Financial intermediation costs in low income countries: The role of regulatory, institutional, and macroeconomic factors☆

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A B S T R A C T

We analyze factors driving persistently higher financial intermediation costs in low-income countries (LICs) relative to emerging market (EM) country comparators. Using the net interest margin as a proxy for financial intermediation costs at the bank level, we find that within LICs a substantial part of the variation in interest margins can be explained by bank-specific factors: margins tend to increase with higher riskiness of credit portfolio, lower bank capitalization (or lower risk aversion), and smaller bank size. Overall, we find that concentrated market structures and lack of competition in LICs banking systems and institutional weaknesses constitute the key impediments preventing financial intermediation costs from declining. Our results provide strong evidence that policies aimed at fostering banking competition and strengthening institutional frameworks can reduce intermediation costs in LICs.
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1. Introduction

The net interest margin, measured as a difference between lending and deposit rates, is a commonly accepted measure of how costly bank intermediation services are for a society. Research shows that the cost of financial intermediation has important repercussions for economic

performance (Jayaratne and Strahan, 1996; Rajan and Zingales, 1998; Beck et al., 2000). The importance of the bank interest margin as a measure of financial intermediation costs is particularly pertinent for low-income countries (LICs), where in the absence of developed stock markets firms largely depend on bank financing as a source of external funding.

High financial intermediation costs may constitute an important impediment for financial deepening in LICs. The persistence of high margins might be symptomatic of a number of systemic problems, such as: lack of competition, perceived market and credit risks, bank unsoundness, scale diseconomies constrained by small markets, high operating costs due to low efficiency, unfavorable institutional environment, and existence of various regulatory constraints distorting financial market activity.

The main objective of this paper is to examine the influence of market concentration, bank regulations, institutional development, and macroeconomic environment on bank margins across a broad cross-section of LICs and emerging economies (EMs) while controlling for bank-specific factors. We use bank-level data on 359 commercial banks in 48 LICs, and 2535 commercial banks in 67 EMs for the period 1996–2010. For both groups of countries, the sample includes great diversity in terms of financial intermediation costs and bank characteristics as well as regulation, institutional, and macroeconomic environments. The comparison of results across the two groups of countries helps identify key environmental factors that put upward pressure on financial intermediation costs. Based on the results of the analysis, we provide policy recommendations for reducing financial intermediation costs in LICs and contributing to further financial deepening.

Estimation results suggest that concentrated market structures and lack of competition in LICs' banking systems remain key impediments preventing financial intermediation costs from declining. In this respect, relaxing restrictions to bank entry could help in reducing the cost of financial intermediation in LICs. Poor institutions also play a prominent role in boosting margins. Within LICs, bank-specific characteristics explain a substantial part of variation in interest margins. Specifically, margins tend to increase with higher riskiness of the credit portfolio, lower bank capitalization (or lower risk aversion), and smaller bank size.

The rest of the paper is structured as follows. Section 2 decomposes the interest margin in LICs' banks into its cost and profit components. Section 3 introduces an econometric specification based on a behavioral model of a profit-optimizing bank and evaluates the importance of bank-specific and country-specific determinants of the margin (macroeconomic, institutional, and regulatory environment). Section 4 presents robustness check results. The last section concludes.

2. Interest margin decomposition

2.1. Conceptual framework

We decompose the interest margin based on the methodology proposed in Randall (1998). The income statement of banks defines profit as interest income (II), plus non-interest income (NII), minus interest expense (IP), minus operating costs (OC), and minus provision for loan losses (Prov). After rearranging this identity, the net interest revenue can be expressed as:

$$II - IP = OC + Prov + P - NII$$

Dividing this expression by the interest bearing liabilities (D), and using average interest bearing assets (L) and total assets (A), we obtain the following expression:

$$\frac{II}{L}\frac{L}{D} - \frac{IP}{D} = \frac{OC}{D} + \frac{Prov}{D} + \frac{P}{A}\frac{A}{D} - \frac{NII}{D}$$

Assuming that banks invest one minus reserve requirement ratio (ρ) part of their interest bearing liabilities into interest bearing assets, and defining the interest margin as the difference between implicit lending rate ($i_L = II/L$) and implicit deposit rate ($i_D = IP/D$), the above expression can be written as:

$$i_L - i_D = \rho * i_L + \frac{OC}{D} + \frac{Prov}{D} + ROA * \frac{A}{D} - \frac{NII}{D} + \varepsilon \tag{1}$$