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# Investigation of global integration of the Central and Eastern European countries sovereign bond markets

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**Abstract**

The global integration of the Central and Eastern European countries (CEECs') sovereign bond markets was investigated in this paper. Summarizing the results of this study it can be stated that the global and regional integration of the CEECs sovereign bond markets is stronger in terms of sovereign bond CDS spreads volatilities comparing the sovereign bond CDS spreads changes and regional integration of CEECs bond markets is higher than global integration.



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*Keywords:* CEECs'; sovereign bond markets; global integration

## 1. Introduction

The integration of Europe's financial markets is an issue of high importance. According to Ferguson et al. (2009), financial integration could have both stabilizing and destabilizing effects. Some of the main stabilizing effects were expected to come from increased portfolio diversification. Demyanyk et al. (2008) note that as banks and other investors became more diversified across borders within the euro area, they could reduce their exposure to domestic shocks, and this would be reflected in greater income and consumption risk-sharing. Indeed, global and European evidence suggested that financial openness and integration had reduced consumption growth volatility (Bekaert et al. (2006)). Another benefit of financial integration was thought to come from improved allocative efficiency. Research by Giannetti and Ongena (2009) suggested that large cross-border banks in Europe could improve overall economic performance, by making sure that productive capital was channeled towards the most efficient firms. This would in

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turn reduce the risk of crises stemming from mispriced investment risk. Destabilizing effects of financial integration, on the other hand, were expected particularly through risk-taking and contagion. According to Caballero and Krishnamurthy (2009), asymmetric information problems associated with cross-border lending could lead to misaligned incentives and increased risk-taking. Similarly, savings imbalances abroad could compress risk premia and lower financing costs, allowing an increase in leverage in the domestic financial sector. Popov and Udell (2012) note that if negative shocks were to occur, contagion could quickly spread through the interbank market, and lending to the real sector across borders could be affected, too.

According to Fecht et al. (2007), as financial integration deepened, it was anticipated that the stabilizing effects would overall be more important than the destabilizing ones – that is, the welfare benefits of better diversification and improved allocative efficiency would offset the welfare costs of occasionally higher risk-taking and contagion effects. So why were the costs of the European crisis so high? There are many reasons for this, but Mario Draghi, President of the European Central Bank's (ECB), emphasizes one important factor – the incomplete nature of financial integration in the euro area. Price convergence in many asset classes created an appearance of financial integration, but it was in fact relatively shallow, in particular in the banking sector. According to the ECB's financial integration indicators, while euro area interbank markets became almost completely integrated, retail banking integration remained largely fragmented (ECB (2008, 2014)). The deepening of the degree of financial integration is one of ECB's key objectives because it ensures the financial stability, the efficiency of the financial system and the effectiveness of monetary policy in the euro area. The process of financial integration in the European Union (EU) has started many years ago, but has intensified only after adoption of the common currency in 1999. The recent financial crisis has caused the deterioration of financial integration in the euro zone, as well as at the EU level.

Many empirical studies analyze the process of financial integration just within the group of the euro area countries, but a number of papers including into the analysis all the EU Member States or just the New Member States (NMS) is limited. This is because the governmental bond market is a relatively new one in the NMS, where the lack of institutional market participants and of secondary markets led in the early period of transition to underdevelopments in the NMS financial markets. But despite the significant progress made in the development of financial markets, the NMS bond markets are still characterized by structural differences. *The aim of the article* is to assess the degree of global integration of the Central and Eastern European countries (CEECs') sovereign bond markets. *The research object:* the CEECs' sovereign bond markets. *The research methods:* the systemic, logical and comparative analysis of the scientific literature, the analysis of the statistical data, the generalized impulse response (GIR) analysis.

## 2. Literature review

Most empirical studies on financial integration (e.g. Kim et al. (2006), Abad et al. (2010), Volosovych (2011), Pozzi and Wolswijk (2012), Claeys et al. (2012), Dragomirescu-Gaina and Philippas (2013), Sibbertsen et al. (2014), Răileanu-Szeles and Albu (2015), etc.) have focused on investigation of financial integration of the EU or the Economic and Monetary Union (EMU) countries sovereign bond markets and only a few studies (Kim et al. (2006), Cappiello et al. (2010), Christopher et al. (2012), Pungulescu (2013), Christiansen (2014)), however, have exclusively analyzed the new EU member states.

Kim et al. (2006) examined the integration of government bond markets of three major EU accession countries, Poland, the Czech Republic and Hungary, as well as a subset of countries already belonging to the EU, Belgium, France, Ireland, Italy, Netherlands, UK and Germany over the 1998–2003 period with a set of complementary techniques to assess the time varying level of financial integration. They found evidence of strong contemporaneous and dynamic linkages between euro zone bond markets with that of Germany. However, there is much weaker evidence outside of the euro zone for the three accession markets of Czech Republic, Hungary and Poland, and the UK. Convergence, so far as it exists, appears to be slow and towards the UK for Poland. It appears that the pre-accession measures to achieve economic convergence were insufficient to generate rapid bond market integration for the Czech Republic. In general, the degree of integration for these markets is weak and stable, with little evidence of further deepening despite the increased political integration associated with further enlargement of EU.

Cappiello et al. (2010) assessed the degree of financial integration for a selected number of new EU member states Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Poland and Slovenia between themselves and with the