Assessment of the Ukrainian quality infrastructure: challenges imposed by the WTO and commitments to EU accession

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Abstract

The national metrology, standards and conformity assessment system in Ukraine is still largely based on the state-controlled Soviet system and differ significantly in form and function from the national standards and conformity assessment systems (or the national quality infrastructure) found in countries of the European Union and of the OECD. While in the latter group of countries the vast majority of national standards are of a voluntary nature and the national quality infrastructure operates as a highly-decentralized network of public and private institutions, the Ukrainian model emphasizes technical regulations (or mandatory standards) and is dominated by highly-centralized government institutions. Recent accession of Ukraine into WTO and commitment for integration into the European Union (EU) motivated an assessment of its national quality infrastructure (metrology, standards and conformity assessment). The importance of metrology and metrology policy development is discussed to support the regulatory environment. The paper discusses main findings of the assessment developed in cooperation between the World Bank and the IFC Ukraine Business Enabling Environment Project.

Keywords: National quality infrastructure, voluntary standard, conformity assessment; regulatory environment

1. Introduction

No economy can underestimate the importance of adopting and implementing internationally recognized and accepted metrology, standardization, accreditation and conformity assessment practices for economic growth. These activities provide a vital link to global trade, market access and export competitiveness as they reduce unnecessary barriers to trade, contribute to consumer confidence in product safety, quality, health and the environment.

Transition countries wishing to accelerate their technological catch-up and benefit from trade integration with the European Union (EU) are increasingly adopting strategies of transposing European harmonized standards and adhering to international standards rather than developing their own standards. The transposition of the European New Approach to technical regulation, Global Approach to conformity assessment (required for the CE marking) related to technical regulations are part of the agenda of EU trade integration.

2. Quality, trade and Ukraine’s competitiveness

Evidence shows that Ukrainian firms are not able to compete internationally based on the quality of their exports. Instead, are focused on cost-competition, which is generally associated with lower value-added activities. Competing on quality, based on the adoption of

1 The findings, interpretations and conclusions herein expressed reflect personal views of the authors.
international standards and supported by an internationally-integrated national quality infrastructure, leads to tighter and more sustainable relationships with foreign buyers, resulting in greater cross-border transfer of knowledge, foreign direct investment (FDI) and long run job creation. A recent analysis of trade data prepared by the Austrian Institute for Economic Research (WIFO) for the World Bank [1] suggests that Ukraine is specializing in industries where unit values are low and where there is little potential for upgrading on the basis of quality. Ukraine’s patterns of intra-industry trade also suggest that the country’s exports are concentrated in low-quality segments. Based on the idea that intra-industry trade can be either a two-way trade in goods with the same quality (horizontal) or with different quality contents (vertical), Fig.1 shows that: (i) there is little intra-industry trade between Ukraine and the EU26 as evidenced by its low Grubel-Lloyd (GL) index\(^2\) and (ii) the bulk of intra-industry trade with the EU26 is vertical trade in low-quality products, i.e. it is concentrated in sectors in which Ukraine imports much greater unit value than it exports.

![Fig. 1. Composition of intra-industry trade with the EU26 in manufacturing. Source: Eurostat, WIFO.](image)

3. Ukraine: trade opportunities and regulatory constraints

The collapse of communist regimes (1990s) in Central and Eastern Europe opened the possibility for these countries to increase their market access through international trade agreements and through further enlargement of the EU. In recent years Ukraine has made significant efforts to further align itself with the EU and the World Trade Organization (WTO) guidelines by reforming its trade legislation and improving its business environment.

The recent WTO accession (2008) — a major component of Ukraine's economic reform — is part of the strategy towards market access as it provides an unprecedented opportunity to create a stable and predictable trade environment favorable to its further economic growth.

It is well known that the stability of legislation governing foreign economic activities and investment policies are crucial to securing the long term relationships with FDI that can benefit the economy. It is also widely accepted that MSTQ — an adequate technical infrastructure providing access to metrology, standards, testing and quality services — plays a key role on the regulatory framework which sets the compulsory safety and information requirements that products on the market have to comply with.

A study conducted by IFC\(^3\) [2] confirms that technical regulation in Ukraine needs to be reformed to conform to international and European approaches. An independent assessment of the law structure in Ukraine carried out by a specialized international association of lawyers\(^4\) shows that unforeseen lawsuits, court appeals, judicial actions and arbitration groups’ demands are some of the constraints that create obstacles to FDI in Ukraine.

4. MSTQ infrastructure in Ukraine

The following paragraphs summarize the findings of a recent assessment [3]\(^5\) carried out under a WB study [4] to evaluate the MSTQ infrastructure in Ukraine. It confirmed that the Ukrainian national quality infrastructure is highly centralized, most of it being concentrated

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\(^2\) Grubel-Lloyd Index measures the amount of intra-industry trade between countries or country groups. The Index equals 100 if all trade is intra-industry and zero if all trade is of the inter-industry type.

\(^3\) 2,100 entrepreneurs were surveyed throughout Ukraine, Summer 2007 [2].


\(^5\) Questionnaires were applied to assess the legal status and institutional performance of the national quality infrastructure institutions of transitional economies of Europe and Central Asia (ECA) as part of the World Bank’s regional study [4].

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with the State Committee of Ukraine on Technical Regulation and Consumer Policy, also known as the DerzhspozhivStandard of Ukraine (DSSU). Governed by the Cabinet of Ministers of Ukraine, DSSU is the central authority of executive power for all aspects of standards, technical regulation, certification and metrology in the country. The level of centralization in Ukraine’s national quality system is quite extreme, compared to what is found in neighboring EU and OECD countries. In the past few decades the trend has been to break up the different functions of the national quality infrastructure into different institutions so as to maximize institutional efficiency and avoid conflicts of interest. Full membership in several European regional bodies and treaties in the MSTQ areas requires that these functions be split between different institutions to ensure transparency and good governance.

Metrology, standardization and conformity assessment are inherent elements of a national scientific-technological system capable of promoting innovation, technology transfer and economic competitiveness. Together with accreditation, standardization and metrology bodies form a country’s national quality infrastructure.

4.1 The impact of standards on trade and competitiveness

Recent empirical evidence suggests that under the right conditions, standards have important beneficial effects on technological progress, productivity and trade. Increasingly, global buyers (particularly the case of EU) demand products and services that meet rigorous standards. This is how the common market ensures that products and services integrate flawlessly with other components of the supply chain to satisfy final customer requirements and to comply with technical regulations in importing countries [5]. But the ability for firms to fully exploit the benefits of standards depends on a supportive MSTQ infrastructure.

Development of standards in Ukraine —ruled by the Law on Standardization (2001) and by the Law on Standards, Technical Regulations and Procedures of Conformity Assessment (2005)— is carried out through a centralized system by the state and with little or no input from the private sector. While in EU and OECD countries standards are developed based on an entirely voluntary process based on consensus among interested parties [6], in Ukraine standardization is virtually compulsory for almost all goods and services. Ukrainian standards essentially take the role of technical regulations and serve state control purposes rather than the enhancement of industrial competitiveness. Ukrainian technical regulations imposed are obsolete and are constituted by a complex framework of state and industry (OST) standards from Soviet times. And, as known, outdated standards curb the implementation of innovative technologies. A total of 17,184 GOST standards are still included in Ukraine’s technical regulation system. These technical regulations are often As a result, consumers often cannot enjoy the benefits of safer and more efficient products and services from Ukraine or abroad.

The assessment [3] confirmed that Ukraine has currently adopted a small number of EU standards (1,016; i.e. about 6%) of the total EU standards (about 16,500) and thus remains relatively isolated from its most important trading partners. While it has adopted a number of international (ISO and IEC) standards, together with regional standards, they continue to constitute a small share of Ukraine’s total standards stock. Standardization in Ukraine is not yet a voluntary procedure through which manufacturers can ensure specific properties of process or a product, nor is it a system primarily based on the needs and initiatives of the manufacturers and consumers. Although the Ukrainian economy offers comparative advantages such as tax incentives, manufacturing potentials, natural resources and strategic geographical location, the existing burdensome regulatory environment poses obstacles.

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6 Otraslevoy STandart (industrial standard in Russian) is similar to GOST, but for industry rather than government.

7 GOST, a set of standards maintained by the Euro-Asian Council for Standardization, Metrology and Certification.
4.2 Metrology

A metrology infrastructure existed in Ukraine since 1901, just after the Metre Convention (Convention du Mètre) was signed in Paris (1875). The original Verification Chamber of Trade Measures and Weights gave rise to the new institutional metrology structure today in place — responsible for the custody of 47 of the total 57 (state measurement etalons) taken as the (reference) national measurement standards for the country. Relying on the scientific work of renowned metrologists in different fields of measurement sciences (e.g.: quantum metrology, cesium frequency standards, nanotechnology) and on competent technicians responsible for routine calibration of measurement instruments, the institute is formed by (i) The National Scientific Centre Institute of Metrology (NSC-IM), in Kharkiv (responsible for ensuring uniformity of measurements across the country); (ii) The All Ukrainian Research and Production Centre for Standardization, Metrology, Certification and Consumer’s Rights Protection, (Ukrmetrteststandard), in Kyiv; The Scientific Research Institute Sistema, in Lviv (measurement systems); (iii) The Regional Science and Production Centre of Standardization, Metrology and Certification (Ivano-Frankivsk) in addition to (iv) 30 decentralized regional centers for standardization, metrology and certification regional bodies of DSSU, responsible for the verification of measuring instruments all over the country.

Under this multi-function organization that has a decisive influence in all aspects of the Ukrainian national quality infrastructure, NSC-IM seems to be vulnerable to enter any international or regional measurement schemes related to mutual recognition of measurement results and of measurement certificates as it simultaneously operate regulatory and non-regulatory functions. Unlike most OECD countries, DSSU is responsible for functions that conflict with each other: those of the national quality infrastructure (MSTQ) and those related to policy setting and drafting of technical legislation (consumer rights protection, technical regulation, state metrological control and surveillance).

Assessed very critically by independent agencies, the management role of DSSU has been questioned. DSSU neither has an adequate perception of the role of metrology (a tool for industrial competitiveness) nor does it provide an efficient and transparent coordination.

Assessment of the applicable Law On Metrology and Metrological Activity (March 1998, amended in 2004) shows that it does not reflect international best practices. Neither does it fit the obligations imposed by WTO membership (compulsory regulation should be kept to a minimum to avoid unnecessary barriers to trade) nor technical and administrative requirements imposed by European directives. Moreover, the terminology used to define basic concepts deviates from the international vocabulary of basic and general metrology concepts and associated terms (VIM3 JCGM-200:2008) —a type of vulnerability that hampers international cooperation and may lead to contradictions and ambiguities.

The existing metrology Law in Ukraine calls for a thorough revision as it does not suit the purpose of a modern market-oriented economy. No distinction is made between metrology that falls under legal regulations and those aspects of metrology related to the non-regulated area. The so called “state metrological system” should be replaced by a softer (voluntary) national metrology infrastructure concept. While the compulsory approach should be limited to legal metrology, the new law on metrology should promote the voluntary character that is proper of industrial metrology.

A key challenge for the Ukrainian metrology system is its lack of international traceability. This means that measurements in the Ukrainian economy traceable to those of the national metrology institutes are not recognized abroad. After the disintegration of the Soviet Union, access to international traceability became a challenge in Ukraine. The country was faced with the challenge of adopting a decentralized metrology approach and of ensuring uniformity of measurements through traceability to the international system of measurement units (SI).
Restructuring of the multifunction DSSU and separation of the regulated and non-regulated components of metrology is highly advisable if metrology efficiency and international recognition of the metrology institute are to be achieved.

4.3 Conformity Assessment and technical regulation

In spite of the fact that registration of voluntary certification is not required and is even questionable in OECD countries, every standard certificate of conformity issued for products in Ukraine needs to be registered at the UkrCEPRO—a specific quality certification register currently operating in the country. UkrCEPRO (comprising conformity assessment bodies) is the system for compulsory certification managed and accredited by DSSU. Thus, UkrCEPRO is an alternative of conformity assessment system, but only for compulsory certification.

Technical regulations systems currently existing in Ukraine are based on the previous state-controlled Soviet system and differ significantly from what is nowadays understood as standardization and certification or conformity assessment in Europe and in other advanced market economies such as the OECD’s. Ukraine’s system is not risk-focused and places a burden on business not commensurate with the benefits it has to offer to society.

One of the key findings of the IFC survey [2] is that the current system of technical regulation in Ukraine needs an urgent reform. The current regulatory environment hinders economic growth as it harms competitiveness and creates barriers to innovation (introduction of new technologies are subject to bureaucratic approval of regulatory agencies).

5. Accreditation

Although accreditations by the National Accreditation Agency of Ukraine (NAAU) are granted in accordance with widely used and recognized European and international standards, the driver for accreditation is most likely mandatory testing requirements imposed by DSSU. The number of accredited inspection bodies and calibration laboratories remains extremely low in Ukraine, which has a direct negative impact on the diffusion of quality in the economy. In particular, the lack of accredited calibration labs prevents measurements of the national metrology institute to be effectively disseminated throughout the economy. Although the recent establishment of NAAU in 2002 aligned Ukraine national quality infrastructure closer to that of its European trade partners, its accreditation system remains relatively isolated and unrecognized abroad through mutual recognition agreements (MRAs and MLAs).

6. Conclusion

The findings discussed in this paper suggest that the institutions of the national quality infrastructure recognize that a well-executed reform program and an effective national quality system, consistent with internationally accepted and required practices, would have a significant impact on Ukraine’s economy, particularly in terms of enhancing trade, access to markets and overall competitiveness. The whole administrative system governed by the DSSU HQ—bringing together all MSTQ institutions under the same roof—should be carefully reviewed. Concentration of too much power in a single coordinating body, scarcely controlled by any other institution, is highly inadequate.

References