



ROMANIAN ACADEMY  
SCOSAAR

## **HABILITATION THESIS**

# **STUDIES ON INTERNATIONAL TRADE IN SERVICES AND FINANCIAL SYSTEMS: A FOCUS ON CENTRAL AND EASTERN EUROPEAN COUNTRIES**

**Fundamental field: Social Science**

**Habilitation field: Economics**

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## Summary

The habilitation thesis highlights some of my relevant research activities. The thesis is structured as follows. First section emphasis some of my major contribution grouped in studies on the international trade in services and on financial systems in the European Union. In both parts, we focus on the experience of the Central and Eastern European countries. Second section reviews my career development plan. Third section lists the references.

The first part highlights my main papers on international trade in services, with a special focus on Central and Eastern European (CEE) countries. This part lists a short introduction on global trade and two studies, i.e. “Global Sourcing and the New Member States: Seizing the Growth Opportunities and Facing the Challenges (I)”, and “Global Sourcing and the New Member States: Seizing the Growth Opportunities and Facing the Challenges (II)”. Hereinafter, we briefly detail the research questions, contributions, and results.

The first part of the thesis documents the New Member States (NMS) high potentialities in terms of service offshoring. More exactly, drawing on recent literature on the complex issue of service globalisation, we investigate NMS trade and foreign direct investments (FDI) flows in services over the period 1995-2007. In the current debate on service offshoring, the bulk of academic research has concentrated so far on its potential employment effects in developed countries. Far less attention has been devoted to investigating its scale and impact on the host countries, specifically the NMS. The scarcity of systematic academic research on this topic is in sharp contrast not only with the extensive amount of anecdotal evidence on the NMS attractiveness as offshoring locations, but also the widespread view both in the current literature and official EU papers, that European enlargement has rendered NMS increasingly desirable as targets of service offshoring. In view of this, our study significantly contributes to the literature.

The findings of our empirical investigation largely support the view that the process of services offshoring has gained momentum in the NMS under both its forms: international outsourcing and captive offshoring. The steady growth of services exports associated with potential offshoring activities, coupled with highly dynamic FDI flows into all NMS in recent years are indicative of the accelerated pace of this process as compared to the early 2000s.

Services offshoring like globalisation in general, brings both economic benefits and costs to the countries implied. The benefits accruing to NMS as host countries seem to illustrate the classic gains from trade and specialisation: expansion of services exports, creation of new jobs, transfer of soft technology, increased competition and higher quality services.

The following conclusions deriving from our paper provide support to this view. Firstly, services offshoring has generated more trade in the NMS, mainly in new types of services and advanced services, respectively. It is the big growth area. Secondly, it contributed to improving the composition of services supplied internationally by expanding the share of high value -added services. Thirdly, the NMS net position in offshorable services has moved from chronic deficits to growing surpluses over the most recent period. This shift towards structural surpluses in high value-added services suggests that the NMS are beginning to move up the value-added chain. And last but not least, increased business services exports have helped NMS to improve their external financial positions. Moreover, in some of them (e.g. Romania) these exports have triggered a historical trend reversal in terms of net services trade, by turning structural deficits into surpluses.

On the downside, increased offshoring might lead in the long-run to growing services imports and income transfers of trans-national companies (TNC) to their home countries, bearing additionally upon the current account deficits of NMS, which are already huge in most of them as percentage share in their GDP (e.g. Latvia, Bulgaria, Estonia, Lithuania, and Romania). But overall, the benefits seem to outweigh the implied losses, at least for the moment.

NMS are emerging as attractive locations for companies' international organisation of production and are collectively stepping forward to seize more and more of the global offshoring business. Notable differences exist, however, across NMS in terms of their competitive strength. Yet, a fast catching-up process is discernible in those NMS which are traditionally lagging behind the "old NMS" like Poland, Hungary or the Czech Republic.

Services offshoring and global economic integration create opportunities for growth and development, but also generate increased pressures on the NMS economies to adjust. The extent to which these countries will take advantage of the new opportunities in the future will depend on their ability to manage the challenges raised by the rapidly changing global offshoring landscape. Best suited are those NMS that will prove capable to adjust dynamically, by continual upgrading of their comparative advantages, related primarily to human capital and business environment, but also by developing new ones.

The second part of the first section highlights the results for the studies on the financial systems in European Union, with a focus on Central and Eastern European countries. This part lists a short introduction on the patterns of financial markets integration in the European Union (EU) and two studies: "The comovement of exchange rates and stock markets in Central and Eastern Europe"; and "The effects of prudential policies on bank leverage and insolvency risk in Central and Eastern Europe". The topics of these studies cover the following two areas of research, i.e. financial markets integration and banking systems risk. As we have mentioned before, the

emerging countries in CEE have an important role in our studies. Hereinafter, we briefly detail the research questions, contributions, and results of the studies.

The introduction reveals a high heterogeneity in the EU's financial markets. More exactly, the results emphasize differences related to equity markets, government bonds, and banking systems. This segmentation implies a different level of risk in the region, more pronounced between the euro area Member States. Moreover, we highlight the negative effects of the global financial crisis and the sovereign debt crisis, which increased the level of divergence. The existence of fragmented financial markets in EU Member States requires measures to increase the degree of financial convergence. Cooperation between the financial authorities in the region should also be strengthened. On the other hand, investors can capitalize on the basis of the financial markets fragmentation the benefits of portfolio diversification.

The first study analyses the link between exchange rates and stock markets in four Central and Eastern European countries, by using a *Dynamic Conditional Correlation Mixed Data Sampling* (DCC-MIDAS) model. The objectives of the second study are manifold. First, we examine the cross-country links between foreign exchange markets and stock markets. Second, we assess the nexus between exchange rates and stock markets within each country. Having these objectives in mind, we will simultaneously address the following correlation pairs: exchange rate-exchange rate, stock-stock, and stock-exchange rate. The first two categories refer to cross-country comovements, while the third is oriented within the distinct country. Such an approach to financial markets is set to make the existing patterns between assets and countries more visible, which would be otherwise neglected. Third, we document the impact of the global financial crisis and the European sovereign debt crisis on comovement pairs.

The empirical findings may be summarized, as follows. The comovements of foreign exchange markets reveal a quite low degree of convergence between the country pairs. Most of them record similar values to those before the crisis over the post-crisis period. Moreover, there are differences in how foreign exchange markets in our sample countries react to different events. Yet, during some of the crisis episodes, the DCC in currency returns rises, which suggests possible signs of contagion. In addition, the results that were related to the interdependences between stock markets establish several important corollaries. We can notice that the 2004 EU enlargement supported the stock market comovements in the CEE region. The surge in conditional correlations was stronger and more persistent during the ESDC than during the GFC. The degree of convergence between the Romanian stock market and the other three CEE markets marked a slight increase in the post-crisis period as compared to the pre-crisis one. The comovements between foreign exchange markets and stock markets within each country seem to mostly rise during the ESDC, which revealed clear signs of contagion and lower portfolio diversification opportunities.

The findings of this paper have important implications for policy makers and investors, for several reasons. First, the depicted patterns of conditional correlations between foreign exchange markets are of overwhelming importance for investors in the forex markets, for hedging and pricing purposes, currency portfolio optimization and allocation decisions. Based on these results, market practitioners could devise appropriate investment strategies for reducing portfolio risk and finding better ways to guard their portfolios from future market turmoil. Second, the results regarding stock market correlations are important firstly from the point of view of measuring financial integration between the CEE economies. Understanding the time-varying nature of these correlations and the volatility transmission channels would be helpful for decision makers from a financial stability perspective, in preventing the spread of negative shocks through adequate policies, before they can destabilize the financial market and for designing a more integrated financial market in the region.

The second study investigates the effects of prudential policies on leverage and insolvency risk in eleven Central and Eastern Europe banking systems in the 2005-2014 period. It explores the relationship between leverage, insolvency risk and regulation variables, and the temporal patterns of this relationship. It also examines whether the effects of prudential policies on leverage and insolvency risk are influenced by bank ownership structure and financial cycle.

In view of our objectives and the related studies, our contribution to the existing literature is manifold. First, by investigating the nexus between bank leverage, insolvency risk, and macroprudential policy within the CEE banking systems, our paper adds to the literature on this relationship. In this regard, it may be seen as a pioneering one for this sample of countries. Second, we extend our research to study the temporal effects of regulation on bank leverage and insolvency risk. Third, we contribute to literature in one more important respect, namely *by* studying the leverage ratio and insolvency risk's sensitivity to prudential policies in terms of ownership effect (foreign vs. domestic banks) in the CEE banking systems. To our knowledge, such a relationship has not been documented in the literature so far. Fourth, we go further by taking into account the phase of the financial cycle in analysing the impact of prudential policies on bank leverage and risk in the CEE countries. Fifth, our research fills the gap in the literature related to the effects of prudential policies on domestic and foreign banks' leverage and insolvency risk during upturns and downturns in the CEE region. Hence, we test whether domestic and foreign banks respond differently to prudential policy in the context of cyclicity. As far as we know, this hypothesis is not covered by the current literature.

Our main results are summarized as follows. Bank leverage reacts to the stance of prudential regulation, while the bank insolvency risk is more sensible to policies with macroprudential character. We notice that the effects of regulatory policies on the leverage ratio

vary over the sample period, while the temporal effects of regulation on insolvency risk are almost absent. Different effects of prudential policies on bank leverage, according to bank ownership, are depicted. Prudential policies are less effective on bank leverage and insolvency risk in the case of domestic banks than in the case of foreign ones. The analysis reveals that prudential tools work better in boom phases of the financial cycle than in busts in mitigating leverage and the insolvency risk. Furthermore, prudential policies were more efficient for leverage and insolvency risk before the crisis than in its aftermath, i.e. regulation works better during normal times. We find that, in general, regulation has similar effects on both domestic and foreign banks' stability during normal times, while during turbulent times we notice opposite effects.

The results of our research are of utmost relevance for bank resilience, lending patterns, and performance, and have also important implications for policy makers and risk management, especially in countries with high levels of foreign bank ownership.

The second section of the habilitation thesis reviews my career development plan, emphasizing my perspectives in research activities. My main area of research in economics and my professional research experience include the following fields of expertise: (i) the structural changes in the world trade of goods and services; (ii) economic and financial integration convergence; (iii) country analysis based on the macroeconomic indicators; (iv) interdependence and contagion in financial markets. Future research activities will focus on developing several studies within economic and financial convergence and trade in goods and services research areas.

The third section of the habilitation thesis includes the references list.