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# Determinants of capital market in the new member EU countries

Bojana Olgić Draženović[a] and Tino Kusanović[b]

[a]Faculty of Economics, University of Rijeka, Rijeka, Republic of Croatia; [b]Department of Professional Studies, University of Split, Split, Republic of Croatia

**ABSTRACT**

The capital market is an important source of financing for viable investment projects and further economic development. Development of long-term financial markets is particularly important for transition EU countries, taking into account that stock markets in these countries did not start to operate until the mid-1990s. Despite legislation infrastructure quality, functional training and significant progress in market effectiveness, the capital market in many transition economies may be regarded as shallow, illiquid and nontransparent. At the same time, one can observe the strong development of 'institutional saving', i.e., financial development related to financial institutions like pension funds, investment funds, and insurance companies. The phenomenon of growth of institutional investors is especially important for capital markets in CEE transition countries, including the Republic of Croatia. The goal of this paper is to test the impulse of non-bank financial intermediaries' development, and also the influence of implementing the above-mentioned structure reform on capital markets development in the selected transition countries. By applying a panel data approach on a sample of six CEE countries over the period between 1995 and 2010, we provide further evidence on the specific determinants of emerging European capital markets.

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## 1. Introduction

The financial system is essential for any national economy, because its development and efficiency support investments and growth. The positive effects of a well-developed financial system are driven by the intermediation role of financial institutions and markets, which enables mobilisation of savings, acceleration of foreign capital flow and optimisation of capital allocation. Thus, financial intermediation is not only in line with economic activities, but can also be an impulse to economic growth.

Economists have different views of the theoretical link between financial development and economic growth. For instance, Schumpeter (1911) points out that the services provided by financial intermediaries are essential drivers for innovation and growth. Robinson (1952)

**CONTACT** Bojana Olgić Draženović bolgic@inet.hr

had the opposite view; he emphasises that financial development follows economic growth as a result of higher demand for financial services. However, the vast majority of studies do support this relationship. The earliest examination of the relationship between finance and growth across countries was a 1969 study by Raymond Goldsmith (Goldsmith, 1969).

The more recent empirical and theoretical literature suggests that development of the financial system accelerates macroeconomic growth. Economists have found empirical evidence in favour of the thesis that countries with more developed financial systems have increased their economic growth. King and Levine (1993) emphasised in their research that financial development predicts economic growth in the long run.

Most of the earlier studies emphasise the role of the banking sector in facilitation of economic growth. However, in recent decades, banks' intermediation loses its importance and financial systems become more complex and polycentric. These systems are determined by nature and the implications of the 'institutionalised saving process', i.e., the growing role of institutional investors and capital markets that dynamise securities trading and innovate capital collecting techniques. Therefore, a number of recent researches have focused on stock markets' indicators and economic growth.

Levine and Zervos (1998) included measures of macroeconomic and institutional determinants of capital market development in 42 transition countries and found positive and significant effects on economic activity. They pointed out that both banks and capital markets are integral parts of a co-evolving system and they complement each other. A long-term financial market is of crucial importance, not only for developed market financial systems, but also for bank-based ones. Demirgüç-Kunt and Levine (1996) provide evidence that better-functioning stock markets also have more developed financial intermediaries.

Therefore, financial development is of crucial importance for transition countries considering the short history of their markets and the great importance of banks. Moreover, empirical evidence suggests that financial development has a stronger impact on growth in low- and middle-income countries than in high-income countries (Beck & Demirgüç-Kunt, 2009).

Theoretical and empirical research focused on the relationship between finance and growth in the transition CEE countries is relatively scarce, and this especially relates to research regarding determinants of stock market development (Berglof & Bolton, 2003; Bonin, Hasan, & Wachtel, 2005; Fink, Haiss, & Vukšić, 2009; Kurach, 2009). These authors report a positive correlation between financial deepening and economic growth, but with some limitations concerning the short history of capital market development, development of institutional investors and important reform processes, i.e., pension reform and the privatisation process. Thus, findings need to be considered as preliminary, owing to the relatively short time series available and the difficulties in modelling output growth (Mehl & Winkler, 2003). These financial systems are bank-based, with underdeveloped, narrow, and illiquid capital markets. Nevertheless, the importance of institutional investors is growing, especially in countries that implemented the compulsory second pension pillar with capitalised savings. Hence, the purpose of this paper is to fill the gap in the literature and identify the main determinants for capital market development, particularly the phenomenon of institutional investors' growth in the selected post-transition EU countries.

The aim of this paper is to examine the impact of institutional investors' development and the influence of pension reform and the privatisation process on stock market development in the selected transition countries. Specifically, the paper examines the impact of

investment funds, insurance companies, pension funds, large-scale privatisation, banking sector development, macroeconomic stability, income, savings, and institutional quality on stock market development using a panel dataset of six CEE countries for the period between 1995 and 2010.

The remainder of this article is organised as follows: Section 2 briefly reviews basic determinants of capital market development in the selected countries, and Section 3 describes the dataset and econometric methodology. Section 4 reveals the empirical results and the conclusion is outlined in the final section.

## 2. Determinants of capital market development

Development of capital markets that were re-established from the start of the early 1990s in CEE countries is driven by numerous forces. The most important determinants are (Cherif & Gazdar, 2010; Garcia & Liu, 1999; Hryckiewicz, 2009; Iorgova & Ong, 2008; King & Levine, 1993; La Porta, López-de-Silanes, Shleifer, & Vishny, 1997; Yartey, 2008):

(1) Legal and institutional framework.
(2) Political and macroeconomic stability.
(3) Broadening the investors' base.

The first steps in establishing new exchanges and the accompanying infrastructure for the CEE countries were defining and implementing the legal and institutional framework. Amongst the crucial factors in determining the future shape of securities markets in the transition economies were the privatisation strategies adopted (coupon privatisation, employee ownership, IPOs, direct sale to strategic investors), and the approach to the creation of financial markets (top-down or bottom-up). In the first decade of the transition process, the framework of securities markets was, to a large extent, a by-product of the privatisation method. In the following stage of development, important impulses for market liquidity and turnover were provided by the pension reform, i.e. the introduction of pension funds.

At the beginning of the formation of capital markets, many transition countries did not synchronise the start of stock market operations with the adoption of a legislative and institutional framework which, along with lack of experience, subsequently led to legal and regulatory uncertainties. Today, despite a fully established legal and regulatory framework, there is a significant problem of implementation and compliance with the adopted legislation, given that a good legal system is a necessary, but not sufficient, condition for economic development.

Another important factor in creating and improving securities markets are levels of political and macroeconomic stability. Resolution of political risks, rule of law, and higher bureaucratic quality enhanced the viability of external finance. Literature provides evidence that there is a significant and negative relationship between inflation and financial development.

Financial intermediary development has a great positive impact on stock market development. Countries with well-developed stock markets tend to have well-developed financial intermediaries (Demirgüç-Kunt & Levine, 2008). Investment funds emerged out of mass privatisation funds used to transfer ownership during privatisation. More than any other institutional investor, pension funds grew significantly in terms of size and assets due to funded pension schemes that have been established in most of the CEE economies

(Hryckiewicz, 2009). In the future, it is expected that pension funds and insurance companies will progress due to demographic changes such as ageing of the population and the need to ensure adequate income in old age.

Expansion of the investors' base increases liquidity, reduces the significance of financial shocks due to different strategies and the risk inclination of individual investors, and, ultimately, increases the demand for securities. Without diminishing the importance of foreign investors, the corporate sector and individual investors, efforts put into expansion of the investors' base should primarily be directed to institutional investors, especially in the initial efforts put into market development.

## 3. Data and methodology

The approach in this study is to empirically verify the determinants of stock market development in the selected CEE economies. For that purpose, panel data methodology was used with the macroeconomic approach.

### *3.1. Framework and variable selection*

The sample for this study includes selected markets of the following European post-transition countries: Croatia, the Czech Republic, Hungary, Poland, Slovakia, and Slovenia. All of these economies have comparable characteristics considering their similar historical and political development, development level and economic structure, and, in particular, similar progress of capital market development and development of financial institutions.

Annual data for the period between 1995 and 2010 were obtained from different sources (see Table 1) due to the availability of annual data for most of the independent variables. Short time series resulted from the short history of capital markets in the selected countries. Data for the early transition period (1990–1994) were not used in the analysis considering non-typical values due to unsettled trading and major illiquidity problems.

Data variability is much larger in transition countries than in developed countries. There is also a problem of scarcity of the available data and short time series, which resulted in fewer observations. Therefore, an unbalanced panel model was constructed based on longitudinal dependent and independent variables.

In order to understand the importance of the stock market for the development of transition economies, we examine the capitalisation ratio as a dependent variable and proxy for stock market development. It is defined as the market value of shares traded on the stock market divided by GDP. Inclusion of the stock capitalisation ratio as an indicator of the capital market development has origins in numerous empirical sources with a focus on financial development (Cherif & Gazdar, 2010; Levine & Zervos, 1998; Rousseau & Wachtel, 2000; Yartey, 2008). Garcia and Liu (1999) argued that this measure is less arbitrary than other measures of stock market development.

Independent variables describe the development of institutional investors, the effectiveness of the privatisation process and pension reforms, and achieved macroeconomic development in the selected countries.

Development indicators of non-bank financial intermediation explain the importance of institutional investors for national economies. It was found that these indicators are highly correlated with the size of the stock market. For pension and investment funds, we initially

**Table 1.** Definition and notations of variables.

| Name | Definition | Source |
|---|---|---|
| *Dependent variable – Indicators of capital market development* | | |
| Market capitalisation / GDP *capgdp* | share price × total number of shares to GDP | Institutional investors (OECD), WDI |
| *Independent variables – Indicators of nonbanking financial intermediation development* | | |
| Investment funds asset/GDP *fondgdp* (+) | Total asset of investment funds to GDP | Institutional investors (OECD), National regulators |
| Life insurance premium/GDP *lifepremgdp* (+) | Life insurance premium to GDP | |
| Pension funds *dummypension* (+) | Dummy variable: Value [1] for the existing pension funds | EBRD; Transition report (1995–2011) |
| *Structure reforms indicators – EBRD transition indicators* | | |
| 1. indicator of large-scale privatisation, *privindex* (+)<br>2. indicator of banking financial institutions reforms, *ebrd_bank* (+) | The value of indicator can be in range [1, 4], with highest grade for countries which can be marked as fully industrialised market economies | EBRD; Transition report (1995–2011) |
| *Macroeconomic indicators* | | |
| Inflation CPI (%), *cpi* (–) | Consumer price index – CPI | WDI |
| GDP growth (%), *GDPgrowth (+)* | GDP change per year | |
| Saving rate, saving*gdp* (+) | Gross domestic saving to GDP | |
| *Institutional indicators* | | |
| Heritage index, *herit* (+) | The value of indicator in range [0,100] | Heritage foundation |

Note: values in brackets represent expected signs of coefficients.
Source: author's study.

planned to use the ratio of their assets and GDP (Davis & Hu, 2005; Demirgüç-Kunt & Levine, 1996; Harichandra & Thangavelu, 2004; King & Levine, 1993). Nevertheless, due to an insufficient number of observations for the pension funds indicator, they did not prove significant. Alternatively, we constructed a dummy variable for pension funds that determines the existence of mandatory and/or voluntary pension funds. For insurance companies, we included measurement of life insurance penetration, measured as nominal life premiums to nominal GDP. Insurance companies initiate their business activity with equity capital, further raise funds by issuing insurance policies, and subsequently act as institutional investors on the market, assisting in improving capital allocation and stimulating investment activity. The relative ratio of life insurance consumption and the size of the economy were selected instead of insurance assets, because premiums better represent collected capital that was invested on the financial market in the long run. The non-life insurance segment was suppressed because it mainly covers short-term placements of financial funds.

In order to determine the effect of structural reforms and improvement in the convergence process on market economies, we used some of the EBRD transition indicators. We expected a strong positive relationship between these indicators and stock market development, except for the infrastructure reform index. The privatisation process and restructuring of enterprises can enhance corporate governance and strengthen the confidence in stock market investment. Setting up adequate and supporting financial infrastructure enables a financial system to provide more resources to the corporate sector, improve the performance of private equity funds, and ensure protection to creditors. Non-bank financial institutions and capital market reform directly improve the performance and development of institutional investors. The widening of financial access requires a variety of measures oriented towards the growth of other financial services with riskier and longer-term investments from

non-bank financial institutions. However, this does not imply that markets and institutional investors should substitute banks.

The third group of variables refers to macroeconomic indicators. The macroeconomic variables selected for analysis based on the literature review include macroeconomic stability, saving rate and GDP growth. Macroeconomic stability is one of the prerequisites of stock market development. In order to determine the impact of macroeconomic stability on market capitalisation, we used CPI as a measure of inflation level and real interest rate, which is considered as the cost of capital. Theoretically, there is an inverse correlation between share price and interest rate. If the rate of interest paid by banks to depositors increases, financial resources move from the capital market to the bank. This will lead to a decrease in the demand for shares and so decrease the price of shares, and vice versa. The inflation indicator is used to measure policy-related economic uncertainty and can be used to proxy macroeconomic instability. At times of macroeconomic instability, prices became signals with large standard deviations, which makes it very difficult to assess whether price changes were temporary or permanent, and stock markets became more uncertain. Considering the fact that higher level of these categories means deterioration of market conditions, we expect a negative sign of the impact on stock market development for both of the indicators. The saving rate may be an important factor for the development of the stock market. Stock markets contribute in a major way to the transformation of savings into investment and the size of the stock market is, therefore, linked to income growth. In this study, we presume that economic growth promotes stock market development, according to numerous studies (Garcia & Liu, 1999). Therefore, saving rate and GDP growth are expected to have a positive impact on stock market development.

The Heritage Foundation Index of economic freedom is added to this set of variables in order to explain the quality of institutions. This index aggregates 10 components with equal weight: trade policy, fiscal burden, government intervention, monetary policy, capital flows and foreign investment, banking and finance, property rights, wages and prices, regulation, and black market. The index assigns a score (0–100) to each country's performance and higher scores correspond to higher levels of institutional quality. It seeks to provide a broad assessment of institutional quality and is not time invariant.

### 3.2. Econometric methodology

The specification of the panel data model for analysis of the impact of institutional investors and other variables on the capital market development is the following:

$$capgdp_{it} = \alpha_i + \beta_1 instiinv\_impact_{it} + \beta_2 reforms_{it} + \beta_3 macro_{it} + \varepsilon_{it} \quad (1)$$

where *capgdp* is the dependent variable of stock capitalisation as a proxy for capital market development. Independent variables are grouped as:

(1) *instinv_impact* represents an indicator of institutional investors' impact on capital market development (institutional investors are the most important non-bank financial institutions, i.e., investment funds, pension funds and insurance companies);
(2) *reforms* represent an indicator of structural reforms in transition countries as a grading of their convergence process;

**Table 2.** Summary statistics, annual data 1995–2010.

| Variables | Mod | Maximum | Minimum | Standard deviation |
|---|---|---|---|---|
| *capgdp* | 20,996 | 111,223 | 1,494 | 15,764 |
| *fondgdp* | 6,016 | 16,664 | 0,002 | 4,319 |
| *lifepremgdp* | 1,150 | 3,058 | 0,238 | 0,534 |
| *privindex* | 3.551458 | 4 | 2.67 | 0.456 |
| *ebrd_bank* | 3,486 | 4 | 2,67 | 0,444 |
| *cpi* | 6,214 | 28,303 | 0,102 | 5,328 |
| *gdpgrowth* | 3,476 | 10,579 | −7,8 | 3,160 |
| *savingdp* | 22,918 | 33,387 | 7,29 | 4,605 |
| *interest* | 5,721 | 17,977 | −5,194 | 4,111 |
| *herit* | 60,796 | 70,2 | 46,7 | 5,922 |

Source: Stata estimations.

(3) *macro* is an indicator of the impact of macroeconomic conditions on capital market development.

Table 2 provides some descriptive summary statistics on the variables over the sample period.

Fixed effects and the random effects model were taken into consideration. The fixed effects model is appropriate in situations where individual specific effects may be correlated with one or more regressors (explanatory variables). It may be noted that the fixed effect model assumes that the coefficient of the regressors does not vary over time. The Hausman test was used to decide between the two estimation techniques. The basic presumption underlying the Hausman test is that individual effects are not correlated with explanatory variables. If the null hypothesis is rejected, the conclusion is that random effects model is not appropriate, and that it might be better to use the fixed effects model, in which case statistical inherences will be conditional on the $\varepsilon_i$ in the sample.

For testing of the first-order autocorrelation in individual effects, we used the Durbin-Watson test. In order to solve this problem and to capture the dynamic effect in stock market development, we created one lagged value of the dependent variable and interpolated it among independent variables for all tested panel data regression models. A lagged variable (*capgdp_1*) was created by shifting dependent variable *capgdp* one year back.

## 4. Empirical results

The estimated results of unbalanced static panel regressions are presented in Table 3. Tested panel data regression models (all variables were computed with logarithms) can be represented with:

$$\ln capgdp_{it} = \alpha_i + \beta_1 \ln capgdp\_1_{it} + \beta_2 \ln privindex_{it} + \beta_3 \ln fondgdp_{it} + \varepsilon_{it} \quad (2)$$

$$\ln capgdp_{it} = \alpha_i + \beta_1 \ln capgdp\_1_{it} + \beta_2 \ln privindex_{it} + \beta_3 \ln fondgdp_{it} + \varepsilon_{it} + \beta_4 dummypension_{it} + \varepsilon_{it} \quad (3)$$

$$\ln capgdp_{it} = \alpha_i + \beta_1 \ln capgdp\_1_{it} + \beta_2 gdpgrowth_{it} + \beta_3 lifepremgdp_{it} + \beta_4 \text{interest}_{it} + \varepsilon_{it} \quad (4)$$

**Table 3.** Regression results.

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|---|---|---|---|---|---|
| C | −3.749 (0.084) | −2.513 (0.255) | 2.748 (0.013) | −27.318 (0.031) | 5.083 (0.520) |
| ln*capgdp_1*$_{it}$ | 0.476* (0.000) | 0.372* (0.000) | 0.482* (0.000) | 0.227** (0.040) | 0.261* (0.030) |
| ln*fondgdp*$_{it}$ | 0.076*** (0.059) | 0.066*** (0.091) | – | – | – |
| ln*privindex*$_{it}$ | 4.432** (0.019) | 3.322*** (0.080) | – | – | – |
| *dummypension*$_{it}$ | – | 0.147** (0.043) | – | – | – |
| ln*herit*$_{it}$ | – | – | −0.836* (0.008) | – | – |
| ln*ebrd_bank*$_{it}$ | – | – | 1.743* (0.000) | – | – |
| *cpi*$_{it}$ | – | – | – | −0.759*** (0.090) | – |
| *gdpgrowth*$_{it}$ | – | – | – | 0.804*** (0.080) | 0.568 (0.267) |
| *savinggdp*$_{it}$ | – | – | – | 1.998* (0.002) | – |
| *lifepremgdp*$_{it}$ | – | – | – | – | 10.879** (0.050) |
| *interest*$_{it}$ | – | – | – | – | −0.613 (0.338) |
| Number of observations | 66 | 66 | 80 | 80 | 75 |
| $R^2$ | 0.11 | 0.13 | 0.75 | 0.13 | 0.25 |
| DW (adjusted) | 2.06 | 2.04 | 1.81 | 1.95 | 2.03 |

Note: Standard errors are in parenthesis below the coefficient estimates. *, ** and *** indicate significance at the 10, 5 and 1% levels, respectively.
Source: Stata estimations.

$$\ln capgdp_{it} = \alpha_i + \beta_1 \ln capgdp\_1_{it} + \beta_2 cpi_{it} + \beta_3 gdpgrowth_{it} + \beta_4 savinggdp_{it} + \varepsilon_{it} \quad (5)$$

$$\ln capgdp_{it} = \alpha_i + \beta_1 \ln capgdp\_1_{it} + \beta_2 \ln herit_{it} + \beta_3 \ln ebrd\_bank_{it} + \varepsilon_{it} \quad (6)$$

For all regressions, the results of F-test statistics approved the introduction of fixed effects at the significance level of 1%, with the exception of the last regression and its significance of 5%. On the other hand, *p-values* for the Hausman test statistics are also low, i.e., random effects estimations are inconsistent. Therefore, we will base our conclusions on the results of the fixed model.

Values of the adjusted Durbin-Watson test that was used to examine the first-order correlation in error term $\varepsilon_{it}$, provide no evidence of serial autocorrelation of the residuals. This means that our instruments were well-selected and that our results are statistically significant.

The first regression model analysed the impact of the EBRD's privatisation index of large-scale privatisation of state enterprises and the share of investment fund assets in GDP on the variable of market capitalisation in the percentage of GDP. The results showed positive and significant correlation on the sample of transition countries at the 5% significance level for the privatisation reform variable with a high coefficient, and at the 10% significance level for the variable of investment funds assets to GDP. This is consistent with the expected results and is in line with similar previous research (Beck & Levine, 2004; Bennett, Estrin, & Urga, 2007), which analysed the positive effect of coupon privatisation, especially for those countries that selected a 'bottom-up' or market-led approach in creating a capital market. The significant importance of investment funds for explaining the stock market development is in line with Claessens, Djankov, and Klingebiel (2000) and Harichandra and Thangavelu (2004). Investment funds largely emerged out of mass privatisation funds used to transfer ownership during privatisation. Nevertheless, mass or coupon privatisation did not lead to an expected progress in corporate governance and a quality shift in the capital market.

Unlike the 'top-down' approach, characterised by gradual growth of market capitalisation and the number of securities listed, the 'bottom-up' approach starts with a large number of listed shares out of which only some survive on the market (Simoneti, 1997). Thus, despite expectations of growth in the number of listed securities as well as the amount of trade, some stock markets in transition economies have, after the initial boom, experienced massive delisting, i.e., a large proportion of the listed share issues was excluded from public trading in a relatively short period of time. This created a problem in fulfilling the main functions of the stock market, which may have roots in the way these markets were established (Fungáčová & Hanousek, 2011).

In recent years, pension funds were recognised as generators of securities demand in CEE countries. However, although pension fund assets in emerging countries are growing in relation to the size of their financial markets, when measured against stock market capitalisation and the volume of bank deposits they remain small compared w developed countries with big pension fund industries (Holzman, 2009).

The ongoing ageing of the population and financing difficulties of pay-as-you-go systems impose various reforms related to the growth of institutional investment and institutional saving (Claessens et al., 2000; Impavido, Musalem, & Tressel, 2003; Hryckiewicz, 2009). In this context, besides pension funds, we considered the role of insurance companies as institutional investors for stock market development. In further analysis, we introduced a dummy variable for pension funds with the purpose of considering the pension reform in explaining stock market development. The dummy variable proved to be statistically significant at the level of 5%.

Life insurance premium variable to GDP is positively related to the dependent variable at the significance level of 5%. Macroeconomic variables in regression (3) do not have a significant effect on stock market development, but their coefficient sign is in line with the expectations. However, the activities of insurance institutions and pension funds, as well as policy issues, differ in emerging market economies in advanced countries. The proven strong relationship between the development of institutional investors and stock market development strengthens the need for making the population aware that they should adequately prepare for retirement, and make investment decisions. This calls for strong efforts to improve the level of financial literacy and carry out financial education programmes.

It can be noted from Table 3 that macroeconomic variables statistically have a significant impact on the share of stock market capitalisation to GDP. As the impact of inflation (CPI) is negative, and for growth rate positive at the significance level of 1%, and for gross domestic saving positive at the significance level of 10%, our results are fully consistent with the expected results. A growing economy stimulates the development of the capital market, because higher income affects the size of the stock market and price indices. In addition, because higher income usually goes hand in hand with better-defined property rights, better education, and improved general business environment, the above-mentioned variables have a positive impact on the stock market size (Garcia & Liu, 1999). Saving is also a good predictor of stock market development. Stock market intermediates savings to investment projects. Since transition countries are, in general, capital-scarce economies, this is one of the prerequisites for developing the long-term financial market. Inflation has been used as a measure of macroeconomic stability. Results approved the thesis that a higher level of macroeconomic stability (i.e. lower inflation rate) encourages investors to participate in the stock market because the investment environment is predictable.

Regression results showed evidence of the complementary development of capital market and banks. The results show that the variable of financial efficiency indicator, i.e., the EBRD index, has a positive effect on the selected CEE countries in the analysed period, at the significance level of 10%. These findings are in line with theoretical and empirical studies that indicate that both bank institutions and capital market development are necessary for balanced development of the market economy, and that they both contribute to growth. Most of the capital market indicators are highly correlated with development of the bank market. Countries with well-developed capital markets also tend to have a well-developed bank segment of the financial system. Furthermore, due to considerable coherence between banks and non-bank financial intermediaries in the transition countries and the conglomerisation process, institutional investors became a powerful agent of generating demand for securities and diversifying the risks. Banks have advantages in terms of information processing, monitoring and evaluating projects, while stock markets may have priority in allowing owners to diversify risk. However, it has to be pointed out that, according to Holzman (2009), a sound banking system is important for the development of pension funds and other institutional investors, a dominant banking sector risks dampening the development of other asset markets and institutions, and hence the supply of diversified assets pension funds can invest in.

An unexpected relationship was established for the variable of economic freedom, which represents the degree of protection of property rights and government involvement in banking and finance. The indicator of economic freedom degree proved statistically significant at the 10% significance level. Nevertheless, the coefficient of this variable has a negative sign, which contradicts the expected results, i.e., a positive effect. A possible interpretation of these results is that the values of the index for all sample countries are very low and have high volatility. Hence, heritage index instability was reflected in the negative sign of the coefficient. Furthermore, it can be concluded that the heritage index has a restrictive effect for investors in the CEE countries. This suggests that transition countries should reach a higher level of index components that are weighted by investors, i.e., property rights, financial and economic freedom, and freedom from corruption.

## 5. Conclusion

Capital markets in transition countries can be described as underdeveloped, and having hardly any influence on the progress of the national economy, especially in comparison with developed economies.

Several conclusions can be pointed out in this paper. First, a positive connection is demonstrated between financial development and economy growth of the selected CEE countries. Secondly, evidence is provided for the thesis regarding the importance of complementary development of intermediation in the banking sector and capital market. The conclusion is derived that transition countries should strive to improve the development of the long-term financial market. On the other hand, blurring of distinctions and strong links between banks and other financial intermediaries indirectly leads to the development of other non-bank institutional investors and development of the financial system as a whole. Thirdly, the model confirmed a causal relationship between development of capital market and non-bank financial intermediaries, based on proof of importance of investment funds and insurance companies' development for explaining equity market capitalisation.

Furthermore, development of capital market can be promoted by different structural reforms characteristic of transition countries, i.e., privatisation processes and introduction of capitalised savings into pension systems. In addition, despite the verified causal relationship between equity markets growth and total savings, as well as stability of CEE economies, capital markets remain underdeveloped, shallow, and narrow. Underdevelopment of the selected capital markets can be explained by the low level of institutional investors' assets, inadequate institutional characteristics, failures in designing and enforcement of the privatisation process, low domestic savings and initial stage of investment in culture and tradition

Finally, this paper represents an empirical basis for promoting financial and economic development, and especially the most dynamic part of the financial market, i.e., the capital market. These findings have important implications for the policy makers, as stock markets are perceived to have a crucial role in promoting economic growth. Therefore, it is of crucial importance to continue with the policy of investment liberalisation for institutional investors and to initiate and implement the measures for stimulation of savings and investments. These far-reaching and consistent measures should be used to advance the development of financial systems with an emphasis on strengthening 'institutional savings', improving corporate governance and strengthening property rights and the measures focused on financial education.

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