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'External determinants of domestic institutional change:
the impact of EU policies on the patterns of
post-communist economic transformation'

Introduction

To what extent do external determinants shape domestic outcomes? Post-communist transformation, well into the second decade since it began, provides an instructive case for the study of this more general question. A number of competing approaches have addressed the question of the domestic or external determinants of the transitional process and the variation or convergence among national transformation trajectories[1]. In this paper I am primarily interested in one of these approaches that has faired prominently in the literature, the Europeanization one. Europeanization studies in the context of post-communist transformation examine the impact of European Union (EU) policies – and in particular accession negotiations – on national trajectories of transition. In section 1 I present the main arguments of this approach and raise a few points of consideration regarding the relative neglect of (a) the impact of the EU policies on the earlier stages of the transformation process and (b) changes in the broader set of post-communist countries beyond the EU candidate ones.

One of the reasons behind this neglect is the difficulty of scholarly analysis to explore the patterns of transformation due to the absence of a comprehensive measure over time and across countries of the pace of transformation in the transitional countries. I address this issue by calculating a factor score-based index of transformation in section 2. Based on this index, I address in sections 3 and 4 respectively two questions of descriptive rather than causal nature concerning post-communist economic transformation that can shed light to the discussion of the causes behind the observed transitional outcomes. First, at what point in the period 1989-2002 do patterns of convergence or divergence among the transformation trajectories of transitional countries emerge and crystallize? Second, is there a point in the transitional period when economic transformation reached a state of consolidation? To address these questions, this paper provides an exploratory analysis of the patterns of transformation of twenty seven post-communist countries for the years 1989-2002. As far as I am aware, an exploratory analysis of this coverage over time and across countries is missing from the literature, thus hindering our understanding of the big picture of the process and the causes that underlie it.

Finally, in the conclusions of the paper I revisit the link between the EU and the transitional countries and suggest possible channels of influence that lead to the accelerated pace of transformation in a subset of the twenty seven post-communist countries.

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[1] Scholarly analyses with quite diverse assumptions regarding the transitional process have attempted to address the causes behind individual and/or collective transformation trajectories. Among analyses with a domestic focus, prominent approaches included path-dependence (see for example Lane 2002; Stark and Bruszt 1998; Stark 1996; Winieck 2004; Alexander 2001; Kovacs 2000; Cook 2002) and domestic politics (see for example Grzymala-Busse and Innes 2003; Vachudova 2001; Lane 2002; Fish 1998). Among analyses with an international/external focus, besides the literature on Europeanization, prominent approaches included globalization and regionalization (see for example Verdun 2003; Stewart and Berry 1999; Bruszt and Stark 2003; Oman 1999; DeMartino and Grabel 1999).

Before I move into the substantive discussion and in the remainder of the introduction I address issues of definition. I focus on the economic transformation of post-communist countries, thus excluding from this analysis the associated political and social changes that the countries underwent since the early 1990s[2]. Limiting the scope of my work in this way is essential for the feasibility of this undertaking, given the wide geographical and temporal spread of the study. Focusing on economic transformation has the additional benefit of enhancing our understanding of the variation between individual/domestic transition outcomes or patterns of outcomes, and their causes. Attempting to include further political or social dimensions would be a risky strategy, especially if different lines of causation underlie different dimensions of change.

Institutions, institutionalization, and institutional change occupy a central position in the definition of economic transformation. Work on institutions and institutional change has been pioneered by Nobel prize-winner, Douglas North, who states that 'Institutions are the rules of the game (…) that shape human exchange, whether political, social, or economic.' (1990, 3) Post-communist transformation is by definition a process of change and in particular a change in institutions, to the extent that we define transformation with regard to institutions. One aspect of this change is captured by institutionalisation. Following the framework and definition proposed by Scimmelfennig and Sedelmeier, institutionalisation is understood as '(…) the process by which the actions and interactions of social actors come to be normatively patterned.' (2002, 503). They distinguish between horizontal and vertical institutionalisation, corresponding to the widening of involved states of the EU and the deepening of policy areas.

However, the concept of institutionalization is less suitable than the concept of institutional change for capturing the process of post-communist transformation, to the extent that institutionalization is understood as 'positive institutionalization', that is, as the creation of new institutions. In this sense, all cases of institutionalization are also cases of institutional change. The reverse, though, is not true: not all cases of institutional change are cases of positive institutionalization. For example, instances of 'negative institutionalization', i.e. the demise or substitution of existing institutions are also cases of institutional change. Institutional change, then, is the accumulated outcome of the two sub-processes. Post-communist economic transformation is clearly characterized by both sub-processes.

North argues that 'Institutions are the humanly devised constraints that structure human interaction. They are made up of formal constraints (rules, laws, constitutions), informal constraints (norms of behavior, conventions, and self-imposed codes of conduct), and their enforcement characteristics.' (1996, 344) I define economic transformation as a multifaceted process of institutional change in the broader area of the rules that define the systems and processes of production and exchange in a society; the focus of my work, then, falls on changes in formal institutions. In this sense, institutional change is

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[2] Henceforth, the term 'transformation' will refer to the 'economic transformation of post-communist countries', unless otherwise noted.

empirically manifested in the form of domestic economic reforms, a qualification that will prove useful for measurement purposes.

Section 1: Europeanization and the transformation of CEE candidates

Post-communist transformation has directly affected the political systems, economies, and societies of twenty seven post-communist countries for over a decade. This transformation has also indirectly affected the societies, economies, institutions, and policies of the entire western world - especially western Europe - on a wide range of issues ranging from foreign direct investment and foreign aid, to reforms of EU institutions, to illegal immigration and crime-trafficking, thus rendering the transitional process one of the central domestic and international processes in the post-Cold War international system at large, and the European regional system in particular. It is not surprising, then, that scholarly analysis has sought to address the link between the EU and post-communist transformation through the lenses of Europeanization. Europeanization can be loosely defined as 'a shift of attention of all national institutions and their increasing participation - in terms of the number of actors and their intensity - in the EC/EU decision-making cycle' (Wessels and Rometsch 1996, 328[3]). An alternative definition more relevant to the Central and Eastern European (CEE) countries comes from Grabbe, who defines Europeanization it terms of the impact of the accession negotiations on national patterns of governance (2001).[4]

Papadimitriou and Phinnemore take the Europeanization discussion outside the confines of existing EU members, and examine how EU policies 'export' the European model(s) of administration to external countries (2003). Although the title of their article also points beyond candidate countries, the primary focus is on the administrative transformation of candidate countries through the twinning policy. They examine in less detail the Europeanization process in relation to the Balkan countries but do not extend their analysis to countries of the former Soviet Union. They conclude that exporting Europeanization to candidate countries leads to a convergence in the transformations of national administration and they identify twinning as a mechanism through which this convergence is happening[5].

A number of ways through which Europeanization results in domestic transformation have been proposed in the literature, primarily in regard to changes in the member states. Papadimitriou and Phinnemore identify the following in the literature (2003, 4): (1) EU prescription of domestic institutional adaptation, (2) alteration of domestic opportunity structures and, subsequently, of domestic winners and losers, (3) changes of beliefs and expectations of domestic agents that in turn affect the formation of preferences at the

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[3] From Lippert et al 2002, 980.

[4] For a more detailed account of alternative definitions of Europeanization in the literature see Papadimitriou and Phinnemore 2003.

[5] As part of a reinforced pre-accession strategy, twinning was concerned with institution building through the secondment of pre-accession advisors from the civil services of member states to the accession countries, a project financed through the restructured PHARE program.

domestic level, (4) formation of European ideas as a legitimizing force for domestic reform.

Lippert et al, point to the accession negotiations as a shaping power of administrative structures in the CEE countries (2001). The focus falls on administrative transformation and not without reason, as Goetz points out, due to the central role of administrative structures that provide the backbone of the state, and hence the necessary ingredient for enhanced state capacity to adopt and implement reforms (2001). Related to the accession negotiations and the pre-accession period, Grabbe points towards conditionality as a Europeanizing force in CEE countries[6]. She identifies five ways through which the EU conditions domestic outcomes in the transition countries: (1) gate-keeping (opening of negotiations), (2) monitoring, (3) prescription of institutional blueprints, (4) aid and technical assistance, (5) twinning. (2001, 1020-1024)

A few notes on the Europeanization literature

I raise two points regarding the literature on Europeanization. The first point concerns the selection of countries for comparative purposes. A common feature is that most of the comparative work on the link between Europeanization and post-communist transformation focuses on comparison between EU candidate countries. For example, Vachudova concludes that 'during the first period (1989 to1994), the EU's "passive leverage" - the attraction of membership - only reinforced domestic strategies of reform in liberal-pattern states. It failed to avert rent-seeking strategies of ethnic scapegoating and partial economic reform in nationalist-pattern states.' (2001, 34) But to arrive to this conclusion Vachudova is comparing the transformation experiences of EU candidate countries. One would better appreciate the effects of passive leverage (the prospect of membership), it seems, if one compared the transformations of candidate countries - who were subjected to it - and non-candidate countries - who were not subjected to it. Otherwise, what one observes is perhaps intra-group differences of otherwise converging transformation trajectories. This is more an issue of research design than research questions. This does not imply that there is something wrong with the use of case studies or limited comparative studies across countries and reform areas *per se*. Case studies do report a wealth of in-depth knowledge, however, without necessarily facilitating comparisons with other case studies. And comparative analyses - even projects of limited scale - can highlight differences and similarities between the research units. However, these results cannot be generalized to account for differences from and similarities with – especially – non-EU candidate transition countries.

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[6] For a more elaborate analysis of the impact of conditionality on the CEE countries see Hughes et al 2004. They argue that it is necessary to be cautious towards the idea of a uniform impact of conditionality; following their study of the impact of conditionality in the areas of regional policy and regionalization they observe differentiated outcomes in different CEE countries.

It appears that the general conclusion of these comparative studies is that countries are converging[7]. The question asked is not *if*, but to *what extent* the candidates are converging. It is useful here to distinguish between institutional *convergence* and institutional *uniformity.* For example, Malova and Haughton, who also focus on candidate countries, are concerned with political institutional change and observe institutional convergence but not institutional uniformity (2001). They illustrate the argument in the case of the Copenhagen political criterion concerning democracy that allows ample space for institutional diversity, but only within a democratic framework.

One way to moderate the selection bias would be to extend the sample in a way that would include countries where the EU influence is not so profound, as in the case of non-candidates for EU membership. The coverage of the entire set of post-communist countries in section 2 of this paper aims at addressing precisely this issue.

The second point concerns the emphasis on the accession negotiations and the subsequent focus on the related tools of the pre-accession period – such as conditionality and monitoring – as the mechanisms of influencing the progress of transformation[8]. Most of the discussion revolves around the accession of the countries and the negotiations that lead to the accession (e.g. Grabbe 2001, Lippert et al 2001). The focus on negotiations as the shaping power of transformation allows little room for considering other significant ways through which the EU and its policies influenced the transformation of the CEE countries, especially before the negotiations began. Capturing the pace of transformation in the early as well in the late stages of the transformation process addresses this issue and assists us in disentangling and comprehending the impact of the EU.

Section 2: Capturing the big picture of economic transformation

The objective of this section is to establish an estimate of the 'big picture' of the pace of economic transformation over time and across countries, in the form of an index of economic institutional change that assigns aggregate transition scores to each transition country for every year between 1989 and 2002.

Methodology: Choosing a synthetic variable approach

There is little point in arguing that there can be a perfect measure of such a complex phenomenon, such as the economic transformation of twenty seven post-communist countries. As North points out regarding the measurement of institutional change: 'Institutional change is a multidimensional, multilevel phenomenon that empirical studies

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[7] I should note here that a variant of the literature on Europeanization also predicts non-convergence but for quite different reasons, namely, the absence of a clear 'European' model to adapt to (Lippert et al 2001, 981)

[8] One exception is Vachudova (2001)

cannot capture in all its complexity.' (1996, 3) This proposition certainly applies in the case of post-communist transformation as well. Although there can be no direct measure that captures all the complexities of the process, an alternative strategy of creating a synthetic variable is both meaningful and reasonably feasible[9]. This strategy consists of three pillars: (a) analysis of economic transformation to its core component dimensions that are common among transition countries, (b) measurement of these dimensions, a task more manageable than any attempt at direct measurement of transformation at large, and (c) synthesis of information derived from the component dimensions in order to create a synthetic aggregate variable of the pace of transformation.

Various measures of post-communist economic transformation have been used in the literature[10]. Here I use as component variables eight EBRD indicators of economic institutional change that cover the three key areas of economic reforms – enterprises, markets & trade, and financial institutions[11] –for the period between 1989 and 2002[12]. The eight EBRD indicators are divided into three categories. The first category, *Privatisation and Restructuring*, includes three indicators: large scale privatisation, small-scale privatisation, and governance and enterprise restructuring. The second category, *Market Liberalisation and Competition*, also includes three indicators: price liberalisation, trade and foreign exchange system, and competition policy. The third category, *Financial Markets Reform*, includes two indicators: banking reform and interest rate liberalisation, and securities markets and non-bank financial institutions.
An indicator score of 4.3 shows an advanced market economy by western economic standards in the specific indicator, whereas a score of 1 shows no difference from a communist-type economy[13].

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[9] Another alternative would be to use a proxy variable that measures the one dimension of institutional change that the researcher believes best describes the entire process. The central assumption is that one dimension is sufficiently representative of the entire multidimensional phenomenon. Although convenient from a practical point of view, this option raises serious issues of measurement error (Raiser et al 2000, 4). In the unlikely – though theoretically possible – case that an indicator is perfectly representative of the underlying phenomenon, adding other indicators simply leads to inferior solutions (Kim and Mueller 1994, 133). Since this is an unlikely case, to the extent that institutional change is indeed a multidimensional process, I discount its usefulness here.

[10] Another widely used measure is the Frazer Institute's *Economic Freedom of the World 2000 Index* (Fish 1998, Lane 2002).

[11] "On enterprises, the transition indicators are designed to measure the extent to which enterprises have been shifted into private ownership and have begun to alter their operations and governance structures in response to the market. On markets and trade, the transition indicators gauge how well these markets are functioning. In this regard they indicate the openness of markets, the extent of competitive practices and the degree to which prices reflect costs. On financial institutions, the indicators attempt to capture the extent to which the financial system provides financial discipline, effective intermediation between savers and investors and an efficient system of clearing and settlement." (EBRD Transition Report 1998, 25)

[12] I am indebted to Martin Raiser for sharing data of the EBRD, including unpublished data for the period between 1989 and 1993.

[13] The only difference is that I linearize the EBRD scores by assigning a value of 1/3 to a '+' sign and –1/3 to a '-' sign. Thus the maximum score of the EBRD indicators is 4+ whereas the maximum score in the dataset of indicators is 4.3. IMF's *World Outlook 2000* has followed the same practice in order to construct its index of aggregate transition indicator for 1999 (2000).

I rely on factor analysis to synthesize the desired aggregate variable that measures the pace of reforms[14]. More specifically, I calculate factor scores for the pace of transformation in each country by assigning weights to the contribution of each indicator derived endogenously from the variance of the observed indicators[15]. I am not aware of any similar effort to create an index of economic transformation covering 14 years of the transitional process for 27 countries.

In the absence of similarly oriented studies, what follows is in many ways inspired by the work of Raiser et al. (2000), although there are three major points of difference[16]. First, Raiser et al. devised a multiple indicator model with multiple causes in their attempt to assess the *causal* impact of various sets of variables on the unobserved/latent dependent variable. The purpose of their work, which is to produce a causal analysis of institutional change, is different from the purpose of this paper, which is to produce a descriptive/exploratory analysis of the same process. A second major point of departure from their work is conceptual and definitional. Although Raiser et al. also focus on institutional change, they exclude privatization and liberalization from their definition and measurement of institutional change because, as they argue, both areas of reform constitute forms of negative change (the state relinquishes power) rather than positive change, in the sense of adopting new formal rules. It is not clear however why relinquishing control by the state should not be considered as an expression of institutional change. On the contrary, it would seem that, given the post-*communist* context of their study, these areas provide good measures of change. To use terminology introduced in the Introduction, it seems that Raiser et al are measuring positive institutionalization, not institutional change. If the goal of our measurement is to estimate institutional change, i.e. departure from the communist era arrangements into a new state of affairs, it is essential to include privatization and liberalization in our definition of institutional change and, therefore, in our measurement, which is what I do in this paper[17]. A third point of departure from the Raiser et al. methodology concerns the inclusion as measures of economic institutional change of indicators on the legal system. Although it might facilitate the analysis in certain ways, it should be noted that legal indicators are conceptually distinct from indicators of economic reform, and therefore their inclusion has an eclectic nature. If measures of legal effectiveness are considered part of the definition of economic institutional change, it might seem attractive to do the

[14] For a good introductory discussion of factor analysis, see Kim and Mueller 1994, particularly section 2, pp 6-40.

[15] A similar measure has been developed by the International Monetary Fund (IMF: World Outlook 2000). The IMF 'Index of Aggregate Transition Indicators' measures the economic adjustment of post-communist countries for year 1999 using a simple average methodology. In the simple average approach all indicators are weighted equally in the synthetic variable. The same method excludes various other sorts of useful information in the data, for example the variation within each indicator, or the covariation among indicators. The factor score-based approach is more sophisticated than the simple average methodology both in regard to the weights assigned to each indicator and to information conveyed by the data.

[16] Raiser et al. follow a more elaborate approach based on a multiple indicator, multiple cause model (MIMIC), although their analysis does not go beyond 1998 and covers 25 countries. The essence of the model is that weights are assigned to the contributions of each of the indicators derived from the relationship between (a) a set of observed exogenous variables, and (b) an unobserved latent construct and a set of observed endogenous variables (2000).

[17] Most other indexes, such as the Freedom House Index, also include privatization and liberalization.

same for indicators on the quality of the political system and governance, since it is polities that define and enforce the economic rules. This is a risky strategy, since we might end up with an all-encompassing concept which is of very little use for further analysis.

Here I rely on factor analysis in order to produce an index of factor scores that 'reduces' the eight observed indicators to one variable of institutional change, which, in turn, will provide the basis for an exploratory analysis of the main collective trends and patterns of transformation trajectories in the period 1989-2002[18]. The core assumption is that the observed variables are linear combinations of one underlying variable, institutional change (the common factor). These linear combinations could be assumed to be of causal nature; in this case, the observed variables are instead assumed to be the component dimensions of a multidimensional, 'higher-order' variable which cannot be directly measured, precisely because of its multidimensionality. For this reason I use interchangeably the terms 'component variables', 'component indicators', and 'observed variables' to refer to the eight EBRD indicators and I use the terms 'common factor' and 'underlying variable' to refer to institutional change.

The model is mathematically summarized as: $F = b_i X_i + d_i U_i$, for $i = 1, \ldots, 8$, (1)

where F is the common factor, X_i the observed variables, U_i the unique factor, b_i the factor loadings, and d_i the unique loadings[19]: To facilitate the conceptualization of the model, I present it schematically in the form of the following path diagram.

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[18] I follow Vincent's approach, who argues in favor of the use of this technique in the domain of international relations for exploratory purposes and, subsequently, with the primary aim of producing aggregate indexes, through variable reduction, and the secondary aim of producing variables suitable for use in further analysis (1971, 8). Like Marradi, Vincent is reluctant to use the technique for causal analysis (1981, 13; 1971).

[19] Figure 1 and equation (1) also show why the factor score approach is superior to the simple average methodology. The equation for the simple average model would be:

$$F = b X_i, \quad \text{for } i = 1, \ldots, 8 \qquad (2)$$

where F would be the mean of the transition indicators, b the weight assigned to each indicator, and X_i the observed indicators. The simple average methodology arbitrarily assigns the value $b = 1/8$, and equalizes the weights among all indicators. By extension it does not allow room for individual variance, not accounted by the mean -the U_is in equation (1). It also does not make any use of the information conveyed by the covariance (correlation, if indicators are standardized) of the component indicators. This is why, in the context of aggregating governance indicators, Kaufmann characterizes simple averages as 'naïve aggregates' (1999, 9).
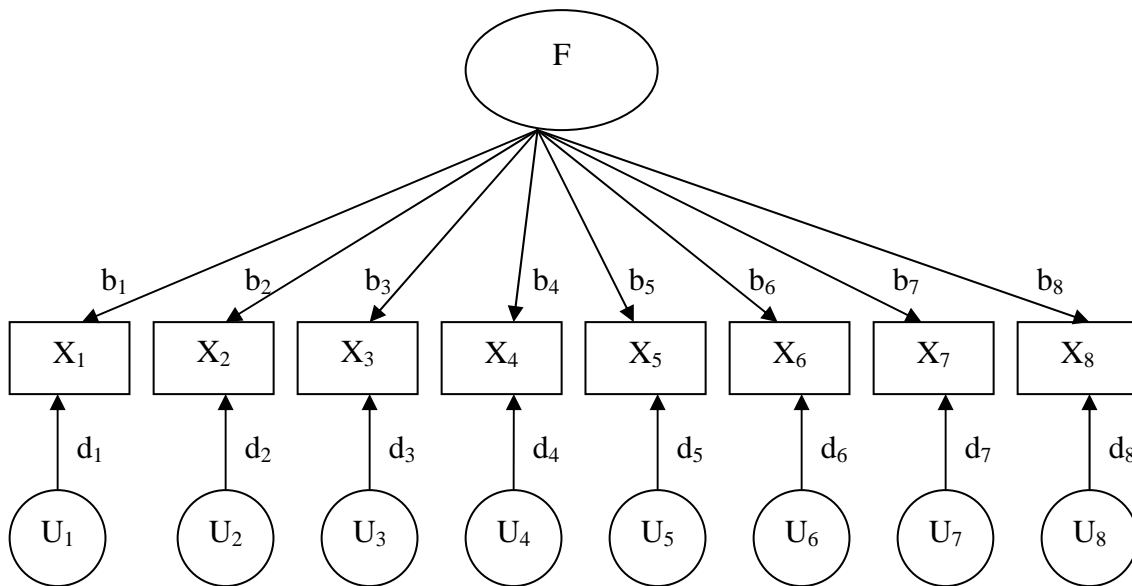
Figure 1: Factor score path diagram

I use the correlation coefficient, after standardizing, as a measure of association between the observed variables. As the correlation matrix in table A1 in the Appendix shows, the observed variables are generally highly correlated. The entries in table A1 provide the basis for the extraction of common factors through maximum likelihood estimation, and for the weights assigned to the contribution of each component indicator on the factor score, through the calculation of the factor loadings. The maximum likelihood solution aims at finding the factor solution that best fits the observed correlations. The main assumption is that the distribution of variables and factors is multivariate normal. What is unknown is the exact configuration of the loadings on each variable. For the extraction of factors, I follow the established practice and set the eigenvalue criterion at 1.0, in effect asking that a single factor account for at least as much variance as is contained in one variable. This analysis is illustrated in figure 2 where the scree plot shows the contribution of each common factor in the explanation of variance: the first factor dimension accounts for more than six units of variance and the second factor does not reach the eigenvalue of 1.0[20]. On the basis of these results, the one-factor structure is quite conclusive, and the percentage of total variance explained very high. Communalities in table A3 in the Appendix show the variance of each observed variable accounted for by the common factor. In this case, each communality for an observed variable is the square of the factor loadings for that variable. The factor loadings for each variable are listed in Table A4.

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[20] More specifically as can be seen in table A2, in the Appendix, the first factor dimension accounts for 6.370 units of variance out of a total of 8 units, or 79.622% of all the variance in the 8 variables. The second factor dimension accounts for only 0.66 units and therefore does not fulfill the 1.0 criterion.
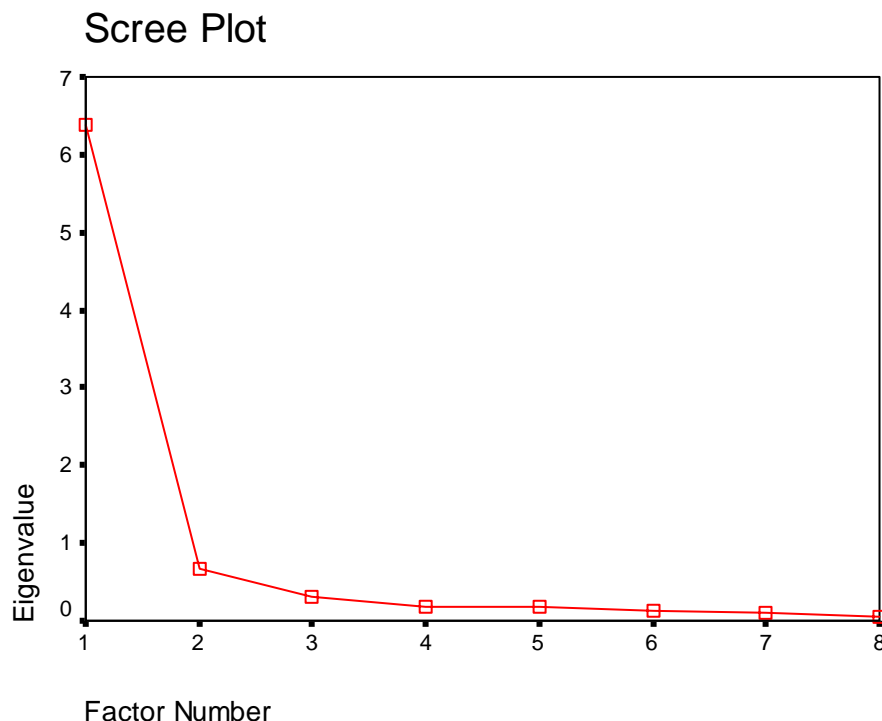
Figure 2: Scree plot of common factors

This one-factor structure confirms the theoretical expectation that the eight observed variables indeed reflect one underlying variable, institutional change. In passing, I note that I use the unrotated factor loading matrix, since the predictive power of the one factor would not be affected by rotation (rotation is meaningful in the presence of at least two factors).

The index of aggregate transition factor scores

I use the results of the one-factor maximum likelihood analysis of section 1 to compute factor scores, which are then used as entries for the index of aggregate transition scores for each transition country for each year between 1989 and 2002, presented in table 1.

Factor analysis provided the factor loadings and the observed correlations among Xs. The predicted factor scores are given by $\hat{F} = XR^{-1}B$, where B is the vector of factor loadings (table A4), X are the observed variables and R the correlation matrix for Xs (table A1). The weighting coefficients are given by $B'(R^{-1})$, with B the vector of factor loadings and R the correlation matrix for the Xs.

Table 1 lists the factor scores that provide the aggregate measure of the transition countries' pace of transformation in the period 1989-2002. A lower score reveals a slower pace of transformation across countries and over time. For example, Albania reformed substantially as can be seen by comparing its score in 1989 (-1.25) and 2002 (0.44), much more decisively than other countries in the same years, as for example Uzbekistan (-1.25,

-0.11), Turkmenistan (-1.25, -1.12), or Belarus (-1.25, -0.63); but also not as fast as the front-runners such as Poland (-1.12, 1.76), Hungary (-1.12, 2.04), or the Czech Republic (-1.25, 1.86). I use the scores of table 1 to rank countries according to their yearly pace of transformation in table A7 in the Appendix.

Table 1: Index of aggregate transition scores

Country	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Albania	-1.25	-1.25	-1.18	-0.87	-0.65	-0.07	0.14	0.28	0.28	0.28	0.28	0.40	0.44	0.44
Armenia	-1.25	-1.25	-1.25	-1.01	-0.99	-0.96	-0.04	0.21	0.30	0.43	0.43	0.43	0.55	0.73
Azerbaijan	-1.25	-1.25	-1.25	-1.20	-1.15	-1.15	-0.43	-0.35	-0.10	0.05	0.03	0.15	0.29	0.35
Belarus	-1.25	-1.25	-1.25	-1.10	-0.83	-0.83	-0.15	-0.53	-0.88	-0.93	-0.95	-0.89	-0.84	-0.63
Bosnia	-0.91	-0.91	-0.91	-1.09	-1.09	-1.18	-1.18	-1.12	-0.96	-0.12	-0.12	-0.10	-0.03	0.07
Bulgaria	-1.25	-1.17	-0.88	-0.60	-0.41	0.09	0.21	0.21	0.76	0.76	0.81	1.02	1.02	1.15
Croatia	-0.97	-0.91	-0.83	-0.69	-0.32	0.44	0.58	0.96	1.02	1.02	1.12	1.24	1.24	1.37
Czech Republic	-1.25	-1.25	-0.06	0.52	1.22	1.43	1.43	1.51	1.51	1.54	1.64	1.77	1.86	1.86
Estonia	-1.25	-1.20	-1.12	-0.29	0.82	1.12	1.26	1.32	1.52	1.52	1.68	1.70	1.83	1.86
FR Yugoslavia	-0.97	-0.91	-0.91	-0.91	-0.91	-1.05	-1.05	-1.05	-1.05	-1.07	-1.07	-1.07	-0.83	0.17
FYR Macedonia	-0.97	-0.91	-0.83	-0.83	-0.59	0.14	0.43	0.57	0.57	0.64	0.64	0.86	0.86	0.86
Georgia	-1.25	-1.25	-1.25	-1.17	-1.07	-1.07	-0.10	0.30	0.52	0.52	0.52	0.64	0.64	0.64
Hungary	-1.12	-0.79	0.11	0.57	1.08	1.25	1.49	1.52	1.88	2.01	2.01	2.04	2.04	2.04
Kazakhstan	-1.25	-1.25	-1.25	-1.12	-0.90	-0.71	-0.24	0.40	0.54	0.58	0.49	0.55	0.65	0.65
Kyrgyzstan	-1.25	-1.25	-1.25	-0.90	-0.77	0.30	0.45	0.48	0.67	0.67	0.58	0.58	0.58	0.58
Latvia	-1.25	-1.25	-1.20	-0.08	0.08	0.63	0.63	1.15	1.09	1.00	1.12	1.14	1.24	1.45
Lithuania	-1.25	-1.20	-1.20	-0.85	0.31	0.48	0.77	1.15	1.09	1.09	1.15	1.22	1.32	1.50
Moldova	-1.25	-1.25	-1.25	-1.02	-0.57	-0.01	0.41	0.41	0.41	0.53	0.53	0.54	0.57	0.57
Poland	-1.12	0.08	0.18	0.26	1.11	1.25	1.35	1.40	1.48	1.59	1.59	1.63	1.76	1.76
Romania	-1.25	-1.25	-1.11	-0.86	-0.38	0.12	0.43	0.47	0.61	0.51	0.63	0.68	0.75	0.75
Russia	-1.25	-1.25	-1.16	-0.67	-0.38	0.16	0.40	0.58	0.76	0.37	0.15	0.29	0.45	0.64
Slovak Republic	-1.25	-1.25	-0.06	0.43	1.06	1.22	1.22	1.27	1.23	1.26	1.38	1.48	1.57	1.57
Slovenia	-0.97	-0.81	-0.73	-0.44	0.63	0.95	1.05	1.10	1.16	1.20	1.29	1.32	1.32	1.45
Tajikistan	-1.25	-1.25	-1.25	-1.12	-1.05	-1.05	-0.77	-0.75	-0.73	-0.36	-0.31	-0.23	-0.24	-0.05
Turkmenistan	-1.25	-1.25	-1.25	-1.25	-1.25	-1.22	-1.15	-1.15	-0.72	-0.77	-0.77	-1.03	-1.12	-1.12
Ukraine	-1.25	-1.25	-1.25	-1.09	-1.01	-0.96	0.11	0.18	0.28	0.26	0.28	0.33	0.38	0.50
Uzbekistan	-1.25	-1.25	-1.25	-1.20	-1.03	-0.57	0.10	0.10	0.05	0.02	-0.04	-0.17	-0.11	-0.11

A few notes of caution on the index are in order before I move to the substantive discussion in sections 3 and 4. One issue is associated with the level of aggregation involved in the choice of the level and units of analysis advocated here. The primary unit of analysis lies at the country level, which means that data at a fairly aggregate level are used and, as a result, micro patterns at the domestic, sectoral, or trans-national level that might be of scholarly interest are not captured - a disadvantage which enters the discussion regarding the selection of level of analysis in international relations. Suffice it to say here that there is no way around this philosophical debate but to make a choice and that the researcher believes it is meaningful to study transformation at the macro level. Such a strategy requires an element of reductionism, since not all aspects but instead just the core of the transformation process is registered. This means that this measure does not

integrate a number of significant parameters related to the transformation process in the social and political domains. Despite the imperfections of this way of measuring a complex phenomenon, and to the extent that the component dimensions are indeed the core dimensions of the transformation process and are measured on a consistent basis and constant criteria over time and across countries, the final product offers an overview of the geographical and temporal distribution of the pace of transformation among transition and a reasonable measure of comparison of national trajectories of transformation.

With the aid of this index, we are in position now to address the two descriptive questions set out in the introduction. All analysis in the following sections is based the factor score entries of table 1.

Section 3: Measuring the spread of transformation

Diverging trajectories of transformation

Do the transformation trajectories between transition countries diverge or converge over time? At what point in the period 1989-2002 do the patterns of convergence or divergence crystallize? To address these questions I use the aggregate transition scores to calculate standard measures of the yearly spread of transformation. Higher spread suggests diverging trajectories. I use two ways to assess this spread, the range of transition scores and their standard deviation, as listed in table 2 which covers the entire set of twenty seven transition countries (N=27) for each year of entry.

Table 2: Spread of aggregate transition scores, all countries

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
1989	27	0.34	-1.25	-0.91	-1.19	0.12	0.014
1990	27	1.33	-1.25	0.08	-1.11	0.29	0.082
1991	27	1.43	-1.25	0.18	-0.95	0.45	0.206
1992	27	1.83	-1.25	0.57	-0.69	0.56	0.314
1993	27	2.47	-1.25	1.22	-0.34	0.81	0.657
1994	27	2.65	-1.22	1.43	-0.05	0.89	0.794
1995	27	2.67	-1.18	1.49	0.27	0.77	0.586
1996	27	2.67	-1.15	1.52	0.39	0.81	0.651
1997	27	2.93	-1.05	1.88	0.49	0.81	0.660
1998	27	3.07	-1.07	2.01	0.54	0.77	0.593
1999	27	3.07	-1.07	2.01	0.56	0.80	0.644
2000	27	3.11	-1.07	2.04	0.61	0.84	0.700
2001	27	3.17	-1.12	2.04	0.67	0.84	0.705
2002	27	3.17	-1.12	2.04	0.78	0.78	0.612

The first way to assess the spread is to measure the range of scores for each year, that is, the distance between the maximum and minimum scores in that year[21]. It is evident that, as we move further from 1989, the range of transition scores increases from 0.34 in 1989 to 3.17 – its highest value – in 2002. Another observation worth noting is that divergence does not decline at any point in the fourteen years of transition. However, this measure is particularly sensitive to outliers, since a country transforming exceptionally rapidly or slowly can influence it decisively.

[21] To control entries in table 2 for their correctness, simply check the highest and lowest ranked entries for that year in table A7 in the Appendix. Table A7 further complements table 2 in the sense of giving information as to which countries are those associated with higher scores and which with lower scores in a single year. Note, for example, that maximum scores are invariably associated with countries from CEE since 1990 and minimum scores with countries from Central Asia and the former Yugoslavia.

The second measure of spread, the standard deviation (or the variance), is not as sensitive[22]. To facilitate my analysis I graph column 'std deviation' from table 2 in figure 3. These measures of spread further corroborate the observed pattern of change, which is a pattern of diverging trajectories, although with more fluctuations compared to those captured by the range of transition scores.
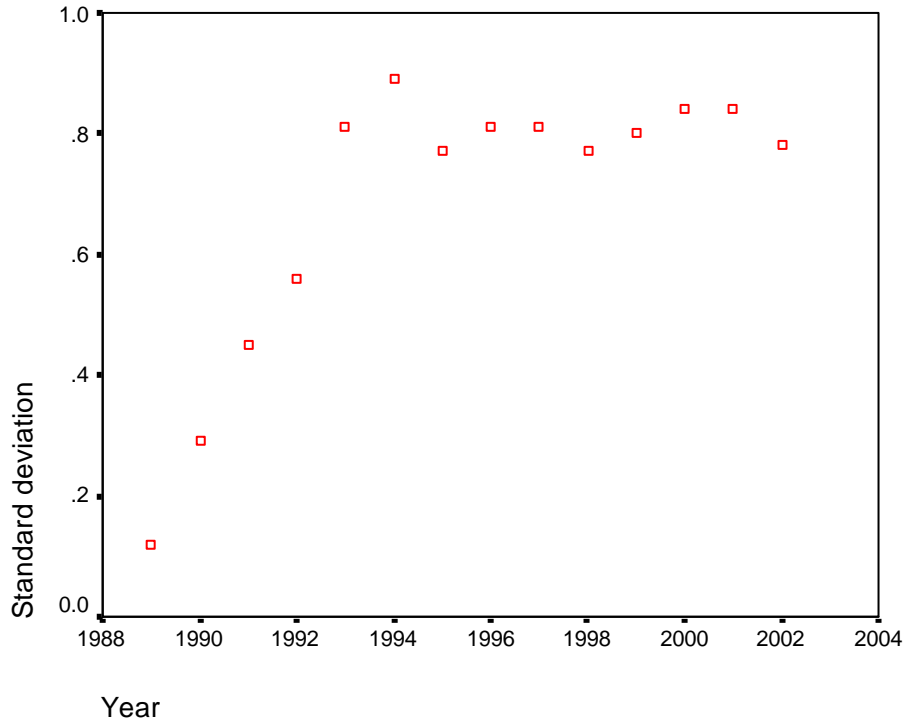
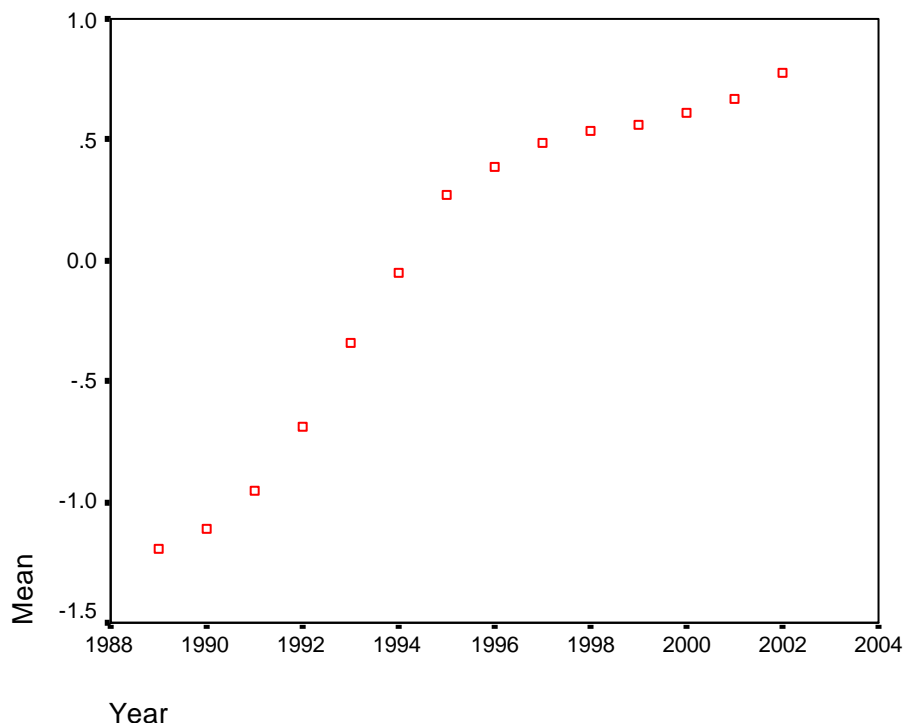**Figure 3**: Spread of aggregate transition scores (standard deviation)

The shape of figure 3 shows how strongly the trend of divergence increased in the early years between 1989 and 1994, whereas it appears to stabilize afterwards.

Another interesting trend is the constantly increasing transition mean. The mean column in table 2 presents the average value of the twenty seven factor scores for each year of transition. To facilitate the reader I graph the column 'mean' from table 2 in figure 4. Although there are individual cases of decreasing scores (see table 1), the overall trend is upward. As can be also seen from the shape of figure 4, the mean increases constantly but obviously at a decreasing rate in the years after 1995.

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[22] The variance (s^2) is the average of the squares of individual deviations from the mean:

$$s^2 = \frac{1}{n-1}\sum(x_i - \bar{x})^2$$, where s^2 is the variance, n is the number of observations and x_i individual observations. The standard deviation is the square root of the variance. A higher standard deviation shows a higher spread of the country scores around the yearly mean (mean column).

Figure 4: Yearly means of aggregate transition factor scores

To investigate further the nature of the diverging pattern I examine the two subgroups identified in section 1, the EU candidate countries on the one hand, and the non-candidate countries on the other, in tables 3a and 3b respectively. The immediate conclusion from the two tables is that the patterns that emerge are quite different from those of table 2 for the twenty seven countries. In relation to the ten candidate countries, the range of transition scores in 2002, after an increase in the interim years, is back to the 1990 levels (1.30 and 1.33 respectively). This is clearly a pattern of convergence, not of divergence, and one that has not been captured by recent studies on the transformation of the accession countries, which are usually more concerned with more limited comparisons among candidate countries than with the big picture of transformation; it is consistent with findings that point towards a pattern of convergence and provides quantitative evidence in support of these findings. The mean for the candidate countries in 2002 (1.54) is double the mean for the twenty seven countries in the same year (0.78), and this pattern is more or less consistent throughout.

Another compelling piece of evidence of the converging pattern among the EU candidates is the low figure of the standard deviation among their transition scores: in 2002 it was only 0.38 and very close to the 1990 levels (0.42) and in strong contrast with 0.78 for all countries in 2002. Similar conclusions can be derived from the variance column.
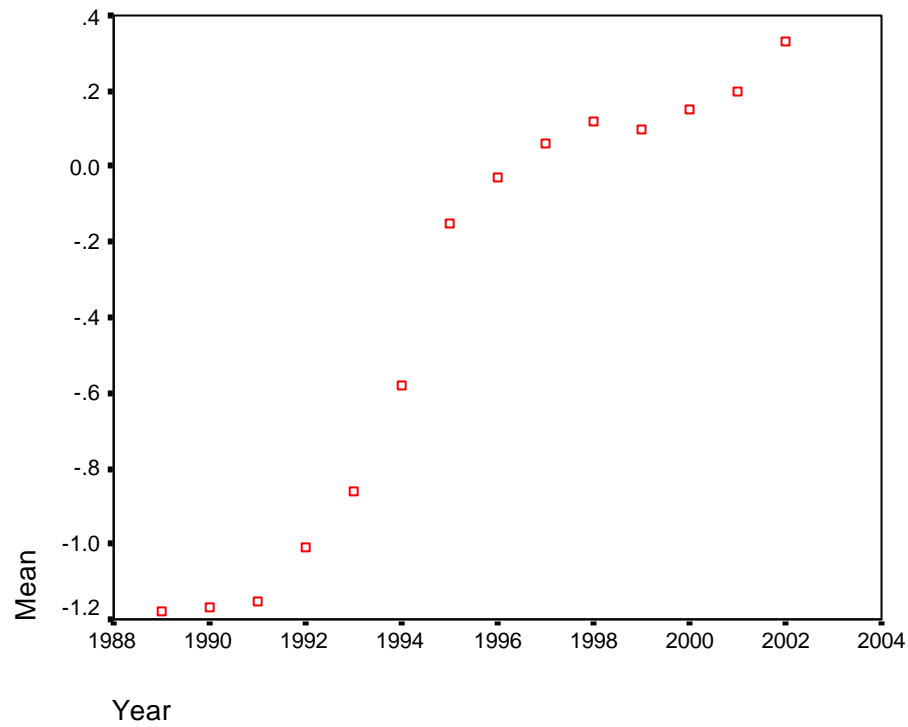
Table 3a Spread of aggregate transition scores, EU candidate countries

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
1989	10	0.29	-1.25	-0.97	-1.20	0.10	0.010
1990	10	1.33	-1.25	0.08	-1.01	0.42	0.179
1991	10	1.38	-1.20	0.18	-0.61	0.58	0.337
1992	10	1.43	-0.86	0.57	-0.13	0.56	0.309
1993	10	1.62	-0.41	1.22	0.55	0.62	0.379
1994	10	1.34	0.09	1.43	0.85	0.49	0.241
1995	10	1.28	0.21	1.49	0.98	0.45	0.201
1996	10	1.31	0.21	1.52	1.11	0.44	0.190
1997	10	1.27	0.61	1.88	1.23	0.38	0.145
1998	10	1.50	0.51	2.01	1.25	0.44	0.192
1999	10	1.37	0.63	2.01	1.33	0.42	0.176
2000	10	1.36	0.68	2.04	1.40	0.40	0.162
2001	10	1.30	0.75	2.04	1.47	0.41	0.169
2002	10	1.30	0.75	2.04	1.54	0.38	0.145

To facilitate the analysis, I once again plot the standard deviation and the mean over time in figures 5 and 6 respectively.
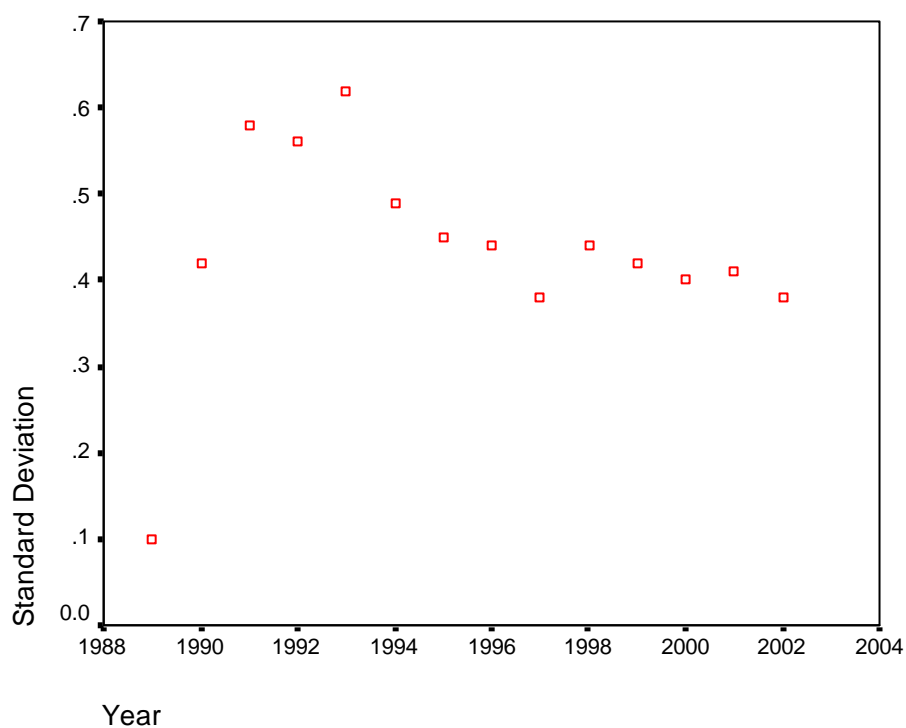
Figure 5: Standard deviation over time for Candidate countries

Note in figure 5 the increased divergence in the years until 1993 and since then the downward trend that suggests a converging pattern. Returning to table 3a, the drivers in the early period which was characterized by strong divergence between the CEE countries were Poland, Hungary, the Czech Republic and Slovakia. The remaining six CEE countries started catching up after this period.
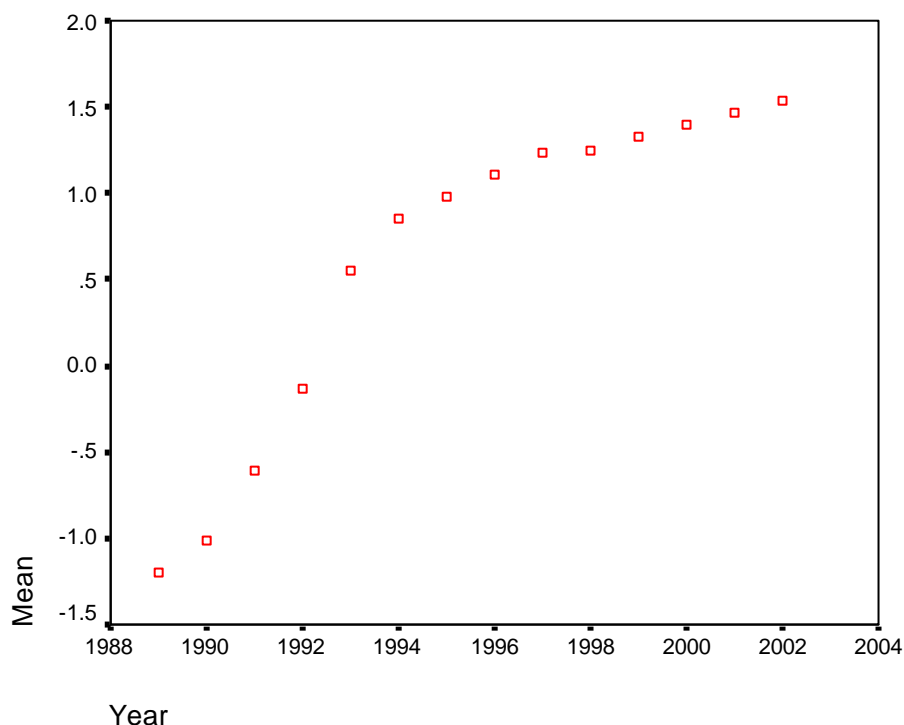
Figure 6: Mean of Aggregate Transition Score for candidate countries

As the shape of figure 6 shows, at no stage of this period was there a decline in the overall transition mean, which increased at an increasing rate in the years before 1994 and at a decreasing rate afterwards.

Do the non-candidate countries follow the same path of convergence? Table 3b reports results for the 17 non-candidate transition countries. The mean is consistently less than half of that for all 27 countries; for example, in 2002 the average for the 17 countries was 0.33, whereas for all countries it was 0.78.

Table 3b Spread of aggregate transition scores, non-EU candidate countries

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
1989	17	0.34	-1.25	-0.91	-1.18	0.13	0.018
1990	17	0.34	-1.25	-0.91	-1.17	0.15	0.022
1991	17	0.43	-1.25	-0.83	-1.15	0.17	0.027
1992	17	0.59	-1.25	-0.67	-1.01	0.18	0.031
1993	17	0.93	-1.25	-0.32	-0.86	0.27	0.073
1994	17	1.65	-1.22	0.44	-0.58	0.59	0.350
1995	17	1.76	-1.18	0.58	-0.15	0.58	0.337
1996	17	2.11	-1.15	0.96	-0.03	0.66	0.440
1997	17	2.07	-1.05	1.02	0.06	0.67	0.448
1998	17	2.09	-1.07	1.02	0.12	0.60	0.359
1999	17	2.18	-1.07	1.12	0.10	0.60	0.356
2000	17	2.30	-1.07	1.24	0.15	0.66	0.430
2001	17	2.36	-1.12	1.24	0.20	0.65	0.420
2002	17	2.49	-1.12	1.37	0.33	0.58	0.339

The pattern of convergence or divergence is not as clear as in the case of the candidate countries and is more volatile, as can be seen in figure 7. However, the range is smaller than in the case of the range for all countries, though larger than among the ten CEE countries. The mean trend is generally upward, although in 1999 there was a decline of the mean, which is quite stark, given that the mean in this case is a measure for 17 countries. This can be seen more clearly in figure 8. Contrast the significantly smaller means for the seventeen non-candidate countries in figure 8 with the substantially larger yearly means for the ten CEE countries in figure 6.
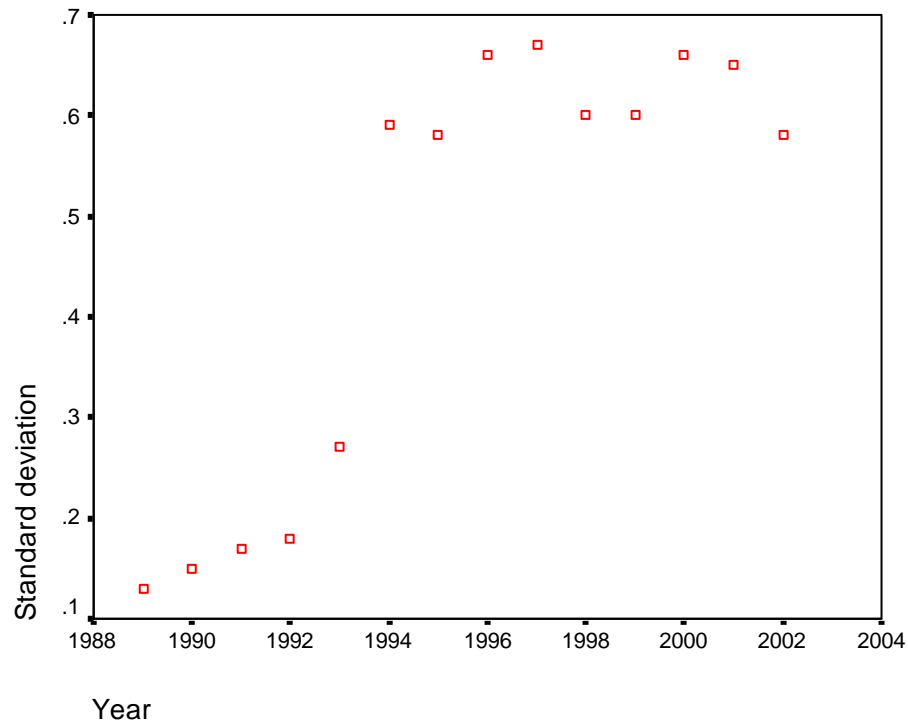
Figure 7: Standard deviation over time for non-candidate countries

Figure 8: Mean of Aggregate Transition Score for non-candidate countries

The outlying case of Croatia biases the non-candidate measures – range, minimum, and maximum – upwardly. All maximum scores reported in the maximum column after 1992 belong to Croatia. In fact, when Croatia is removed, a much clearer pattern of convergence emerges; for example, the 2002 range drops to 1.99 instead of 2.49, as can be seen in table 3c. Even with the removal of Croatia, the converging pattern is less clear than in the case of the EU candidate countries. The variance in 2002 is 0.339 (or 0.286 without Croatia); almost double the variance of the candidates for the same year.

Table 3c Spread of aggregate transition scores, non-EU candidates & No Croatia

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
1989	16	0.34	-1.25	-0.91	-1.20	0.12	0.015
1990	16	0.34	-1.25	-0.91	-1.19	0.14	0.019
1991	16	0.43	-1.25	-0.83	-1.17	0.15	0.022
1992	16	0.59	-1.25	-0.67	-1.03	0.16	0.026
1993	16	0.87	-1.25	-0.38	-0.89	0.24	0.058
1994	16	1.52	-1.22	0.30	-0.64	0.55	0.301
1995	16	1.63	-1.18	0.45	-0.19	0.57	0.322
1996	16	1.73	-1.15	0.58	-0.09	0.63	0.400
1997	16	1.81	-1.05	0.76	0.00	0.64	0.412
1998	16	1.74	-1.07	0.67	0.07	0.57	0.325
1999	16	1.71	-1.07	0.64	0.04	0.55	0.308
2000	16	1.93	-1.07	0.86	0.08	0.61	0.375
2001	16	1.99	-1.12	0.86	0.14	0.61	0.372
2002	16	1.99	-1.12	0.86	0.27	0.53	0.286

A paradox emerges from the data. Overall, the twenty seven countries appear to diverge significantly and increasingly as time elapses; however when looking within the two subgroups, the pattern is reversed and an increasingly clear picture of intra-group convergence emerges. How can this paradox be explained? There can be only one explanation. The distribution of aggregate transition scores is *not* unimodal (with one peak) but bimodal, which in turn explains the observed patterns and further strengthens the position that there are two different 'orbits' of transformation, and two groups of transforming countries clustering around each orbit.

As section 1 showed, much of the discussion of the effects of EU policies on the CEE countries focuses on the impact of the accession negotiations and of accession-related tools such as conditionality. This emphasis leaves unanswered the earlier phases of the transition period when accession-related tools and accession negotiations could only have a limited effect or no effect at all. The conclusion of the analysis in this section is that the paths of transformation between the CEE countries and the remaining transition countries

begin to diverge significantly around 1993, much earlier than the focus on conditionality and other accession-related tools explains. It is however a fact that the involvement of the EU in the regions started much earlier, by offering the prospect of membership as early as 1993 with the Copenhagen Criteria, and with the association (Europe) agreements.

Section 4: The consolidation of economic transformation

Drawing conclusions from the change of pace of the transformation process

In the years leading to 2002, is there a point when economic reforms reached a state of saturation/consolidation? And does this point differ between countries? To address this question, I focus on the collective change of the pace of transformation. Calculations are again based on the index of aggregate transition scores (table 1). The relationship between the pace of reforms and the change of pace is equivalent to the relationship between velocity and acceleration (or deceleration). To calculate the change of pace at a given year, I subtract from the pace of transformation (factor score) the pace of the previous year. The rates of change can be found in table 4. Obviously there is no point in calculating the change for year 1989, which is the starting year of our measurements.

Table 4: Yearly changes of the countries' pace of economic transformation

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Albania	0.00	0.08	0.31	0.22	0.58	0.22	0.13	0.00	0.00	0.00	0.12	0.05	0.00
Armenia	0.00	0.00	0.25	0.02	0.02	0.92	0.25	0.09	0.13	0.00	0.00	0.12	0.17
Azerbaijan	0.00	0.00	0.05	0.05	0.00	0.72	0.08	0.25	0.15	-0.02	0.13	0.14	0.05
Belarus	0.00	0.00	0.15	0.27	0.00	0.68	-0.38	-0.34	-0.05	-0.02	0.06	0.05	0.22
Bosnia	0.00	0.00	-0.18	0.00	-0.08	0.00	0.05	0.17	0.83	0.00	0.02	0.07	0.09
Bulgaria	0.08	0.29	0.29	0.19	0.49	0.12	0.00	0.54	0.00	0.05	0.22	0.00	0.13
Croatia	0.05	0.08	0.14	0.36	0.76	0.14	0.38	0.06	0.00	0.09	0.12	0.00	0.13
Czech Republic	0.00	1.19	0.59	0.69	0.21	0.00	0.08	0.00	0.03	0.09	0.13	0.10	0.00
Estonia	0.05	0.08	0.83	1.10	0.30	0.14	0.06	0.20	0.00	0.16	0.03	0.13	0.03
FR Yugoslavia	0.05	0.00	0.00	0.00	-0.14	0.00	0.00	0.00	-0.02	0.00	0.00	0.24	1.00
FYR Macedonia	0.05	0.08	0.00	0.24	0.74	0.29	0.14	0.00	0.07	0.00	0.22	0.00	0.00
Georgia	0.00	0.00	0.09	0.09	0.00	0.97	0.40	0.23	0.00	0.00	0.11	0.00	0.00
Hungary	0.33	0.90	0.46	0.50	0.17	0.24	0.02	0.36	0.13	0.00	0.03	0.00	0.00
Kazakhstan	0.00	0.00	0.13	0.23	0.19	0.47	0.64	0.14	0.03	-0.08	0.06	0.10	0.00
Kyrgyzstan	0.00	0.00	0.36	0.13	1.07	0.15	0.03	0.19	0.00	-0.10	0.00	0.00	0.00
Latvia	0.00	0.05	1.12	0.16	0.55	0.00	0.53	-0.06	-0.09	0.12	0.02	0.09	0.21
Lithuania	0.05	0.00	0.35	1.16	0.17	0.29	0.38	-0.06	0.00	0.06	0.07	0.11	0.18
Moldova	0.00	0.00	0.24	0.45	0.56	0.42	0.00	0.00	0.12	0.00	0.02	0.03	0.00
Poland	1.20	0.10	0.08	0.85	0.14	0.10	0.05	0.08	0.11	0.00	0.03	0.13	0.00
Romania	0.00	0.15	0.24	0.48	0.50	0.31	0.04	0.14	-0.10	0.12	0.05	0.06	0.00
Russia	0.00	0.10	0.49	0.29	0.54	0.24	0.19	0.17	-0.39	-0.22	0.14	0.16	0.19
Slovak Republic	0.00	1.19	0.49	0.63	0.16	0.00	0.05	-0.05	0.03	0.13	0.09	0.09	0.00
Slovenia	0.15	0.08	0.29	1.07	0.33	0.10	0.05	0.06	0.03	0.09	0.03	0.00	0.13
Tajikistan	0.00	0.00	0.13	0.08	0.00	0.28	0.02	0.02	0.36	0.05	0.08	-0.01	0.19
Turkmenistan	0.00	0.00	0.00	0.00	0.04	0.07	0.00	0.43	-0.05	0.00	-0.26	-0.10	0.00
Ukraine	0.00	0.00	0.16	0.08	0.05	1.07	0.08	0.10	-0.03	0.03	0.05	0.05	0.12
Uzbekistan	0.00	0.00	0.05	0.17	0.46	0.67	0.00	-0.05	-0.04	-0.06	-0.13	0.06	0.00

Source: Calculations based on entries in table 3.2

To facilitate the analysis, I aggregate the results in tables 4a and 4b.

Table 4a: Change of pace descriptive statistics

Year	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
1990	27	1.20	.00	1.20	0.08	0.24	0.056
1991	27	1.19	.00	1.19	0.16	0.35	0.119
1992	27	1.30	-.18	1.12	0.26	0.27	0.075
1993	27	1.16	.00	1.16	0.35	0.35	0.124
1994	27	1.20	-.14	1.07	0.29	0.30	0.091
1995	27	1.07	.00	1.07	0.32	0.32	0.101
1996	27	1.02	-.38	.64	0.12	0.20	0.040
1997	27	.89	-.34	.54	0.10	0.17	0.030
1998	27	1.22	-.39	.83	0.05	0.20	0.040
1999	27	.38	-.22	.16	0.02	0.08	0.006
2000	27	.48	-.26	.22	0.05	0.09	0.009
2001	27	.33	-.10	.24	0.06	0.07	0.005
2002	27	1.00	.00	1.00	0.11	0.20	0.039

Table 4b: Sum of absolute yearly rates of change

Year	N	Sum
1990	27	2.04
1991	27	4.38
1992	27	7.47
1993	27	9.50
1994	27	8.25
1995	27	8.61
1996	27	4.03
1997	27	3.81
1998	27	2.78
1999	27	1.50
2000	27	2.23
2001	27	1.86
2002	27	2.85

Transformation in the majority of the twenty seven transition countries has clearly reached a state of saturation. Looking at table 4a, it is evident that as we move closer to 2002, the momentum for change declines. Note the pattern of decline of the mean annual change (mean column): from 0.35 in 1993 to 0.06 in 2001 and 0.11 in 2002. The range of individual changes of pace (columns: range, minimum, and maximum) shows that changes move both in an upward (acceleration of reforms) and downward directions (deceleration). For example Belarus exhibited the strongest retraction from reforms among the 27 countries in 1996 (-0.38) and 1997 (-0.34); the same is true for Russia in years 1998 (-0.39) and 1999 (-0.22) and Turkmenistan in 2000 (-0.26) and 2001 (-0.10). It should also be noted that there are years when no retraction on the path of reforms takes place as the entries 0.00 in column 'Minimum' show (years 1990, 1991, 1993, 1995, and 2000). At the same time, the strongest individual cases of acceleration of the reform pace are observed in the period between 1990 and 1995: in 1990 in Poland (1.20),

in 1991 in the Slovak Republic (1.19), in 1992 in Latvia (1.12), in 1993 in Lithuania (1.16), in 1994 in Kyrgyzstan (1.07) and in 1995 in Ukraine (1.07). Also note the 'explosion' in the change of pace of FR Yugoslavia in 2002 (1.00) at a time when changes in the rest of the countries are quite moderate.

To control whether negative change is canceling out positive change in the mean column of table 4a, I also calculate the absolute change and add it up to produce the yearly totals in table 4b, thus capturing both upward and downward change. The pattern of general consolidation emerges even more clearly. Overall, the years of highest overall change (both upward and downward) were those between 1992 and 1995: 7.47 in 1992, 9.50 in 1993, 8.25 in 1994, and 8.61 in 1995. After this 4-year period, the trend is clearly one of more limited changes – albeit with fluctuations – and hence one of consolidation.

The analysis of the patterns of consolidation assists us in understanding whether the divergence between the transformation trajectories of the CEE countries and the rest of the transition countries is a matter of a time lag – with CEE simply reforming faster, in which case the rest of the countries could be expected to follow – or a consolidated outcome. Evidence in this section suggests that the latter answer is more likely.

Conclusion: rethinking the link between the EU and the front-runners of transition

Quantifying the pace of transformation in twenty seven post-communist countries for the period between 1989 and 2002 revealed that the yearly mean of the pace of reforms increased consistently throughout this period, showing that the overall pattern is that countries are moving steadily away from the command-economy model and towards some variant of a market economy. However, this overall pattern hides a number of interesting details of this process and further analysis revealed two sets of interesting findings. The first is that the general trend of the trajectories of individual transition countries is one of divergence, not convergence. Yet, within the general pattern of divergence, countries are clustering around two groups, the front-runners and the slow-pace reformers from quite early-on in the transition period. Within the two clusters, countries are converging, and the distance between the two clusters increases rapidly in the early year of transition and then stabilizes without appearing to decline. The front-runners are the countries that are candidates for EU membership, as scholarly work on Europeanization has identified. The added significance deriving from the findings here is that for the first time – to the best of my knowledge – these patterns are shown in such a comprehensive and measurable way for all twenty seven transition countries and for the entire period between 1989 and 2002. Establishing the big picture of transformation since 1989 made it possible to identify the two central trends of intra-group convergence (especially among front-runners) and inter-group divergence, not only in abstract or narrow terms, but with a specificity and comprehensiveness that allows for their further study in relation to other domestic and external variables.

The second set of findings concerns the consolidation of reforms. After a crescendo of accelerated reforms in the four-year period between 1992 and 1995, a period of increasingly limited transition reforms followed, suggesting that the process reached a point of saturation for both the front-runners and the slow-pace reformers. In fact, in the

years that followed 1995 some CIS countries exhibited a reverse trend of retracting from previously adopted reforms – especially in the period between 1996 and 2001 – even if change among the twenty seven transition countries remained positive overall. As with the previous set of findings, this is the first time, as far as I am aware, that consolidation has been empirically 'mapped' in such a comprehensive way. Through this 'mapping', it was also possible to identify the years during which individual countries experienced intense periods of change, and that should be a useful guide for future case studies examining the domestic or external conditions that influenced the pace of reforms. For example the retracting observed in Russia in years 1998 and 1999 might be linked to the 1997 financial crisis.

Returning to the front-runners of transition and their transformation trajectories, that were identified with the aid of the analysis of the factor score index, I examine whether the link between the EU and the high pace of transformation holds for the entire transition period. This is an important departure from the discussion of the majority of the Europeanization literature, since much of the period of coverage precedes the candidacy status and the related discussion of the effects of the accession-related tools on the transformation of the CEE countries. Does the involvement of the EU also correlate highly with the earlier stages of the transformation of the CEE countries?

I expand the definition of the link to include not just candidacy status but also association status (Europe Agreements) which I code as 1 for the years following the year the agreement was signed (including the year of signature). Previous years or non-association status are coded as 0. Despite the temporal spread of 14 years, the correlation is very high (0.694). This is a particularly powerful finding because it shows that the focus on the accession-related tools, such as conditionality, misses the much earlier possible effects of the EU. In general, transformation in this context can be seen as the product of adaptation, either as adaptation by negotiation or adaptation by expectation. The two notions of adaptation are related to the concepts of 'hard' and 'soft' leverage of the EU proposed by Vachudova (2001). Since I am examining the topic from the point of view of the transition countries and not that of the EU, the notion of adaptation is more suitable for the perspective of this study.

The starting point for the 'adaptation by negotiation' argument is that reforms in the CEE countries are the result of negotiations, not of voluntary action. The reason for this centers on the social and political costs that are associated with these reforms and the general disaffection of decision-makers for costly decisions. In this set-up, the EU maximizes its leverage over the adoption and enforcement of reforms, that is, over domestic outcomes in the transition candidates, with the use of conditional sanctions and rewards. EU conditionality has attracted substantial academic work in recent years and describes precisely this process. This process might offer a very good account of reforms that are conditional to EU rewards or sanctions. In fact, this is often what the Europeanization literature on transformation describes and explains. However, our measure of transition, the index of aggregate transition scores in table 1, does not measure accession-related reforms, which one would expect to be conditional and therefore subject to the adaptation-by-negotiation process. This indicator measures transition-related reforms and is common

to all transition countries. There must therefore be other mechanisms that might account for the consistently higher pace of reforms in the CEE candidates.

One such possible mechanism is the 'adaptation by expectation'. In this process, expectations of future benefits drive the willingness of decision makers in CEE countries to adopt reforms. The most important benefit associated with the enlargement of the EU is obviously the prospect of EU membership, and this is assumed to drive transformation performance. Officially the prospect of membership was established with the Copenhagen criteria in 1993, although Phinnemore has shown the importance of association agreements in this regard. More specifically, he argues that almost all associated countries eventually move towards EU membership and considers the association status as a first step towards granting the candidacy status in the case of the Central and Eastern European countries (1999). The 'adaptation by expectation' explanation of the early transformation patterns at first appears counterintuitive, since it seems to reverse the direction of causation and compromises the chronological order between the cause and the effect[23]. It assumes that transforming countries, though only those which are eligible to become EU members, have an additional incentive to perform well. In this case the possibility of EU membership, even though it follows chronologically, acts as the indirect cause and the transformation process is the outcome. It is what Hollis and Smith have described as the 'in order to' causes, as opposed to the 'because of' causes (1991). One way to 'correct' the reversing of the causal order would be to introduce expectations in the discussion. Candidate countries discount future benefits to the present. The present value of this discounting process is less for the non-candidate countries than it is for the candidate ones.

Seen from this perspective, *adaptation by expectation* offers the EU an additional means of influencing domestic outcomes, only this time one that is indirect and subtler than in the *adaptation by negotiation* scheme. Both processes could potentially explain the patterns of transformation identified here, since they offer a causal linkage between the enlargement of the EU and the transformation of the post-communist countries, at least those eligible for accession. Although it is difficult to disentangle their individual effects in the late stages of the transformation process because they occur concurrently, understanding the impact of adaptation by expectation in the early stages is more straightforward.

The exploratory analysis of the patterns of transformation among the twenty seven transforming countries invites further work in terms of two important causal questions. First, what are the mechanisms through which the causal arrow running from the EU to the CEE countries translates into a higher pace of reform of the latter and for the strong correlation identified thus far? Second, how do answers to the first question assist in explaining the low-pace of transformation in the remaining non-candidate transition countries? The possible answers that were suggested here – adaptation by negotiation and expectation – do not exhaust the topic and invite further empirical work.

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[23] Precedence of the cause to the effect is one of the conditions of causality (Menard 1991, 17).

<u>Appendices</u>

Table A.1: Correlation Matrix

	Large scale privatization	Small scale privatization	Governance and enterprise restructuring	Price liberalization	Trade and foreign exchange system	Competition policy	Banking reform and interest rate liberalization	Securities markets and non-bank financial institutions
Large scale privatization								
Small scale privatization	.818							
Governance and enterprise restructuring	.875	.802						
Price liberalization	.673	.785	.653					
Trade and foreign exchange system	.816	.848	.828	.800				
Competition policy	.783	.685	.810	.575	.669			
Banking reform and interest rate liberalization	.857	.808	.929	.674	.862	.746		
Securities markets and non-bank financial institutions	.773	.693	.822	.531	.679	.815	.800	

Table A2: Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.370	79.622	79.622	6.128	76.601	76.601
2	.660	8.247	87.868			
3	.298	3.728	91.596			
4	.190	2.375	93.971			
5	.176	2.203	96.174			
6	.133	1.657	97.832			
7	.113	1.406	99.238			
8	.061	.762	100.000			

Extraction Method: Maximum Likelihood.

Table A3: Communalities

	Initial	Extraction
Large scale privatization	.824	.839
Small scale privatization	.800	.754
Governance and enterprise restructuring	.903	.915
Price liberalization	.696	.540
Trade and foreign exchange system	.848	.794
Competition policy	.748	.676
Banking reform and interest rate liberalization	.898	.905
Securities markets and non-bank financial institutions	.759	.705

Extraction Method: Maximum Likelihood.

Table A4: Factor Matrix(a)

	Factor
	1
Large scale privatization	.916
Small scale privatization	.868
Governance and enterprise restructuring	.957
Price liberalization	.735
Trade and foreign exchange system	.891
Competition policy	.822
Banking reform and interest rate liberalization	.951
Securities markets and non-bank financial institutions	.840

Extraction Method: Maximum Likelihood.
a 1 factors extracted. 4 iterations required.

Table A6: Factor Score Coefficient Matrix

	Factor 1
Large scale privatization	.146
Small scale privatization	.090
Governance and enterprise restructuring	.289
Price liberalization	.041
Trade and foreign exchange system	.111
Competition policy	.065
Banking reform and interest rate liberalization	.255
Securities markets and non-bank financial institutions	.073

Extraction Method: Maximum Likelihood.

Table A7: Ranking according to aggregate transition scores

Rank	1989 A	1989 B	1990 A	1990 B	1991 A	1991 B	1992 A	1992 B	1993 A	1993 B	1994 A	1994 B	1995 A	1995 B	1996 A	1996 B	1997 A	1997 B	1998 A	1998 B	1999 A	1999 B	2000 A	2000 B	2001 A	2001 B	2002 A	2002 B
1	-0.91	Bo	0.08	Po	0.18	Po	0.57	Hu	1.22	Cz	1.43	Cz	1.49	Hu	1.52	Hu	1.88	Hu	2.01	Hu	2.01	Hu	2.04	Hu	2.04	Hu	2.04	Hu
2	-0.97	Cr	-0.79	Hu	0.11	Hu	0.52	Cz	1.11	Po	1.25	Hu	1.43	Cz	1.51	Cz	1.52	Es	1.59	Po	1.68	Es	1.77	Cz	1.86	Cz	1.86	Es
3	-0.97	Yu	-0.81	Sn	-0.06	Cz	0.43	Sk	1.08	Hu	1.25	Po	1.35	Po	1.40	Po	1.51	Cz	1.54	Cz	1.64	Cz	1.70	Es	1.83	Es	1.86	Cz
4	-0.97	Ma	-0.91	Bo	-0.06	Sk	0.26	Po	1.06	Sk	1.22	Sk	1.26	Es	1.32	Es	1.48	Po	1.52	Es	1.59	Po	1.63	Po	1.76	Po	1.76	Po
5	-0.97	Sn	-0.91	Cr	-0.73	Sn	-0.08	La	0.82	Es	1.12	Es	1.22	Sk	1.27	Sk	1.23	Sk	1.26	Sk	1.38	Sk	1.48	Sk	1.57	Sk	1.57	Sk
6	-1.12	Hu	-0.91	Yu	-0.83	Cr	-0.29	Es	0.63	Sn	0.95	Sn	1.05	Sn	1.15	La	1.16	Sn	1.20	Sn	1.29	Sn	1.32	Sn	1.32	Li	1.50	Li
7	-1.12	Po	-0.91	Ma	-0.83	Ma	-0.44	Sn	0.31	Li	0.63	La	0.77	Li	1.15	Li	1.09	La	1.09	Li	1.15	Li	1.24	Cr	1.32	Sn	1.45	La
8	-1.25	Al	-1.17	Bu	-0.88	Bu	-0.60	Bu	0.08	La	0.48	Li	0.63	La	1.10	Sn	1.09	Li	1.02	Cr	1.12	La	1.22	Li	1.24	Cr	1.45	Sn
9	-1.25	Ar	-1.20	Es	-0.91	Bo	-0.67	Ru	-0.32	Cr	0.44	Cr	0.58	Cr	0.96	Cr	1.02	Cr	1.00	La	1.12	Cr	1.14	La	1.24	La	1.37	Cr
10	-1.25	Az	-1.20	Li	-0.91	Yu	-0.69	Cr	-0.38	Ro	0.30	Ky	0.45	Ky	0.58	Ru	0.76	Ru	0.76	Bu	0.81	Bu	1.02	Bu	1.02	Bu	1.15	Bu
11	-1.25	Be	-1.25	Al	-1.11	Ro	-0.83	Ma	-0.38	Ru	0.16	Ru	0.43	Ro	0.57	Ma	0.76	Bu	0.67	Ky	0.64	Ma	0.86	Ma	0.86	Ma	0.86	Ma
12	-1.25	Bu	-1.25	Ar	-1.12	Es	-0.85	Li	-0.41	Bu	0.14	Ma	0.43	Ma	0.48	Ky	0.67	Ky	0.64	Ma	0.63	Ro	0.68	Ro	0.75	Ro	0.75	Ro
13	-1.25	Cz	-1.25	Az	-1.16	Ru	-0.86	Ro	-0.57	Mo	0.12	Ro	0.41	Mo	0.47	Ro	0.61	Ro	0.58	Ka	0.58	Ky	0.64	Ge	0.65	Ka	0.73	Ar
14	-1.25	Es	-1.25	Be	-1.18	Al	-0.87	Al	-0.59	Ma	0.09	Bu	0.40	Ru	0.41	Mo	0.57	Ma	0.53	Mo	0.53	Mo	0.58	Ky	0.64	Ge	0.65	Ka
15	-1.25	Ge	-1.25	Cz	-1.20	La	-0.90	Ky	-0.65	Al	-0.01	Mo	0.21	Bu	0.40	Ka	0.54	Ka	0.52	Ge	0.52	Ge	0.55	Ka	0.58	Ky	0.64	Ru
16	-1.25	Ka	-1.25	Ge	-1.20	Li	-0.91	Yu	-0.77	Ky	-0.07	Al	0.14	Al	0.30	Ge	0.52	Ge	0.51	Ro	0.49	Ka	0.54	Mo	0.57	Mo	0.64	Ge
17	-1.25	Ky	-1.25	Ka	-1.25	Ar	-1.01	Ar	-0.83	Be	-0.57	Uz	0.11	Uk	0.28	Al	0.41	Mo	0.43	Ar	0.43	Ar	0.43	Ar	0.55	Ar	0.58	Ky
18	-1.25	La	-1.25	Ky	-1.25	Az	-1.02	Mo	-0.90	Ka	-0.71	Ka	0.10	Uz	0.21	Bu	0.30	Ar	0.37	Ru	0.28	Uk	0.40	Al	0.45	Ru	0.57	Mo
19	-1.25	Li	-1.25	La	-1.25	Be	-1.09	Uk	-0.91	Yu	-0.83	Be	-0.04	Ar	0.21	Ar	0.28	Uk	0.28	Al	0.28	Al	0.33	Uk	0.44	Al	0.50	Uk
20	-1.25	Mo	-1.25	Mo	-1.25	Ge	-1.09	Bo	-0.99	Ar	-0.96	Uk	-0.10	Ge	0.18	Uk	0.28	Al	0.26	Uk	0.15	Ru	0.29	Ru	0.38	Uk	0.44	Al
21	-1.25	Ro	-1.25	Ro	-1.25	Ka	-1.10	Be	-1.01	Uk	-0.96	Ar	-0.15	Be	0.10	Uz	0.05	Uz	0.05	Az	0.03	Az	0.15	Az	0.29	Az	0.35	Az
22	-1.25	Ru	-1.25	Ru	-1.25	Ky	-1.12	Ka	-1.03	Uz	-1.05	Ta	-0.24	Ka	-0.35	Az	-0.10	Az	0.02	Uz	-0.04	Uz	-0.10	Bo	-0.03	Bo	0.17	Yu
23	-1.25	Sk	-1.25	Sk	-1.25	Mo	-1.12	Ta	-1.05	Ta	-1.05	Yu	-0.43	Az	-0.53	Be	-0.72	Tu	-0.12	Bo	-0.12	Bo	-0.17	Uz	-0.11	Uz	0.07	Bo
24	-1.25	Ta	-1.25	Ta	-1.25	Ta	-1.17	Ge	-1.07	Ge	-1.07	Ge	-0.77	Ta	-0.75	Ta	-0.73	Ta	-0.36	Ta	-0.31	Ta	-0.23	Ta	-0.24	Ta	-0.05	Ta
25	-1.25	Tu	-1.25	Tu	-1.25	Tu	-1.20	Az	-1.09	Bo	-1.15	Az	-1.05	Yu	-1.05	Yu	-0.88	Be	-0.77	Tu	-0.77	Tu	-0.89	Be	-0.83	Yu	-0.11	Uz
26	-1.25	Uk	-1.25	Uk	-1.25	Uk	-1.20	Uz	-1.15	Az	-1.18	Bo	-1.15	Tu	-1.12	Bo	-0.96	Bo	-0.93	Be	-0.95	Be	-1.03	Tu	-0.84	Be	-0.63	Be
27	-1.25	Uz	-1.25	Uz	-1.25	Uz	-1.25	Tu	-1.25	Tu	-1.22	Tu	-1.18	Bo	-1.15	Tu	-1.05	Yu	-1.07	Yu	-1.07	Yu	-1.07	Yu	-1.12	Tu	-1.12	Tu

A: Factor Score column (from table 3.2 in main text)

B: Country
Abbreviations:

Al: Albania; Ar: Armenia; Az: Azerbaijan; Be: Belarus; Bo: Bosnia; Bu: Bulgaria; Cr: Croatia; Cz: Czech Republic; Es; Estonia; Ge: Georgia; Hu: Hungary; Ka: Kazakhstan; Ky: Kyrgyzstan; La: Latvia; Li: Lithuania; Ma: Former Yugoslav Republic of Macedonia; Mo: Moldova; Po: Poland; Ro: Romania; Ru: Russia; Sk: Slovak Republic; Sn: Slovenia; Ta: Tajikistan; Tu: Turkmenistan; Uk: Ukraine; Uz: Uzbekistan; Yu: Federal Republic of Yugoslavia.

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