The Banking Sector and Financial Flows in New EU Member Countries

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1. Introduction

The development of the banking sector during the transformation from plan to market is one of the most researched topics in the economics of transition. In this paper, we differentiate from the mainstream literature by analyzing financial flows between commercial banks and other sectors in the economy over during the transition in the Czech Republic, Hungary, Poland, and Slovakia (the Visegrad Four group). Our aims are to investigate the financial flows across different sectors in the economy, to establish an econometric relationship between financial flows and privatization, and to assess the (dis)-intermediation of the banking sector.

In our analysis, we identify the largest sectoral creditors and debtors and connect completed privatization with a dramatic change in the extent of credit and debit flows. We conclude that the role of banks as mobilizers of savings from the non-financial sectors is not declining and that banking is not a declining industry in the Visegrad Four countries.

2. Methodology and Data

We build on the methodology in Schmidt, Hackethal and Tyrell (1999) that utilizes the concept of an economy as a set of sectors that interchange financial assets. Since we are focused on the development of banking sector, we investigate inter-sectoral financial claims and sources between the banking sector and the other sectors of the economy: the central bank, non-banking financial institutions, the public sector, non-financial companies, households, and the rest of the world.

Therefore, we construct the share of the financial flows from sector *j* to the banking sector at time *t* ($SB_j(t)$) as

$$SB_j(t) = \frac{FS_j B(t)}{\sum_k FS_k B(t)}, \qquad (1)$$

where $FS_j B(t)$ stands for flows from sector *j* to the banking sector. Accordingly, we define the proportion of financial flows from the banking sector to sector *j* at time *t*.

Additionally, in order to capture developments of the financial flows in a given sector over time, we define the index of the credits flowing from sector j to banking sector at year *t* ($IC_j(t)$) as

$$IC_j(t) = \frac{C_j(t)}{C_j(1993)} \frac{CPI(1993)}{CPI(t)} \qquad (2)$$

where C_j stands for credit flows from sector j to banks and CPI is the consumer price index. In a similar fashion we define the index of the debits that sector j draws from commercial banks at year t.

The data on inter-sectoral financial flows cover period 1993 to 2005 and they are collected from the sources of the statistical offices and the central banks of Visegrad countries.

3. Empirical Results

3.1 Financial Flows: Credits and Debits

The joint patterns in the financial flows between banks and other sectors in the Visegrad countries can be summarized as follows. In all four countries, households are the largest creditors of the commercial banks and non-financial companies are the second largest group. In terms of debits, non-financial companies are the largest borrowers. Additionally, there exist trend in the increasing share of bank lending to households and the decreasing or stagnant share of bank lending to the corporate sector.

On the other hand, Hungary and Poland exhibit a much larger increase in financial flows going between banks and other economic sectors when compared to the Czech Republic and Slovakia. This might be due to the different institutional aspects associated with the privatization of banks as well as the emergence of the banking sector in general. In particular, Hungary and Poland completed bank privatization several years before the Czech Republic and Slovakia. We shed more light on this issue in the next section.

3.2 Structural Breaks in Financial Flows

As documented by the literature on bank efficiency[1], privatization is one of the most important factors behind the improvement of banks efficiency. This hints that privatization may be a major force behind the change in the structure of the financial flows too. Therefore, we examine existence of structural breaks in the credit and debit flows between banks and other sectors of the economy. If a break occurs in the year when the privatization of the banking sector was completed, even without a solid causal link, we would be able to pair privatization with such a change. Due to small extent of our data, we test the hypothesis by running a sequence of Chow breakpoint tests and examining whether the mean of the series of the flow ratios is the same before and after privatization was concluded.

The hypothesis of no-break is rejected in the majority of the flow proportions. The structural breaks occur in 2001 for the Czech Republic, 1996–97 for Hungary, 1999 for Poland, and 2001 for Slovakia. Identified structural changes coincide with the conclusion of crucial ownership changes in privatization, which, albeit indirectly, suggest that privatization may be an important factor behind the dramatic change in the extent of financial flows between sectors of the economy

3.3 Intermediation Ratios: Banking Sector Hypotheses

Further, we ask weather banking is loosing importance relative to other means of financial intermediation.

[1] Bonin et. al. (2005) among others.

First, we examine, if the ratio of non-financial sector deposits or loans with banks to the total financial assets of the non-financial sector is not decreasing. If it is not, then the financial system becomes more bank-based and less capital-based over time. Our results show, that the ratios of non-financial sector deposits with banks to the total financial assets of the non-financial sector exhibit an increasing trend with a significant coefficient in the case of the Czech Republic (time trend 0.01 at 1 %), Hungary (0.005 at 1 %) and Slovakia (0.004 at 1 %); thus the hypothesis is rejected. The ratio of loans to total financial liabilities in the non-financial sector is decreasing in the Czech Republic (trend –0.01 at 1 %) and Slovakia (–0.01 at 1 %). This suggest that in these countries the non-financial sector is increasingly seeking and obtaining funds from sources other than banks, which weakens the previous evidence based on the deposit ratios. For Hungary the overall trend has a positive significant coefficient of 0.02 at 10 %. Finally, a short data span and an unclear pattern prevent strong conclusions for Poland. As many enterprises in the Visegrad Four countries have foreign owners, they may find it easier to borrow directly from abroad. Thus, a decline in bank lending to the corporate sector doesn't not necessarily imply decreasing role of banking and the conclusion tends towards a quite active role of banks in financial intermediation.

Second, we examine the role of banks as mobilizers of savings from non-banking financial institutions. If the ratio of the funds that banks receive from non-banking financial institutions is increasing, then the role of banks as mobilizers of savings from the non-banking financial sector is not declining. In a similar fashion, the opposite trend would be present in the case of funds that banks make available to the non-banking financial sector.[2] In our results, the ratios of the funds banks receive from non-banking financial institutions to the total of banks' financial assets exhibit an increasing pattern for all three countries with a positive and statistically significant trend coefficient (Czech Republic 0.003 at 1 %, Hungary 0.005 at 1 %, and Poland 0.002 at 10 %). Agreeing with this, the fraction of funds that banks make available to non-banking financial institutions to the total of their financial liabilities declines on average in the case of Hungary (trend –0.007 significant at 1 %), Poland (–0.019 at 10 %) and in the Czech Republic (–0.006 not significant).

4. Conclusions

We have analyzed the development of the financial system in the Visegrad Four group of countries (the Czech Republic, Hungary, Poland and Slovakia) in order to assess whether there is a common pattern of structural change, whether banks lose importance in the process of economic transformation and whether these four financial systems have become more similar.

The empirical results on monetary flows between various sectors and commercial banks show that in terms of credit households are the largest creditors of the commercial banks in the Czech Republic, Hungary, Poland and Slovakia. Non-financial companies are the second largest group in all four countries in general. In terms of debit non-financial companies are the largest borrowers uniformly across the four countries in general. Further, among the Visegrad Four countries two groups are formed. Hungary and Poland exhibit a much larger increase in financial flows going between banks and other economic sectors when compared to the Czech Re-public and Slovakia. Further, we

[2] Due the lack of data, we do not test this hypothesis for Slovakia.

identified structural breaks in the majority of financial flow series. In all four countries the breaks in mean appear in the year when the privatization of the banking sector was completed. Despite the fact that such evidence is only indirect, we conjecture that completed privatization was an important factor behind a dramatic change in the extent of credit and debit flows. There is empirical evidence of the improved performance of banks after thorough privatization. Hence, the policy implication would be to adequately privatize the banking sector in other countries where transition still continues.

We also test two hypotheses related to the viability of the banking sector. In general we find quite an active role of banks in financial intermediation. Based on the evidence, we conclude that the role of banks as mobilizers of savings from the non-financial sectors did not decline and that banking was not a declining industry in the Visegrad Four countries. The high level of financial intermediation performed by banks, and in particular the transformation of deposits into loans which entail the monitoring of borrowers, and the qualitative transformation of capital indicate that banks play an important role in the economies of these new EU members. Certainly neither during the transformation process nor shortly after joining the EU do we observe disintermediation or a loss of the importance of the banking sector in the Visegrad Four group. The implication is that the banking sector is developing success-fully the Visegrad Four group. Further, ownership links with banks in the old EU countries should enhance the banking sector in the new EU countries, helping them to successfully integrate into the financial sector of the euro zone.

This combined evidence shows that the role of banks as mobilizers of savings from the non-financial sectors does not decline. Therefore, we conclude that the financial system in the Visegrad is not becoming more capital-based; on the contrary it is a bank-based system.

References

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