



Volume 2  
Issue 5  
December 2011

# AfDB

Chief Economist Complex

# Brief

Africa Capacity Development

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*The findings of this Brief do not necessarily reflect the opinions of the African Development Bank, its Board of Directors or the countries they represent.*

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## Institutions for Credit Markets in Africa

There is considerable interest in the association between the institutional setting for the protection of creditor rights and the development of the credit market. Recent research offers macro-level evidence that the quality of legal protection, enforceability of legal creditor rights and improvements in information sharing among creditors, are positively associated with the depth of the financial system. However, the micro-level analysis to identify and quantify the channels through which the institutional environment for the protection of creditor rights gets transmitted to the credit market is less developed<sup>1</sup>.

Given the observation that the credit market is characterized not only by incomplete information, but also by imperfect competition, a bank's portfolio decision may be a net reflection of credit risk, the cost of financial intermediation, and the competitiveness conditions in the market place. This brief therefore seeks to identify specific mechanisms through which the institutional setting for protection of creditor rights impacts on bank lending and risk-taking.

### 1 The African Financial Sector

African financial systems have remained shallow and thin in spite of the rash of financial reforms that have taken place over the last two decades. Some of the key features of the financial systems in the continent are highlighted below. First, African financial sectors are very small, with a few exceptions such as South Africa, Egypt, Algeria and Nigeria, which together account for over two-thirds of Africa's largest companies, 30 of the largest 50 African banks, and over half of foreign direct investment (FDI) to Africa in 2008<sup>2</sup>. Table 1

shows that the total bank assets in the continent stood at just over US\$1 trillion, with North and Southern Africa accounting for almost 80 per cent of the total.

Second, the cost of banking in Africa is exorbitantly high and is reflected, not only in extremely high spreads between deposit and lending interest rates, but also in high overhead costs. Figure 2 indicates that interest rate spread was over 8 per cent in Africa for 2009, with the figure exceeding 60 per cent for the Central African sub-region. The high cost of banking has been attributed to a number of reasons including the small size of the banking systems; ina-

<sup>1</sup> La Porta et al., 1998; and Jappelli and Pagano, 2002.

<sup>2</sup> Kasekende et al., 2010

adequate contractual frameworks; and lack of protection of property rights. These factors significantly increase the risks borne by banks, thus, increasing costs and reducing time horizons for both investors and borrowers. These costs make outreach to savers and borrowers who need small transactions commercially unviable<sup>3</sup>.

Third, the continent's financial systems have very low penetration rates, with less than 20 per cent of families having access to bank services. This compares unfavourably with some other developing regions with accessibility rates of as much as 50 per cent. Some of the factors responsible for the low rate of accessibility to financial services among African households include: high interest and operating costs discussed earlier; high minimum balance requirements; an assortment of fees; high documentation requirements; as well as

small number of bank branches and Automated Teller Machines (ATM) and Point of Service (POS) terminals.

Africa has witnessed a resurgence in financial development in the last couple of years. Indicators of financial deepening such as bank deposits as a percentage of GDP and bank loans as a percentage of GDP have shown some improvement in the period leading up to the financial crisis in 2008 and thereafter (Figure 1). This development has been attributed to higher foreign capital inflows and the development of the institutional framework for finance. The latter includes the establishment of commercial courts and alternative dispute resolution mechanisms, the establishment and improvement of collateral registries and credit reference bureaus, as well as macroeconomic stability<sup>4</sup>.

**“African financial sectors are very small, with total bank assets at just over US\$ 1trillion”**

**“There has been a resurgence in financial development in Africa with key indicators showing some improvement”**

**Table 1 Total Bank Assets (US\$ million)**

	2005	2006	2007	2008	2009
Africa	658,754.3	790,430.9	1,041,028.9	1,116,358.8	1,135,933.0
Central Africa	7,172.4	9,373.0	13,717.6	14,982.8	16,801.2
East Africa	31,033.2	39,620.5	49,246.1	50,956.7	59,067.9
North Africa	264,850.1	313,395.9	408,938.9	465,396.4	473,051.6
Southern Africa	299,909.6	344,054.5	439,133.8	423,170.5	423,613.5
West Africa	55,789.0	83,987.0	129,992.7	161,852.5	163,398.7

Source: Making Finance Work for Africa data portal, African Development Bank

**Table 2 Interest rate spread (%)**

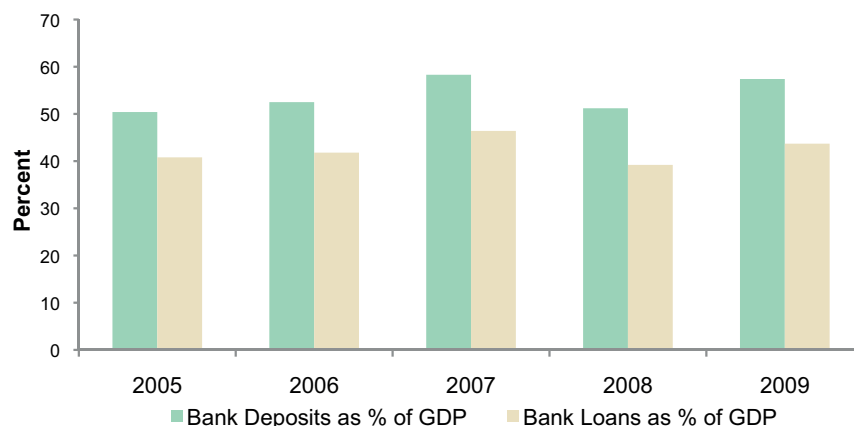
	2005	2006	2007	2008	2009
Africa	5.96	5.56	6.68	8.3	8.02
Central Africa	12.84	12.28	12.8	38.73	61.38
East Africa	7.27	7.23	6.68	5.92	8.56
North Africa	8.63	5.69	5.86	6.51	7.03
Southern Africa	2.91	4.23	5.77	7.89	5.06
West Africa	10.15	10.68	10.88	10.3	13.84

Source: Author's calculation from 'Making Finance Work for Africa data portal', African Development Bank

<sup>3</sup> Beck et al., 2010

<sup>4</sup> IMF, 2008.

**Figure 1 Bank Deposits & Loans (% of GDP)**



Source: Making Finance Work for Africa data portal, African Development Bank

## 2 Existence and Efficient Enforcement of Legal Rights for Creditors

Stronger legal rights give banks more power to force repayment by seizing collateral, or even by taking control of the borrower’s contract during default. This results in a higher recovery rate in the event of default and a decrease of the credit risk banks eventually bear. In addition, efficient judicial enforcement of legal rights reduces the uncertainty and cost faced by the bank in pursuing repayment.

Hence, banks which operate in an institutional environment characterized by higher legal creditor rights and more efficient enforcement of these rights show more willingness to provide credit, even with limited information about the borrower. This has implications for the recovery of bad loans since the power of creditors, enhanced by better institutional protection, creates a more credible threat to borrowers to perform in line with the bank’s interest. It attenuates the credit risk associated with moral hazard on the part of borrowers as well as the bank’s cost of dealing with moral hazard and adverse selection.

Evidence<sup>5</sup> suggests that the quality of the legal framework for the protection of creditor rights is important in influencing the quantity of credit supply. It also indicates that the legal enforceability of financial contracts is more important than the legal codes in stimulating a larger volume of credit. Thus, the positive impact of legal rights on firms’ access to bank credit is found to decrease with a decrease in the efficiency of courts. This suggests that poor enforceability of creditor rights diminishes the positive impact of legal rights on the quantity of credit supply, implying is that the effectiveness of the law is more important than the written law in promoting financial development for African countries. Given the fact that law is a transplanted institution for most African countries, the readiness and competence of the recipient country is crucial for the legal system to work.

A better quality of institutions is also found to be associated with lower net interest margins and overhead expenditures across banks. This suggests that the overall institutional environment is more conducive to private sector competition, by reducing market power, and the cost of financial intermediation.

**“When legal credit rights exist and are more efficiently enforced, banks will be more willing to provide credit.”**

**“Better quality of institutions is associated with lower net interest margins and overhead costs across banks”**

<sup>5</sup> Barth et al., 2009

### 3 Availability of Information Sharing Mechanisms Among Banks

The importance of a bank's knowledge about the ability and willingness of the borrower to honor the loan contract cannot be overemphasized. This is because the asymmetric information between borrowers and banks gives incentives for less-informed banks to acquire information. The more a bank invests in information acquisition, the more accurate is its prediction of the probability of repayment by the borrower and the better the quality of its lending<sup>6</sup>. However, the increase in the intensity of information acquisition may result in higher private operating costs for the bank. The bank, thus, faces a trade-off between the quality of loans and cost of information acquisition.

The presence of information sharing institutions among banks about the characteristics of their borrowers, either via private credit bureaus or public credit registries, may enhance banks' lending through reducing the cost of information acquisition. Furthermore, the exchange of information may not only enable the bank to distinguish between a good applicant and a bad one, but may also incentivize the borrower to exert more effort to honor their debt obligation. Hence, the availability of information sharing among banks helps reduce operating costs, including the cost of screening potential borrowers and that of monitoring existing loan contracts. Also, the quality of lending is enhanced by the mitigation of adverse selection for loan contracts and mitigation of moral hazard during loan contracts.

Empirical evidence<sup>7</sup> confirms the positive impact of information sharing among len-

ders on the probability of default of individual borrowers:

- Availability of trade credit history reports compared to financial statements alone, improves default predictions;
- The presence of information sharing increases an individual borrower's repayment rate in the case where the mobility of borrowers across banks is high;
- Greater information sharing leads to decreased bank risk, and reduced likelihood of a financial crisis;
- Information sharing reduces corruption in bank lending, and enhances the positive effect of competition on curtailing corruption in the credit market.

Regarding the implications of information sharing for banks' credit supply, there is evidence<sup>8</sup> that:

- Information sharing is associated with improved credit availability;
- The improvement of a bank's knowledge that borrowers have multiple lending relationships as a result of information sharing among banks induces the bank to ration credit. This is due to fear of increased default probability of a given borrower due to the large total exposure of the borrower.

### 4 Micro-level Evidence for Africa

In order to validate the above findings for Africa, Zhao, Murinde and Mlambo (2011) specified an analytical model to underpin banks' portfolio decisions between loans and other earning assets and augmented it with indicators of the institutional setting for creditor rights. The analysis was applied to a sample composed of commercial banks

**“Information sharing among banks about the characteristics of their borrowers enhances the quality and quantity of lending.”**

**“To get tangible results, enhancing employability skills of the youth, as a supply-side response, will need to be complemented with entrepreneurship capacity improvement.”**

**“Information sharing increases an individual borrower's repayment rate in the case where the mobility of borrowers across banks is high.”**

<sup>6</sup> Hyytinen and Toivanen, 2004

<sup>7</sup> Houston et al., 2010

<sup>8</sup> Brown et al., 2009

**“Stronger legal creditor rights, more effective enforcement of these rights and the presence of information sharing institutions all result in a more loans.”**

in 20 African countries during 1995-2008. They found that stronger legal creditor rights, more effective enforcement of legal creditor rights, and the presence of information sharing institutions are all significantly associated with a higher proportion of loans, through the net impact on degree of competition and the operating cost of information production.

Further, the results showed that the larger market share and higher ratio of fixed assets over total assets lead to a significant increase in the proportion of loans over total earning assets, supporting the positive role of consumer base and distribution channels on banks' credit supply. Also, an increase in the capitalization ratio was found to result in a decrease in the proportion of loans over total earning assets, which is the predicted result in the case where funding cost of equity capital is more expensive than deposits.

Other results suggest that:

- Managing liquidity risks is not the reason why banks reduce credit supply;
- All things being equal, a larger difference between the interest rate charged by banks on loans minus the “risk free” treasury bill interest rate at which short-term government securities are issued or traded in the market, leads banks to allocate more of their loanable funds to loans;
- The increase in a bank's expectation of credit risk leads it to decrease its asset allocation to loans. This confirms the conjecture that a high loan default rate is the major reason why most banks in Africa choose not to provide credit;
- An increase in financial freedom induces a decrease in bank risk-taking;

**“Banks with higher profitability, management skills and market share have a lower level of risk-taking.”**

- Increased stringency of capital requirements leads to an increase in the risk-taking behavior of banks. This is because under more restrictive regulatory capital requirements, banks incur more cost of financial intermediation associated with raising capital and therefore decline risky investment in order to neutralize the cost;
- Banks with higher profitability, management skill and market share have a lower level of risk-taking;
- Lower inflation and higher GDP are correlated with lower risk-taking by banks.

## 5 Conclusion

The presence of information sharing and the increase in the effectiveness of the enforcement of creditor legal rights lead to an increase in the proportion of loans over total earning assets, which is consistent with the essential idea of the law and finance literature that some environments are more conducive to writing and enforcing financial contracts than others, and that better contracting leads to a higher financial depth.

However, these three aspects of the institutional setting on the protection of creditor rights appear to exert their influence in different manners. On the one hand, stronger creditor rights and the presence of information sharing exert their impact through a composite effect of the enhancement of competition and the reduction of the operating cost of information production. On the other hand, increase in the effectiveness of the enforcement of creditor legal rights does it through mitigating credit risks of banks as well as the composite effect of enhancing competition and reducing the operating cost of information acquisition.

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