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The interest rate spreads in the Czech Republic: Different loans, different determinants?

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ABSTRACT

We analyze the determinants of interest rate spreads of different loan categories in the Czech Republic during 2004–2011. We employ a detailed bank supervisory dataset that allows us to construct the actual spreads for four loan categories, namely small and large corporate loans, consumer loans and mortgages, on a monthly basis. Our regression analysis shows that bank and macroeconomic characteristics matter more for setting the spreads for small corporate loans and mortgages rather than for large corporate loans and consumer loans. Interest rate risk determines the spreads for all loan categories. The global financial crisis has, to a certain extent, increased the responsiveness of spreads to interest rate risk and liquidity risk.

1. Introduction

Income from interest rate spreads forms a substantial part of bank profits (for example, 70% for our sample of Czech banks) and therefore represents an important element of financial stability. Despite its prominence for bank performance, there is still little research on the determinants of interest rate spreads based on disaggregated loan data. Due to data availability, most of the previous literature on this subject investigated the interest rate spreads calculated from accounting data at a yearly frequency. Spreads based on accounting data are average spreads for one bank. However, spreads

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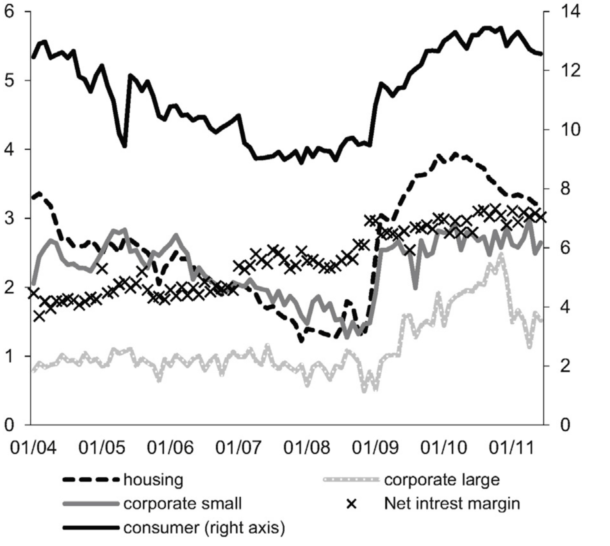

Fig. 1. Interest rate spreads for different loan categories.
Source: Czech National Bank. Interest rate spreads calculated as the difference of corresponding loan rate and 3 M PRIBOR. Interest rate margin calculated as the difference between (annualized) interest revenues and interest costs relative to interest bearing assets

typically differ greatly across different loan categories. For example, the interest rates charged for consumer loans are much higher than those for mortgages.[1] In addition, banks may experience substantial changes in the structure of their credit portfolio. Therefore, it is not surprising that Brock and Franken (2003) find that the regression results on the determinants of interest rate spreads differ substantially between interest rate spreads based on accounting data and interest rate spreads based on disaggregated loan data. Related to this is the question of which factors actually determine the interest rate spreads for different loan categories.

In this paper we address this question making use of detailed bank level supervisory data from the Czech National Bank. The richness of the dataset allows us to calculate the bank-specific interest rate spreads for various loan categories, namely for small and large corporate loans, consumer loans and mortgages, at a monthly frequency and to examine the determinants of interest rate spreads. The Czech Republic represents an interesting case to study the effect of the global financial crisis on interest rates spreads. Unlike most European countries, the Czech banks have not received any government or central bank support. According to the available data, the Czech banks remained largely stable during the crisis (CNB, 2013). Therefore, we examine to what extent the banks' pricing policies have changed during the crisis and whether the banks increased their responsiveness to perceived risks despite the fact that their financial health has not deteriorated. Due to strong interlinkages between the Czech banking sector and that of the EU, we also implicitly analyze whether the global financial crisis has changed the perception of risk within banking groups active in the Czech Republic and its influence on interest spreads.

Our paper contributes to the existing literature on this topic in two ways. Firstly, we analyze the determinants of interest rate spreads, and not of interest rate margins. We measure interest rate spreads as the difference between the lending and the interbank rate, which are reported by the banks to their supervisor. Interest rate margins are calculated from bank balance sheet and profit and loss account data. They are defined as the ratio of the difference between interest revenues and interest costs relative to the size of interest bearing assets (mainly the volume of credit). As can be seen from Fig. 1, interest rate spreads react to economic developments faster than typically used margins, as

[1] See Horvath and Podpiera (2012) for Czech evidence.