How Does Quality of Government Affect Youth Unemployment?

Comparing the Former Communist Countries to the European Union Member States

By

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Abstract

In this thesis, I empirically investigate, analyse and explain the different Quality of Government the former communist countries in Europe and Asia have developed, compare them to the developed Western European countries and explore how these differences in Quality of Government affect some of their economic performances, namely youth unemployment. I based my analysis on a panel data for 45 countries in the period between 1996 and 2014. To explain variation in youth unemployment I employ the Quality of Government Index that incorporates the quantitative indicators of the Worldwide Governance Indicators for (i) control of corruption, (ii) rule of law, (iii) government effectiveness, and (iv) government voice and accountability. The research conducted in this paper uses three regression equations: i) regression with one regressor, ii) regression with a dummy variable, and iii) regression with an interaction term. To show that my results are robust, I control for important, potentially omitted variables such as GDP per capita and government size, and I use controls for time and entry fixed effects. I find that the former communist countries have developed worse Quality of Government than the European Union Member states that were never ruled by a communist regime. However, the Quality of Government of the former communist countries is improving steadily through the period of interest, while for the European Union Member states the Quality of Government is either stagnating or worsening. Based on within-sample predictions, my results imply that the former communist countries should expect slight increase in their youth unemployment as they improve their Quality of Government, in comparison to the European Union countries, which were not communist, should expect strong decrease in their youth unemployment. However, the former communist countries that are today part of the European Union are closer in their performance to their EU counterparts than to the other former communist countries, and their youth unemployment would further converge if they continue improving their Quality of Government.

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Introduction

After the fall of the Berlin Wall, large number of countries in Central and East Europe as well as Central Asia embarked on a path of political and economic transformation. A quarter of a century later, most of these countries have established functioning governments that faced numerous challenges and developed different systems of governing during this period. While most of the former Soviet satellite states in Europe have developed strong economic systems and democratic values, many of the Western Balkan and Eastern European states have developed hybrid political and economic systems and some of the former communist countries in Central Asia are still dictatorships. Each of these countries would claim to have a good government, but when compared to each other through their current and past transitional experiences, their Quality of Government differs.

The purpose of this thesis is to analyse and explain the different Quality of Government that these countries have developed, compare them to the developed Western European countries and explore how these differences in Quality of Government affect youth unemployment. This paper challenges the notion that Quality of Government should only be judged by the democracy level in a country. I expect that the investigation of mechanisms that could account for the differences I find in the relation between Quality of Government and youth unemployment is an important area for future research that is motivated by the results in this paper.

In regards to the first part of the thesis in this paper, the research aims to utilize and plot a Quality of Government indicator based on specific political institutions outside of the scope of what broadly is understood to be democratic. By using the Quality of Government Index based on

indicators about corruption, government effectiveness, rule of law and voice and accountability of government, the research first presents and analyses different outcomes of the transition of the former communist countries towards more democratic political and more capitalistic economic societies in the last 20 years. The purpose of this analysis and demonstration would be to explore if the former communist countries have progressed in the development of their political and economic systems since their first years of painful and often violent transitions in the early 1990s. Consequently, this exploration will aid my attempt to analyse the second and third components of the thesis set in this paper.

Second, the reason behind comparing the Quality of Governments in the former communist countries and the European Union (EU) Member states that were never communist would serve as a point of acknowledgement of the different situations in which these two sets of countries found themselves in the last 20 year. This is very important, considering that the former communist countries are expected to achieve Quality of Government close to what the EU member states have achieved in order for them to have prosperous political and economic future.

Most of the literature (Rothstein and Teorell 2008, Charron, Lapuente and Rothstein 2010) that focuses on the importance of good Quality of Government for good political and economic development of a country, bases it research on countries such as the EU member states. The last goal of this research is to use the findings in the numerous researches (La Porta Rafael et al. 1999, Charron, Lapuente and Rothstein 2010) made on this topic and test them on states that are often not as developed politically and economically as the EU states. Consequently, I analyse if

improving the Quality of Government would bring about as good political and economic results in the former communist countries as in the EU countries. More specifically, I am testing the extent to which the relationship between Quality of Government and youth unemployment depends on super-national institutional context, such as EU-membership.

I based my analysis on a panel data for 45 countries in the period between 1996 and 2014. To explain discrepancy in youth unemployment I use the Quality of Government Index that incorporates the quantitative indicators of the Worldwide Governance Indicators for (i) control of corruption, (ii) rule of law, (iii) government effectiveness, and (iv) government voice and accountability. The research conducted in this paper uses three regression equations: i) regression with one regressor, ii) regression with a dummy (binary) variable, and iii) regression with an interaction term. To show that my results are robust, I control for important potentially omitted variables such as GDP per capita and government size, and I use controls for time and entry fixed effects. I find that the former communist countries have developed worse Quality of Government than the EU Member states that were never ruled by a communist regime. However, the Quality of Government of the former communist countries is improving steadily through the period of interest, while for the EU Member states the Quality of Government is either stagnating or worsening. Based on within-sample predictions, my results imply that the former communist countries should expect slight increase in their youth unemployment as they improve their Quality of Government, in comparison to the European Union countries, which were not communist, should expect strong decrease in their youth unemployment. However, the former communist countries that are today part of the European Union are closer in their performance to their EU

counterparts than to the other former communist countries, and their youth unemployment would further converge if they continue improving their Quality of Government. I am hoping that these results would contribute to the literature focused on understanding the effect of Quality of Government on certain economic developments around the world.

I. Literature Review

Why Compare Quality of Government in the European Union Countries and the Former Communist Transition Economies?

The collapse of countries such as Yugoslavia, the Soviet Union and Czechoslovakia in the early 1990a, gave birth to 28 new countries that faced transition to the new world society. Developed Western countries, led by the European Union and the United States of America, suggested various ways for integration of these countries in the new global order. The idea behind most of them was that democratization and economic liberalisation of the markets in the post-communist countries would strengthen their economies and provide their people with the freedoms and living standards they deemed appropriate. Many scholars since then have written on how the efforts for achieving best governance in the transition countries, similar to the governance of the Western developed countries, have performed.

Gerard Roland (2001) in his paper *Ten Years After . . . Transition and Economics*, compared the successes of the Washington Consensus view and the evolutionary-institutionalist perspective as economic means to achieve good governance. Both of these perspectives were pioneers in the sphere of adapting the former communist countries to the new way of life. However, even though Roland (2001) thought that the evolutionary-institutionalist perspective might have been the better approach to achieving good economic governance, he claimed in his paper that good economic governance does not always mean prosperity and success. His argument was that "successful institutions of capitalism are already present in advanced economies, and we tend to

take them for granted when reasoning on economies in transition or on developing economies where such institutions are absent. If anything, the experience of transition shows that policies of liberalization, stabilization, and privatization that are not grounded in adequate institutions may not deliver successful outcomes (Roland 2001, p. xix)." Taking this into account, Roland (2001, p. xix) argued that "much of this change of focus toward the institutionalist perspective already had been taking place with the development of contract theory, political economy, law and economics, regulation theory, corporate finance, and other areas in applied economic theory." Roland's (2001) discussion about the successes and failures of the economic integration of the former communist countries in the new world society was a necessary but insufficient step forward. What he also acknowledges is that good economic governance is not the only process that matters when we want to analyse the governance capabilities of the newly formed transition economies.

The Copenhagen Criteria was another method to bring many of the former communist countries into the new global system. By demanding from them to satisfy these Criteria, they were expected to achieve good political and economic governance as well as to attain the right to join the prosperous European Union (EU). The European Union, as an immediate neighbour to the majority of these countries was supposed to be an example of how good the economic and political systems in these countries can become if they follow the path of the EU Member states. Tanja Marktler (2006) in her academic piece *The Power of the Copenhagen Criteria* talks about the benefits of these Criteria for the countries that were to follow it. However, these Criteria were also a method used by the developed Western countries to assimilate the former communist countries

in the "their" new world order with the "best and proven" Western principles. Dimitry Kochenov (2008) in *EU Enlargement and the Failure of Conditionality* is wary of the successes of the Copenhagen Criteria, how it is been used and measured and to what purpose. Both Marktler and Kochenov point to why the former communist countries should be similar to the EU countries in their economic and political development and aspirations and different from the USA, based on the common idea of a strong social and political state, but also how they might struggle to create that type of government. A weakness of these studies is that they do not have a precise measure of what a good government would aspire to improve.

Analyses of narrower topics related to way of governing in the former communist countries were also used to advance their economic, social and political development. Persson, Roland and Tabellini (1997) argue that the need for separation of power in the transition countries as well as the creation of check and balance systems are needed for achieving overarching development. Robert Nowak (2001), on the other side, tried to make the connection between the culture of corruption in the former communist countries and the lack of development. Many others, including Marktler (2006) and Kochenov (2008), argue that things such as rule of law mechanism, government effectiveness and political stabilities are what would make the former communist countries better off in the new system.

The aforementioned authors proposed a way of how the transition economies in the former communist countries should develop their economic and political systems, and some of them provided an evidence of how well these proposals have appeared to be. However, almost none of

them employ explicit quantitative indicators for measuring the Quality of Government in these countries as well as in the EU countries. Without such indicators, it is difficult to make an explicit comparison between the two, quantify the advantages and disadvantages of the EU type of development, and analyse to what extent that development is applicable and useful for the former communist countries. This paper utilizes quantitative indicators for measuring the Quality of Government both in the EU and in the transition economies, it will present how they compare and what does that mean for the youth unemployment rates in all of these countries.

Quality of Government

According to the World Bank, governance is "the traditions and institutions by which authority in a country is exercised. This includes: (1) the process by which governments are selected, monitored, and replaced, (2) the capacity of the government to effectively formulate and implement sound policies, and (3) the respect of citizens and the state for the institutions that govern economic and social interactions among them" (Charron, Lapuente and Rothstein 2010, p. 9). Even though this seems to be a good definition, it does not present any way to measure its indicators through one common index and governments could easily misinterpret it for the purposes of presenting good results. Furthermore, the definition talks about good governance but not what a good government is, thus making it unappealing for my study.

Rafael La Porta (1999, p. 222) and his colleagues in their paper on Quality of Government simplified this definition to a measure for 'good-for-economic-development' government attempting to "investigate empirically the determinants of the Quality of Governments in a large

cross-section of countries". As measures to analyse government performance, they use data on government intervention, public sector efficiency, public good provision, size of government, and political freedom. Each of these measures has distinguishing variables. For example, the variables for public sector efficiency are corruption, bureaucratic delays and tax compliance, while for size of public sector they use transfer of subsidies as a variable among few others (La Porta Rafael et al. 1999). To evaluate the ability of the different theories to explain the variation in government performance across countries they find (reasonably) exogenous sources of variation in the economic, political, and cultural characteristics of these countries. Their determinants, such as legal origin of a country, religion and other, are expressed clearly. For the purposes of their paper, the authors used regression analysis to explain variation in Quality of Government. Their results show "that countries that are poor, close to the equator, ethnolinguistically heterogeneous, use French or socialist laws, or have high proportions of Catholics or Muslims exhibit inferior government performance" (La Porta Rafael et al. 1999, p. 222). They also find that "the larger governments tend to be the better performing ones" (La Porta et al. 1999, p. 222).

The analysis and explanations in this paper are satisfying considering their extensive and detailed analysis of every result that was achieved throughout their process. Nonetheless, their measure seems to be very indirect and predominantly focused on economic policies and political freedom. The lack of a common indicator or index for measurement that combines all of their separate indicators is another problem. Without a common indicator, their measure only partially gives us an idea of what is important for developing a good Quality of Government considering that we do not know how strong should be the focus on one indicator in comparison to another

when we aim at creating policies for improvement of the Quality of Government. More importantly, La Porta and his colleagues conducted only a cross-country research without a panel data, thus their results only apply to the year the research focused on. Finally, my paper, rather than focusing on explaining Quality of Government, focuses on how Quality of Government affects a cyclical economic outcome – youth unemployment.

Drawing from the lessons learned by La Porta and his co-authors, Bo Rothstein and Jan Teorell (2008) instead of "good governance" use the term "Quality of Government." According to them, Quality of Government is "linked to the concept of impartial government institutions – that is, when public officials who implement policies do not take anything about the citizen/case into consideration that is not beforehand stipulated in the policy or the law" (Charron, Lapuente and Rothstein 2010, p. 9). Rothstein and Teorell (2008) make sure to specify that Quality of Government does not equal only democracy, but also impartiality in the exercise of the power acquired through certain democratic means. Rothstein and Teorell (2008, p. 2) theorise that "this impartiality principle may be successfully linked to a theory explaining both economic and non-economic consequences of the Quality of Government."

In their paper *Measuring Quality of Government and Sub-National Variation*, Charron Nicholas and his colleges (2010) use the Rothstein and Teorell definition of Quality of Government to discuss the possible quantification mechanisms for analysing it. They do that in order to analyse the Quality of Governments of the countries in the European Union. For them good government could be judged by the levels of corruption, the strength of rule of law, the

bureaucratic effectiveness, and government voice and accountability. They use various methods to derive their results: from pursuing surveys to reviewing statistical sources and using different quantitative methods for finding correlations. Charron, Lapuente and Rothstein (2010) definitions of what good government means and how to measure Quality of Government by a common Index of Quality of Government, as well as their methods for acquiring visible results and projections of correlations between Quality of Government and certain economic, political, social and environmental issues, make their approach the most appealing. This research, however, examines only EU cross-country data for the year 2008. Therefore, I use their findings and some of their ways of analysing and explaining Quality of Government in my study, but I extend my research to the former communist countries in Eastern Europe and Central Asia, and for the period between 1996 and 2014.

Youth Unemployment and Policy Implications

Corruption, government effectiveness, rule of law, and government voice and accountability indeed play a role in affecting youth unemployment as Charron, Lapuente and Rothstein (2010) expected. C.G.E. Salami (2013) in his paper on the youth unemployment in Nigeria argues that corruption and government effectiveness discourage foreign direct investment (FDI) because of the added cost to doing business. Djankov and Ramalho (2009, p. 7), in addition, claim that "labour regulation have no effect in countries with weak rule of law". If the labour regulations are not effective often the government effectiveness suppress, the corruption increases but most importantly, for the purpose of this paper, the youth unemployment problems could not

be tackled. Diane LuTran (2014) in her article The Importance of Good Governments for Youth Employment argues that government are essential in addressing youth unemployment as they provide the "enabling environment'" for youth to thrive. If government is ineffective in enabling such an environment it should be held accountable, but if that does not happen youth unemployment could suffer.

Peace Child International (2015), an organisation that works on empowering young people, claims that youth unemployment appears due to financial crisis, skills mismatch, lack of entrepreneurship and life-skills education, lack of access to capital and because of a digital divide aka disproportionate access to technology and internet worldwide. This in return can cause lack of qualifications, geographical unemployment in certain areas, cyclical unemployment based on discrimination and underground economy. The countries in the EU and the former communist countries are certainly not exceptions to these problems.

James Roaf, Ruben Atoyan, Bikas Joshi and Krzysztof Krogulski (2014) released an IMF report on the *25 Years of Transition Post-Communist Europe and IMF* in which they analyse many economic issues within these countries among which one is an analysis of unemployment. According to them (2014, p. 25), "the transition from central planning to market-based economies was accompanied by severe effects on employment". Cost rigidities, generous social assistance programs, strength of unions, dramatic emigration and diminishing of human capital are according to this report the main direct drivers of youth unemployment in the former communist countries. Consequently, in many of these countries there was a lack of vibrant private sector, weak

international competitiveness, lack of smaller firms to fuel job creation and high risks for foreign investors due to the strengthen of the overall competitiveness of the economy. This, however, is truer about the former communist countries that are not in the EU in comparison with the Baltic and the Central European former communist countries that are part of the EU today. All of these economic and political determinants are captured in Quality of Government index. Therefore, I will investigate these observations more rigorously in this paper.

In his paper, *Youth Labour Markets in Europe and Central Asia*, Niall O'Higgins (2010) claims that youth populations and youth emigration are causes that could affect youth unemployment in Europe and Central Asia. He also argues that Europe and Central Asia have highly educated and qualified young people whose strengths can be lost due to the problems of youth unemployment in these regions. The International Labour Organisation (ILO) in their 2015 report agrees with O'Higgins findings. The education results in Europe and Central Asia are strong, but stagnation in job creation results in missed opportunities. Such a misallocation of productive economic resources has large implications for macro-economic potential of these countries. Furthermore, both O'Higgins (2010) and the ILO (2015) concur that especially in Eastern Europe, the Caucasus Region and Central Asia the youth labour market is affected by gender issues.

Eichhorst Werner, Hinte Holger and Rinne Ulf (2013) claim that rigid labour markets, the impacts of recession and tight national budgets are the most significant causes for youth unemployment in Europe. In addition, Giuseppe Bertola and Pietro Garibaldi (2003) in their paper

focused on Italy, claim that the causes for youth unemployment in Europe are the interactions of macroeconomic events and institutional configurations. Vena Nedeljkovic (2014) in her paper *Consequences Of High Youth Unemployment* focused on the European Union countries, argues that there are many economic and social effects of youth unemployment. Early unemployment has a negative effect on the future employability of young people and on young people's self-esteem. It can increase the risk of poverty, deskilling and social exclusion, loss of motivation and mental health problems. Finally, high youth unemployment has a negative effect on economic growth and productivity.

To contribute to the debate, with this paper I aim to explain youth unemployment using quantitative Quality of Government indicators. This analysis is extended to include former communist transition economies, thus making it different from papers on this topic that focus primarily on the EU and Organisation for Economic Co-operation and Development (OECD) countries. Finally, my paper investigates how the relation between Quality of Government and youth unemployment depends on supra-national institutional context in order to presents us with an opportunity to explain the variety in Quality of Government and its effects on youth unemployment.

II. Data Description and Methodology

Data Description and Analysis

The data for the Quality of Government indicators mentioned above come from the World Bank Worldwide Governance Indicators (WGI) as used by Charron, Lapuente and Rothstein (2010). They "are a research dataset summarizing the views on the quality of governance provided by a large number of enterprise, citizen and expert survey respondents in industrial and developing countries (World Bank Data 2016)" and it is available for the period between 1996 and 2014. The data is "gathered from a number of survey institutes, think tanks, non-governmental organisations, international organisations, and private sector firms (World Bank Data 2016)." Even though in the database there are six indicators, I am using only the WGIs for (i) control of corruption, (ii) rule of law, (iii) government effectiveness, and (iv) government voice and accountability. The estimates give the country's score on the aggregate indicator, in units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5 for all of my four indicators. Drawing from this, Charron, Lapuente and Rothstein (2010) create the Quality of Government Index by placing a weight of 0.27 for both, government effectiveness and corruption coefficient, 0.26 for voice and accountability of government, and 0.20 for rule of law, weights that I use in my research as well.

This research uses a cross-country panel data for 45 countries for the period between 1996 and 2014. As presented below, seventeen are former communist countries that are not in the European Union, eleven are former communist countries that are today in the European Union and

the last seventeen countries are European Union countries that have never been ruled by a communist regime.

Countries of Interest

Former Communist / Non-EU Countries	Former Communist / EU Countries	EU Countries
Albania	Bulgaria	Austria
Armenia	Croatia	Belgium
Azerbaijan	Czech Republic	Cyprus
Belarus	Estonia	Denmark
Bosnia and Herzegovina	Hungary	Finland
Georgia	Latvia	France
Kazakhstan	Lithuania	Germany
Kyrgyz Republic	Poland	Greece
Macedonia	Romania	Ireland
Moldova	Slovak Republic	Italy
Montenegro	Slovenia	Luxembourg
Russian Federation		Malta
Serbia		Netherlands
Tajikistan		Portugal
Turkmenistan		Spain
Ukraine		Sweden
Uzbekistan		United Kingdom

I chose this period according to the full availability of data for each of my variables in regards to each country of my interest. In regards to the Quality of Government indicators, data was not available for the years 1997, 1999 and 2001 because the World Bank was realising biannual scores for all countries in the period between 1996 and 2002. Nonetheless, I used the Quality of Government score calculated for the years following 1997, 1999 and 2001 with reasoning that the biannual scores represented the situation in the countries of interests for both the year of release and the year prior to that.

In regards to youth unemployment, I use the "*Unemployment, youth total (% of total labour force ages 15-24) according to modelled ILO estimate*" from the World Development Indicators (WDI) by the World Bank. "The WDI publication is a collection of time-series data for 214 economies, with many indicators going back more than 50 years (World Bank Data 2016)." The WDI data that I use is for the period between 1996 and 2014, and it "provides cross-country comparable statistics about development and people's lives around the globe (World Bank Data 2016)."

The research also uses the World Development Indicators (WDI) by the World Bank on *GDP per capita (current US$)* and *General government final consumption expenditure (% of GDP),* which for the purposes of the research will serve as important control variables. GDP per capita represents the gross domestic product divided by midyear population for a country. This indicator is an obvious omitted variable for this research considering that I expect it to have a significant influence on the youth unemployment in my countries of interest. Usually, but not

necessarily, larger GDP per capita means smaller youth unemployment. General government final consumption expenditure indicator includes all government current expenditures for purchases of goods and services as well as most of the government expenditures on national defence and security. This indicator, used often as a variable indicating government size, could be an important omitted variable following the finding of La Porta and his colleagues (1999) discussed before where they specify that the size of the government has significant impact on both Quality of Government and economic factors in a country.

The descriptive statistics in Table 1 below shows that all the countries of interest combined have an average Quality of Government Index of 0.416 with a very high standard deviation of 1.041 that shows that they are very diverse. Their average youth unemployment is 22.6% but it also has a high standard deviation of 12.5. When you compare the former communist countries (including the ones in the EU) and the EU countries (including the former communist EU countries), one can see that former communist countries have lower Quality of Government mean and higher youth unemployment in comparison with the EU countries. The comparison is much more striking when you compare the former communist non-EU countries with Quality of Government mean of -0.732 and high youth unemployment of 26.9% with the EU countries excluding the former communist countries with Quality of Government mean of 1.5 and lower youth unemployment of 17.8%. It seems that the former communist EU countries are improving the Quality of Government Index mean and youth unemployment for the former and worsening it for the latter considering their Quality of Government mean of 0.5 and lower youth unemployment of 23.3%. This descriptive statistic gives us a hint that if there is a possible correlation between

Quality of Government and youth unemployment, that correlation will be a negative correlation in which high Quality of Government contributes to the lower youth unemployment. However, we do not know if that is a linear or nonlinear relationship between the two through a longer period. This research aims at discovering if there is correlation and how that correlation looks if it were to be present.

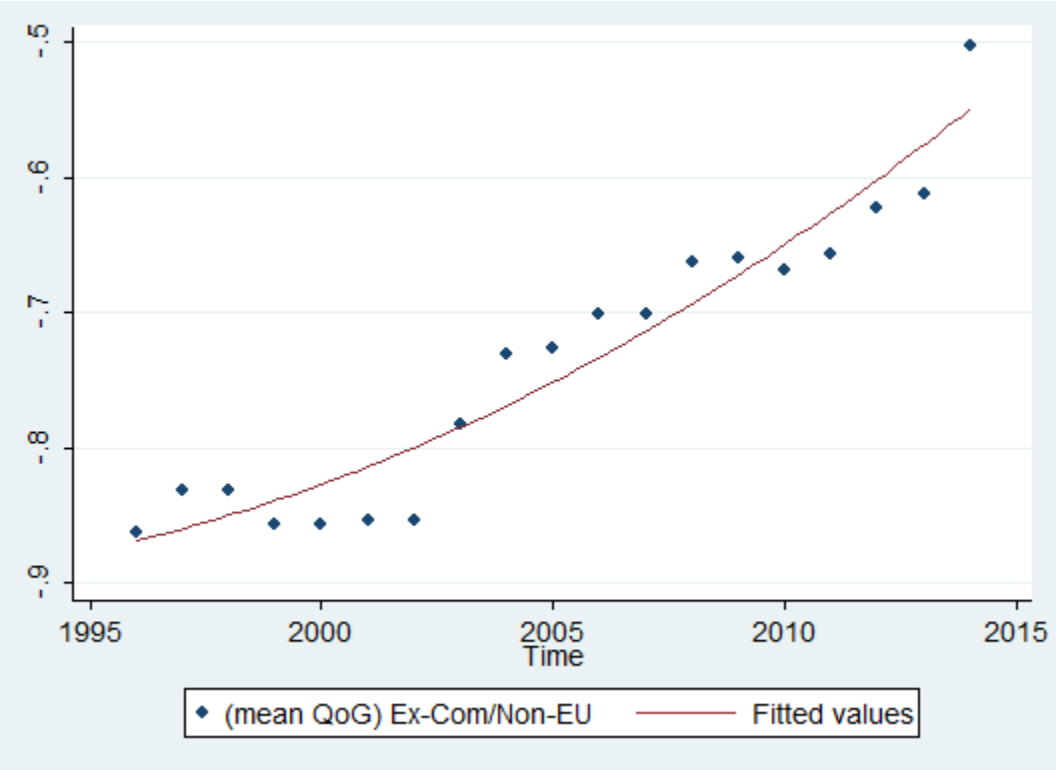
Table 1. Descriptive Statistics of Data

Descriptive Statistics						
	All Countries	Former Communist	EU 28	Former Communist/ Non EU	Former Communist/ EU	EU17
	(1)	(2)	(3)	(4)	(5)	(6)
Control of Corruption Estimate	.359 (1.119)	-.352 (.638)	1.027 (.849)	-.758 (.378)	.266 (.419)	1.519 (.675)
Government Effectiveness Estimate	.493 (1.025)	-.134 (.720)	1.148 (.644)	-.608 (.432)	.582 (.407)	1.514 (.485)
Rule of Law Estimate	.386 (1.064)	-.270 (.757)	1.086 (.634)	-.783 (.403)	.510 (.430)	1.459 (.433)
Voice and Accountability Estimate	.431 (1.027)	-.115 (.935)	1.121 (.358)	-.713 (.699)	.801 (.276)	1.328 (.231)
QoG Index	**.416 (1.041)**	**-.231 (.733)**	**1.096 (.614)**	**-.732 (.417)**	**.525 (.362)**	**1.466 (.435)**
Unemployment, Youth Total (% of total labor force age 15-24) (modeled ILO estimate)	**22.594 (12.501)**	**25.469 (12.986)**	**19.999 (9.718)**	**26.869 (15.143)**	**23.307 (8.234)**	**17.859 (10.012)**
Observations	855	532	532	323	209	323
Countries	45	28	28	17	11	17

The raw means across groups, however, are not sufficient, as there is a lot of variation over time that is more interesting. Therefore, I plotted three time series graphs that take the sub-sample

averages for the Quality of Government index. In Figure 1, I present the plot of the time series that take the sub-sample averages for the Quality of Government index for the former communist non-EU countries. As it can be noticed, the plot in Figure 1 shows that the former communist non-EU countries are in average progressing in their Quality of Government. Nonetheless, their yearly averages are much lower in comparison to the ones of the former communist countries in the EU and the EU countries, as shown in Figures 2 and 3.

Figure 1



In Figure 2, I presented the plot of the time series that take the sub-sample averages for the Quality of Government index for the former communist countries in the EU. These countries also see a certain average progress in their Quality of Government through the years.

Nonetheless, they already had better yearly averages in regards to Quality of Government than the former communist non-EU countries, as shown in Figure 1, and fairly lower than the countries in the EU who never had a communist regime, as shown in Figure 3.

Figure 2

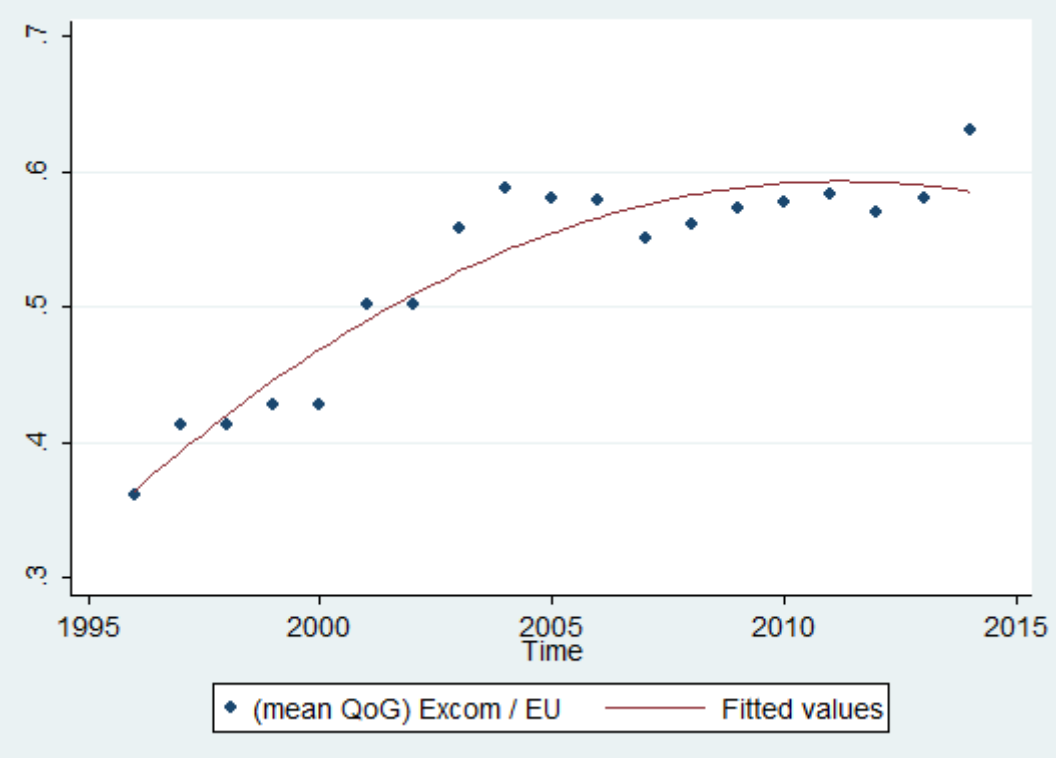
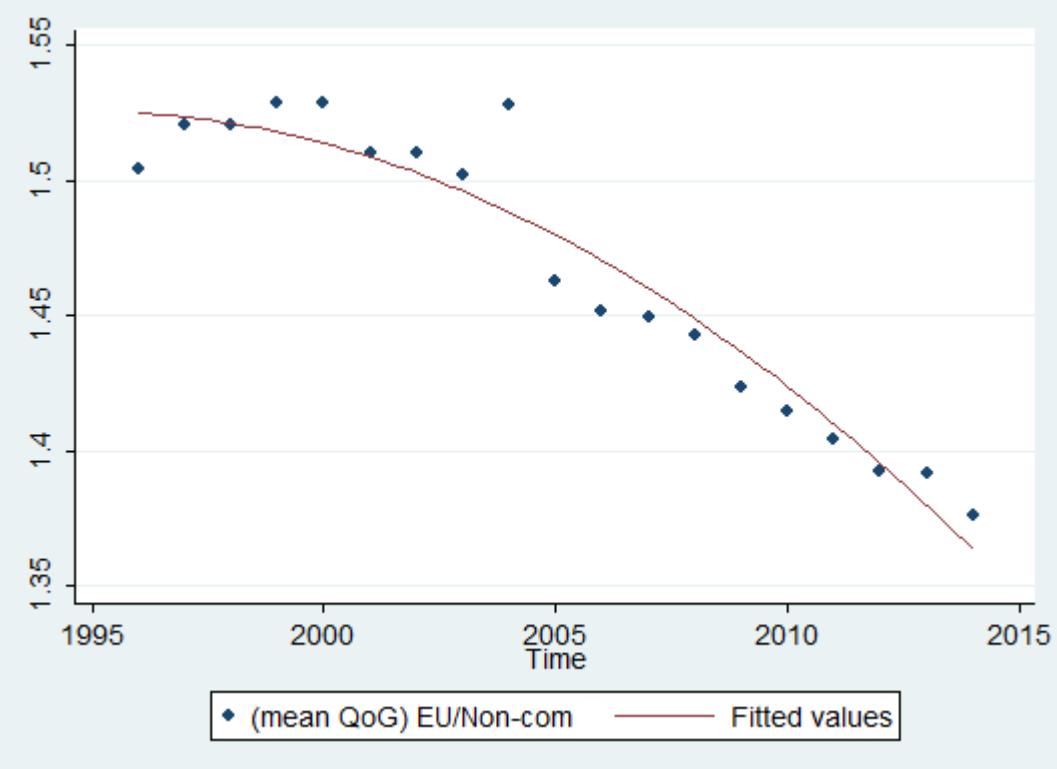


Figure 3, shows that the European Union countries have the highest Quality of Government yearly averages. This set of countries, however, is the only one in which the Quality of Government has declined through the years. That said, the European Union countries that have never been communist have had the best Quality of Government in the period between 1996 and 2014 when compared to the former communist countries in the EU and the former

communist countries that have never been EU members, which come second and third in their Quality of Government respectively.

Figure 3



Methodology

For the purpose of the research I decided to use Ordinary least squares (OLS) regression, entity fixed effects regression, time fixed effects regression and the combination of entity and time fixed effects regression. The majority of the researches produced on this topic (La Porta Rafael et al. 1999, Charron, Lapuente and Rothstein 2010) use only cross-section OLS regression to achieve satisfying results. Nonetheless, in this research I explore (i) if there are omitted variables (OVs)

that are constant over time but vary across states (cultural norms) for which purpose I used entity fixed effects; or (ii) if there are OVs that are constant across states but vary over time (2008 international financial crisis) for which I have the time fixed effects regressions. In all cases, my Quality of Government index is a lagged value because I expect it to have an influence on the future more than on current or past youth unemployment in the overall. Below are two examples of the formulas through which I explore the possibility for correlation between Quality of Government and youth unemployment through my three regression equations. In this examples, Y_{it} represents the youth unemployment percentage of a country i in period t, while X_{it-1} is the lagged value of the Quality of Government Index. Z_i is the dummy variable excom, X_{it-1} Z_i is the interaction term, α_i represents the control for entity fixed effects, λ_t represents the control for time fixed effects, and u_{it} is the error term.

The research conducted in this paper uses three regression equations to predict the correlation between youth unemployment as a dependent variable and Quality of Government as an independent variable. First, I used a single regressor equation that is most prominent in this type of researches where Y_{it} represents the dependent variable and X_{it-1} represents the independent variable. All specifications also control for GDP per capita and government size. As mentioned before GDP per capita is an omitted variable for this research considering that I expect it to have a significant influence on the youth unemployment in my countries of interest, and I also expect that size of the government has a significant impact on both Quality of Government and economic factors in a country.

$$\mathbf{Y_{it} = \beta_0 + \beta_1 X_{it-1} + \alpha_i + \lambda_t + u_{it}} \rightarrow \textbf{Simple regression equation}$$

In the case of the single regressor equation, I am trying to explain how Quality of Government directly correlates with youth unemployment for all the countries. Second, I introduce a dummy variable to the simple single regressor equation. In regression analysis, a dummy variable is one that takes the value 0 or 1 to indicate the absence or presence of some categorical effect that may be expected to shift the outcome. In my case, the dummy variable excom (or represented by Z_i in the equation) is the qualitative variable relevant to a regression. In it, excom is 1 if the country was ever a communist country (meaning the former communist countries that are both not an EU member and the ones that are) and 0 for the countries that have never been under communist regime in the past. I am using this regression equation because I expect that the dependent variables are influenced not only by quantitative variables (Quality of Government), but also by qualitative variable (excom). Then the intercept in my case would be the constant term for EU countries, but would be the constant term plus the coefficient of the dummy in the case of former communist countries.

$$\mathbf{Y_{it} = \beta_0 + \beta_1 X_{it-1} + \beta_2 Z_i + \alpha_i + \lambda_t + u_{it}} \rightarrow \textbf{Equation with a dummy variable}$$

Third, I add an interaction term between the independent variable and the dummy variable. This is useful for my research because I wanted to test the hypothesis that the relationship between the Quality of Government country score and the youth unemployment was different for former communist countries and countries that have never been communist. The thinking behind this research is that one possibility is that in the former communist countries case, countries with higher

Quality of Government score tend to have higher youth unemployment, whereas in the EU countries that have never been communist case, countries with higher Quality of Government score tend to have lower youth unemployment. Another possibility is that countries with higher Quality of Government score tend to have lower youth unemployment in both cases, but that the relationship is much more dramatic for EU non-communist countries than for the former communist countries. When there was no interaction term, β_1 is interpreted as the unique effect of Quality of Government score on youth unemployment. However, the interaction estimates the extent to which the effect of Quality of Government score on youth unemployment is different for different set of countries (former communist vs EU non-communist countries).

$$\mathbf{Y_{it} = \beta_0 + \beta_1 X_{it-1} + \beta_2 Z_i + \beta_3 X_{it-1} Z_i + \alpha_i + \lambda_t + u_{it}}$$ **→ Equation with an interaction term**

III. Results

I performed this research in four stages. In the first stage, as presented in Table 2 below, I performed six pooled OLS regressions to see if there is a significant correlation for the 45 countries between Quality of Government and youth unemployment. Columns (1) and (2) in Table 2 show that there is a linear negative correlation between Quality of Government and youth unemployment in which for 1 unit increase in Quality of Government, youth unemployment would drop and that correlation is significant at the 99% level. Column (3) shows the OLS regression with a dummy variable. This regression also tells us there is a linear negative correlation between Quality of Government and youth unemployment in which for 1 unit increase in Quality of Government, youth unemployment would drop and that correlation is also significant at the 99% level. Nonetheless, this regression also tells us that the youth unemployment in the former communist countries is much higher than in the case of the EU non-communist countries. The difference in Quality of Government between the two sets of countries shows that the former communist countries have still not reached Quality of Government of the European Union countries for the period of interest.

Adding the interaction term in column (4) changed the values of β_1 and β_3 substantially. The effect of Quality of Government on youth unemployment in this case is now -14.508 +14.903*excom. For countries in the EU who were never communist, excom = 0, so the effect of Quality of Government is -14.508 + 14.903*0= -14.508. So for the EU countries that were never communist, a country with 1 unit increase in Quality of Government would be expected to reduce the youth unemployment for 14.5%. For the former communist countries, however, the effect of

Quality of Government is -14.508 + 14.903*1 = 0.395. So for the former communist countries, a country with 1 unit increase in Quality of Government would be expected to increase the youth unemployment for 0.4%. The regression with the interaction term in this case shows that the correlation between Quality of Government and youth unemployment depends on the subset in which the countries belong. If a country was previously controlled by a communist regime, it should expect a small increase of youth unemployment for every improvement of quality of government. If a country is in the EU, but was never communist, it should expect large reduction of the youth unemployment whenever it improves its Quality of Government based on the four indicators specified before. The large negative correlation between youth unemployment and Quality of Government for the EU countries made the sum of both subsets of countries to have also negative correlation, which is significant, between the two indicators.

These results inspired the regressions completed in columns (5) and (6), where I repeated the regressions from columns (3) and (4) respectively, but in this case only for the countries that were ever in the EU. In other words, columns (5) and (6) analyse the relationship between the EU former communist countries and the EU non-communist countries. I performed this analysis to see if actually being part of the EU means that the country should expect to have smaller youth unemployment whenever it improves its Quality of Government. Column (5) shows the pooled OLS regression with a dummy variable that tells us that there is a strong linear negative correlation between Quality of Government and youth unemployment in which for 1 unit increase in Quality of Government, youth unemployment would drop and that correlation is significant at the 99% level. This regression also tells us that the youth unemployment in the former communist countries

in the EU is lower than in the case of the EU non-communist countries. With the interaction term in column (6) the effect of Quality of Government on youth unemployment in this case is now -16.593 +7.541*excom. For countries in the EU who were never communist, excom = 0, so the effect of Quality of Government is -16.593 +7.541*0= -16.593. For the former communist countries in the EU, the effect of Quality of Government is -16.593 +7.541*1 = -9.052. In this case, for the former communist countries in the EU, a country with 1 unit increase in Quality of Government would be expected to decrease the youth unemployment for 9.1%.

These results show that if a country is in the EU it should expect to have lower youth unemployment when it improves its Quality of Government regardless if it was ever a former communist country or not. This means that the institutional context in which a country finds itself matters. One interpretation for this could be that the fulfilment of the Copenhagen Criteria, that is necessary for a country to become a part of the EU, sets the countries on a trajectory of success when related to our variables of interest. Only with good anti-corruption measures, high government effectiveness, rule of law and government accountability, they should expect to improve their economic performance in the area of reducing youth unemployment. Another interpretation of the result could be that due to the economic freedom of movement within the EU of both people and goods, due to the larger stronger growth that this system inspires, and due to the overall size of the European Union economies more job opportunities could arise for every EU citizen. If any of those two interpretations are representative of the true situation, each of the former communist countries that are not already part of the EU should attempt to become part of it or

adopt a system that has similar opportunities for political and economic advances, of its institutions and citizens, as the one in the EU.

However, the pooled OLS regressions should not be taken as a strong indicator of correlation in this case considering that we are analysing cross-country data for the period between 1996 and 2014, thus, OLS does not account for time and entity fixed effects. To examine the robustness of these results I did perform entity fixed effect regression in my second stage of analysis, I controlled for time fixed effects in my third stage, and finalised my research by performing both time and entity foxed effects in the fourth stage of my research.

Table 2

All Countries 1996-2014						
	Total Youth Unemployment					
	OLS (no cont.)	OLS (with cont.)	OLS (dummy)	OLS (interaction)	OLS (EU only)	OLS (EU only)
	(1)	(2)	(3)	(4)	(5)	(6)
QoG_{t-1}	-3.190*** (.407)	-2.234*** (.670)	-1.439** (.763)	-14.508*** (1.667)	-13.897*** (1.030)	-16.593*** (1.219)
Excom			3.301** (1.534)	-12.570*** (2.337)	-5.161*** (1.151)	-11.224*** (1.894)
QoG_{t-1}*Excom				14.903*** (1.709)		7.541*** (1.887)
GDP_PC		-.0001*** (.00003)	-.0001** (.00003)	1.20e-06 (.00004)	.0001** (.00003)	.0001*** (.00003)
Gov_Size		.499*** (.115)	.485*** (.115)	.504*** (.109)	.758*** (.138)	.794*** (.137)
within-R^2	0.0702	0.1046	0.1087	0.1864	0.3371	0.3566
constant	23.775	16.263	13.586	28.979	20.836	23.539
Observations	802	791	791	791	501	501
Countries	45	45	45	45	28	28

Notes: *, **, and *** indicate statistical significance at the 10, 5, and 1 percent levels, respectively.

In the second stage, as mentioned before, I performed entity fixed effects regression. The results for the entity fixed effects regression, shown in Table 3 below, were similar to the results in the OLS regressions. In columns (1) and (2), there is still a significant linear negative correlation between Quality of Government and youth unemployment in which for 1 unit increase in Quality of Government, youth unemployment would be reduced. Columns (3) and (5) in this case do not tell us anything different in comparisons to columns (1) and (2), considering that the excom dummy variable is omitted in all regressions because it is time invariant. The interaction term in column (4) shows that the effect of Quality of Government on youth unemployment in this case is -25.457 +27.854*excom. For countries in the EU who were never communist, excom = 0, so the effect of Quality of Government is -25.457 +27.854*0= -25.457. For the EU countries that were never communist, a country with 1 or more units increase in Quality of Government would be expected to reduce the youth unemployment. For the former communist countries, however, the effect of Quality of Government is -25.457 +27.854*1 = 2.397. So for the former communist countries, a country with 1 unit or more increase in Quality of Government would be expected to increase the youth unemployment. The results in column (6) in this case are similar to the results in column (6) in the OLS regression. For countries in the EU who were never communist, excom = 0, the effect of Quality of Government on youth unemployment is negative. For the former communist countries in the EU, the effect of Quality of Government is also negative though smaller. This confirms that my pooled OLS results were robust for entity fixed effects.

Table 3

All Countries 1996-2014						
	Total Youth Unemployment					
	Entity fixed effects (no cont.)	Entity fixed effects (with cont.)	Entity fixed effects (dummy)	Entity fixed effects (interaction)	Entity fixed effects (EU only)	Entity fixed effects (EU only)
	(1)	(2)	(3)	(4)	(5)	(6)
QoG_{t-1}	-2.608* (1.408)	-2.444* (1.400)	-2.444* (1.399)	-25.457*** (3.370)	-11.055*** (2.475)	-22.971*** (3.652)
Excom			0 (omitted)	0 (omitted)	0 (omitted)	0 (omitted)
QoG_{t-1}*Excom				27.854*** (3.737)		21.161*** (4.842)
GDP_PC		.0001*** (.00003)	.0001*** (.00003)	.00004 (.00003)	.0001*** (.00003)	.00004 (.00003)
Gov_Size		.351 *** (.106)	.351 *** (.106)	.273*** (.103)	.707*** (.220)	.757*** (.217)
within-R^2	0.0045	0.0392	0.0392	0.1062	0.1203	0.1548
constant	23.535	15.165	15.165	31.340	15.943	24.838
Observations	802	791	791	791	501	501
Countries	45	45	45	45	28	28

Notes: *, **, and *** indicate statistical significance at the 10, 5, and 1 percent levels, respectively.

Tables 4 shows the correlation between youth unemployment and Quality of Government for my countries of interest when I control for time fixed effect. Table 5 presents the results of my regressions when I control for both entity and time fixed effects. All the regressions in these two tables, presented under the same numbers in their columns as in the previous two tables, only reiterate the findings. The interaction term estimations from tables 3, 4, and 5 show that the EU countries that were never communist and the former communist countries in the EU have a negative net effect, while the net effect for the former communist countries that were never in the EU is positive. That means that the EU non-communist states tend to have lower youth unemployment for every unit improvement in their Quality of Government. The same is true for

the former communist countries in the EU. Nonetheless, the former communist countries that are not in the EU tend to increase their youth unemployment with every improvement of their Quality of Government. What the results in all tables show is that we should expect very minimal to an insignificant effect of GDP per capita on the reduction of the youth unemployment across all of these states. The results also show that the larger the size of the government is the larger the youth unemployment would be. These outcomes are different from what LaPorta and his colleagues (1999) discovered about other economic indicators. However, if we take into consideration that majority of the countries in this data set do have large governments that take care of the social needs of their citizens, we could expect that increasing the size of the same would make them more bureaucratic, less effective and more complex to be able to govern well.

Table 4

All Countries 1996-2014						
	Total Youth Unemployment					
	Time fixed effects (no cont.)	Time fixed effects (with cont.)	Time fixed effects (dummy)	Time fixed effects (interaction)	Time fixed effects (EU only)	Time fixed effects (EU only)
	(1)	(2)	(3)	(4)	(5)	(6)
QoG_{t-1}	-3.208*** (.405)	-1.094 (.704)	-.783 (.771)	-13.151*** (1.761)	-12.630*** (1.039)	-15.298*** (1.283)
Excom			1.557 (1.563)	-12.183*** (2.327)	-5.535*** (1.102)	-10.540*** (1.808)
QoG_{t-1}*Excom				13.713*** (1.770)		6.461*** (1.864)
GDP_PC		-.0002*** (.00004)	-.0002*** (.00004)	-.00004 (.00004)	7.58e-06 (.00003)	.00004 (.00003)
Gov_Size		.405*** (.114)	.403*** (.115)	.454*** (.111)	.610*** (.135)	.667*** (.135)
within-R^2	0.0794	0.1341	0.1341	0.1958	0.4105	0.4238
constant	23.587	23.513	21.969	32.940	22.578	24.785
Observations	802	791	791	791	501	501
Countries	45	45	45	45	28	28

Notes: *, **, and *** indicate statistical significance at the 10, 5, and 1 percent levels, respectively.

Table 5

All Countries 1996-2014						
	Total Youth Unemployment					
	Fixed effects (no cont.)	Fixed effects (with cont.)	Fixed effects (dummy)	Fixed effects (interaction)	Fixed effects (EU only)	Fixed effects (EU only)
	(1)	(2)	(3)	(4)	(5)	(6)
QoG_{t-1}	-3.548*** (1.348)	-2.945** (1.374)	-2.945** (1.374)	-22.959*** (3.289)	-10.283*** (2.256)	-17.061*** (3.437)
Excom			0 (omitted)	0 (omitted)	0 (omitted)	0 (omitted)
QoG_{t-1}*Excom				24.875*** (3.736)		12.296** (4.726)
GDP_PC		.00007* (.00004)	.00007* (.00004)	.00007* (.00004)	-2.73e-06 (.00005)	.00001 (.00005)
Gov_Size		.268** (.105)	.268** (.105)	.209** (.102)	.419** (.211)	.449** (.210)
within-R^2	0.1377	0.1544	0.1544	0.2032	0.3409	0.3506
constant	23.158	16.842	16.842	30.619	18.220	21.759
Observations	802	791	791	791	501	501
Countries	45	45	45	45	28	28

Notes: *, **, and *** indicate statistical significance at the 10, 5, and 1 percent levels, respectively.

The results from this research show that in the last 20 years, the former communist countries developed below the desired Quality of Government and much lower compared to the Quality of Government in the EU countries. Youth unemployment correlates positively to the Quality of Government in the former communist countries in contrast to the EU countries where the research finds evidence that the Quality of Government is negatively correlated to youth unemployment. However, the countries that were previously communist but joined the EU, either due to their integration in the EU common economic area or due to fulfilling the Copenhagen Criteria that addresses the indicators used in this research, should expect results as the countries in the EU. As mentioned before, this could mean that the integration of these countries in the EU and

the EU Copenhagen Criteria have contributed substantially to how improvements in Quality of Government translate into reductions of youth unemployment levels. It could also be that as the former communist EU countries entered the EU the movement and trade liberalisation that they achieved helped to take some of the load of the youth unemployment because of the migration of the labour from one country to another. The former communist countries do not have yet developed strong economies and do not have as large freedom of movement as the former communist countries in the EU, thus they could not reduce youth unemployment in this way. Finally, one can argue that in the former communist countries, low government efficiency, corruption and weak rule of law allow many young people to work in the "grey" economy and the overcrowded government administrations of these countries, thus not be registered as unemployed. Improvement of those conditions might increase unemployment and that would be happening up to the point where the Quality of Government is good and able to create new legal jobs for the youth and start reducing unemployment among them as in the countries of the EU and some of the former communist countries in the EU. All of those questions could be analysed in continuation to this paper, considering that this research was limited to exploring only the correlation between the two and not on the channels through which this correlation happens.

Conclusion

To conclude, in this thesis I analysed and explained the different Quality of Governments that the former communist countries in Europe and Asia have developed, compared them to the developed Western European countries and explored how these differences in Quality of Government affect some of their economic performances, namely youth unemployment. To explain variation in youth unemployment I used a Quality of Government Index created by combining the Worldwide Governance Indicators for (i) control of corruption, (ii) rule of law, (iii) government effectiveness, and (iv) government voice and accountability. I found that the former communist countries have developed worse Quality of Government than the European Member states that have never been ruled by a communist regime, but the Quality of Government in the former subset of countries is improving steadily through the period of interest, while in the latter subset it is stagnating and in some cases worsening.

Moreover, I determine that the former communist countries, considering the analysis for the period between 1996 and 2014, should expect slight increase in their youth unemployment as they improve their Quality of Government, in comparison to the European Union countries, which were not communist, should expect strong decrease in their youth unemployment. However, the former communist countries that are today part of the European Union are closer in their performance to their EU counterparts than to the other former communist countries, and their youth unemployment would also decrease if they continue improving their Quality of Government. The investigation of mechanisms that could account for the differences I find in the relation between Quality of Government and youth unemployment is an important area for future research that is

motivated by the results in this paper. My expectation is that these results would add to the literature focused on understanding the effect of Quality of Government on certain economic developments around the world.

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