Original Article

Institutional complementarity, economic performance and governance in the post-communist world

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Abstract Our article presents an index of institutional complementarity for 27 post-communist economies, and evaluates a key claim of the Varieties of Capitalism paradigm. The empirical novelty of the index lies in its integration of informal institutions as well as its combination of macro-level and firm-level dimensions. Theoretically, we use the index to propose two boundary conditions for the theory of comparative institutional advantage whose empirical support has been mixed in the literature. We find that (1) the link between institutional complementarity and the measures of income, employment, and inflation is contingent on the quality of governance, and (2) institutional complementarity has no impact on life expectancy in the respective economies. We theorize the importance of governance quality as a crucial factor in the analysis of capitalist systems.
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Introduction

Prima facie, the research programmes on the Varieties of Capitalism (VoC) and the post-communist economic reforms are conceptually far apart. The firm-centric VoC paradigm originated to explain the institutional differences between Western economies, while the literature on economic reforms has been preoccupied with the state-level remedies for the decidedly non-Western legacies of planned economy. However, concurrent intellectual trends have begun to close the gap between these

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research agendas. The abandonment of convergence expectations by the transition scholars has led to the search for stable institutional clusters among the 30 post-socialist economies, while the 2007–2010 economic crisis has illustrated the dangers of deregulation and destatization in the OECD space.

This article aims to promote the integration of both research programmes by creating a new index of institutional complementarity for the post-communist economies – and by offering a testable hypothesis that introduces 'governance quality' into VoC's theory of comparative institutional advantage. Using the data from public agencies and previous studies, we use factor analysis to calculate the extent to which the 27 transition economies resemble the institutional ideal types suggested by the VoC paradigm. Our index complements the existing case studies by allowing systematic country comparisons across multiple institutional dimensions.

Our theoretical contribution proceeds along two dimensions. First, we use the index to analyse a major contested VoC claim positing the impact of institutional complementarity on economic performance. Our data provides important boundary conditions for this claim: on the one hand, it only appears valid for countries where the quality of governance is relatively high, and, on the other hand, only when relatively narrow 'economic' measures of performance are used. In poorly governed economies, or when broader 'social' measures of performance, such as life expectancy, are used, institutional complementarity does *not* enhance performance as predicted by VoC.

Second, we extend the literature introducing politics to the VoC paradigm. Although the role of coalitional politics, formal electoral systems, the states' policy-making capacity and ideology have been well-covered by scholars, we focus on governance quality as a distinct political dimension. We also go beyond the extant treatment of politics as an 'omitted variable' in the VoC framework, often interpreted as suggesting the inadequacy of the VoC framework as such: instead, we explore politics as an interaction factor that *delimits the applicability* of VoC claims.

Literature: From Case Studies to Ideal Types

As part of the Comparative Capitalisms literature (Deeg and Jackson, 2007), the VoC approach classifies capitalist systems according to the modes in which the firms strategically resolve the issues of capital procurement, corporate governance, labour training and so on (Hall and Soskice, 2001). Two ideal-typical systems of inter-dependent capitalist institutions are suggested: the 'liberal' market economies (LME) exhibiting the short-term, market-based inter-firm strategies, and the 'coordinated' market economies (CME) exhibiting the long-term, relational inter-firm strategies.

The analytical power of the VoC framework derives from the notion of institutional complementarity 'whereby one type of institution rather than another becomes viable in one domain when a fitting institution is present in another domain, and vice versa', owing to the interdependent payoffs derived from the institutions

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by the respective agents (Aoki, 2001, p. 225). No consensus exists on the criteria for institutional 'viability' or the identity of 'respective agents': some scholars stress competitiveness from the perspective of firms (Hall and Soskice, 2001), whereas others emphasize social stability from the perspective of political leaders (Amable and Palombarini, 2009). Further disagreement exists on whether complementarity implies institutional isomorphism: the term 'coherence', for example, has been used in lieu of 'complementarity' to denote the consistency of institutional forms across and within spheres of an economy (Kenworthy, 2006, pp. 72–73). Finally, the notion of 'strict' complementarity has been used to describe a deficiency-compensating mechanism that combines opposite logics of coordination across institutional spheres (Crouch *et al*, 2005). Although recognizing its limits, we choose to focus on Aoki's notion of complementarity as mutual institutional reinforcement (supermodularity), as this notion and terminology underlie the key causal VoC claim regarding economic performance (Hall and Gingerich, 2009), which this article examines. Specifically, some VoC scholars propose a theory of comparative institutional advantage, according to which distinct, non-convergent institutional configurations can yield superior economic performance to the extent they are complementary, as compared with the less complementary configurations.

Traditionally, the scholars of post-communist political economy have not framed their enquiry in VoC terms, examining instead specific countries or the sub-regions of the post-communist world. More recently, post-communist scholarship has increasingly sought to apply the VoC paradigm. This literature yields three conclusions. First, the post-socialist economies exhibit institutional variety beyond the classical VoC framework. The VoC approach, it is argued, while applicable for some Western economies, fails to capture the post-communist institutional structures given the socialist legacies and the path-dependent informal institutions, in particular (for example, Lane, 2005; see Drahokoupil, 2009). Accordingly, scholars propose to add additional VoC beyond the original LME/CME typologies (for example, Cernat, 2006; Bartlett, 2007; Charman, 2007; King, 2007; Nölke and Vliegenthart, 2009). The classical VoC approach is developed by incorporating non-firm actors such as the state, international organizations, political entrepreneurs or economic networks: these actors bargain over institutional reforms in different political systems that span the democratic-authoritarian spectrum.

Second, the rudimentary stage of capitalist development in some post-communist economies complicates their classification in the VoC framework. Outside of the newly admitted EU economies, the literature notes, capitalist structures are underdeveloped and institutional enforcement is low (Charman, 2007; McNally, 2007; Bohle and Greskovits, 2007b). Therefore, it is difficult to classify these economies and to predict which type of capitalism will emerge.

Third, to the extent that some countries *are* classified as stable VoC, the *origins* of respective institutional complementarities are traced to the over-centralization of the planned economy, its subsequent discreditation and the concomitant power

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of neoliberal reformers in the case of the quasi-LMEs – as opposed to the strong horizontal inter-firm ties and worker self-governance under the planned economy and the subsequent economic 'gradualism' in the case of the quasi-CMEs (for example, Feldmann, 2006). In addition to socialist legacies and domestic policy choices, the literature highlights the impact of foreign actors such as transnational corporations, foreign banks and the EU on the emergent types of capitalism that do *not* overlap with the CME/LME varieties. Foreign actors have profoundly shaped coordination modes and specific institutions (welfare, labour market, corporate governance and so on) through Foreign Direct Investment (FDI), technology transfer, denationalized training, as well as the EU access and policy-related conditionality (Hanson, 2007; Vliegenthart and Horn, 2007; Bohle and Greskovits, 2007a; Nölke and Vliegenthart, 2009).

In stressing the uniqueness of the post-communist region and its constitutive economies via rich case studies, the literature has advanced the debate by offering a wealth of data while theoretically debunking teleological convergence assumptions. At the same time, the wholesale rejection of the LME/CME templates has incurred some theoretical costs. To begin, the analytical status of LME/CME categories as *ideal types* has been ignored: most studies treat these categories as *descriptive* types, implying that a given country either does or does not match a given category. As ideal types, however, the LME/CME models cannot 'match' *any* economy: even the supposedly 'pure' cases of the United States and Germany exhibit multiple contradictory features (Crouch *et al*, 2005). Becker (2009, p. 8) powerfully argues a similar point with respect to the OECD-based critiques of VoC: 'The confusion produced by the typological discussion is remarkable … It stems from the conflation of ideal types and classifications as well as of types and cases (countries; given political economies)'. Hence, the question arguably more consistent with the Comparative Capitalisms research agenda is *to what extent* a given economy exhibits institutional complementarities approximating an ideal type. For VoC, it is the 'variation along a spectrum running from market coordination to strategic coordination' that should be examined (Hall and Gingerich, 2009, p. 454). Although the reduction of ideal types to two introduces clear parsimony–accuracy trade-offs, we believe a broad testing of an existing typology should precede its potential extension or rejection. Becker's work exhibits the requisite analytical discipline, yet it also suggests that a too-quick introduction of multiple ideal types may itself produce confusion. Becker introduces four ideal types with three 'sub-varieties' (2009, pp. 57–60), but later (2011, p. 13) extends the list to five ideal types while admitting that the 'simple dichotomous distinction [between embedded an liberal capitalism] is largely sufficient'. We prefer to follow Becker's (2009) more conservative inclination that particularly resonates with his (brief) discussion of the post-communist capitalisms (p. 61): '… these countries might feature peculiarities, but it has to be repeated that a typology does not need to cover all peculiarities … it is *not* easy … to detect something developing in Eastern Europe (including Russia) that does *not* suit into the space between the … ideal types'.[1]

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By neglecting the conceptualization of complementarities as a spectrum, the literature forecloses the opportunity to examine the next logical question, namely, does the distance from the spectral extremes influence a given economy's performance (or other outcome variables)? A convincing answer, it seems, would require 'distance measures' that are comparable across economies. Instead, the relationship between institutional complementarity and economic performance has been addressed via case studies so far. These studies yield ambivalent conclusions. On the one hand, countries with complementary institutions are economic frontrunners (Slovenia and Estonia, for example), whereas countries with the non-complementary institutions (the Balkans, most of the post-Soviet states) are economically less successful (for example, Cernat, 2006). On the other hand, there are 'hybrid' economies with non-complementary institutions, such as Poland or Hungary, which are also economically successful (for example, Mykhnenko, 2007); in fact, prominent economists have argued that the elimination of institutional complementarities might be *required* for a successful shift from an extensive to an intensive model of growth represented by the transition from plan to market (Phelps, 2007). Yet, other scholars defend the superiority of *one* specific variety of capitalism for the post-socialist economies (rather than affirming or denying the importance of institutional complementarities *in toto*) – accordingly, some authors emphasize the advantages of the CME model (for example, Bruszt and Stark, 1998; Lane, 2005), whereas others opt for the LME variety (Cernat, 2006; Aslund, 2007) or an altogether different type of institutional complementarity (Nölke and Vliegenthart, 2009). Overall, additional empirical work is needed to shed light on the role of institutional complementarity in post-communist economies.

Finally, the prevalent focus on describing the institutional complexity of a given sub-region has created the problem of duelling nomenclatures. For the several dozen post-communist countries, the literature lists a similar number of capitalist 'varieties', if all competing categories are to be included. Although some proposed varieties constitute an impressive effort at conceptualizing a new ideal type (for example, Nölke and Vliegenthart, 2009), many suggested classifications add descriptive rather than analytical value.

Further research is likely to be enhanced by broad cross-country measures focusing on institutional complementarity while accounting for the key idiosyncrasies of the post-communist space. Such measures would allow to compare the post-communist economies with each other along the criteria of the VoC framework, moving beyond the current implicit country-by-country comparisons with the Western industrialized world. Moreover, a cross-country index of institutional complementarity would allow to distil some important common features of the examined countries regardless of their geography.

Comparative measures of institutional complementarity for the post-communist space would also provide the basis for evaluating *causal* claims. The VoC framework links economic performance to institutional complementarity. The original claim

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received strong empirical support from Hall and Gingerich (2009) and partial confirmation from Amable (2003, pp. 213–224), yet alternative testing has found no positive relationship between complementarity and performance in the OECD countries (Kenworthy, 2006; Casey, 2009). Probing the theoretical core of the VoC literature, the post-communist scholarship parallels this debate. Unlike the OECD-oriented literature, however, the post-communist research programme has not used cross-country quantitative analysis to evaluate the competing claims regarding complementarity and performance.

Notwithstanding the benefits of broad comparative measures, the VoC criteria should not be mechanistically applied to empirical settings that differ substantially from the ideal-typical VoC cases. We acknowledge this caveat in two ways. First, we do not *a priori* assume that VoC-like institutional complementarities exist in the post-communist economies; instead we analyse raw data (via factor analysis) to check whether that is the case. By proceeding inductively, we explicitly reject teleological assumptions underlying certain theories of convergence. Second, we incorporate the *most important* differences between the original VoC model and the post-communist reality in our analysis: these differences refer to the significance of informal institutions, the importance of the state and the low quality of governance.

The next section analyses institutional complementarities of post-communist capitalism by creating a cross-country index and showing some of its ramifications for the ongoing theoretical debates.

Analysis: Institutional Complementarity and Governance

Institutional complementarity is *the* key theoretical foundation of VoC: there are virtually no studies of the post-socialist economies, however, that measure such complementarity in a systematic fashion across countries. A prominent exception is found in Knell and Srholec (2007), further referred to as KS. Their ‘coordination index’ begins to address the dearth of broadly comparative, empirically grounded VoC studies of the region. However, the KS index is too narrow in scope, omitting critical firm-level coordination spheres. This section builds on the work by KS to create an index that is more comprehensive on empirical and theoretical fronts.

KS use factor analysis to create an index of coordination; in doing so, they follow the methodology used by Hall and Gingerich (2009). An alternative strategy for quantifying the extent of institutional complementarities could be subjective scoring based on primary and secondary sources, as used by Kenworthy (2006) for the OECD sample: this strategy is not promising for the post-communist economies, however, given the lack of consensus on how to interpret emerging institutional patterns.

KS use 12 variables[2] to derive three conceptual dimensions along which the economies diverge: social cohesion, labour market regulation and business

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regulation. Although focusing on the state-business and state-labour interactions – crucial dimensions of capitalist variety – the KS index fails to include the data on labour–employer coordination and corporate governance. The omission of *firm-level* dynamics from the KS index implies a theoretical break from the Comparative Capitalisms literature (whether in its VoC or alternative versions).

To extend the KS index, we add the following variables to the analysis: (1) efficacy of corporate boards; (2) strength of auditing and reporting standards; (3) cooperation in labour–employer relations; (4) flexibility of wage determination; (5) ease of shareholder suits; (6) extent of financial disclosure. (The Table A1 in Appendix presents summary statistics for all variables in this article.) These six variables cover 27 post-communist countries throughout Eurasia in the period 2001–2008. Averages across years are used for all variables in the analysis. The data for variables (1)–(4) is based on the annual representative survey of business executives conducted by the World Economic Forum (WEF); in the survey, respondents evaluate the situation in a country as a whole. The data for variables (5) and (6) is based on the annual evaluation of a country's legal infrastructure by the World Bank as reported in its Doing Business database.

Combined, these data sources address both the *formal* rules and the *actual* situation 'on the ground', which is a considerable advantage given the importance of informal institutions in the region. The relations between owners, managers and labour – as well as the ways in which firms choose to resolve their coordination dilemmas – are likely to be influenced by both *de jure* and *de facto* considerations. The data from the World Bank focuses on the formal rules while the phrasing of the questions from the WEF's survey allows the respondents to reflect on the situation as it actually obtains in a given country.

The advantage of obtaining information on the *de facto* circumstances of a given economy must be weighed against the risk of poor cross-national comparability inherent in global surveys. In the case of the WEF, this risk, while present, is reduced by the survey protocol the WEF has developed over more than 30 years of administering the executive opinion survey. In addition to providing information on institutional configurations beyond formal rules, an important advantage is that WEF sampling guidelines ensure (through a two-stage stratification procedure) a sufficient presence of large companies because management at bigger firms typically has better knowledge of the overall economy.

The variables are coded by the WEF and the World Bank as follows:

(1) *Efficacy of Corporate Boards*: 'corporate governance by investors and boards of directors' is scored by respondents on a scale from 1 to 7, where 1 means that 'management has little accountability' and 7 means that 'investors and boards exert strong supervision of management decisions'.
(2) *Strength of Auditing and Reporting Standards*: 'financial auditing and reporting standards regarding company financial performance' is evaluated by respondents

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on a scale from 1 to 7, where 1 means ‘extremely weak’ and 7 means ‘extremely strong, the best in the world’.

(3) *Cooperation in Labour–Employer Relations*: respondents score the ‘labour–employer relations’ on a scale from 1 to 7, where 1 stands for ‘generally confrontational’ and 7 stands for ‘generally cooperative’.

(4) *Flexibility of Wage Determination*: ‘wages’ are scored by respondents on a scale from 1 to 7, where 1 means ‘set by a centralized bargaining process’ and 7 means ‘up to each individual company’.

(5) *Ease of Shareholder Suits*: this index ranges from 0 to 10, with higher values indicating greater powers of minority shareholders to challenge an inappropriate transaction by the majority owner on behalf of the corporation.

(6) *Extent of Disclosure*: this index ranges from 0 to 10, with higher values indicating greater disclosure requirements in the case of an inappropriate transaction by the majority owner on behalf of the corporation.

We apply factor analysis to identify patterns in the data indicative of institutional complementarities. The idea behind this analysis is that if sets of variables co-vary across countries in the way the VoC paradigm would predict, then we can interpret these sets as being indicative of conceptual dimensions (for example, coordination spheres) underlying the VoC framework. On the other hand, if no such sets are discovered, or if the variables are associated with each other in a way contradicting the VoC theory, then we can report the absence of observable institutional complementarities.

Table 1 reports the results of factor analysis. As our primary purpose is detecting data structure, we use the principal factors method. (The principal components method yields substantively similar results.) The rotated factor loadings represent

Table 1: Factor analysis: Rotated factor loadings and associated data patterns

Variables	*Management opposition*	*Insider protections*	*Stakeholder networks*
Efficacy of Corporate Boards	0.767	0.279	–0.068
Cooperation in Labour–Employer Relations	0.765	–0.049	0.073
Strength of Auditing and Reporting Standards	0.290	0.580	–0.070
Ease of Shareholder Suits	0.028	0.370	–0.012
Flexibility of Wage Determination	0.172	–0.104	0.493
Extent of Disclosure	–0.202	–0.014	0.448

Extraction method: Principal factors analysis. Rotation method: Orthogonal varimax.
Notes: Grey shading marks the highest loading for each variable. Variables contain observations for 27 post-communist countries in the 2001–2008 period (means across years are used).

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distinct clusters of interrelated phenomena. The variables form three clusters (or factors) and are listed in the order of their mutual association's strength, with clusters shaded grey. The first cluster includes *Efficacy of Corporate Boards* and *Cooperation in Labour–Employer Relations* that are positively associated with each other. This association corresponds to the VoC framework. Where boards exert strong pressure on management, the latter can also be expected to 'cooperate' with labour. The VoC theory would expect diverse constraints on management to be jointly high or jointly low. In the CME countries, for example, such constraints would be high, imposed on management by labour (directly represented on boards sometimes) or by the concentrated ownership structures (giving owners direct leverage over managers). In the LMEs, conversely, these constraints would be jointly low, because of weak boards, weak labour representation and dispersed ownership. Conceptually, the first cluster can be interpreted as representing *management opposition*.

The second cluster includes the variables *Strength of Auditing and Reporting Standards* as well as *Ease of Shareholder Suits*, which are positively related, in line with the VoC theory. The variables' association implies that in countries where firms open their financial accounts to scrutiny, the legal framework also enables minority shareholders to protect their interests in court. These issues address the core institutions of corporate governance that are resolved differently in the liberal versus CME. In the LMEs, the legal shareholder protections complement the market enforcement mechanisms (that rely on share prices, external audits and financial transparency) by reinforcing each other's impact. In the CMEs, corporate governance is based on the stable coalitions of firm insiders, supporting 'patient capital', at the expense of external interests. In other words, the lack of legal shareholder protections reinforces weak market enforcement. The second cluster of variables is best conceptualized as *insider protections*.

The third cluster includes the variables *Flexibility of Wage Determination* and *Extent of Disclosure*, which are positively associated. Again, the VoC framework seems to be on target. Flexible (company-level) wage determination, typical of the LMEs, implies the absence of socioeconomic networks that would make tripartite bargaining possible. The legal requirements for managers to ensure disclosure *vis-à-vis* the owners, also typical of the LMEs, signal the absence of manager–owner networks. In CMEs, conversely, network coordination at national and company levels would tend to reduce the flexibility of wage determination as well as the extent of disclosure. We conceptualize the third cluster as *stakeholder networks*, 'stakeholders' being defined narrowly as management, labour and owners.

Factor analysis suggests three dimensions in which institutional complementarities matter, namely, management opposition, insider protections and stakeholder networks. Higher score on any dimension would imply, *ceteris paribus*, more associative coordination and less market coordination. Our dimensions combine the *de jure* and *de facto* constraints on *firm*-level behaviour, complementing the macro-level dimensions suggested by KS. At the same time, our results incorporate *informal*

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practices whose omission arguably restricts the usefulness of the indices developed by KS or Hall and Gingerich.

The next step is to calculate the scores for each country on the three conceptual dimensions suggested by factor analysis. As factor analysis puts these scores on the same scale, the scores can be added into a single complementarity index. In this index, the LME countries would rank low since management opposition, insider protections and stakeholder networks would tend to be underdeveloped relative to the CMEs, which would rank high. The mixed systems would rank between the LMEs and the CMEs.

We calculate the country scores for management opposition, insider protections and stakeholder networks by following KS methodology. Accordingly, only the highest-loaded factors are used to calculate the scores (that is, two unique factors per score). Moreover, since some variables are negatively related to the conceptual dimensions – the ease of shareholder suits *reduces* insider protections, for example – these variables are converted to a reverse scale before score calculation.[3] Finally, since KS use four factors per score (rather than two), we multiply our results by two: this simple linear transformation puts our results on the same scale as used by KS. We then add our results with KS scores on social cohesion, labour market regulation and business regulation.[4] The result is a comprehensive Institutional Complementarity Index (ICI).

Table 2 reports the country scores on the ICI and its conceptual components. Countries are sorted by their ICI scores. Economies with lower scores exhibit more 'market' coordination typical of the LMEs, whereas economies with higher scores display more 'strategic' coordination more common in the CMEs. Among the current EU member states, 60 per cent fall into the LME-like category (the bottom tier of the ICI); 20 per cent into the CME-like category (the top tier of the ICI); and the remaining 20 per cent could be described as neither or as mixed (the middle tier). Among the non-Baltic former Soviet states, most fall into the intermediate category (56 per cent), with the remainder divided evenly between the market and strategic coordination types. (Belarus, Tajikistan and Turkmenistan are absent from the table because of data gaps.) Among the non-EU Balkan economies, 60 per cent resemble the CME type, 20 per cent the LME type and 20 per cent neither. Finally, among the Asian economies, 66 per cent are best thought of as CME-like, and 33 per cent as mixed. Overall, the country rankings seem to correspond to the area-specific literature on institutional reforms in the area (for example, Cernat, 2006; Feldmann, 2006, Charman, 2007).

The correlations among the ICI *components* reveal that the scores on stakeholder networks and social cohesion are most correlated, followed by the scores on insider protections and business regulation: this suggests that institutional complementarities between these spheres might be particularly strong.

The ICI needs to be interpreted with caution. As any index, the ICI is a time-specific composite. If policy experimentation is more likely in the post-communist

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Table 2: ICI: post-communist economies, 2001–2008

Country	*ICI*	*Management opposition*[a]	*Insider protections*[a]	*Stakeholder networks*[a]	*Social cohesion*[b]	*Labour market regulation*[b]	*Business regulation*[b]
1. Estonia	−11.81	−0.6	−2.7	−2.8	−4.4	0.4	−1.7
2. Russia	−10.75	−0.8	0.7	−1.0	−4.5	−2.3	−2.8
3. Lithuania	−6.94	−1.0	−1.2	−1.0	−1.3	0.1	−2.5
4. Slovakia	−4.82	−0.8	−1.5	0.2	−0.4	−4.5	2.1
5. Kazakhstan	−4.82	−0.3	−0.8	−1.5	−1.4	−2.3	1.4
6. Poland	−4.44	−1.6	−1.5	0.6	−0.6	−1.1	0.0
7. Hungary	−4.43	0.1	−2.4	1.2	−1.8	0.0	−1.5
8. Bulgaria	−3.92	−0.6	−0.5	−2.0	−1.8	−1.8	2.8
9. Serbia	−3.30	−0.7	2.1	−0.4	−3.7	−2.6	2.1
10. Latvia	−2.58	−0.4	−2.1	−0.7	−1.8	1.5	1.0
11. Armenia	−2.53	2.5	0.0	−0.3	−3.7	−1.1	0.1
12. Moldova	−2.19	0.1	0.9	−0.4	−3.6	1.5	−0.7
13. Georgia	−0.98	1.8	1.3	−1.5	−5.5	0.8	2.0
14. Kyrgyzstan	−0.18	1.6	0.5	−1.1	−2.2	−0.7	1.8
15. Macedonia	0.15	−0.9	0.7	−0.2	−1.9	−0.2	2.7
16. Mongolia	0.50	1.8	0.9	−1.1	−1.1	−1.0	1.1
17. Romania	2.07	−1.6	1.2	−1.5	−2.0	5.0	1.0
18. Azerbaijan	2.16	1.4	0.1	0.6	−3.2	0.0	3.4
19. China	3.37	1.8	1.9	−1.2	−0.1	0.6	0.4
20. Uzbekistan	4.12	−2.0	1.1	0.8	−2.8	2.3	4.7
21. Czech Republic	5.00	1.2	−1.6	1.0	2.4	−2.0	4.0
22. Bosnia and Herzegovina	5.39	−0.6	1.0	0.2	0.5	1.1	3.2
23. Croatia	5.59	−1.9	−0.7	2.6	1.3	2.9	1.5
24. Albania	5.76	1.4	2.1	1.3	−1.8	−0.6	3.3
25. Slovenia	6.84	−0.8	−2.5	3.9	3.0	2.1	1.3
26. Ukraine	9.45	−0.4	1.1	2.4	−2.5	5.2	3.8
27. Vietnam	10.05	1.5	2.5	1.1	−2.1	3.6	3.5

Notes: ICI is the sum of six complementarity dimensions displayed in the table (deviations are because of rounding). Lower scores mean that the country is more likely to exhibit market-like coordination typical of LMEs. Higher scores mean that the country is more likely to have strategic coordination typical of CMEs.
[a]Authors' calculations based on the data from the Doing Business database by the World Bank and the Global Competitiveness Report by the World Economic Forum.
[b]Knell and Srholec (2007).

economies than in their Western counterparts, then the post-socialist countries' positions on the LME–CME continuum will also be less stable than those of the typical VoC economies. Moreover, as an abstract metric based on 18 underlying variables, the ICI merely signals the economies' rough proximity to institutional ideal-types and neglects many nuances of the individual regimes.

At the same time, the ICI advances the scholarship on VoC and post-communist capitalism in important ways. To begin, the ICI presents the most up-to-date,

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comprehensive and explicitly comparative metric of institutional complementarities for the post-communist world. In addition to its empirical reach, the ICI reflects the recent theoretical shifts in the VoC scholarship. On the one hand, the ICI integrates the variables on the *de facto* firm behaviour beyond formal rules. On the other hand, the ICI extends the analysis to additional complementarity spheres. Furthermore, the ICI can be used to track future developments in the post-communist economies, since the data on the specific variables is publicly available and regularly updated. Hence, the ICI could help resolve two related questions, both at the theoretical epicentre of VoC debates. First, how stable are the *individual countries' positions* on the LME–CME spectrum? Second, how stable is the *spectrum itself*, that is, the presence of particular institutional complementarities? The ICI can be used as a point of departure for answering these questions through factor analysis with the data from future periods.

A comparative index of institutional complementarity is also indispensable for adjudicating the debate on comparative institutional advantage. In addition to its empirically mixed results, the literature presents a theoretical puzzle, given the greater adaptability of *mixed* systems to change:

> [C]ertain efficiencies are achieved when … contrasting characteristics are found alongside each other … [S]uch an approach stresses the advantages of the mongrel over the pedigree animal: the latter has heavily reinforced characteristics, which means that vulnerabilities are exaggerated … At the same time, of course, the pedigree animal … does some things particularly well. Both types of animal offer advantages … *Observations of relative performance … based on complementarities … may not hold for all times and criteria* … [T]his suggests a big research agenda'. (emphasis added) Crouch *et al* (2005, pp. 362-363)

Challenging the VoC scholarship, the hypothesis of mixed-system superiority has found support in the case of small open-trade OECD states (Campbell and Pedersen, 2007). Presumably, the advantages of flexibility and collective learning that mixed systems offer (ibid.) would be particularly valuable in the rapid-change transition environment, making the post-communist economies an ideal testing ground for the theory of comparative institutional advantage. We provide a preliminary ICI-based test below.

We use three measures of performance: GDP per capita at Purchasing Power Parity (PPP), employment growth and inflation. If high-institutional complementarity does improve economic performance, as claimed by the VoC school of thought, then economic performance would represent a U-shape when plotted against the ICI (or inverse U-shape for inflation). Countries that score very low or very high on the ICI, that is, those that are LME-like or CME-like, would display better performance than those in the middle. Figure 1 plots GDP per capita at PPP against the ICI. The Loess curve in Figure 1 demonstrates the results of a bivariate local regression, that is, the

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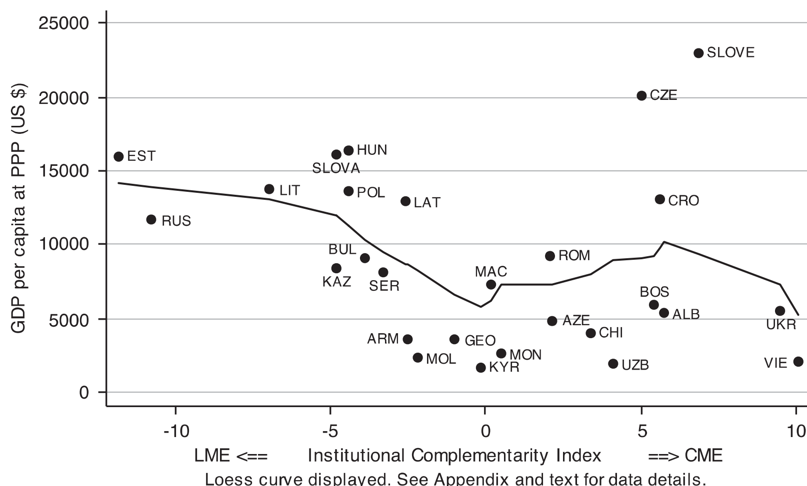

Figure 1: Institional complementarity and performance: post-communist countries (2001–2008).

associational trend for the GDP and ICI variables. The Loess model is particularly suited for our task since the hypothesized relationship between the variables is non-linear. The countries' performance distribution does *not* seem to follow the VoC logic overall. Although the LME-like countries do fall into a pattern predicted by the VoC (the lower the value of the ICI, the higher a country's performance), the CME-like economies do not exhibit a VoC distribution.

The apparent lack of complementarity's impact on performance may not be surprising in light of a prominent critique of the VoC scholarship (for example, Hancke *et al*, 2007): as a firm-centric framework, VoC deemphasizes the *state* as an independent actor or political dynamics more generally.

Specifically, our hypothesis is that in countries with good economic governance, institutional complementarity would enhance economic performance, while in the poorly governed economies, it would not. The concept of governance is broad (for a great overview, see Van Kersbergen and Van Waarden, 2004): our usage builds on the Comparative Capitalisms literature. Among others, Crouch (2005, p. 105) conceptualizes governance mechanisms as 'the means whereby the predictability and regularity fundamental to institutions are ensured' across the domains of polity, market and society. Here, we only focus on governance institutions in the polity domain, that is, on state institutions.

We define governance as the degree to which the predictability of market exchange, including factors of production as well as goods and services, is assured through state institutions, including formal rules and their enforcement. The literature identifies three types of state institutions as critical for predictable market exchange (Acemoglu and Johnson, 2005; Rodrik, 2007; North *et al*, 2009). Property rights institutions

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protect the firms 'vertically' against the state. Contract enforcement institutions provide 'horizontal' protection against cheating by other firms. Finally, 'law and order' institutions extend the firms' time horizons by ensuring social peace and stability.

Our measures of governance are drawn from the Worldwide Governance Indicators (WGI) developed by Kaufmann *et al* (2010). Unlike its competitors, WGI combines *all* available cross-national data on perceptions of governance using rigourous aggregation methodology.[5] Although WGI has become 'the standard bearer' (Oxford Analytica, 2006) of governance measures among academics and policymakers, it has also attracted criticism (for example, Arndt and Oman, 2006). As a practical matter, however, critics often point out that *relative to other available measures*, WGI provides 'the most carefully constructed governance indicators' (Arndt and Oman, 2006) while offering the widest scope and best concept validity (Skaaning, 2010). Three advantages of WGI stand out in particular. First, WGI minimizes concerns about reliability by combining data from diverse sources. Second, WGI minimizes possible errors inherent in any single survey by assigning larger weight during aggregation to indicators that are correlated with each other. Third, WGI uses a 'thin' definition of governance devoid of issues such as human rights: such conceptualization is more appropriate for our theoretical purpose than a 'thick' definition underlying the data by Freedom House, Bertelsmann Foundation and other organizations. Our selected WGI measures also capture the theoretical construct better than the available measures of post-communist state capacity (Fortin, 2010), which refer to the broader provision of public goods including physical infrastructure and so on.

Our key WGI variable is *Rule of Law* that indicates 'the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence'. This measure fits well our conceptualization of governance. *Rule of Law* is coded in units ranging from −2.5 to 2.5. Higher values indicate better governance.

Although the positive *direct* effect of sound governance on economic performance has been extensively documented, our hypothesis refers to the role of governance as an *interaction variable* in the VoC framework. Once the countries are separated into the 'bad governance' and 'good governance' sub-sets, we expect the performance of the 'good governance' sub-set to be distributed in a U-shape when plotted against the ICI – but we do not expect this to hold for the 'bad governance' subset. Figure 2 sorts the countries into two sub-sets, and presents the association between the ICI and GDP per capita (at PPP) for each sub-set. Countries whose value for the variable *Rule of Law* is below the mean across all economies appear in the left graph, and those for which the value is above the mean in the right graph. The respective patterns, as illustrated by the Loess curve, differ clearly, implying that the level of governance might be influencing the relationship between institutional complementarity and economic performance. Crucially, in the case of the well-governed economies on the right, the Loess curve exhibits the U-like shape predicted by the VoC school of thought, whereas in the case of other economies it does not.

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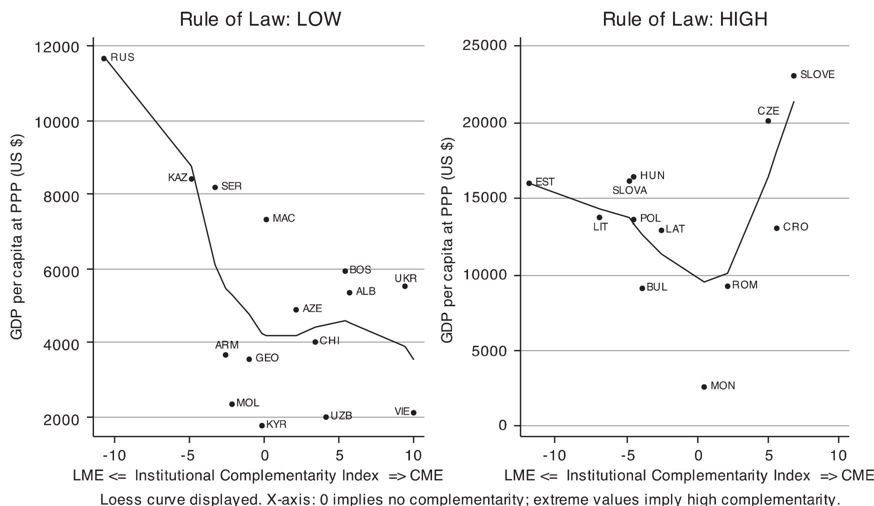

Figure 2: Institional complementarity and performance: post-communist countries (2001–2008).

How robust are the findings? Our discussion of Loess-related robustness follows Jacoby (2000). To begin, we use a relatively high 'bandwidth' of 0.8, which is conducive to robust estimates.[6]

The Loess procedure underlying Figure 2 was also implemented in a *robust mode* that 'downweights the observations that are most likely to have an adverse effect on the local regressions – those with large residuals … [and avoids] "chasing the outliers" in the scatterplot' (ibid., p. 588). In Figure 3, we visualize the difference with the Loess curve calculated in the standard *non*-robust way; as expected a non-robust Loess would be *even more U-shaped* (because it would descend lower to the MON data point in the middle) than our robust estimate. In other words, Figure 2 was based on conservative estimates.

Figure 4 below uses a different non-parametric technique to estimate the relationship between the data points: instead of Loess, we use Kernel-weighted local polynomial smoothing. As Figure 4 suggests, the U-shaped relationship between institutional complementarity and performance in the well-governed economies is not an idiosyncrasy of the Loess method. Figure 4 also integrates 95 per cent confidence intervals (shaded grey): whereas the grey corridor on the left (poorly governed economies) displays a fluctuating erratic pattern, the corridor on the right (well-governed economies) is more narrow and has a distinct U-shaped form.

As a final robustness check, we use employment growth and inflation variables as alternative performance measures. We also use two alternative governance variables from the WGI data set that zoom in on some key aspects of the

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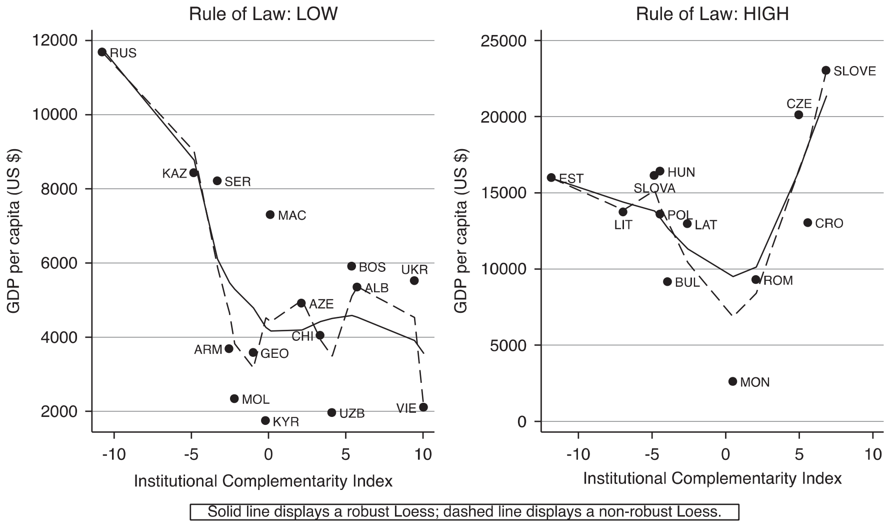

Figure 3: Institional complementarity and performance: 27 post-communist countries (2001–2008).

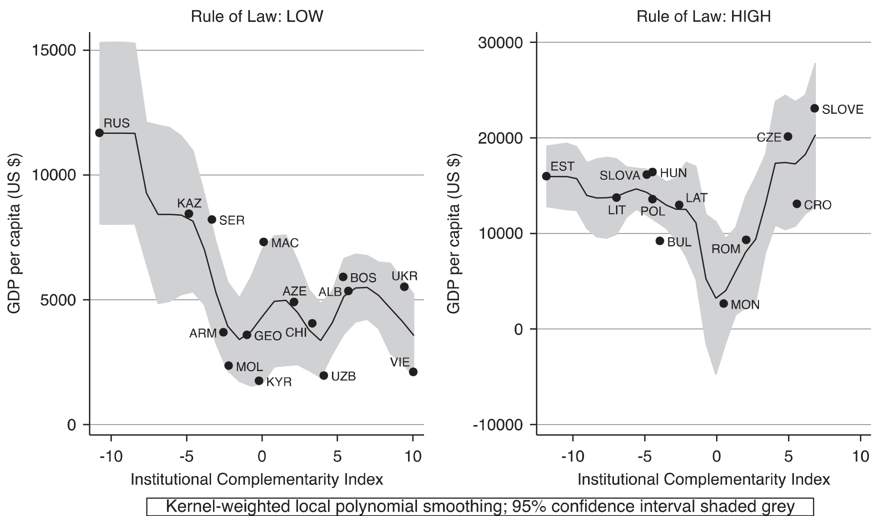

Figure 4: Institional complementarity and performance: 27 post-communist countries (2001–2008).

multi-dimensional governance concept. (Please see Table A1 in the Appendix for summary statistics.) The variable *Control of Corruption* conveys 'the extent to which public power is exercised for private gain, including both petty and grand

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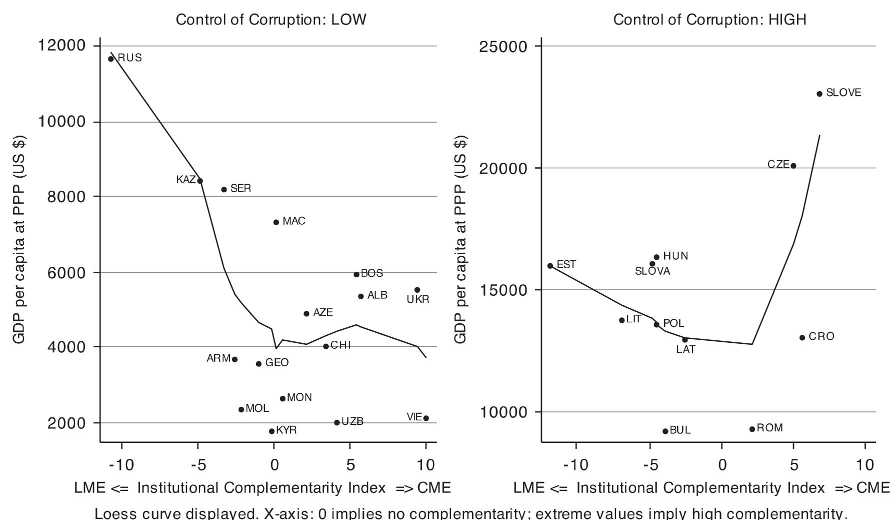

Figure 5: Institional complementarity and performance: post-communist countries (2001–2008).

forms of corruption, as well as capture of the state by elites and private interests'. The variable *Private Sector Regulation* probes the quality of formal rules in addition to their enforcement, measuring 'the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development'.

Figures 5 and 6 follow the logic of Figure 2 but use *Control of Corruption* and *Private Sector Regulation* as their respective governance measures. The bivariate local regression shows the same pattern, suggesting that our prior result is not driven by the particular coding of the *Rule of Law* indicator.

When employment growth or inflation variables are used instead of income, the patterns observed so far also hold, as indicated in Figures 7 and 8. For employment growth, the extremes of the U-shaped curve in the good-governance sub-set are formed by Estonia and Slovenia, both exhibiting high-institutional complementarity and high-employment growth, as well as Romania, a mixed system showing the lowest growth in the sample. For inflation, the U-shaped curve of the well-governed countries becomes inverted, consistent with the expectation of better performance for high-complementarity systems. Estonia and Slovenia have average inflation rates of 5.6 per cent and 4.7 per cent, whereas Romania's average inflation during the period is 19.1 per cent.

The correspondence of the Loess curve in the well-governed country sub-sets to the theory of comparative institutional advantage is by no means perfect (which would be a naïve expectation): Estonia, for example, exhibits more institutional complementarity and higher inflation as compared with Lithuania. However,

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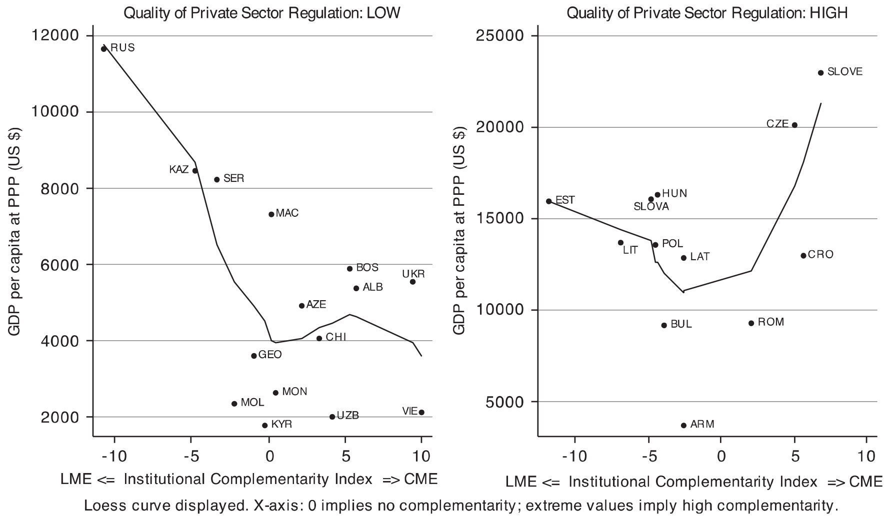

Figure 6: Institional complementarity and performance: post-communist countries (2001–2008).

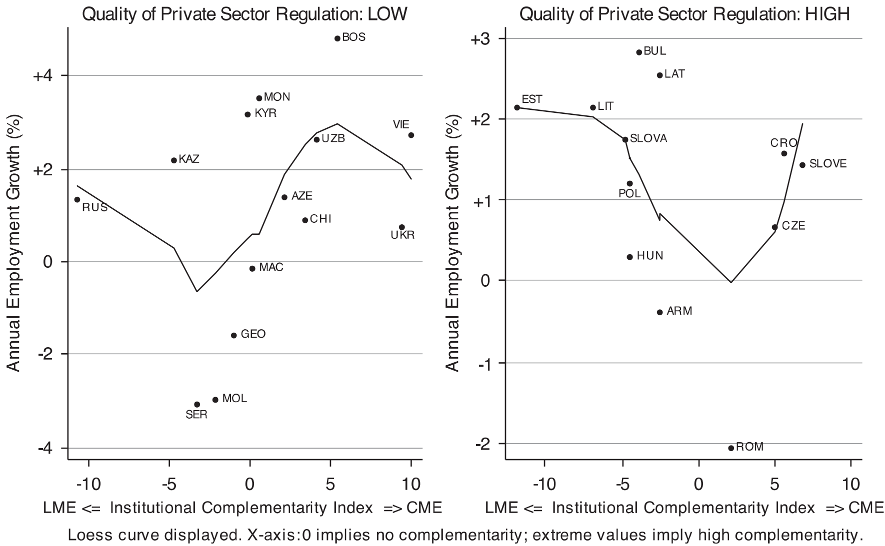

Figure 7: Institional complementarity and performance: post-communist contries (2001–2008).

the difference between the two plots in each figure is striking: while all 'good governance' plots (the right parts of the figures) display a pattern broadly consistent with VoC predictions, this is not true for the 'bad governance' plots (the left parts of

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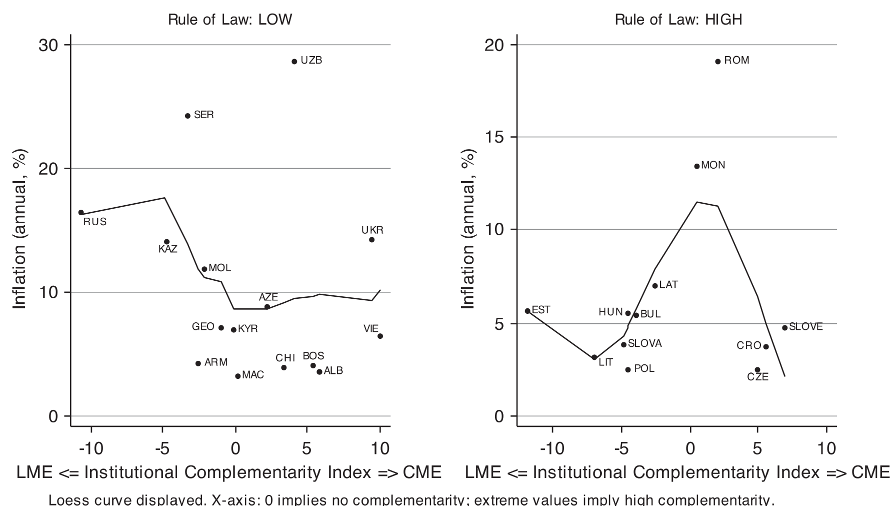

Figure 8: Institional complementarity and performance: post-communist countries (2001–2008).

the figures). The contingent nature of institutional complementarity's impact on performance holds independently of regional factors,[7] of performance measures and of governance variables used.

Overall, while the relative importance of institutional complementarity *compared with other performance determinants* requires multivariate analysis and is beyond the scope of this article, the bivariate local regressions for governance-based country sub-sets in Figures 2–8 yield themselves to a more limited interpretation: *institutional complementarity is more likely to enhance macroeconomic performance in the well-governed, rather than poorly governed, economies*. In other words, our results provide preliminary support for the idea that governance quality could be an important interaction variable in the theory of comparative institutional advantage.

So far, our emphasis has been on macroeconomic performance; however, measures such as per-capita income, employment or inflation only partially capture the well-being of a country's population. The post-communist countries, in particular, have been the subject of an intense scholarly debate on whether the 'Washington Consensus' on economic reforms neglected the social infrastructure in its pursuit of economic performance. The latest iteration of this polemic involves a controversial article by Stuckler *et al* (2009) who argue that mass privatization, the key ingredient of the Washington Consensus, dramatically increased mortality in the post-communist countries. Prominent scholars have come to support (Stiglitz, 2009) and dispute (Sachs, 2009) the claim. Meanwhile, the VoC literature has extended

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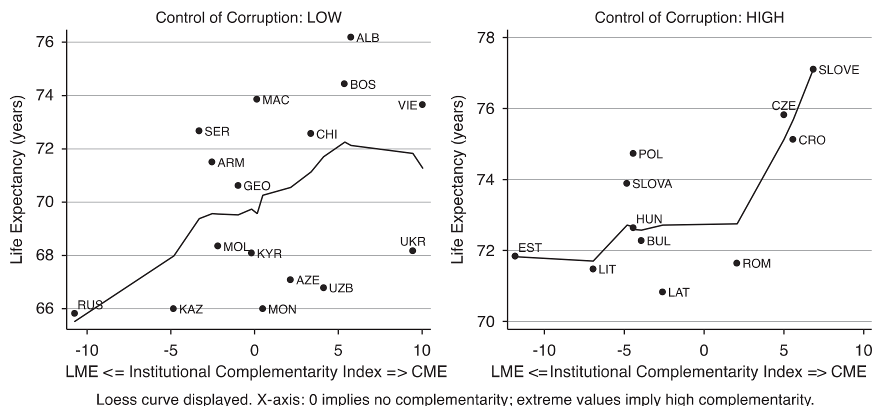

Figure 9: Institional complementarity and performance: post-communist countries (2001–2008).

its conceptualization of the dependent variable beyond the then narrow macroeconomic performance measures.[8]

Given the importance of the long-term well-being indicators for the post-communist world, we re-run our analysis with *Life Expectancy* as an alternative 'performance' measure. This variable, collected by the World Bank as part of its World Development Indicators, reflects life expectancy at birth and conceptually subsumes various aspects of social infrastructure (health care, pension system and so on). Figure 9 displays *Life Expectancy* plotted against the ICI for the bad-governance and good-governance countries.

Strikingly, *life expectancy in the CME-like economies is higher than in their LME-like counterparts, regardless of governance quality*, as indicated by the upward-sloping Loess curve in both graphs of Figure 9. This finding seems in line with research showing that globalization increases social spending in the CMEs but decreases such spending in the LMEs (Jensen, 2010). More importantly, the finding suggests a second boundary condition for the theory of comparative institutional advantage: the VoC prediction of better performance for countries with complementary institutions does not hold if non-economic performance measures, such as life expectancy, are used.

Discussion

In addition to creating a new empirical index, this article aims to invigorate the dialogue between the scholars of post-communist reforms and the 'mainstream' VoC scholars. We have used the ICI to generate two insights contributing to these literatures.

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First, the impact of institutional complementarity on economic performance, predicted by the VoC school, is contingent on governance. Although the literature has, correctly, criticized the VoC for omitting factors such as coalitional politics, formal electoral systems, the states' policy-making capacity, ideology or issues of institutional change (for example, Blyth, 2003; Goodin, 2003; Watson, 2003; Gourevitch and Shinn, 2005; Cioffi and Höpner, 2006; Molina and Rhodes, 2007; for a reply to the critique see Hall and Soskice 2003), we have examined a different level of state functionality – governance. In addition to shaping the institutional complementarities directly, state institutions determine whether the *already present* complementarities translate into better performance. These 'conditioning' state institutions relate to the courts, the police and the normative-structural accountability mechanisms of bureaucracies. At the analytical level, the literature implicitly treats the 'political dimension' as a *confounding factor* that can independently affect both institutional complementarity and macroeconomic performance making their link spurious. Conversely, we cast the political dimension as an *interaction factor vis-à-vis* complementarity's potential to influence performance. In doing so, we follow the intuition of Kenworthy (2006, p. 86) who, reporting the absence of complementarity's effect in his analysis, wondered whether '… a beneficial effect … could be hidden … due to the impact of some additional variable …' Our analysis suggests that this additional variable is governance.

As an extension, should governance quality be problematized in the advanced industrialized nations? Theoretically, the importance of governance shifts for accountability in – and the very governability of – advanced capitalism has been cogently argued by Van Kersbergen and Van Waarden (2004). Empirically, however, even when recognizing the centrality of state regulation to the effective functioning of market economies as well as the dangers of regulatory capture (for example, Levi-Faur and Parker, 2010), the OECD-focused literature often takes the state's relative *enforcement capacity* and *accountability structures*, that is, principal-agent controls within the state apparatus, for granted. Such perspective is belied by the 2007–2010 global economic crisis that has rattled the pillars of capitalism, while being, to a non-negligible degree, the result of corrupt governance practices in the US financial markets. The point is: governance quality has long ceased to be a Third World issue. This has direct implications for the VoC paradigm, as illustrated by the Italian case in which legal reform of corporate governance failed to affect the concentration of shareholdings because of corruption (Culpepper, 2007). The emerging research on governance dilemmas in the *advanced* economies supports our proposal for incorporating this factor into the mainstream VoC theorizing. Transcending the orthodox emphasis on state resources and bureaucratic ethos as sufficient conditions for good governance, this research suggests that *rapid innovation often outpaces regulation* leading to a decline in governance (for example, Partnoy, 2009). Notably, the innovation–regulation gap has been associated with governance problems in the advanced industrialized world during several crises of

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the twentieth century, and the globalization of capital flows might have exacerbated this dynamic (for example, Brady *et al*, 2007).

Our second ICI-based insight derives from using life expectancy as an alternative, long-term measure of national well-being. We find that life expectancy in the CME-like economies is higher than in the LME-like economies, regardless of governance quality. As the U-shaped relationship between institutional complementarity and performance does not obtain in this case, our finding establishes another boundary condition for the VoC claim. Not only is institutional complementarity's impact contingent on governance, its effect also seems to be limited to the economic short-term indicators of performance. Why would the CME-like post-communist regimes enjoy higher life expectancy than their LME-like counterparts? One prominent hypothesis posits the adverse effects of 'shock therapy' reforms including the destruction of the welfare system as a byproduct of the focus on 'de-statization'. Alternatively, the CMEs' longer life expectancy could be the result of higher social capital and greater readiness to share the burdens of transition (for example, Rodrik, 2007). By partially capturing both de-statization and social capital,[9] our ICI coding does not allow to evaluate these hypotheses against each other: this is a promising agenda for future research. Regardless of the causal mechanism involved, however, the apparent superiority of CME-like systems at achieving longer life expectancy suggests that the incorporation of 'softer' performance measures is particularly important in the analysis of capitalist institutions beyond the advanced industrialized world.

Table 3 summarizes our findings in a matrix format: note that only the upper left quadrant displays a relationship consistent with VoC predictions. In the well-governed economies, both LME-type and CME-type complementarities improve macroeconomic performance relative to mixed systems, whereas CME-type complementarities are associated with the highest – and LME-type complementarities with the lowest – life expectancy. In the poorly governed economies, no clear relationship exists between institutional complementarities and macroeconomic performance, whereas the relationship between complementarities and life expectancy remains the same as in the well-governed economies.

Our findings are preliminary. In demonstrating the empirical plausibility of our hypothesis, our purpose is to encourage its future testing through multivariate analysis. Furthermore, note that our key hypothesis is comparative rather than

Table 3: Summary of findings: Impact of institutional complementarities, on macroeconomic performance and life expectancy, contingent on governance quality

Governance quality: Outcome of interest	*High*	*Low*
Macroeconomic performance	LME>MME<CME	(no relationship)
Life expectancy	LME<MME<CME	LME<MME<CME

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absolute: our claim is *not* that institutional complementarities matter for performance, but that institutional complementarities *matter more* for performance in the well-governed economies than in the poorly governed ones. This more modest claim is compatible with the notion that factors *other than* institutional complementarities could have a (potentially much) greater impact on economic performance.

At the same time, we hope that our approach alleviates some concerns raised by regional experts about analysing the post-communist space through a VoC lens. Myant and Drahokoupil (2011) summarize these concerns effectively. First, 'the choice of the dependent variable' (p. 300) in the original formulation in VoC is too narrow, according to the authors, as it refers to innovation-based competitiveness that is largely irrelevant in the post-communist space. Our approach does not argue for a specific state policy or firm strategy being responsible for the superior performance of countries with institutional complementarities. In that, we follow Becker's (2009, pp. 9–10) overdue clarification that the VoC framework is defined by 'the macro-orientation' whose 'consequence … is that institutional configurations and structures are more salient units of analysis than strategies and choices. The macro-level is largely out of reach for the strategies deployed by the various private actors … [and while] state action regularly points to this level … it is restricted to an accompanying role …' Second, VoC theorizing is rightly criticized for omitting 'basic issues … [such as] state capacity, the rule of law, a functioning system of corporate governance … [which are] broadly assumed to be resolved' (p. 301). Our analysis explicitly incorporates this critique. By conditioning the impact of institutional configurations on governance, we show both that the issues related to rule of law can be incorporated into VoC theorizing conceptually, and that such issues delimit the scope of VoC-based theories empirically.

Finally, Myant and Drahokoupil (ibid.) suggest that the VoC framework 'is built on an assumption of long-term continuity', which contrasts with the 'continual, substantial changes' experienced by transition economies. We agree with this critique, but think that it is ultimately an *empirical* question. As our ICI index is based on publicly available data, it offers a way to track the extent of permanence in the observed complementarities. More than two decades after the communist collapse, some of the economies in question may be developing stable institutional configurations.

Conclusion

Our empirical contribution provides a new index of institutional complementarity across 27 post-communist economies in the period 2001–2008. The ICI fills an important niche in the literature on post-communism, which mostly relies on case studies in applying the VoC framework to the region. We find that economic institutions in the post-socialist world do co-vary in line with the VoC framework.

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Using the data on formal rules as well as the firms' *de facto* behaviour, our factor analysis identifies three dimensions of institutional complementarity: management opposition, insider protections and stakeholder networks. By combining the scores on these dimensions with the existing data on social cohesion, labour market regulation and business regulation, the ICI constitutes an up-to-date, comprehensive and explicitly comparative metric.

On the theoretical side, we apply the ICI to suggest two boundary conditions for the primary causal claim of the VoC paradigm. We find that institutional complementarity associates with better economic performance only when: (i) the economy in question enjoys relatively high-governance quality and (ii) narrow macroeconomic performance measures are used, rather than the broader measures of welfare, such as life expectancy. As both the conditions fundamentally impact the scope of predictions for the theory of comparative institutional advantage, a systematic integration of governance quality and broader performance measures into the VoC research appears warranted.

The integration of the 'governance factor' into the larger literature on Comparative Capitalisms offers two promising directions for future scholarship. First, governance quality may help determine the relative applicability of different models of institutional change across empirical settings (see Hall and Thelen, 2009). Punctuated equilibrium models that stipulate rare discontinuous change because of exogenous shocks have been juxtaposed with models that stress ongoing gradual yet transformative institutional change because of endogenous dynamics (Streeck and Thelen, 2005): just under what circumstances one of the two models is more likely to apply remains unclear. One hypothesis is that, with respect to formal legal change, the 'gradual transformative' model might become more applicable *as governance quality declines* (across nations, regions, sectors or over time). To the extent that firms can resolve coordination dilemmas by evading formal rules, they may be less likely to invest in 'upstream' lobbying for legal reform, preferring the 'downstream' adjustments via corrupt channels at the implementation level; relatedly, changes in the legal framework of the low-governance regimes may be less likely to affect the actual firm practices. Conversely, in 'good governance' settings, the benefits of formal legal change rise: yet, legal reform is costly, requires collective action and is usually subject to multiple veto points, all of which suggest the increased usefulness of the punctuated equilibrium model.

The second suggestion for future work concerns research on globalization, its sociopolitical consequences and institutional hybridization. Power relations between labour and capital in the poorly governed economies may favour capital even stronger because of its political–financial resources, allowing for larger non-democratic (non-electoral) impact on policy making as compared with the well-governed polities. At the same time, the trend towards 'liberalization' of global capitalism – to the extent such trend is associated with 'deregulation' – can trigger a decline in governance quality that inevitably hurts particular business sectors,

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as the current crisis demonstrates. One possibility is that, over the long term, deregulation and governance quality decline may generate resistance to liberalization that is based on different (top-down) logics and coalitions as compared with Polanyi's (bottom-up) logic of socioeconomic dislocation. Overall, in modelling the trajectories of national institutional hybridization, Comparative Capitalisms scholarship would benefit from considering the interplay between domestic governance quality and sociopolitical forces on the one hand, and global capital flows and supranational regulation efforts on the other.

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Notes

1 Although Becker's ideal types include liberal, statist, corporatist and group types (and, later, a 'patrimonial' type), we choose to incorporate the measures relating to *some* of these characteristics (for example, statism or corporatism) into our two ideal types for the purposes of parsimony. One problem with Becker's ideal types is that only two of them (liberal and statist) represent the *extremes of a conceptually clear dimension* along which empirical cases can range. The other three types (corporatist, group and patrimonial) are what Becker (2009) calls 'criteria-based': while the criteria Becker suggests are sensible, it is unclear whether this collection of non-dimensional ideal types indeed delimits a conceptual *space*, as Becker seems to argue (p. 64).

2 These include: (i) GINI coefficient, (ii) highest marginal personal income tax rate, (iii) highest marginal corporate income tax rate, (iv) government consumption expenditure, (v) difficulty of hiring workers, (vi) difficulty of firing workers, (vii) costs of firing workers, (viii) rigidity of working hours, (ix) number of procedures to register a new business, (x) time to resolve insolvency, (xi) number of procedures to register property, (xii) stock market volume relative to banking sector. Variables (i)–(iv) provide the basis for the social cohesion dimension; variables (v)–(viii) for the dimension of labour market

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regulation; variables (ix)–(xii) for the business regulation dimension. For variables' definitions, coding and data sources, see Knell and Srholec (2007).

3 This applies to: *Strength of Auditing and Reporting Standards*; *Flexibility of Wage Determination*; *Ease of Shareholder Suits*; and *Extent of Disclosure*.

4 This is possible because (i) our conceptual dimensions as well as those analysed by KS refer to the same underlying VoC logic of coordination, that is, the same main unrotated factor behind the rotated factor patterns and (ii) the same methodology is used in both studies.

5 An unobserved component model provides governance estimates for each country, from 1996 on, based on 31 data sources from 25 organizations including cross-country surveys of individuals, firms, experts as well as the ratings produced by NGOs, governmental organizations and commercial risk agencies.

6 Bandwidth, also known as the smoothing parameter α, specifies the proportion of observations used at every step in the local regressions (a 0.4 bandwidth, for example, uses 40 per cent of observations at every step). *Low* bandwidths make 'local regressions … highly sensitive to "noise" variations within the data values' (Jacoby, 2000, p. 585), whereas higher bandwidths produce more robust results. (There is a trade-off: bandwidths that are set too high generate nearly-straight lines which, although 'robust', miss theoretically important variations in the data structure.) Jacoby employs 0.65 as the preferred bandwidth in his example; we use 0.8 throughout the article to err on the side of robustness.

7 Although EU membership and governance quality are highly correlated, a number of non-EU countries (for example, Armenia, Mongolia, Kazakhstan and China) score as well-governed on some of the governance indicators, whereas Bulgaria, an EU member, does not.

8 Amable and Palombarini (2009, p. 134), for example, argue that institutional complementarity can lead to social stability through the formation of 'dominant social blocks'. Kang and Moon (2012) argue that institutional complementarity impacts the extent and nature of 'corporate social responsibility'. Becker (2009, pp. 22–27) provides the overarching argument that competitiveness is not the only 'existential reference frame' (that is, key goal) influenced by the VoC complementarities: instead, 'order', 'efficiency', 'profitability' and even the more contested goals such as 'equality' or 'environmental protection' can be the dependent variables of complementarity-driven systems. Later in the volume, Becker (p. 126) specifically includes life expectancy in his measures of socioeconomic performance.

9 De-statization is reflected via the extent of government expenditure as well as the volume of business and labour market regulations; social capital is captured via labour–employer cooperation and the GINI coefficient variables.

References

Acemoglu, D. and Johnson, S. (2005) Unbundling institutions. *Journal of Political Economy* 113(5): 949–995.

Amable, B. (2003) *The Diversity of Modern Capitalism*. Oxford: Oxford University Press.

Amable, B. and Palombarini, S. (2009) A neorealist approach to institutional change and the diversity of capitalism. *Socio-Economic Review* 7(1): 123–143.

Aoki, M. (2001) *Toward a Comparative Institutional Analysis*. Cambridge, US: MIT Press.

Arndt, C. and Oman, C. (2006) *Uses and Abuses of Governance Indicators*. Paris, France: OECD.

Aslund, A. (2007) *How Capitalism was Built: The Transformation of Central and Eastern Europe, Russia, and Central Asia*. Cambridge, US: Cambridge University Press.

Bartlett, W. (2007) The Western Balkans. In: D. Lane and M. Myant (eds.) *Varieties of Capitalism in Post-Communist Countries*. Hampshire, UK: Palgrave Macmillan, pp. 201–220.

Becker, U. (2009) *Open Varieties of Capitalism: Continuity, Change and Performance*. Basingstoke, UK: Palgrave Macmillan.

المنـــارة للاستشارات

Becker, U. (ed.) (2011) Introduction. In: *The Changing Political Economies of Small West European Countries*. Amsterdam, Netherlands: Amsterdam University Press.
Blyth, M. (2003) Same as it never was: Temporality and typology in the varieties of capitalism. *Comparative European Politics* 1(2): 215–225.
Bohle, D. and Greskovits, B. (2007a) Neoliberalism, embedded neoliberalism and neocorporatism: Towards transnational capitalism in Central-Eastern Europe. *West European Politics* 30(3): 443–466.
Bohle, D. and Greskovits, B. (2007b) The state, internationalization, and capitalist diversity in Eastern Europe. *Competition and Change* 11(2): 89–115.
Brady, D., Beckfield, J. and Zhao, W. (2007) The consequences of economic globalization for affluent democracies. *Sociology* 33(1): 313–334.
Bruszt, L. and Stark, D. (1998) *Postsocialist Pathways: Transforming Politics and Property in East Central Europe*. Cambridge, US: Cambridge University Press.
Casey, T. (2009) Mapping stability and change in advanced capitalisms. *Comparative European Politics* 7(2): 255–278.
Campbell, J. and Pedersen, O. (2007) The varieties of capitalism and hybrid success. *Comparative Political Studies* 40(3): 307–332.
Cernat, L. (2006) *Europeanization, Varieties of Capitalism and Economic Performance in Central and Eastern Europe*. New York: Palgrave Macmillan.
Charman, K. (2007) Kazakhstan, A state-led liberalized market economy? In: D. Lane and M. Myant (eds.) *Varieties of Capitalism in Post-Communist Countries*. Hampshire, UK: Palgrave Macmillan, pp. 165–182.
Cioffi, J. and Höpner, M. (2006) The political paradox of finance capitalism: Interests, preferences, and center-left party politics in corporate governance reform. *Politics and Society* 34(4): 463–502.
Crouch, C. (2005) *Capitalist Diversity and Change: Recombinant Governance and Institutional Entrepreneurs*. Oxford: Oxford University Press.
Crouch, C., Streeck, W., Boyer, R., Amable, B., Hall, P. and Jackson, G. (2005) Dialogue on 'Institutional Complementarity and Political Economy'. *Socio-Economic Review* 3(2): 359–382.
Culpepper, P. (2007) Eppure, non si muove: Legal change, institutional stability and italian corporate governance. *West European Politics* 30: 784–802.
Deeg, R. and Jackson, G. (2007) Towards a more dynamic theory of capitalist variety. *Socio-Economic Review* 5(1): 149–180.
Drahokoupil, J. (2009) After transition: Varieties of political-economic development in Eastern Europe and the former Soviet Union. *Comparative European Politics* 7(2): 279–298.
Feldmann, M. (2006) Emerging varieties of capitalism in transition countries. *Comparative Political Studies* 39(7): 829–854.
Fortin, J. (2010) A tool to evaluate state capacity in post-communist countries, 1989–2006. *European Journal of Political Research* 49(5): 654–686.
Goodin, R. (2003) Choose your capitalism? *Comparative European Politics* 1(2): 203–213.
Gourevitch, P. and Shinn, J. (2005) *Political Power and Corporate Control. The New Global Politics of Corporate Governance*. Princeton, NJ: Princeton University Press.
Hall, P. and Gingerich, D. (2009) Varieties of capitalism and institutional complementarities in the political economy: An empirical analysis. *British Journal of Political Science* 39(3): 449–482.
Hall, P. and Soskice, D. (eds.) (2001) *An Introduction to Varieties of Capitalism*. Oxford: Oxford University Press.
Hall, P.A. and Soskice, D. (2003) Varieties of capitalism and institutional change: A response to three critics. *Comparative European Politics* 1(2): 241–250.
Hall, P.A. and Thelen, K. (2009) Institutional change in varieties of capitalism. *Socio-Economic Review* 7(1): 7–34.
Hancke, B., Rhodes, M. and Thatcher, M. (eds.) (2007) *Beyond Varieties of Capitalism: Conflict, Contradictions, and Complementarities in the European Economy*. Oxford: Oxford University Press.

المنارة للاستشارات

Hanson, P. (2007) The European Union's influence on the development of capitalism in central Europe. In: D. Lane and M. Myant (eds.) *Varieties of Capitalism in Post-Communist Countries*. Hampshire, UK: Palgrave Macmillan, pp. 95–112.

Jacoby, W. (2000) Loess: A nonparametric, graphical tool for depicting relationships between variables. *Electoral Studies* 19(4): 577–613.

Jensen, C. (2010) Conditional contraction: Globalisation and capitalist systems. *European Journal of Political Research* 50(2): 168–189.

Kang, L. and Moon, J. (2012) Institutional complementarity between corporate governance and corporate social responsibility. *Socio-Economic Review* 10(1): 85–108.

Kaufmann, D., Kraay, A. and Mastruzzi, M. (2010) The Worldwide Governance Indicators: Methodology and Analytical Issues. SSRN *eLibrary*, World Bank Policy Research Working Paper No. 5430. Available at SSRN: http://ssrn.com/abstract=1682130.

Kenworthy, L. (2006) Institutional coherence and macroeconomic performance. *Socio-Economic Review* 4(1): 69–91.

King, L. (2007) Central European capitalism in comparative perspective. In: B. Hancke, M. Rhodes and M. Thatcher (eds.) *Beyond Varieties of Capitalism: Conflict, Contradictions, and Complementarities in the European Economy*. Oxford: Oxford University Press, pp. 307–327.

Knell, M. and Srholec, M. (2007) Diverging pathways in Central and Eastern Europe. In: D. Lane and M. Myant (eds.) *Varieties of Capitalism in Post-Communist Countries*. Hampshire, UK: Palgrave Macmillan, pp. 40–62.

Lane, D. (2005) Emerging varieties of capitalism in former state socialist societies. *Competition and Change* 9(3): 227–247.

Levi-Faur, D. and Parker, C. (2010) Three narratives of the global economic crisis. *Socio-Economic Review* 8(3): 547–553.

McNally, C. (ed.) (2007) The institutional contours of China's emergent capitalism. In: *China's Emergent Political Economy: Capitalism in the Dragon's Lair*. New York: Routledge, pp. 126–145.

Molina, O. and Rhodes, M. (2007) Conflict, Complementarities and institutional change in mixed market economies. In: B. Hancke, M. Rhodes and M. Thatcher (eds.) *Beyond Varieties of Capitalism: Conflict, Contradictions, and Complementarities in the European Economy*. Oxford: Oxford University Press, pp. 223–252.

Myant, M. and Drahokoupil, J. (2011) *Transition Economies: Political Economy in Russia, Eastern Europe, and Central Asia*. Hoboken, NJ: Wiley-Blackwell.

Mykhnenko, V. (2007) Strengths and weaknesses of 'Weak Co-Ordination': Economic institutions, revealed comparative advantages, and socio-economic performance of mixed market economies in Poland and Ukraine. In: B. Hancke, M. Rhodes and M. Thatcher (eds.) *Beyond Varieties of Capitalism: Conflict, Contradictions, and Complementarities in the European Economy*. Oxford: Oxford University Press, pp. 351–378.

Nölke, A. and Vliegenthart, A. (2009) Enlarging the varieties of capitalism: The emergence of dependent market economies in East Central Europe. *World Politics* 61(4): 670–702.

North, D., Wallis, J. and Weingast, B. (2009) *Violence and Social Orders*. Cambridge, US: Cambridge University Press.

Oxford Analytica. (2006) *Africa: Bank Governance Rankings Gain Relevance*. Oxford, UK: Oxford Analytica.

Partnoy, F. (2009) Historical perspectives on the financial crisis: Ivar Kreuger, the credit-rating agencies, and two theories about the function, and dysfunction, of markets. *Yale Journal on Regulation* 26: 431–443.

Phelps, E. (2007) The economic performance of nations: Prosperity depends on dynamism, dynamism on institutions. In: E. Sheshinski, R. Strom and W. Baumol (eds.) *Entrepreneurship, Innovation, and the Growth Mechanism of the Free-Enterprise Economies*. Princeton, NJ: Princeton University Press.

المنارة للاستشارات

Rodrik, D. (2007) *One Economics, Many Recipes: Globalization, Institutions, and Economic Growth*. Princeton, NJ: Princeton University Press.

Sachs, J. (2009) 'Shock Therapy' had no Adverse Effect on Life Expectancy in Eastern Europe. *Financial Times* 19 January.

Skaaning, S. (2010) Measuring the rule of law. *Political Research Quarterly* 63(2): 449–460.

Stiglitz, J. (2009) Stiglitz on Death and Privatization in the Eastern Bloc. *The New York Times Economix Blog*.

Streeck, W. and Thelen, K. (eds.) (2005) Introduction: Institutional change in advanced political economies. In: *Beyond Continuity: Explorations in The Dynamics of Advanced Political Economies*. Oxford: Oxford University Press.

Stuckler, D., King, L. and McKee, M. (2009) Mass privatisation and the post-communist mortality crisis: A cross-national analysis. *The Lancet* 373: 399–407.

Van Kersbergen, K. and Van Waarden, F. (2004) 'Governance' as a bridge between disciplines: Cross-disciplinary inspiration regarding shifts in governance and problems of governability, accountability and legitimacy. *European Journal of Political Research* 43(2): 143–171.

Vliegenthart, A. and Horn, L. (2007) The role of the EU in the (Trans) formation of corporate governance regulation in central Eastern Europe the case of the Czech Republic. *Competition and Change* 11(2): 137–154.

Watson, M. (2003) Ricardian political economy and the varieties of capitalism approach: Specialisation, trade and comparative institutional advantage. *Comparative European Politics* 1(2): 227–240.

Appendix

Table A1: Summary statistics

Variable (original coding range or measurement units)	*Mean*	*Standard deviaion*	*Minimum*	*Maximum*
Efficacy of Corporate Boards (1–7)	4.37	0.39	3.86	5.60
Strength of Auditing and Reporting Standards (1–7)	4.21	0.55	3.50	5.53
Cooperation in Labour–Employer Relations (1–7)	4.45	0.46	3.64	5.30
Flexibility of Wage Determination (1–7)	5.50	0.37	4.28	6.16
Ease of Shareholder Suits (0–10)	6.14	2.07	2.00	9.00
Extent of Disclosure (0–10)	4.94	2.69	0.00	10.00
Rule of Law (−2.5–2.5)	−0.27	0.67	−1.26	0.89
Private Sector Regulation (−2.5–2.5)	0.02	0.79	−1.62	1.41
Control of Corruption (−2.5–2.5)	−0.29	0.60	−1.03	0.94
GDP per capita at PPP (US$)	8960.41	5867.81	1731.61	23025.83
Employment Growth (%)	1.11	1.91	−3.07	4.81
Inflation (%)	9.47	8.01	2.49	31.4
Life Expectancy (years)	71.36	3.33	65.81	77.10

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