

INSTITUTIONAL ENVIRONMENT, INITIAL CONDITIONS AND STATE FRAGILITY IN POST-COMMUNIST COUNTRIES

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Abstract

On one side, the concept of state fragility creates controversies in academic literature while on the other, understanding its determinants is considered essential in reducing poverty and achieving progress. Building on the existing literature, the aim of this paper is to identify several institutional factors related to state fragility and to analyse if the initial conditions at the start towards market economy still have an influence on state performance after half a century of post-communist transformation. The research results show a negative relationship between fragility and institutional factors and confirm the role played by the initial conditions.

Keywords: *state fragility, institutions, path dependence, initial conditions, post communist countries*

JEL classification: *D02, O43, P29*

1. Introduction

There is no clear, unique and unanimously accepted definition for the concept of "fragile state". According to OECD, "a fragile region or state has weak capacity to carry out basic governance functions, and lacks the ability to

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develop mutually constructive relations with society. Fragile states are also more vulnerable to internal or external shocks such as economic crises or natural disasters. More resilient states exhibit the capacity and legitimacy of governing a population and its territory. They can manage and adapt to changing social needs and expectations, shifts in elite and other political agreements, and growing institutional complexity. Fragility and resilience should be seen as shifting points along a spectrum" (OECD, 2013, p.15).

The concept of "state fragility" has gained attention and it is widespread both in decision makers' discourse and in academic literature despite being considered a blurred and a controversial concept that should be used with caution. Critics question its analytical validity and weaknesses (Ziaja& Fabra Mata, 2010; Brinkerhoff, 2014) and its "simplistic categorisation of states" (Grimm, Lemay-Hébert & Nay, 2014).

Other researchers, on the contrary, consider that "understanding the nature and determinants of fragility is therefore crucial in devising policies that will assist countries achieve progress towards the United Nations' Millennium Development Goals (MDGs) and to achieve poverty reduction more generally" (Feeny, Posso&Regan-Beasley, 2015, p.1073).

The link between fragility and development appears to be acknowledged in the existing literature and by different international reports which clearly underline that larger values of fragility are associated with low levels of well-being (Marshall&Cole, 2014, p. 34).

A wide range of factors that lead to fragility are identified in literature: income levels, levels of education and rates of economic growth, country size and natural resource rents (Feeny, Posso&Regan-Beasley, 2015), political leadership, corruption, conflict, poverty (Siegel, 2011), democracy (Reynal-Quero, 2005; Borooah&Paldam, 2007).

We consider that the issue of fragility can be successfully applied to the reality of several post-communist countries, in an attempt to explain the significant differences in development between them. Phenomena like corruption, bribery, excessive regulations, misuse of public power, rent-seeking, state capturing by elites, which still characterize some of these countries, widespread especially in Eastern Europe and former Soviet Union, are consequences of weak states or of state failure to equip a country fast enough with the institutional features of a market economy, as Kornai mentioned (Kornai et al., 2004, p. 163). Decision makers are responsible for the fact that some post-communist countries are more corrupt than others and

display lower economic performance (Iacobuță&Baciu, 2009). In David Treisman's terms, "some post communist states developed relatively honest, effective governments (...) other states degenerated quickly into oriental-style, authoritarian kleptocracies (...) stumbling from one crisis to the next" (Treisman, 2003, p. 201).

When referring to the post-communist states, the starting conditions and the issue of path dependence should also be taken into account. Both aspects are extensively debated in literature. The different trajectories and results obtained by former-communist countries depend, to a certain extent, to their legacies from the past and their options for reform. At the same time, the initial conditions are susceptible to have had a strong effect only at the beginning of transition, their role diminishing over time (Fischer& Sahay, 2004). The same with path dependence; namely, it should not be seen as a "story of inevitability" (North, 1991, p.98) but rather as a constraint difficult and costly but not impossible to overpass (Magnin, 2002).

Building on the existing literature and focusing mostly on the relationship between development and fragility, the aim of this paper is to identify several institutional factors related to state fragility and to analyse if the initial conditions at the start towards market economy still have an influence on state performance after half a century of transformation, using a sample of 25 post-communist countries.

The rest of the paper is structured as follows: Section 2 presents, in a comparative perspective, several socio-economic aspects (the evolution of GDP per capita, the real GDP growth rate, Life expectancy at birth and Human Development Index) in the countries considered in our analysis. Section 3 describes the research data and methodology. Section 4 presents and interprets the research results. Section 5 synthesizes research conclusions.

2. Socio-economic aspects in the considered countries

Our sample includes 25 former communist countries namely, Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russia, Slovak Republic, Slovenia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, selected based on data availability.

In order to point out the differences in development between them, we analyse four socio-economic indicators namely, GDP per capita, real GDP growth rate, Life expectancy at birth and Human Development Index. The

results show large discrepancies between the considered post-communist countries from the point of view of the analysed variables.

Table 1 presents the descriptive statistics for the selected socio-economic variables in 2013.

Table 1: Descriptive statistics for the selected socio-economic variables

	GDP per capita at PPP [USD]	Real GDP growth rate	Life expectancy at birth	HDI
Minimum	2510	-1.1	65.5	0.607
Maximum	28320	8.9	80.4	0.874
Mean	16237	3.07	73.4	0.762
Median	17720	3.05	74.3	0.777
Std. deviation	8660	2.66	3.87	0.072

Source: authors' calculations.

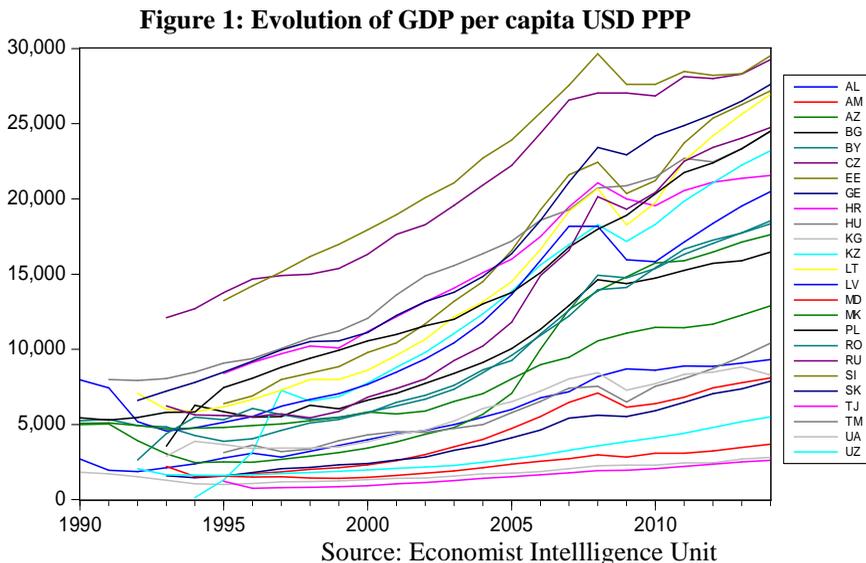
As can be observed in the table above, there are large discrepancies between the best and the worst performing. Socio-economic data point out that between the two categories of countries GDP per capita is over 11 times higher in Slovenia than in Tajikistan while Life expectancy at birth ranges from a minimum of 65.5 years in Turkmenistan to a maximum of 80.4 years in Slovenia. Human Development Index, an overall measure of development, reaches a minimum of 0.607 in Tajikistan and a maximum of 0.874 in Slovenia, with 12 countries (Tajikistan, Kyrgyzstan, Uzbekistan, Moldova, Turkmenistan, Albania, Armenia, Macedonia, Ukraine, Georgia, Azerbaijan, Kazakhstan), registering below the average values.

The status of EU members of some of these countries and, thus, the harmonization of institutional structures, generated a proper environment for long-term economic growth, which is demonstrated by the high and increasing values of GDP per capita (Lupu&Asandului, 2014). The endogenous aspects (health, education etc.) can be found in the improvement of the quality of life, as a symptom of sustainable development, highlighted by the high values of Human Development Index and Life expectancy at birth.

The inheritance from the past, the fragile institutional structures and the lack of competitive environment and human capital investments in the former USSR oriented these countries to an extensive economic growth, based on exploiting the large natural resources (Moldova being an exception). The

low level of human capital investments is confirmed by the very low values of Human Development index (in Tajikistan) and Life expectancy at birth (in Turkmenistan).

The same aspects are revealed by the analysis of the evolution of the selected socio-economic indicators from 1990 to 2014. Figure 1 displays the progress in the evolution of GDP per capita.

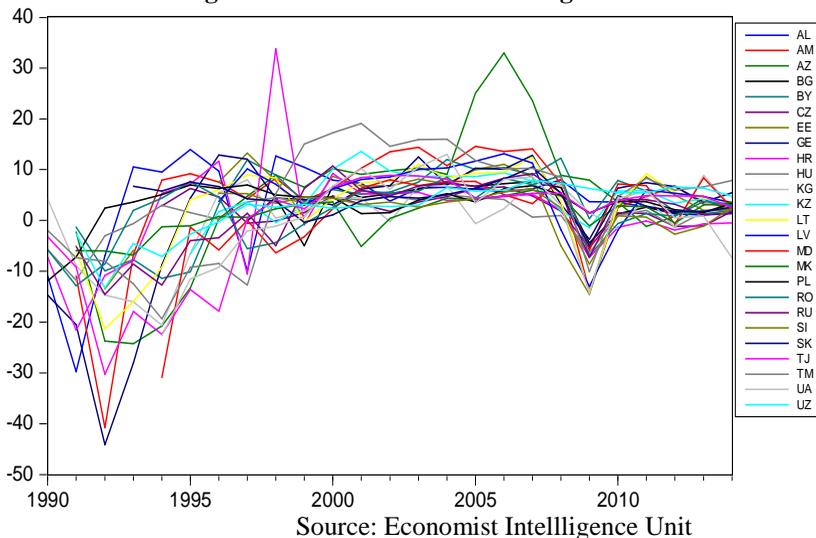


Even if the evolution of the quantitative aspects (GDP per capita) shows an increase for all the analysed countries, the differences between them arise from the qualitative aspects, a fact which can be explained by the institutional quality and efficiency, especially at formal level, and by the preoccupation for human capital development.

Figure 2 presents the evolution of real GDP growth rate from 1990 to 2014. All countries registered fluctuating values in the first part of the analysed period. This corresponds to the beginning of the transition when the blurring reforms in the context of an incipient free market and an entrepreneurial spirit with deep reminiscences of planned economy led to an oscillating evolution, with mainly downward trends, of real GDP growth rate.

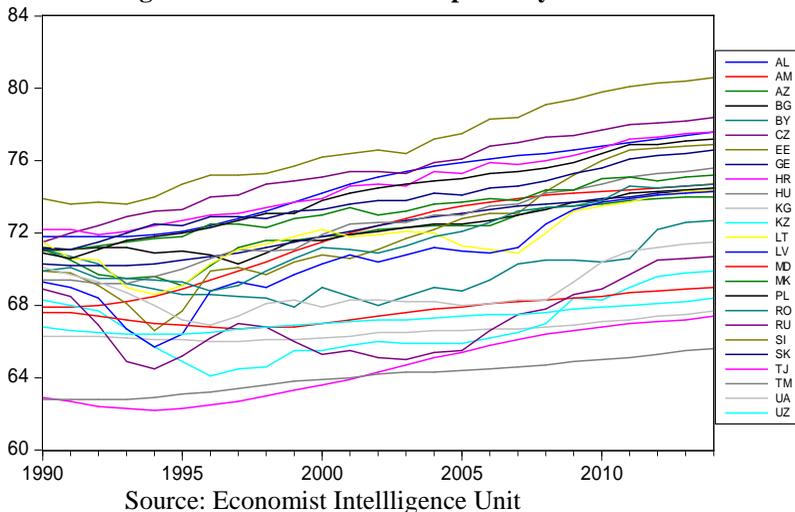
There can also be noticed the significant, but of much lower magnitude, decrease of 2007-2009, explained by the economic and financial crisis.

Figure 2: Evolution of Real GDP growth rate



The evolution of Life expectancy at birth is a positive one, the indicator showing an increase from 1990 to 2014, with ups and downs over this period.

Figure 3: Evolution of Life expectancy at birth



3. Data and methodology

To measure state fragility, we use *State Fragility Index* released by Center for Systemic Peace, as the *dependent variable*. This indicator captures effectiveness and legitimacy of the state in four performance dimensions namely, security, political, economic, and social. It ranges from 0 "no fragility" to 25 "extreme fragility". According to the proponents of this indicator, "a country's fragility is closely associated with its *state capacity* to manage conflict, make and implement public policy and deliver essential services and its *systemic resilience* in maintaining system coherence, cohesion, and quality of life and responding effectively to challenges and crises, and sustaining progressive development" (Marshall&Cole, 2014, p.51).

The *independent variables* included in the analysis are: Corruption Perceptions Index, Democracy Index, Rule of Law, Index of Economic Freedom, Public trust in politicians and Initial Conditions Index.

The *Corruption Perceptions Index* was retrieved from Transparency International and it is a measure of the perceived level of corruption in public sector. The index ranges on a scale from 0 to 100, where 0 stands for very high levels of corruption and values approaching the upper limit denote a clean environment.

The second variable, *Democracy Index*, is published by the Economist Intelligence Unit. It reflects the state of democracy based on five categories: electoral process and pluralism, civil liberties, the functioning of government, political participation and political culture (Economist Intelligence Unit, 2014).

The variable *Rule of Law* is one of the governance indicators provided by the World Bank. It ranges from -2,5 to +2,5 and it provides an imagine of the agents' confidence and acceptance of the rules existing in society such as, contract enforcement, property rights, the police, and the courts etc.

The *Index of Economic Freedom* is annually published by the Wall Street Journal and the Heritage Foundation and it captures ten economic freedoms, graded from 0 to 100, grouped in four categories (rule of law, limited government, regulatory efficiency and open markets). The overall score for a country is an equally weighted average of the components and the higher the score, the higher the level of economic freedom.

Public Trust in Politicians is an institutional variable collected from the Global Competitiveness Report 2013-2014. The indicator is a weighted average of the answers to the question "In your country, how would you rate the ethical standards of politicians?", on a scale from 1, which means extremely low to 7, showing extremely high perceived ethical standards (World Economic Forum, 2013, p. 413).

The *Initial Conditions Index* was computed by the EBRD for several transition countries. According to its methodology this index is derived from factor analysis and it is calculated as a weighted average of several measures for the level of development, trade dependence on CMEA, macroeconomic disequilibria, distance to the EU, natural resource endowments, market memory and state capacity (EBRD, 1999). A higher value of the index indicates more favourable starting conditions at the beginning of transition. Data for our analysis were retrieved from Fischer&Sahay (2004).

All data, except for the Initial Conditions Index, are registered at the level of 2013.

The abbreviations used to represent each variable in the statistical analysis are given in Table 2 below:

Table 2: Variables' abbreviation

Variable	Abbreviation
State Fragility Index	SFI
Rule of Law	RL
Corruption Perception Index	CPI
Economic Freedom	EF
Democracy Index	DEMOC
Public trust in politicians	TRUST
Initial conditions index	ICI

Our sample includes the 25 former communist countries mentioned in Section 2 of the paper.

In order to provide an image of the differences existing between the statistical units in the sample, from the point of view of the variables considered in our analysis, we use descriptive statistics.

Correlation analysis is used in order to study the intensity of the relationships existing between variables and to identify those factors which have a strong influence on state fragility. For the sample of 25 countries, we study the bivariate correlation between State Fragility Index, the dependent variable and each independent variable using the Pearson correlation coefficient.

The last part of our analysis consists in estimating several econometric models to describe the variation of state fragility index in relation with the institutional variables and the initial conditions index.

4. Results

Table 3 below presents the results of descriptive statistics for the considered variables.

Table 3: Descriptive statistics

Model No.	SFI	ICI	RL	CPI	EF	DEMOC	TRUST
Mean	4.76	0.00	-0.143	39.48	60.24	5.48	2.43
Std. Deviation	4.275	2.33	0.789	14.42	11.735	2.03	0.56
Minimum	0	-3.40	-1.36	17	42.6	1.72	1.50
Maximum	12	3.50	1.16	68	75.30	8.06	3.60
Median	4	-0.40	-0.2	41	65	6.16	2.40

Source: authors' calculations.

If considering the SFI, its associated values range from a minimum of 0 for Estonia, Hungary, Latvia, Poland and Slovenia to a maximum of 12 in Kyrgyzstan and Uzbekistan. The standard deviation is high, showing significant variations of index values. High values, recorded in Azerbaijan, Moldova, Tajikistan, Turkmenistan (ranging from 9 to 11), point out a poor state capacity to manage internal crises by implementing reform to provide progressive development. Romania's case (with a SFI of 4) stands for a state-building institutional process, with clear progresses and perspectives.

When analysing the Initial Conditions Index, there can be observed that the highest values correspond to Hungary and the states in former Czechoslovakia and in the former Yugoslavian space, which can be explained by their geostrategic position, the multilateral economic development and the higher degree of independence from USSR. On the contrary, the dependence on USSR, so obvious in the countries from Caucasus and Central Asia, justifies the negative values of the index in all these states. Romania displays the lowest index value (1.7) compared to all CEE countries in the sample, due to the very high degree of central planning.

The analysis of the variables describing the state of democracy and rule of law reveal the top positions of Czech Republic, Estonia and Slovenia while 14 of the considered countries have negative values for the "rule of law". Turkmenistan and Uzbekistan display the lowest values for the Democracy Index.

From the perspective of economic freedom, with a score of 65, Romania is situated in the higher half of the sample.

Corruption remains a serious issue in the majority of the countries in the sample, the Corruption Perceptions Index varying from a minimum of 17 in Turkmenistan and Uzbekistan (highly corrupt) to a maximum of 68 in Estonia.

In all analysed countries trust in politicians is low, a consequence of the former regime and of unfulfilled promises. The exuberance of the 90's has gradually turned into disappointment, lack of trust in state and politicians and, sometimes, into nostalgia.

Table 4 presents the estimated correlation coefficients between the variables.

Table 4: Estimated correlation coefficients at the Significance value

	1	2	3	4	5	6
1. SFI	-0,837					
2. CPI	(0,00)	0,868				
3. DEMOC	(0,00)	(0,00)	0,884			
4. RL	(0,00)	(0,00)	(0,00)	0,683		
5. EF	(0,00)	(0,00)	(0,00)	(0,00)	-0,255	
6. TRUST	(0,14)	(0,76)	(0,01)	(0,25)	(0,29)	-0,663
7. ICI	(0,00)	(0,00)	(0,00)	(0,00)	(0,29)	(0,00)

Source: authors' calculations in SPSS.

Column 1 of Table 4 demonstrates high negative correlations between State Fragility Index and corruption, democracy, rule of law, economic freedom and initial conditions. Columns 2-4 show positive correlations between the institutional factors, on one side and between initial conditions and the state of democracy and rule of law. The results presented in Column 6 prove the existence of negative correlation between the initial conditions and the public trust in politicians.

Table 5 presents the estimated econometric models, obtained by successive elimination of each dependent variable.

Table 5: Explaining state fragility index using the considered variables

Model No.	Intercept	RL	CPI	EF	DEMOC	TRUST	ICI	R^2	F - statistic
I	13,797* (2,411)	-2,18 (-0,967)	0,039 (0,279)	-0,2 (-0,406)	-0,726 (-1,012)	-2,157 (-1,549)	- 1,023* (-3,515)	0,77	11,024
II	14,058* (2,583)	-1,642 (-1,465)		-0,15 (-0,339)	-0,651 (-1,015)	- 1,908** (-1,853)	- 1,020* (-3,638)	0,78	14,22

III	16,663* (3,412)	-0,077 (- 1,069)	-0,008 (- 0,157)	-0,745 (-1,041)	-1,621 (-1,272)	- 1,025* (- 3,529)	0,77	13,10
IV	19,974* (5,262)		-0,022 (- 0,465)	-1,334* (-2,913)	-2,485* (-2,51)	- 1,053* (- 3,623)	0,768	15,935
V	19,694* (5,398)			-1,452* (-3,91)	-2,613* (-2,824)	- 1,083* (- 3,931)	0,781	22,342
VI	9,234* (4,561)			-0,815* (-2,263)		- 0,971* (-3,09)	0,738	34,87
VII	8,791* (2,716)				-1,756 (-1,42)	- 1,582* (- 4,708)	0,585	13,667

Notes: Absolute t-statistics are given in brackets. ** Significant at the 0.1 level. * Significant at the 0.05 level (2-tailed).

Source: authors' calculations in SPSS.

The Initial Condition Index is an explanatory variable for state fragility in all estimated models, the relationship between the two indicators being a negative one. Out of the estimated models, only in models 5 and 6 all parameters are statistically significant, model no. 5 explaining more of the variation of SFI. It shows that 78.1% of the variation of State Fragility can be explained by the simultaneous variation of the Democracy Index, Public trust in politicians and Initial Conditions Index.

The difference between the two estimated models comes from introducing in model no. 5 the variable Public trust in politicians, an aspect which, once again, confirms the positive influence trust has on institutional framework. However, the causality between trust and institutions is proven in literature to work both ways. This means that on one side, trust leads to the well-functioning of institutions and, consequently, to a strong state able to enforce the rules of the game and, on the other side, the efficient institutions are the ones that enhance trust (James, 2002; Farrel & Knight, 2003).

5. Conclusions

This paper aimed at identifying several institutional factors related to state fragility and at analysing if the initial conditions at the start towards

market economy still have an influence on state performance after half a century of post-communist transformation. Using State Fragility Index, as dependent variable and Corruption Perceptions Index, Democracy Index, Rule of Law, Index of Economic Freedom, Public trust in politicians and Initial Conditions Index, as *independent variables*, we applied correlation analysis and we conclude that there is a negative relationship between fragility and institutional factors and confirm the role played by the initial conditions.

The obtained econometric model shows that 78.1% of the variation of State Fragility can be explained by the simultaneous variation of the Democracy Index, Public trust in politicians and Initial Conditions Index.

Also, the results are consistent with the results of other studies in the field, confirming that trust and the quality of democracy are key ingredients in creating solid and functional institutional structures, able to promote sustainable development and with a high degree of resilience in order to manage internal crises and to absorb external shock or natural disasters.

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