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ECONOMIC EFFECTS OF POST-SOCIALIST CONSTITUTIONS REVISITED (NEARLY) 25 YEARS FROM THE OUTSET OF TRANSITION

Economic Effects of Post-Socialist Constitutions Revisited (nearly) 25 Years from the Outset of Transition

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Abstract

Post-socialist transition taking place since 1989 in countries of Central and Eastern Europe, as well as later in Central and Southwestern Asia, brought about simultaneous changes of their political and economic systems, requiring the establishment of new constitutional frameworks. In this paper we study the effects of post-socialist constitutional change on economic policy decisions of countries involved in this process. As nearly 25 years have passed from the outset of transition, the data allows to conduct an empirical study based on an econometric model confirming the relevance of several constitutional rules in this respect, e.g. regarding the model of government and constitutional judiciary. Based on the results, recommendations are made for countries, where the transition process has been slow and unsuccessful.

Keywords:
Constitutional Economics, post-socialist transition, economic reforms, direct democracy

JEL:
H11, K19, P21, P26

1   Introduction

Post-socialist transition taking place since 1989 in countries of Central and Eastern Europe, as well as later in Central and Southwestern Asia, brought about simultaneous changes of their political and economic systems, requiring the establishment of new constitutional frameworks. Since 1990 all post-socialist countries of Europe and Asia[1], with the exception of Latvia, adopted new constitutions envisaging varying solutions as regards the structure of government, bill of rights and other issues. Where no new constitutional act was enacted, significant amendments have been introduced. This unprecedented time of broad-scale constitutional and, more generally, institutional change has sometimes been called a "gigantic natural experiment" (Elster 1991, p. 449), attracting interest of legal scholars, political scientists, sociologists and other social scientists. The contribution of economists concerns, in particular, linking constitutional change with economic policy pursued in these countries and economic performance.

Constitutions have been the subject of analysis by economists for several decades, in particular within the research program of Constitutional Economics (or Constitutional Political Economy). During the last 15 years numerous empirical studies provided results confirming significant economic effects of constitutional rules relating to electoral systems, models of government, constitutional rights, constitutional enforcement mechanisms etc. (see survey by Voigt 2011). Proponents of this approach view the constitution as a set of "legal-institutional-constitutional rules that constrain the choices and activities of economic and political agents" (Buchanan 1987, p. 585). The state constitutional system serves primarily as a mechanism allowing to counteract time-inconsistency problems connected with drafting and implementing economic policy. Containing rules that impose constraints on activity of state authorities, the constitution acts as a mechanism allowing to turn promises made by representatives of state power into credible commitments.

In an earlier paper concerning post-socialist transition up to 2004 Metelska-Szaniawska (2009) argued that constitutional solutions featured within the supreme legal acts of post-socialist countries, and their practical operation, influenced economic performance of these countries during transition. Three elements of the newly-established constitutional framework – structure of state power, scope and functioning of the constitutional system of rights and freedoms, and constitutional enforcement mechanism (constitutional court independence), influenced progress in economic reforms undertaken in these states up to 2004. In principle, the results confirmed the constitution's main function as a commitment mechanism.

The contribution of this paper is threefold. Firstly, we replicate the model developed in Metelska-Szaniawska (2009) and apply it to study a much larger dataset including the most recent years of transition (beyond 2004), which could not be analyzed earlier due to unavailability of data. As a result, this paper covers the period of nearly 25 years from the outset of transition, i.e. between 1989 and 2012. Secondly, thanks to including the most recent measure of constitutional court independence developed by Voigt et al. (2015), we nearly double the number of post-socialist countries covered by the study focusing on the effects of constitutional court independence, revealing new and more reliable conclusions in this area.

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[1] These are: countries of Central and Eastern Europe (Albania, Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia); former Yugoslavian republics (Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Serbia, Slovenia); and former Soviet republics (Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan). Acknowledging the differences in the political and economic systems functioning in these countries before 1989, we further refer to all of them as "post-socialist countries" or "transition countries".

Thirdly, we extend the model to include an additional variable, which we expect to play a role, given that the studied transition period is now considerably longer. It relates to mechanisms of direct democracy and their contribution to building commitment of post-socialist governments to economic reforms during the transition process.

The paper is organized as follows. Section 2 presents the basic facts regarding enactment of new post-socialist constitutions in Europe and Asia with emphasis on the differences in government structures, bills of rights and enforcement mechanisms. In Section 3 we sketch the theoretical background for our study and review some of the related literature. Section 4 presents the empirical model and the construction of constitutional variables. Section 5 reports and discusses the results for the general model, while Section 6 deals specifically with the additional aspect – direct democracy. Conclusions are formulated in the final section.

2 Post-socialist constitutions[2]

Following the downfall of socialism (or communism), it became impossible for post-socialist countries to function on the basis of their socialist (communist) constitutions. New legal acts providing fundaments for creating new constitutional systems, articulating principles such as the rule of law, separation of powers, civil society or nation's sovereignty, became a necessity.

The adoption of post-socialist constitutions took place in the period 1990-2011, with greatest intensity between 1990 and 1996 (see details in Table 1 in Annex 1). Serbia and Croatia adopted new constitutions in 1990 although at that time they still constituted components of the Socialist Federal Republic of Yugoslavia[3]. Apart from the Yugoslavian republics, the first countries to adopt new post-socialist constitutions were Bulgaria and Romania (1991)[4]. In 1992 most countries of Central Europe and the Baltic republics adopted their new constitutions, just as some other former Soviet republics (e.g. Turkmenistan and Uzbekistan). The last country to adopt its first post-socialist constitution during the 1990's was Ukraine (in 1996)[5]. Hungary operated on the basis of its numerously amended 1949 constitution throughout most of the transition period, adopting a new constitution as late as in 2011. One country of the region – Latvia – did not adopt a new constitution after 1989, returning to its 1922 constitution (with several significant amendments).

The main common feature of post-socialist constitutions was the attempt, reflected in their content, to break away from the socialist (communist) past, by giving priority to provisions declaring the democratic nature and sovereignty of these states. Nevertheless, specific constitutional solutions adopted by these countries vary significantly. Metelska-Szaniawska (2009) presents an overview relating to three main elements of contemporary constitutions: provisions regulating the "machinery" of government; bills of rights; and enforcement mechanisms. While parliamentary systems of government are encountered e.g. in Albania, Estonia, Hungary, and Latvia, presidential systems, or similar models, have been

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[2] This and the following section are based on Metelska-Szaniawska (2009) with relevant updates.
[3] The Croatian Constitution of 1990, forming the basis for the sovereign existence of this state, remains in force. Serbia has a new constitution adopted in 2007 (in the period 1992-2003 the Federal Constitution of FR Yugoslavia was in force, in 2003 the Constitutional Charter of Serbia and Montenegro was adopted, the union between these states dissolved in 2006).
[4] Macedonia, Slovenia and Albania also adopted their constitutions in 1991.
[5] In the second half of the 1990's several countries adopted their second post-socialist constitutions (e.g. Albania in 1991 and 1998, Poland in 1992 and 1997).

adopted in countries, which emerged after the dissolution of Soviet Union in Central and Southwestern Asia[6]. Concerning catalogues of rights and freedoms, post-socialist countries did not develop a common constitutional model either. This is most clearly visible with regard to socio-economic rights. While some constitutions list comprehensive rights regarding social security, education, healthcare, work protection, etc. (Belarus, Croatia, Czech Republic, Moldova, Poland, Romania, Russia, Slovakia, Ukraine), others provide only for a limited number of rights (the Baltic countries, Bosnia and Herzegovina, Georgia). The practical operation of provisions regarding constitutional rights differs even more significantly amongst the discussed countries. Finally, regarding enforcement mechanisms, all post-socialist countries examined in this paper, except Turkmenistan, established constitutional courts for this purpose. However, they differ significantly as regards inter alia the court's position vis-à-vis other state organs, guarantees of the independence of judges and internal autonomy of the courts, as well as the legal effects of courts' judgments.

3   Selected literature overview and theoretical background

Systematic research on economic effects of constitutions began in the 1990's and has been developing intensively. The starting point for many recent analyses is Persson and Tabellini's (2003) approach, according to which constitutional rules, functioning as "rules of the game" for political and economic actors in a state, determine the institutional setting for policy-making and influence political outcomes. By doing so these rules participate in transforming citizens' preferences regarding policy into policy decisions. The latter influence the functioning of markets and economic performance.

In our study we apply this approach with the focus on policy decisions in the area of post-socialist economic reforms. Many studies (e.g. Hellman 1997; Falcetti et al. 2002; Radulescu and Barlow 2002; Babetskii and Campos 2007) argue that such reforms do not translate automatically to higher growth rates (at least not in the short run). Therefore, post-socialist transition provided a particular motivation for the analysis of the link between constitutional rules and economic policy (economic reforms) – an intermediate step in Persson and Tabellini (2003).

In the mid-1990's a debate emerged on the role of the constitution in the process of economic transition between the so-called negative and positive constitutionalists. The first view (based on North 1990, Weingast 1993, and much of the Constitutional Economics literature) argues that constitutions, being crucial mechanisms for establishing credible commitments, give economic actors the confidence required for entering into contracts and making long-term investments, which are necessary for the adoption and success of economic reforms. Such reforms, just as any policy-making activity of the state, are affected by the time-inconsistency problem. The constitution allows for counteracting this problem by enhancing stability of the political system and restraining the discretionary power of the state. Positive constitutionalists, however, ask whether such constrained state authority is capable of pursuing economic reforms. Holmes (1995) argues that the magnitude of tasks associated with simultaneous political and economic transition requires sufficient capacity and flexibility of the state authority to push through difficult policy choices. The first approach constitutes an argument for an early adoption of a permanent constitution, whereas the second one advocates

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[6] Several countries, such as Belarus, Croatia, Russia, and the Ukraine, are classified as states with a presidential-parliamentary or semi-presidential system.

in favor of postponing the constitution-making process until the goals of economic transition have been achieved or, alternatively, suggests *stopgap constitutionalism* (Holmes 1995)[7].

The debate between negative and positive constitutionalists concentrates on the position of state authority vis-à-vis other actors – an issue directly linked with the structure of power. The former emphasize the constitution's role in constraining state power and turning politicians' promises into credible commitments, whilst the latter point to building the state's capacity to implement reforms. The first view requires separated and constrained power, whereas the second – highly concentrated power. Several studies looked at the influence of the concentration of political power on progress in economic reforms in transition (see Metelska-Szaniawska 2009 for a survey). Metelska-Szaniawska (2009) extends the focus and analyzes the importance of three main elements of contemporary constitutions, introduced in Section 2, for economic reforms in transition. In principle, the obtained results confirm the main function of the constitution as a commitment mechanism (with some non-uniformity in the influence of constitutional variables on economic reforms in different groups of countries, at different periods of transition and for different categories of reform). Though the results are highly robust to various modifications of the model specification, constraints in data availability limit the conclusions considerably, in particular with regard to the role of the constitutional enforcement mechanism.

Following Metelska-Szaniawska (2009) we propose the following approach to the argument. The constitution, allowing for counteracting the time-inconsistency problem connected with pursuing public policy, containing a catalogue of fundamental rights and freedoms, as well as other constraints on the activity of state authority, allows for turning promises made by representatives of state power into credible commitments. Economic reforms require investments from non-state actors and may be costly, especially in the short run. If promises made by the state authority to enforce property rights are credible, then these actors will adopt a longer time horizon and will be more willing to make investments. Hence the role of the constitution for economic reforms in transition (as earlier suggested by the negative constitutionalists). It is primarily fulfilled by the constraints imposed by the constitution on the activity of the state authority (low concentration of political power) and by the functioning of a relatively broad bill of rights. The latter can be regarded as an indispensable precondition for secure property rights and thus a guarantee of a minimum amount of certainty that is required for higher investment rates (Blume and Voigt 2007). Having their basic rights and freedoms envisaged by the constitution, individuals will be less reluctant to undertake pro-reform activity that could require short-run sacrifices. This regards both the socio-economic rights (e.g. the willingness of different groups of employees to accept the uncertainty connected with engaging in reforms will be higher when the constitution envisages relatively broad guarantees regarding employment), as well as political rights and civil liberties (e.g. violation of basic human rights may lead to citizens' protest and instability that are likely to have a negative effect on the readiness to invest in reforms)[8]. A broad bill of rights also contributes to the emergence of the loci of independent economic power, stimulating the reforms process and facilitating the sustainment of reforms (see e.g. Fish 1998). To complete the picture, constitutional provisions have little meaning when their enforcement is not guaranteed. This role is fulfilled by an independent constitutional

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[7] Hellman (1997) finds that postponing the adoption of new post-socialist constitutions did not advance the process of economic reforms. This study also finds no evidence of a hindering effect of post-socialist constitutions on economic reforms indicating instead some positive effects in this respect.

[8] In addition, some studies suggest that different types of rights may be regarded as complements, where respect for basic human rights cannot be substituted by anything else (Blume and Voigt 2007). Other authors argue that respect for basic human rights may be treated as a signal regarding government credibility in promising economic (property) rights (Farber 2002).

judiciary. Such courts constitute the final stage in turning promises of the state authority into credible commitments. Finally, since constitutional rules formulated within the operative provisions of law differ in some countries from the principles functioning there factually, we introduce a differentiation between *de iure* constitutions (sets of rules contained within the enacted law) and *de facto* constitutions (sets of factually operative rules).

4 Empirical model

In this section we present the main elements of the constructed empirical model taking constitutional rules adopted by post-socialist countries as explanans and aiming to identify their economic effects, understood as performance in post-socialist economic reforms. In our econometric model the dependent variable, measuring the advancement in reforming the economy, is explained by independent variables representing the potential constitutional factors and a set of control variables.

Among the constitutional variables we take into account the main components of modern constitutions introduced in Sections 2 and 3, i.e. the structure (concentration) of state power, the bills of rights, and the enforcement mechanism (independence of the constitutional judiciary). In Section 6 we introduce an additional variable relating to direct democratic mechanisms. As for the control variables, the existing literature regarding post-socialist economic reforms indicates the following determinants: "initial conditions" for reform (e.g. de Melo et al. 2001; Falcetti et al. 2002; Falcetti et al. 2005); foreign financial aid received during transition (Fish 1998); outcome of the initial post-socialist elections, i.e. elite turnover (Fish 1998; EBRD 1999); duration of the economic reforms process (Hellman 1997); power of interest groups in a state (EBRD 1999; IMF 2000); various social and cultural factors (Fish 1998; EBRD 1999).

The starting point for our analysis is the following basic model specification:

$$econ\_reform_{it} = \alpha_1 concentration_{it} + \alpha_2 rights_{it} + \alpha_3 CCI\_deiure_i + \alpha_4 CCI\_defacto_i + \qquad (1)$$
$$+ \alpha_5 trtime_{it} + \alpha_6 trtime_{it}^2 + \alpha_7 (IC \times trtime)_{it} + \alpha_8 (IC \times trtime^2)_{it} + \alpha_9 elections_i +$$
$$+ \alpha_{10} trust_i + \varepsilon_{it},$$

where ε_{it} is the error term and the complete list of employed variables and data sources is provided in Annex 2[9]. We present the dependent variable and constitutional variables in more detail shortly.

The study consists of panel data analyses. A discussion of employed estimation techniques is presented alongside the results. The sample includes post-socialist countries enumerated in footnote 1, except for Bosnia and Herzegovina, Montenegro, and Serbia (due to unavailable data for some control variables). By construction or due to limited availability of data some specifications encompass slightly smaller groups of countries. We focus on the time period beginning in 1989, i.e. when, following the fall of socialism, the first group of the discussed countries engaged in post-socialist economic reforms. Following Falcetti et al. (2002), as well as Falcetti et al. (2005), we propose to operate in "transition time" rather than calendar time. Transition time is defined as beginning in 1989 for Poland and Hungary, 1990 for other Central and Southeastern European countries (except Albania), 1991 for Albania and

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[9] Measures of the influence of various forms of state capture by interest groups (including corruption) on the functioning of enterprises, as well as foreign aid and different geographical/cultural variables proved insignificant in all specifications, while not being available for the entire sample, therefore we withdrew them from further analysis.

the Baltic states, and 1992 for the former Soviet republics. This allows for accounting for the fact that transition started at different times in different countries[10]. The upper limit of the time period under analysis is 2012, as determined by the availability of data.

4.1 Dependent variable

The dependent variable is an aggregated transition indicator, also called the index of economic reforms ($econ\_reform$), constituting an average of a set of indicators of structural economic reforms, published annually by the European Bank for Reconstruction and Development in subsequent issues of *Transition Report* (EBRD, 1994-2013). The following categories of reforms are included: privatization and enterprise restructuring (three indicators: large-scale privatization; small-scale privatization; governance and enterprise restructuring), as well as market liberalization and competition (three indicators: price liberalization; trade and foreign exchange system; competition policy)[11]. Data for these six indicators are available for all post-socialist countries for the period 1989-2012.

EBRD's indicators of structural economic reforms are intended to provide a basis for systematic comparison of the course of market-oriented reforms amongst post-socialist countries. Based on a survey of EBRD analysts, each country is given a rating in each of the aforementioned areas, ranging from 1 (little or no reform) to 4+ (standards and performance typical of advanced industrial economies)[12]. Figure 1 in Annex 1 presents the evolution of the aggregate indicator based on a simple average of the above six indicators for the period 1989-2012. Whilst the starting value of the indicator was for most countries identical (or very similar), the further progress in economic reforms varies greatly[13].

Employing progress in economic reforms, not indicators of economic performance such as GDP growth, as the dependent variable in the study allows us to focus on the influence of constitutional variables directly on the decision-making by governments in the field of (economic) policy, as suggested by the theory[14].

4.2 Constitutional variables

This subsection presents in short the indicators applied as proxies for the constitutional elements included in the study – the structure of government (*concentration*), bill of rights (*rights*), the constitutional enforcement mechanism (*CCI*). Further details are provided in

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[10] It was shown in Section 2 that the first post-socialist constitutions were adopted in the period 1990-1996, i.e. usually slightly later than the initiation of the economic reforms process. Including the early years of transition, however, allows to study the influence of the adoption of new constitutions on economic reforms (as compared to the preceding situation), while also rendering the empirical study more reliable thanks to a considerably larger number of included observations. We return to the issue of causality and simultaneity in Section 5.

[11] Data on financial sector reforms are only available up to 2010, therefore these reforms have not been included. Conclusions from estimations conducted for the period up to 2010 including these reforms are generally in line with the results presented here.

[12] Detailed methodological issues regarding the construction of these indicators are discussed by EBRD (1995).

[13] The discussed measure reflects factual achievements so there is no risk that the similarity of the starting point for all countries is explained by the fact that they undertook reforms at a similar moment in time.

[14] Several criticisms have been raised as to the reliability of EBRD's transition indicators. Subjectivity, bounded and ordinal nature, focus only on end results (not dynamics), equal weights for all components of the aggregate indicator, and relative nature are some examples. In response to these allegations alternative measures have been proposed (see examples in Metelska-Szaniawska 2009). However, most of them fail to account for many components of reforms (focusing most often on liberalization and privatization) or are based on not fully reliable data.

Metelska-Szaniawska (2009). In Section 6 we describe the measure used for the additional constitutional variable employed in this paper.

For the structure of government we use a measure of the concentration of political power in the state based on a spatial model of political interaction in the process of drafting state policy (number of veto-players), called in this paper the *concentration of power index*. It is based on an index of political constraints developed by Henisz (2000, 2013) [*concentration = 1 – political constraints index* (Henisz 2013)]. This construction includes the following elements: formal separation of powers within the state (the number of branches of power capable of vetoing a proposed policy amendment); party composition (alignment across branches of power); and preference heterogeneity within each of the legislative chambers.

For the scope of the constitutional system of rights and freedoms we use a measure of the factual functioning of political rights and civil liberties in a country, called in this paper the *rights index*. It is based on data on political rights and civil liberties published by Freedom House (1990-2013). The following form is used: $rights = 7 – (PR + CL)/2$, where: *PR* – the Freedom House political rights rating, *CL* – the Freedom House civil liberties rating. The political rights ranking is based on a checklist including the electoral process, political pluralism and participation, while the civil liberties indicator encompasses freedom of expression and belief, associational and organizational rights, the rule of law, personal autonomy, and individual rights.

For the constitutional enforcement mechanism we use the *de iure* and *de facto* constitutional court independence indicators, called in this paper the *CCI indicators*. The *de iure* indicator takes into account formal rules regarding: institutional stability of the environment for constitutional courts' activity (including the constitutional amendment process); the procedure of appointing judges; their term of office and remuneration; accessibility of the court; division of cases between judges of the court; the court's scope of competences; and public announcement of the court's decisions. The *de facto* indicator reflects the practical operation of constitutional courts (e.g. factual duration of judges' terms of office, their factual remuneration levels and financial situation of the courts, stability of legal rules governing the operation of the courts, etc.). Both indicators have been introduced by Feld and Voigt (2003) and recently recalculated by Voigt et al. (2015).

5   Estimation results – expanded coverage

The primary interest of the study is to obtain statistically significant coefficients associated with variables representing the potential constitutional determinants of economic reforms in transition. Whilst it will not be possible to interpret the specific values obtained, we will draw conclusions about the significance, direction and, in some cases, intensity of the relationship. If we obtain a negative coefficient associated with the concentration index and a positive coefficient for constitutional rights, this will be a confirmation of the negative constitutionalists' view on the role of the constitution in post-socialist transition. A positive coefficient for the concentration index will be evidence in favor of positive constitutionalism. Positive significant coefficients for constitutional court independence variables will confirm the role of these courts as a final stage in turning promises of the state authority into credible commitments.

Table 2 in Annex 1 presents the estimation results for the basic specification. Columns 1-3 report them for a limited version that does not include the *CCI* and *trust* variables allowing for the largest possible sample size (25 countries). In all three estimated models

(OLS, fixed effects, and random effects[15]) we find negative coefficients on concentration of power and positive coefficients on constitutional rights. These variables are also significant at a 1% level. This suggests a first confirmation of the arguments of negative constitutionalists. The results obtained for the remaining variables included in the model are generally in line with the expectations[16].

Columns 4-5 of Table 2 extend the specification to include the *CCI* variables (decreasing the sample to 23 countries[17]), while Columns 6-7 present the results obtained for the model including both the *CCI* variables and the *trust* variable (20 countries[18])[19]. All of these results confirm the earlier conclusions regarding the *concentration* and *rights* variables. At the same time they point to the importance of the constitutional enforcement mechanism for economic reforms in transition. Consistent with Voigt et al. (2014), as well as several earlier studies of economic effects of judicial independence that they mention, we find that *de facto CCI* has positive economic effects – in this case on post-socialist countries' performance in economic reforms. This conclusion also conforms with the negative constitutionalists' arguments interpreting constitutional court independence as an important final stage in the constitutional commitment mechanism. *De iure CCI* is found not to contribute to successful economic reforms in these countries, which is also in line with conclusions of the more general studies on economic effects of *de iure* judicial independence. Interestingly, this variable is found significant with a negative coefficient in Columns 4-6 of Table 2. Before embarking on a search for potential explanations of this result[20] we present the next results, which put in question the strength of this conclusion[21].

Table 3 in Annex 1 presents the results of more refined estimations based on the systems approach. The latter allows to study potential simultaneous effects between variables included in the study and may therefore allow to tackle, at least to some extent, the problem of endogeneity.

Column 1 of Table 3 presents the results of estimations taking into account the effects between economic reforms and economic growth of post-socialist countries, as suggested by some of the literature on transition (e.g. Falcetti et al. 2005). We supplement the basic

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[15] The result of the Hausman test allows for the use of random effects estimators. Such result was also obtained for further analyzed specifications. Due to identified problems of heteroskedasticity, autocorrelation and cross-sectional dependence, Driscoll-Kraay standard errors are reported in this and subsequent tables (where relevant).

[16] Both variables regarding transition time are significant showing continuous reform advancement throughout the period (a positive coefficient on *trtime*) with some tapering off (a negative coefficient on *trtime*^{2}). The coefficient corresponding to the interaction of initial conditions and transition time is negative suggesting that the influence of initial conditions on economic reforms in transition has been falling over time. This effect is slightly attenuated by the positive coefficient on the interaction between *IC* and *trtime*^{2}. Not all results confirm the significance of the initial conditions for reforms given the more-than-20-year-long period under analysis. The remaining variables – *elections* and *trust* (where included) are significant and their coefficients positive, what is consistent with the theory. Some tested specifications of the model revealed the significance of the first and second lag of the dependent variable (path dependence of economic reforms), however with no alteration of the principal conclusions regarding the constitutional variables.

[17] Kazakhstan and Turkmenistan are not included due to unavailability of data (in the latter case due to nonexistence of the constitutional court).

[18] Kyrgyzstan, Tajikistan, and Uzbekistan are further excluded due to unavailability of data.

[19] The results for the fixed effects model are not presented since both the *CCI* indicators and the *trust* variable are time-invariant and would be omitted.

[20] Potential explanations could relate to the recent debate on the importance of the formal provisions governing *de iure* judicial independence for countries' *de facto* performance in this field (e.g. Melton and Ginsburg 2013), as well as literature on the potential adverse economic effects of the functioning of strong formal institutions in post-socialist transition (e.g. Bjoernskov 2015 – in relation to property rights protection).

[21] It is also noticeable that in most specifications the positive effect of *de facto* constitutional court independence offsets the negative effect of *de iure CCI*.

specification with a new control variable accounting for economic growth and analyze this equation in the following system with a supplementing growth equation:

$$econ\_reform_{it} = \alpha_1 concentration_{it} + \alpha_2 rights_{it} + \alpha_3 CCI\_deiure_i + \alpha_4 CCI\_defacto_i +$$
$$+ \alpha_5 trtime_{it} + \alpha_6 trtime_{it}^2 + \alpha_7 (IC \times trtime)_{it} + \alpha_8 (IC \times trtime^2)_{it} + \alpha_9 elections_i +$$
$$+ \alpha_{10} trust_i + \alpha_{11} growth_{it} + \varepsilon_{it}$$

$$growth_{it} = \beta_1 (IC \times trtime)_{it} + \beta_2 (IC \times trtime^2)_{it} + \beta_3 trtime_{it} + \beta_4 trtime_{it}^2 + \qquad (2)$$
$$+ \beta_5 econ\_reform_{i,t-1} + \beta_6 CCI\_defacto_i + \beta_7 fiscal_{it} +$$
$$+ \beta_8 recovery_{i,t-2} + \eta_{it},$$

where η is the error term in the growth equation[22,23].

Column 1 of Table 3 reports the results of the Three-Stage Least Squares (3SLS) estimation of specification (2) without the *trust* variable (23 countries), while Column 2 – with the *trust* variable (20 countries). We indeed find an effect of growth on economic reforms, while the feedback effects from economic reforms to growth are less certain (insignificance or marginal significance). Columns 3-4 of Table 3 relate to an extended systems estimation accounting additionally for potential feedback effects between economic reforms and constitutional solutions. Obviously, constitutions result from a certain design process involving various factors. In order to account for this we estimate systems consisting of equation (1), with economic reforms as the dependent variable, and equations treating constitutional variables as explananda[24].

As we are most interested in conclusions regarding constitutional variables in this setting, we must make three important observations based on the results presented in Table 3. Firstly, the *concentration* variable is marginally significant only in one specification, while otherwise it is insignificant and its coefficient takes different signs. Secondly, the *rights* variable remains significant with a positive coefficient throughout the various system estimations. Thirdly, while *de facto* constitutional court independence also remains significant throughout the system estimations, *de iure CCI* is not even marginally significant in any of them. These findings suggest that in general the scope of the functioning bill of rights was a more important element of the constitutional framework for post-socialist economic reforms than the factual structure of power within the state, with an exception of *de facto* constitutional court independence (which can be viewed as the final stage of the commitment mechanism in relation to economic reforms but also as a crucial mechanism for constitutional rights enforcement). While, due to highly limited availability of data, studies conducted to-

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[22] The growth equation follows from a detailed study of the determinants of economic growth in transition, and the influence of economic reforms thereon, by Falcetti et al. (2005). Some variables are not included due to unavailability of data. Introducing *trust* in the growth equation did not alter the presented conclusions for the constitutional variables.

[23] We include *rights* as a potential determinant of economic reforms, and not economic growth, following Fidrmuc's (2003) finding that democracy is highly correlated with liberalization (an important component of economic reforms) but has an ambiguous effect on growth. We also observe that in our data simple partial correlation between *rights* and *econ_reform* is 0.69, whilst for *growth* it is only 0.03. We proceed similarly with the concentration of power variable (correlation with *econ_reform* –0.63, whereas with *growth* only –0.09). Based on the findings of recent literature (e.g. Feld and Voigt 2003; Voigt et al. 2015) we include *de facto CCI* in the growth equation.

[24] Except for *econ_reform* we do not include any explanatory variables of constitutional choice, since the remaining factors are to a large extent immeasurable. This could be the reason for the rather low R^2 for equations, where constitutional variables are explananda. We attempted to include the *trust* variable to reflect the influence of civil society on the constitutional design process, however it did not prove significant. For methodological reasons we include lagged constitutional variables in the reform equation. We do not expect a direct connection between progress in economic reforms and constitutional court independence.

date could not confirm the relevance of *de facto CCI* for economic reforms in post-socialist countries, in this study such result is among the most robust and convincing. Given the finding in Metelska-Szaniawska (2009) that (de)concentration of state power is more influential at the outset of transition, while bills of rights are particularly important for sustaining reforms in the long run (their influence becomes stronger, the longer the duration of transition), the general result obtained in this section is not surprising. It additionally motivates a more detailed study of the relation between constitutional variables and economic reforms for different groups of countries included in the sample[25].

In order to shed more light on the country-specific aspects of the analyzed question, we conduct estimations including interactions of constitutional variables and dummy variables representing particular groups of countries[26]. Various country groups have been analyzed. Table 4 in Annex 1 presents the most interesting findings. It reports the coefficients on the constitutional variables (i.e. *concentration* and *rights* variables; we did not find convincing motivation for the study of country-specific effects with regard to constitutional court independence), the remaining variables in these regressions behave as in earlier specifications[27].

The first three rows of Table 4, pertaining to the country group-specific influence of *concentration*, reveal the following noteworthy observation. Countries which became Member States of the European Union during the studied time period (denoted *EU* in the table) experienced a less negative influence of the concentration of state power on economic reforms than other countries included in the sample (based on the positive coefficient obtained for the relevant interaction variable in all estimation included in the table). As a matter of fact, the size of this coefficient reveals an altogether positive effect of *concentration* on economic reforms in these countries. As argued in Metelska-Szaniawska (2009), such result could be explained by the fact that preparations for EU membership constituted an alternative constraining mechanism against the potential abuse of concentrated state power in these countries (see also e.g. Ahrens 2007), demonstrating the relevance of positive constitutionalists' arguments for this group of countries[28].

We cannot speak of any other convincing country-group effect based on the results reported in the first three rows of Table 4 pertaining to concentration of state power. According to the results of the random effects estimation, there seem to be more effects identified for former Soviet republics (excluding the Baltics, which are EU member states since 2004), as well as, and in particular, for Central Asian republics, however on the basis of the discussions presented so far in this chapter we treat the system estimation results (two last columns of Table 4) as more reliable than RE (and OLS) and, therefore, refrain from such conclusions. The fact that we do not find a positive effect of *concentration* on economic reform performance in Central Asian former Soviet republics (Kyrgyzstan, Tajikistan and Uzbekistan – denoted *CA* in the table) is a particularly interesting one, as it seems to repudiate the earlier finding of such significant effect in Metelska-Szaniawska (2009). The latter study argued that the fact that positive constitutionalists' argumentation was found more relevant

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[25] In the reform equation the control variables behave as in the single-equation framework, while in the growth equation they all have the expected signs, with initial conditions marginally (in)significant and recovery insignificant. *De facto* constitutional court independence is a significant determinant of economic growth.

[26] Following the explication in Brambor et al. (2006), next to the interaction term we include in each specification the relevant constitutive terms, i.e. constitutional variables and country-group dummies under examination.

[27] Since data on *trust* are not available for Central Asian countries, this control variable is not included in estimations aiming at identifying country-specific effects for this group of countries.

[28] Many of these countries also score relatively lowest on the concentration index within the sample.

for explaining the effect of concentration of power on economic reforms in the former Soviet republics located in Central could be explained by reference to studies from the field of political science (e.g. Antoszewski and Herbut 1998), which observed strongly concentrated state power arising in countries, where the democratization process was obstructed and delayed by the lack of democratic tradition. From the group of post-socialist countries in Europe and Asia this was most strongly the case for Central Asia. Due to the lack of democratic traditions, these countries could embark on any economic reforms only with the state power relatively strongly concentrated. Otherwise further destabilization of government would follow, likely to constitute a serious obstacle to implementing broadly-construed economic reforms. Based on the results presented in Table 4 we can now say that such effect is sustainable only for a limited time and does not find its confirmation when one studies the (nearly) 25-year period from the outset of transition.

The country-group-specific results discussed above are valuable verifications of preliminary results obtained in Metelska-Szaniawska (2009). Another confirmed result of that study concerns the relatively stronger role of constitutional rights and freedoms in Central Asia than in the remaining post-socialist countries (sixth row of Table 4). The reform-'friendly' constitutional setting in these countries would require not highly concentrated political power, which is relevant only for a limited period of transition, but broad and effectively enforced constitutional rights and freedoms. With regard to other former Soviet republics (excluding Central Asia and the Baltics), denoted *FSU*, Table 4 yields no particular insights about the role of *concentration* nor *rights*, suggesting the potential significance of other non-constitutional factors in these countries, which remain beyond the focus of this study. A negative coefficient is obtained for the *rights* variable for post-socialist countries that have applied for EU membership, however it was not confirmed by the results of the more reliable system estimations.

6 Introducing direct democracy mechanisms

One other constitutional aspect is worth more detailed examination when one aims to identify a link between the rule-framework for political decisions on economic reforms and the progress in their implementation during the time period as long as nearly 25 years of post-socialist transition. Mechanisms of direct democracy, allowing for popular participation in politics through referenda or initiatives, determine whether, and to what extent, individuals are capable of voicing their views and opinions in the political sphere. Such activity could be an additional check on government power, strengthening the commitment mechanism envisaged by the remaining constitutional rule-framework. Direct democratic mechanisms in post-socialist countries of Europe and Asia have not received much attention of constitutional economists to date. However, the constitutional solutions adopted by post-socialist states in this respect differ significantly. Also the factual use of these mechanisms by the post-socialist societies during the last nearly 25 years has been far from uniform. In order to examine the potential influence of direct democratic mechanisms on the economic reform process of post-socialist countries we estimate the model developed in Section 4 supplemented with an additional variable relating to direct democracy (*DD*).

Several measures of the extent to which a country uses direct democratic mechanisms and allows for popular participation in policy decisions have been proposed (e.g. Fiorino and Ricciuti 2007, see also Blume et al. 2009). Most of these measures are time-invariant for a given period. For our panel-data study we find it most adequate to employ a cumulative measure of the number of popular (direct democracy) votes conducted in post-socialist countries during the period under investigation. This includes mandatory and optional

referenda, as well as initiatives and plebiscites[29]. The data for our *DD* variable have been assembled based on the information provided by the Centre for Research on Direct Democracy related to the University of Zurich Law School (C2D 1989-2012). In our sample we find countries which did not make any use of direct democracy mechanisms during the period 1989-2012 (e.g. Bulgaria), as well as countries which applied them quite intensively (e.g. Lithuania and Slovenia – 19 votes each, Azerbaijan – 41 votes). As mentioned above, we believe that the use of direct democratic mechanisms may act as an additional factor contributing to the credibility-enhancing feature of the constitution and therefore expect a positive coefficient on the *DD* variable[30].

Table 5 in Annex 1 presents the estimation results for specification (1) supplemented by the *DD* variable: for the larger sample of countries without *trust* in Columns 1-2 and for the smaller sample with *trust* in Columns 3-4 (in both cases the *CCI* variables are included). We refrain from presenting the detailed results of the system estimations including *DD* as they do not offer any new insights beyond the conclusions based on the single equation framework. The coefficients for other constitutional and control variables in Columns 1-4 of Table 5 are consistent with the results obtained earlier. The *DD* variable is found significant in estimations for the larger sample. The coefficient value indicates weak positive influence of the use of direct democratic mechanisms on performance in economic reforms. Such results confirm that this influence is complementary to the effects of concentration of power and rights. Together these constitutional rules contribute to turning promises made by governments in transition countries regarding economic reforms into (more) credible commitments.

This general conclusion, however, fails to hold for the slightly smaller sample, as presented in Columns 3-4, where the *DD* variable is found insignificant. While one could search for reasons why accounting for trust within the society weakens the role of direct democracy, we propose instead a more detailed look at the influence of direct democratic mechanisms in different groups of countries (recall that all Central Asian countries are eliminated from the smaller sample). This is possible, similarly to Section 4, when one includes interactions of the *DD* variable and dummy variables representing particular groups of countries. Table 6 presents the most interesting results of such estimations. It only reports the coefficients on the *DD* variable and its interactions with country-group dummies since the remaining variables in these regressions behave as discussed in the previous sections[31]. The first conclusion that stems from these results is a negative coefficient on the interaction variable for those countries of the region, which applied for EU membership during the transition period and an altogether negative effect of direct democracy mechanisms for these countries (as revealed by the comparison of coefficients for the *DD* and the *EU* interaction variable in all three columns of Table 6). This finding is in line with the result of country-group-specific estimations conducted for post-socialist EU Member States in Section 4 highlighting the role of the constraints relating to the preparation for EU accession as an 'external' commitment mechanism ('anchor') for reforms. In such setting direct democracy

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[29] This approach is consistent with the conclusions of a more general study of the economic effects of direct democracy by Blume et al. (2009), according to which it is the factual use of referenda that matters, not the sole inclusion of such institution in the constitution.

[30] Including the direct democracy measure in the model together with the rights indicator (in particular, its "political rights" component) does not raise concerns since the latter does not relate to direct democracy (see Freedom House 2005). The simple correlation between the *DD* variable and the *rights* index (as well as its political rights component separately) is 0.1 (-0.07). Additional estimations including the *DD* variable conducted for separated "political rights" and "civil liberties" components of the *rights* index, as well as without the "political rights" component, did not alter the presented conclusions regarding direct democracy.

[31] As earlier, next to the interaction we include all constitutive terms in the regressions (see footnote 26).

becomes more of a cost than a positive determinant of a successful economic reforms. While we find no particular regularity as regards the effect of direct democracy in the former Soviet republics (excluding the Baltics and Central Asia), the use of direct democracy mechanisms may have played a significant positive role for reforming the economies of those republics located in Central Asia (this conclusion follows from the result of the extended system estimation reported in the last column of Table 6).

The differences in the role that direct democracy has to play in different groups of countries for economic reforms in transition, which we found above, may be partly responsible for the differences in the results obtained for the *DD* variable in estimations including the *trust* variable (due to unavailability of data, excluding Central Asia from the analysis) and those not including the *trust* variable (but encompassing Central Asia).

Conclusions

In this paper we studied the effects of constitutional change on economic policy in the area of post-socialist economic reforms, involving privatization, liberalization, enterprise restructuring, competition policy and so forth. We found a confirmation of the link, based primarily on the role of the constitution in building credible commitment of political actors vis-à-vis economic actors and the entire society. Noteworthy exceptions (with regard to concentration of state power) were countries committed to European integration and countries lacking democratic transitions. Particularly important elements of the credibility-enhancing constitutional framework for all analyzed countries were broadly-construed and effectively enforced catalogues of constitutional rights and freedoms, as well as *de facto* constitutional court independence.

Whenever econometric analyses are based on descriptive, qualitative, and not formalized models, several critical remarks can be raised. They may relate to weaknesses and drawbacks connected with the employed quantitative measures, as well as critical remarks regarding the employed estimation techniques (see Metelska-Szaniawska 2009 for a detailed discussion). Keeping these shortcomings in mind we can nevertheless formulate preliminary recommendations for post-socialist countries lagging behind in terms reforming their economies. By amending their constitutional framework so as to maintain a broad catalogue of rights and a *de facto* independent constitutional judiciary, they may facilitate this process. The findings are not as convincing as regards the constitutional structure of power, though they generally seem to suggest that (except for post-socialist countries which became EU Member States) increased deconcentration of power is conducive to economic reforms. The analysis also revealed that amending certain formal rules may be insufficient to bring about changes in the economic sphere and countries should also strive to guarantee their factual operation.

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ANNEX 1   TABLES AND FIGURES

Table 1   Constitutions in post-socialist countries of Europe and Asia

Country	Last pre-1989 constitution	Post-socialist constitution(s)	Post-1989 constitutional amendments
Albania	1976	(1991), 1998	1992, 1993, 2008
Armenia	1977 [a]	1995	1991, 2005
Azerbaijan	1977 [a]	1991, 1995	2002, 2009
Belarus	1977 [a]	1994	1996, 2004
Bosnia and Hercegovina	1974 [b]	1995	2009
Bulgaria	1971	1991	1990, 2003, 2005, 2006, 2007
Croatia	1974 [b]	1990	1997, 2000, 2001, 2010
Czech Republic	1960 [c]	1993	1989, 1990, 1991, 1992, 1998, 2000, 2001, 2002
Estonia	1977 [a]	1992	2003
Georgia	1977 [a]	1992 (reinstated), 1995	every year in the period 1999-2013 except 2007
Hungary	1949	2011	1989, 1990, 1993, 1994, 1995, 1997, 2000, 2001, 2002, 2003, 2007
Kazakhstan	1977 [a]	(1993), 1995	1998, 2007
Kyrgyzstan	1977 [a]	1993, 2006, 2007, 2010	1996, 1997, 2003
Latvia	1977 [a]	1922 (reinstated in 1991)	1994, 1996, 1997, 1998, 2002, 2003, 2004, 2005, 2007
Lithuania	1977 [a]	(1990), 1992	1996, 2002, 2003, 2004, 2006
Macedonia	1974 [b]	1991	1992, 1998, 2001, 2003, 2005, 2009, 2011
Moldova	1977 [a]	1994	1991, 1993, 1996, 2000, 2001, 2002, 2003, 2006
Montenegro	1974 [b]	1992, 2007	
Poland	1952	(1992), 1997	2006, 2009
Romania	1965	1991	2003
Russia	1977 [a]	1993	1989, 1990, 1991, 1992, 1996, 2001, 2008
Serbia	1974 [b]	1990, 2006	
Slovakia	1960 [c]	1992	1998, 1999, 2001, 2003
Slovenia	1974 [b]	1991	1997, 2000, 2003, 2004, 2006
Tajikistan	1977 [a]	1994	1999, 2003
Turkmenistan	1977 [a]	1992, 2008	1995, 1999, 2003, 2006
Ukraine	1977 [a]	1996	1991, 1992, 1995, 2004
Uzbekistan	1977 [a]	1992	1993, 2003, 2007, 2011

Notes: Provisional/interim constitutions in brackets.
[a] Constitution of the Soviet Union. In most of the republics there also operated "republican" constitutions.
[b] Constitution of the Socialist Federal Republic of Yugoslavia.
[c] Constitution of the Czechoslovak Socialist Republic.

Source: Own elaboration on the basis of Elkins et al. (2014).

Table 2   Estimation results for specification (1), 1989-2012 (dependent variable: *econ_reform$_{it}$*)

Independent variables	Coefficients						
	without *CCI* and *trust*			with *CCI*, without *trust*		with *CCI* and *trust*	
	I	II	III	IV	V	VI	VII
	OLS	Fixed effects	Random effects	OLS	Random effects	OLS	Random effects
concentration$_{it}$	-0.31*** (-2.27)	-0.55*** (-6.08)	-0.53*** (-5.96)	-0.35*** (-3.08)	-0.50*** (-5.67)	-0.53*** (-5.21)	-0.55*** (-6.26)
rights$_{it}$	0.15*** (8.51)	0.12*** (5.85)	0.12*** (6.26)	0.11*** (8.64)	0.12*** (6.57)	0.11*** (9.79)	0.13*** (6.76)
CCI_deiure$_i$	-	-	-	-0.27*** (-2.37)	-0.46*** (-2.05)	-0.23*** (-2.27)	-0.25 (-1.14)
CCI_defacto$_i$	-	-	-	0.31*** (2.80)	0.42*** (2.28)	0.37*** (3.57)	0.33* (1.85)
trtime$_{it}$	0.20*** (5.95)	0.19*** (25.48)	0.19*** (25.62)	0.20*** (6.21)	0.20*** (25.18)	0.20*** (6.55)	0.20*** (24.21)
trtime$^2_{it}$	-6.1×10^{-3}*** (-4.81)	-5.7×10^{-3}*** (-18.47)	-5.8×10^{-3}*** (-18.59)	-0.01*** (-4.98)	-0.01*** (-18.09)	-0.01*** (-5.23)	-6×10^{-3}*** (-17.00)
(IC×trtime)$_{it}$	-8.9×10^{-3}*** (-3.80)	-5.2×10^{-3}* (1.68)	2.1×10^{-3} (0.74)	-0.01* (-2.00)	1.3×10^{-4} (0.04)	-6.9×10^{-4} (-0.28)	-1.5×10^{-3} (-0.49)
(IC×trtime^2)$_{it}$	4.6×10^{-4}*** (3.15)	-4.9×10^{-5} (0.36)	6.4×10^{-5} (0.52)	3.1×10^{-4}*** (2.24)	1.1×10^{-4} (0.90)	1×10^{-4} (0.74)	1.2×10^{-4} (0.86)
elections$_i$	0.13*** (8.99)	-	0.08*** (2.40)	0.13*** (7.91)	0.09*** (3.52)	0.13*** (12.76)	0.12*** (4.58)
trust$_i$	-	-	-	-	-	1.13*** (3.67)	1.07* (1.90)
constant	1.03*** (10.91)	1.75*** (16.69)	1.47*** (9.82)	1.15*** (10.11)	1.44*** (6.61)	0.89*** (5.58)	0.91*** (3.17)
R^2	0.815	0.766	0.797	0.857	0.852	0.878	0.877
F-stat. / χ^2-stat.	1003.88	378.50	2339.37	1870.07	2425.06	9002.05	2494.04
Number of obs.	544	544	544	502	502	439	439
Numb. of countries	25	25	25	23	23	20	20

Note: Values of the *t*-statistic in brackets. * Significant at a 10% level, *** Significant at a 5% level.   Source: Author's calculations.

Table 3   Results of system estimations, 1989-2012

Independent variables	Coefficients			
	I **3SLS,** **specification (3) without *trust***	**II** **3SLS,** **specification (3) with *trust***	**III** **3SLS,** **extended system without *trust***	**IV** **3SLS,** **extended system with *trust***
REFORMS (dependent variable: $econ\_reform_{it}$):				
$concentration_{it}$	0.02	-0.12*	-0.01	-0.10
$rights_{it}$	0.11***	0.10***	0.14***	0.12***
CCI_deiure_i	-0.03	-0.07	-0.01	-0.05
$CCI\_defacto_i$	0.30***	0.25***	0.28***	0.24***
$trtime_{it}$	0.13***	0.14***	0.12***	0.13***
$trtime^2_{it}$	-3.8×10^{-3}***	-3.7×10^{-3}***	-3.3×10^{-3}***	-3.5×10^{-3}***
$(IC \times trtime)_{it}$	-2.2×10^{-3}	2.1×10^{-3}	-1.8×10^{-3}	2×10^{-3}
$(IC \times trtime^2)_{it}$	1.6×10^{-4}	-7.5×10^{-5}	1.4×10^{-4}	-7.3×10^{-5}
$elections_i$	0.13***	0.13***	0.12***	0.13***
$trust_i$	-	0.98***	-	0.95***
$growth_{i,t-1}$	3×10^{-3}*	3.6×10^{-3}***	2.6×10^{-3}	3.4×10^{-3}***
$constant$	1.23***	1.06***	1.30***	1.04***
R^2	0.850	0.870	0.842	0.866
X^2-stat.	2198.09	2225.83	2333.54	2289.02
GROWTH (dependent variable: $growth_{it}$):				
$trtime_{it}$	2.31***	2.35***	2.22***	2.20***
$trtime^2_{it}$	-0.09***	-0.09***	-0.08***	-0.09***
$(IC \times trtime)_{it}$	-0.06	-0.08	-0.05	-0.07
$(IC \times trtime^2)_{it}$	2.2×10^{-3}	4.2×10^{-3}	1.4×10^{-3}	3.7×10^{-3}
$econ\_reform_{i,t-1}$	1.52	1.05	1.62*	1.31
$fiscal_{it}$	0.35***	0.35***	0.35***	0.35***
$recovery_{i,t-2}$	0.76	0.33	0.91	0.36
$CCI\_defacto_i$	4.12***	5.62***	3.99***	5.26***
$constant$	-15.41***	-14.75***	-15.11***	-14.41***
R^2	0.354	0.352	0.353	0.351
X^2-stat.	211.91	180.63	201.94	167.50
CONCENTRATION (dependent variable: $concentration_{it}$):				
$econ\_reform_{it-1}$	-	-	-0.16***	-0.11***
$constant$	-	-	1.13***	0.94***
R^2	-	-	0.202	0.123
χ^2-stat.	-	-	119.39	51.58
RIGHTS (dependent variable: $rights_{it}$):				
$econ\_reform_{it-1}$	-	-	2.05***	1.51***
$constant$	-	-	-2.60***	-0.56
R^2	-	-	0.399	0.316
χ^2-stat.	-	-	315.35	178.43
Number of observations	388	334	388	334
Number of countries	23	20	23	20

Note: * Significant at a 10% level, *** Significant at a 5% level.

Source: Author's calculations.

Table 4   Estimation results for country groups, 1989-2012

Dependent variable: *econ_reform*$_{it}$

	OLS		RE		3SLS (basic)		3SLS (extended)	
(concentration×*EU)*$_{it}$	1.09***	[-0.62***]	0.99***	[-0.65***]	0.42*	[-0.15***]	0.42*	[-0.12]
(concentration×*FSU)*$_{it}$	0.72***	[-1.02***]	0.65***	[-0.97***]	0.12	[-0.18***]	0.15	[-0.15*]
(concentration×*CA)*$_{it}$	0.50	[-0.45***]	0.74***	[-0.58***]	-0.14	[-0.01]	-0.18	[-0.03]
(rights×*EU)*$_{it}$	-0.10***	[0.13***]	-0.11***	[0.14***]	-0.03	[0.11***]	-0.03	[0.13***]
(rights×*FSU)*$_{it}$	0.02	[0.10***]	0.09***	[0.07***]	-0.03	[0.12***]	-0.02	[0.13***]
(rights×*CA)*$_{it}$	0.10***	[0.12***]	0.01	[0.12***]	0.18***	[0.11***]	0.18***	[0.13***]
Number of observations	439 / 502[†]		439 / 502[†]		334 / 388[†]		334 / 388[†]	
Number of countries	20 / 23[†]		20 / 23[†]		20 / 23[†]		20 / 23[†]	

Notes: Values of the coefficient on the relevant constitutional variable in brackets.
* Significant at a 10% level, *** Significant at a 5% level.
[†] For estimations involving *CA* (see footnote 27).

Source: Author's calculations.

Table 5 Estimation results for specification (1) with *DD* variable, 1989-2012
Dependent variable: *econ_reform$_{it}$*

Independent variables	Coefficients			
	I OLS, without *trust*	**II** RE, without *trust*	**III** OLS, with *trust*	**IV** RE, with *trust*
concentration$_{it}$	-0.38*** (-3.25)	-0.51*** (-5.80)	-0.54*** (-5.24)	-0.56*** (-6.31)
rights$_{it}$	0.11*** (7.98)	0.12*** (6.43)	0.11*** (9.29)	0.13*** (6.61)
CCI_deiure$_i$	-0.25*** (-2.29)	-0.45* (-1.93)	-0.22*** (-2.24)	-0.24 (-1.03)
CCI_defacto$_i$	0.29*** (2.56)	0.40*** (2.05)	0.33*** (3.31)	0.32* (1.69)
DD$_{it}$	5.1×10^{-3}*** (2.27)	5.2×10^{-3}* (1.68)	1.9×10^{-3} (0.95)	2.7×10^{-3} (0.82)
trtime$_{it}$	0.20*** (6.31)	0.20*** (24.90)	0.20*** (6.62)	0.20*** (24.07)
trtime$^2_{it}$	-6.1×10^{-3}*** (-5.00)	-5.9×10^{-3}*** (-18.16)	-6.1×10^{-3}*** (-5.20)	6×10^{-3}*** (-17.00)
(IC×trtime)$_{it}$	-4.8×10^{-3}* (-1.94)	3.5×10^{-4} (0.12)	6.9×10^{-4} (-0.28)	-1.7×10^{-3} (-0.52)
(IC×trtime^2)$_{it}$	3.1×10^{-4}*** (2.34)	1.1×10^{-4} (0.89)	1.1×10^{-4} (0.78)	1.3×10^{-4} (0.92)
elections$_i$	0.13*** (8.46)	0.09*** (3.41)	0.13*** (13.85)	0.12*** (4.44)
trust$_i$	-	-	1.12*** (3.43)	1.04* (1.77)
constant	1.19*** (10.28)	1.47*** (6.54)	0.90*** (5.50)	0.93*** (3.08)
R^2	0.857	0.853	0.878	0.877
F-stat. / χ^2-stat.	3363.06	2428.89	8467.25	2482.40
Number of obs.	502	502	439	439
Numb. of countries	23	23	20	20

Note: Values of the *t*-statistic in brackets. * Significant at a 10% level, *** Significant at a 5% level.

Source: Author's calculations.

Table 6   Estimation results for direct democracy in country groups, 1989-2012

Dependent variable: *econ_reform$_{it}$*

|	OLS		RE		3SLS (extended)	
$(DD \times EU)_{it}$	-0.023*** [0.013***]		-0.014*** [0.008***]		-0.010*** [0.003]	
$(DD \times FSU)_{it}$	0.003	[-0.0002]	0.015*	[-0.009]	-0.001	[-0.002]
$(DD \times CA)_{it}$	0.016	[0.005*]	-0.030*	[0.005*]	0.023***	[0.0004]
Number of observations	439 / 502[†]				334 / 388[†]	
Number of countries	20 / 23[†]				20 / 23[†]	

Notes: Values of the coefficient on the *DD* variable in brackets.
* Significant at a 10% level, *** Significant at a 5% level.
[†] See Table 4.

Source: Author's calculations.

Figure 1   Economic reforms in post-socialist countries as measured by EBRD's aggregated transition indicator, 1989-2012
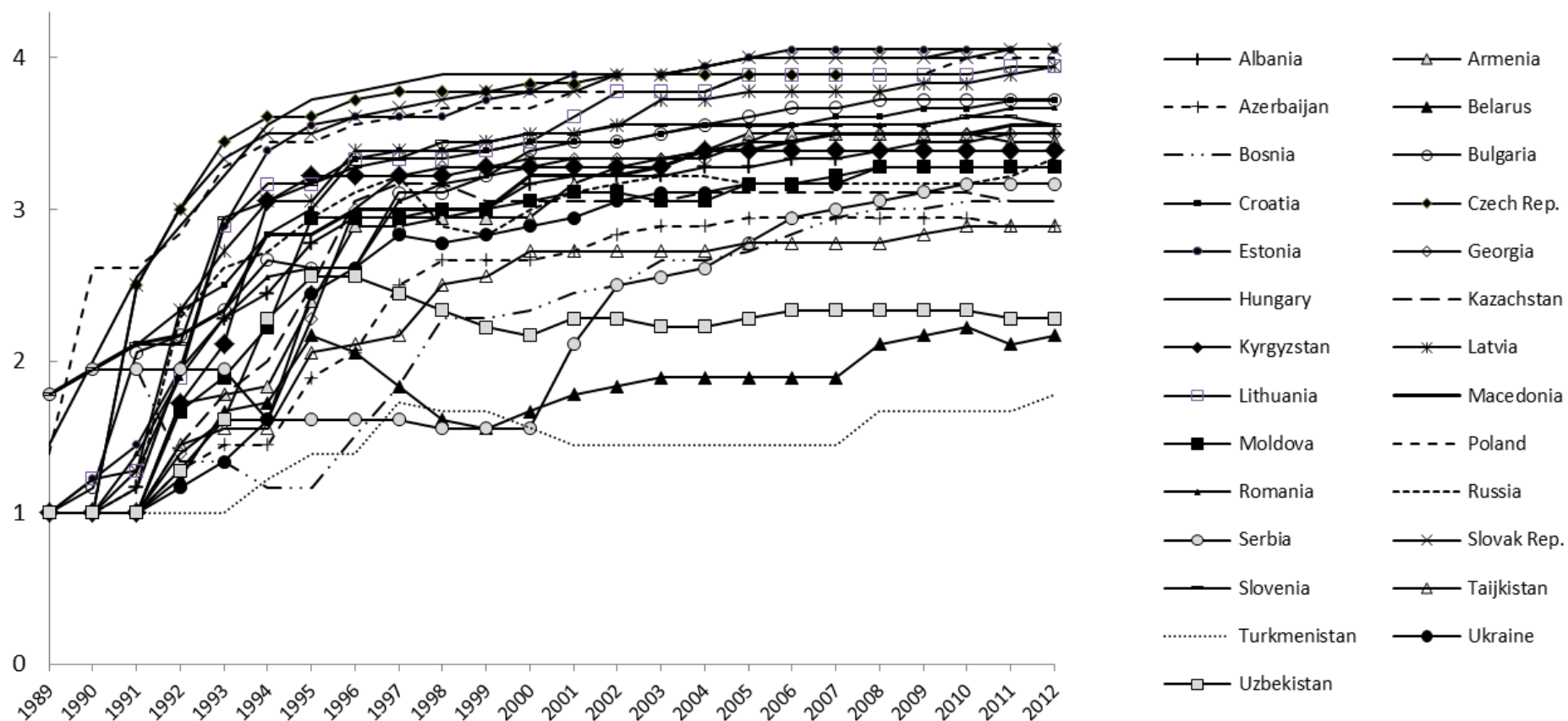
Source: Author's calculations and graph on the basis of EBRD (1994-2013).

ANNEX 2   DESCRIPTION OF VARIABLES AND DATA SOURCES

Variable name	Description	Data source
CA	Dummy variable for Central Asian countries	-
concentration	Concentration of state power index reflecting the extent to which a single political actor is capable of decisively influencing state policy	Author's calculations based on Henisz (2013)
DD	A cumulative measure of the number of conducted popular votes (direct democracy)	Author's calculations based on Centre for Research on Direct Democracy C2D (1989-2012)
econ_reform	Aggregate transition indicator (index of economic reforms) constituting an average of a set of six indicators of structural economic reforms	Author's calculations based on EBRD (1994-2013)
elections	An indicator reflecting the result of the initial post-socialist elections in a country (including some aspects of their organization)	Fish (1998)
EU	Dummy variable for EU membership / EU applicant (depending on specification)	-
fiscal	Share of the general government fiscal balance in GDP (in %)	EBRD (1994-2013)
FSU	Dummy variable for former Soviet Union countries (excluding the Baltic republics)	-
growth	Annual GDP growth rate (in %)	World Bank (2013)
IC	Initial conditions index calculated from the first principal component of a factor analysis over 11 indicators	Author's calculations based on Falcetti et al. (2002)
CCI_defacto	*De facto* constitutional court independence indicator	Voigt et al. (2015)
CCI_deiure	Formal constitutional court independence indicator	Voigt et al. (2015)
recovery	Dummy variable taking the value of 1 if real output is less than 70% of its value in 1990, and 0 – otherwise	Author's calculations based on World Bank (2013)
rights	Constitutional rights indicator reflecting the operative political rights and civil liberties	Author's calculations based on Freedom House (1990-2013)
trtime	Transition time beginning in 1989 for Poland and Hungary, 1990 – for other Central and Southeastern European countries (except Albania), 1991 – for Albania and the Baltic republics, and 1992 – for remaining former Soviet republics	-
trust	A measure of trust between individuals and in their relation with political institutions of the state (proxy for civil society)	Author's calculations based on World Values Survey (1994-1999)