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THE ECONOMIC CONSEQUENCES OF THE YOUTH UNEMPLOYMENT CASE IN EU COUNTRIES: A CRITICAL ANALYSIS[1]

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ABSTRACT:

Unemployment has risen to alarmingly high levels but the scope and magnitude of the youth unemployment is much more depressing than ever in the EU. In the face of recent economic crisis and disturbances, unemployed young people were hardest hit and likely to become the most vulnerable section of the population in many years to come in the EU countries. The recent statistics suggests that youth unemployment rate is twice as much higher than average rate of unemployment in the EU. The recent crisis and accompanying lower economic performance has aggravated the condition of youth unemployment. The impact of youth unemployment has been felt differently in different regions. This problem is much more serious in Southern members of the EU than that of Northern members. In this context, youth unemployment is increasingly becoming a real threat for completion of European Integration process. This work employs data-supported statistical

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analysis to address the causes and consequences of the deep-rooted reality of youth unemployment in EU. The objective is to link structural and cyclical setbacks with the corresponding data and to present insightful interpretation accordingly.

KEYWORDS: *Youth Unemployment, Unemployment Rate, Economic Crisis, Business Cycle, Labour Market Disturbances, Regional Disparities, European Union, European Integration Process.*

JEL CODES: E24, E60, F02

1. INTRODUCTION

The youth unemployment problem is a long standing issue in Europe- permanent rather than temporary- since the major causes are structural and majority of the economies are suffering from lack of appropriate policies in this regard. It is a fact that some bureaucratic and institutional market rigidities creates inefficiencies that in turn facilitate unemployment-in particular youth unemployment- but a real level of protection supported with other labour market instruments and innovations are essential part of social protection can go hand in hand with employment boosting policies. On the contrary; dual system that allows some groups with employment protection coverage while excluding others application of which still continuous in many h ambiguous and precarious working conditions. If unemployed, their chances of employability are reduced. This implication further reverberated unfavourably on wage determination and working conditions.

The mismatch between education, training and qualifications required by existing job vacancies is the main source of structural problems that lie in the heart of youth unemployment. This is of institutional character and has long been established so that fundamental changes as reforming institutional structure can only be delivered efficiently in the long-run.

The initiatives adopted by the governments and EU institutions have mainly focused on the demand side of the youth unemployment dilemma while Supply part of the problem is extensively taken to the back burner for long. First of all, ill-effects of persistent unemployment as a partial result of financial crisis of 2008

have been so severe due to lack of efficient macroeconomic policies delivered at EU and national level. On the other hand; aside from macroeconomic policy making at high level, providing incentives for enterprises to encourage hiring young prospective employers have largely been neglected. Given the size and magnitude of the youth unemployment, such and arbitrary intervention in the labour market appears to be crucial and useful if delivered efficiently. In return for sufficient amount of long-term employment provided for young people, employers can be awarded incentives in the form of "tax returns, deliverance of social security contributions, wage substitutes" by the government. Erosion in the power and size of trade unions in general can have potential impact on the process of employment and other crucial working conditions from macroeconomic point of view in the long-run. Trade union membership, hence union representation for young group of workers has been emerging as very rare practice. The legislations that weakened power and scope of the trade unions are largely to blame for the outcome.

Finally, European Union has opted for highest level of Economic Integration upon the signing and ratifying "EU agreement". Economic and Monetary Union achieved in Europe should be able to trigger automatic mechanisms to deliver re-equilibrium after destabilizing macroeconomic shocks. The mechanisms through which equilibrium can be reinstated are more compact in the face of asymmetric shocks. Optimum Currency Area theory pioneered by Mundell (1961) suggests that unemployment and foregone output can be avoided by triggering the mechanisms of labour mobility as a last resort after exhausting other options. The extent and magnitude of the youth unemployment is extremely high in Southern members of EU where intra-EU migration rate and tendency is very low. The reforms at EU and domestic level to ease off rigidities that slows down mobility appear to be one of the urgent priorities needed to be delivered. Flow of labour from low-employment region to high-employment and high-labour productivity region improves the former's performance on both counts. Young unemployed from Spain, Greece and Portugal can significantly improve the chances of employability through migration, i.e. finding training and job opportunities in Germany where general and youth employment has reached to satisfactory levels, opportunity for high level of vocational training is given.

However, the intensified interest in this sphere of economics is relatively new; even the crisis could not stir enough attention on this issue since the attention was

drawn on the other aspects of the crisis, growth, income reduction; poverty in general and so on. Moreover, youth unemployment rates across Europe have been exacerbated on average ever since the financial crises in 2008 had hit the economies globally. Its recognition is more overwhelmingly than ever in European circles as it is eventually identified as a precarious factor stands in the way of European prosperity and future of deeper integration.

Employment Protection legislations are quoted as mainstream source of labour market rigidities on the ground that it makes dismissing workers very costly for the employers and through numerous channels tend to increase various forms of unemployment. (Lazear (1990), Scarpetta (1996), Siebert (1997), Elmeskov et al. (1998), Blanchard and Wolfers (2000), Saint-Paul (2004) and Nickell et al. (2005) attempted to provide evidence in support of such correlation(Fana,Guarascio and Cirillo, 2015).

Additionally; there exists a significant amount of literature suggesting a linkage of causality between Employment protection Laws and Youth unemployment. Works conducted by Global Institutions (OECD 1994, 2004, 2006; European Commission 2006; World Bank 2007) provide support for labour market liberalization at the expense of employment protection

The recent studies highlight the fact that youth unemployment has increasingly become a serious threat for the most members of the European Union member countries. While unemployment all over the world has been increasing, youth unemployment ratio in EU countries have increased much faster and reaching to the level twice as much of average rate of unemployment- but even much higher in some regions of the European Union. This state of crisis had significant impact on individuals' well-being in the society-especially of those whom have directly been hit by the unemployment condition. Change in job status is a good enough reason to alter young people's economic and social status to be followed by other adverse changes.

2. OBJECTIVES AND RELEVANT LITERATURE

There is not enough empirical research undertaken for the causes of youth unemployment that distinguishes macroeconomic perspective from overall unemployment. This study attempts to highlight the sensitivity of youth

unemployment to the business cycle fluctuations - more bluntly- to the economic activity. Hence; testing the model for a selected group of countries is expected to contribute to the development of the particular literature where in there exist a lack of substantial results for highlight. There is no significant correlation implied by the results of this work.

Why the importance of youth unemployment is becoming more pressing issue, one of the important reasons quoted as follows: "The need for increased labour productivity in response to slowing economic growth and the current financial crisis, which requires higher skills and thus longer periods spent in the education system, thus decreasing youth labour force participation." (Tubadji, 2012). As academic wisdom suggests, it is not the degree of labour participation that have direct impact on the quality and productivity of labour force but the degree of employability of labour force, i.e. level of human capital investment, in return, rate of employment in labour force.

The differential between the unemployment of youth and overall unemployment across the Europe has been widened (Eurostat, 2014).

Increasingly relevant youth unemployment figures alarmed not only nationwide government circles but also urged the EU policymakers to create urgent action plan, such as Youth Guarantee Scheme, among other measures (European Commission, 2012-2013).

The celebrated Okun's law- presented by Arthur Okun -indicate a negative correlation between changes in unemployment rate and growth rate. Gordon (2010) reinterprets Okun's Law by incorporating the productivity concept into the model. *"In Okun's version a one percent decline in output relative to trend is divided up into a reduction of 1/3 point in productivity and 2/3 point in aggregate hours."* (Gordon, 2010, p.11) The employment generation capacity through rise in growth rate has been limited since productivity increase should constitute a threshold to be exceeded if an increase in growth rate has to evoke a reduction in unemployment. Therefore; on theoretical ground, this new approach seems to reduce the actual feasibility or accuracy of the central argument which suggests a more direct and certain correlation between economic performance and unemployment. Yet, the number of research results is the indication to prove aforementioned theoretical regularity. On the other hand; the evidence for

concerning the relationship between economic performance and youth unemployment is not concrete. This work investigates such relationship with cross-country empirical testing with the given data of past 30 years. The test results do not confirm the existence of such a correlation between economic performance and youth unemployment for the group of selected European countries. However, there exist some attempts at bringing some evidence in favour of the case illustrated above. Among others, Scarpetta et. al., (2010); OECD (2006) and European Commission, (2013b) attempted to demonstrate the vulnerability of youth unemployment for the business cycle fluctuations. According to the findings, Banerji, et. al. (2015) suggests the correlation that youth unemployment is much sensitive to growth than that of adult unemployment.

The future impact of youth unemployment on labour market institutions and overall unemployment has been reinvigorated and prompted new initiatives for debate in academic circles. Among others; Ellwood (1982), Gregg and Tominey (2015), Dao and Loungani (2010) focused on the likelihood of future scarring consequences of youth unemployment and expected likewise changes. Societal and institutional level impact has also been investigated. Giuliano and Spilimbergo (2009), ILO (2013), Choudry et al., (2012) are to be mentioned in this regard. The impact of prospective labour mobility of young people in Europe on labour market composition and economic performance has been subject to critical investigation by OECD (2013).

This paper attempts to examine the extent to which degree young people have been affected by this situation and find out the regions or countries that have been hit most severely. First of all, Let us start with the introduction of the concept of youth unemployment in 28 European Union countries. This extent and severity of the situation requires comparative study between countries by assessing data in question and graphical presentations will be supplemented accordingly. In providing statistical data, graphical presentations and assessments about EU 28 countries-the authors aim to account for the precise assessment and understanding of these extraordinary circumstances. Analysis of phenomenon as such will additionally serve for better understanding and assessment of youth unemployment elsewhere around the Globe. Secondly, this paper is going to examine that to what extent and how this situation is likely to affect young peoples' economic behaviour and conditions, such as spending, investment and employment status. Moreover, accordingly, some cases will be overviewed with

the aid of associated data to assess the root-causes of youth unemployment through this section. Finally, the next section sums up the results and concludes.

3. THE CASE OF YOUTH UNEMPLOYMENT AND ITS RELEVANCE IN EU.

3.1. General Outlook:

Youth unemployment is involved young people who are between 15 and 24. The UN and ILO define youth unemployment as the share of the labour force ages 15-24 inclusive without work but available for and seeking employment (Essays UK, 2013).

During the economic crisis, young people are affected by economic adversities partially being the victim of being part of a particular demographic spread of population in a particular region. It is accounted that one out the three young people among the members is currently unemployed (EUKN, 2013). Authorities of European Union try to tackle with this problem which occurs across the regions are also going to make some plans to overcome this condition.

It is argued that economic crisis have to generate larger impacts on youth population than any other age groups. This arguments claim that adverse economic consequences substantially alter young people's future trajectory; such as the degree of the quality of their life, saving and investment decisions. If authorities do not take precautions against rising youth unemployment rates, unexpected results would be likely to emerge so that their dwindling income likely to create poverty. Reduced income would constrain some facilities that are significantly important for the European societies (European Youth Forum, 2014).

3.2. Cross-Country Comparison of Youth Unemployment in the EU:

The total number of young unemployed in the EU was approximately 6 million in 2013 and it was expected to rise further. After that year 2013,youth unemployment rate has fallen by about1 million, so the very recent figures of youth unemployment in European Union are approximately 5 million(Eurostat 2015).This declining trend implies that there has been some improvements.

Table 1

	Unemployment rates %	
	Total	15-24 years old
	2015	2015
EU	9.4	20.4
BELGIUM	8.5	22.1
BULGARIA	9.1	21.6
CZECH REPUBLIC	5	12.6
DENMARK	6.2	10.8
GERMANY	4.6	7.2
ESTONIA	6.2	13.1
IRELAND	9.4	20.9
GREECE	24.9	49.8
SPAIN	22.1	48.3
FRANCE	10.4	24.7
CROATIA	16.3	43
ITALY	11.9	40.3
CYPRUS	15	32.8
LATVIA	9.9	16.3
LITHUANIA	9.1	16.3
LUXEMBOURG(GRAND-DUCHY)	6.7	17.3
HUNGARY	6.8	17.3
MALTA	5.4	11.8
NETHERLANDS	6.9	11.3
AUSTRIA	5.7	10.6
POLAND	7.5	20.8
PORTUGAL	12.4	32
ROMANIA	6.8	21.7
SLOVENIA	9	16.3
SLOVAKIA	11.5	26.5
FINLAND	9.4	22.4
SWEDEN	7.4	20.4
UNITED KINGDOM	5.3	14.6

(Source : Statistics Explained (http://ec.europa.eu/eurostat/statistics-explained/) - 13/07/2016)

Table 2

Total Lowest Rates		Total Highest Rates	
GERMANY	4.6	GREECE	24.9
CZECH REPUBLIC	5	SPAIN	22.1
UK	5.3	CROATIA	16.3
MALTA	5.4	CYPRUS	15
AUSTRIA	5.7	PORTUGAL	12.4
DENMARK	6.2	ITALY	11.9

According to the information raised above, it is shown that lowest unemployment rates in the European Union was recorded in Germany and Czech, followed by UK and Malta. The highest unemployment rates in the EU were recorded in Greece, Spain, Croatia and Cyprus. When unemployment rates are considered alone, similar results come out-the high rates of youth unemployment correspond with equally high rates of overall unemployment. Those with the highest youth unemployment rates are almost the same countries with the highest unemployment rates in the EU, such as Greece, Spain, Croatia, Italy, Cyprus and Portugal. It is found that lowest youth unemployment rates in EU are that of Germany, Austria, Denmark and Netherlands respectively. Their rates are lower than general averages (20.4 %). (Eurostat, 2016)

The table below indicates the highest and lowest youth unemployment rates.

Table 3

Lowest Youth Rates(15-24 years old)	
GERMANY	7.2
AUSTURIA	10.6
DENMARK	10.8
NETHERLANDS	11.3
MALTA	11.8
CZECH REPUBLIC	12.6

Highest Youth Rates(15-24 years old)	
GREECE	49.8
SPAIN	48.3
CROATIA	43.0
ITALY	40.3
CYPRUS	32.8
PORTUGAL	32.0

When last April 2016 seasonally-adjusted data is observed, decreases in unemployment rate are obvious. The last unemployment figure highlighting EU average was 8.7 %, it has fallen from 9.4 % unemployment average of 2015. Comparing the last year with 2015 data, it can be observed that ratio dropped about 0.7 in the last indicators. When a comparison made among member states, it is apparent that lowest unemployment rates are in the Czech Republic(4.1 %) and Germany (4.2 %) and Malta(4.3 %) followed by the UK(4.9 %) in the April information 2016.The highest rates are observed in Greece (24.2 %) and Spain (20.1 %) and Croatia (14.6 %) followed by Portugal (12.0 %).When it is analysed under youth unemployment rates, the youth served that unemployment rate is 18.8 % in the European Union. There is a significant decline at last data because it is clear that it is down from 20.4 %.When compared to the last data of 2015 , 2016 data shows that countries with the lowest rates are Germany(7.0 %), Malta (8.9 %) and the Czech Republic (9.5 %) while Greece(51.4 %), Spain (45.0%), Croatia (38.9%) and Italy (36.9 %) are the highest.(Eurostat, 2016).

3.3.The Phase of Moderate Improvement Achieved: 2013- 2016.

There has been some reduction in youth unemployment rates between 2013 and 2016 but rates still remain significantly high. Spain, during that period reduced the rates from 57 % to 48.3 % and similarly Greece reducing from 58% to 49.8 % respectively. Although Croatia's reduction came from 50% to 43 %, yet its rates are still at alarmingly high level. However, among others noted above, Portugal has performed relatively better by reducing the rates from about 50% to 32 %. Italy though, has recorded no reduction, but a small increase from 40% to 40:3 %. Regarding this period, the U.K.'s rate has fallen from 21 % to 14.6 and reflects a positive trend.

Despite the fact that youth unemployment rates have fallen relatively in the countries where it was an unresolved issue, it still continuous to be so across the EU countries.

On the other hand, investment in various schemes and projects across the EU countries for tackling youth unemployment could have provided some positive impulse, but even so to a limited extent.

4. THE IMPACT OF YOUTH UNEMPLOYMENT AND POSSIBLE WAYS TO OVERCOME IT

4.1. The very impact of youth unemployment:

Unemployment influences the country's economic situation directly, such as leading to recession and declining growth, as well youth unemployment under the unemployment affects also directly young persons' lives so they are hit them. If it is needed to order effects, it can be said that there are three factors in terms of personally, economically and socially (Oireachtas Library and Research Service, 2013)**.**

When analysed personally, there are some side effects of them; Increasing the odds of being unemployed in later stage of their lives, lower wages, Having lack of skills, Social exclusions, being dragged into conditions that reduce the level of happiness.

As for the economic impacts of youth unemployment, the outcomes will be as follows: reduced the productivity, declined GDP, heavy costs and payments, lowered tax revenues and so on.

It is a well-known fact that young unemployed individuals are extra vulnerable to staying unemployed and they are more likely to remain unemployed in the long-run than any other age group. Because of their engagement in higher education, transition from -study to work- can also be painstakingly hard to overcome. It is supposed that most of the EU members had to come to terms with this very problem way before the outbreak of the crisis. Second, the erroneous perception which supposedly advocates the belief that economic crisis causes least harm on young people throughout the process. The logic behind this perception is the authorities' supposed belief that recession could have easily gotten under control and when crisis is over, young people would be able to find a job in the short run. The crisis hits young people so much harder than adults. If the burden some rate of youth unemployment perpetuates in its severity, number of unemployed young people in the EU is going to increase and this leads to loss of skills and human capital for the economy in the long run (Dhéret, 2013

Finally, among others are the social burdens, coming out of crisis. For social considerations; high demands on public services will be triggered because of distress and/or even depressive state of health, mental deprivation, and for being dragged into seclusion. (Oireachtas Library and Research Service; 2013). All these changes are linked to the resulting impact by the generation of youth unemployment. These factors hamper the smooth functioning and real performances of the economy, through influences on labour market, through the forces of supply and demand (Essays UK, 2013).

4.2. Introducing the Ways of Tackling Youth Unemployment

4.2.1. What can be done to decrease it and what measures can be taken to tackle it:

European Union wants to protect the young people in the face of youth unemployment crisis, so some arrangements have been made to invest in countries which are in urgent need. The EU delegation and their adopted strategies are

mainly in favour of supporting and promoting structural reforms in the forms of education and vocational training. The EU will help members to cope with the implementation of new initiatives where their budgetary sources reach to their limit. If level of youth unemployment in a member country is higher than 25 %, and equally young people who are in the category of NEETs (Those who are neither in employment, education nor training) these regions need to be detected and upheld through structural reforms by the European Council. The European Council has created an instrument which is called Youth Employment Initiative (YEI) to support countries whose youth unemployment rates are higher than 25 %. This package involves financial support for young people with particular objective to combat rising youth unemployment. Because young people need to get education and training, Youth Guarantee brings up provisions related to these issues (Nedeljkovic, 2014). The Youth Guarantee is going to be supported by the European Social Fund and Fund is planned to provide more than €10billion every year during 2014-2020 to address youth unemployment (European Commission, 2014). YEI supported institution is provided a specifically set budget from the European Union budget line dedicated to youth and plus program from the European Social Fund national allocations. The budget is total 6 million and it is divided in two parts that each of them is 3 billion. (European Commission, 2013). In December 2012, European Commission took an action under Youth Employment Package consisted of package of measures to tackle youth unemployment over 25 years and Commission called members to coordinate their policies and actions among themselves. The members were additionally urged to assemble to achieve further cooperation among them.

Initiative supports are for; Apprenticeship, Traineeship, Job attainment, improvement in personal education for strengthening professional qualifications.

Labour mobility is also effective way to reduce youth unemployment. The EU has been trying to strengthen to improve labour mobility. European Employment Services (EURES), the job search network that it is provided to access to nearly 2 million job vacancies, is modernized by EU initiatives. This project provides young person who wish to find a work in another member with financial support (Banerji, Saksonovs, Lin, and Blavy, 2014).

Another aspect of labour mobility is to support temporary migration in the EU as for the consideration that a work abroad is a balancing mechanism where

domestic unemployment has largely strained labour markets. The EU encourages regional labour mobility through enhancing employment opportunities, so that 5,000 young Spanish are expected to come to Germany until 2017 and it is also expected to make positive contribution to the economies of the both parties involved. The European Portal for Job Mobility or else called EURES- looking forward to welcome workers who want to work abroad and potential trainees interested in moving. Among others, it is worth mentioning the ERASMUS education program which its primary objective is temporary exchange of students and academics and other educational personnel among the member and non-member countries. Another point is developing dual vocational and social partnership to address the issue of getting out of unemployment wherein young unemployment is high and encourage the youth to move to countries with lowest unemployment rates, such as Germany, Austria, Netherlands, Denmark. Firms or countries in question should provide necessary contributions to cover costs involved in the process. These initiatives are involved in schooling or training programs, working through it, young people can gain necessary knowledge and job experience. (Eichhorst, Hinte and Rinne, 2013).

5. DATA AND FURTHER IMPLEMENTATIONS

The data for this study are collected from the databank of the World Bank. We took the youth unemployment data for all 28 countries in the European Union as percentage of total labour force in between the ages of 15-24 (modelled ILO estimate). All series are annual and, covers the period of 1996-2014. In order to see which countries' youth unemployment rates are declining, we have subtracted the lowest one from all and check the series whether they have unit root. Since Austria has the lowest youth unemployment rates, it's subtracted from all series with corresponding years. So, if the new series does not include unit roots, we can conclude that these differences are getting disappear.

The graph of these series that obtained by subtracting Austria's youth unemployment rates are given in the Appendix. According to the graphs, there is an increasing in youth unemployment rates for almost all countries after the economic crisis in 2008. Some countries such as Cyprus, Greece, Ireland, Italy, Portugal and Spain have an increasing trend particularly after 2008. But despite

this fact, it can be said that youth unemployment rates are declining or fluctuating around an average in some countries, especially in Belgium, Germany, Malta and Poland. To see clearly whether there is a convergence to the lowest rates, the unit root tests applied to the series. We used the approach suggested by Dickey and Fuller (1979, 1981) to see which variable is stationary at which difference. We have started testing with the 1st model indicated below; then, 2nd model and 3rd model applied to the variable later.

The models for ADF Test:

1) $\Delta X_t = c + \tau_\tau X_{t-1} + \alpha_2 t + \sum_{j=1}^{p}(\theta \Delta X_{t-j}) + \varepsilon_t$

2) $\Delta X_t = c + \tau_\mu X_{t-1} + \sum_{j=1}^{p}(\theta \Delta X_{t-j}) + \varepsilon_t$

3) $\Delta X_t = \tau X_{t-1} + \sum_{j=1}^{p}(\theta \Delta X_{t-j}) + \varepsilon_t$

The null hypothesis that says the coefficient of the autoregressive coefficient ($\tau_\tau, \tau_\mu \; or \; \tau$) is statistically equal to 0, is same for all these three models. If the hypothesis in the first model can't be rejected, we estimate the model 1.a located below and test the significance of trend coefficient (δ) under the assumption of the variable has unit root ($F \; test \; of \; \delta = 0, \rho = 1$). Then, same process has been repeated for the second unit root test model. If the hypothesis in the second model can't be rejected the model 2.a below is estimated and then the significance of the constant term is tested again under the assumption of the variable has unit root. ($F \; test \; of \; \alpha = 0, \rho = 1$).

Models for testing the significance of constant term and the coefficient of the time trend:

1.a) $y_t = \alpha + \delta t + \rho y_{t-1} + u_t$

2.a) $y_t = \alpha + \rho y_{t-1} + u_t$

The critical values for these ADF tests at 5% level are -3.60, -3.04 and -1.96 for the model 1, 2 and 3 respectively. The critical values for the F test that is used for the hypothesis testing in the models 1.a and 2.a are approximately 7.24 for the $F\ test\ of\ \delta = 0, \rho = 1$, and 5.18 for the $F\ test\ of\ \alpha = 0, \rho = 1$. All of the results are given in the appendix. According to the results of the unit root tests Belgium, Croatia, Luxembourg, Malta, Poland and Romania do not have unit roots and it means series are stationary. So we can say that the differences between these countries' youth unemployment rates and the lowest rates are getting disappear or becoming steady. But, it's hard to say the same thing for other countries since they are integrated order of 1. We need to parenthesize on the subject of Germany. It seems the youth unemployment rates converging to the lowest rate in the graph. But the series of Germany is integrated order of 1 after we tested the presence of the unit root.

6. CONCLUSION

Youth unemployment does not pose as a new phenomenon in Europe - particularly regarding some countries- it is exclusively a long standing reality. However; negative contribution of the economic crisis need not be neglected. Since youth unemployment has been a long realm in the heart of the EU policy making issues, it continuous to remain as a possible threat to the completion of deeper European Integration.

There is a growing literature on youth unemployment and incidentally scholars contending the issue putting more emphasis on the economic and financial crisis as an accelerator factor. On the other hand, this work finds no significant empirical correspondence between macroeconomic performance and youth unemployment and; to a certain extent; monetary policy (inflation in this case) and youth unemployment.

We have used unit root approach to determine which country has a declining youth unemployment rates. Since we have rather narrow sample size, the power of the ADF test can be questionable. But it is adequate to give us an idea whether there is a convergence to the lowest rates or not. One can find that there is a convergence in the youth unemployment rates of Belgium, Croatia, Luxembourg,

Malta, Poland and Romania. We can add Germany in the list of countries that have declining youth unemployment rates even the series includes a unit root.

The progressively rising realm of youth unemployment in Mediterranean and some other the EU countries have testified that the root cause of problem is structural rather than cyclical. The policies and strategies have been developed and concentrated have largely become a failure at least in the short run and medium term. Yet, little improvement is achieved in reducing the rate of youth unemployment in the period of 2013-2016. Perhaps, some causes of this moderate improvement can be attributed to policy and strategies adopted and put to practice at National and the EU level. Yet, according to wider consensus among the academics and illustrated by the evidence, the efforts and policies conducted to tackle the structural deficiencies are far from adequate. It looks like that youth unemployment issue will remain foremost concern for the Europeans in the foreseeable future and Investment, policy initiatives and any other measures at the EU and National level must regard the suggested solutions only achievable in the long-run. There are lessons to be learned from the countries like Austria and Germany where both unemployment and youth unemployment rates are exceptionally low. Yet, when it comes to setting up framework design for the potential young workers, i.e. vocational training schemes, each country must adopt a system which is conducive to their characteristics. Providing incentives and flexibility in the labour market can additionally help alleviate the ailing problem.

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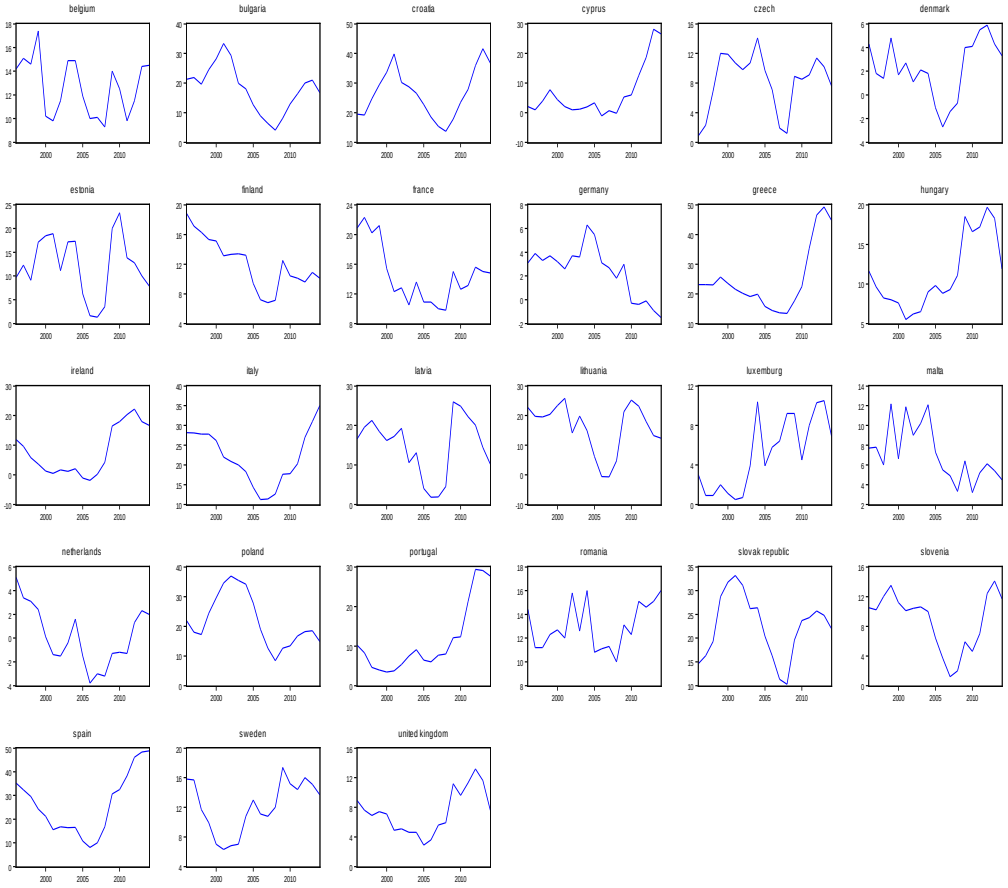
APPENDIX

Graphs of the Series



Unit Roots Test Results

COUNTRY	ADF MODEL	Level	α & δ	F	Firs Difference
BELGIUM	τ_τ	-3.1627	δ	3.7209	
	τ_μ	-3.2383*	α		
	τ				
BULGARIA	τ_τ	-2.5233	δ	0.6963	
	τ_μ	-1.9906	α	0.6732	-2.1120*

	τ	-1.0311			
CROATIA	τ_τ	-3.2651	δ	0.6540	
	τ_μ	-3.5147*	α		
	τ				
CYPRUS	τ_τ	-0.4303	δ	1.8247	
	τ_μ	0.6912	α	1.3988	-2.9796*
	τ	1.4850			
CZECH RP.	τ_τ	-2.3147	δ	3.3320	
	τ_μ	-2.5291	α	3.3466	-3.1728*
	τ	-0.5230			
DENMARK	τ_τ	-2.0698	δ	2.3815	
	τ_μ	-1.9259	α	1.8620	-4.6283*
	τ	-1.4894			
ESTONIA	τ_τ	-2.8433	δ	2.6539	
	τ_μ	-2.8938	α	2.5750	-3.7033*
	τ	-1.0042			
FINLAND	τ_τ	-1.8099	δ	2.3144	
	τ_μ	-2.0686	α	2.8475	-3.9710*
	τ	-1.6215			
FRANCE	τ_τ	-1.4774	δ	1.7550	
	τ_μ	-1.9321	α	2.0494	-5.0827*
	τ	-1.0323			
GERMANY	τ_τ	-1.9384	δ	2.5497	
	τ_μ	-0.6373	α	0.5256	-4.7488*
	τ	-1.0557			
GREECE	τ_τ	-3.0908	δ	1.7527	
	τ_μ	-2.9736	α	0.5671	-2.1918*
	τ	-0.6090			
HUNGARY	τ_τ	-2.1907	δ	2.4148	
	τ_μ	-1.2368	α	0.7652	-2.9962*
	τ	-0.4369			
IRELAND	τ_τ	-2.2876	δ	3.1952	
	τ_μ	-1.3186	α	0.2806	-2.5814*

	τ	-0.3076			
	τ_τ	1.1288	δ	6.9594	
ITALY	τ_μ	-1.2582	α	0.1374	-4.8393*
	τ	0.1387			
	τ_τ	-1.7898	δ	1.6216	
LATVIA	τ_μ	-1.8304	α	1.7053	-3.7557*
	τ	-0.9901			
	τ_τ	-2.3735	δ	1.4647	
LITHUANIA	τ_μ	-2.3622	α	1.6087	-3.1326*
	τ	-1.1183			
	τ_τ	-3.7893*	δ		
LUXEMBOURG	τ_μ		α		
	τ				
	τ_τ	-3.6419*	δ		
MALTA	τ_μ		α		
	τ				
	τ_τ	-1.3742	δ	3.0869	
NETHERLANDS	τ_μ	-2.0616	α	2.5200	-3.3701*
	τ	-2.0995			
	τ_τ	-5.7696*	δ		
POLAND	τ_μ		α		
	τ				
	τ_τ	-1.7290	δ	4.1742	
PORTUGAL	τ_μ	0.4158	α	0.8228	-2.5093*
	τ	1.2531			
	τ_τ	-2.9208	δ	6.2149	
ROMANIA	τ_μ	-3.0047*	α		
	τ				
	τ_τ	-2.9544	δ	1.8330	
SLOVAKIA	τ_μ	-2.7704	α	1.4712	-2.3556*
	τ	-0.5846			
	τ_τ	-2.0603	δ	0.8027	

SLOVENIA	τ_μ	-2.0149	α	0.7620	-2.7709*
	τ	-0.3795			
SPAIN	τ_τ	-1.0490	δ	5.9849	
	τ_μ	-1.1240	α	0.1789	-2.1242*
	τ	-0.0256			
SWEDEN	τ_τ	-3.4146	δ	3.3365	
	τ_μ	-1.5815	α	1.2750	-3.3628*
	τ	-0.6321			
UNITED KINGDOM	τ_τ	-1.9133	δ	1.9111	
	τ_μ	-1.4887	α	1.1201	-3.6726*
	τ	-0.6835			