorities have to fulfill the plan on tax collection, and the most important taxes are subject to negotiations (as admitted in public by top officials). Their unequal enforcement is one of the most powerful tools for the limitation of access. Meanwhile, tax administration remains the top impediment to business development, while tax rates (still quite high) are usually rated as the major impediment to business, after business regulation (IFC, 2005; GCR 2000-2006).,

2. Overall deterioration in enforcement and implementation of the law, increase in corruption

The gap between formal and informal arrangements is filled with discretion and corruption, respectively. They corrode overall respect for the law and tend to be widespread throughout society, thereby hindering the effectiveness of the law in other spheres too. The social order before the reforms could be well adapted to poor law enforcement and a lack of formal regulation. Reforms may destroy the respective adaptive mechanisms, while being unable to replace them with any viable alternative instead.

For example, right after his coming to power in 1696, the young and ambitious Tsar Peter I (later called The Great), after being inspired by the example of the Netherlands initiated an attempt at modernizing the patrimonial state of Muscovite Rus'. Although these reforms were mostly successful, they were not, in fact, concise enough to build an open-access order (and actually were not aimed at this). They were primarily aimed at establishing genuine bureaucratic rule, which they failed to do, as well as in setting up the rule of law for elites. Despite formal reform, patrimonial practices persisted in the form of rampant corruption and nepotism. Volkov (2000) argues that, in a way, they have increased (or even begot) the corruption in Russia. On the one hand, previously well-established practices, such as giving gifts to bosses, have suddenly became qualified as corrupt, and respectively condemned. Quite loose and innumerous laws that have emerged in the pre-reform society were previously respected, but the new laws have not been respected.

Figure 2.1. Tax arrears in Ukraine in 1995-2001
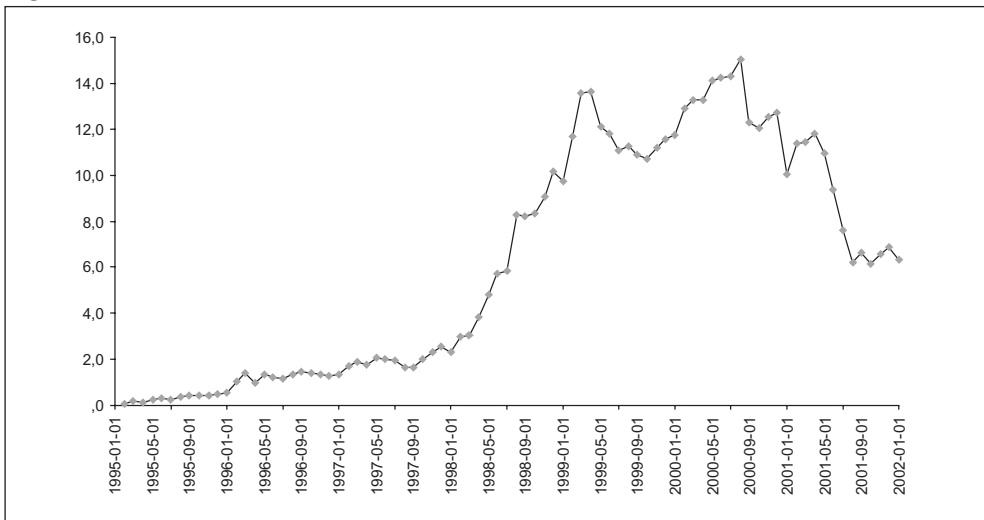
Source: World Bank.

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[11] They were successfully eliminated in 2001, but the other deficiencies largely remain.

For the same reason, tax reform in Ukraine failed to improve tax collection. From the very beginning it failed to abolish the soft budget constrains for enterprises[11]. Tax arrears that were previously substantial, skyrocketed right after the new laws entered into effect from January, 1998 (Figure 2.1).

According to enterprise survey data, in approximately half of cases, the tax authorities tried to misinterpret the law (IFC, 2005). Also, according to recent business surveys, the tax administration is rated first in corruption (BIZPRO, 2005b).

Further solidification of inefficient informal institutions

The gap between formal and informal arrangements, if it persists, can become a ground for vested interests associated with informal but powerful structures benefiting from the very existence of this gap. For example, this can refer to corrupted officials abusing their discretionary power for political purposes, privileged ("crony") businesses, and so forth. Such interests can successfully prevent the gap from closing, or even widen it further. If the gap becomes too wide, it may lead to an "institutional trap" (Polterovich, 2001): reforms that are too harsh and restrictive can create a self-propelling institutional gap. The opposite case (actually analyzed by Polterovich) can also take place, although this seems to be much less likely: too rapid liberalization can potentially create such large windfall rents from arbitrage that respective players are able to monopolize the markets and "capture" the state in order to protect this monopoly.

For example, in the more than two centuries since the Petrovian reforms, the Bolsheviks have further worsened the situation by implementing their artificially designed institutional arrangements. They have attempted to impose artificially designed formal institutions, including strict bans for private property, entrepreneurship, and market exchange. This attempt was doomed from the very beginning due to the coordination failure inherent to pure central planning, and even more due to the failure in setting production incentives under an ideologically pure communism. While facing a real economic collapse the Bolsheviks had to sacrifice ideological dogmas and allow small business and private land ownership. Later, even when these policies were mostly reversed, the market practices persisted and even became essential due to their decisive role in compensating the numerous failures of central planning (Smith and Swain, 1999). They took, however, a specific form of barter exchange with "favors of access" to different kinds of discretionary opportunities provided by the positions of the member of the social network within the Soviet system (Ledeneva, 1998). Goods and services in short supply; career promotions; entering the universities; release from various official and semi-official duties, up to military service, and many other favors were widely traded within so called *blat* reputation-based networks of interpersonal exchange. By open-access order standards, this would be called corruption.

These networks of favors have survived the crash of the Soviet system and nowadays substantially hamper establishment of the new, "open-access" institutions (as predicted by Litwack, 1991, and described by Ledeneva, 2000). In particular, those who used to have preferential access to influential or well-informed officials in the Ukrainian tax authorities have largely benefited from the instability and unpredictability of tax legislation, because they suffered much less than their competitors not involved in respective networks.

Yet another closely related example is anti-corruption policies aimed at increasing the risk of being punished in cases of corruption. Given that under the "soft" rule of law the legislation is very often difficult to implement, and therefore corruption is a normal practice, catching and jailing of selected scapegoats does not, in fact, significantly reduce the overall level of corruption. However, as long as enforcement remains selective, the anti-corruption persecution is used mostly as a tool in the political, bureaucratic or business wars against rivals, not necessarily the most corrupted persons. Their punishment is respectively (and for the most part fairly) perceived as a result of their bad luck or inability to concord with those in power, rather than as fair consequence of their corrupt behavior[12]. On the other hand, the increasing risk of corrupted deals further solidifies the networks of favors, both at the nexus between business and bureaucracy (reputation is needed to give a bribe, otherwise the bribe-taker risks too much), and within the bureaucracy (in order to protect her/himself from being selected as a scapegoat, a corrupted bureaucrat has to establish and maintain good connections with upper authorities and law enforcement officers). Both effects, in turn, lead to further limitation of access through increased barriers of entry due to higher bribe taxes and direct obstacles for those who are less involved in networks of favors.

These risks, as exemplified by past experiences, should be taken into consideration in the course of elaboration of EU policies towards its Eastern neighbors. Now we turn to analysis of what problems the harmonisation efforts with the EU can meet (or already do) in CIS countries.

2.4. Challenges to institutional harmonisation with the EU

Customs

Harmonisation and simplification of customs legislation and procedures is one of the key items on the agenda of EU relations with its neighbors. The ENP Progress

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[12] For example, Farhad Aliyev, the Minister of the Economic Development of Azerbaijan, was displaced and arrested in October 2005 for allegedly plotting a coup. In fact, this was caused by an internal struggle within the administrative powers. However, soon the initial allegation failed, and it was immediately replaced with the criminal prosecution on corruption.

Report on Ukraine (European Commission, 2006b), for example, reports many measures that were taken to this end, including implementation of the concept of a "single window" at the borders, harmonisation of customs valuation rules with WTO standards, introduction of electronic customs declarations etc. Nonetheless, according to World Bank Enterprise Survey data, the customs procedures still pose a major impediment to trade. Specifically, the average time to clear direct exports through customs has increased by more than 21% from 2002 to 2005; and average time to claim imports from customs has increased by as much as 46%. As a result, the percentage of firms that trade directly has shrunk by almost 30%. From anecdotal evidence we can suggest that these complications were attributed to the queues at the "single windows", red tape, and more rigorous implementation of complicated and cumbersome (but arguably justified) procedures stipulated by the current legislation.

Trade in goods

In the area of trade in goods, harmonisation with the EU implies adoption of European and international legislative and administrative practices for standards, technical regulations and conformity assessment in EU harmonized areas, as well as gradual removal of non-tariff barriers. But at least in some cases these measures are offset, sometimes in a creative way. For example, after long and hard negotiations the Ukrainian parliament had to lift the ban for importing of cars older than eight years, as required for WTO accession. However, it simultaneously introduced a special fee for the first registration of such cars. The level of the fee was set at a prohibitive level, i.e. making importation of old cars not profitable. Sometimes such new restrictions may become even more cumbersome and irremovable than the initial ones.

The area of product certification should be treated with caution. The European approach is that mandatory certification is demanded only for safety reasons, while the rest of goods and services are certified on a voluntary basis or not certified at all. On the contrary, the Soviet approach (often still inherited by the CIS countries) required all of goods to be certified – merely because there was no other way to control their quality, since market competition was absent. While it is necessary to dispose of the remnants of mandatory certification of quality, this could aggravate the problem of information asymmetry. For this reason, mandatory certification should be necessarily replaced with mandatory requirements on the information disclosure. Besides, it would be recommended that governments in some way facilitate both the producers' access to voluntary certification, and the consumer associations' work on independent evaluation of goods and services. For instance, assistance may need to be provided to the respective civil organizations in order to help them in building capacity for independent quality control.

Regulatory policy

In order to improve the transparency of regulation, the Law on the State Regulatory System of Ukraine was adopted in 2003. Yet, the "soft" enforcement of the law makes it irrelevant. The law is, in fact, ignored, as most by-law drafts are still not being published before their adoption, as required by this law. The modern Law of Ukraine on the licensing system of 2005 that abolished all kinds of additional licensing requirements set up by the local authorities is also largely ignored. In a way, both cases can be treated as a sort of selective enforcement in respect to the lower level officials responsible for their implementation. Both cases have contributed to the preservation of an important, although informal way, of discrimination against foreign investors. Domestic firms are used to overcoming problems such as opaqueness, ambiguity and unpredictability of legislation, as well as its excessive complication, red tape, and so forth, by the means of petty corruption. Respectively, the barriers of this kind are known in effect to be discriminating against foreign investors, which are less prone to corruption and less involved in the informal networks that facilitate corrupted transactions and thereby reduce the bribe tax for their members.

Company law and establishment

In the realm of company law and establishment, harmonisation with EU norms envisages convergence and effective implementation of key principles on company law, accounting and auditing with international and EU rules and standards. In the meantime, the acting Ukrainian company law already requires mandatory disclosure of the company's information. But many firms currently refuse to submit their annual reports for disclosure, as stipulated by the acting law. For instance[13], only 22% of all joint stock companies (and 64% of the open joint stock companies)[14] submitted their statements to the respective supervisory government body in 2004 (the later data not available). This may be attributed to their desire to cover the true indicators that are manipulated or concealed from confiscatory taxation. On the other hand, international accounting standards are neither fully implemented, nor enforced, and significantly differ from those of tax accounting. According to some claims, state officials are interested in maintaining the opaqueness of accounting, because it allows for manipulations with statistical data, and even puts pressure on firms with the goal of forcing them to submit manipulated reports.

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[13] According to the data of the State Commission on Securities and the Stock Market, http://www.ssmsc.gov.ua/8/9/

[14] These numbers may be overestimated. They are calculated on the basis of the total number of reports received by the State Commission on Securities and the Stock Market, which also includes issuers of securities other than shares. Not all of them are joint stock companies.

2.5. Recommendations

Based on theoretical provisions and the overview of the experiences of CIS countries from various harmonisation initiatives, we have the following recommendations for the harmonisation of institutions of CIS countries with those of the EU:

1. Encouraging economic and political competition is the key to stimulating the transition to an open access order. On the political side, this may involve facilitating the development of civil society and encouraging free and fair elections (something the EU is already doing). On the economic side, the measures may involve exposure to international competition and encouragement of internal competition. In this context, the EU's encouragement regarding WTO accession (for example, in relation to Russia and Ukraine) as a precondition for further development of economic relations is a good policy, as it stimulates opening of the economy and, thus, promotes competition.

2. Abrupt changes in institutions should be avoided, as this will most likely lead to the emergence of a gap between formal and informal institutions, which may exacerbate many existing problems, including corruption and soft rule of law. Rather, harmonisation needs to be gradual, starting with things that are acceptable by the existing order. If harmonisation is not sufficiently supported by respective political players, it can be offset with some countermeasures or be implemented selectively. Thus, if the introduction of a particular institution is likely to create too many victims, then it is sometimes better to refuse its implementation or postpone it for awhile. However, in order to avoid the partial reform trap (Hellman, 1998) while adopting the gradual approach, one needs to make sure that state institutions are able to credibly commit to obeying a schedule of gradual liberalization despite possible political pressure.

3. Begin with harmonisation of organizations, and proceed to laws and regulations later. The way in which a bureaucracy and law enforcement operates should be given a priority against the particular regulations that they are supposed to implement and enforce. In particular, the government bodies in charge of business regulation should adapt to the implementation of rules concerning the disclosure of information; those managing the agricultural sector – to the European sanitary and phyto-sanitary measures; the same goes for regulators on the capital markets, certification agencies, and so forth.

4. To the extent possible, eliminate all sources of opaqueness, opportunities for personal discretion, complications, and other potential corruption vulnerabilities from the proposed legislation – even at the expense of its flexibility and other theoretically desirable features.

5. Make sure that the remaining discretionary opportunities are well checked with transparency and responsibility. Be aware that the latter would be subject to strong pressure, and often will not be obeyed at all. So, the respective checks and civil society control should be developed simultaneously.

6. Make a realistic assessment (through a field investigation, for instance) whether a regulation can be effectively and evenly enforced, in order to make sure that it will not become subject to discretionary enforcement. It seems likely, a priori, that some restrictions, like information disclosure requirements for firms, veterinary, phytosanitary and many other norms in agriculture, environmental regulations, protection of personal data and intellectual property rights, and some other kinds of norms imposed in the process of institutional harmonisation may become subject to selective implementation.

Conclusion

Importation of European formal institutions by CIS countries can face a range of challenges due to peculiarities in the existing institutional setup of these countries. This set up can be characterized as a "limited access order", in which economic and political competition is limited, giving room for rent-seeking and corruption. Examples of previous attempts to introduce modern Western institutions show the limitations of harmonisation. The key recommendations for increasing the chances of success in harmonisation with the EU include: facilitating enhanced competition, both economic and political; enhancing the capacity of civil society institutions; gradualism; reforming institutes first; reduction in the possibilities for discretion; ensuring transparency of the rules; making sure the new regulations can be implemented evenly. More generally, the focus should be not on the transfer of formal institutions, but on the transfer of basic principles (competition and rule of law) adapted to local conditions; the transfer of formal norms should be subordinate to this task, or at least should not contradict it.

Chapter 3.
Measuring non-tariff barriers and their impact on the economy

By Iryna Orlova (CASE Ukraine) and Svitlana Taran (CASE Ukraine)

Introduction

As was discussed in Chapter 1, better market access will be one of the major benefits of institutional harmonisation between the EU and its neighbors and is likely to bring welfare gains. Removal of non-tariff barriers[15] (NTBs) to trade is key to getting better market access.

This chapter is devoted to the discussion of methodologies to measure NTBs and results of their application. It contains a review of the studies on measuring NTBs and their economic impact for the ENP countries, including the sources of data they use. Also, as a benchmark of possible effects of better market access between the EU and its neighbors, we use the experience of integration of Central and Eastern European Countries (CEECs) into the EU internal market in the process of enlargement. ENP countries start from a similar position as CEE countries when they began integration with the EU. Also, ENP countries will have to follow a route similar to that of the CEECs on their way to the EU market, although on a lesser scale due to the limited nature of their integration with the EU.

The analysis in this chapter will serve as a basis for elaboration of a CGE model for measurement benefits from institutional harmonisation between the EU and CIS, in particular, incorporating the effects of the removal of NTBs in the model.

3.1. NTBs in intra- and extra-EU trade: magnitudes and methods of measurement

Further integration of the ENP countries with the EU can affect the economies of both the ENP countries and the EU in several ways: via trade, FDI, domestic

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[15] Non-tariff barriers to trade are restrictions to imports that are not in the usual form of a tariff.

investment, etc. These effects work through at least three major channels: first, the elimination (or at least reduction) of administrative barriers, such as reduced costs of passing customs at the frontier; second is mitigation of risks and uncertainties, which form substantial impediments to trade, for example, instability of the business environment; third is the reduction in technical barriers to trade (TBTs). The single market reduces TBTs by means of mutual recognition of different technical regulations, minimum safety requirements and harmonisation of rules and regulations.

3.1.1. Methods for quantifying NTBs

Earlier studies (e.g. Baldwin et al., 1997; Keuschnigg and Kohler, 2002) admit that quantifying the accession to the internal market is not an easy task. The complexity of single market access makes it impossible to model it explicitly in a general equilibrium model. The standard solution used by these authors is to model single market access crudely as a reduction in the real cost of trade. So, the authors did not attempt to actually measure NTBs and thus quantify their impact, but simply made assumptions on trade cost reductions. Thus, Baldwin et al. (1997) assume this to be equivalent to a 10% reduction in real cost of all CEEC-EU trade, whereas Keuschnigg and Kohler (2002) argue that a trade cost reduction of 5% is appropriate. As Nahuis (2004) notices, these approaches have some obvious limitations. First, any such number is arbitrary. Second, the number is identical for all countries. Third, the number is identical for all industries. Again, Nahuis (2004) in his work shows that the impact of the internal market accession is markedly different across industries and countries. Taking into account the above mentioned limitations, alternative methods of measuring NTBs have been recently developed.

This recent, yet small but growing literature, is estimating NTB equivalents based the following three methods of measurement. First, *frequency-type measures* can be constructed using databases on trade control measures such as the UNCTAD database (it is commodity/sector and country specific) or using special surveys on how trading firms perceive or experience NTBs. Based on such data, frequency or import coverage ratios are developed[16]. These ratios are subsequently used to calculate tariff equivalents. Second, *price-comparison measures*, where estimates of NTBs are derived based on differences between domestic and foreign prices[17]. Since the price impact is

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[16] The frequencies are calculated for commodity categories that were subject to some identifiable NTB in a specific year. The number of product categories subject to NTBs is then expressed as a percentage of the total number of product categories in each commodity group. This is referred to as the frequency ratio. The import coverage ratios are calculated by determining the value of imports of each product subject to NTBs, aggregating by applicable commodity group, and expressing the value of imports covered as a percentage of total imports in the corresponding commodity group.

[17] Provided the data on prices is available.

a general property of NTBs, such a price comparison can pick up the net effects of all NTBs that are present in a market. Percentage differences between the prices are calculated, comparable to tariffs, which are commonly referred to as tariff equivalents. However, the drawback to such a method is the impossibility of identifying what NTBs are the sources of price differences. A quantity measure would be preferable to a price measure. Thus, we move to the third method - *quantity-impact measures*. The objective here is to estimate what trade would have occurred in the absence of NTBs and to compare it with actual trade. This method involves the estimation of econometric models of trade determination based on: the theoretical models of Heckscher-Ohlin (trade based on comparative advantage), Helpman-Krugman (trade based on product differentiation) or the estimation of gravity models of international trade. All of these approaches measure NTBs using either residuals from the estimated regressions as representing NTBs or various dummy variables. Besides these three general methods of measurement mentioned above there are also *special purpose methods*[18], extensively described in the study of Deardorff and Stern (1998).

Deardorff and Stern (1998) provide a thorough survey of currently available methods for quantifying NTBs. Another, more recent paper, by Anderson and Wincoop (2004) surveys the measurements of trade costs, including non-tariff barriers. They provide information, *inter alia*, on public sources of barriers to trade. Namely, the authors build on UNCTAD's Trade Analysis and Information System (TRAINS), which contains information on trade control measures (including non-tariff measures) for a maximum of 137 countries beginning in the late 1980s. The TRAINS database records the presence or absence of a non-tariff barrier on each 6 digit line. Many differing types of NTBs are recorded in TRAINS (a total of 18 types).

3.1.2. Studies on CEECs using a frequency-type method

A range of studies look at the issue of border effects[19] in the enlarged EU economic space in the context of technical barriers to trade (e.g. Brenton and Vancauteren, 2001; Chen, 2004). However, evidence on CEECs is still quite scarce.

Thus, Manchin and Pinna (2003) try to see whether some differences could be observed in the importance of border effects in trade in products with different magnitudes of technical barriers. They examine bilateral trade flows in the CEECs using data for the period 1992-1998 between a sample of accession countries (Cyrpus,

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[18] Special purpose methods include: (1) elasticity estimation; (2) determinants of variations in elasticity estimates; (3) variations in effects of NTBs over time; (4) binding of NTBs; (5) risk characteristics of NTBs.

[19] Exchanges between economic actors are normally found to cost more if they cross any kind of administrative borders. The difference in the costs involved in moving products within a country or between countries is part of the underlying nature of the border effect.

Bulgaria, Hungary, Latvia and Poland) and the EU. Manchin and Pinna (2003) use the same Commission's review of the impact of the Single Market in the EU as Vancauteren and Weiserbs (2003). They group products by the approach adopted by the EU to remove technical barriers: the old approach, other approach (including mutual recognition, new approach), and mixed approach (includes products where the old approach and other approach are applicable). They find that border effects are the largest for old approach products, where they expect to have the most significant technical barriers to trade due to complicated harmonisation procedures. Their countries of interest would trade with themselves 114 times more in old approach products, while only 25 times more in other approach products. However, the authors notice that the estimated border effects seem to be too large to be consistent only with the presence of trade barriers.

Another recent study, Chevassus-Lozza et al. (2005) aims to assess the role of NTBs for new member states' exports but only in the agri-food sector. The authors divide NTBs into three categories (sanitary and phytosanitary measures, quality measures, and import certificates) and include them in their gravity model. They analyze eight new member states: Poland, Estonia, Latvia, Lithuania, Czech Republic, Slovakia, Hungary, and Slovenia in a cross-section design (1999 and 2003) to compare the dynamics of the role of various trade barriers and thus answer the question on the changing role of NTBs over time. The data on NTBs is taken from the French Customs source[20] that hosts the electronic version of EU border regulations. This website contains notes on the official sources and the regulations are available in detail. The authors include three dummy variables representing NTBs: sanitary and phytosanitary measures (SPS), quality and import certificates. They find that in 1999 these three NTBs indeed represented serious obstacles to trade. In 2003 their role had diminished, most notably for SPS and quality. The change in the size of their coefficients between 1999 and 2003 (the coefficient for SPS changed from -0.63 to -0.25; quality: from -0.31 to -0.07) can be interpreted as an indication of the progress made by these countries in implementing the *acquis communautaire* in the pre-accession period.

3.1.3. Studies on CIS using frequency-type data

In the case of CIS countries, the availability of NTB datasets and empirical evidence on their impact on trade flows between CIS countries and the EU is very limited. In most cases the existing international datasets contain rather outdated, or incomplete (in terms of country coverage) or highly aggregated data on NTBs for CIS countries. For example, CIS countries are on the list of country coverage of the

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[20] www.douane.gouv.fr

aforementioned UNCTAD Trade Analysis and Information System (TRAINS) but the latest NTB data are of 1997 for most of these counties. Such a situation with NTB data availability and quality has a negative impact on the precision of the research results.

Notwithstanding the above, the data from UNCTAD's TRAINS have been frequently used by researchers and policy makers in their studies on NTBs' role in world trade, including CIS countries. The most recent among them is the study by the World Bank Development Economics Research Group (Kee, Nicita and Olerreaga, 2006) that provides estimates for three measures of trade protection in the form of tariff equivalents – trade restrictiveness indices. These measures include: (i) trade restrictiveness index (TRI), which is an indicator of a country's trade protection that measures trade distortions (or domestic inefficiencies) of a country's trade policies imposed on itself (ii) overall trade restrictiveness index (OTRI), which reflects the restrictiveness of a country's trade policy imposed on its importers (import losses), and (iii) market access overall trade restrictiveness index (MA-OTRI), which captures the effect of trade barriers of other countries imposed on exports of each separate country.

Ad-valorem equivalents were estimated for certain NTBs[21], agricultural domestic support for each 6-digit HS category and for 104 countries. Data on core NTBs was obtained from UNCTAD's TRAINS database, whereas data on agricultural support – was taken from WTO members' notifications (previously constructed by Hoekman, Ng and Olearreaga, 2004). Final estimates of this several-stage study, in particular (i) import demand elasticities; (ii) ad-valorem equivalents of core NTBs and agricultural domestic support (in percentage form), and (iii) trade restrictiveness indices[22] (computed for broad aggregates: overall trade, agriculture and manufacturing) can be freely accessed through the World Bank trade website.

Obtained results allowed authors to make the following conclusions on trade barriers across countries: (i) NTBs make a significant contribution to world protection - on average, adding an additional 70% to the level of trade restrictiveness imposed by tariffs (the importance of NTBs is observed to be stronger in developed countries); (ii) poor countries tend to have more restrictive trade regimes and, at the same time, higher trade barriers on their exports; (iii) trade restrictiveness is generally higher in agriculture (in import markets), and agricultural exporters usually face higher trade barriers on export markets.

These general findings have relevance to CIS countries covered by the study (Belarus, Kazakhstan, Moldova, Russian Federation, Ukraine) as well. For instance, market access overall trade restrictiveness index (MA-OTRI) for Ukrainian exporters in the world

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[21] The following NTB measures were included: price and quantity control measures, technical regulations, and monopolistic measures.

[22] As well as additional indicators: dead weight losses due to the existing trade restrictiveness (TRI), import losses due to overall trade restrictiveness (OTRI).

markets equals on average 15.2%, while this index goes up to 49.2% for Ukrainian agricultural producers and goes down to 11.4% for its manufacturing producers. For the purpose of comparison, the respective estimates for Russian exporters are as follows: 12.2%, 46.7% and 9.7%, while exporters from the EU encounter on average trade restrictiveness measures of the similar magnitude 15.1%, 34.3% and 12.2% (see Table 3.1). In regard to trade barriers imposed by CIS countries on their imports, the authors estimated that Moldova maintains one of the most liberal trade regimes, other countries reveal almost the same level of tariff restrictiveness. Still, Ukraine's protection of its agricultural markets is the highest among the countries considered.

Table 3.1. Trade Restrictiveness Indices of CIS countries (Kee, Nicita and Olerreaga, 2006)

	Ukraine	Russian Federation	Moldova	Belarus	Kazakhstan
Market Access Overall Trade Restrictiveness Index (MA-OTRI), %					
Overall	15.2	12.2	25.9	15.4	15.3
Agriculture	49.2	46.7	43.3	33.8	62.4
Manufacturing	11.4	9.7	18	14.7	11.2
Overall Trade Restrictiveness Index (OTRI), %					
Overall	21.6	22.6	7.4	15.9	14.0
Agriculture	46.4	33.4	16.8	31.2	32.9
Manufacturing	18.4	20.4	5.7	13.7	11.7

Notes: MA-OTRI is estimated using tariff data of 2005-2006 (taking into account tariff preferences) and ad-valorem equivalents of NTBs (1997- for CIS countries). It measures the restrictiveness of other countries' trade policies on the export bundle of each country.
OTRI is estimated using tariff data (2005-2006) and ad-valorem equivalents of NTBs (1997- for CIS countries). It measures the restrictiveness of a country's own trade policies.

To the best of our knowledge, the most complete NTB database in terms of different types of NTBs and time coverage developed for Ukraine is the one constructed by Veronika Movchan, following the UNCTAD's TRAINS methodology. In particular, this dataset reports the presence or absence of a non-tariff barrier in each HS 6-digit tariff line over from 1993 up to the present. A broad pool of NTBs applied to imports in Ukraine has been taken into account for the construction of this database, including core NTBs but not only them (see the full list of NTBs in Appendix B). Such a complete NTB database makes it possible to compute various types of intensity indices of NTBs - in the form of simple frequency or import-weighted (import coverage) ratios.

Besides, an augmented weighted index of NTBs has been computed (Movchan, 2003). As the author states, this index allows differentiating intensity of various types of the NTBs and aggregating them into one measure[23]. Having considered NTBs

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[23] According to Movchan (2003), the augmented weighted index of NTBs is a "compound additive index that incorporates a spectrum of non-tariff barriers applied in the country weighted on the value of imports. It applies the changeable indicator of the non-tariff protection for each type of the NTB what allows preserving positive characteristics of frequency measures like transparency and universality, at the same time adding flexibility and better representation of reality".

applied in Ukraine between 1994 and 2001 the author concluded: (i) in the period studied, the aggregate intensity of non-tariff protection increased by almost 97% with a peak in 1999-2000 and gradual reduction afterwards, (ii) evolution of different types of non-tariff protection revealed that core NTBs, which have the most harmful influence on trade, had been gradually declining as of 1998 for most commodities, while on the contrary, the role of technical barriers[24] had been steadily increasing; (iii) food products were the most heavily affected by NTBs (Movchan, 2003).

Later, these findings were further developed. For example, the augmented weighted index of core NTBs (quotas, licenses, excise charges, anti-dumping measures, and minimum custom value) applied to imports in Ukraine over 1999-2004, was computed and used in Pindyuk (2006). NTB index calculations used in this study suggest that agriculture, food and agricultural processing, fishing, extraction of coal have been the most protected sectors in Ukraine in terms of considered NTBs over the reported period (see Table 3.2). The NTB indices for these sectors even increased by the end of the respective period, while protection of most of the other sectors has been gradually declining.

In the World Bank's "Ukraine Trade Policy Study" (World Bank, 2004) frequency indices were calculated for the longer period - between 1993 and 2004, better revealing the dynamics of the development of a system of non-tariff barriers in Ukraine. According to it, during the period considered, the simple frequency index calculated for 17 non-tariff measures including core and technical regulations measures[25] more than doubled by increasing from 7.2 to 17.5 percent, whereas the import coverage index rose ten times from 1993 to 2004. There was a considerable escalation of the number of applied safety control measures and compulsory standards certification during this period, which have become the major component of the NTB index of Ukraine. In 2001-2002 the NTB frequency index slightly declined due to the elimination of minimum custom value regulations and easing state procurement regulations, but in 2002-2004 it grew up again stipulated by extension of the list of compulsory certification and introduction of new risk-control measures by the Custom Service of Ukraine[26]. The author concludes that Ukraine seems to be rather liberal in terms of the frequency with which official *core* NTBs are applied, when compared with OECD countries; it is then mentioned that informal NTBs can also play a substantial role in transition countries such as Ukraine. Therefore, business surveys investigating effective trade barriers and the business climate in the country are of great importance for getting a full picture of reality with regard to the economic impact of NTBs.

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[24] They include safety standards and ecological control, compulsory standards certification, and permits for medicine imports.

[25] See Appendix for their list.

[26] World Bank (2004), pp. 48-49.

3.1.4. Special surveys

Another type of frequency-type measures are based on special surveys.

One recent survey was conducted for five Western Balkan countries (Frohlich, 2005), for which the prospect of EU membership was confirmed during the Thessaloniki summit in June 2003 (Albania; Bosnia and Herzegovina; Croatia; the Former Yugoslav Republic of Macedonia; Serbia and Montenegro). Overall, 2,166 companies from all five countries took part in the survey. Regarding NTBs, companies were asked to rank various barriers in accordance with their importance. Technical standards and certification received the highest score, followed by quality control and consumer protection. Customs procedures were third, followed by access to final end users. Bureaucratic company registration seems to be relatively less important, taking the last – fifth place. However, it should be noted that the difference in average grades given to various NTBs is not very high: on the four-point scale the highest rank (technical standards, certification) on average stands at 3.8, while the lowest (bureaucratic company registration) – at 2.9.

Another survey, which served as a basis for the mentioned above Western Balkan survey, was conducted for 10 EU candidate countries of Central and Eastern Europe (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia) plus Croatia (Frohlich, 2003). The sample for 11 countries was set at 4,400 enterprises. Actually, 2,725 companies (62% of the target) were interviewed. In this survey, the questions that might be of potential interest to us were formulated as an assessment of company compliance with the *acquis* – in general and by areas; problem areas in *acquis* implementation; and cost of compliance with *acquis* for the single market. A four-point scale was used, with a score of 4 corresponding to full compliance, and 1 – very low compliance. According to the survey results, companies, on average, assessed their general level of compliance at 2.2. Compliance with the following areas were ranked the highest (2.7): consumer protection and producer liability; product certification, technical regulations, standards; and work safety. Food quality and safety on average was rated at 2.6. The lowest scores were attributed to environmental protection; labels, trademarks, patents; and rules of competition (2.5). The same questions of compliance were addressed from a different angle: assessing the expected difficulties accompanying implementation of *acquis*. Here the area of product certification, technical regulations, and standards is ranked the highest – 2.8; food quality and safety – the lowest (1.9).

3.1.5. Special surveys for CIS

In light of the current intensification of economic relations between the EU and Ukraine and the perspective for even closer economic cooperation (via establishment of an FTA) in the future, there is a need to identify and study existing trade tariff and non-tariff trade barriers that distort Ukrainian exports to the EU and prevent them from reaching their potential. A recent study (CASE, 2006) aimed to explore whether the NTBs impede Ukrainian exports to the EU and to what extent. To implement this, a survey on non-tariff barriers that are faced by Ukrainian exporters to the EU was conducted in November and December 2006. The survey sample was composed of 510 exporters to the EU, most of which were rather small companies (less than 50 workers) owned by Ukrainian private capital. Most of the surveyed companies were well involved in trade relations, exporting about half of their production, primarily to the EU. The survey focused on questions mostly relevant to manufacturing producers and covered such areas as certification of origin, customs procedures and technical standards. The EU custom procedures were assessed as relatively easy and not too costly by Ukrainian exporters (over 72% of firms did not see any problems with them). According to the survey, respondents on average spent 6% of export value on customs clearance and wait about one day on the border with the EU. Most of the large companies analysed claim that costs of compliance with the EU's technical regulations are almost equal to costs of compliance with domestic technical regulations. Still, small private firms, especially those exporting agricultural products, consider that the cost of meeting EU technical standards is higher if compared with domestic costs. However, the perception that product quality requirements are the most restrictive technical standards is held by both large and small companies.

When asked about the cost incurred to meet the EU's technical requirements as part of total production cost, respondents provided rough estimates rather than calculated numbers. According to them, the average level of costs across the sample equaled 13.9%, while this number for large foreign-owned forms was greater than the average and constituted 16.1%. A breakdown by sector shows that the metallurgy and chemistry industries spent the least on upgrading their commodities to meet EU requirements, while the textile and apparel industry spent the most (see Table 3.2 for more detailed information). Regarding the costs associated with passing the testing and certification procedures, it was estimated as representing 4.2% of total production costs on average, and was a greater burden for small firms than for large. Most companies report that there is a high degree of duplication of their efforts due to the necessity to test production for both Ukrainian and EU requirements. The study concludes with recommendations for policies aiming at harmonisation of the legal system with EU laws in trade related areas.

Trade barriers (tariff and non-tariff) encountered by Moldovan exporters to the EU market were studied in Diomin et al. (2005). The study presents results of a survey conducted among 95 Moldovan commodity exporters. They were asked to prioritise the main obstacles to trade with the EU. Most Moldovan exporters perceived high tariffs as the main obstacle while exporting to the EU (about 20% of surveyed exporters indicated it was their strongest obstacle). Competitive pressure from EU producers (about 15%) and limited possibilities for getting a visa (14%) were considered the next most important impediments to trade with the EU. Interestingly, Moldovan businesses, in general, considered conformity with EU standards and obtaining rule of origin certificates as not a very important problem to their trade with the EU (5% and 6% respectively).

Rutherford et al. (2005), in their assessment of the impact of Russia's WTO accession on poverty, estimated the ad valorem equivalence of barriers to foreign direct investment in service sectors. These sectors included: telecommunications; science and science servicing; financial services; railway transportation; truck transportation; pipelines transportation; maritime transportation; air transportation; and other transportation. The authors first commissioned surveys in telecommunications, banking and securities, and maritime and air transportation services by Russian research institutes. Then they used these surveys, with the supplementary data and research results of Kimura, Ando and Fujii (2004a, 2004b, 2004c), to estimate the effect of the reduction in barriers to FDI by assessing the regulatory environment. The estimated ad valorem tariff equivalents to FDI range from 33% (in telecommunications, science, railway, truck and pipelines transportation) to 90-95% (air transportation and maritime transportation) (see Table 3.2). In their WTO accession scenario, the authors assume that barriers against FDI will be reduced to 0 for all sectors studied except for air transportation and maritime transportation, where the barriers will be reduced to 75% and 80% respectively.

The same methodology of measuring barriers to trade/foreign direct investments in services, as in Rutherford et al. (2005), was employed in (Copenhagen Economics, IER, and OEI, 2005) for Ukraine. This work modeled different scenarios of Ukraine's WTO accession and estimated the respective economic impacts of their implementation. Reform of FDI barriers to the service sector was considered one of the scenarios (along with reform of import tariffs and improved access to foreign markets) of Ukraine's accession to the WTO. To apply this scenario, the authors estimated ad valorem tariff equivalents of barriers to trade/FDI in three Ukrainian services sectors: telecommunications (fixed, internet, mobile), railway transport (freight and passenger) and finance (banking, insurance, securities) (see Table 3.2). Their estimates revealed that financial services were the most protected among service sectors in terms of the existing barriers to foreign direct investments and trade (about 30% ad valorem tariff equivalent), followed by railways (16.7%) and

telecommunications (4.9%). The study assumes that after Ukraine's WTO accession barriers to FDI in financial services would be reduced to about 8%, in telecommunications – to 2.1% (in railway transport – no changes). The simulation results led the authors to the conclusion that reform of service sectors and reduction of barriers to FDI is expected to bring major welfare and GDP gains in the framework of Ukraine's accession to the WTO.

3.1.6. Gravity model approach

The literature quantifying NTB effects in the context of EU enlargement with the help of gravity models is quite scarce. To the best of our knowledge, there are three studies examining regional trade and welfare implications of NTBs in the context of EU enlargement. These are Lejour et al (2001); Nahuis (2004) and Philippidis and Carrington (2005); (yet, the latter basically replicates the Lejour et al (2001), using spatial econometric procedures).

Lejour et al. (2001) used the WorldScan model, which is a CGE model for the world economy. The accession countries were divided into three regions: Poland, Hungary, and CEEC5 (Czech Republic, Slovakia, Slovenia, Bulgaria, Romania); Baltic countries were not included. The authors distinguished sixteen sectors: agriculture, raw materials, ten manufacturing sectors and four service sectors. They derived NTB equivalents based on the gravity model approach. They used an EU-membership dummy variable in their gravity equation to estimate the potential trade increase.

The main findings of this study were as follows: (i) bilateral trade was systematically higher if two countries are both members of the EU; (ii) internal market access and removal of NTBs led to considerable potential trade increases for most sectors (especially in regard to agriculture (by 249%), food processing (by 94%), textiles (by 134%); (iii) estimated ad-valorem NTB equivalents ranged from 0% to 17.7% among sectors, in particular for agriculture – 17.7%, trade services – 17.2%, textile and leather – 14.5%, non-metallic minerals – 13.1%, food processing – 11.7%; noteworthy, according to study's estimation, trade in services (financial services, transport and communication) was well liberalized (with 0% tariff equivalents); (iv) aggregate trade increase for EU countries (2%) was much smaller than for CEECs countries (Hungary – 44%, Poland – 30%, CEEC5 – 32%).

The same approach was used by Nahuis (2004) – incorporating an EU-membership dummy into his gravity equation. In particular, the author assumed that the dummy indicating whether both countries are EU members provides insight on the impact of internal market access. The estimations exploited the fact that the 'old' EU members operated in a single market since 1992. Therefore, the observed trade

levels between two EU members relative to trade between two comparable non-EU members contained information on the NTBs the single market succeeded to remove.

Similarly to Lejour et al. (2001), Nahuis (2004) carried out an estimation for sixteen industries; the CEECs were divided into three regions: Poland, Hungary, and the remaining CEEC. The main findings of Nahuis (2004) lay in line with the previous study; still, after transforming the coefficients of EU membership dummies into tariff equivalents the NTB estimate appeared to be higher (up to 30% for some industries: agriculture – 30%, textiles and leather – 19%, trade services – 17%, etc.).

However, the gravity specification employed in Lejour et al. (2001) was recently criticized and revisited by Philippidis and Carrington (2005). The authors claim that the impact of single market access is misrepresented due to the absence of spatial effects in their gravity specification.

Philippidis and Carrington (2005) employed spatial econometrics procedures in gravity modeling and applied the same CGE dataset and aggregation as Lejour et al. (2001) to ascertain the degree of bias on gravity estimates of predicted trade. Authors explain that, in the presence of spatial effects (namely spatial dependence, caused by various degrees of spatial aggregation, spatial externalities and spillover effects, and the spatial structure of heteroskedasticity), traditional econometric techniques produce inefficient and, given the implicit misspecification, biased estimates. Their results suggest that spatial effects in gravity estimations have a dampening impact on NTBs for 11 out of 16 sectors. In other words, spatial effects estimation suggests that there was a systematic overestimation of NTBs for 11 sectors when traditional econometric techniques were used. However, the magnitude of this overestimation was not substantial. In particular, the NTB tariff equivalent for agriculture amounted to 7.5%, food processing – 9.4%, textiles and leather - 11%, non-metallic minerals – 11%, etc. They concluded that the inclusion of spatial effects revealed real growth reductions of around 0.25 per cent for the CEECs, while economic growth for the EU remained largely unchanged.

As for Ukraine, the gravity approach for obtaining NTB estimates was applied in a recent study on the feasibility of free trade between the EU and Ukraine, undertaken by CEPS 'The Prospects of Deep Free Trade between the European Union and Ukraine' from September 2004 – January 2005 (CEPS, 2006). By using standard CGE modeling, the authors considered two main scenarios for a possible free trade agreement, involving progressive degrees of trade liberalization and institutional approximation. Removing non-tariff barriers was included as an important characteristic of deep institutional and regulatory convergence in the framework of the deep FTA+ scenario. The authors used the gravity model technique to estimate the implicit NTBs at the sectoral level among the regions of their CGE model. In particular, they introduced dummy variables for different country groupings - EU

members, accession countries (CEEC and SEEC) or other countries - expecting that trade usually would be greater if the two countries belonged to the same trade block. The estimated coefficients of these dummies were later transferred into ad-valorem tariff equivalents of trade barriers between countries[27]. The resulting estimates of NTBs for non-EU countries, including Ukraine, appeared to be rather large, ranging from 20% for textiles to 40% for food products.

Conclusions

The overview of various studies on identification and estimation of NTBs and their economic impact leads to the following general conclusions:

i) With a reduction in tariffs in the framework of the WTO liberalization, non-tariff barriers have become a leading component of trade protection measures applied by countries throughout the world. Therefore, closer market integration that envisages a reduction of non-tariff barriers to trade in goods, as well as lessening barriers to FDI, usually brings more economic gains for trading partners than the mere tariff reduction.

ii) Indirect estimates of NTBs obtained through a gravity model approach are usually higher than estimates of other approaches (e.g. frequency indices), which use direct evidence on the prevalence of NTBs. The former usually take into account the broader range of non-tariffs barriers since they capture all existing non-tariff barriers to trade (including informal measures), thus providing the upper bound of estimated NTBs. Gravity estimations can be used to measure how NTBs prevent trade between countries from reaching its potential, whereas frequency indices, per se, do not measure the influence of NTBs on trade. Business surveys reflecting entrepreneurs' perceptions are also useful in complementing the picture on the significance of NTBs for economic agents involved in foreign trade, but their quantitative estimations are susceptible to respondent bias.

iii) Different approaches for estimating NTBs (frequency indices, gravity modeling or enterprises' perception surveys, etc.) usually provide higher NTBs estimates for agricultural products compared to industrial products. NTBs estimates of non-tariff barriers to FDI and trade in services in general appear to be high as well, particularly in developing and transition countries.

iv) In the structure of NTBs, the role of core non-tariff barriers diminishes, while the importance of regulatory differences and technical barriers to trade and

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[27] Neither the description of the methodology for doing this transformation nor the resulting estimates of ad-valorem tariff equivalents of trade barriers were presented in this study.

market access gradually increases, thus stipulating the need to take the latter into account while investigating the impact of NTBs on trade and economic performance.

Country specific conclusions:

i) Studies estimating the impact of Eastern EU enlargement and accession of the CEES countries to the Single European Market report that internal market access and lessening of NTBs may lead to considerable aggregate trade increase for CEES countries well exceeding the trade increase for the 'old' EU members. The same refers to welfare gains due to EU enlargement[28]. The estimated non-tariff barriers to trade differ substantially between sectors: agriculture and food products, trade services, textiles and leather, non-metallic minerals and electronic equipment had the highest level of protection. As a result, these particular sectors may benefit the most from gaining access to the EU internal market and lessening non-tariff protection. The reviewed studies revealed rather low barriers to FDI and trade in services between CEES countries and the 'old' EU members, indicating a high level of liberalization in this important area of international economic relations. Still, institutional harmonisation and alignment of domestic standards with those of the EU will not lead to full elimination of NTBs, in particular technical standards, in EU-CEES and intra-EU trade: in Cecchini (1998) the cost of existence of NTBs for the EU members was estimated 2-2.4% of the EU GDP.

ii) CIS and Ukraine: the magnitude of NTBs and their role in trade between the EU and CIS countries, as well as between CIS countries themselves, proved to be a very important matter. Business surveys conducted for Ukraine show that the costs of meeting EU technical standards are considered rather high and burdensome by Ukrainian producers (CASE, 2006) (see Table 3.2 below). These costs are perceived as the highest (reaching more than 30% of yearly production costs) by Ukrainian enterprises producing apparel, agricultural and food processed products, wood products, and non-metallic mineral products. Estimates of barriers to FDI in the services sectors derived for Ukraine and Russia prove the existence of significant restrictions to trade and foreign investment in these sectors; abolishing or reducing such restrictions may bring significant welfare gains for both countries (Copenhagen Economics, IER, and OEI, 2005; Rutherford et al. (2005)). The upper bounds of existing NTBs to EU-Ukraine trade estimated through the gravity model approach are even greater, ranging from 20 to 40% depending on the concrete industry (CEPS, 2006). The

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[28] The magnitude of derived estimates depends on the divergence in trade protection data used by the researchers (e.g., in Maliszewska M. (2004) expected gains of GDP for Hungary equals 7%, Poland – 3.4%, while in Lejour et al. (2001), 9% and 5.8% respectively).

NTB system developed by Ukraine followed the general trends in international trade: agriculture, food and agricultural processing, fishing, etc. have been the most NTB protected sectors in Ukraine; the significance of technical barriers have been increasing in the structure of applied NTBs (World Bank, 2004).

Table 3.2. Estimated non-tariff barriers for Ukraine and Russia

Sectors	CASE, 2006*	Pindyuk, 2006**	IER, 2007***	Rutherford et al., 2005****
	Applied to Ukrainian exporters to EU	Applied to all importers to Ukraine	Applied to all importers to Ukraine	Applied to all importers to Russia
Agriculture	11	27.8		
Forestry		22.4		
Food processing	11	31.9		
Fishing		33.5		
Extraction of energy materials		17.1		
Extraction of coal		19.1		
Extraction of non-energy materials		14.3		
Textile and apparel		13.9		
Textiles and leather	19			
Leather and footwear		17.2		
Wood		14.2		
Paper		9.7		
Coke and oil refining		18.9		
Rubber and plastic goods		12.5		
Other non-metal mineral products		10		
Metals	5			
Iron and steel		8.1		
Chemistry and petrochemical	5	16.7		
Machinery and equipment	12	11.2		
Electrical and electronic equipment		14.2		
Transport equipment		11.4		
Other production		12.4		
Electricity, gas and water supply		5.9		
Telecommunications				33
- fixed			5.2	
- Internet			3.4	
- mobile			6.1	
Financial services:				36
- banking			21,9	
- insurance			36	
- securities			28,7	
Railway transportation			16,7	33
Science & science servicing				33
Truck transportation				33
Pipelines transportation				33
Maritime transportation				95
Air transportation				90
Other transportation				33

Notes:

* Percentage of total year production costs spent in order to ensure products compliance with the EU norms, Ukraine, 2006.

** Augmented weighted index for NTBs (quotas, licenses, excise charges, anti-dumping measures, and minimum custom value), Ukraine, 2004.

*** Ad valorem tariff equivalents of barriers to FDI applied against foreign service providers, Ukraine, 2005.

**** Ad valorem tariff equivalents of barriers to FDI in service sectors applied against foreign service providers, Russia, 2005.

Chapter 4.
Measuring costs of institutional harmonisation
By Veliko Dimitrov, IME

Institutional harmonisation with the EU is not going to be without cost for EN countries. Both the public and private sector will have to incur certain expenses and make adjustments. In this chapter we review these costs and discuss ways for measuring them. On the basis of this analysis, we develop an outline of a methodology to measure costs of institutional harmonisation of EN countries with the EU in the context of the implementation of enhanced FTAs.

As was suggested in Chapter 1 of this paper, the subject of our study is defined as follows: costs of institutional harmonisation of the EU Eastern neighbors in the context of implementing enhanced free trade agreements. In this context, institutional harmonisation is going to be directed at gaining better market access and integration in energy and infrastructure. More specifically, this will include changes in state aid, public procurement, property rights, quotas, custom procedures, import bans, and seasonal import regimes, SPS and other related regulations.

We should note from the very beginning, that the estimation of costs of institutional harmonisation in the context of trade facilitation is methodologically challenging. Countries generally do not undertake trade facilitation and institutional harmonisation as an end in itself. Rather, they occur primarily as part of a wider reform effort driven by either a transition to a market economy, or accession to a regional or sub-regional grouping or a trade agreement. As a result, there is often no specific allocation of funding for pursuing institutional harmonisation per se, making it somewhat very difficult to assess those specific costs. Therefore, estimation of the costs on establishment of enhanced FTAs, which are to institutionalize mutual market access, may not fully capture all of the harmonisation costs involved, but will certainly deliver a notion of their scale.

4.1. Major Cost Categories

For the purposes of this study we group the cost of institutional harmonisation into two major categories: primary and secondary. Furthermore, costs are divided

between direct budgetary, direct private corporate, indirect budgetary and indirect private corporate costs (Table 4.1.)

Primary costs are compliance costs in a narrower sense - regulatory, administrative, and technical. These are expenses at the country or firm level for upgrading existing infrastructure, equipment and technology, training and capacity building, costs related to amending or creating legislation, company compliance with various technical standards and regulations like labeling and packaging, testing, inspections and quarantine requirements, etc.

Secondary costs represent the negative economic impact resulting from alterations. They can emerge in the public sector (for example, in the form of foregone customs receipts), and in the private sector (bankruptcies, or fall in employment in certain sectors).

Table 4.1. Classification of harmonisation-related costs

Primary costs
• **Direct budgetary costs** – directly paid from the state budget in order to fulfill certain requirements on the governmental level (administrative, regulatory, technical) • **Direct private corporate costs** – directly payable by companies in order to achieve a minimum required level of compliance with a variety of standards and norms
Secondary costs
• **Indirect budgetary costs** – costs not directly payable by the state budget that emerge due to changes in the institutional environment
• **Indirect private corporate costs** –indirect costs for company owners and investors as a result of company failures and bankruptcies

Source: Own summary; for more detailed information about types of costs in the practice, see The Balkan Network (2001).

4.1.1. Direct budgetary costs

Regulatory costs

Trade facilitation measures may sometimes require new legislation or the amendment of existing laws in accordance with the national legislative and regulatory process of each country. This, in turn, will involve time and staff specialized in regulatory work both in the line ministries and the center of government and parliament. Resources required for such legislative and regulatory work may differ significantly depending on the country's legislative structures, procedures and frequency of changes in legislation (Moise, 2004).

Upgrade of customs infrastructure, equipment and technology

Equipment and infrastructure are not a prerequisite for trade facilitation measures, although some of these measures, such as risk assessment or special procedures, are greatly assisted by the availability of appropriate equipment and infrastructure. Border agencies call for information and communication technology (ICT) products, as well as infrastructure and scanners, primarily because of their potential to enhance the effectiveness and efficiency of customs operations and control. Numerous studies show that insufficient equipment and infrastructure will make trade facilitation measures more difficult to implement (Moise, 2004).

Training and capacity building

Training, even if often perceived as a less significant item on the harmonisation agenda, may use a disproportionately great amount of money. Countries may generally choose between (Moise, 2004):

- Recruiting new expert staff (if available);
- Training existing staff in a training center;
- On-the-job training;
- Importing trained staff through personal exchange with other government bodies.

The most commonly observed practice is a combination of (b) and (c). Regular training is a common practice in many customs administrations, varying only in frequency and duration. On-the-job training usually does not involve additional direct budgetary costs, however, it may temporarily increase costs for traders due to underperformance and incompetence of trainees.

The above measures have to be undertaken (and financed) by the government and, therefore, depend upon the government's will and readiness to implement them. The estimation of the costs of these measures is hardly attainable in principle for the following reasons. First, they depend greatly on how efficiently reforms are carried out, their time horizon and organization of public administration. Second, they cannot be clearly separated from ongoing and future reforms that would take place anyway. For these reasons, in this study we will not try to measure them and will focus on the other group of costs - those connected to secondary institutional changes.

4.1.2. Indirect budgetary costs

The major secondary cost on the part of the state is the loss of budget revenue from tariffs. Harmonisation of customs regulations through establishing FTAs will inevitably

require reduction or elimination of customs tariffs towards the partner side (EU). As stated in the ENP strategic papers, deep and comprehensive free trade agreements will involve the reduction of tariff rates for a range of products. We assume that tariffs will be harmonized in all non-agricultural and non-fuel products, namely:

- Ores and metals (SITC Rev. 2: 27+28+68);
- Chemicals (SITC Rev. 2: 5);
- Machinery and transport equipment (SITC Rev. 2: 7);
- Other manufactured goods (SITC Rev. 2: 6+8 less 68).

Table 4.1.2. Average applied import tariff rates* on non-agriculture and non-fuel products imported from developed economies, %

Product groups/ Countries	Ores and Metal	Chemicals	Machinery and Transport Equipment	Other Manufactured Goods
Armenia (2001)	0	0,02	1,56	3,9
Azerbaijan (2005)	5,96	8,31	7,31	10,97
Belarus (2002)	11,04	7,65	10,52	13,02
Georgia (2004)	6,35	6,16	3,37	7,57
Moldova (2001)	0,72	3,08	2,05	4,82
Russian Federation (2005)	10,16	7,35	8,44	11,78
Uzbekistan (2001)	13,22	8,87	5,09	14,6
CIS simple average	6,78	5,92	5,48	9,52
EU15 (2005)	2,2	4,43	1,85	3,43

* Data for the latest available year
Source: UNCTAD, Handbook of Statistics 2006, own calculations.

The estimation of forgone budget revenues could be done based on the datasets for the import structure of the CIS countries and the average applied import tariff rates using basic non-econometric calculations (this method is not able to capture any trade creation unless additional calculations are made). Alternatively, one can simply take advantage of the results retrieved in other parts of the project, namely Work Package 4 (Analysis of the economic and institutional consequences of WTO accession and of future EU-CIS free trade agreements) of the ENEPO project that is constructing a CGE model; or within this package, the CGE model that we will employ for measuring benefits from market access can easily be extended to capture the loss of customs revenues.

4.1.3. Direct private corporate costs

For private entities, the costs of institutional harmonisation are costs of compliance with qualitative standards and regulations.

The use of standards and technical regulations as instruments of commercial policy in unilateral, regional and the global trade context has increased as tariff and quota barriers continue to decline (Wilson, 2007, draft). Standards and technical regulations are principally used to mitigate food, animal and plant safety risks, to provide common norms for product characteristics, and/or to internalize simultaneously ex-ante potential negative market externalities. However, these technical requirements also constitute barriers to trade by imposing unnecessary costly and time-consuming tests or by laying out various requirements in different markets (Chen, Otsuki and Wilson, 2004).

In order to have access to the EU internal market, all neighboring country's companies would have to fulfill certain criteria such as qualitative standards and norms. Although the rules to be implemented would be of a uniform character, we expect that harmonisation costs would vary from country to country depending on its current legislation and administrative and business practices. What makes the task to estimate those costs even more difficult is the fact that the technical regulations and standards will be mandatory only for export-oriented companies whose number and capacity could not be undoubtedly estimated.

Therefore, the exact estimation of compliance costs is not possible. Below we discuss two qualitatively different approaches and assess their strengths and weaknesses.

4.2. Review of some methodologies to measure compliance costs on the firm level

4.2.1. Estimating compliance cost with product standards for companies using econometric modeling

The study by Maskus, Otsuki and Wilson (2005) represents one of the few attempts to assess the cost of compliance with standards and technical regulations by companies in different countries. The authors have developed an econometric model that estimates the incremental production costs of enterprises in relation to compliance with standards imposed by the major importing countries or regional groupings. The main goal is the provision of a rough quantification of these costs to assess their significance.

Data used
The data used for cost estimation is taken from a survey undertaken by the World Bank explicitly for the purpose of assessing compliance costs of firms in developing countries facing technical standards in their potential export markets. The World Bank has completed a database - Technical Barriers to Trade (TBT) (World Bank, b)

- based on a survey of 689 firms in 17 developing countries. The database includes information on both mandatory technical regulations, as well as the use of voluntary standards. The data also includes firms' experiences with product testing and their responses to questions regarding mutual recognition agreements. The survey covers countries from all regions – Eastern Europe, Latin America and the Caribbean, Middle East, South Asia and Sub-Saharan Africa. For Eastern Europe, Bulgaria, the Czech Republic and Poland were surveyed. The survey was designed to include a sufficient number of firms and technical regulations mainly (but not exclusively) imposed by the EU, the United States, Canada, Japan and Australia. For the three European countries, the survey demonstrated that among all factors, product quality appears to be the most important factor in firms' ability to expand its exports: 77% of respondents in Bulgaria, 98% in Czech Republic and 88% in Poland found product quality requirements to be an important factor in their ability to expand exports.

Approach and assumptions used

Initial investments for achieving compliance with standards and regulations are modeled as a quasi- fixed factor and estimated using a short-run variable cost function (firm's compliance with any domestic standard is a sunk cost and does not affect its decision to meet foreign requirements). Generally, the firm-function is specified as: C = C (w, y, s, z) where, *w* refers to a vector of factor prices, *y* is output, *s* indicates the stringency of the foreign standard, and z is a vector of other variables affecting firm-level costs. The cost function is assumed to have standard properties: non-decreasing in *w* and *y*, concave in *w*, and homogeneous of degree one with respect to *w*.

The relative increase in setup cost incurred for complying with these standards is used as a proxy for the stringency of standards, e.g. reported investment represents the stringency variable. It is constructed from respondents' answers to the question "What are the approximate costs of the items below as a percentage of your total investment costs over the last year?"

This approach requires three central assumptions:

1) All firms, across industries and countries, share the same technology. However, observations as well as economic theory suggest that this assumption is rather unrealistic. Therefore, in vector *z*, industry and country fixed effects are included in every specification to control for differences in technology relative to the benchmark function. Nonetheless, this approach requires making the residual assumptions that firms within an industry within each country share the same cost functions and that efficiency differences by industry and country are Hicks- neutral;

2) It is assumed that the value added cost function is weakly separable from the aggregator for raw materials and intermediate inputs. The difficulty in

separating out the cost function implies that the choice of relative labor and capital inputs will be independent of material and intermediate input prices;

Thus, the cost function is rewritten as follows:

$$C(w, y; s, z) = (C^1(y, w^1; s, z), C^2(y, w^2; s, z)),$$

where $w^1 = (w_l, w_k)$ and w^2 is the vector of prices for variable inputs other than labor and capital. The goal is the estimation of the elasticity of value-added costs (C^1) with respect to standards. The elasticity equation is:

$$\sigma_s \equiv \frac{\partial C^1}{\partial s} \frac{s}{C^1} = \partial \ln C^1 / \partial \ln s$$

3) The third assumption is that factor prices are exogenous to firms, permitting their input choices to be made endogenously. However, data shows that this assumption does not hold, and firms report different average wage rates (or annual salaries) and returns to capital. Therefore, direct construction of labor and capital prices from the survey data makes use of variables that are endogenous, both in principle and in fact.

The chosen approach to resolving this problem is the application of a national average salary and price of capital to all firms. Such aggregate prices could be justified as exogenous to each enterprise, yet at the cost of sacrificing the cross-sectional variation in factor prices needed to identify the cost function. To cope with this, Maskus, Otsuki and Wilson employed an instrumental variables technique in which they recognized that variations in factor prices across firms depend on their characteristics – firm age (years since founding) and dummy variables indicating the structure of firm ownership (such data is available in the WB Technical Barriers to Trade Database (World Bank, b)).

The total elasticity of cost with respect to a change in the stringency of standards, accounting for impacts on factor use, is calculated by the following equation:

$$\sigma_S \equiv \partial \ln \tilde{C} / \partial \ln s = \beta_s + \beta_{ss} \ln s_i + \beta_{Ls} \ln w_{Li} + \beta_{Ks} \ln w_{Ki} + \beta_{ys} \ln y_i.$$

where, for firm i, C denotes the cost of labor and capital or the production cost, w_l and w_k account for the instrumented wage rate, respectively the instruments unit price of capital, y denotes sales as a measure of output and s the firm specific measure of standards. The coefficients β_{ls} and β_{ks} measure the bias in labor use, in capital use from an increase in the foreign standard.

Findings

The results of Maskus et al (2005) show that a 1% increase in investment to meet compliance costs in importing countries raises variable production costs by between 0.06 and 0.13%, which is a statistically significant increase. Also, fixed costs are estimated to be about 4.7% of value added on average. Although there are some studies (e.g. Swann et al, 1996) that support the claim of an efficiency-increasing effect of regulations, the evidence provided by Maskus et al. (2005) suggests the opposite, i.e. that technical standards and regulations represent costly barriers to exporting companies.

Own conclusions in the light of the ENEPO project
- The applied model is very sensitive to input data, which is unique on its own (The World Bank TBT survey – World Bank, b). Data collection in the field has been contracted to local consulting companies, but such a task is far beyond the financial resources of the ENEPO project. This is the main reason why this approach cannot be applied in our study;
- Furthermore, some of the assumptions are quite unrealistic ("all firms across countries and industries share the same technology") and even though industry and country fixed effects are included in the vector z, an assumption still has to be made that firms within an industry and each country share the same cost function;
- There is generally no data reported on compliance costs for previous years, which makes a direct comparison or extrapolation of results impossible;
- The companies from the countries we will study will conform to standards and technical regulations on a voluntary basis.

4.2.2. The Standard Cost Model (SCM)[29]

The SCM is a method for determining administrative costs for businesses imposed by regulations, i.e. by legislative changes. It is a quantitative methodology that can be applied in all countries at different levels. The method can be also used to measure a single law, selected areas of legislation or to perform a baseline measurement of all legislation in a country. Furthermore, the SCM is also suitable for measuring simplification efforts as well as administrative consequences of new legislative proposals and compliance costs at the firm level.

[29] Used in various countries for assessing national and EU-legislation effects, incl. Austria, Belgium, Czech Republic, Denmark, Estonia, France, Germany, Italy, The Netherlands, Norway, Poland, Sweden and UK. The Website of the International Standard Cost Model Network can be accessed at the address: http://www.administrative-burdens.com/

The methodology is an activity-based measurement of administrative burdens making it possible to follow the development of administrative burdens. At the same time, the results achieved are directly applicable to governments' simplification or harmonisation work.

Costs in the range of the SCM measurement

SCM methodology divides the costs of regulation into direct financial costs and primary compliance costs, and then the latter into indirect financial costs and administrative costs (Figure 4.1).

Figure 4.1. Different costs of regulation to business
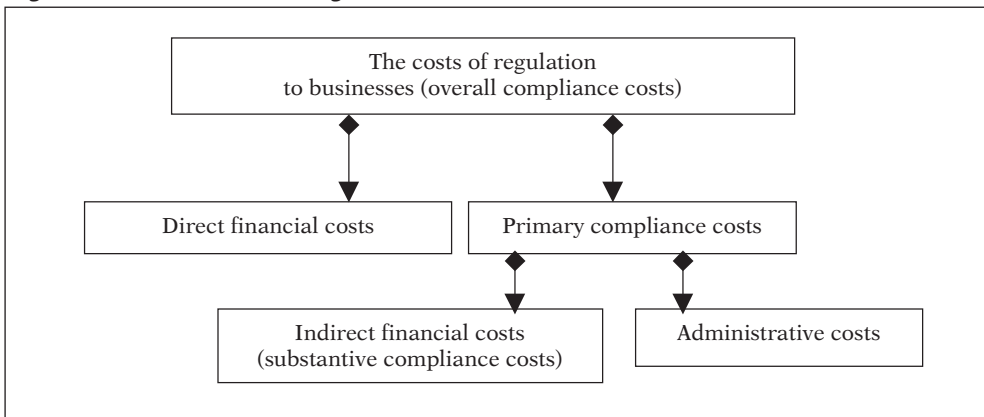
Source: World Bank.

Direct financial costs (DFC) – result from a concrete and direct obligation to transfer a sum of money to the government or a competent authority. Such costs include administrative charges, taxes, etc. For example, all the fees directly payable for obtaining permits fall into this category. These costs are by no means related to the need for information or anything else on the side of the government. Basic SCM formula for the estimation of direct financial costs would be as follows:

$$DFC = charges\ X\ yearly\ frequency\ X\ number\ of\ entities$$

Primary compliance costs (PCC) – they represent all the costs related to complying with regulations in a narrower sense. As depicted above, they could be subdivided further into substantive compliance or indirect financial costs (e.g., filters required by environmental regulations) and administrative costs (e.g. documentation for the installation of filters).

Basic SCM formula for the estimation of primary compliance costs would be as follows:

PCC = number of entities X objects to be implemented per entity X average price of the object + number of entities X objects to be implemented per entity X average time to deal with paperwork

Model application

When carrying out the actual measurement in the SCM framework it is important to get as detailed data as possible. Not only will this increase the level of accuracy, but it will also ensure that data can be compared at the disaggregated level. Comparing aggregated data at the societal level may reveal cross-country differences, but will often not be enough to explain why there is a difference. In order to explain differences, it is most often necessary to be able to exclude differences in wages and overhead costs, and mainly focus on the differences in time spent on performing a certain administrative activity.

There are several applications of the SCM publicly available[30], yet none of them is closely related to the goal of Workpackage 11.

Conclusions in respect to SCM model

- The model allows for deep analysis on the level of separate activities and therefore, the estimations could be highly realistic;
- The SCM is more suitable for the measurement of the impact of regulations but not process-related costs; at the same time, the detailed approach speaks in favor of not attempting to apply it in large-scale studies;
- After reviewing all possibly applicable information, we draw the conclusion that what is needed is not available (could not be even retrieved out of the existing datasets without hugely compromising quality of output). Given that, the application of the model in this study is not possible.

4.3. Methodology proposal

Based on the review of existing studies on the estimation of costs of compliance and evaluation of the available data, we suggest the following methodology for estimating the costs of compliance of CIS countries with EU norms and regulations.

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[30] Accessible at: http://www.administrative-burdens.com/default.asp?page=140

Step 1. Determination of the significance of exports to the EU (as percentage to GDP)

Table 4.3.1. Significance of CIS exports to the EU (2004), percent of GDP

Indicators Countries	GDP in millions of US dollars	Exports to EU25 as percentage of GDP	Exports to EU25 in millions of US dollars
Armenia	3 615	6,4%	231,3
Azerbaijan	8 281	16,6%	1 376,1
Belarus	22 909	14,1%	3 224,4
Georgia	5 113	6,3%	322,2
Kazakhstan	40 743	16,5%	6 707,2
Kyrgyzstan	2 163	1,8%	38,3
Moldova	2 595	18,2	473,5
Russian Federation	582 319	14,8%	85 979,1
Tajikistan	1 911	12,9%	246,1
Turkmenistan	12 374	3,0%	370,4
Ukraine	65 037	13,7%	8 882,4
Uzbekistan	11 788	3,99%	470,2

Source: UNCTAD, Handbook of Statistics, own calculations.

Step 2. Break down of the export sector into several sub-sectors

Due to the fact that compliance costs differ significantly from one sector to another, we suggest distinguishing between the following sub-sectors:

- Agriculture;
- Manufacturing;
- Services;
- Energy

The only publicly available and compatible statistical data on trade by sectors can be found at the European Commission website (http://ec.europa.eu/trade/issues/bilateral/data.htm). There might be a slight difference between the EC data and the original data on exports by respective countries because the EC data represents volumes at CIF prices (import prices), which are cost and insurance and freight; while exports are generally valued at FOB prices (no insurance and no freight). Due to possible problems with export data compatibility among various countries, we are going to use the European Commission data. As a result, the final results might be slightly overestimated.

Step 3. Use survey data for compliance costs in other countries (CEE)

World Bank Technical Barriers to Trade Survey is the best source of information on NTBs for developing and transition countries we have found. We are going to use the estimates on total investments costs and costs by sectors obtained in the survey for three Eastern European countries – Bulgaria, Czech Republic and Poland. We will use these estimates to make extrapolations for the neighboring countries.

Table 4.3.2. Total investment costs to comply with technical requirements as a share in sales in three of the CEE countries (percentage)

Country/ Indicator	Mean	Standard Deviation	Min	Max
Bulgaria	2.15	2.52	0.13	9.68
Czech Republic	5.71	9.12	0.05	31.88
Poland	3.84	10.99	0.03	55.65
Total	**3.74**	**8.26**	**0.03**	**55.65**

Source: Wilson and Otsuki (2004).

Table 4.3.3 Total investment costs to comply with technical requirements as a share in sales by industry in all countries[31] (percentage)

Industry/Indicator	Mean	Standard Deviation	Min	Max
1. Raw Agricultural Products	6.18	22.28	0.00	122.14
2. Meat Products	3.43	4.82	0.06	13.36
3. Electrical Equipment	2.40	4.28	0.03	19.32
4. Fabricated Metal	11.21	25.66	0.15	87.25
5. Industrial Machinery and Equipment	1.81	2.14	0.24	4.81
6. Industrial or Agricultural Chemicals	3.17	4.01	0.12	14.36
7. Instruments, Photographic, Optical, Watches	0.26		0.26	0.26
8. Leather and Leather Products	1.98	2.49	0.09	5.50
9. Paper and Allied Products	1.28	1.60	0.15	2.42
10. Printing and Publishing Products	0.29		0.29	0.29
11. Processed Food and Tobacco	4.61	10.61	0.01	55.65
12. Rubber and Plastic Products	5.20	6.18	0.52	17.72
13. Telecommunications and Terminal Equipment	1.57	1.96	0.07	4.73
14. Textiles and Apparel	2.73	6.80	0.01	44.10
15. Transportation Equipment, Auto Parts, Dealers	4.18	8.27	0.25	31.88
16. Lumber, Wood and Furniture	0.45	0.27	0.14	0.73
17. Construction and Construction Related Services	1.43	1.09	0.66	2.20
18. Primary Metal and Metallic Ores	11.27	20.48	0.17	41.96
19. Petroleum and Other Non-Metallic Minerals	9.83	11.50	0.17	23.73
20. Miscellaneous Manufactured Commodities	20.89	50.51	0.02	124.00
21. Drug and Liquor	3.67	3.82	0.38	9.50
22. Material	1.99	1.12	0.70	2.66
23. Other Services	0.26	0.33	0.04	0.63
24. Other	4.60		4.60	4.60
Grand Total	**4.44**	**13.25**	**0**	**124**

Source: Wilson and Otsuki (2004).

Step 4. Regrouping the existing export categories of the available datasets

We need to join together all categories from the above table into four general groups (agriculture, manufacturing, services and energy) in order to adapt the means of investment costs for compliance retrieved by Wilson and Otsuki (2004) to the officially available statistical datasets on exports to the EU (Table 4.3.4.).

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[31] Bulgaria, Czech Republic, Poland, Argentina, Chile, Honduras, Panama, Iran, Jordan, India, Pakistan, Kenya, Mozambique, Nigeria, Senegal, South Africa, Uganda.

Table 4.3.4. Correspondence table

Product groups	Corresponding World Bank grouping	Mean of investment costs for compliance as a share in sales
Agricultural products		
	Raw agricultural products	6.18%
	Primary metals and metallic ores	11.27%
Agricultural products – average		8.725%
Manufactured products		
	Meat products	3.43%
	Electrical equipment	2.40%
	Fabricated metal	11.21%
	Industrial machinery and equipment	1.81%
	Industrial or agricultural chemicals	3.17%
	Instruments, photographic, optical, watches	0.26%
	Leather and leather products	1.98%
	Paper and allied products	1.28%
	Printing and publishing products	0.29%
	Processed food and tobacco	4.61%
	Rubber and plastic products	5.20%
	Telecommunications and terminal equipment	1.57%
	Textiles and apparel	2.73%
	Transportation equipment and auto parts	4.18%
	Lumber, wood and furniture	0.45%
	Miscellaneous manufactured commodities	20.89%
	Drug and liquor	3.67%
	Material	1.99%
Manufactured products – average		3.95%
Services		
	Construction and construction related services	1.43%
	Other services	0.26%
Services – average		0.845%
Energy		
	Petroleum and other non-metallic minerals	9.83%
Energy – average		9.83%

Source: Wilson and Otsuki (2004), own calculations.

Step 5. Adjustment of the survey-based compliance costs (available for Bulgaria, Czech Republic and Poland in Europe) for the CIS countries

We suggest using GDP per capita as a benchmark (the most aggregate indicator, reflecting a wide range of economic phenomena indirectly, including the price levels of the factors of production) or a combination of GDP per capita and other major macro indicators.

Table 4.3.5 Calculation of GDP equivalent of compliance costs in CEE, 2004

Indicators Countries	Mean of compliance costs as share in company sales (%)	Nominal GDP per capita in US dollars	1% compliance costs corresponds to … US dollars
Bulgaria	2.15	3 137	1 459
Czech Republic	5.71	10 462	1 832
Poland	3.48	6 265	1 800
Average	**3.74**	**6 621**	**1 697**

Source: Wilson and Otsuki (2004), UNCTAD Handbook of Statistics, own calculations.

The above table shows that the higher the GDP per capita, the higher the share of the compliance costs. This is, however, somewhat controversial because some of the related costs are bound to international prices (like equipment, production lines, etc.), which are not likely to be influenced by national conditions. On the contrary, the lower the standard of living, the higher the percentage compliance costs would probably be (driven by the import of special equipment). On the other hand, costs such as product redesign, additional labor for production, testing and certification are to be expected to be lower in lower-income countries. Logically, what matters here is the ratio between labor and capital costs, which is not possible to estimate at this stage.

Then there are two ways to make an extrapolation to CIS countries.

Scenario 1

Following this scenario, the overall compliance cost percentages would be as follows:

Table 4.3.6 Compliance costs as share in the companies sales

Indicators Countries	GDP per capita	Suggested overall mean of compliance costs
Armenia	1 195	0.7%
Azerbaijan	991	0.58%
Belarus	2 335	1.38%
Georgia	1 132	0.67%
Kazakhstan	2 746	1.62%
Kyrgyzstan	416	0.25%
Moldova	615	0.36%
Russian Federation	4 047	2.38%
Tajikistan	297	0.18%
Turkmenistan	2 596	1.53%
Ukraine	1 384	0.82%
Uzbekistan	450	0.27%
Average	**1 517**	**0.89%**

Source: UNCTAD Handbook of Statistics, own calculations.

Due to the controversial result in Table 4.3.5 and considering the great importance of the extent to which companies actually comply and how do they do that (choosing

the highest possible standard, which is naturally the most expensive one, or on the contrary – the lowest possible one, thus less costly, or somewhere in the middle) we will instead apply a simpler scenario – Scenario 2.

Scenario 2: Estimating the share of the compliance costs for the neighboring countries as the average for the CEE countries covered by the study of Wislon and Otsuki (2004)

The only adjustments that we suggest would be appropriate represent some corrections of the final results as follows (not losing the accuracy and the essence of the study):

- Lowering the final score for the agricultural sector by 70% due to the envisaged limited harmonisation (assuming Bulgaria, Czech Republic and Poland had to harmonize, thus acquire costs, up to 100%);
- Reducing the final scores for the service sector by 50% again due to partial harmonisation

Both percentage correctives may also differ from country to country (following the provisions of the ENP Action Plans) or even not be applied at all, since there is no clear evidence that limited harmonisation, for example in the agriculture sector, would inevitably lead to proportionally smaller compliance costs.

On the other hand, the actual compliance costs could be of a larger scale as well, because if we assume that the costs we intend to estimate are connected to the current exporters who simply need to maintain the achieved level of harmonisation, there might also be newcomers who will need to make the initial investments (building or modifying a whole production line, not simply maintaining it).

Conclusions for Chapter 4

Institutional harmonisation in the context of obtaining better market access entails various costs, both for the state and private sector, which can be divided into two major categories: primary (direct budgetary and direct private corporate costs) and secondary, the latter being subdivided into indirect budgetary and indirect private corporate costs.

Direct budgetary costs are difficult to estimate, as they are inseparable from the general costs of conducting reforms. In this study we will not estimate them.

The major indirect budgetary cost is foregone customs revenues. Its estimation is rather straightforward based on the tariff and trade flow data.

Direct private corporate costs are costs of compliance with product standards.

Their econometric estimates are quite rare. The example we reviewed – the study by Maskus, Otsuki and Wilson (2005) – estimates the elasticity of cost with respect to a change in the stringency of standards. The results show that a 1% increase in investment to meet compliance costs in importing countries raises variable production costs by between 0.06 and 0.13%; while fixed costs are estimated to be about 4.7% of value added on average. It is unlikely that we will be able to use such a methodology for ENP countries, primarily due to the unavailability of data.

Another methodology - the Standard Cost Model - is used for determining administrative costs for businesses imposed by regulations. This methodology does not apply any econometric modeling, but calculates different costs directly based on the cost of changes to be implemented and their frequency. The methodology is also demanding in terms of data, so it could be difficult to apply given the limitations of data availability for CIS countries. Its application will require making assumptions where data is missing.

The methodology we suggest using is based on extrapolation of the existing survey data and findings for CEE countries. We are going to use the findings on costs of compliance for Bulgaria, Czech Republic and Poland from the World Bank Technical Barriers to Trade Survey and extrapolate them with some adjustments for degree of harmonisation.

Conclusions

To assess the costs and benefits of the institutional harmonisation between the EU and its Eastern neighbors, one needs to first define what institutional harmonisation is. In our analysis we instrumentalise this concept by looking at the context in which the harmonisation is carried out. This context is deep trade liberalization that involves not only elimination of tariffs, but also regulatory approximation in many areas and close integration is some sectors.

Based on the analysis of the experiences of the existing arrangements (EU membership, EEA, EU-Switzerland cooperation, EU-Turkey Customs Union and Euro-Mediterranean FTA) and also policy provisions of the ENP, we think the most realistic and suitable institutional harmonisation package for EU Eastern neighbors in the medium term should include: FTA in industrial products, involving full harmonisation of product standards and regulation in EU harmonized areas and adoption of Mutual Recognition agreement in non-harmonized areas; partial liberalization of trade in agricultural products (in sectors that are able to comply with EU SPS requirements); partial liberalization of trade in services; integration in EU energy and transport networks.

Institutional harmonisation with the EU is likely to bring a range of benefit to its neighbors. Among them: better market access, increased investment, increased competition and reduced corruption, all of which is likely to translate into welfare growth. These, however, can come at a cost. The direct costs involve budgetary expenses and enterprise expenses incurred in order to comply with new rules. There also possible negative indirect effects that can lead to a loss of market by the currently existing enterprises.

Moreover, the extent to which harmonisation is going to benefit neighbors' economies also depends on how effectively it is carried out. Previous experiences of imposition of new institutions in CIS countries show that harmonisation can face a range of challenges due to peculiarities of the existing institutional setup in these countries.

As a first stage of analyzing the benefits of institutional harmonisation, we review the existing studies on non-tariff barriers. Estimations of NTBs give an idea of how much benefit can be obtained if they are eliminated. Estimations of the potential impact of Eastern EU enlargement demonstrate that access to the EU internal market

and lessening of NTBs may have led to considerable aggregate trade increase for CEES countries. Estimates for CIS countries are scarce, with the exception of Ukraine. The survey data for Ukraine suggests that NTBs constitute a significant barrier to trade, and abolishing or reducing them may bring about significant welfare gains for CIS countries.

Finally, based on our discussion of the costs of harmonisation, we think that it is feasible (although still methodologically difficult) to estimate secondary costs stemming from institutional harmonisation, namely, loss of tariff revenue by the state budget and compliance costs borne by the private sector. Primary costs, that emerge as the state institutions need to upgrade their capacity, are very difficult to separate from the general reform effort and, thus, will not be estimated in this project. Based on the analysis of the existing methodologies for estimating the costs of harmonisation, we tend to conclude that the Standard Cost Model is the best available option, although quite demanding in terms of data.

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