THE MACROECONOMIC DETERMINANTS OF POLITICAL STABILITY IN TRANSITION ECONOMIES AFTER COLLAPSE OF SOVIET UNION

Tayfur BAYAT[1]
Zülfükar Aytaç KİŞMAN[2]
İzzet TAŞAR[3]

Abstract
The successful integration of the post-Soviet countries to European Union and to other market economies via economic and political transition has been a substantial issue for international economic and political relations. Amid all the structural changes it has been of significant importance for the policy makers to set forth the macroeconomic determinants of the political stability in transition economies moved from centrally planned economy through market economy. In this study the macroeconomic determinants of the political stability within the transition economies between 2002-2015 have been investigated by utilizing the panel data method. Depending on the empirical analysis, it has been concluded that GDP per capita and consumer price index are the most important macroeconomic factors affecting the political stability in the short-term.
Keywords: Political Stability, Transition Economies, Post-Soviet Countries, Panel Data
JEL Classifications: O43, O47

SOVYETLER BİRLİĞİ'NİN DAĞILMASININ ARDINDAN GEÇİŞ EKONOMİLERİNDE POLİTİK İSTİKRARIN MAKROEKONOMİK BELİRLEYİCİLERİ

Özet
Sovyet sonrası ülkelerin Avrupa Birliği'ne ve diğer piyasa ekonomilerine ekonomik ve politik geçiş yoluyla başarılı bir şekilde entegre edilmesi, uluslararası ekonomik ve politik ilişkiler için önemli bir sorun olmuştur. Tüm yapısal değişikliklerin ortasında, politika yapıcılar için, merkezi olarak planlanan ekonomiden piyasa ekonomisine geçişte, geçiş ekonomilerindeki politik istikrarın makroekonomik belirleyicilerini ortaya koyulması önemli bir yer tutmuştur. Bu çalışmada, 2002-2015 yılları arasında geçiş ekonomileri içindeki politik istikrarın makroekonomik belirleyicileri panel veri metodu kullanılarak araştırılmıştır. Ampirik analize göre, kişi başına düşen GSYİH ve tüketici fiyat endeksinin kısa vadede politik istikrarı etkileyen en önemli makroekonomik faktörler olduğu sonucuna varılmıştır.
Anahtar Sözcükler: Politik İstikrar, Geçiş Ekonomileri, Sovyet sonrası ülkeler, Panel Data
JEL Sınıflandırması: O43, O47

Introduction

The absence of violence within a polity, the absence of change threatening a state's core traits, state's ability to control its polity, the degree to which a state meets its political responsibilities, and the degree of regularity in the political behavior of a polity are the elements of political stability within a state. Thus partial or total inadequacy or nonexistence of these elements can be reason for political instability in states. (Margolis, 2010) Depending on the basic principle of understanding one concept with the contrary, Arriola (2009) notes that Political instability takes a variety of forms such as communal violence, rural insurgency, urban riots, coups d'état,

[1] Doç. Dr., İnönü Üniversitesi, İktisati ve İdari Bilimler Fakültesi, İktisat Bölümü, Malatya, tayfur_bayat@hotmail.com
[2] Dr. Öğretim Üyesi, Fırat Üniversitesi, Sosyal Bilimler MYO, Dış Ticaret Bölümü, Elazığ, zaytac@yahoo.com
[3] Dr. Öğretim Üyesi, Fırat Üniversitesi, İktisati ve İdari Bilimler Fakültesi, İktisat Bölümü, Elazığ, tayfur_bayat@hotmail.com

and civil wars. Political instability might not only have economic results but also social or humanitarian drawbacks.

Gates et. al. (2006) argues that both consistent democracies and consistent autocracies are the systems with most political stability. This depends on the self-enforcing equilibria such that the institutions of a polity are maintained by the political officials. However there is a relationship between democratization and political stability. Sheafer and Shenhav (2013) highlight that the literature contains two different approaches for the relationship between democratization and political stability. The first one is the institutional hypothesis that claims the political regime to affect political stability mostly. As per this hypothesis, the institutional changes and developments result in changes in individual values, which consequently raise political stability depending on the argument that democracies have more stablity than nondemocracies. The second approach is the cultural congruence hypothesis that, besides the institutions, takes the values of the people into consideration whether they overlap with the political institutions or not. This approach sees this congruence or incongruence as an indicator of political stability.

In the developing world many important and structural changes occurred. The post-Soviet socialist countries, emerging economies of South Asia, privatizing democracies of Latin America and even the still-communist countries of East Asia have moved from statism to favoring market economy. In order to achieve the transformation through the market economy with profound institutional reforms and changes, these countries pursued macroeconomic stabilization, the privatized the state-owned assets, increased integration to the international markets and clarified property rights. (Ellis et al, 2011) The post-Soviet countries are significant amid these economically transformed countries because of both being heir of same socialist system and following a similar path that took them to the membership of European Union. This structural and background similarities led our study to focus on these countries.

Eastern and Central European countries, which mainly consist of the post-Soviet countries that became independent after the collapse of the Soviet Union faced many political instabilities and economic drawbacks. At the first stages of the communism collapse, the societies of these countries had the desire and the energy for prominent economic and political change. (Džunić, 2007) The economic transition within these countries started with the program named Polish Big-bang Reform Program in early 1990. The main belief lying underneath this was the transition would begin with a recession caused both by the restricted macroeconomic policies and by the restructuring of the economy required by the shift to a market economy. Afterwards many transition economies have moved on several structural renovations including trade liberalization. (Fischer et al, 1996) These transition economies have implemented several macroeconomic changes as well.

The transition strategies of the former Soviet countries have focused on stabilizing the macroeconomic factors and restructuring microeconomic elements together with the institutional and political reforms. Each of the transition countries has implemented these strategies in different speed and specificity. Reforms to be fast or gradual have been debated and almost all the transition economies preferred rapid “big bang” style. There were considerable divergences among transition countries in terms of privatization of the large and medium-sized companies. Howbeit the banking system in all transition countries developed by swift abolishment of the monobank system and by establishment of new banks in different sizes. Their labor and social regulation systems evolved in different speed and nature but by the end of 1991, relatively well-functioning unemployment compensation and social security systems have been instituted in these countries. Almost none of these countries could develop a legal

system and institutions, which would be contributive for private property rights and for a functioning market economy. For the sake of macroeconomic stability most of the transition countries applied devaluation to promote export and adopted fixed exchange rates. (Svejnar, 2002)

This study focuses on two basic queries: What are the macroeconomic determinants of the political stability in transition economies that transformed into free market economies from centrally planned economic model? Is the relationship between the political stability and its macroeconomic determinants valid in the short and long run? The answers for these questions shall provide to the decision makers with which macroeconomic factors they should take into consideration in long term planning.

The rest of the paper is organized as follows. The next section is devoted to summarize the existing literature investigating the determinants of political stability. In the second section, econometric methodology and the date are described. In the section three, empirical results are presented. We summarize and conclude empirical findings in the last section.

1. Theoretical Background and Literature Review

There are different theoretical basis and studies investigating the effects of the political stability, as being the keystone of the economic activity, on macroeconomic factors. According to the Opportunistic Political Business Cycle Model developed by Downs (1957) and afterwards by Nordhaus (1975) since the sole objective of governments is to get into power again they increase the populist economic policies after every elections they won. Due to the borrowing financing of the expansive monetary and finance policies, the necessity for the public sector for borrowing increases thus the interests rates and the level of inflation. Continuity on these policies leads to macroeconomic instability. However according to Hibbs'(1977) Partisan Model that criticizes Nordhaus' (1975) policy convergence the governments won the election develop economy policies for the subsequent tenure in accordance with their party program. In pursuant to Partisan Model the conservative parties adopt low inflation rates and high unemployment level while the socialist parties prefer vice versa. The Weak Partisan Model developed by Frey and Schneider (1978) that utilizes particular assumptions of Opportunistic Political Business Cycle Model and Partisan Model proposes that the policy makers behave according to the Partisan Model in periods their popularities are high, though they behave opportunistic in periods with low level of popularity. In the context of the rational expectations hypothesis, as to Alesina (1987) the relationship between the political stability and macroeconomic stability becomes significant in the periods in which the ideological differences of the parties sharpened. Alesina (1987) conducts empirical studies investigating the subject. Fernando and Carmen (2011), Shiping (2012), Veerasathpurush et al. (2015) and Mădălina (2015) have mentioned about the difficulties of maintaining the economic growth and political stability simultaneously. Fernando and Carmen (2011) and Shiping (2012), who examine China and Mădălina (2015), who peruses the transition economies, have uttered the public expenses as the most important determinant of the economic growth. In China, since the individual expenses are at low level, it has been a strategy to avoid the development of the middle economic class in order to preserve political stablity. As seen in the North Africa examples, the increase in the purchasing power and in the importance of individuation lead to social unease in China as well. Eventhough it might endanger the political stability of Chinese and North African economies, the growth of the middle class should be supported. There are some other studies question the effects of economic growth dynamics on political stability. Usama and Ilhan (2015) and Thad (2005) stated that the energy consumption, urbanization, liberalization of the trade and the industralization have increased the environmental damage, though the political stability helps this damage to decrease in the long run. Mohammad and

Stefan (2016) emphasize the corruption to lead to political instability in the cases that the raito of the young population exceed the critical level of 20 %. Haksoon (2010) and Lorenzo (2016) expressed that the countries with high level of foreign direct investments have political stability. There are studies explain the political stability with institutional factors rather than the economic ones. Brada et al (2006) states two principal risks caused by political instability in the host country for FDIs. Firstly, the domestic instability, civil war, conflict etc. with neighbor countries will decrease the profitability of operating in the host due to the disrupted domestic sales, exports or production, or the damaged facilities. Secondly, the political instability might have an effect on the currency of the host country, which affects the expected profit from the investment negatively. According to Liargovas and Chionis (2001) the main factors that FDIs concern are macroeconomic stability, openness, labour costs, political stability, and the factors specific to the country. Angelo and Hans (2000), Looi (2013), Eli (2012), Kanybek and Hans (2012) assert the state just as one of the political stability institutions whereas the social structure and rule of law affect the political stability.

2. Methodology

2.1. Cross-section dependency and homogeneity

In order to test Cross-section dependency, Breusch and Pagan (1980) Lagrange Multiplier (LM) is hired. i=1,2,…,N cross-section size, t=1,2,…,T time dimension, α_i and β_i are constant term and slope parameters respectively, x_{it} on the other hand is the descriptive vector for kx1. The panel model;

$$y_{it} = \alpha_i + \beta_i' x_{it} + \varepsilon_{it} \tag{1}$$

According to the model, the assumption for zero hypothesis is there is no cross-section dependency [$H_0 : Cov(\varepsilon_{it}, \varepsilon_{jt}) = 0$]. The LM test statistics;

$$LM = T\sum_{i=1}^{N-1}\sum_{j=i+1}^{N}\hat{\rho}_{ij}^2 \sim \chi^2_{N(N-1)/2} \tag{2}$$

In the equation above, $\hat{\rho}_{ij}^2$ is the sample estimate of the pair-wise correlation of the residuals from individual ordinary least squares (OLS) estimation for each i. Peseran (2004) will be followed for such cases where N is big and T is short (size distortions) in such situation a new LM test statistics is calculated. Where T→∞ and N→∞ the modified LM statistics;

$$CD = \sqrt{\left(\frac{2T}{N(N-1)}\right)}\left(\sum_{i=1}^{N-1}\sum_{j=i+1}^{N}\hat{\rho}_{ij}\right) \sim N(0,1) \tag{3}$$

In order to start unit root test in Panel data analysis, the first stop should be to control the cross-section dependency. If there is no cross section dependency, 1st Generation unit root tests, otherwise 2nd generation unit root test will be employed in the analysis. The cross section dependency is tested by Peseran (2004) CD_{LM} , Breusch-Pagan (1980) CD_{LM1}, Peseran (2004) CD_{LM2}. CD_{LM1} and CD_{LM2} are hired for the cases where T>N. CD_{LM} test on the other hand is available for the situation where N>T. Peseran and Yamagata (2008) introduced $\tilde{\Delta}$ delta test in order to

test the homogeneity of the slope parameter. The null hypothesis of the test is defined as [$H_0 : \beta_i = \beta$].

2.2. Cross-Sectionally Augmented Dickey–Fuller (CADF) Unit Root Test

Pesaran (2007) augments the ADF, the cross-sectionally augmented Dickey–Fuller (CADF) regression is

$$\Delta y_{it} = \alpha_i + \rho_i y_{i,t-1} + d_0 \bar{y}_{t-1} + \sum_{j=0}^{p} d_{j+1} \Delta y_{t-j} + \sum_{k=1}^{p} c_k \Delta y_{i,t-k} + \varepsilon_{it} \quad (4)$$

where Δy_t is the average at time t of all N observations. A Schwarz information criterion is considered to calculate the lag length. CIPS test statistics is the mean of the CADF test statistics calculated for each i.

2.3. Panel Cointegration and Causality

In order to see the long term relation among the variables, Westerlund(2007) co-integration test will be employed. When Panel vector auto regression model is considered, $\phi_{1i}\hat{\varepsilon}_{it-1}$ term is the error correction coefficient and the regression is;

$$\Delta PS = \delta_{1i} + \sum_{p=1}^{k} \delta_{11ip} \Delta GE_{it-p} + \sum_{p=1}^{k} \delta_{12ip} \Delta GDPPC_{it-p} + \sum_{p=1}^{k} \delta_{13ip} \Delta TB_{it-p} + \sum_{p=1}^{k} \delta_{14ip} \Delta CPI_{it-p} + \sum_{p=1}^{k} \delta_{15ip} \Delta UN_{it-p} + \phi_{1i}\hat{\varepsilon}_{it-1} + v_{1it} \quad (5)$$

The model has an asymptotic distribution. In order to consider the cross section dependency, the critical values are calculated via bootstrap method. The null hypothesis offers no co-integration. Short and long term causality tests are run after adding the error correction coefficient to the panel VAR model. The null hypothesis designed as "there is no Granger causality from government effectiveness to political stability" The same procedure is valid for all other variables.

3. Empirical Results

In this analysis, eight first-wave accession countries, which joined the European Union on 1 May 2004 (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia) and the two second-wave accession countries that joined on 1 January 2007 (Romania and Bulgaria) are included. Those economies are called as "Transition Economies". The period of the analysis covers from 2002 to 2015. Variables in the empirical analysis are; political stability (hereafter PS), following Chen and Feng (1996), Jong-a-Pin (2009), Devereux and Wen (1998), Darb et al. (2004) government effectiveness (government expenditure % of GDP, hereafter GE), following Brunetti (1997), Aisen and Veiga (2013) gross domestic product per capita (hereafter GDPPC), following Aisen and Veiga (2013), Rotunno (2016) trade balance ((X+M)/GDP, hereafter TB), following Edison et al. (2002), Elder (2004), Khan and Saqip (2011) consumer price index (hereafter CPI), following Alesine and Perrotti (1996) unemployment rate (hereafter UN). Data for variables are obtained from World Bank Statistics.

Table 1: Correlations among Variables

	PS	GE	GDPPC	TB	CPI	UN
PS	1					
GE	0.744	1				
GDPPC	0.559	0.663	1			
TB	0.433	0.578	0.583	1		
CPI	-0.253	-0.382	-0.271	-0.257	1	
UN	-0.156	0.025	-0.254	0.031	-0.268	1

There is a positive correlation between Political Stability and Government Effectiveness, also there is a positive correlation between GDP per capita and Trade Balance. On the other hand there is a negative correlation between Consumer Price Index and Unemployment Rate. That means an increase in government effectiveness, GDP per capita and trade balance political stability increases. When other variables such as consumer price index and unemployment rate decreases, again political stability will be affected positively. The negative correlation between Consumer price index and government effectiveness decrease the efficiency of government expenditures against individuals' inflation expectations. The positive correlation among Trade Balance and Government Effectiveness can be accepted as a proof for Rodrik's (1998) compensation hypothesis; that is; where the Trade Balance increases, Government expenditures also increase in order to protect households. Another reference from economic theory is the Philips Curve. Test results suggest a negative correlation among Unemployment Rate and Consumer Price Index that makes valid the Philips Curve for the selected period. There might be some social and economic interactions among the variables, that is called the cross section dependency. Cross section dependency can influence the test results, so it will be checked before implying causality test. H_0 in the cross section dependency test offers there is no cross section dependency and the alternative hypothesis offers the validity of the dependency.

Table 2: Cross Section Dependence Test Results

Constant	PS	GE	GDPPC	TB	CPI	UN
CD_{lm} (BP,1980)	171.867 (0.00)[a]	136.033 (0.00)[a]	164.753 (0.00)[a]	197.014 (0.00)[a]	202.708 (0.00)[a]	274.487 (0.00)[a]
CD_{lm} (Pesaran, 2004)	13.373 (0.00)[a]	9.596 (0.00)[a]	12.623 (0.00)[a]	16.024 (0.00)[a]	16.624 (0.00)[a]	24.190 (0.00)[a]
CD (Pesaran, 2004)	-3.426 (0.00)[a]	-3.041 (0.00)[a]	-2.241 (0.01)[b]	-2.946 (0.00)[a]	-2.608 (0.00)[a]	-3.447 (0.00)[a]
LM_{adj} (PUY, 2008)	20.001 (0.00)[a]	13.691 (0.00)[a]	14.336 (0.00)[a]	12.833 (0.00)[a]	2.419 (0.00)[a]	9.972 (0.00)[a]

Notes: In model $\Delta y_{i,t} = d_i + \delta_i y_{i,t-1} + \sum_{j=1}^{p_i} \lambda_{i,j} \Delta y_{i,t-j} + u_{i,t}$ lag length was considered as (p_i)
1. The figures which is a, b and c show 1 %, 5 % and 10 % levels, respectively

The alternative hypothesis is accepted when the probability ratios are considered. H_a suggest the existence of the cross dependency among variables. Cross-Sectionally Augmented Dickey–Fuller (CADF) test, that is a second generation unit root test that can be implemented if (T>N) will be implied. According to CADF test Null Hypothesis the series have unt root, and the alternative hypothesis suggests the opposite. If CADF test statistics is lower than the critical value, the series are accepted to be stationary. If an opposite situation exists, the null hypothesis is accepted and the series is not stationary in such a case.

Table 3: CADF Unit Root Test Results

	PS				GE				GDPPC				TB				CPI				UN			
	Constant		Constant and Trend		Constant		Constant and Trend		Constant		Constant and Trend		Constant		Constant and Trend		Constant		Constant and Trend		Constant		Constant and Trend	
	Lags	CADF stat	Lags	CADF stat	Lags	CADF stat	Lags	CADF stat	Lags	CADF stat	Lags	CADF stat	Lags	CADF stat	Lags	CADF stat	Lags	CADF stat	Lags	CADF stat	Lags	CADF stat	Lags	CADF stat
Bulgaria	4	-5.029[a]	4	-4.807[a]	2	-3.186[c]	2	-3.043	1	-3.375[b]	1	-3.269	1	-3.203[b]	1	-3.122	4	-4.039[b]	4	-3.829	2	-3.726[b]	2	-3.614[c]
Czech Republic	1	-1.891	1	-1.869	1	-2.735	1	-2.672	1	-2.344	1	-2.312	1	-4.716[c]	1	-4.596[b]	1	-2.466	1	-2.490	3	1.720	3	1.667
Latvia	1	-2.418	1	-2.374	1	-4.438[a]	1	-2.526	3	-5.231[a]	3	-5.003[a]	3	-5.085[a]	3	-4.921[a]	4	-5.646[a]	4	-5.395[a]	3	-3.264[b]	3	-3.167
Romania	3	-4.617[a]	3	-4.428[b]	1	-3.686[b]	1	-3.602[c]	1	-3.923[b]	1	-3.858[c]	3	-3.036[b]	3	-2.946	1	-3.341[a]	1	-3.287	3	-1.475	3	-1.543
Slovak Republic	1	-1.857	1	-1.836	1	-6.887[a]	1	-4.156[b]	1	-4.560[a]	1	-4.430[b]	2	-4.000[b]	2	-3.883[c]	2	-3.369[b]	2	-3.231	2	-2.409	2	-2.163
Lithuania	1	-2.016	1	-2.010	1	-5.513[a]	1	-5.373[a]	1	-2.644	1	-2.613	3	-2.807	3	-2.705	4	-2.012	4	-1.934	3	0.512	3	0.426
Hungary	1	-1.817	1	-1.741	1	-1.892	1	-1.909	1	-4.531[a]	1	-4.461[b]	2	-4.185[b]	2	-4.062[b]	2	-1.929	2	-1.886	3	-4.273[a]	3	-4.203[b]
Estonia	3	-5.141[a]	3	-4.919[a]	2	-3.557[b]	2	-3.364	1	-3.042[c]	1	-3.029	3	-5.262[a]	3	-5.100[a]	4	-1.925	4	-1.848	3	-3.663[b]	3	-3.554[c]
Poland	3	-3.041[c]	3	-2.923	1	-0.195	1	-0.330	1	-3.765[b]	1	-3.614[b]	1	-4.634[a]	1	-4.532[b]	1	-1.713	1	-1.673	2	-1.680	2	-1.499
Slovenia	1	-1.632	1	-1.741	3	-3.084[c]	3	-2.986	1	-1.802	1	-1.822	2	-3.581[b]	2	-3.489	2	-4.888[a]	2	-4.763[a]	2	-3.845[b]	2	-3.645[c]
Panel CIPS		-2.946[a]		-2.865[b]		-3.317[a]		-2.996[c]		-3.522[a]		-3.441[a]		-4.051[a]		-3.936[a]		-3.133[c]		-3.034[b]		-2.210[a]		-2.129

Notes: Maximum lag length is considered as 4 and determined according to Schwarz Information Criteria. CADF test statistics values for constant model are as follows; -4.11 (%1), -3.36 (%5) and -2.97 (%10) (Pesaran 2007, table I(b), p:275) ; for constant and trend -4.67 (%1), -3.87 (%5) and -3.49 (%10) (Pesaran 2007, table I(c), p:276). Panel statistics critical values for constant model; -2.57 (%1), -2.33 (%5) and -2.21 (%10) (Pesaran 2007, table II(b), p:280) ; for constant and trend model -3.10 (%1), -2.86 (%5) and -2.73 (%10) (Pesaran 2007, table II(c), p:281). Panel statistics are average of CADF statistics. The figures which is a, b and c show 1 %, 5 % and 10 % levels, respectively

When the test statistics are compared with the Peseran (2007) critical values, it is concluded that the variables has unit root in level values. If the effects of the economic shocks considered, the variables may have long memory, so the first differences of the variables will be considered in the analysis.

Table 4: Cross Section Dependency and Homogeneity Tests

	Statistic	p-value
Cross-section dependency tests:		
LM (BP,1980)	188.099	0.00[a]
CD_{lm} (Pesaran, 2004)	15.084	0.00[a]
CD (Pesaran, 2004)	9.077	0.00[a]
LM_{adj} (PUY, 2008)	14.718	0.00[a]
Homogeneity tests:		
$\tilde{\Delta}$	12.787	0.00[a]
$\tilde{\Delta}_{adj}$	14.680	0.00[a]

Notes: Regression model is $PS_{it} = \alpha_i + \beta_{1i} GE_{it} + \beta_{2i} GDPPC_{it} + \beta_{3i} TB_{it} + \beta_{4i} CPI_{it} + \beta_{5i} UN_{it} + \varepsilon_{it}$ The figures which is a, b and c show 1 %, 5 % and 10 % levels, respectively

Table 5: Panel Co-Integration Tests Considers Cross Section Dependency and Have no Structural Breaks

Tests	Constant			Constant and Trend		
	Statistic	Asymptotic p-value	Bootstrap p-value	Statistic	Asymptotic p-value	Bootstrap p-value
Error Correction						
Group_tau	-5.750	0.00[a]	0.011[b]	-8.553	0.00[a]	0.00[a]
Group_alpha	-8.707	0.00[a]	0.031[b]	-9.401	0.00[a]	0.04[b]
Panel_tau	-8.031	0.00[a]	0.00[a]	-10.326	0.00[a]	0.00[a]
Panel_alfa	-13.893	0.00[a]	0.00[a]	-12.289	0.00[a]	0.00[a]
LM bootstrap						
LM_N^+	3.337	0.00[a]	0.186	3.181	0.00[a]	0.449

Notes: Both test null hypothesis suggests that there is no co-integration. In the Error Correction Test, lag is considered as one. A bootstrap probability ratio has a distribution repeated 1000 times. Asymptotic probability ratios are gained from the standard normal distribution. The figures which is a, b and c show 1 %, 5 % and 10 % levels, respectively

According to Table 3 the probability values of test statistics are under 1% (0.01), 5% (0.05) and 10% (0.1) confidence interval. That leads us to employ the co-integration methods that considers on cross section dependency and based on heterogenic structure. The Error Correction and Lagrange Multiplier test statistics are summarized in table 4. If both asymptotic and bootstrap values are considered in Error correction test, there is a significant co-integration among variables. On the other hand, according to LM boostrap test, there is co-integration among variables according to asymptotic test statistics.

Table 6: Panel VECM Causality

	Short Run Causality						Long-run causality
	Δ (PS)	Δ (GE)	Δ (GDPPC)	Δ (TB)	Δ (CPI)	Δ (UN)	ECT(-1)
Δ (PS)	-	13.670 (0.00)[a]	3.402 (0.333)	1.293 (0.730)	8.822 (0.031)[b]	12.333 (0.00)[a]	-0.438 [-2.272][b]
Δ (GE)	1.311 (0.726)	-	10.199 (0.016)[b]	4.859 (0.182)	13.898 (0.00)[a]	6.482 (0.090)[c]	-0.132 [-0.823]
Δ (GDPPC)	13.291 (0.00)[a]	1.548 (0.671)	-	16.712 (0.00)[a]	2.937 (0.401)	11.489 (0.00)[a]	-3.725 [-0.137]
Δ (TB)	1.677 (0.641)	5.573 (0.134)	5.905 (0.116)	-	1.062 (0.786)	3.964 (0.265)	1.858 [1.381][c]
Δ (CPI)	6.747 (0.080)[c]	4.375 (0.223)	0.441 (0.931)	1.939 (0.585)	-	4.854 (0.182)	-2.054 [-0.467]
Δ (UN)	4.050 (0.256)	4.474 (0.214)	4.418 (0.219)	3.259 (0.353)	4.037 (0.257)	-	1.930 [0.738]

Notes: The figures which is a, b and c show 1 %, 5 % and 10 % levels, respectively. () and [] show probability value and t statistics, respectively.

In the short term, there is a significant causality relation from GDP per capita and consumer price index to political stability whereas in the long term the causality relation holds for all variables in the long term. It makes sense to see bothe causality relations for the selected economies. In order to hold political stability, GDP per Capita can be accepted the most powerfull determinant. Also the price index is important. According to the causality test it is not possible to see the direction of the causality. Waht we assume is for GDP per capita there should be a positive relation whereas with CPI the causality relation can be considered negative. According to Aisen and Viga (2013), in the periods when political stability does not hold, the inflation rates are comparatively higher. That high inflation depends on the inefficient long term monetary policies and the faithful policies on seigniorage revenue. The applied panel VECM test has some additional results; there is causality from political stability to government effectiveness, from government effectiveness to GDP per capita and finally from GDP per capita to trade openness in the short term.

Conclusion

The post-Soviet countries faced not only an economic transition but also a political transition after the collapse of the Soviet Union especially during their accession process to European Union. Since Copenhagen Criteria are expected from all candidate countries consist of adequate infrastructural developments with regard to politics, economy and acquisition, these countries found themselves in a rapid transition in order to integrate not only to EU structure but also other free market economies. This process of integration was not challenging only for the transition economies. Petrakos (1997) argues that the transformation in Central and East European countries was a multidimensional force changing Europe fundamentally. The East was becoming the focal point for economic activities, a new economic environment was being formed, and new regional spheres of economic influence and cooperation were arising. Ergo the successful transition process was crucial both for these countries in transition and for the other free market economies, primarily the EU countries. Since it is obvious that the market economy and the legal and political infrastructure are institutions feeding each other and necessary for international cooperation both in terms of economic relations and political affairs, political stability in a country pursuantly becomes an important prerequisite, alongside the economic parameters, for better international economic relations and collaboration.

In this study the macroeconomic determinants of the political stability have been scrutinized depending on the economic parameters for the post-Soviet transition economies. As the macroeconomic determinants of the political stability, rather than the commodity sales of the countries, integration to international markets that necessitates market economy, low unemployment and inflation rates in terms of economic discontent index, and low share of the public sector in gross national product have been implied. Procurement of stability in those macroeconomic factors would herewith bring the political stability. Because the presence of the political stability would develop the foreseeing capacities of the entrepreneurs and steer them to the long term economic activities. In this study, the macroeconomic determinants of the political stability in Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia, Romania and Bulgaria economies that moved from the centrally planned economy to free market economy have been anchored for 2002-2015 period by panel data method. It has been found that the political stability and public sector efficiency and GNP per capita are strongly correlated in these countries. Cross-sectional Dependence tests have manifested that the countries constituting the panel have been affecting each other socially and economically. By means of the Panel Vector Auto-regression Model causal relationships have been observed from GDP per capita and consumer price index through political stability in the short-run, and from public sector efficiency, GNP per capita, trade openness, consumer price index and unemployment rates through the political stability in the long-run.

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