Political Consent in Eastern EU Countries: A Macroeconomic Perspective

Giorgio LIOTTI* – Rosaria Rita CANALE**

Abstract

The aim of the paper is to investigate the link between trust in national political institutions and macroeconomic performance in the long run in Eastern EU countries. The objective is to answer the question whether the liberalization process and the subsequent exposure to globalized markets realized macroeconomic outcomes that are still cause of concern for these young democracies. The empirical technique is the panel dynamic ordinary least square (PDOLS) estimator, through which the effect of inflation inequality and debt on citizens' trust in national governments and national parliaments is evaluated in term of long-run dynamics. Results show a negative impact of the indicators considered and highlight the role of macro-variables in the institutional consolidation process even in presence of path dependence dynamics of trust.

Keywords: *political institutions, trust, macroeconomic indicators, Eastern countries*

JEL Classification: E02, C23, O52

Introduction

Former socialist countries, starting from the end of the '80, experienced great transformations, bringing to their reintroduction into the global economy. This process has been not easy and, especially for some countries, it is not yet completed. The reintroduction into the competitive and globalized markets meant the exposure to systemic shocks without having enough instruments to counter them. With the 2007 financial crisis, the initial convergence process, started in the early

* Giorgio LIOTTI, University of Naples Federico II, Department of Political Sciences, Via Rodinò, 22, 80138 Napoli, Italy; e-mail: giorgio.liotti@unina.it

** Rosaria Rita CANALE, University of Naples Parthenope, Department of Accounting Business and Economics, Via Generale Parisi 13, 80132 Napoli, Italy; e-mail: rorita.canale@ uniparthenope.it

and mid of the 2000s, slowed raising up growing disparities (Roaf et al., 2014). The economic transformation required change toward democratic political systems that in those countries were not always up to withstand the challenges. Almost all former socialist countries were able to set political reforms with the aim of guarantying to political parties to compete through free elections (Welsh, 1994; Linz and Stepan, 1997; McFaul, 2002). However the result was not always the same and in some of them the political reforms were only partial, and for several aspects they cannot be yet labelled as democracies[1] (Ekiert, Kubik and Vachudova, 2007). The transition toward democracy assured the birth of a political system very similar to western democracies. However despite an initial enthusiasm that can be labelled as "exogenous" (Kukovic, 2013) their citizens appear to still have a great distrust in their national governments and parliaments. Data about Eastern countries belonging to EU available on the Eurobarometer survey reveal that the net trust (the difference between those who trust and those who do not trust) in national institution such as government and parliament, is always negative (see below for further specification).

The level of political trust measures the degree of democratic legitimacy necessary to implement political and economic reforms and complete the process of transformation. However there is a difference between the short and the long time horizon. In the short-run political institutions can get citizen trust, relying on the consent associated to the nature and quality of their promises. In the long--run trust is deeply linked to the results achieved. In particular as the great part of literature about western countries states, the economic performance covers a very central role (Nannestad and Paldam, 1994).

The aim of the paper is to empirically investigate on the link between trust in national governments and parliaments and the macroeconomic performance in the long run in Eastern EU countries. Previous analyses had as main object the evaluation of the transition process toward the market economy and to measure to what extent the new democracies were able to manage the temporary costly outcomes of policy implemented (Brada, Coes and Maloney, 2000). The present paper aims at evaluating if the liberalization process and the subsequent exposure to globalized markets realized macroeconomic outcomes that are still cause of concern for these young democracies.

The sample goes from 2005 to 2015 and contains countries belonging to the European Union (EU) at present: the Baltic republics – Estonia Latvia and Lithuania – the five central Europe republics – Czech republic, Hungary, Poland, Slovak Republic and Slovenia – and two out of three South East EU members – Bulgaria and Romania. Just Croatia – which joined EU in 2013 – is not considered for the

---

[1] Some Asian countries such as Azerbaijan, Kazakhstan, Kyrgyzstan or Tajikistan etc.

high number of missing values in the variables considered. Eight out of ten belonging to our sample joined the EU in 2004. Just Bulgaria and Romania in 2007. Estonia (2011) Latvia (2014) Lithuania (2015) Slovak Republic (2009) and Slovenia are members of the Monetary Union. They can be considered as a rather homogenous sample under two main aspects: a) after the collapse of Socialist regimes these countries adopted a set of political and economic reforms with the intention of approaching the so-called Western market economies and b) they are all members of the European Union, sharing common rules in the management of economic policy. As dependent variables net trust in national parliaments and governments, calculated as the difference between those who trust minus those who do not trust are used. Data are collected from the Eurobarometer database.[2] As independent variables, being inspired by the literature about trust and macroeconomic performance, inflation, inequality – measured by the Gini coefficient – and debt are considered. Inflation is particularly relevant in countries that in previous years afforded a transformation period in which the high loss of purchasing power was one of the most negative features of the opening to the market economy (Roaf et al., 2014). The same motivation lies behind the choice of the Gini coefficient since inequality is a reason of concern in countries where market economy is not at a mature stage. This indicator "substitutes", the more frequently used in the literature rate of unemployment to overcome the critiques of multicollinearity with inflation. Finally debt is considered for its ability to synthetize the countries' fiscal position inside the framework of the European Union commitments and globalized financial markets. The hypothesis tested in the paper are the following: a) the existence of a negative relationship between trust in national governments and parliaments and inflation. An high inflation level is supposed to reduce real wages and increase poverty. Furthermore, increasing prices cause macroeconomic instability, decrease capital inflows and investments from abroad. b) the presence of a negative correlation between the Gini coefficient and the support for national institutions. Inequality is one of the most important factors affecting social cohesion. The social conflict is supposed to undermine the normal working of the institutions and the consolidation process of democracies (Acemoglu and Robinson, 2013). This is a particular relevant issue in countries suddenly opened to market economies. c) Finally, high public debt is supposed to affect negatively trust since it is, inside the EU context, the predictor of future fiscal consolidation programmes negatively affecting unemployment and growth, at least in the short run.

---

[2] The standard Eurobarometer was established in 1973. In 2004 it started to collect data also for Eastern European countries. Each survey consists in approximately 1000 face-to-face interviews per Member and reports published twice yearly. The entire dataset is available at: <http://ec.europa.eu/public_opinion/archives/eb/eb72/eb72_en.htm>.

The empirical technique is the panel dynamic ordinary least square (PDOLS) analysis, through which the effect of inflation inequality and debt on citizens' trust in national governments and national parliaments are evaluated in terms of long-run dynamics. The dynamic nature of the empirical technique allows controlling for endogeneity problems and overcoming the objection that present values of distrust may depend on past opinions about political management. As a matter of fact the negative value of trust in order to be comprehensively justified has to be inserted in the general context of transformations required for the transition toward the market economy. However following some authors (Przeworski, Cheibub and Limongi, 1997; Przeworski, 2004) the paper argues that economic development sustain the institutional consolidation process. The empirical methodology requires as preliminary the cointegration analysis: it establishes a long-run relationship among the variables and supports the results validity even in presence of a non-exhaustive set of explanatory variables. The outcomes uphold the conclusion that all three dependent variables negatively affect trust in national political institutions. This kind of dynamic panel macro analysis has never been implemented for Eastern countries and provides insights on what institutions should take into account to increase consent. Results are consistent with those reached by the empirical literature on western countries and confirms the central role of macro-variables in the institutional consolidation process (Canale et al., 2016). Furthermore the very low and negative net trust raises doubts in the transformative power of the transition process and of the European union commitments in those countries (Fouéré, 2016).

1. The Background: The "Big Two" and Beyond

Trust in institutions is the foundation of democracy and since the seminal Lipset (1959) contribution democracy is always been thought to trigger good economic performance and vice- versa. In particular Lipset (1959) associates higher degree of democracy with an high level of growth, the emergence of a middle class and a higher political participation.

Since the '70, the "rationality hypothesis" brought economist to consider the centrality of the "economic man". The uncontroversial result is that the two main variables considered to be relevant for trust are the so-called "big-two" (Nannestad and Paldam, 1994), inflation and unemployment. Both the variables are supposed to affect negatively the level of trust.

Subsequent contributions reached more articulated results.[3] Citizens a) are mainly "sociotropic", i.e. are interested in the economic situation of the whole nation; b) are retrospective with static expectations; c) assign the greatest

importance to the unemployment rate (Veiga and Veiga, 2004). Conversely, Sanders (2000) studying the British case, found that expectations about the economic future have a key role in affecting net trust in National Governments. Kirchgässner (2009), examining the behaviour of German voters, found that up to 1998, unemployment and inflation have opposite sign effects on trust. On contrary, with the Schröder Government the results changed since unemployment became non-significant and the inflation rate switched to the opposite direction (the increase in inflation rate increase the net trust in government). Stevenson and Wolfers (2011) analysed the decline of trust in USA public institutions from 1972 to 2010 – also documented by National Election Studies by Miller (1974), Alford (2001) and Pew Research Center (2010) – over the business cycle and reached the point of a pro-cyclical nature of trust.

In Europe this stream of studies had great success since it was an instrument to measure the institutional consolidation process of the Eurozone and the EU as a whole. Hudson (2006), Fischer and Hahn (2008), Wälti (2012), Ehrmann, Soudan and Stracca (2012) and others find that the macroeconomic performance severely affects trust. With a summarizing simplification, the relevant factors appear to be: (i) the general macroeconomic performance; (ii) the overall belief in the success of the European project (iii) the financial sector performance. Roth (2009) and Roth, Nowak-Lehmann and Otter (2011), Roth, Gros and Nowak-Lehmann (2014) add as relevant variable, beside inflation, unemployment and GDP growth, the level of debt.

Recalling the concept that trust in institution is at the basis of democracy some studies worth to be mentioned in relation to its link with economic performance: Acemoglu and Robinson (2000), Acemoglu, Johnson and Robinson (2001), Acemoglu and Robinson (2006) and Rodrik and Wacziarg (2005) analyse the relation between democracy and inequality inside the framework of game theory: it is the redistributive threat by part of the population that brings about a democratic equilibrium. Jung and Sunde (2014) add to this literature the result that: non-democratic regimes emerge, not only when productive resources are distributed unequally, but also when institutions do not ensure political commitments. Inequality affects democracy through the reduction of wage share (direct effect Rodrik, 1999), the increase of socio-political instabilities (indirect effect Alesina and Perotti, 1996), and the per capita GDP growth (Barro, 1998, confirming the path of the Kuznets curve).

Recently this studies on the roots behind democratic consolidation have been applied to former socialist countries of Eastern Europe. Using a microeconomic perspective Mishler and Rose (2002) investigates on the reverse causality and

---

[3] For a review of not very recent contributions see Nannestad and Paldam (1994).

finds that political outcomes are central for economic. Boda and Medve-Bálint (2014) find an overall similarity of the behaviour of eastern Europe citizens to western ones in regard to the determinants of trust. However they suggest that the overall negative net trust in national institutions represents a marked difference and therefore should be further investigated to understand the process of transformation. Przeworski, Cheibub and Limongi (1997) and Przeworski (2004) highlight that the economic performance is not the main determinant of political trust, however economic development increase the probability of democracy to survive, so raising the issue of endogeneity.

In the light of these contribution the paper aims at evaluating the impact in the long run of some relevant macroeconomic determinants on net trust in Eastern countries taking into account, due to the feature of the econometrical technique, the dependence of present trust from its past values.

2. The Empirical Analysis

2.1. Data

This paper focuses on ten Easter European countries: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia. Trust in the national governments and national parliaments are regarded as dependent variables; the Gini coefficient, inflation and debt are considered as the independent variables. The contribution of the paper is twofold: 1) estimate the relation between trust in national parliaments and national governments and some relevant macroeconomic determinants in 10 Eastern countries and 2) evaluate their long run impact through panel long run dynamic data technique. The sample period goes from the first semester in 2005 until the second semester in 2015 ($t = 22$ and $i = 10$, for a total of 220 observations reduced to 190 because of the dynamic features of the empirical methodology). The choice of time span is due to the fact that since 2004, all of these countries (with the exception of Bulgaria and Romania that joined to the UE in 2007) are members of the European Union. As previously stated, Croatia was excluded from the sample for the high number of missing values in the variables considered.

Data on trust in national governments (NG) and parliament (NP) were collected from the Standard Eurobarometer survey. The survey was established in 1973 (from 2004 for Eastern countries) and has been progressively refined in the course of the years. Each survey consists in approximately 1000 face-to-face interviews per Member State and reports are published twice a year . It is structured around a wide range of questions. The question this paper is concerned

about is: "For each of the following bodies, please tell me if you tend to trust it or tend not to trust it," (question 16). The possibility of responding "I don't know" is also given.

An index ranging from zero to one is constructed as the simple difference between the number of those who answered "tend to trust" minus those who answered "tend to not-trust" as a percentage of the total population interviewed, including those who answered "don't know". (Roth, 2009; Roth, Nowak-Lehmann and Otter, 2011; Roth, Gros and Nowak-Lehmann, 2014). This index has the advantage to not be affected by the width of the sample, but includes in it even those who do not have enough information to express an opinion.[4]

Data about gross debt, inflation and the Gini coefficient were collected from the IMF outlook database. Since the Eurobarometer Survey runs twice a year (April and October, or May and November, or June and December) the independent variables have to be transformed in order to make them consistent with the dependent variables. Therefore, similarly to Wälti (2012), inflation and gross debt as percentage of GDP are calculated as the averages between the months before two consecutive surveys were run. For instance, when surveys were run in June and December, the explanatory variables were calculated as the monthly averages between May and November. Since the Gini coefficient data are collected annually, the missing values were calculated using the linear interpolation method.[5] Table 1 contains some statistics to have a first look to the behaviour of the variables in the time span and the countries considered.

The mean of the net trust is always negative and high with exception of Estonia for the variable NG. Excluding Estonia and Hungary even the maximum values are always negative. In regard to income distribution the average values show a Gini coefficient in many cases above 30 and near to those of peripheral countries in the Eurozone.[6] Inflation shows an high difference between the maximum and the minimum value. The maximum value is often a two-digit Finally the government debt/GDP ratio shows in most cases a marked difference between the lower and the upper threshold indicating deteriorating conditions of public finance.

---

[4] Literature uses also an index constructed as the ratio between the net trust and the sum of those who answered "tend to trust" and those who answered "tend to not trust" without considering those who do not know (Wälti, 2012). This index has the limit of excluding from the sample those who "don't know": this answer could be interpreted, rather than as a signal of ignorance, as the expression of a sense of disaffection toward the institution's performance.

[5] Changes in the Gini coefficient occur slowly, such that the linear interpolation can be considered a good approximation to fill the missing data. For a detailed review of interpolation methods see Meijering (2002).

[6] The mean of Gini coefficient in the same period in peripheral countries is 36 for Portugal, 32 for Spain, 31 for Italy, 30 for Ireland, and 33 for Greece. In the other Eurozone countries it is around the value of 25.

T a b l e 1

Descriptive Statistics

Country	Variables														
	NG			NP			Gini			INF			DEBT		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
Bulgaria	−60	1	−39.7	−75	−33	−58	30.8	37	34.2	−1.5	12.7	3.77	7.9	26.25	12.23
Czech Rep.	−77	−24	−50	−80	−53	−67	24.6	26	25.0	−0.3	6.96	2.08	21.6	41.45	31.64
Estonia	−25	36	4.23	−36	26	−13.8	30.9	35.6	32.8	−1.5	11.06	3.79	0.6	10.1	1.75
Hungary	−67	6	−34.4	−69	3	−37.5	24.1	33.3	27.2	−0.04	8.34	3.90	36.3	67.75	59.06
Latvia	−79	−27	−54.1	−86	−36	−63	35.1	38.9	36.2	−3.0	16.02	4.23	5.65	40.65	13.28
Lithuania	−71	−24	−50.8	−84	−56	−70.4	32	37.9	34.9	−0.6	11.86	3.35	13.15	76.7	26.18
Poland	−69	−33	−49.5	−72	−42	−56.8	30.6	35.6	31.7	−0.7	4.38	2.22	38.05	51.6	42.96
Romania	−74	−30	−50.7	−76	−44	−59.9	33.5	38.3	35.57	−0.1	8.75	4.75	4	37.25	15.12
Slovakia	−60	−4	−29.8	−58	−13	−30.6	23.7	28.1	25.30	−0.4	4.36	2.08	22.65	83.7	37.48
Slovenia	−81	−10	−49	−87	−13	−55.6	22.7	25	23.8	−0.6	6.26	2.17	19.6	70	37.16

Source: Own computations.

It is implicit that the values of the independent variables do not justify the almost always negative net trust in national government and parliaments (Przeworski, 2004). However the aim of the paper is to test the influence on distrust of some selected macroeconomic variables, once given the general environment in which national institutions operate.

2.2. Methodology

In the present work the panel dynamic ordinary least square (PDOLS) methodology is applied. In the PDOLS framework, the long-run regression is augmented by lead and lagged differences of the explanatory variables to control for endogenous feedbacks (Saikkonen, 1991). Moreover, lead and lagged differences of the dependent variable can be included to account for serial correlation (see Stock and Watson, 1993). Hence, the PDOLS estimator is able to correct standard OLS for bias induced by endogeneity and serial correlation.

A PDOLS estimator is obtained using a two-step procedure. First, individual dynamic and deterministic components are regressed out separately for the panel members. Then, the residuals are stacked and a pooled regression is run. According to Wagner and Hlouskova (2010), the PDOLS estimator outperforms all other studied single equation estimators and system estimators even for large samples. Moreover, Harris and Sollis (2003) suggest that non-parametric approaches – such as the full-modified ordinary last square (FMOLS) – show problems in cases where the residuals have large negative moving average components and are less robust if the data have significant outliers. It has to be noted that both situations are quite common in macro time series data.

The PDOLS estimator requires as preliminary condition for its implementation that the variables are non-stationary in their level, stationary in their differences – or I(1) – and cointegrated. This preliminary condition is due to the dynamic nature of the empirical methodology. The use of cointegrated panel regression model reveals the existence of a long run relationship among the dynamics of the variables. PDOLS is a parametric method used to obtain long-run coefficients by taking into account the lead and lagged values of variables and is constructed in the following form:

$$y_{it} = \alpha_i + \beta_i x_{it} + \sum_{k=-p_i}^{p_i} \gamma_{ik} \Delta y_{it-k} + \sum_{k=-p_i}^{p_i} \delta_{ik} \Delta x_{it-k} + \varepsilon_{it} \tag{1}$$

where y_{it} is the dependent variable at time t in the i-th country and x_{it} is the independent variable with the same features. Δy_{it-k} and Δx_{it-k} are the variables considered in their change and p are lagged and lead values. Finally β_i is the DOLS parameter obtained from i-th unit in panel to be estimated to assess the magnitude of the relationship. In particular the following equations are estimated:

$$NG_{t,i} = \alpha_1 + \beta_{11} * Gini_{t,i} + \beta_{12} * INF_{t,i} + \beta_{13} * DEBT_{t,i} + \sum_{k=-1}^{1} \gamma_{11ik} \Delta NG_{it-k} + \sum_{k=-1}^{1} \delta_{11ik} \Delta Gini_{it-k}$$
$$+ \sum_{k=-1}^{1} \delta_{12ik} \Delta INF_{it-k} + \sum_{k=-1}^{1} \delta_{13ik} \Delta DEBT_{it-k} + \varepsilon_{1t,i} \tag{2}$$

$$NP_{t,i} = \alpha_1 + \beta_{21} * Gini_{t,i} + \beta_{22} * INF_{t,i} + \beta_{23} * DEBT_{t,i} + \sum_{k=-1}^{1} \gamma_{1ik} \Delta NP_{it-k} + \sum_{k=-1}^{1} \delta_{21ik} \Delta Gini_{it-k}$$
$$+ \sum_{k=-1}^{1} \delta_{22ik} \Delta INF_{it-k} + \sum_{k=-1}^{1} \delta_{23ik} \Delta DEBT_{it-k} + \varepsilon_{2t,i} \tag{3}$$

where the dependent variables, $NG_{t,i}$ and, $NP_{t,i}$ are net trust in national governments and national parliaments respectively; $Gini_{t,i}$, $INF_{t,i}$ and $DEBT_{t,i}$ are the Gini coefficient, the rate of inflation and the gross debt as percentage of GDP, in the i-th country at time t. Δ represents the k lead and lagged differences of the variables. The β parameters are the DOLS coefficient to be estimated relevant to assess the existence and the magnitude of the relationship.

2.3. Results

Before implementing the PDOLS estimation technique it is required to investigate the properties of the panel data. In doing so, tests of panel unit root following Hadri (2000) (HAD), Levin, Lin and Chu (2002) (LLC), Breitung (2000), Breitung and Das (2005), Im et al. (2003) (IPS), ADF Fisher χ^2 (ADF), PP Fisher χ^2 (PP) due to Maddala and Wu (1999) are applied. The PP, IPS and HAD tests are adopted as they are suitable to test stationarity in heterogeneous panels (see for PP Caporale and Cerrato, 2006), while the LLC test is employed given its high power in small samples (see Wagner and Hlouskova, 2010). The ADF is the standard test allowing to detect if the present value of the variable is able to predict its future one.

Finally the Breitung test allows for mitigating the eventual presence of cross sectional dependence.[7] In order to proceed to the cointegration analysis the variables have to be non starionary in their levels and integrated of order one I(1). The results are reported in Table 2.

From these tests it can be concluded that there is a clear evidence for non-stationarity of net trust in national governments (NG) and national parliaments (NP), the measure of inequality (GINI), inflation (INF) and gross debt (DEBT), when considered in their level since it is confirmed by the great majority of the tests. For NG, NP and INF the non-stationarity is confirmed from 5 out of 6 tests, while for GINI and DEBT it is confirmed for all the six tests. Very similar results are obtained when performing the test at first differences according to which ΔNP, $\Delta GINI$ and $\Delta DEBT$ result to be stationary for 5 out of six test while ΔNG and ΔINF for all the tests performed. Therefore, it is possible to conclude that the variables are non-stationary and I(1).

---

[7] The absence of cross sectional dependence is detected in the PDOLS estimates. This allows validating the unit root tests' results using the first generation tests.

T a b l e 2

Unit Root Tests

Seies	TESTS		
	HAD	**LLC**	**Breitung**
Level			
NG	3.26885***	–0.13258	–1.26092
NP	3.97868***	1.91566	1.87058
GINI	5.94602***	–0.70480	1.09254
INF	5.94602***	0.40312	0.26822
DEBT	4.91675***	0.05690	3.16207
First differences			
	IPS	**ADF**	**PP**
ΔNP	–0.84028	–4.37013***	–4.52353***
ΔNG	0.63534	–1.66041**	0.41700
ΔGINI	1.26548	–2.08240**	1.88559
ΔINF	–0.64313	–7.33133***	–4.43044***
ΔDEBT	0.73895	–3.04140***	0.11329
Level			
NP	–1.30071	28.0962	38.6739***
NG	–0.51486	26.5102	73.1550***
GINI	–0.36659	27.9389	25.3507
INF	–1.53554	33.3131**	11.2034
DEBT	2.56724	13.9264	19.6135
First differences			
	IPS	**ADF**	**PP**
ΔNP	–4.93129***	59.0975***	152.186***
ΔNG	–5.55522***	68.7139***	408.249***
ΔGINI	–3.04693***	44.6888***	82.4123***
ΔINF	–7.39894***	82.8827***	58.1444***
ΔDEBT	–3.76572***	56.7577***	453.063***

Notes: The tests are: Hadri (2000) (HAD); Levin, Lin and Chu (2002) (LLC); Breitung (2000); Im, Pesaran and Shin (2003) (IPS); ADF Fisher χ^2 (ADF); PP Fisher χ^2(PP) due to Maddala and Wu (1999). In Hadri the null is that the variable is stationary. ***, **, and * reject the null at 1%, 5% and 10% respectively.

Source: Own computations.

The second step is to perform the cointegration analysis in order to verify the presence of a long run relationship among the variables in the empirical model. Table 3a and Table 3b show the tests results performed for the variables in equation (2) and (3) respectively.

It report the results from standard Pedroni (1999; 2004), Kao (1999) and Johansen-Fisher cointegration tests. The 11 cointegration tests proposed by Pedroni extend the Engle and Granger (1987) two-step procedure to panel data, and are divided into three categories of test statistics. The first category consists of four panel statistics: a non-parametric variance ratio statistic (panel v); a non-parametric Phillips and Perron type r-statistic (panel r); a non-parametric Phillips and Perron type t-statistic (panel PP); and a Dickey-Fuller type t-statistic (panel ADF). The second category contains the same panel statistics weighted by long-run

variances. The third category includes three group statistics: a Phillips and Perron type ρ-statistic (group ρ); a Phillips and Perron type t-statistic (group PP); and an ADF type t-statistic (group ADF).

T a b l e 3a

Cointegration Tests on Eq. (2) NG, GINI, INF, DEBT

Pedroni		
		Weighted
Panel v-statisitc	−0.223554	−0.670047
Panel rho-statisitc	−1.056565	−1.889398**
Panel PP-statistic	−3.540350***	−5.389269***
Panel ADF statistic	−2.450160***	−2.386926***
Group rho-statisitc	−0.256182	
Group PP-statisitc	−8.151978***	
Group ADF-statisitc	−2.597297***	
Kao		
−3.051015***		
Johansen-Fisher		
	Trace test	*Eigen test*
r = 0	83.89***	65.81***
r ≤ 1	35.88**	28.51*
r ≤ 2	20.73	20.69
r ≤ 3	14.84	14.84

Note: ***, **, and * reject the null at 1%, 5% and 10% respectively.

Source: Own computations.

T a b l e 3b

Cointegration Tests on Eq. (3) NP, GINI, INF, DEBT

Pedroni		
		Weighted
Panel v-statisitc	0.122091	−1.271942
Panel rho-statisitc	−2.217517**	−2.566352***
Panel PP-statistic	−5.699056***	−6.656041***
Panel ADF statistic	−5.293442***	−6.275764***
Group rho-statisitc	−0.406387	
Group PP-statisitc	−7.297475***	
Group ADF-statisitc	−5.071839***	
Kao		
−5.112555***		
Johansen-Fisher		
	Trace test	*Eigen test*
r = 0	89.60***	71.62***
r ≤ 1	38.18***	30.78*
r ≤ 2	21.69	20.94
r ≤ 3	17.14	17.14

Note: ***, **, and * reject the null at 1%, 5% and 10% respectively.

Source: Own computations.

The Kao (1999) test is a residual based test. In Kao test coefficients do not differ across individuals, while the Pedroni tests allow for heterogeneous coefficients. 7 out of 11 Pedroni statistics for equation (2) and 8 out of 11 Pedroni statistics for equation (3) reject the null of no cointegration with different levels of significance. This conclusion is also supported by the Kao tests for both equations.

The Johansen-Fisher (Johansen, 1991) trace and eigen tests confirm the presence of cointegration in the variables. This test, allowing detecting the presence of more than one cointegrating vector, confirm , the hypothesis of three cointegrating vectors in the data.

After having highlighted the presence of cointegration, the estimation of the panel model presented in equations (2) and (3) is performed. Results are presented in table (4) where at the bottom it is highlighted the absence of cross sectional dependence in the PDOLS regressions. Its presence would have reduced the quality of the performance of the estimator.

T a b l e 4

PDOLS Estimation Results

Dependent variable: NG (Equation 2)	
GINI	−1.855019**(0.887526)
INF	−2.361447**(1.146064)
DEBT	−0.772348***(0.150957)
R^2	0.837399
Adj R^2	0.646764
Dependent variable: NP (Equation 3)	
GINI	−2.568523***(0.854871)
INF	−3.024700***(0.721081)
DEBT	−0.849996***(0.151811)
R^2	0.847570
Adj R^2	0.625854
N. of Counries	10
N. of Obs	190

Notes: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
One lead and one lag of the first difference has been used in the regression Breusch and Pagan (1980) Chi--square, Pearson, D'Agostino and Browman (1977) LM Normal, CD Normal, Friedman (1937) Chi-square, Frees (1995) Q tests, when performed on regression results accept the null hypothesis of cross sectional independence.

Source: Own computations.

According to the results all three independent variables have a negative and highly significant impact on net trust both in national governments and national parliament. The higher the level of inequality the lower is the net trust in national political institutions (–1.85** for NG and –2.56*** for NP) the higher the debt the higher distrust (–0.77** for NG and –0.84*** for NP). The variable appearing to have the greatest impact on trust in each estimated equation is inflation (–2.36** for NG and –3.02*** for NP).

Conclusion

The economic literature has been for a long time concentrated on the transition process in Eastern Countries and on the measurement to what extent the liberalization reforms realized outcomes consistent with the consolidation of their democracies. This paper takes as given the transition process, and estimates if the exposure to globalized markets and the macroeconomic outcomes have been generating negative feedbacks on these democracies. The empirical results suggest that, even taking into account past citizen's distrust about national governments and parliaments, inflation, inequality and debt have a negative and high impact on net trust. In particular, the variables most affecting trust in national parliaments and national governments are inequality, (–1.85** for NG and –2.56*** for NP) and inflation (–2.36** for NG and –3.02*** for NP). As matter of fact, they represent the two indicators that best capture the difficulties affecting the society for which citizens have a direct and immediate perception. The former Socialist economies, in the competition of globalized markets, have to tackle with problems unknown in the past, that, now, however, emerge powerfully in the process of transformation. In regard to debt, a similar negative relation emerges (–0.77** for NG and –0.84*** for NP) as a consequences of the inability of institutions to wisely manage public finance and avoid future consolidation programmes inside the EU framework. These results should remind to national parliaments and governments that the institutional consolidation process cannot happen without positive economic outcomes. On contrary high inequality, inflation and debt, rather than keep these countries on truck of democratic consolidation could, as in the Western Europe, move them towards greater instability and undemocratic solutions. The choice of an adequate economic policy to have trusted and accountable democracies must go through the evaluation of possible future political balances. If we are too unbalanced towards actions that lead to unequal income distributions in the name of increasing efficiency and correcting market failures, we can achieve results that lead to the weakening of democracy and of the market mechanisms on which they are based (Acemoglu and Robinson, 2013).

References

ACEMOGLU, D. – ROBINSON, J. A. (2000) :Why did the West Extend the Franchise? Growth, Inequality and Democracy in Historical Perspective. The Quarterly Journal of Economics, *115*, No. 4, pp. 1167 – 1199.

ACEMOGLU, D. – ROBINSON, J. A. (2013): Economics versus Politics: Pitfalls of Policy Advice. [NBER Working Paper, No. 18921.] Cambridge, MA: NBER.

ACEMOGLU, D. – JOHNSON, S. – ROBINSON, J. A. (2001): The Colonial Origins of Comparative Development: An Empirical Investigation. American Economic Review, *91*, No. 5, pp. 1369 – 1401. DOI: <http://dx.doi.org/10.1257/aer.91.5.1369>.

ACEMOGLU, D. – ROBINSON, J. A. (2006): Economic Origins of Dictatorship and Democracy. Cambridge, UK: Cambridge University Press.

ALFORD, J. R. (2001): We're All in this Together: The Decline of Trust in Government, 1958 – 1996. In: HIBBING, J. and THEISS-MORSE, E. (eds): What is it about Government that Americans Dislike? New York, NY: Cambridge University Press, pp. 28 – 46.

ALESINA, A. – PEROTTI, R. (1996): Income Distribution, Political Instability, and Investment. European Economic Review, *40*, No. 6, pp. 1203 – 1228. DOI: 10.1016/0014-2921(95)00030-5.

BARRO, R. J. (1998): Determinants of Economic Growth: A Cross-Country Empirical Study. Cambridge, MA: The MIT Press.

BODA, Zs. – MEDVE-BÁLINT, G. (2014): The Poorer You Are, the More You Trust? The Effect of Inequality and Income on Institutional Trust in East-Central Europe. Sociologický časopis/Czech Sociological Review, *50*, No. 3, pp. 419 – 453

BRADA, J. C. – COES, D. V. – MALONEY, W. (2000): Economic Transition in Eastern Europe: How Much Political Support Does It Have? In: BAER, W. and LOVE, J. L. (eds): Liberalization and Its Consequences. A Comparative Perspective on Latin America and Eastern Europe. Cheltenham, UK/Northampton, MA: Edward Elgar.

BREITUNG, J. (2000): The Local Power of Some Unit Root Tests for Panel Data. In: BALTAGI, B. H. (ed.): Nonstationary Panels, Panel Cointegration, and Dynamic Panels. Amsterdam: Elsevier.

BREITUNG, J. – DAS, S. (2005): Panel Unit Root Tests under Cross-sectional Dependence. Statistica Neerlandica, *59*, No. 4, pp. 414 – 433.

BREUSCH, T. S. – PAGAN, A. (1980): The Lagrange Multiplier Test and Its Applications to Model Specification in Econometrics. Review of Econometric Studies, *47*, No. 1, pp. 239 – 253.

CANALE, R. R. – BONASIA, M. – LIOTTI, G. – SPAGNOLO, N. (2016): Trust in Institutions and Economic Indicators in the Eurozone: The Role of the Crisis. Inzinerine Ekonomika/Engineering Economics, *27*, No. 1, pp. 4 – 12 DOI: <http://dx.doi.org/10.5755/j01.ee.27.1.12581>.

CAPORALE, G. – CERRATO, M. (2006): Panel Data Tests of PPP: A Critical Overview. Applied Financial Economics, *16*, No. 1 – 2, pp. 73 – 91.

EHRMANN, M. – SOUDAN, M. – STRACCA, L. (2013): Explaining EU Citizens' Trust in the ECB in Normal and Crisis Time. Scandinavian Journal of Economics, *115*, No. 3, pp. 781 – 807. DOI: <http://dx.doi.org/10.1111/sjoe.12020>.

EKIERT, G. – KUBIK, J.– VACHUDOVA, M. A. (2007): Democracy in the Post-Communist World: An Unending Quest? East European Politics and Societies, *21*, No. 7, pp. 7 – 30.

ENGLE, R. F. – GRANGER, C. W. J. (1987): Cointegration and Error Correction: Representation, Estimation and Testing. Econometrica, *55*, No. 2, pp. 251 – 276.

FISCHER, J. – HAHN, V. (2008): Determinants of Trust in the European Central Bank. [Working Paper Series in Economics and Finance 695.] Stockholm: Stockholm School of Economics.

FREES, E. W. (1995): Assessing Cross-sectional Correlation in Panel Data. Journal of Econometrics, *69*, No. 2, pp. 393 – 414. DOI: 10.1016/0304-4076(94)01658-M.

FRIEDMAN, M. (1937): The Use of Ranks to Avoid the Assumption of Normality in the Analysis of Variance. Journal American Statistics Association, *32*, No. 200, pp. 675 – 701.

FOUÉRÉ, E. (2016): The EU's Enlargement Strategy: Is It Working? CEPS European Neighbourhood Watch, *132*, December, pp. 1 – 7. Available at: <https://www.ceps.eu/system/files/NWatch132.pdf>.

HARRIS, R. – SOLLIS, R. (2003): Applied Time Series Modelling and Forecasting. Chichester, UK: John Wiley & Sons Ltd.

HUDSON, J. (2006): Institutional Trust and Subjective Well-Being across the EU. Kyklos, *59*, No. 1, pp. 43 – 62.

HADRI, K. (2000): Testing for Stationarity in Heterogeneous Panel Data. Econometrics Journal, *3*, No. 2, pp. 148 – 161.

IM, K. S. – PESARAN, M. H. – SHIN, Y. (2003): Unit Roots in Heterogeneous Panels. Journal of Econometrics, *115*, No. 1, pp. 53 – 74.

JOHANSEN, S. (1991): Estimation and Hypothesis Testing of Cointegration Vectors in Gaussian Vector Autoregressive Models. Econometrica, *59*, No. 6, pp. 1551 – 1580.

JUNG, F. – SUNDE, U. (2014): Income, Inequality, and the Stability of Democracy – Another Look at the Lipset Hypothesis. European Journal of Political Economy, *35*, September, pp. 52 – 74. DOI: 10.1016/j.ejpoleco.2014.03.004.

KAO, Ch. (1999): Spurious Regression and Residual Based Tests for Cointegration in Panel Data. Journal of Econometrics, *90*, No. 1, pp. 1 – 44.

KIRCHGÄSSNER, G. (2009): The Lost Popularity Function: are Unemployment and Inflation No Longer Relevant for the Behavior of German Voters? [Working Paper, No. 2882, pp. 1 – 18] Munich: CESifo.

KUKOVIC, S. (2013). (Dis)trust in Political Institutions: Comparison between New Democracies of Central and Eastern Countries. Journal of Comparative Politics, *6*, No. 2, pp. 20 – 30.

LEVIN, A. – LIN, C. F. – CHU, C. J. (2002): Unit Root Tests in Panel Data: Asymptotic and Finite-sample Properties. Journal of Econometrics, *108*, No. 1, pp. 1 – 24.

LINZ, J. J. – STEPAN, A. (1997): Problems of Democratic Transition and Consolidation. Baltimore: Johns Hopkins University Press.

LIPSET, S. M. (1959): Some Social Requisites of Democracy: Economic Development and Political Legitimacy. The American Political Science Review, *53*, No. 1, pp. 69 – 105.

MADDALA, G. S – WU, S. (1999): A Comparative Study of Unit Root Tests with Panel Data and a New Simple Test. Oxford Bulletin of Economics and Statistics, *61*, No. 0, pp. 631 – 652.

McFAUL, M. (2002): The Fourth Wave of Democracy and Dictatorship Noncooperative Transitions in the Postcommunist World. World Politics, *54*, No. 2, pp. 212 – 244.

MEIJERING, E. (2002): A Chronology of Interpolation: From Ancient Astronomy to Modern Signal and Image Processing. Proceedings of the IEEE, 90, No. 3, pp. 319 – 342. DOI: 10.1109/5.993400.

MILLER, A. (1974): Political Issues and Trust in Government: 1964 – 1970. American Political Science Review, *68*, No. 3, pp. 951 – 972.

MISHLER, W. – ROSE, R. (2002): Trust, Distrust and Scepticism: Popular Evaluations of Civil and Political Institutions in Post-Communist Societies. The Journal of Politics, *59*, No. 2, pp. 418 – 451.

NANNESTAD, P. – PALDAM, M. (1994): The VP-function: A Survey of the Literature on Vote and Popularity Functions after 25 Years. Public Choice, *79*, No. 3 – 4, pp. 213 – 245.

PEDRONI, P. (1999): Critical Values for Cointegration Tests in Heterogenous Panels with Multiple Regressors. Oxford Bulletin of Economics and Statistics, *61*, No. 0, pp. 653 – 670.

PEDRONI, P. (2004): Panel Cointegration, Asymptotic and Finite Sample Properties of Pooled Time Series Tests with an Application to the PPP Hypothesis. Econometric Theory, *20*, No. 3, pp. 597 – 625.

PEARSON, E. S. – D'AGOSTINO, R. B. – BROWMAN, K. O. (1977): Test for Departure from Normality: Comparison of Powers. Biometrika, *64*, No. 2, pp. 231 – 246.

PEW RESEARCH CENTER (2010): Distrust, Discontent, Anger and Partisan Rancor: The People and Their Government. Washington, DC: Pew Research Center for the People and the Press.

PRZEWORSKI, A. – CHEIBUB J.' A. – LIMONGI, F. (1997). Culture and Democracy. In World Culture Report. Paris: Unesco.

PRZEWORSKI, A. (2004): Democracy and Economic Development. In: MANSFIELD, E. D. and SISSON, R. (eds): Political Science and the Public Interest. Columbus: Ohio State University Press.

ROAF, J. – ATOYAN, R. – JOSHI, B. – KROGULSKI, K. (2014): 25 Years of Transition Post-Communist Europe and the IMF. [Regional Economic Issues Special Report.] Washington, DC: International Monetary Fund.

RODRIK, D. (1999): Democracies Pay Higher Wages. The Quarterly Journal of Economics, *114*, No. 3, pp. 707 – 738.

RODRIK, D. – WACZIARG, R. (2005): Do Democratic Transitions Produce Bad Economic Outcomes? American Economic Review, *95*, No. 2, pp. 50 – 55.
DOI: <http://dx.doi.org/10.1257/000282805774670059>.

ROTH, F. (2009): The Effect of the Financial Crisis on Systemic Trust. Intereconomics, *44*, No. 4, pp. 203 – 208.

ROTH, F. – NOWAK-LEHMANN, F. D. – OTTER, T. (2011): Has the Financial Crisis Shattered Citizens' Trust in National and European Governmental Institutions? Evidence from the EU Member States'. [CEPS Working Document, No. 343, June.] Brussels: Centre for European Policy Studies.

ROTH, F. – GROS, D. – NOWAK-LEHMANN, F. D. (2014): Crisis and Citizens' Trust in the European Central Bank – Panel Data Evidence for the Euro Area, 1999 – 2012. Journal of European Integration, *36*, No. 3, pp. 303 – 320. DOI: 10.1080/07036337.2014.886400.

SAIKKONEN, P. (1991): Asymptotically Efficient Estimation of Cointegration Regressions. Econometric Theory, *7*, No. 1, pp. 1 – 21.

SANDERS, D. (2000): The Real Economy and The Perceived Economy in Popularity Function: How Much Do Voters Need to Know? A Study of British data, 1974 – 1997. [Working Paper, No. 170.] Barcelona: Institut de Ciències Polítiquesi Socials.

STEVENSON, B. – WOLFERS, J. (2011): Trust in Public Institutions over the Business Cycle. American Economic Review, *101,* No. 3, pp. 281 – 287.

STOCK, J. – WATSON, M. (1993): A Simple Estimator of Cointegrating Vectors in Higher Order Integrated System. Econometrica, *61*, No. 4, pp. 783 – 820

WAGNER, M. – HLOUSKOVA, J. (2010): The Performance of Panel Cointegration Methods: Results from a Large Scale Simulation Study. Econometric Reviews, *29*, No. 2, pp. 182 – 223.

VEIGA, F. – VEIGA, L. (2004): Political Business Cycles at the Municipal Level. [ERSA Conference Papers, ersa04p427.] Louvain-la-Neuve: European Regional Science Association.

WÄLTI, S. (2012): Trust No More? The Impact of the Crisis on Citizens' Trust in Central Banks. Journal of International Money and Finance*, 31*, No. 3, pp. 593 – 605.
DOI:10.1016/j.jimonfin.2011.11.012.

WELSH, H. A. (1994): Political Transition Processes in Central and Eastern Europe. Comparative Politics, *26*, No. 4, pp. 379 – 394.