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Financial Inclusion, Bank Concentration, and Firm Performance

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Summary. — This study focuses on the impact of financial inclusion and bank concentration on the performance of firms in developing and emerging countries. Using firm-level data for a sample of 55,596 firms in 79 countries, we find that financial inclusion, i.e., the distribution of financial services across firms, has a positive impact on firm growth. This positive impact is magnified when bank markets are less concentrated, a proxy for more competition among banks. We also find that more competitive banks favor firm growth only at high levels of financial inclusion, while bank concentration is particularly favorable to foreign and state-owned firms and increases firm growth at low levels of financial inclusion. In countries with limited financial deepening, the quality of the banking system (financial inclusion and bank competition) may be as important in promoting firm performance as its overall size.

Key words — financial inclusion, bank concentration, firm performance

1. INTRODUCTION

Access to credit has been identified as one of the main obstacles to the development of private sector in developing countries. Since the early 1990s, a string of theoretical and empirical research studies have shown the existence of a positive relationship between financial development, firm performance, and economic growth. Financial development has been shown to improve the proportion of innovative and productivity-enhancing investment projects, to reduce transaction costs, and more generally to improve the allocation of capital and risk management. The literature has so far mostly focused on financial deepening effects, i.e., the volume of credit available to the private sector.

This article builds on the existing literature to try and determine whether the "quality" of financial development affects firm performance. We examine two dimensions of the quality of financial development. The first is the financial inclusion of firms. The idea here is to distinguish between volume (financial depth) and the distribution of credit across firms (the share of firms in an industry with access to credit). The second dimension that we examine is the banking market structure, which may affect the volume as well as the price of credit. Examining aspects of financial development other than financial deepening – namely financial inclusion and bank concentration – may provide additional insight into the mechanisms through which financial development affects developing countries.

This paper relates to three strands of the literature on financial development and economic performance. The first examines how financial deepening affects economic growth. Since the 2009 financial and economic crisis, the literature has focused on the possibility of a non-linear relationship between economic activity and financial deepening, especially in developed countries, where large financial sectors may face diminishing returns (Philippon & Reshef, 2013), divert resources from other productive sectors (Deidda, 2006), or increase the volatility of economic activity (Easterly, Islam, & Stiglitz, 2001; Loayza & Rancière, 2006). Empirical estimates show that, above thresholds ranging from 80% to 110% of private credit in GDP, the positive finance/growth link disappears and a case for "too much finance" may be made (Arcand, Berkes, & Panizza, 2015). Turning to developing countries, beyond caveats stemming from the large size of the informal sector (Guerineau & Jacolin, 2014), the question has been, conversely, to determine whether there is a case for "not enough finance" where undersized financial sectors, usually bank-led with little or no financial market development, play virtually no role in boosting economic growth, let alone corporate growth or productivity (Henderson, Papageorgiou, & Parmeter, 2013; Méon & Weill, 2010; Deidda & Fattouh, 2002). Rioja and Valev (2004) find that in countries with a share of private credit in GDP lower than 14%, financial development has little effect on economic growth. Some specific weaknesses of developing countries, such as poor institutions (Demetriades & Hook Law, 2006), insufficient financial competition due to political deadlock (Rajan & Zingales, 2003), and high inflation (Rousseau & Wachtel, 2002), have been highlighted in the literature as dampening or suppressing the finance–growth relationship.

The second strand of the literature to which our paper relates deals more specifically with how financial inclusion affects economic outcomes. The international agenda has recently brought to light the significant role played by financial inclusion, that is, the extent to which households or firms have access to financial products and services. In addition to supply-side indicators of access to finance such as branch density, the number of ATMs or, more recently, market

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penetration of mobile phones as a proxy for mobile banking, a consensus has been reached to measure financial inclusion by the share of households or firms that have access to financial services (GPFI, 2013) and is now regularly surveyed by international organizations (IMF Financial Access Survey, Findex database). The literature suggests that the impact of financial deepening on growth may depend on the degree of financial inclusion. Abdmoulah and Jelili (2013) show for example that non-linearities between growth and financial development can be explained by access to finance, measured by the density of branches, which acts as a regime switching-trigger. Some studies find that the impact of financial inclusion on growth depends on firms' access to credit rather than households' (Beck, Büyükkarabacak, Rioja, & Valev, 2012), most notably by reducing the "financing gap" faced by small- and medium-sized firms and industries (GPFI, 2011).[1] Financial inclusion reduces liquidity constraints and encourages investment. The distribution of credit across firms at the sectoral level therefore has important effects on the industrial structure, competition, or the degree of informality in the sector, particularly in low-income countries (Beck, Demirguc-Kunt, & Maksimovic, 2005). In some cases, the biggest or foreign-owned firms may reap most of the benefits of financial development, while smaller and locally owned firms do not and in some cases are even crowded out from financing, as shown by Harrison and McMillan (2003) in Côte d'Ivoire.

Finally, the last strand of the literature to which this work can be related examines how competition in banking market (bank concentration, market power) influences the diversity, profitability of banking services, and firm performance (Beck *et al.*, 2012; Northcott, 2004). According to the traditional *market power* view, bank competition can affect the efficiency of the financial sector, the quality of the products and the degree of innovation in that sector. Love and Martínez Pería (2015) and Leon (2015) find that more competition[2] increases firms' access to credit. Claessens and Laeven (2005) also show that bank competition favors the growth of sectors that are highly dependent on bank financing. The literature also emphasizes in particular the role played by foreign banks in lowering the cost of banking services and credit (Demirguc-Kunt, Levine, & Min, 1998; De la Torre, Martínez Pería, & Schmukler, 2010). Market structure effects may be particularly large in developing and emerging countries where lower efficiency and the high cost of credit magnify the gains expected from the diffusion of international best practices (Hermes & Lensink, 2003). Entering banking markets dominated for instance by large public banks may also yield important efficiency gains by lowering prevailing interest margins (Demirguc-Kunt, Laeven, & Levine, 2004).

However, the literature also highlights that bank competition may not necessarily yield the expected efficiency gains or favor financial inclusion. The *information hypothesis* argues that in a less competitive market, banks are more inclined to invest in information acquisition (Hauswald & Marquez, 2006). In that case, competition may decrease access to credit by reducing incentives for banks to invest in assessing credit worthiness of opaque borrowers. Cetorelli and Gambera (2001) show that, while exercising an overall depressing effect on growth, bank concentration has a positive effect on the growth of sectors that are most dependent on external financing by facilitating access to credit of younger firms. Furthermore, Beck, De Jonghe, and Schepens (2013) show that less concentrated banking markets may also be less stable and more vulnerable to crises than concentrated ones, where higher profits provide buffers during crises and reduce incentives for excessive risk-taking. The authors also point out that a lower number of banks may facilitate bank supervision especially in countries with low administrative capacity. Finally, entering foreign banks may adopt cream-skimming strategies, i.e., targeting large- and low-risk exporting companies and sovereign debt. Such strategies may force domestic banks out of the market, thereby constraining credit to riskier and more opaque firms, and leading to a decline of aggregate credit (Detragaiche, Tressel, & Gupta, 2008). As shown by Claessens and Horen (2014), the effect of foreign bank entry thus yields different outcomes depending on the characteristics of the host country, in particular the quality of its regulatory framework, the importance of information asymmetries and the nationality of ownership (international banks from the OECD as opposed to pan-African groups for instance). These authors find that foreign bank entry may have a negative impact on credit in low-income countries, where they have a limited market share and where large information asymmetries limit the ability of banks to lend.

Our paper aims to disentangle the impact of financial deepening, financial inclusion, and the price and efficiency effects induced by changes in market structure in the banking sector. We use stacked World Bank Enterprise Surveys (WBES) for a set of 79 developing countries over the period 2006-14. Our dependent variable is firm sales growth. We measure financial depth at the country level using the share of private credit in GDP. Bank concentration is also measured at the country level using the market share of the three largest banks in terms of balance sheet size. Both variables are available from the World Bank Global Financial Development Database. Financial inclusion is measured for each country, at the industry level, as the share of firms with access to credit. In our baseline estimates, access to credit is measured as having a loan from a financial institution, but we test the robustness of the results to alternative measures such as having an overdraft facility or financing part of the working capital with bank credit. Along with the three financial development variables – depth, inclusion, and bank concentration – we also include the interaction term of financial inclusion and bank concentration in order to understand to what extent the impact on growth of the entry of new banks into the market depends on wider access to credit among firms, i.e., whether these two dimensions are complementary or not.

We show that, in developing and emerging countries, where financial deepening may be too limited to have a significant macroeconomic impact on growth, access to credit by a larger proportion of firms at the sectoral level enhances firm growth, except when the banking sector is very concentrated. We also find that bank concentration may help firm performance, but this effect turns negative as the level of economic development and financial inclusion rise. This suggests that policies that increase the access of firms to financial products and services may be as instrumental in boosting the firm performance and economic development as the promotion of financial markets or financial deepening alone.

The paper is structured as follows. Section 2 presents the model, while the data are presented in Section 3. Then in Section 4 we present the baseline results along with some robustness checks. In Section 5 we discuss the heterogeneity of the impact given specific firm characteristics in order to explore the potential crowding-out effects. Finally in Section 6 we conclude.