

Complexity of Growth: The West Balkans v. Emerging Europe¹

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Abstract: This paper explores the growth complexity of the West Balkan and Emerging Europe economies. For that purpose, the dynamic panel data models of growth determinants are estimated in the period 1997-2009. The chosen period provides comparison of the model results with those estimated for the period up to 2007 and therefore to analyse changes caused by the global instability. According to the main findings of the paper, macroeconomic stabilisation and structural reforms still matter in determining economic growth, but foreign direct investments and economic integrations seem to have the most important role in stimulating growth in the observed countries. Moreover, significant different magnitude of foreign direct investments and economic integrations effects produce differences in growth paths between Emerging Europe and the West Balkans. Sharp decrease of foreign inflows in 2008 determined contractions of growth rates firstly in Emerging Europe economies and those effects spilled-over on the West Balkans economies during 2009. Consequently, in the period of global instability, differences between two groups of economies become even more obvious.

Key words: Growth, Emerging Europe, West Balkan economies, Dynamic panel data model.

JEL classification: C33, O47, P51.

1. INTRODUCTION

Within the EU enlargement process, an important issue refers to the analysis of different economic growth patterns across countries involved in the process. After the sharp output decline in the starting years of central planned system abandonment, many transition countries have made significant advances in growth. Particularly, new EU members² had higher growth in the economic performance than other transition economies, and consequently, the highest standard of living due to comprehensive reforms undertaken. Within the sample of transition economies, a specific group consists of the West Balkan economies which are also on the road to the EU membership, experienced different growth path compared to new EU members. Therefore, an interesting issue refers to the investigation of the causes which make differences in growth performance between the Emerging Europe and the West Balkans.

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² In the following, the term Emerging Europe will be used interchangeably with the term new EU members.

The main purposes of this paper are: (1) to explore whether growth process fundamentally differs between two groups of economies, and (2) to identify the crucial causes of possible differences. An additional issue is to test whether the financial, trade and economic integrations contribute to differences in growth dynamics across countries. With the intention to explain economic growth complexity, determinants are classified into several groups: initial conditions, macroeconomic stability variables and structural reforms (appeared as important from the earlier literature), and financial, trade and economic integrations (from the recent literature). For that purpose, panel data methodological framework is used, allowing the investigation not only of the different growth effects of determinants across two groups of economies, but also changes of these effects over time. Balanced panel data sample of ten Emerging European and five West Balkan economies is firstly considered over the period 1997-2007 in order to analyse more homogenous period, stabilisation phase of transition process, but before economic crisis. Additionally, to explore changes in crucial relationships between identified determinants and growth influenced by global crisis, the observed period is broadened to include available data for the years of crisis. This enables comparison of the results obtained for the period 1997-2007 to those from extended sample 1997-2009. In estimating the growth models, the dynamic panel data specification is used as it could solve potential econometric problems often emphasised in the empirical literature of the growth (potential endogeneity, omitted variables, and error measurements). The model is estimated by using the System generalized method of moments (System GMM).

The results of the paper shows that the key pillars of the Emerging Europe and the West Balkans growth differences are financial and economic integrations. Namely, significant changes in magnitude of growth effects in two groups of economies refer to foreign direct investments. Foreign inflows and their contribution to the faster growth are significantly higher in Emerging Europe in comparison to West Balkans economies, especially after membership in EU. Therefore, the main condition for faster growth in Emerging Europe is financial integration, which is highly linked with the level of economic integrations. However, during the period of global instability, negative influence of financial integrations occurred: due to the decline in foreign direct investments inflows, growth path contracted.

The paper proceeds as follows. After the introduction part, Section 2 elaborates survey of the literature on growth determinants in transition economies. Section 3 discusses the methodological issues and the empirical model. The estimation results of growth determinants for Emerging Europe and the West Balkans are given in Section 4, with the focus on the financial, trade and economic integrations, as well as on the influence of global instability. Section 5 contains the main conclusions of the paper.

2. A SURVEY OF EMPIRICAL LITERATURE

A number of empirical papers tried to explain wide variations in growth patterns across the Central and Easter European countries and the West Balkans during the period of transition. To this end, various theoretical models are used. The diversity of theoretical views provided a considerable empirical literature with the aim to estimate relative importance of different factors in explaining growth (for instance, De Melo, Denizer and Gleb, 1996; De Melo et al. 2001; Fischer, Sahay and Verg, 1998; Campos, 2001). The literature consensus is obtained related to the three groups of factors essential for explanation of growth patterns: country's starting points, macroeconomic stabilisation indicators and the level of structural reforms. Recent literature broadens the set of factors which could contribute growth to those linked with the EU prospects. Namely, economic integrations through trade and financial integrations are considered as important growth drivers (Bussiere and Fratzscher, 2007; Bower and Turrini, 2009; Friedrich, Schnabel and Zettelmeyer, 2010, Kose and Prasad, 2010). Since Emerging Europe and the West Balkans are in the focus of this

paper, the following literature survey is related to determinants which could explain growth complexity in the two groups of economies.

Among the first papers dealt with the *role of initial conditions* in determining economic growth of transition economies was empirical study of De Melo et al. (2001). Differences in economic performance across transition countries are explained by joint effects of both initial conditions and economic policy. Short-run negative effect of initial condition on growth which fades out over time supports the idea of growth convergence and does not depend on how they are measured. Similar conclusion on time varying effects of initial conditions can be found in Berg et al. (1999) emphasising that structural reforms explain differences in growth performance more than initial conditions and macroeconomic variables.

Berg's result goes in line with the conclusion of Bassanini and Scarpetta (2001) that the differences of growth across countries and over the time can largely be explained by institutional settings. Fisher and Sahay (2000) point out that *structural reforms* (particularly privatisation) and stabilisation policies are crucial in contributing to growth and conclude that faster reforms influence higher growth rates and faster recovery. This conclusion is close to some earlier findings on common patterns for countries at similar stages of structural reform, no matter how substantially they differ in initial conditions (for instance: De Melo, Denizer and Gleb, 1996). On the other hand, Havrylyshin, Izvorski and van Rooden (1998) showed that negative impact of structural reforms may appear in the initial transition phase, but once the early decline is overcome the progress in reforms has positive effect on growth performance. In other words, cumulative effect of reforms leads to recovery and positive economic growth rates. Most studies find the combination of different reform policies as more influential on growth than any single type of reform. This could indicate that "the overall reform package is what matters for growth" (Staehr, 2005). Falcetti, Lisenko and Sanfey (2006) found important feedback influences from growth to reform, indicating that growth additionally encourages further reforms. When the endogenous nature of the structural reform variable is accounted for, then its high positive impact on growth seems to be less robust than previously stated. Moreover, if reforms are treated as endogenous variable, nonlinear relationship between reforms and growth may also be expected (Merlevede (2003)). Staehr (2005) finds complementarities between reform elements and shows that speed of reforms *per se* is of little importance for growth dynamic, but swift reform policies are crucial for higher growth for longer time. Finally, Babetskii and Campos (2007) analysed 43 econometric studies and found out that approximately one third of studies estimated positive and significant influence of reforms on growth, one third negative and significant, and final third insignificant relationship. Those differences are caused by different measurements of reform and due to influence of institutions and initial conditions.

When initial conditions and structure quality are both low, the ability to take growth advantages is limited (Schadler et al. 2006). Then, *macroeconomic stability* takes the most important role in achieving sustainable growth. In the studies where only *inflation* is used as a proxy of macroeconomic stability, its growth effect is significant indicating faster growth along with lower level of inflation (Havrylyshin, Izvorski and van Rooden, 1998). When both inflation and *fiscal balance* are included in the model, results appear to be mixed. For instance, in Berg et al. (1999), the authors expect fiscal balance to have growth effect controlling for inflation, indicating the difficulties in separating the effects of inflation and fiscal deficit on growth. This problem is explained by possible simultaneous determination of macroeconomic variables and growth: when fiscal balance is treated as endogenous variable, its effect on growth becomes positive and significant. In addition to these growth determinants, the size of government (measured by the share of *government expenditure* in GDP) could also have impact on growth, as higher long-run growth rates goes in line with lower government spending. However, its impact may also depend on type of government consumption and distortion associated with its financing (Fisher, Sahay and Verg,

1998). The size of government may influence the economic performance positively through enterprises, markets and institutions allowing market to work. More precisely, properly directed government spending on reforms (for instance, via building of market-based institutions or improving the quality of government administration) could have positive effects on economic growth.

Apart from growth drivers identified in earlier literature and often analysed in the period of transition (initial conditions, structure reforms and macroeconomic stability), more recent literature emphasises the impact of financial (foreign direct investments), trade (openness) and economic integrations (Friedrich, Schnabel, Zettelmeyer, 2010). Namely, to foster growth, the most important condition is the EU membership prospect, which triggers a large foreign inflows and degree of trade openness (Bower and Turrini, 2009).

Although the transition process is related to the reallocation of the existing resources, the period after transition doubtless assumes foreign inflows. Some empirical studies recognized the importance of *foreign direct investment (FDI)* as the most important financial source in determining growth. FDI should have several positive effects on the host country economy, such as technology transfer, managerial skills and know-how. However, the empirical literature was not always able to establish positive and significant relationship between FDI and growth, as theory predicts. For instance, some of studies do not confirm their significant effects (Lyroudi, Papanastasiou, Vamvakidis, 2004), although FDI have been substantial in the recovery phase, particularly in advanced transition countries (Garibaldi et. al., 2001). Others conclude that due to a high correlation between FDI and structural reforms, the same factors stimulate growth and also attract FDI (Havrylyshin, Izvorski and van Rooden, 1998). Namely, only when structural reforms are not accounted for in the model, significant positive effects of FDI on economic growth can be found. Campos and Kinoshita (2002) find significant positive effect on the economic growth of transition economies, while Borensztein, De Gregorio and Lee (1998) confirm that FDI can boost economic growth by increasing technological progress in host country, but also may have negative growth effects in those countries with low level of human capital. Moreover, Kukeli, Fan and Fan (2006) demonstrate that the model of transformation of transition countries affects the effectiveness of FDI in promoting growth: 'shock therapy' is followed by higher impacts of FDI on growth. Finally, Friedrich, Schnabel, Zettelmeyer (2010) confirm assumption of neoclassical growth theory that FDI allow countries to growth faster.

Openness to trade is also a factor which is expected to have significant positive impact on growth. Again, empirical literature provides different results with respect to time-varying relationship between openness and growth based on different samples of countries. For instance, Bussiere and Fratzscher (2007) based on sample of 45 industrialized and emerging countries point that trade integration could produce faster growth only in the medium and the long term. Also, Ben-David and Kimhi (2000) show that increasing trade openness in new EU members mean increasing rate of growth convergence. Finally, recent literature confirms that open economies indeed experienced faster growth (Edwards, 1997; Andersen and Babula, 2008).

Apart from all mentioned growth determinants, various studies explore the effects of *economic integration* on economic growth, combining growth models with integration process. With the idea to estimate extra increase of growth from EU accession, authors compared old and new members of EU (Breuss, 2001), or new members with countries left outside of EU. However, it seems there is no common agreement in empirical literature on significance and direction, or even existence of these effects on economic growth. Badinger (2005) does not find evidence of significant effects of economic integration on long term growth effects, but considerable effects on the output level. The opposite result refers to positive effects of European integrations on economic growth of member countries (Henrekson, Torstensson, and Torstensson, 1997). Similarly, Schadler et al. (2006) points

out that the use of possible benefits from European integrations is the key for new member economies growth prospects. Varblane and Vahter (2005) undertook comparative analysis of conditional convergence between new and old EU member countries and found more rapid convergence of new EU members.

Although many mentioned papers explore growth drivers of transition economies, the analyses are mostly related to the period of recession after abandonment of communist regimes, or to the period of the boom years of 2000s. However, more recent period beyond the *global economic crisis* is rarely covered. Few studies focus on the economic performance during the global instability, especially in the sample of Emerging Europe. The results indicate that these countries have been suffered more from the crisis and recovered slower in comparison to developed economies (Bruegel et al., 2010). Moreover, within the group of Emerging Europe, the extent of the output decline varies widely among countries (Berglof et al., 2010). Atoyán (2010) explained it by the effects of financial integrations: due to sudden stop of financial flows and sharp contraction of domestic demand, real GDP growth drastically decreased. Even more, the crisis could attack future growth dynamics, thus causing the medium-term growth rates below those in the pre-crisis period (Darvas, 2010).

Within earlier empirical literature on growth determinants, there is a consensus that stabilisation policy and the overall reforms are one the most important drivers of growth, while the influence of initial condition declines over the time. However, recent literature is more focused on the importance of financial, trade and institutional integration. Therefore, along with macroeconomic stability and reforms, special attention in the following parts of this paper is dedicated to the financial, trade and economic integrations as important in explaining the Emerging Europe and the West Balkans growth differences.

3. METHODOLOGY AND EMPIRICAL MODEL

Parallel to the empirical researches of growth models, the econometric issue of the correct way of their specifying and estimating was also examined in the literature. A variety of econometric approaches has used to illustrate the nature of complex process such as economic growth in order to explain why some countries grow faster than others. While earlier papers were focused on cross-section methodology (Barro, 1991; Campos, 1992), most of recent studies are based on panel data econometric approach. The growing theoretical literature on panel data methodology, as well as, the data availability across countries and time made them very popular in the empirical analyses of the growth³. Different panel data specifications and methods are used depending on observed sample, cross section and time dimensions, as well as econometric problems: from pooled OLS method or fixed effects model controlling for country specific effects (for instance, Berg et al., 1999; Fischer, Sahay, and Vegh, 1998), to various instrumental variable methods, such as 2SLS, 3SLS, G2SLS methods (for instance, Falcetti et al., 2002; Merlevede and Schoors, 2004; Dragutinovic and Ivancev, 2010).

The issue of finding suitable instrumental variables for endogenous regressors in the growth model is also emphasised in most mentioned papers. In order to solve that problem, more recent studies have been focusing on the dynamic panel data form as more convenient in the estimation of the growth model, thus addressing not only the econometric issues of endogeneity, but omitted variables and error measurements, as well (Casseli, Esquivel, and Lefort 1996; Levine, Loayza, and

³ Panel data brings a number of benefits: investigation of different effects on economic growth across countries and over time, simplify identification of economic relationships between variables, allow estimation of dynamic process, allow identification of individual and time effects, more observation lead to an increase in a number of degrees of freedom, reduces problems with multicollinearity of explanatory variables (Baltagi, 2008).

Beck, 2000; Bond, Hoeffler, and Temple, 2001; Badinger et al., 2005; Dollar and Kraay, 2004). The majority of these papers deals with the Solow growth model and convergence based on samples of developed or developing (non-transition) countries. However, few papers used dynamic panel data form in estimating growth model of CEE transition economies (Staeher, 2005; Falcetti, Lysenko, and Sanfey, 2006). To estimate the dynamic panel data growth model, several GMM methods are used in the literature: first-differenced generalized method of moments (FD-GMM), Arellano-Bond GMM method, or system GMM (Arellano-Bover or Blundell-Bond).

In mentioned empirical literature, unobserved heterogeneity across countries is controlled by allowing for individual effects, i.e. different intercepts in the model, but there may also be heterogeneity in the slope coefficients. Hence, further possible methodology improvement refers to the use of Pooled Mean Group (PMG) estimators (Lee, Pesaran, and Smith, 1997) for heterogenous panels which allow not only different intercepts but different slope coefficients as well. This could be an adequate method for large number of countries (N) and time periods (T) or for large T and small N . Unfortunately, when longer time series is not available (T is small), unrestricted heterogeneity in both intercepts and slope coefficients for all countries is not possible (Bond, Hoeffler, and Temple, 2001). For the same reason, this paper does not use PMG method for heterogenous panels, but estimate dynamic panel data model allowing for individual effects. However, following one of the main objectives of the paper to investigate growth heterogeneity between Emerging Europe and the West Balkans, we try to test it by including interactions of relevant growth determinants and dummy variables for the two groups of countries, thus allowing some (limited) heterogeneity in slope coefficients. The dynamic panel data model is used here to account for econometric problems of potential endogeneity, omitted variables and error measurement⁴.

The sample used in this analysis contains the data on 15 European countries⁵ observed in the periods 1997-2007, and 1997-2009. All estimated equations have dynamic panel data form due to the presence of lagged dependent variable on the right-hand side. Therefore, the general form of the empirical growth equation can be written as follows:

$$\Delta \ln y_{it} = (\alpha - 1) \ln y_{i,t-1} + \beta X_{it} + \gamma Z_i + \mu_i + u_{it} \quad (1)$$

or

$$\ln y_{it} = \alpha \ln y_{i,t-1} + \beta X_{it} + \gamma Z_i + \mu_i + u_{it} \quad i=1, \dots, N; t=1, \dots, T \quad (2)$$

where y_{it} is the real gross domestic product (GDP) of country i in year t , $\Delta \ln y_{it} = \ln y_{it} - \ln y_{i,t-1}$ is the first difference of logarithm GDP representing the growth rate, $y_{i,t-1}$ is a lagged value of GDP, i.e. lagged dependent (endogenous) variable which allows for a dynamic structure of the model. X_{it} contains growth determinants which vary over i and t , while Z_i is related to time invariant variables. When variables are in the log form, the regression parameters of the specifications (1) or (2) show the short-run elasticities of regressors with respect to growth. This general specification contains individual (unobservable country-specific) effects μ_i , along with stochastic disturbance term u_{it} . These components are independently identically distributed ($\mu_i \sim IID(0; \sigma_{\mu}^2)$ and $u_{it} \sim IID(0; \sigma_u^2)$), independent of each other and among themselves.

⁴ It also can be used for the analysis of convergence and long-term trends, but it is not beyond the scope of this paper.

⁵ The sample contains 10 emerging countries: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia, and 5 West Balkan countries: Albania, Bosnia and Herzegovina, Croatia, Macedonia and Serbia.

If the model (1) or (2) is estimated by standard panel data estimators (pooled *OLS*, within (fixed effects), or random effects generalised least squares (*REGLS*) method), then the estimate of β is biased (Nickell, 1981). In order to avoid that problem, some of above mentioned GMM estimators should be applied. The system GMM is used in this paper to account for endogeneity of lagged dependent variable and potential endogeneity of some other explanatory variables.⁶ This method reduces finite sample bias and also improves the precision of estimates comparing to the other dynamic panel data estimators (Baltagi, 2008). It combines the set of the first-differenced equations where lagged levels of dependent variable are instruments, with additional set of level equations with lagged first-differences of the same variable as instruments (Blundell and Bond, 1998). Beside instruments for the lagged dependent variable, the instruments for other predetermined and/or endogenous regressors in the model can also be specified. Additionally, since Blundell and Bond proposed one-step estimation as procedure which provides more reliable results, it is used in this paper.

It is well known that the consistency of the system GMM hinges on whether the lagged values of the explanatory variables are a valid set of instruments, and whether the disturbance term, u_{it} , is serially correlated or not (Bond, Hoeffler, and Temple, 2001). Therefore, the validity of used instruments is checked by Sargan test for over-identifying restrictions, enabling identification of the number of lags of the dependent variable, predetermined variables and whether the endogenous variables are valid instruments. Rejecting the null hypothesis implies that the set of instruments is not valid and reconsideration of the instruments or the model is necessarily. When disturbances, u_{it} , are independently identically distributed, then the first-differenced disturbances are first-order correlated. However, the presence of serial correlation for the disturbances of the first-differenced equation at an order higher than one means that used moment conditions are not valid. Since consistency of the system GMM requires the absence of the second order serial correlation in the first-differenced disturbances, Arellano-Bond test is used to test it (Baltagi, 2008).

Following main results established by the majority of empirical studies, a set of potential growth determinants, X_{it} , contains: variables representing macroeconomic stabilisation, the extent of structural reforms, foreign direct investments (*FDI*) and trade openness, while Z_i refers to initial conditions variable⁷. In order to capture different inherited initial conditions across countries, different measures of initial conditions are used in previous empirical studies (for instance, the level of development (GDP per capita in pre-transition year), the nature and extent of macroeconomic distortions, and the level of institutional development). However, due to specificity of the estimation method of dynamic panel data model to eliminate time invariant variables, direct effects of initial conditions cannot be estimated as they are captured by individual (country) specific fixed effects. As an alternative, interaction of the initial level of real GDP per capita with time trend could be included in the model to test diminishing effects of initial conditions over time (Falcetti, Lisenko, and Sanfey, 2006).

The effects of macroeconomic stabilisation are captured by following economic variables: fiscal balance as a percentage of GDP (*FB*), consumer price indices (*CPI*, with logarithmic transformation to avoid extreme observations) and government size (*Gov*). Since macroeconomic variables, such as fiscal balance, might also depend on output or growth, their endogeneity nature is analysed in this

⁶ While strict exogeneity rules out any feedback from the disturbance term shock at time t to a regressor at time $s > t$, regressor X_{it} is endogenous in the sense that: $E(X_{it}u_{is}) \neq 0$ for $i=1, 2, \dots, N$ and $s < t$, which allows both contemporaneous correlation between the current shock u_{it} and X_{it} , and feedbacks from past shocks $u_{i,t-s}$ on the value of X_{it} (Bond, Hoeffler, and Temple, 2001).

⁷ Description of the data as well as their sources are given in Table A1 in the Appendix.

paper. The effect of the size of government is covered by the share of government expenditures in GDP, expecting that lower government spending could result in higher long-run growth rates.

In order to create the reform variable (*Ref*), a set of EBRD transition indicators is used. Due to the problem of multicollinearity among single EBRD transition indicators, a combination of different reform policies is preferred than any single aspect of reform (Staeher, 2005). Some papers use the sum or the average of all transition indicators, while others use the principal component analysis in creating aggregate reform variable (Havrlyshin, Izvorski, and van Rooden, 1998; Staeher, 2005). However, it seems that results based on principal components variables do not quite differ from the others. Hence, in defining the aggregate reform variable in this paper, the sum of reform indicators is used.

Following results from the empirical literature, reforms should not have an immediate effect on growth, but positive effects with a lag. That is why this paper investigates the possible relationship between the reform level in one period and growth in the following period, allowing for other growth determinants, such as macroeconomic stabilisation in the model.⁸ Additionally, since the importance of the feedback effect from growth to reform level is also emphasised in the recent studies, its potential endogeneity is tested in the paper.

Of particular interest for this paper is to investigate the role of financial and trade integration in determining the growth in Emerging Europe and the West Balkan economies. Therefore, apart from above mentioned growth determinants, FDI and trade openness variables are also considered as potentially important explanatory factors. The FDI inflows per capita (*FDIpc*) are used as FDI variable, whereas the share of total volume of trade in GDP (*Open*) is used as the basic measure of trade *openness* of the economy⁹. As already mentioned in the literature overview, the logic behind of using these factors is obvious. When there is higher proportion of FDI and trade volume in GDP the growth rate is expected to be higher. Also, opened economies with more possibilities for transfer technology are likely to have higher growth rates. FDI is an important determinant of growth, but the opposite direction of the relationship could also be true. Namely, FDI could be influenced by economic growth (Merlevede, and Schoors, 2004), so that they may be potentially endogenous to the growth. Moreover, since it could be imagined that FDI has a longer gestation period (to build firm, to establish production. etc.), it could be more reasonable not to estimate the immediate effect of FDI on growth, but their lagged effect.

4. ESTIMATION RESULTS

4.1 The basic determinants of the growth in the West Balkans and Emerging Europe

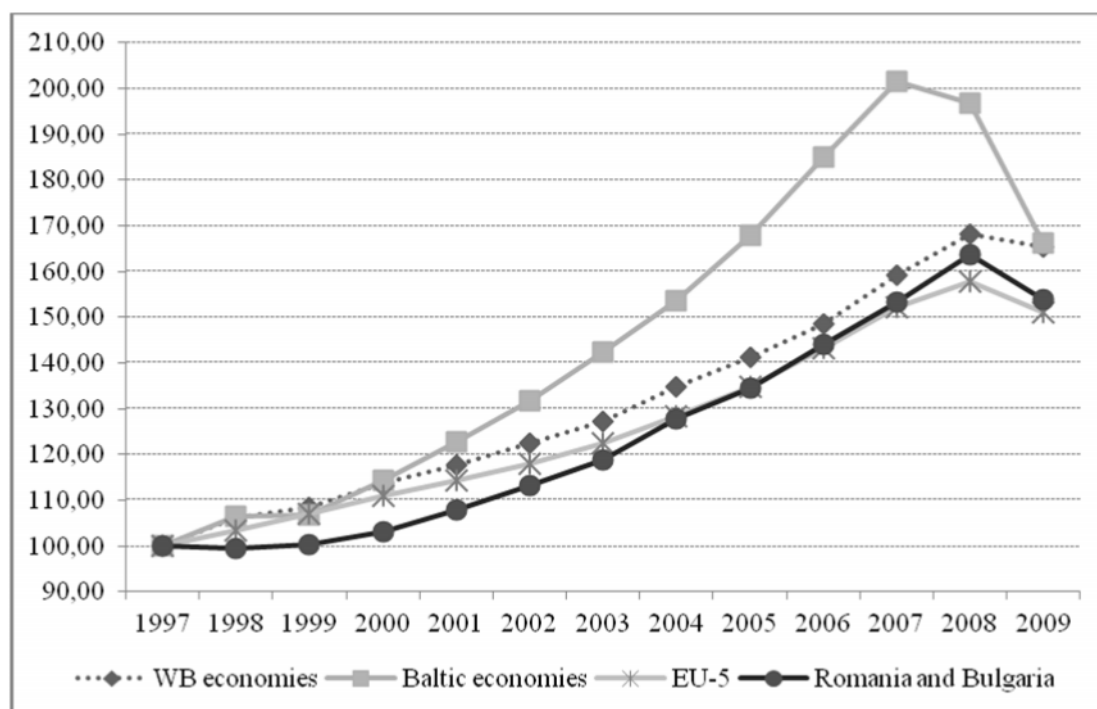
This part of the paper presents main results on differences in growth dynamics and the growth determinants across 15 European countries observed in the period 1997-2007. Although with the different intensity, Emerging Europe and West Balkans economies seem to have rapid and sustainable growth in period 1997-2007¹⁰. However, due to heterogeneity within the sample of emerging economies, a regional criterion is used to distinguish growth differences among Emerging EU: Baltic economies, EU-5, and Romania and Bulgaria (Figure 1).

⁸ The approach of several papers in the literature was to include both current and lagged reform as explanatory variables. However, reform indicators are highly autocorrelated so that including both current and lagged levels variables can lead to spurious inference (Rzonca and Cizkowicz, 2003, Falcetti, Lysenko, and Sanfey, 2006).

⁹ *FDIpc* variable is in log form to decrease heterogeneity, i.e. to avoid high inflows some years and very low other years. *Open* variable is also in log form.

¹⁰ The dynamic of growth in the West Balkans and Emerging Europe economies is given in Figure A1 in the Appendix.

Figure 1 Average growth in groups of Emerging and West Balkans economies in 1997-2009



Source: EBRD database

Baltic economies experienced the fastest average growth in the observed period (4,97%), while Romania and Bulgaria the slowest (2,98%). West Balkans economies, with lower output compared to the new EU, are expected to have higher growth rates in accordance with convergence theory. However, according to the Figure 1, it seems that growth in this region was not much higher than in EU-5 and Romania and Bulgaria. This could be explained by the fact that the West Balkans economies are pushed into the European ‘super-periphery’ characterized by high unemployment and instability (Bartlett, 2009). In order to test whether these differences are significant, the estimation of growth model is provided.

The initial model contains the basis determinants of growth: initial conditions, variables reflecting macroeconomic stability and structural reforms variable. The additional objective in the paper is to test whether different effects of these variables exist between the Emerging Europe and the West Balkan economies. For that purpose, the simple approach is used in terms of adding the interactions between the growth determinants and dummy variable *EE* which takes value 1 if a country belongs to the Emerging Europe and 0 otherwise.

All growth equations are estimated in the form of the dynamic panel data model (1). Since these equations contain lagged dependent variable as endogenous regressor, a suitable set of instruments for this regressor is defined by the system GMM as: $\Delta \ln(y_{i,t-1})$ for level equations and $\ln y_{i,t-2}$ and further lags for the first-differenced equations. Additionally, instrumental variables for fiscal balance and reforms variables are also required, as proposed by the system GMM estimator. For instance, lagged values of endogenous variable *FB* dated $t-2$ and earlier, are used as instruments for the first-differenced equations, in addition to their lagged first-differences as instruments for the level equations. The estimation results of initial model are presented in Table 1¹¹.

¹¹ The estimation of all equations is done in Stata/SE 11.0 by using command *xtgpd*, which can fit a dynamic panel-data model using the Blundell-Bond estimator.

Table 1 The role of macroeconomic stability and reforms

Dependent variable: Growth rate of real GDP

Variables:	(1)	(2)	(3)	(4)	(5)
<i>GDP</i> ₋₁	-0.017** (0.005)	-0.020** (0.008)	-0.016* (0.009)	-0.016* (0.009)	-0.019** (0.009)
<i>CPI</i>	-0.094*** (0.030)	-0.082*** (0.029)	-0.082*** (0.028)	-0.085*** (0.028)	-0.089*** (0.029)
<i>Gov</i>	-0.013 (0.012)	-0.008 (0.011)	-0.0065 (0.011)	-0.008 (0.010)	-0.008 (0.011)
<i>FB</i>	0.126*** (0.040)	0.108** (0.041)	0.106*** (0.041)	0.112*** (0.040)	0.126*** (0.042)
<i>Ref</i> ₋₁	0.007*** (0.002)	0.006** (0.002)	0.007*** (0.002)	0.005** (0.002)	0.005** (0.002)
<i>CPI*EE</i>		0.002 (0.004)			
<i>Gov*EE</i>			-0.0004 (0.005)		
<i>FB*EE</i>				0.002 (0.004)	
<i>Ref</i> ₋₁ <i>*EE</i>					0.001 (0.001)
Wald (chi2) statistics	302.54 (0.000)	304.43 (0.000)	305.79 (0.000)	304.79 (0.000)	307.34 (0.000)
Arellano-Bond AR(2) test	-0.157 (0.879)	-0.122 (0.891)	-0.118 (0.902)	-0.120 (0.900)	-0.150 (0.880)
Sargan test	139.655 (0.266)	145.740 (0.212)	149.454 (0.220)	149.547 (0.219)	149.283 (0.223)

***statistical significance at the 1% level, **significance at the 5% level, *significance at the 10% level (in parenthesis are *p* values).

The Sargan test of over-identifying restrictions does not reject the null hypothesis of valid instruments, so that the chosen set of instrumental variables is valid. Also, the values of Arellano Bond test for second order autocorrelation in all specifications show that there is no evidence of model misspecification.

As mentioned earlier, since direct effects of initial conditions cannot be estimated in dynamic panel data model, we tried to include the interaction of the initial level of real GDP per capita in 1989 with time trend to test their diminishing effects over time. However, that variable turned out to be insignificant in all specifications, and therefore is dropped from the analysis. The results coincide with the majority of earlier findings that variables related to macroeconomic stability and reforms prevail in explaining growth. In addition to this, the lagged GDP coefficient is expectedly negative and significant. Its value in most of estimated equations implies a rather slow GDP adjustment in observed countries that may indicate high degree of persistence in output (Falcetti, Lisenko, and Sanfey, 2006).

Looking at the basic specification of growth determinants (Column (1), Table 1), it seems that the both macroeconomic stability and reforms are important in explaining growth. The effects of two macroeconomic variables, *FB* and *CPI* are significant and have expected sign. More precisely, when fiscal balance is treated as endogenous variable its effect on growth is positive and significant. Also, the effect of another macroeconomic variable *CPI* also appears to be significant. Moreover, this result is robust to all estimated specifications, again confirming macroeconomic stability as an important condition not only for economic recovery of observed countries but also for achieving and maintaining of their sustainable growth. As expected, the overall lagged effect of reforms on

growth is positive and statistically significant, which is in line with previous empirical results. Namely, an increase in reforms is associated with an increase in growth in the following period, implying their still important role in determining the growth performance. The Sargan test confirms that the feedback effect from growth on reforms could also be taken into account. This implicates that reforms in one period boost the growth in the following period year, but growth could also give an incentive for further reforms.

Negative coefficient of variable *GOV* should indicate negative impact of policy-generated distortions on growth in transition countries. However, regression coefficient of government expenditures seems to be insignificant.

Apart from the identification of the growth determinants, another main focus of the paper is to estimate different influence of growth drivers in the Emerging Europe and West Balkan economies. This is done by including interaction terms, allowing for changes in slope coefficients. However, regarding macroeconomic variables and reforms effects on growth, insignificant regression coefficients of interactions indicate that there is no significant difference between the Emerging Europe and the rest of observed countries. For instance, the growth in the Emerging Europe is not significantly less sensible to inflation (the sum of coefficients of *CPI* and *CPI*EE* is -0.08) compared to the other countries (coefficient of *CPI* is -0.082; Column (2), Table 1). The effect related to government expenditure remains negative and insignificant in testing different slope for two groups of economies (Column (3), Table 1). Judging to the regression coefficient of interaction variable $Ref_{-1} * EE$ (Column (5), Table 1), the level of reforms in the Emerging Europe in one period have an additional positive influence on growth in the following period, but it is not significantly higher compared to West Balkan economies.

According to the estimated results from this part, it seems that both macroeconomic stability and reforms are important growth determinants in observed sample, but there are no significant differences in their effects on growth patterns between the Emerging Europe and West Balkan economies. Recent literature, however, is more focused on possible new growth drivers which could be related to the integration process, in sense of financial, trade and institutional integrations (for instance, Friedrich, Schnabel, and Zettelmeyer, 2010). Therefore, an additional issue of the paper is to investigate whether integrations could explain the growth differences and finally, whether those relationships are changed in the period of global instability. More precisely, a special attention is dedicated to the following questions:

- (1) Does financial integration through foreign direct investments play a key role in determining growth in Emerging Europe and West Balkans?
- (2) Does trade integration through trade openness contribute to different extent of growth in two groups of economies?
- (3) Does economic integration bring significant benefits to the countries involved in the EU enlargement process?
- (4) Do Emerging Europe and West Balkans economies experience different degree of output decrease during global instability, and which variables are generators of these changes?

In the following parts of paper, the results of econometric analysis provide answers to the questions.

4.2. Financial integrations: the role of foreign direct investments

Foreign direct investments are one of the most important instruments for development. FDI promote economic performance through transfer of technology from advanced economies, but they are also used for financing balance of payments and domestic enterprises. FDI undoubtedly have influence

on the level of GDP, while their effects on long-term growth might have been only through technological progress. However, in order to appeal FDI, countries have to be attractive destination for investments, namely, to have stable legislation and political system, developed infrastructure, as well as to achieve macroeconomic stability. Consequently, 68.32% of world FDI inwards is directed toward developed economies, 29.27% toward developing economies, and only 2.39% toward the Emerging Europe and the West Balkan economies in the period 1997-2007.

Despite the fact that small share of the world FDI is directed to Emerging Europe and West Balkans economies, FDI inflows still seem to be one of the most important generators of their growth performance. Additionally, each economy becomes more attractive for investors after achieving more favourable status in the EU enlargement process. The significant increase of FDI inflows in the West Balkans during the 2000's compared to the 1990's is likely to occur due to the improvement of their status in the enlargement process. However, the West Balkan economies lag behind Emerging Europe in attracting FDI. Within the group of West Balkans Croatia is leading country regarding total FDI inflows, and Hungary and Czech Republic in the group of Emerging Europe. When FDI inflows are expressed in per capita terms, it appears that small emerging economies such as Baltic countries particularly attracted the most investment. Also, Romania and Bulgaria became other attractive investment destinations, after becoming EU candidate countries in the year 2005¹². In order to investigate the role of FDI in determining Emerging Europe and the West Balkans growth, the dynamic panel specifications are estimated. The results are given in the Table 2.

Table 2 The effects of foreign direct investments on growth
Dependent variable: *Growth rate of real GDP*

Variables:	(1)	(2)	(3)	(4)
<i>GDP₋₁</i>	-0.009 (0.006)	-0.014** (0.007)	-0.017** (0.008)	-0.018** (0.007)
<i>CPI</i>	-0.069** (0.027)	-0.073*** (0.025)	-0.073*** (0.025)	-0.071*** (0.026)
<i>Gov</i>	-0.007 (0.011)	-0.009 (0.010)	-0.010 (0.010)	-0.009 (0.009)
<i>FB</i>	0.087** (0.035)	0.114*** (0.035)	0.118*** (0.036)	0.117*** (0.035)
<i>Ref₋₁</i>	0.004 (0.003)			
<i>FDIpc₋₁</i>	0.004 (0.004)	0.100*** (0.003)	0.009*** (0.003)	0.008*** (0.003)
<i>FDIpc₋₁*EE</i>			0.002 (0.003)	
<i>FDIpc₋₁*EE1</i>				0.005** (0.002)
Wald (chi2) statistics	305.15 (0.000)	311.33 (0.000)	307.99 (0.000)	310.02 (0.000)
Arellano-Bond AR(2) test	-0.204 (0.838)	-0.166 (0.868)	-0.125 (0.900)	-0.100 (0.921)
Sargan test	139.186 (0.339)	123.775 (0.363)	121.863 (0.385)	118.927 (0.459)

***statistical significance at the 1% level, **significance at the 5% level, *significance at the 10% level (in parenthesis are p values).

¹² Dynamic of FDIpc inflows in the West Balkans and Emerging Europe is given in the Figure A2 in Appendix.

As mentioned in previous section, since FDI could also be determined by growth, the feedback from growth to FDI inflows is taken into account in all specifications. All specifications pass the Sargan test for over-identifying restrictions, indicating the validity of used instruments.¹³ The first specification estimates the lagged effect of FDI per capita inflows ($FDIpc_{i,t}$) along with reforms and macroeconomic variables. All variables have the same sign as in the previous specifications. However, in the presence of reform variable, the effects of both FDI *per capita* inflows and reforms become insignificant (Column (1), Table 2). This could be due to high correlation between reform and FDI variables (0.752), meaning that the level of undertaken reforms which promote growth also attracts FDI. Therefore, with the intention to explore the effects of FDI *per capita* inflows on growth, reform variable is excluded from the model in this part of analysis.

As indicated above, the effects of two macroeconomic variables, *CPI* and *FB* are robust to the inclusion of other determinants, such as FDI *per capita* inflows. Their effects on growth are significant in all specifications in Table 2, highlighting the important link between stabilisation and growth. Estimated results show that FDI is the significant driver of the growth in both groups of economies (Column (2), Table 2). However, additional testing shows that there is no significant difference between the two groups of countries with respect to FDI effects on growth. Namely, although additional effect of FDI on growth appears to be positive in Emerging Europe, the regression coefficient of the interaction between FDI and dummy variable *EE* is not significant (Column (3), Table 2).

Regarding FDI per capita inflows, two extremes in the sample of Emerging Europe economies are Slovenia and Hungary. Although those economies attract FDI, they also invest in other economies, and therefore have significant FDI outward, and often negative net FDI. Hence, Hungary and Slovenia benefit not only through FDI inflows, but also FDI outflows, meaning that net FDI determine their growth. Consequently, due to specific FDI flows in Slovenia and Hungary, those economies are excluded from the interaction term in order to explore the influence of FDI inflows on growth in other emerging economies (Column (4), Table 2). With new interaction term without two countries ($FDIpc_{i,t} * EEI$), the additional positive effect of $FDIpc$ inflows in Emerging Europe becomes significant. According to this finding, it turns out that there is significant difference between Emerging Europe and the West Balkans in FDI effects on growth, in sense that FDI inflows cause significantly faster growth in the former group of countries. Therefore, FDI could be considered as a factor which produces differences compared to West Balkan economies.

4.3. Trade integrations: the role of trade openness

Diminishing of trade barriers and opening to trade play important role in boosting the growth. Therefore, EU accession process rapidly brings benefits in terms of trade integration due to abolition of import tariffs and the more efficient use of resources. Expanding of trade, through improvements in competition policy and specialisation, has become priority for the current accessing West Balkan economies that are traditionally less opened in comparison to Emerging EU economies. In the observed period, index of openness is only 63.71% in the West Balkans. Particularly, this is due to Albanian low exports and openness index below 40% which decreases the average level of West Balkan economies openness. In Emerging Europe economies average level of openness is 92.89%, while two largest economies in the sample, Poland with only 56.05%, and Romania with 60.76%, considerably decrease average openness index in Emerging Europe.

¹³ We also tried to estimate the model with FDI variable treated as strictly exogenous, but Sargan test rejects the null hypothesis in that case.

The effect of trade openness on the growth pattern is also estimated by dynamic panel data specification and the results are presented in Table 3.

Table 3 Trade openness and growth
Dependent variable: Growth rate of real GDP

Variables:	(1)	(2)	(3)
<i>GDP</i> ₋₁	-0.012 (0.008)	-0.020** (0.009)	-0.018* (0.010)
<i>CPI</i>	-0.116*** (0.031)	-0.136*** (0.026)	-0.136*** (0.025)
<i>Gov</i>	-0.013 (0.010)	-0.009 (0.010)	-0.009 (0.010)
<i>FB</i>	0.109*** (0.036)	0.131*** (0.038)	0.127*** (0.042)
<i>Ref</i> ₋₁	-0.002 (0.003)		
<i>FDIpc</i> ₋₁	0.002 (0.004)		
<i>Open</i>	0.070*** (0.019)	0.077*** (0.016)	0.073*** (0.016)
<i>Open*EE</i>			-0.002 (0.006)
Wald (chi2) statistics	393.77 (0.000)	414.57 (0.000)	410.96 (0.000)
Arellano-Bond AR(2) Test	-0.511 (0.609)	-0.593 (0.553)	-0.597 (0.550)
Sargan test	135.251 (0.271)	123.29 (0.400)	122.11 (0.404)

***statistical significance at the 1% level, **significance at the 5% level, *significance at the 10% level (in parenthesis are *p* values).

In the estimation of trade integration effects on growth, variables *CPI* and *FB* remain significant determinants of growth, while government expenditure variable is insignificant. However, both reform and FDI variables become insignificant, which could be explained by multicollinearity problem among explanatory variables in the model. Simple correlation analysis shows that lagged structural reform variable is highly correlated with trade openness (0.58). Namely, more opened countries have already fulfilled criteria of reform evaluation and have more favorable status in the international trade relationships. Also, high correlation exists between trade openness and FDI (0.57) because diminishing of trade barriers implies direct access for investors to the economy. Hence, in presence of variable *Open*, reform and FDI variables become insignificant (Column (1), Table 3). Therefore, columns (2) and (3) of the Table 3 contain estimation results of trade openness effects on growth along with only macroeconomic variables included. The results show that trade integration also appears as an important instrument to stimulate growth. This coincides with expectation that it promotes growth through a number of channels (comparative advantages, economy of scale, etc.). However, its different influence on growth in the two groups of economies could not be found (Column (3), Table 3).

4.4. Economic integrations: the role of EU membership

Economic integrations are closely related to the financial and trade integrations. Improvements in EU accession process always imply the higher degree of country openness, which is the assumption for foreign savings inflow, especially, when the country become member of EU. To test the changes in determinants effects on growth in the period of EU membership, the specifications contain additional interactions between growth determinant variables and dummy variable *EU* which takes value 1 for the period when a country became EU member, and 0 otherwise (Table 4).

Table 4 EU membership and growth
Dependent variable: Growth rate of real GDP

Variables	(1)	(2)	(3)	(4)	(5)	(6)
<i>GDP</i> ₋₁	-0.021** (0.009)	-0.021** (0.010)	-0.020** (0.010)	-0.020** (0.010)	-0.015*** (0.005)	-0.022** (0.009)
<i>CPI</i>	-0.092*** (0.032)	-0.091*** (0.031)	-0.092*** (0.033)	-0.092*** (0.032)	-0.075*** (0.025)	-0.132*** (0.027)
<i>Gov</i>	-0.003 (0.011)	-0.003 (0.012)	-0.003 (0.010)	-0.003 (0.012)	-0.001 (0.010)	-0.0064 (0.010)
<i>FB</i>	0.130*** (0.045)	0.129*** (0.047)	0.130*** (0.046)	0.131*** (0.045)	0.113*** (0.032)	0.141*** (0.039)
<i>Ref</i> ₋₁	0.005* (0.003)	0.005* (0.003)	0.005* (0.003)	0.006** (0.003)		
<i>FDIpc</i> ₋₁					0.007** (0.003)	
<i>Open</i>						0.061*** (0.017)
<i>CPI*EU</i>	0.005** (0.002)					
<i>Gov*EU</i>		0.005** (0.002)				
<i>FB*EU</i>			0.004** (0.001)			
<i>Ref</i> ₋₁ * <i>EU</i>				0.001** (0.0003)		
<i>FDIpc</i> ₋₁ * <i>EU</i>					0.004*** (0.001)	
<i>Open*EU</i>						0.003* (0.0016)
Wald (chi2) statistics	312.51 (0.000)	312.62 (0.000)	312.54 (0.000)	312.71 (0.000)	316.85 (0.000)	396.37 (0.000)
Arellano-Bond AR(2) test	-0.266 (0.790)	-0.263 (0.793)	-0.264 (0.799)	-0.267 (0.789)	-0.190 (0.849)	-0.556 (0.578)
Sargan test	123.322 (0.671)	123.437 (0.668)	123.292 (0.672)	123.379 (0.669)	153.064 (0.337)	113.81 (0.617)

***statistical significance at the 1% level, **significance at the 5% level, *significance at the 10% level (in parenthesis are *p* values).

According to the estimated results, significant changes after becoming the EU member occur with respect to the financial and trade integrations. Namely, the positive effects of trade and financial integration seem to have more intensive effects on growth dynamic, after the country become EU member. Financial integration through FDI brings significant benefits due to elimination of currency risk by adopting the euro, while no borders mean higher level of openness.

Interestingly, the positive effects of EU membership are not related only to the trade and financial integrations, but also to the macroeconomic variables. For instance, lower regression coefficient of *CPI* after becoming the EU members (the sum of coefficients *CPI* and *CPI*EU*) could mean that growth is less sensible to changes in this variable. Although the government expenditure effect is negative and insignificant in these specifications for the whole sample, the significant positive change in its effect appears after becoming the EU members. It means that higher government expenditure and transparency in EU member countries may bring significant results in stimulating growth. This implies possible positive influence of the government size on the economic performance through properly directed government spending. Finally, additional positive effect of reform variable is also expected meaning that complete fulfillment of transitional goals brings more benefits in terms of faster economic growth.

4.5 The effects of global instability on growth

Before the crisis, Emerging Europe and West Balkans economies seemed to make rapid and sustainable growth. However, global instability hits almost all Emerging Europe and West Balkans economies in 2009, when economic activity contracted rapidly. As can be seen from Figure 1, which represent the dynamic of growth for groups of economies, Baltic economies were hit even before, in 2008 because of relying on international financial markets (Berglof et al., 2010).

To investigate whether the global instability itself has significant impact on growth path, we estimate the growth model including 2008 and 2009. In addition, we test whether the global crisis in the last period influenced changes in the magnitude of determinant effects on growth.

According to our findings, the inclusion of two years causes changes in magnitude as well as direction of growth effects of observed determinants. For instance, the impact of structural reforms becomes negative and insignificant (Column (1), Table 5a). However, when time dummies are included for the last two years, the results on determinants effects become similar to those obtained for the period 1997-2007, since these dummies seem to capture the effects of crisis (Column (2), Table 5a). Regression coefficients of both time dummies are negative and for 2009 is significant at 1%, indicating the obvious negative effect of global instability on growth path in 2009. Furthermore, interactions of time dummies and dummies for the Emerging Europe and the West Balkans allow us to test crisis effects in these groups countries. The effects of crisis in the Emerging Europe is negative and significant in both years, which is measured by regression coefficients of dummies $EE*d08$ and $EE*d09$ in the model (Column (3) , Table 5a). This result goes in line with some recent findings about negative effects of financial integrations during the crisis. Namely, Emerging Europe economies earlier and more intensively suffered from negative effects of financial integrations during the crisis (such as credit boom and over-indebtedness), due to highly integrated financial market (Friedrich, Schnabel, and Zettelmeyer, 2010). West Balkan economies experienced lower decline of output, and only in the year 2009.

Table 5a The effects of global instability
Dependent variable: Growth rate of real GDP

Regressor:	(1)	(2)	(3)
GDP_{-1}	-0.043*** (0.011)	-0.028*** (0.009)	-0.020** (0.009)
CPI	-0.246*** (0.014)	-0.102*** (0.034)	-0.100*** (0.033)
Gov	-0.051** (0.014)	-0.0154 (0.012)	-0.0185 (0.012)
FB	0.409*** (0.047)	0.156*** (0.046)	0.145*** (0.046)
Ref_{-1}	-0.004 (0.003)	0.008*** (0.002)	0.006** (0.003)
D_{2008}		-0.012* (0.007)	
D_{2009}		- 0.117*** (0.000)	
$EE*d08$			-0.025** (0.010)
$EE*d09$			-0.140*** (0.009)
$WB*d08$			0.011 (0.014)
$WB*d09$			-0.065*** (0.015)
Wald(chi2) statistics	124.69 (0.000)	432.59 (0.000)	452.14 (0.000)
Arellano-Bond AR(2) test	-0.643 (0.520)	-0.234 (0.812)	-0.132 (0.895)
Sargan test	158.773 (0.119)	155.795 (0.131)	138.984 (0.344)

***statistical significance at the 1% level, **significance at the 5% level, *significance at the 10% level (in parenthesis are p values).

As another issue of this part, we investigate changes in the magnitude of determinant effects on growth in the last two years. All estimated equations (Columns (4)-(9), Table 5b) show there are

significant changes in slope coefficients of each determinant in 2009, and for the FDI_{pc} in both years. Significant decline of FDI in 2008 and 2009, could explain why some economies experienced growth decrease already in 2008¹⁴. Regression coefficient of *CPI* variable for 2009 is higher (-0.127) indicating higher elasticity of growth to the *CPI* changes in the period of crisis. Contrary to this, the regression coefficient of reform variable is significantly lower in 2009, which may imply the diminishing reform effects along with growing crisis effects.

Table 5b The effects of global instability
Dependent variable: Growth rate of real GDP

Regressor:	(4)	(5)	(6)	(7)	(8)	(9)
<i>GDP</i> ₋₁	-0.029*** (0.009)	-0.028*** (0.009)	-0.028*** (0.009)	-0.025*** (0.009)	-0.019** (0.008)	-0.036*** (0.012)
<i>CPI</i>	-0.102*** (0.034)	-0.102*** (0.034)	-0.103*** (0.034)	-0.100*** (0.033)	-0.124*** (0.033)	-0.155*** (0.045)
<i>Gov</i>	-0.016 (0.012)	-0.015 (0.012)	-0.015 (0.011)	-0.015 (0.012)	-0.021* (0.012)	-0.017 (0.012)
<i>FB</i>	0.157*** (0.046)	0.155*** (0.046)	0.156*** (0.045)	0.149*** (0.046)	0.183*** (0.045)	0.170*** (0.057)
<i>Ref</i> ₋₁	0.007*** (0.002)	0.007*** (0.003)	0.007*** (0.002)	0.007*** (0.002)		
<i>CPI</i> * <i>d08</i>	-0.003 (0.002)					
<i>CPI</i> * <i>d09</i>	-0.025*** (0.002)					
<i>Gov</i> * <i>d08</i>		-0.003* (0.002)				
<i>Gov</i> * <i>d09</i>		-0.031*** (0.002)				
<i>FB</i> * <i>d08</i>			-0.003* (0.0017)			
<i>FB</i> * <i>d09</i>			-0.026*** (0.002)			
<i>Ref</i> ₋₁ * <i>d08</i>				-0.0007* (0.0004)		
<i>Ref</i> ₋₁ * <i>d09</i>				-0.006*** (0.0004)		
<i>FDI</i> _{pc-1}					0.018*** (0.004)	
<i>FDI</i> _{pc-1} * <i>d08</i>					-0.002* (0.0013)	
<i>FDI</i> _{pc-1} * <i>d09</i>					-0.016*** (0.001)	
<i>Open</i>						0.069** (0.025)
<i>Open</i> * <i>d08</i>						-0.001 (0.002)
<i>Open</i> * <i>d09</i>						-0.023*** (0.002)
Wald(chi2) statistics	430.10 (0.000)	436.03 (0.00)	432.00 (0.000)	442.98 (0.000)	431.13 (0.000)	496.78 (0.000)
Arellano-Bond AR(2) test	-0.112 (0.910)	-0.125 (0.898)	-0.120 (0.905)	-0.131 (0.886)	-0.228 (0.823)	-0.597 (0.550)
Sargan test	157.512 (0.111)	154.41 (0.134)	156.016 (0.125)	150.034 (0.194)	156.284 (0.164)	83.53 (0.234)

***statistical significance at the 1% level, **significance at the 5% level, *significance at the 10% level (in parenthesis are *p* values).

¹⁴ The dynamic of growth and FDI in the West Balkans and Emerging Europe economies is given in Figure A3 in the Appendix.

Regarding the estimated effects of growth determinants during the crisis, it appears that significant changes have already happened in 2008. Generator of these changes was FDI. This result is not surprising, knowing that foreign investors react fast in order to protect themselves from the negative consequences of the crisis. Contraction of FDI inflows in highly financial integrated market caused changes in growth path of Emerging Europe. Those effects spilled-over on the West Balkans economies during 2009.

5. CONCLUSIONS

Although Emerging Europe and West Balkans economies were in same sample of the economies that abandonment central planned system, and undertook comprehensive political, institutional and social reform, the growth rates of these two groups of economies differ considerably. Identification of growth differences drivers is core of the analyses in this paper.

The econometric methodology of dynamic panel data models of growth determinants is applied on the sample of ten Emerging Europe and five West Balkans economies over the period 1997-2007, in order to find out which factors determine growth differences in two groups of economies. The paper's findings indicate that macroeconomic stability and structural reforms are still important in explaining growth, and their growth effects in the two groups of countries do not differ significantly.

Due to complexity of growth, an additional issue in the paper is whether the integration process, in sense of financial, trade and economic integrations, could explain differences in growth rates. According to our findings, FDI also appears as dominant determinant in both groups of countries, but as the main generator of growth in Emerging Europe this factor causes faster growth than in the West Balkans. Different effects of FDI on growth in West Balkans economies are likely to be related to the existence of financial risks, which is obstacle for higher FDI inflows. Trade openness also generates growth in two groups of economies, but it does not cause differences in growth patterns between two groups. Regarding the question of economic integration, it seems that the EU membership brings significant benefits to the countries involved. More precisely, significant changes after becoming the EU member occur, since positive effects of trade and financial integrations appear to have additional positive effects on growth dynamic.

The final issue addressed in the paper is why Emerging Europe and West Balkans economies experience different degree of output decrease during the global instability in 2008 and 2009. Therefore, in order to explore whether estimated relationships between growth determinants and growth are weaken during the crisis, the focused sample is broaden to the period 1997-2009. It seems that the effects of all growth determinants are significantly changed in 2009. Particularly, financial integrations seem to have impact on growth decrease both in 2008 and 2009. Therefore, contraction in FDI inflows in highly financial integrated market (Emerging Europe) appeared to cause the change in their growth path, and those effects spilled-over on the West Balkans economies during 2009.

Summing up the main findings of the paper, it is shown that economic integrations would bring advantages in the sense of finance, trade and sustainable growth. Therefore, the challenge for the West Balkans is to speed up their economic reform, to progress in the EU enlargement process and consequently to use the benefits from European integrations.

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APPENDIX

Table A1 List of variables

VARIABLE	DESCRIPTION	MEASURE	SOURCE
<i>CPI</i>	Consumer price index	Percentage change	EBRD
<i>D_2008</i>	Dummy variable for the year 2008	1 – year 2008, 0 - else	
<i>D_2009</i>	Dummy variable for the year 2009	1 – year 2009, 0 - else	
<i>EE</i>	Dummy variable for Emerging Europe economies	1 – Emerging Europe economy, 0 – otherwise	
<i>FDIpc</i>	Foreign direct investments inflows <i>per capita</i>	in US dollars	UNCTAD
<i>FB</i>	Share of fiscal balance in GDP	In percentage	EBRD
<i>GDP</i>	Real GDP per capita	In US dollars	EBRD
<i>Gov</i>	Share of Government expenditure in GDP	In percentage	EBRD
<i>Open</i>	Openness as the share of total trade (exports and imports) in GDP	In percentage	EBRD
<i>Ref</i>	Sum of all transition indicators	Mark from 1 to 4.33 for each transition indicator	EBRD
<i>EU</i>	Dummy variable for becoming EU member	1 – the period from the year when country become EU member, 0 - otherwise	EU Commission
<i>WB</i>	Dummy variable for the West Balkans economies	1 – West Balkans economy, 0 – otherwise	

Figure A1 Average growth in Emerging Europe and West Balkans economies in the period 1997-2009

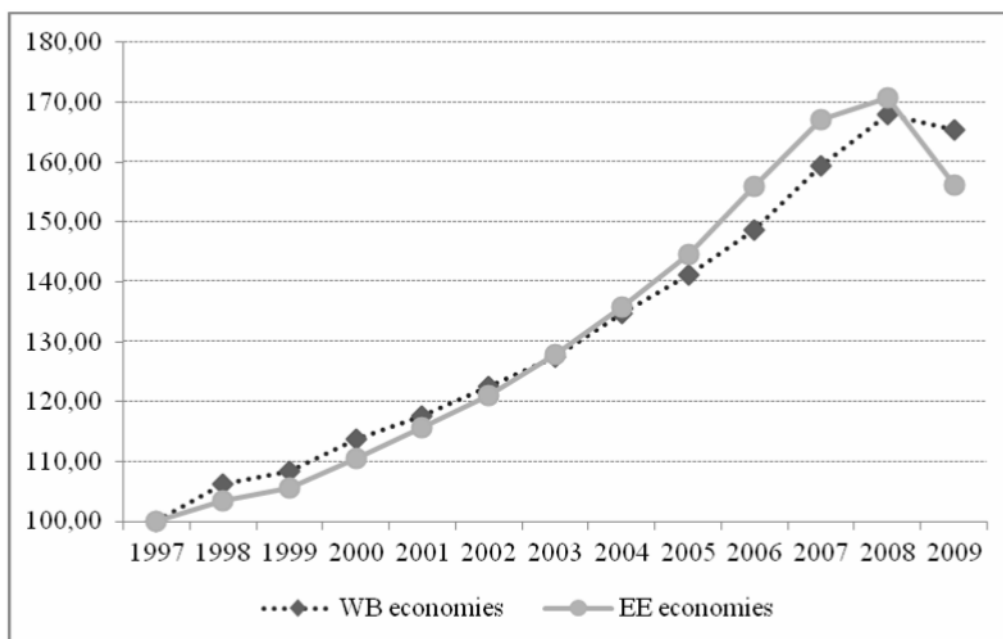


Figure A2 FDIpc inflow in Emerging Europe and West Balkan economies

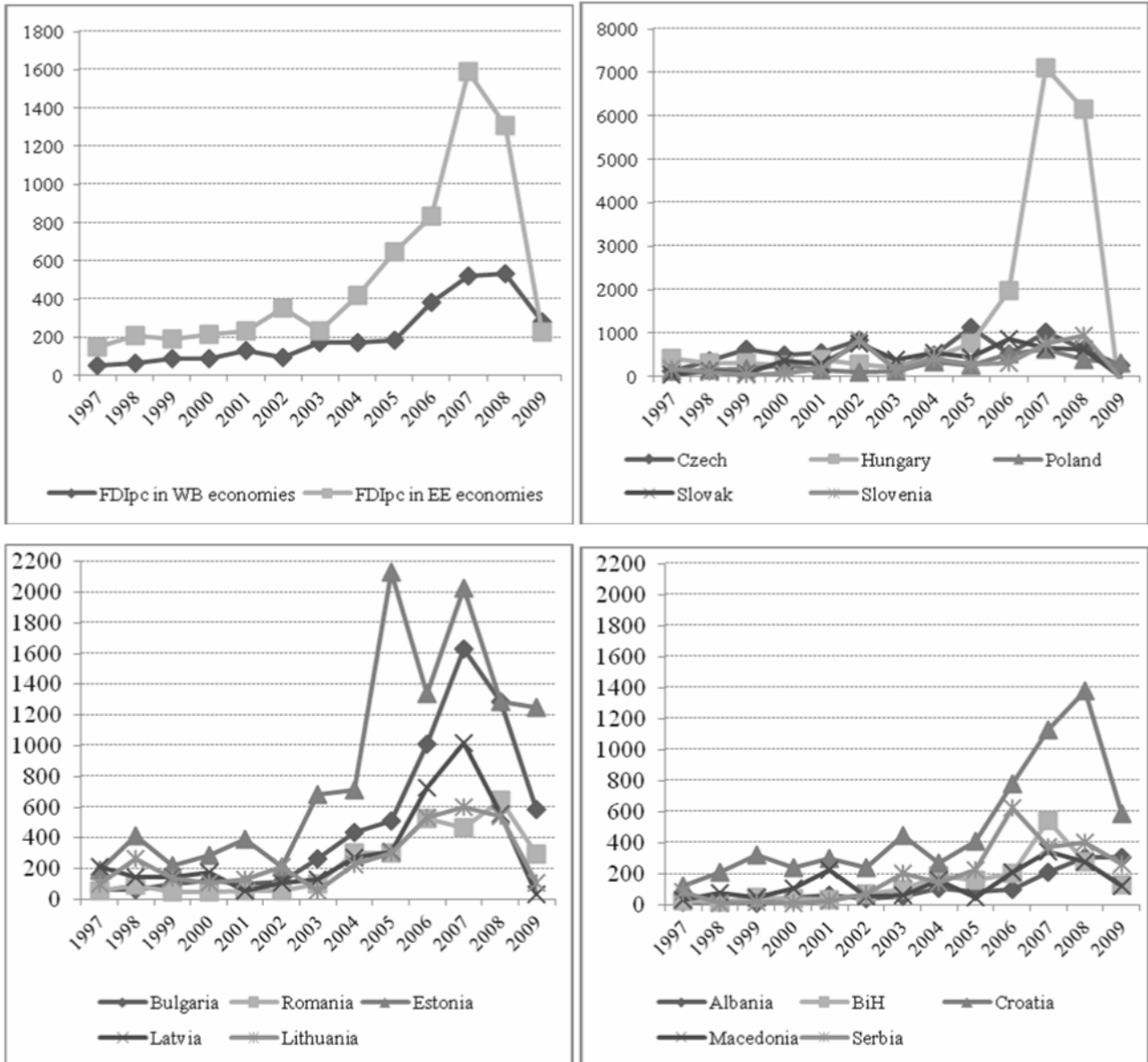


Figure A3 Growth and FDI/GDP in Emerging EU and the West Balkans economies (1997-2009)

