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# Competition policy implementation in transition economies: an empirical assessment

by **Mark A. Dutz and Maria Vagliasindi**

## **Abstract**

Between 1990 and 1996, competition laws have been adopted in 22 of the 26 transition economies of central and eastern Europe and the former Soviet Union. Yet there is very little systematic evidence about implementation experience, and none regarding its impact on intensity of economy-wide competition. The novelty of this paper is twofold. First, it defines a range of competition policy implementation criteria relevant for transition and developing economies along the three main dimensions of enforcement, competition advocacy and institutional effectiveness. These classification criteria go significantly beyond the traditional emphasis on abuse of dominance, agreement and merger cases. Second, it provides an assessment of the effectiveness of competition policy implementation across 18 countries along these criteria, based on data from each country's competition authorities and supplemented with assessments by legal practitioners. The relationship between competition policy and intensity of competition is explored, with the latter captured by a measure of economy-wide enterprise mobility that reflects selection effects. We find a robust positive relationship between effective competition policy implementation and expansion of more efficient private firms.

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## INTRODUCTION

By 1996, only a few years after the fall of the Berlin Wall, 22 of the 26 transition economies of central and eastern Europe and the former Soviet Union had adopted competition laws. Yet there is virtually no evidence about implementation experience across all transition economies.<sup>1</sup> Moreover, there has been no empirical attempt to test whether effectiveness of implementation has any significant economy-wide impact in terms of intensity of competition.

The objective of this paper is to assess the effectiveness of competition policy across transition economies. The novelty of the paper is twofold. First, we define criteria to measure effectiveness of competition policy implementation. The analysis is based on implementation experience with three main dimensions which we believe represent essential features of an effective competition law regardless of the specific needs of any given country: (i) enforcement, (ii) competition advocacy, and (iii) institutional effectiveness. As part of these three general dimensions, we add specific criteria that we believe are particularly relevant for transition economies. Second, we explore whether there is any robust relationship between these dimensions of implementation experience and country-level indicators of intensity of competition based on new data.

In the first section, we provide a brief overview of the timing of adoption and amendments of competition laws. In Section 2, we develop a set of criteria to classify implementation experience. We report results based on data provided by the competition authorities, supplemented where appropriate by the assessment of legal practitioners and experts. In Section 3, we present our findings on the relationship between effectiveness of competition policy implementation and indicators of intensity of competition based on a detailed cross-country enterprise-level survey. A final section concludes.

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<sup>1</sup> An earlier study restricted to Hungary, Poland, and the Czech and Slovak Republics reported that the statutes have been interpreted in a very similar way, and that what varies are the emphasis and intensity of implementation. See Fingleton et al. (1996).

## I. THE TIMING OF COMPETITION LAW ADOPTION

The adoption of competition laws is a relatively recent occurrence in transition economies. Table 1 lists all 26 countries from central and eastern Europe and the former Soviet Union according to the adoption year of the initial law, together with dates of main amendments. Poland was the first country in February 1990, followed by Hungary in November of the same year. By mid-1999, only Bosnia and Herzegovina and Turkmenistan had not drafted their own competition laws.

**Table 1: Adoption of competition laws and amendments**

Countries	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Hungary	*							Ÿ		
Poland	*	=				Ÿ	=	=	=	
Czech Republic		*	=				Ÿ			Ÿ
Slovak Republic		*				Ÿ				
Bulgaria		*	=						Ÿ	
Kazakhstan		*				=				
Latvia		*		=				Ÿ		
Moldova		*		=						
Russia		*	=					Ÿ		
Ukraine		*		=		=		=	Ÿ	
Belarus			*							
Lithuania			*	=						Ÿ
Slovenia			*							
Tajikistan			*							
Uzbekistan			*		=		=			
Azerbaijan				*				=		
Estonia				*		=			Ÿ	
Kyrgyzstan					*					
Albania						*		=		
Croatia						*				
Georgia							*			
Romania							*			
Armenia										Draft
FYR Macedonia										Draft
Bosnia and Herzegovina										
Turkmenistan										

Note: Countries are listed alphabetically for each year. \* indicates year of adoption of initial law. Ÿ indicates year of amendment with significant changes. = indicates year of amendment with minor changes.

In practice, the main positive amendments have been adopted by countries around the time of their conclusion of EU Agreements on competition policy.<sup>2</sup> One common feature to the amendments is compliance to the most relevant provisions of EU competition law (particularly, concerning the original Articles 85 and 86 of the Treaty of Rome). Moreover, administrative procedures for the conduct of investigations and legal safeguards for independence and institutional effectiveness are generally described in more detail. In some cases, new provisions for competition advocacy have been introduced, as in the case for Estonia. Its new 1998 law provides the competition authorities with special powers relating to natural monopolies and entities with government-created exclusive rights. These special powers include both the requirement of a public competition for exclusive rights granted to enterprises and the requirement that natural or government-created monopolies must provide access to their network or exclusive facility on a non-discriminatory basis.<sup>3</sup>

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<sup>2</sup> Hungary, Poland, and the Czech and Slovak Republics reached EU agreements on competition in 1995 (all four were first to positively upgrade laws), Bulgaria in 1997 (amendments in 1998), and Estonia, Latvia, Lithuania and Romania in 1999 (amendments for the Baltic countries in 1997-99; Romania adopted a state-of-art law in 1996).

<sup>3</sup> See Articles 15-18 of the new Estonia competition law (enacted March 1998).

## 2. IMPLEMENTATION EXPERIENCE

Chart 1 reports implementation effectiveness in 1997 for 18 countries, nine from central and eastern Europe and the Baltics, and nine from the former Soviet Union.<sup>4</sup> The results are based on general classification criteria subsequently tailored for transition economies. We assign equal weight to nine dimensions grouped into three categories, namely (1) law enforcement, (2) competition advocacy and (3) institutional-related activities. Each dimension is assessed on a 0-1 scale, with some reflecting further sub-dimensions – enterprise-related law enforcement, for instance, is a composite of data for abuse of dominance, hard-core cartels, other agreements, and mergers. Our view is that for transition economies all three categories represent essential features and key priorities for effective competition policy implementation. This broader perspective goes significantly beyond the traditional emphasis on the number of abuse of dominance, agreements and merger cases processed. Our classification criteria are independent of country size, so small countries that bring proportionately fewer cases are not penalised relative to larger countries. The dimensions also have been chosen carefully so as to be amenable to uni-directional rating over time, to exclude the possibility that countries at one level of development where a particular criteria may be less relevant are penalised relative to countries at a different stage.

The first category is composed of separate assessments of the effectiveness of enforcement activities against enterprises and against state executive bodies (with a higher effectiveness if violations constitute at least 10 per cent of decisions). There is a third dimension to reflect whether fines actually have been levied (with a higher effectiveness if one of the three largest fines levied per year is in the “hard core cartel” category). In terms of bans against anti-competitive acts by enterprises, the coverage of most countries’ laws is generally similar to that in established market economies, with the main variation stemming from the level of detail in explicitly spelling out economic criteria to be used. An important innovation is that we include among enforcement activities anti-competitive acts by other government bodies – which are prohibited explicitly in almost all transition economies, a sharp departure from practice elsewhere in the world.<sup>5</sup> These provisions are intended to help prevent attempts by entities with state executive power, especially at regional and local levels, to introduce barriers to competition through their conduct.

The competition advocacy category reflects an assessment of the effectiveness of written comments and objections concerning a broad range of economic policies affecting competition, specifically the regulation of infrastructure sectors and privatisation policies. There is a third dimension to reflect education and constituency-building efforts specifically directed at consumers and small businesses. The benefits from the incorporation of competition principles in the legislative and regulatory activities of government can be substantial, especially in countries that have recently privatised some of the network infrastructure industries and where adequate regulatory expertise is scarce.

Finally, institutional effectiveness is based on assessments of the degree of political independence of the competition authorities, the transparency of the agency, and the effectiveness of the appeals

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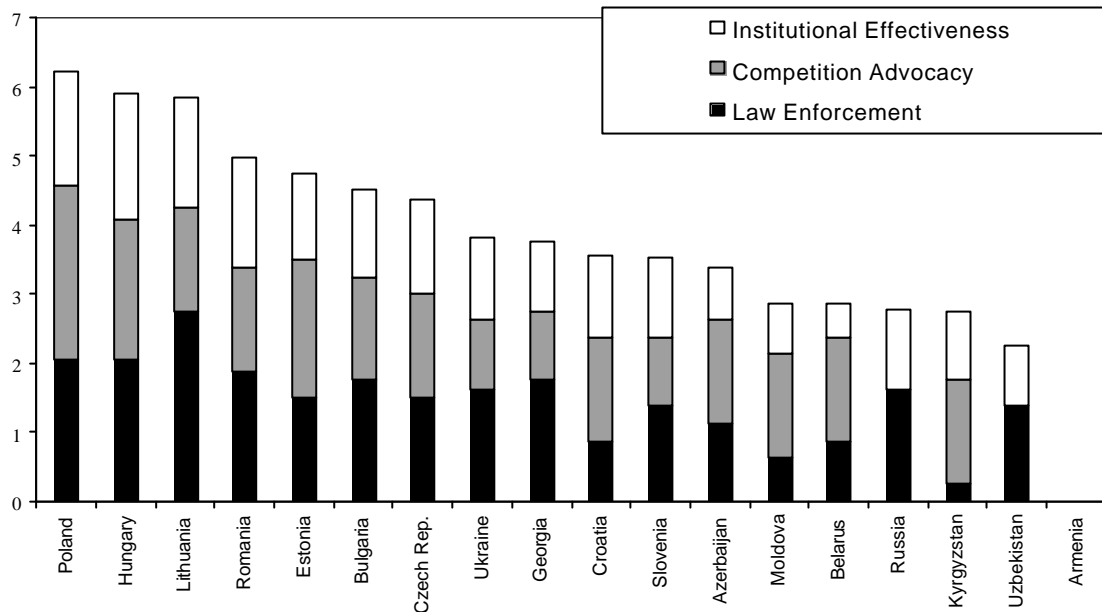
<sup>4</sup> These are the countries for which both detailed information has been submitted by the competition authorities and relevant firm-level data are available.

<sup>5</sup> Prohibited acts by a single body or in agreement typically include restrictions to the free movement of goods and capital between regions/localities, plus restriction of competition in the production of infrastructure and non-infrastructure goods and services. In most countries civil and administrative liability is incurred for violations, though Georgia and Russia also include liability under criminal law.

process based on relevance of adjudication.<sup>6</sup> Law enforcement and competition advocacy activities are classified according to data from the competition authorities in each country.<sup>7</sup> Given the nature of the assessment required for the institutional-related dimensions, this third category is based on a separate survey instrument from law practitioners and others familiar with legal practice in the area of competition policy in each country.<sup>8</sup>

As Chart 1 shows, Poland and Hungary, the first adopters of competition law, the Baltic states and Romania have the most effective overall implementation of competition policy.

**Chart 1: Competition policy implementation - Effectiveness indices**



On the other hand, Armenia, without a law or a dedicated set of individuals focusing exclusively on competition issues, had no explicit implementation of competition policies. The portion of the overall indicator accounted by the three main categories is highlighted. Chart 1 shows a significant variation across countries, both in the overall as well as constituent dimensions.

<sup>6</sup> An assessment of independence is based on the frequency of decisions that the authorities have failed to take or decisions taken that have been overturned for political reasons. Transparency is based on the extent to which decisions and annual reports are publicly available as reflected in the awareness by the general public of competition law provisions. Appeals are evaluated on the extent to which they are judged based on economic content rather than exclusively on due process.

<sup>7</sup> Reported information reflects data over both 1996 and 1997. The competition policy survey was designed and administered by the authors during the first half of 1999.

<sup>8</sup> The legal survey covering competition and other laws was administered by the EBRD during the first half of 1999 and reflects the views of 130 experts in the 18 countries. Given the slower pace of changes in the institutional area in these countries, it is an appropriate proxy for 1997 values.

### 3. IMPACT ON INTENSITY OF COMPETITION

The empirical results are based on the competition policy survey, the legal survey, plus a major new survey on the business environment and enterprise performance undertaken by the EBRD in collaboration with the World Bank. This survey sampled over 3,000 firms in 20 transition economies in the first half of 1999.<sup>9</sup> Importantly for our purposes, the survey asked the manager of each enterprise about the external factors that influence the activities of each firm, including competition faced in product markets. The survey also reports on the overall performance of the firm as measured by changes in employment and labour productivity.

To reflect intensity of competition at the economy-wide level, we use a country-level productivity-augmented mobility variable. This indicator captures the frequency with which private enterprises have expanded employment over the past 3 years (expanding firms over the 1997-99 period as a proportion of all firms), weighted by the corresponding proportion of expanding firms that increase labour productivity.<sup>10</sup> In this way, the indicator captures not only the ease with which new enterprises can expand in the economy, but also reflects market selection effects, namely whether there is appropriate pressure leading productivity-increasing firms to expand. The indicator uses the frequency of expanding firms in the economy in order to control for macroeconomic cycles across countries (which would bias the indicator, the frequency of expansion being greater for robustly growing economies).

Given that our measures of both enterprise mobility (1997-99) and beginning-of-period competition policy (1997) are available only for 18 countries, we need to develop as parsimonious a specification of the basic model as possible. Prime candidates that may influence country-wide intensity of domestic competition include the extent of structural concentration in the economy coupled with the extent of competition pressure from foreign sources. We use the share of total market sales in each firm's main product line, averaged across all firms by country as our measure of economy-wide market concentration (MktSh). To capture the variation across countries in the impact of foreign competition, we use the importance of pressure from foreign competitors on each firm, again averaged across all firms by country (ForComp).<sup>11</sup>

As reported in Table 2, the most parsimonious model (equation 1), consisting of only these two variables, structural concentration and foreign competition, performs relatively well in terms of explanatory power. While increased average concentration acts as a brake on

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<sup>9</sup> By design of the sample, the firms are fairly representative of those in their domestic economies in terms of size and sectoral representation. By design, there are also representatives of all three ownership categories in each country (state-owned, privatised and new private entrants).

<sup>10</sup> For a more detailed description of this and other mobility-related indicators, see Dutz and Vagliasindi (1999a). For an overview of mobility measures, see Caves (1998). For an assessment of various types of economy-wide measures to capture intensity of competition, including structural and mobility variables, see Dutz and Hayri (1999).

<sup>11</sup> This question asked enterprise managers to rate the influence of pressure from foreign competitors on technical efficiency ("on key decisions about the business with respect to reducing the production costs of existing products"). We use the proportion of firms responding various levels of "important" (versus "not at all important"). Country averages range from 16% of enterprises responding that foreign competition is an important pressure (Belarus) to 83% (Slovenia).

**Table 2: The impact of competition policy on enterprise mobility**  
(standard errors in parentheses)

Enterprise mobility	(1)	(2)	(3)	(4)	(5)	(6)
MktSh	-1.137** (0.257)	-1.057** (0.206)	-1.036** (0.167)	-1.020** (0.167)	-1.065** (0.190)	-0.992** (0.143)
ForComp	0.665** (0.130)	0.518** (0.114)	0.503** (0.093)	0.529** (0.089)	0.559** (0.104)	0.459** (0.081)
CompPol	-	0.263** (0.085)	0.153* (0.078)	-	-	-
CorpGov	-	-	0.079** (0.027)	0.090** (0.025)	0.103** (0.032)	0.078** (0.022)
ENF	-	-	-	0.095* (0.047)	-	-
CA	-	-	-	-	0.011 (.066)	-
Instit	-	-	-	-	-	0.230** (0.072)
Constant	0.229** (0.045)	0.173** (0.040)	0.205** (0.035)	0.209** (0.033)	0.239** (0.034)	0.198** (0.028)
R <sup>2</sup>	0.6405	0.7868	0.8701	0.8716	0.8323	0.9063
Adj. R <sup>2</sup>	0.5927	0.7411	0.8301	0.8321	0.7807	0.8775
F-test	13.360	17.226	21.764	22.063	16.135	31.421
Prob > F	0.0005	0.0001	0.0000	0.0000	0.0001	0.0000

Notes: \*\* indicates significance at 95% level, \* at 90%. All regressions are based on country-level variables for Armenia, Azerbaijan, Belarus, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kyrgyzstan, Lithuania, Moldova, Poland, Romania, Russia, Slovenia, Ukraine and Uzbekistan (18 observations). "Enterprise mobility" (the proportion of productivity-increasing expanding private enterprises), "Market share" (the average share of market sales of each firm's main product line) and "Foreign competition" (the average extent to which pressure from foreign competitors is rated as important by enterprises) are based on a 1999 EBRD/World Bank enterprise-level survey on the business environment and enterprise performance comprising over 3,000 firms in 20 countries. CompPol, ENF, CA and Instit refer to the overall competition policy implementation indicator and its main constituent categories. "Corporate governance" is an indicator reflecting strategic outsider versus insider corporate governance control structures. See Dutz and Vagliasindi (1999a).

expansion by more efficient enterprises, competition pressure from foreign sources is positively related to mobility.<sup>12</sup> In equation 2, we explore the relationship between competition policy, as captured by our overall effectiveness of implementation indicator, and mobility. The relation is both positive and highly significant, as well as increasing the explanatory power of the model.

We next explore, within this framework, the inter-relation between competition policy and policy aimed at improving corporate governance, given the potential role of both competition and corporate governance as discipline devices spurring improved enterprise performance. As a measure of policy aimed at improving corporate governance, we use a country-level indicator that reflects whether the dominant privatisation method adopted by each country has favoured direct sales to strategic outsiders versus insider or more diffuse control structures (CorpGov).<sup>13</sup> As expected, effective policy aimed at promoting desirable corporate governance structures is to some degree a substitute for effective competition policy. As reported in equation 3, competition policy maintains a positive relation with expansion by more efficient private enterprises in the presence of the corporate governance variable, though both the magnitude of its effect and its level of significance drop – suggesting that corporate governance substitutes to some extent for product market competition.<sup>14</sup>

Finally, we report results on the relative importance of the three main dimensions of competition policy implementation, as captured by law enforcement (ENF), competition advocacy (CA) and institutional effectiveness (Instit) indices. Of the three constituent components of overall implementation, competition advocacy has no significant relationship with mobility, probably reflecting the fact that there is less variance within this dimension across individual countries. Enforcement (anti-competitive acts by enterprises and state executive bodies, plus the deterrence value of fines) and institutional effectiveness (independence, appeals and transparency) are both positively related to intensity of competition. However, the level of significance of the Instit effect is higher, and its magnitude is more than twice that of ENF (with the difference being statistically significant).<sup>15</sup> This implies that factors related to institutional effectiveness are indeed critical in ensuring that competition policy has its intended economy-wide impact. The stronger link between implementation effectiveness and ease of expansion of productive enterprises suggests that building a reputation for independent, transparent and appropriate decision-making can be an important prerequisite for more effective enforcement and competition advocacy activities by national competition authorities.

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<sup>12</sup> The concentration-mobility link is in line with related results by Blundell et al. (1995) on concentration and innovation.

<sup>13</sup> For a detailed description of the rationale and empirical bases for such an approach, see Dutz and Vagliasindi (1999a).

<sup>14</sup> Based on a sample of UK manufacturing enterprises over the period 1982-94, Nickell et al. (1997) report evidence to suggest that corporate governance can substitute for product market competition.

<sup>15</sup> Similar results hold regressing the constituents of the overall competition policy implementation index in the specification without corporate governance (non-reported variants of equation 2). This time both Inst and ENF are statistically significant at the 95% level as separate regressors. Similarly, the magnitude of the Inst coefficient is more than twice the level of the ENF coefficient.

## 4. CONCLUSIONS

Through implementing effective competition law, governments can affect the business environment in which firms operate, encouraging mobility and more efficient allocation of resources. In addition to their traditional role of filing and investigating alleged anti-competitive practices by enterprises, competition authorities in transition economies have important functions with regard to filing cases against local and regional government bodies whenever their conduct restricts competition, as well as using their considerable formal powers as competition advocates to incorporate competition principles in legislative and regulatory activities of government and to educate all key economic actors of the benefits of competition. In principle, all these activities should be especially geared to foster opportunities for newcomers and those other enterprises that are more likely to pursue innovative activities and operate in new segments.

Our comprehensive classification of implementation experience reflects not only enforcement experience *vis-à-vis* enterprises but also the other important dimensions of enforcement, competition advocacy and institutional effectiveness. We find a robust positive relationship between more effective competition policy implementation and intensity of competition as captured by economy-wide enterprise mobility. Merely having a competition law on the books, or having an up-and-running competition agency, is not a sufficient condition for effective implementation. The stronger and statistically more significant impact of institutional dimensions of implementation – independence, transparency and effectiveness of appeals – suggest that in order to help foster the entry and growth of enterprises, competition authorities should be more accountable to civil society, and build additional safeguards to protect against undue influence from pressure groups in government and elsewhere. The absence of any robust impact of competition advocacy, on the other hand, probably reflects that this is a most difficult area to implement effectively across all transition economies. It requires the competition authorities to gain expertise not only in traditional anti-trust enforcement but also in the other industry oversight (especially network infrastructure industries). It also requires sufficient resources to be spent on effective education.

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