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# Towards a Framework for Sustainable Bank Financing of SMEs in Kenya

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# Towards a Framework for Sustainable Bank Financing of SMEs in Kenya

Odongo Kodongo

## Abstract

*Data from the Central Bank of Kenya show that, in the 12 months to December 2024, the banking sector generated approximately 35.3% of its overall lending-related income from the MSME sector, almost half of which was from small and microenterprises (SMEs). During the same period, banks and microfinance banks extended less than 20% of their combined credit to SMEs. This paper explores reasons for the suboptimal lending by banks to SMEs using an analytical framework that draws from the literature and lending practices in different contexts. The major reasons for suboptimal SME lending by banks include perception of higher risks and inadequate institutional arrangements. The paper makes several recommendations at the policy level and at the bank level to address the identified problems.*

**Keywords:** *Small and microenterprises; banks; credit; Kenya*

# 1.0 Introduction

**Small and micro enterprises (SMEs) often account for a large share of total business, economic output, and employment creation globally.**[1] In Kenya, SMEs account for over 90% of private sector enterprises and contribute 24% of GDP and 93% of total labour force.[2] Despite their acknowledged importance, studies show that finance is a key impediment to SME growth (de la Torre, Pería and Schmukler, 2010), especially in developing countries such as Kenya.[3]

Globally, most SMEs rely on internal sources and finance from family and friends to finance their investments and growth (Butters and Lintner, 1945; Fazzari, Hubbard, and Peterson, 1988; Carpenter and Peterson, 2002). However, evidence suggests that, because of SMEs' limited ability to raise adequate internal finance (e.g., retained earnings), reliance on internal finance constrains their growth (Holtz-Eakin, Joulfaian, and Rosen, 1994), which in turn inhibits their long-term survival (Evans and Jovan, 1989). Thus, to better their ability to grow and contribute to development goals, SMEs need greater access to external capital. Yet, external finance may not always be accessible to them, which constrains their growth.

Theoretically, SMEs' external finance constraints can be attributed to institutional factors, market failures, and firm/owner attributes. First, Pettit and Singer (1985) argue that SMEs may be riskier than larger firms for reasons such as the fact that they often deal in a small number of emerging product or service lines for which there may be no established market niche; further, the owner-manager although possibly a specialist in one aspect of the enterprise (e.g., expertise in the service line), may have limited ability or interest in other areas of importance to the successful operation of the business (e.g., customer relations). Thus, banks are unlikely to allocate credit to less risky firms, especially when faced with credit shocks (de Jonghe, *et al.*, 2020).

1 The World Bank, Small and Medium Enterprise Finance

2. Kenya, State Department of Industrialization, Sessional Paper No. 05 of 2020

3. Kenya Bankers Association, SMEs Survey Report, 2021

Second, because small firms often have limited or no trading and financial history, their owner-managers are in a better position than financiers to evaluate potential returns from their project(s) that need financing (Keasey and McGuinness, 1990). Additionally, being young and often in emergent industries, SME owner-managers have greater incentives (than, for example, managers of larger firms in mature industries) to alter their financial and operating structures after a financial contract is closed, making them more difficult to monitor (Scherr, Sugrue and Ward, 1993), hence subjecting financiers to substantial moral hazard risk. Thus, because information asymmetry between SMEs and external financiers favors the SME owner-managers, financiers face nontrivial agency risk, which must be incorporated in their decisions to grant credit, and if granted, the cost of the credit.

The third reason, which is closely linked to the agency problem, is related to the extent of scrutiny by external financiers. To mitigate potential agency costs, external financiers may apply more stringent credit standards when evaluating SME applicants than they do with larger firms. This may disqualify many SMEs. Further, to improve the efficiency of funds usage, external financiers may impose higher required rates of return on SME project proposals (Keasey and McGuinness, 1990), implying that only those with very high expected performance would qualify for credit. Indeed, the higher required rates of return on SMEs may also be justified on the grounds that the value of human capital, a key determinant of SME success, is difficult to estimate (Johnson, Reyes and Johnson, 1989).

Fourth, to deal with asymmetric information (Wang, Zhang and Zhao, 2021), and hence improve security of lending, banks impose collateral requirements on borrowers. Small businesses typically possess more soft/intangible assets (the entrepreneur's innovative capital) than fixed assets. Due to its intangible nature, innovative capital possesses limited pledgeability features, which restricts SMEs' access to formal credit markets and contracts (Benavente, Crespi, and Maffioli, 2007) and limits their ability to exploit available opportunities (Kinyua, Changwony and Campbell, 2025).

It is interesting to establish the extent to which such reasons play out in the SME sector in Kenya. Like their counterparts across the globe (e.g., Arraiz, Melendez, and Stucchi, 2014; Mertzanis, 2017; Kersten *et al.*, 2017), recent surveys show that SMEs in Kenya (e.g., FSD, 2024; KBA, 2021) face difficulties accessing external finance, especially bank credit, on favorable terms.

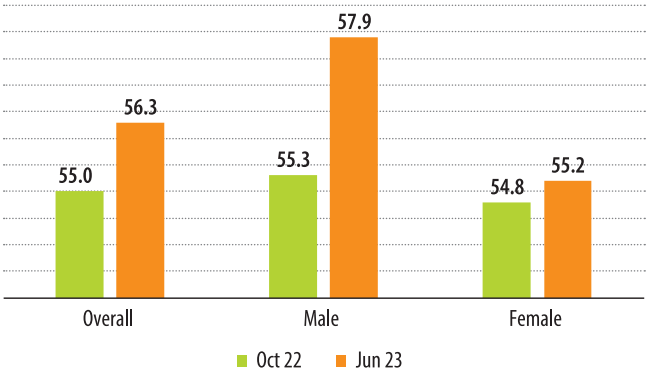
# 2.0 Rationale for the study

## 2.1 Motivation

**A 2022 survey by the Central Bank of Kenya (CBK) finds that medium, small and micro enterprises (MSMEs) constituted an important source of bank finance in 2022, making 14.9% and 59.5% respectively of total customer deposits held in commercial banks and microfinance banks (MFBs).**

Further, MSME loans and advances comprised about 21.76% (KES 783.3 billion) of all loans and advances issued by the banking sector (KES 3.6 trillion), of which only about 4% were originated by MFBs – a paltry allocation relative to the proportion of their deposits mobilized from MSMEs. It is important to point out that the CBK numbers include medium enterprises, which often hold a nontrivial proportion of credit to MSMEs (5% of total MSME loans in 2022). Addressing the SME sector specifically is the 2023 Financial Sector Deepening (FSD) survey, which additionally provides a breakdown of SME financing.

**Figure 1: SMEs with business loans (%)**

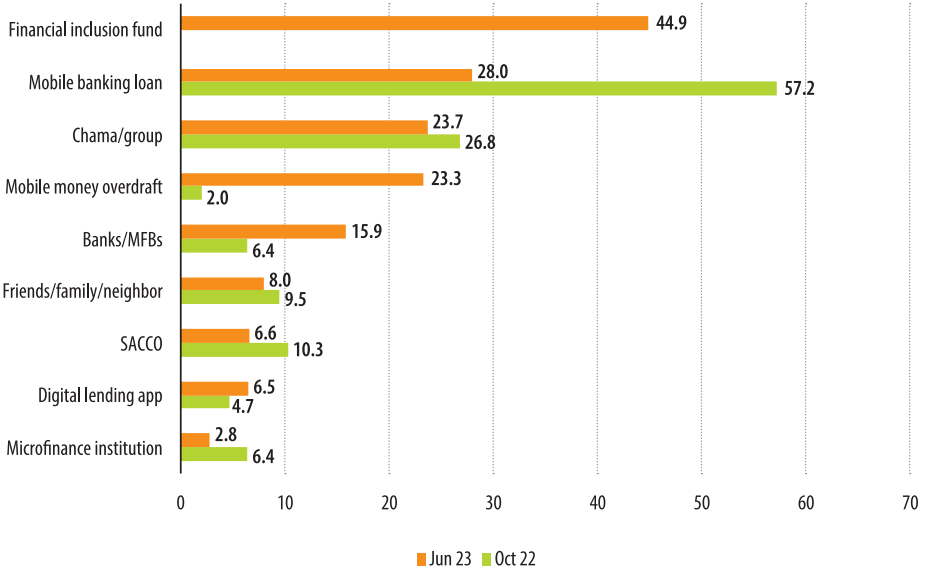



**Source:** MSE Tracker Survey, August 2023

**Figure 1** summarizes some of the FSD data. The figure shows that 55% and 56.3%, respectively, of SMEs had obtained credit from various sources as of October 2022 and June 2023. Women-operated SMEs were slightly disadvantaged, with only about 54.8% of them being able to access credit relative to 55.3% for male-operated SMEs as of October 2022 – a gender gap of 50 basis points; however, the gender gap had widened noticeably, to about 270 basis points, by June 2023. **Figure 2** provides a breakdown of SME credit by source. Besides the financial inclusion fund[4], which lends small amounts (loan sizes ranging from KES 500 to KES 50,000) to SMEs to help build their credit profiles, the figure shows that a sizable proportion of SME finance in Kenya is informal.

Focusing on banks and MFBs, the data reveal that they allocated only a small proportion of their credit (15.9% and 6.4% respectively as of October 2022 and June 2023) to the SME sector. Because bank credit is more structured and potentially of a lower cost, it can better facilitate SME investments and growth than comparable amounts of credit from informal and semi-formal sources.

**Figure 2: Percentage of credit extended to SMEs**




**Source:** MSE Tracker Survey, August 2023

4. This initiative, governed by the Public Finance Management (Financial Inclusion Fund) Regulations, 2022, aims to provide low-priced credit to individuals and businesses that struggle to access credit from formal sources.

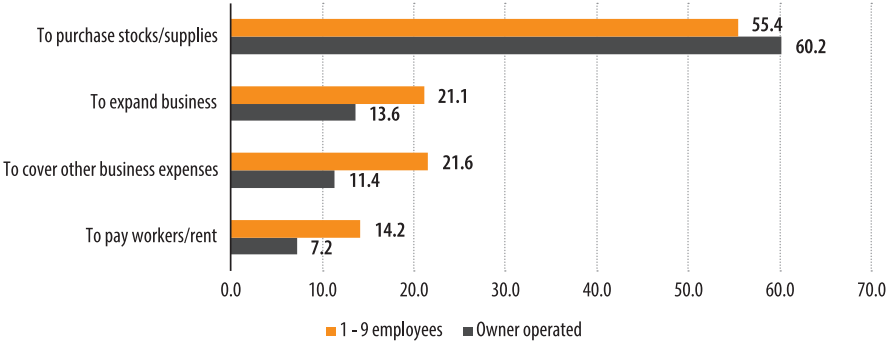
Thus, the low proportion of bank lending to SMEs raises fundamental research questions.

1. *What explains bank lending to SMEs?*
2. *What are the possible appropriate ways to motivate increased bank lending to SMEs in Kenya?*

Attempting answers to these questions is important, given that anecdotal evidence points to the fact that SMEs borrow primarily to support their business activities, implying that access to finance can improve their performance. Figure 3 shows that, as of June 2023, 55.4% and 60.2%, respectively, of small (1–9 employees) and micro (owner-operated) enterprises borrowed to support their inventory purchases; and for a sizable proportion (respectively 21.1% and 13.6%), to exploit available opportunities for business expansion (investment). While these proportions represent an improvement over the October 2022 data, the patterns are similar. An important implication of these observations is that channeling more credit to SMEs could potentially improve their performance and positively contribute to the country's economic output.

For these potential benefits to be effectively harnessed, it might be necessary to improve the terms of credit for SME borrowers. For example, data from the CBK 2022 Survey show that, as of December 2022, the average tenor on commercial bank credit to micro and small enterprises was 19 months and 34 months, respectively. The loan tenor is a crucial component of the tools available to banks for managing exposure to credit risk (Drakos, 2013); however, from the perspective of SMEs, such short loan tenors may be costly: first, to achieve the short tenors, banks often resort to credit rationing practices that grant suboptimal (smaller than desired) loan sizes to borrowing enterprises (Rostamkalaei and Freel, 2016), which are inadequate to finance their needs; and may impose a heavy burden on the enterprises' cash flows, and constrain their ability to use internally generated funds to cover operating expenses – this may engender debt dependence and suppress growth.

**Figure 3: Reasons for borrowing (% of SME borrowers)**




**Source:** MSE Tracker Survey, August 2023

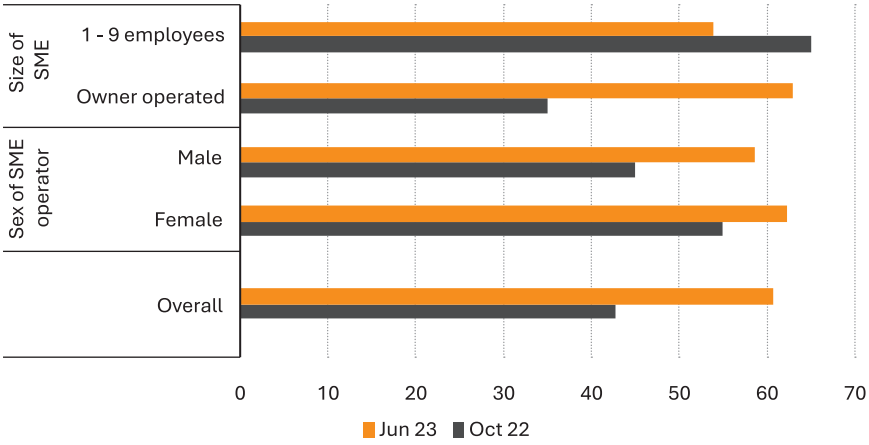
As discussed, small businesses may pose higher risks to lenders than established larger businesses. For instance, small enterprises are generally known to exhibit higher risks of failure (Bates and Nucci, 1989) because they "face greater variability in their cost functions as they learn about their industry and management capabilities" (Jovanovic, 1982). Similarly, the evidence shows that newer, and usually smaller, firms exhibit higher risks of loan default than established, usually larger, firms (e.g., Riding and Haines, 2001). Given these risks posed by SMEs to lenders, it is important to juxtapose banks' practice of allocating lower credit to SMEs to their (SMEs') risks of default. **Figure 4** reports the FSD 2023 survey findings on SMEs default. Overall, SMEs' default rates range from 42.8% in October 2022 to 60.7% in June 2023. However, the default rates are higher among women-operated enterprises, and, during 2023, they are higher for micro (owner operated) firms. The high default rates (typically above 40%) may provide reasons for banks to adopt measures to protect themselves against potential losses. Importantly, they motivate the need to examine SME lending practices in general and to design possibly more appropriate bank lending models.

Therefore, given the foregoing observations, the **objectives of this study** are:

*a) To ascertain possible reasons why SMEs face difficulties accessing external finance.*

*b) To explore innovative approaches for motivating banks (external financiers) to address SMEs' external financing gap.*

**Figure 4: SMEs' loan default (defaulters as a % of all loanees)**




**Source:** MSE Tracker Survey, August 2023

This study makes several **contributions**. First, the paper collates the literature on SME lending and contextualizes it to the Kenyan situation, facilitating evidence-driven appreciation of reasons why SMEs in Kenya face external financing constraints. Second, the paper scours the literature to identify innovative approaches available to Kenyan banks to improve credit provisioning to the SME sector.

## 2.2 Institutional and policy contexts

Bank operations in Kenya are largely governed by the Banking Act (Chapter 488 of the Laws of Kenya). Some provisions of the Act have direct or indirect impact on whether and the way banks may relate with SMEs in their ordinary course of business. For example, Sections 7(1) and 7(2) specify that only institutions that meet the minimum capital requirements, which may be amended from time to time by the relevant Minister, can be registered as a bank. By extension, licensed banks that fail to comply with this provision face legal sanctions (Section 49) including possible intervention in the bank's management (Section 34) by the Central Bank of Kenya (CBK[5]). Further, Section 18 of the Act gives CBK the mandate to prescribe minimum ratios such as core capital and total capital to risk-weighted assets (loans and advances including SME credit, and off-balance sheet assets) and, for that purpose, to determine the classification and evaluation of assets.[6] The evolution of capital adequacy ratios (average) for Kenyan banks is shown in **Table 1**. The data show that the average Kenyan bank has exceeded the regulatory requirements over the seven-year period. However, the downside of this situation is that banks may strive to maintain good capital ratios by reducing their risk-weighted assets, indicating possible credit rationing to riskier sectors such as SMEs.

**Table 1: Capital adequacy ratios of Kenyan banks, 2017–2023**

| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Regulatory Minimum |
|---|---|---|---|---|---|---|---|---|
| Total Capital/ TRWA (%) | 18.7 | 18.0 | 18.8 | 19.0 | 19.5 | 19.0 | 18.6 | 14.5 |
| Core Capital/ TRWA (%) | 16.4 | 16.6 | 16.6 | 16.6 | 16.5 | 16.3 | 15.8 | 10.5 |
| Core Capital/ Total Deposits (%) | 18.1 | 17.3 | 17.4 | 16.7 | 16.4 | 16.7 | 15.4 | 8.0 |

**Source:** KBA State of the Banking Sector *Report*, 2024

5. CBK is also the main national regulator responsible for the implementation of bank regulations and laws, and bank supervision; however, the National Treasury is strongly involved in developing financial policy.
6. Since 2012, CBK requires banks to build-up their core capital requirement to KES 1 billion from KES 250 million. Further, since January 2015, CBK requires banks to maintain 2.5% Capital Conservation Buffer to ensure that banks build up enough capital to increase their resilience during stress periods.

Some prescriptions of the Act limit banks' discretion to adjust charges, including interest rates (Section 44), and the amounts recoverable from accounts in default (Section 44A); although such restrictions are designed to protect the interests of banks' clients, they may make banks excessively risk averse to the detriment of their relatively opaque SME customers. Besides these provisions, Section 55 gives the Minister powers to make regulations to shape the implementation of various provisions of the Act. The National Treasury and CBK are the main actors in drafting banking policies and regulations, and they strive, in doing so, to harmonize the country's regulations with international practices such as the Basel Committee recommendations. CBK derives its independence and mandate principally from the Constitution of Kenya [Section 231(1- 5)], anchored by various statutes such as the CBK Act (Chapter 491), and the Banking Act, which spell out its functions.

CBK also regulates the lending rates charged to bank customers. Since 2014, when it established the Kenya Banks Reference (KBRR)[7] rate, the lending rate has been determined as *KBRR plus premium* (k), where the premium covers operating costs related to lending[8], return to shareholders, and the risk profile of borrowers. In its early application, the computation of "k" was explicitly spelled out by CBK, enabled by the Banking Amendment Act of 2015, which came into force in September 2016. The law imposed a ceiling/ cap on lending rates of 4% above the reference rate (KBBR). Through this law, CBK expected to address "bad banking" practices (Friedman, 1970) that impede savings and under-allocate credit to younger, riskier sectors such as SMEs. The interest rate capping practice (interest rate controls) was abolished in November 2019.

However, CBK has continued to guide lenders' interest rates through the formula, with banks having greater discretion in determining "k". In the application of the formula, banks often use a scoring system to establish the risk profile of borrowers which they group into "buckets" (a bucket is a range of risks) that speak to borrower segments such as SMEs, individuals, corporates, parastatals, etc. Since costs of loan provisioning and shareholders' required returns are fixed in the short run, changes in the "bucket" are the main source of variation in "k". The formula was changed, through a recent (2025) *CBK circular*, to *KESONIA plus premium (k)*, where KESONIA is the Kenya Shilling Overnight Interbank Average rate. The average rate is computed (and published daily by CBK) by compounding the daily overnight rate (in arrears) over the interest period (defined as a "lookback" period of 5 days).

In a departure from the traditional "bucket" practice, which is expected to benefit SMEs that can demonstrate lower information asymmetry, CBK now requires the use of borrower-specific risk profiles when computing "k". It also requires the credit scoring

7. The KBRR, known for the purpose of this application, as the base rate or simply the reference rate, is computed as the average of the Central Bank Rate (CBR) and the two-month weighted moving average of the 91-day Treasury bill rates.

8. These costs include salaries and allowances, directors' remuneration and other expenses, repairs and maintenance, depreciation, occupancy and rental expenses, contract services and other operating expenses.

model to demonstrate use of both hard and soft information (referred to in the circular as quantitative and quantitative risk characteristics of borrowers). In the interest of transparency, CBK requires banks to disclose their "k" on various loan products, which it publishes periodically. Banks are also required to inform their customers of the Total Cost of Credit, TCC – the sum of all interest payments, fees, and charges on a loan contract; TCC is then used by the bank to disclose the Annual Percentage Rate, APR, on the loan, which customers can use to compare similar loans from different lenders.

Because some of the provisions of the Banking Act and the accompanying regulations and guidelines may, as discussed, inadvertently restrict lending to SMEs by banks, the government of Kenya has developed an array of policies to guide the development of, streamline the operations of, and incentivize the provisioning of finance to, MSMEs. The policy framework is principally laid out in the SME Act No. 55 of 2012, supplemented by other initiatives such as the National Trade Policy and Sessional Paper No. 5 of 2020. For implementation of these policies, various state agencies have been created led by the State Department for Micro, Small and Medium Enterprises Development established vide Executive Order No. 1 of 2023[9].

The department bears the responsibility for coordination and mainstreaming of SME development: among others, the Executive Order gives it the role of administering the Financial Inclusion Fund (and other affirmative action funds[10]) and capacity development. To effectively fulfil its mandate, the department has sought to revise the MSME policy framework to sync it with recent developments. To "enhance access to diversified and affordable financial products and services" for MSMEs, Section 3.5 of the proposed policy guidelines makes the following recommendations:[11]

*(i) Promote innovative financial products and leveraging partnerships to suit MSMEs.*

*(ii) Develop policy incentives to encourage financial institutions to develop MSME-friendly financial products.*

*(iii) Promote financial literacy among MSMEs.*

*(iv) Promote alternative credit underwriting.*

*(v) Strengthen existing funds/financial institutions dedicated towards the provision of affordable credit to MSMEs.*

*(vi) Promote insurance uptake among MSMEs.*

9. The department is housed by the Ministry of Cooperatives and Micro, Small and Medium Enterprises Development.

10. Over time, the government has created several funds aimed at easing the financial constraints faced by SMEs including Uwezo Fund, Women Enterprise Fund, and Youth Enterprise Fund; and a myriad of SME development agencies such as Micro and Small Enterprise Authority, Kenya Institute of Business Training, Kenya Industrial Estates, and Kenya Industrial Research and Development Institute, among many.

11. The proposed policy framework is available on the Ministry's website.

# 3.0 Research Methodology

**The study employs an analytical approach that relies exclusively on desktop research to achieve its objectives. The desktop survey is designed to provide rational and behavioural bases for mapping the bank-SME relationships, providing objective information about banks' decisions, highlighting the nature of macro-financial and firm-level factors that constrain such decisions, and collating the information to construct a coherent framework for an improved bank lending to Kenyan SMEs.**

In the first phase of the desktop study, a detailed review of literature is conducted to cover, among others, theories governing bank lending and lending relationships; agency problems in banking; regulations; and banking decisions under risk. This enables an appreciation, at the conceptual level, of the incentives that banks face in their financial intermediation activities. Beyond theoretical appreciation, the study also does an in-depth review of the empirical literature, covering, among others, financial intermediation and banking; bank competition and decisions in a competitive environment; factors informing bank lending decisions; regulation and regulatory constraints, and bank relationships with SMEs. Collectively, the literature review provides insights into banks' operations and decision-making rationale as well as provides generic lessons for SME financing in Kenya. From the generic lessons, specific bank-SME relationship propositions are formulated and then tested against alternative propositions from authoritative trade-related documents.

The second aspect of the desktop study entails a detailed examination of all available relevant trade-related documents that have addressed the issues examined by the study. The documents include those that tackle financing of SMEs at the national, industry, and sector levels and relevant documents prepared by commercial and microfinance institutions. The sources of documents include depositories of *governmental agencies* such as Kenya National Bureau of Statistics and Central Bank of Kenya; depositories of *supranational organizations* such as African Development Bank (AfDB), and World Bank (WB), online libraries of *consulting entities* such as Kenya Bankers Association (KBA), Alliance for Financial Inclusion (AFI), and Financial Sector Deepening (FSD); and relevant publications of banks obtained from their websites.

# 4.0 Analytical framework

## 4.1 Asymmetric information and failure of the price mechanism

**Banks' intermediation role broadly constitutes a dichotomy of activities: first, they mobilize financial resources and facilitate resource accumulation (savings) by minimizing transaction costs and diversifying risks; and second, they efficiently allocate the accumulated financial resources to enterprises to facilitate their productive activities (Lucchetti, Papi, & Zazzaro, 2001).** If done efficiently, banks' borrowing rate (reward to savers) should be at the level that minimizes the opportunity cost of saving for financial agents appropriating a surplus of funds (mostly households), and the lending rate should be at a level that minimizes the cost of capital for economic agents appropriating a deficit (e.g., enterprises). Thus, by efficiently intermediating financial resources, banks should earn a "normal" profit and foster the maximization of output of productive enterprises.

However, the ideal setting in the early financial intermediation literature, where resource allocation is based on perfect and complete markets, tends not to hold in practice (Allen and Santomero, 1998). This is why authors such as Gurley and Shaw (1960) argue that financial intermediation exists because of market frictions such as transaction costs and asymmetric information. That is, financial intermediation is justifiable on the grounds that it facilitates sharing of monitoring costs (Diamond, 1984) which reduces information asymmetry, helps minimize transaction costs (Benston and Smith, 1976) and enables sharing of (usually high, fixed) costs of asset evaluation (Gurley and Shaw, 1960). The latter argument suggests that due to the difficulty of assessing the quality of signals (honesty) of financial agents, the primary role of financial intermediaries is to evaluate and purchase financial assets (Santero, 1984). Thus, banks perform the crucial role of evaluating credit on behalf of their unsophisticated depositors (Leland and Pyle, 1977), filtering signals from a financial environment with imperfect information.

Information imperfection in credit markets occurs in two forms. First is *adverse selection*, which emanates from the fact that different borrowers exhibit different probabilities of honoring their obligations; the second is *moral hazard*, which speaks to the probability of the borrower's default increasing after the lending transaction is concluded (Stiglitz and Weiss, 1981). In an ideal world, the price of a loan (interest rate) should be equilibrated at a point that effectively screens out borrowers with unacceptable a priori probability of default and mitigates moral hazard incentives. However, the interest rate (loan price) is not a perfect mechanism to deal with information asymmetry. On average, borrowers who are willing to pay high interest rates perceive their probability of repaying the loan to be low and hence present higher credit risk (adverse selection) to the bank (Stiglitz and Weiss, 1981).

Further, if imposed by a lender, say, to deal with higher probabilities of borrower default, higher interest rates may induce borrowers to channel the borrowed capital away from the initially intended project to alternative projects with higher probability of failure, but which promise higher payoffs in case of success, increasing moral hazard (Stiglitz and Weiss, 1981). In both cases, borrowers' probability of nonpayment increases, lowering banks' expected returns. Given this failure of the price mechanism, information asymmetry in credit markets may affect firms' (including SMEs') ability to raise capital (Bernanke and Gertler, 1989) as banks attempt to minimize its effect on their operations.

We explore the approaches commonly employed by banks to minimize the effects of information asymmetry on their expected returns in Section 4.2.

## 4.2 Mitigating asymmetric information

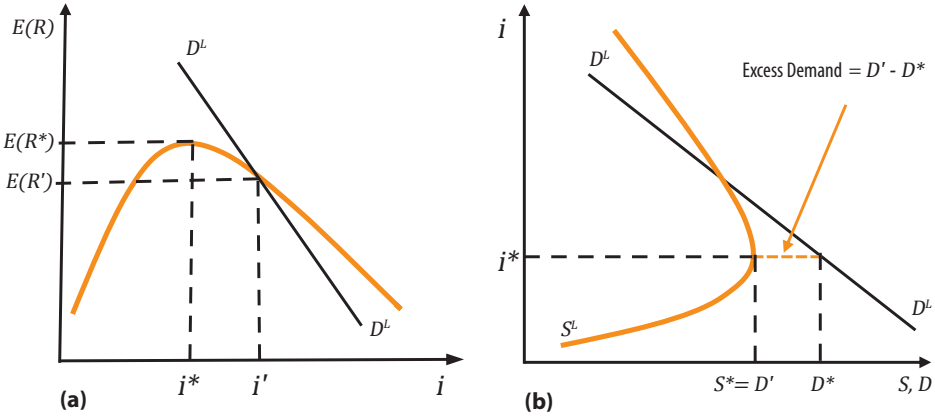
### 4.2.1 Credit rationing

According to Bester (1985), credit rationing occurs when the demand for loans is higher than the volume of loans supplied because some credit applicants are unsuccessful even when they are able and willing to pay a higher price for, or pledge a higher collateral on, the loan. Cole *et al.* (2024) explain that credit rationing is driven by an "banks' unwillingness to raise the interest rate to clear the market." Let $E(R)$ represent a bank's expected return. Stiglitz and Weiss (1981) argue that $E(R)$ is a quadratic function of the loan interest rate, $i$. This is because a rise in the loan interest rate initially induces an increase in the bank's expected return; however, as the interest rate continues to rise, NPVs of less risky projects (or good credit risk borrowers) fall until they drop out of contention, at which point only high-risk projects can afford higher interest rates. Because of their higher default probabilities, the bank's expected return falls as the high-risk projects begin to dominate loan demand.

This relationship is illustrated in **Figure 5**. Panel (a) shows that the market-clearing loan interest rate, $i'$, yields the expected return, $E(R')$ for the bank. However, the bank could attain a higher expected rate of return, $E(R^*)$, by lending at a lower interest rate, $i^*$, the bank's *optimal* lending rate. Thus, although some higher-risk borrowers are willing to pay a higher interest rate, $i'$, the bank, by charging a lower interest rate, $i^*$, on the loan denies them credit and deals only with lower credit-risk borrowers, who are only willing to pay $i^*$. In the process, the bank supplies less credit than the market demands. The riskier borrowers are

*credit rationed* (Shen, 2002). This inference is shown in panel (b). The quadratic expected return function in panel (a) implies the backward-bent supply curve in panel (b). At the interest rate, $i^*$, charged by the bank, the loan demand, $D'$, exceeds the loan supplied, $S=D^*$, yielding an excess demand, ($D' - D^*$).

**Figure 5: Loan demand and interest rates**




An important observation is that bank profit is maximized under credit rationing as shown in panel (a). However, bank profit is not necessary maximized by excess demand as this may be the result of other things such as "sticky" interest rates in a competitive credit market (Berger and Udell, 1992)12. Thus, although necessary, the existence of excess demand is not sufficient to infer credit rationing. Empirical examination of credit rationing should focus on testing for the existence of the backward-bent credit supply curve; in this regard, empirical tests that rely solely on testing for the existence of excess demand may not yield reliable findings (Shen, 2002).

As discussed, credit rationing can be explained by information asymmetry. Globally, many SMEs are "rationed out" of the credit market largely due to perception among banks that they carry higher risk of default with the practice being common in many credit markets in the developed world (e.g., Fraser, 2009 for the UK) and in the developing world (e.g., Shen, 2002 for Taiwan). However, other studies

12. Although consistent with credit rationing, sticky loan prices are not sufficient to infer it. E.g., sticky prices may result when banks engage in workouts (recontract) with their financially distressed clients (e.g., Sharpe, 1991). Second, to mitigate loss of business, banks may provide implicit guarantees to their risk averse loyal clients by extending them below-market rates in times of high interest rates (e.g., Fried and Howitt, 1980), which they get compensated for when interest rates fall.

have found limited evidence of credit rationing (e.g., Berger and Udell, 1992; Levenson and Willard, 2000) although their results suggest that smaller firms are more credit constrained than larger firms. There is also robust evidence of an inverse relationship between bank size and the propensity of banks to lend to small businesses (Mkhaiber and Werner, 2021).

### 4.2.2 Collateral

Information asymmetry plays a more important role in financing small businesses than financing large businesses. That is, because there is little public information about SMEs or their owners, obtaining their information is more costly as a percentage of their loan needs (Ang, 1991), making them more informationally opaque. One way of dealing with this information opacity is through a pledge of factors of production (durable assets such as land or liquid assets such as inventory) as collateral. Collateral use is sensible when the lender is risk averse and there is asymmetric valuation of payoffs from the funded project in which the lender's valuation is lower (Chan and Kantas, 1985). Literature identifies two major approaches. First, the pledge is offered by the borrower as a reliable signal of their good credit quality (Bester, 1985), enabling the bank to offer them better credit terms (low interest rate); this is called sorting-by-private-information – SBPI. Second, particularly when risk types of borrowers are observable, banks may demand a pledge of collateral from them especially those with higher risk (Berger and Udel,1990): this is called sorting-by-observed-risk – SBOR.[13]

Drawing from these two approaches, Han *et al.* (2009) propose a hybrid model, called sorting by signaling and self-selection model (SBSS), which they use to demonstrate that high quality borrowers with less-risky projects are more likely to pledge collateral and obtain better credit terms (lower interest rates) than lower quality borrowers with riskier projects; and borrowers transferring bad signals may not get good terms (low interest rates) even if they are good credit risks. Thus, the models of both Han *et al.* (2009) and Berger and Udell (1990) indicate that because of their relatively higher information asymmetry (lower signals, opacity), SMEs are more likely to be required to provide collateral and likely to suffer worse credit terms (higher interest rates) than larger businesses.

From a theoretical lens, however, the use of collateral is not without shortcomings: it may introduce negative incentives (moral hazard) as the borrower may gamble with the value of the collateral (e.g., reduce maintenance effort), or "gamble for resurrection" with the project (Igawa and Kanatas, 1990; Niinimäki, 2018; Cole *et al*., 2024). Nonetheless, a large body of literature suggests that, in assessing the quality of borrowers, collateral is an efficient solution to the problems of information asymmetry (e.g., Voordeckers and Steijvers, 2006; Duarte *et al.*, 2016). Most studies

13. Chan and Kanatas (1985) identify two types of collateral. First, the borrower pledges one or more of their existing assets, implying that the borrower's liability in the event of default is limited to their existing attachable asset holdings – this is the typical collateral arrangement; second, a borrower pledges an additional asset that would not ordinarily be legally attachable – in most cases, the additional asset is a personal asset of the entrepreneur seeking a small business loan. The latter type imposes an additional cost to the borrower beyond the marginal transaction cost of providing one unit of the collateral – the expected loss of the additional asset (= the probability of default times the value of the additional asset).

explore developed credit markets. For example, Voordeckers and Steijvers (2006) find, using Belgian SME data, that firm characteristics are more important than loan and lender characteristics in explaining collateral use; family firms are more likely to offer higher collateral, but the likelihood declines with bank competition; and that collateral requirements fall with the length of the bank-borrower relationship.

Using Portuguese data, Duarte *et al.* (2016), find that borrowers with low default probability are more willing to trade-off collateral for low-interest rate premia; and that lenders tailor credit terms to credit risk, increasing collateral requirements and risk premia and rationing credit for borrowers operating in riskier industries. For Italy, Bellucci *et al.* (2019) find an inverse relationship between distance and collateral: borrowers located closer to the bank face higher collateral requirements. They attribute this finding to the notion that distance reflects transaction costs: it is less costly to assess and inspect borrowers, and to exercise the *lien* on collateral of borrowers, located in proximity to banks.

For the US, Gopal (2023) finds that firms with collateral more frequently accepted by lenders find it easier to switch lenders and that borrowing from specialized lenders increase credit access. And in an interesting study examining the behavior of small business borrowers regarding collateral, Ren (2023) explores a policy in the US that requires business borrowers to post their personal houses as collateral for loans exceeding USD 350,000. They find that borrowers are willing to forego receiving a USD 73,000 larger loan and accept nearly 1% higher interest rates to avoid posting their houses as collateral! Contrarily, lenders are willing to earn 0.42% less interest on loans exceeding USD 350,000 for borrowers posting the collateral and 0.94% higher interest rates for borrowers who avoid it.

In developing credit markets where collateral requirements are more stringent because the financial environment is often characterized by weak enforcement and the odds that borrowers would hold collateralizable assets is low (Hanedar *et al.* (2014), firms experience greater difficulties accessing external finance (Menkhoff *et al.*, 2012). One of the earlier studies on collateralization in developing markets, Feder *et al.* (1988), finds that where the use of land as collateral is legal (Thailand and India), its pledge as collateral reduces credit assessment costs; further, collateral reduces credit rationing – borrowers who pledge land are 40% more likely to access credit than unsecured borrowers. Using SMEs' credit data from Eastern Europe and Central Asia, Hanedar *et al.* (2014) find, like Voordeckers and Steijvers (2006), that borrower-specific characteristics are more important than country-level information in determining loan collateral requirements.

In an interesting study, Qian *et al.* (2020) find that cross-ownership (where a lender and a borrower co-own a firm) reduces information asymmetry and hence reduces, by 50%, the likelihood that the lender will impose a collateral requirement on a loan in China. Ninh and van Hon (2023) find that geographical distance negatively affects access of farming households in Vietnam to bank credit, but that the constraint is eased by collateral and the

length of relationship between the lender and the borrower. In a more recent study, Pandey *et al.* (2024) find that banks in Latin America are less likely to demand collateral from female-dominant firms, and when required, the collateral value is likely to be low comparted to that of male-dominated firms; however, banks adopting sustainable finance practices require greater collateral values from female-dominated firms applying for credit.

A related application of the collateral concept is the use of *loan guarantee schemes* (LGS) in many countries. The structure of such schemes is broadly similar across countries; they apply to (good) credit applications of firms deemed risky by banks because they lack collateral or have limited collateral. Under LGS, the state undertakes to "provide collateral" to the bank (the consideration in the guarantee arrangement) *ex-post,* i.e., in the event of the credit recipient defaulting on their loan obligation. Credit guarantees may also be provided by non-state actors such as development finance institutions in various forms either *ex-ante* (e.g., in the form of low-interest, first loss-bearing, partial financing) or *ex-post* (e.g., as a traditional guarantor).

### 4.2.3 Relationship lending

In the relationship lending model, decisions of the bank (e.g., whether to grant credit, terms of credit if granted, whether to require collateral, etc.) are based largely on proprietary information about the borrower, gathered over time (Berger and Udell, 2002) through various sources including the bank's previous interactions with the borrower through lending (Peterson and Rajan, 1994), deposits, and other financial products (Degryse and van Cayseele, 2000); and through contact with other parties that the borrower has done business with (e.g., suppliers and customers). Such information enables qualitative appreciation of the borrower's business ethics, and value systems, and hence surpasses the signals usually gleaned from financial statements, credit scores, and other quantitative data.

In general, relationship banking is necessitated by the fact that "complete" contracts that address all future contingencies may not be achievable and attempts to do so often result in overly rigid contracts. Thus, relationship banking evolves when explicit contracts are too costly or rigid, but long-term interaction between the lender and the borrower is mutually beneficial. If the bank believes that the borrower will always honor its trust (built with the bank over time), the bank "pays back" by providing the borrower with better credit terms. Rajan (1996) identifies many economic reasons why borrowers would find it useful to honor their trust. First, the bank has more information about it (the borrower) than any other lender on the market, which favorably impacts the bank's loan pricing. Second, through a strong relationship, the borrower has an implicit guarantee from the bank for intervention in times of adverse financial shocks. Third, Chakraborty and Hu (2006) find that relationship banking may facilitate monitoring in small business loans, obviating the need for collateral, the extent to which depends on the type of credit and the duration of the relationship.

What explains relationship lending? Using German data, Elsas (2005) finds that bank's leverage and share of payment transactions increase the likelihood of relationship lending; second, in low bank concentration markets, the likelihood of relationship lending declines with bank concentration, suggesting that banks use relationship lending to enjoy "monopoly power" when the market structure is less monopolistic while the need for relationship lending falls as the market structure get more monopolistic. However, in more concentrated markets, the reduced competition fosters relationship lending. Some studies have attempted to establish whether relationship lending is beneficial to the borrower. For example, Yildirim (2020) finds that relationship banks add value particularly to borrowers with high default probabilities and low operating efficiency by improving their efficiency and lowering their default risk. The positive effects are realized through the bank's screening and monitoring efforts; however, the effects dissipate some two years after the loan is closed. Similarly, Bharath *et al.* (2011) find that relationship lending is especially beneficial for opaque borrowers, resulting in lower loan spreads, longer loan term and reduced collateral requirements for borrowers including those with access to outside financing (e.g., private equity). Lenders also benefit from relationship lending: Bharath *et al.* (2007) find that it increases the odds that the bank will, in future, sell information-sensitive services to the borrower, especially one with high information asymmetry.

For small businesses, Peterson and Rajan (1994) find that relationship lending increases credit availability but has a minimal effect on the price of credit; interestingly, attempts by small businesses to widen the circle of relationship reverses this gain. Studies also show that relationship lending can enable SMEs to overcome innovation-financing bottlenecks: this effect falls with firm size, implying that smaller firms realize higher benefits from relationship banking to support the development of new concepts (Brancati, 2014). In an interesting study using data from continental Europe, Hernández-Cánovas and Martínez-Solano (2018) find that the duration of the relationship between an SME and a bank enhances access to credit but has the undesirable effect of increasing the loan's cost for the SME. Second, unlike Peterson and Rajan (1994), they find that widening the relationship circle to two banks lowers loan spreads for the SME. Importantly, Hernández-Cánovas and Martínez-Solano (2018) establish that relationship lending based on trust improves access to credit, reduces borrowing costs, and raises the odds that the bank will provide financing guarantees to the borrower.

Further, Cabossioras and Tielens (2025) use Belgian micro-level credit data to show that industry specialized banks forge relationships with small businesses by charging them lower interest rates during the relationship building phase, raise rates during the relationship retention phase for firms in the industries of their (banks') specialization and, ultimately, charge nondifferentiated rates to all borrowers. The study shows that lending relationships with specialized banks is associated with improved outcomes (higher growth in investment, profitability, and productivity) for small businesses in the long run. Consistent with these findings, (Di and Pattison, 2023) find that industry-specialized US lenders have an increased effect on credit availability to small businesses.

### 4.2.4 Soft information and incentive contracts

In a landmark study indirectly examining the virtues of relationship banking in Poland, Hasan *et al.* (2017) find that stronger local presence of cooperative banks, due to their inclination towards soft information use, accelerates the pace of new venture creation, improves SME access to finance, and fosters SME investments as it lowers their financing costs. Contrarily, heavier presence of foreign banks, including supra-local banks with heavy branch footprint, does not favor SME lending probably because they are typically large and distantly managed and therefore unable to use soft information in their lending decisions. Their results are consistent with DeYoung *et al.* (2008), who show that community banks have a comparative advantage over larger banks in forming relationships with lenders, and with Berger et al. (2015), who document that a higher market presence of small banks leads to more lending to startups in normal economic periods. Similarly, De Haas *et al.* (2010) find that, in CEE post-transition countries, small banks are more likely than large banks to lend to SMEs.

The foregoing studies identify two key issues that reduce banks' effectiveness at addressing SME information asymmetry and hence inhibit SME lending: hard information (Stein, 2002) and distance. For example, Agarwal and Hauswald (2010) find that borrower proximity facilitates the collection of subjective firm-specific intelligence (soft information). Because of their proximity to and closer relationships with borrowers, smaller (including community and cooperative) banks can more easily address both problems. However, both problems can also possibly be tackled through technological advances: for example, Agarwal and Hauswald (2010) show that technology, such as credit scoring of loan applicants, can facilitate the softening of hard information, reducing the soft-information benefit of proximity. Thus, while studies such as Mishra *et al.* (2022) find that the adoption of such technologies is slow in some developing countries (e.g., India), especially among state-owned banks, others such as Li *et al.* (2021) demonstrate that credit scoring can be improved through deep learning technologies such as back-propagation neural networks (BPNN) to incorporate soft information, boosting their appeal for assessing SME applications.

Studies also address alternative strategies, such as credit guarantee schemes (CGS), for dealing with moral hazard risk in SME lending. These are agreements in which a third party, known as a guarantor, which can be a state agency, a DFI, an individual or a private firm, "insures" a prespecified proportion of the loan to the SME. The guarantor facilitates the borrower's access to credit by extending a (costly) credit guarantee (Boschi *et al*., 2014). CGS can address credit rationing to SMEs through channels such as reducing lenders' risk in the event of default (Coco, 2000) and hence reducing moral hazard in the relationship, and reducing lenders' monitoring costs (Cowling and Mitchell, 2003).

Although useful for addressing asymmetric information, Boschi *et al.* (2014) find that the guaranteed intensity, or coverage ratio (guaranteed amount as a proportion of the loan principal), below the threshold level (0.25 in their work that uses Italian data) are too costly for borrowers to be effective in lessening the credit constraints faced by SMEs. Studies also show that credit guarantees improve SME's

access to credit and at a lower cost in Italy (Zecchini and Ventura, 2009) and improve SME survival and performance in Korea (Kang and Heshmati, 2008). For China, Yu *et al.* (2022) recently demonstrate that credit guarantee schemes not only incentivize SME access to capital but enables them to obtain higher loan amounts, with the greater capital improving their fixed assets investment, research and development spending, and total factor productivity.

#### 4.2.5 Technological advances and innovative finance

More recent research has focused on how technological advances, such as fintech, can be exploited to overcome barriers to SME credit access. Fintech entails the innovative use of digital platforms and technological innovations including artificial intelligence, machine learning, mobile applications, and decentralized finance, to enhance access to finance especially to previously excluded groups such as SMEs. Kodongo (2024) shows that, by providing an alternative to traditional banking, the fintech ecosystem helps overcome both the distance barrier and the common lender requirement of credit history which facilitates the use of hard information in credit scoring of typically excluded populations. While this finding is sensible, Adams *et al.* (2023) offer alternative thinking: they find that technological advances make evaluating hard information more efficient at scale, which benefits lenders that rely on hard information (e.g., SME credit card issuers), without conferring clear benefits on lenders that rely on approaches such as relationship lending, which better serve SMEs with limited hard information. Although different in implications, this result is consistent with Sheng (2021), who finds that fintech fosters banking sector's provisioning of credit to SMEs but that the effect is greater for larger banks (which tend to rely more on hard information).

An innovative method of incentivizing SME lending is *blended finance*, a form of "intermediated" lending commonly used by development finance institutions (DFIs). Under this arrangement, DFIs attempt to "derisk" SMEs through equity participation, guarantees, or lines of credit to incentivize commercial lenders (banks, microfinance institutions) to provision credit to SMEs. Using data of 156 African banks that received DFI-intermediated lending support in Africa between 2010 and 2021, Léon (2025) documents an 8% reduction in credit growth of the supported banks and that the negative effect tends to be higher for banks receiving support for the first time and through equity participation (compared to lines of credit); and higher for small and inefficient banks and banks with the highest relative support (as a percentage of total assets). Léon (2025) attributes these surprise findings to limited absorptive capacity of the supported banks, which forces them (banks) to prioritize new clients at the expense of existing borrowers, altering the composition of their loan book. Shifting focus to non-bank institutions, Léon (2025) finds that blended finance intervention has no effect on the credit supply of supported MFIs.

### 4.3 A demand-side view of SME lending

Prior to the 2000s, research perspectives on SME credit were organized around the prevailing supply-side-focused theories that examined SME debt financing in the context of credit rationing, underpinned by information asymmetry hypothesis (Stiglitz and Weiss, 1981). The near-seminal work

of Kon and Storey (2003) departed somewhat from the then dominant viewpoint, focusing instead on the demand-side of the SME credit market with "discouraged borrowers" playing a prominent role in understanding SME finance. Borrowers may be discouraged from approaching credit providers and submitting applications for credit by high application costs, which may be psychological (psychic), institutional, or financial/economic. Kon and Storey (2003) demonstrate that, under a set of assumptions, the extent of borrower discouragement depends on imperfect screening by lenders, the scale of application costs, and the extent to which the bank interest rate differs from that charged by the (informal) money lender. For instance, when application costs are positive, borrowers resort to self-rationing, where "good borrowers" (i.e., those with good credit risk and, hence, a reasonable chance of positive screening outcomes) may fail to apply for credit on the belief that their application will be rejected – such borrowers are said to be "discouraged".

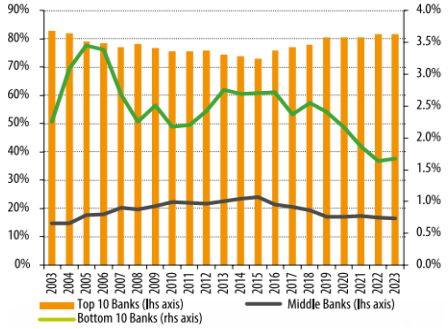
The work of Kon and Storey (2003) has prompted a large volume of empirical studies. In general, the evidence suggests that discouragement is likely to be concentrated in smaller, younger and less profitable firms (e.g., Cole and Sokolyk, 2016) because they are the most informationally opaque (Calabrese *et al.*, 2021) and have weak or no established banking relationships (Rostamkalaei *et al.*, 2020). Further, more evidence indicates that self-rationing is common among process and product innovators (Brown *et al.*, 2022). The evidence therefore suggests that discouragement is more likely to affect riskier firms (young and innovative SMEs) whose information banks find costly to gather, than less risky firms (less innovative firms in mature product life cycles).

## 4.4 Bank competition and SME lending

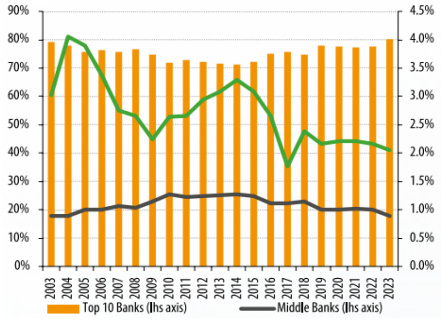
### 4.4.1 Bank competition landscape in Kenya

**Figure 6: Banking sector concentration, 2024**

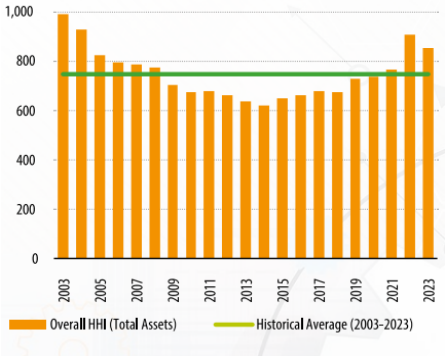
**(a) Concentration measured by credit**



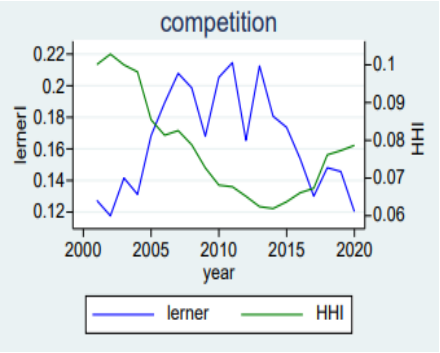

**(b) Concentration measured by credit**



**Concentration by deposits,**




**Concentration by Competition**




**Source:** KBA State of the Banking Sector *Report*, 2024, ; Wahinya *et al*. (2023)

Kenya's banking sector has remained moderately concentrated over the past two decades. The recent Kenya Bankers Association report indicates that the top 10 banks have remained dominant over time, commanding a substantial share of the industry's credit (20-year average of almost 80%; Figure 6, top-left panel), and deposits (20-year average exceeding 70%; top-right panel). Thus, Kenya's top 10 banks had significant influence on credit allocation and market dynamics within the banking sector, with the data also indicating possible preference of depositors for larger banks. The overall market concentration in Kenya's banking sector, measured by the Herfindahl-Hirschman Index (HHI, bottom-left panel) reports an average close to 750 for the period, suggesting a reasonably low level of concentration and a potentially competitive market.[14]

While concentration measures, such as HHI, may not yield indicators that can inform direct inferences about competition, **Figure 6** (bottom right panel), using data for a slightly earlier period, indicates a close (inverse) correspondence between it (HHI) and the Lerner index, which measures competition directly. Thus, we conclude that the banking sector in Kenya has been characterized by moderate-to-high levels of competition over the last two decades. Whether this is good for SME access to credit is an empirical question. Below, we review the relevant literature on the subject.

### 4.4.2 Theory and evidence

The theoretical foundations for appreciating the role of bank competition and market power on SME credit

14. Calculated by squaring each entity's market and summing the resulting values, the HHI has a maximum value of 10,000, which represents a highly concentrated market. Although the HHI index is a measure of concentration, it is also used to provide insights about banking sector competition: an HHI less than 1,500 is considered to represent competitive market conditions, while an HHI of 2,500 or greater characterizes a market with high concentration and weak competition. To speak to market competition directly, the literature uses measures the Panzar-Rosse H-statistic (which measures the elasticity of bank interest revenues to input prices), the Lerner index (the difference between output prices and marginal costs), and the Boone indicator (which measures the effect of efficiency on performance in terms of profits).

are underpinned by the market-power hypothesis and the information-based hypothesis. The market power hypothesis argues that firms with high market power may engage in behavior that forces competitors out of the market, then raise prices to enjoy monopoly profits, a practice known as predatory pricing (e.g. Vatiero, 2010). Applying this to the banking context, the reduced competition caused by the firm with stronger market power could therefore result in higher interest rates (price) and, potentially, restricted credit supply, which may heighten borrowers' (and especially SMEs') financing constraints (Sääskilahti, 2016). In contrast, reduced banks' market power should encourage competition and increase access to credit by firms (Meslier *et al.*, 2020).

The information-based hypothesis (Petersen and Rajan, 1995) argues that stronger market power, typically available in more concentrated markets, enables banks to (initially) lend at lower rates to informationally opaque borrowers (e.g., SMEs and distressed firms) with the expectation of realizing higher returns from them in future by exploiting their better command of (soft) information of such firms. That is, banks in concentrated markets subsidize borrowers when they are younger/distressed, molding them into successful enterprises from which they can extract future rents. This implies that bank market power (higher market concentration) fosters greater investment in lending relationships which reduces information asymmetry, resulting in better credit access by SMEs (Ryan *et al.*, 2014).

Empirical evidence appears to find support for both hypotheses. For example, Carbo-Valverde *et al.* (2009) documents a negative relationship between bank market power and access to credit by Spanish SMEs; and Love and Peria (2012) find a similar relationship, which is, however, modulated by financial development and government ownership of banks, using pseudo-panel data of developing countries. Contrarily, Petersen and Rajan (1995) and Fischer (2000), respectively, find a positive relationship between concentration (higher market power) and access to finance for cross-sections of US firms and German manufacturing firms.

Using a matched bank-firm dataset, Wang *et al.* (2020) show that bank market power lowers financing costs and enhances credit access in the EU, particularly for smaller and informationally opaque SMEs because market power fosters banks' investment in relationship-lending and acquisition of soft information. For developing countries, Chong *et al.* (2013) find that less concentrated banking markets reduce financing constraints of firms. In support, the recent study of Thein *et al.* (2024) finds that banks in highly concentrated markets tend to exhibit higher levels of risk-aversion, increasing their propensity for collateral, which constrains SMEs access to credit in Asian countries. Finally, in support of the information-based hypothesis, Chemmanur *et al.* (2020) find that the strictness with which banks screen credit applicants in China increases with greater banking sector competition.

# 5.0 SME lending in practice

**A lot of the principles discussed in Section 4.2 have been implemented in different contexts and forms to incentivize SME lending. In this section, we survey some of those practices, the constraints that they face, and possible ways of surmounting those constraints.**

First, we look at an *insurance-type intervention* currently being piloted by Aceli Africa[15] in the East African region. The program incentivizes commercial lending to agriculture SMEs, which, in their estimation, faces an annual funding gap of USD 65 billion in Africa.[16] The initiative seeks to reduce friction in the SME credit market using a two-pronged strategy. The first is a financial-risk mitigation strategy in which Aceli offers *first-loss cover* on an agreed proportion of the loan books of the participating agriculture-SME lenders.[17] By providing this partial insurance against default, Aceli eliminates a portion of the financial risk posed by lending to agriculture SMEs. The second aspect directly addresses the unattractiveness of agriculture SMEs to banks: Aceli compensates lenders for the higher average costs of small-scale lending through cash subsidies ranging from USD 2,000 to 10,000 per loan, again depending on the loan size; this enables lenders to earn a reasonable return on the loans without increasing interest rates for SMEs. Additional to mobilizing private sector finance to agriculture-SMEs, this approach enables the SMEs to develop a track-record (credit history), making them more "bankable" in future.

The second, and more often practiced, strategy to encourage bank SME lending is *blended finance*, a practice in which lower-cost finance from concessional and/or development financiers is combined with (usually higher-cost) commercial credit, to incentivize private sector credit provisioning. This way, the risk-reward profiles of innovative projects that might not be bankable on strictly

15. The initiative uses a data-drive approach to estimate funding needs and for impact measurement.
16. See a summary of the case study here.
17. The first-loss cover is a partial insurance on loans covering potential defaults up to a pre-agreed amount. Because the cover is expressed as a proportion of the total agricultural-SME loan portfolio, it grows with banks' agricultural-SME lending.

commercial considerations are rebalanced to enable them to achieve commercial viability. A prominent "player" in the development financing space known to employ this strategy routinely is the International Finance Corporation (IFC). In its strategy, IFC blends its own funds with relatively smaller concessional finance and bank finance to make joint investments in carefully selected projects with identifiable social and environmental impacts, the concessional finance being structured in the form of various alternative instruments such as local currency financing, performance-based incentives, below-market rate loans, and guarantees.[18] Another example is the West African Initiative for Climate Smart Agriculture (WAICSA), which uses blended finance to support agriculture SMEs in West Africa to adopt climate-smart agricultural technologies. This is achieved through a mélange of tools such as provisioning subsidized interest rate loans to smallholder organizations and agribusinesses with ticket sizes below USD 1 million; and providing capacity building and technical assistance to banks to design suitable credit products.

Besides blended finance, *SME Lines of Credit* have been used in many countries to provide dedicated bank financing, frequently for longer tenors than are generally available in the market, to finance SMEs activities such as investments, growth, export, and diversification. In general, lines of credit are initiated either by the government or by a development financier such as African Development Bank (AfDB) or International Finance Corporation (IFC). The government may also channel a line of credit through a DFI. In the typical application, the government/DFI operates the line of credit to enable commercial banks to access additional finance for on-lending to SMEs. Lines of credit incentives have been used in many situations and countries. For example, in Jordan, the World Bank operates[19] two lines of credit: a USD 70 million one targeting growth and expansion of new and existing enterprises, and an additional financing of USD 50 million targeting women and young adults, both of which reach SMEs beyond Amman, the capital. In Africa, AfDB operates a line of credit facility[20] that supports financial institutions across the African region with long term liquidity and technical assistance to enable them to build larger and good quality SME loan portfolios. The facility also offers support to SMEs to prepare loan applications through capacity development initiatives (e.g., writing business plans, and financial literacy training). The program does not finance SMEs directly. Because of their longer tenors, the facility addresses banks' asset-liability mismatches and incentivizes lending for SME expansion and growth.

18. In its Global SME facility, for example, IFC has leveraged USD 90 million of donor's concessional finance with USD 1.4 billion of its own funds and of partnering banks for on-lending to SMEs. IFC has employed this approach in many developing countries such as Afghanistan, Bangladesh, Cote d'Ivoire, Cambodia, Ghana, Haiti, Iraq, Kenya, Myanmar, and Nigeria.

19. See World Bank (2019) and World Bank (2024) reports.

20. Information about the AfDB SME facility is available on the bank's website.

21. Crawford et al (2024) recently reviewed many such interventions and documented their performance in many countries. Bertoni et al (2023) show that such interventions have positive long-term effects on SMEs in France.

The fourth, and popular approach for incentivizing SME credit provisioning by banks is *government intervention*.[21] This can be executed in several forms such as direct lending[22], interest rate subsidies, guarantees, and non-financial support like SME owners' capacity building to mitigate information opaqueness and improve their bankability. A good example of the (partial) loan-guarantee approach with subsidized interest rates is the South African government's *Bounce-Back Scheme* launched in April 2022.[23] The initiative had two components: an equity-linked mechanism and a loan-guarantee feature. On the loan guarantee feature, participating banks, non-bank financial institutions (NBFIs), and DFIs extend credit to SMEs on specified terms[24] with the government assuming the initial portion (20.5%) of loss (if the SME defaults) while the finance provider assumes the risk for the remaining portion. This scheme is, therefore, similar in spirit to the insurance-type guarantee offered by firms such as Aceli Africa, plus an interest rate subsidy. Another example of the partial credit guarantees is Morocco's World Bank MSME guarantee program, which includes guarantees to very small enterprises. The World Bank reports[25] that the project increased the number and volume of MSME loans by 88% and 18%, respectively, during 2011–2019, enabling many first-time MSME borrowers to generate credit history, which improved their ability to obtain commercial loans subsequently.

The fifth way of incentivizing SME lending focuses on *addressing fundamental factors* inhibiting bank SME credit provisioning. This entails infrastructure improvements at the country/state level and/or capacity building at the bank level. At the infrastructure level, this may include measures such as enacting laws to develop and/or improve credit reporting systems, supporting the creation of credit reference bureaus, undertaking regulatory reforms to incorporate a framework for SME lending, and developing a collateral registry. Bank level measures include those aimed at building institutional capacity in strategy, market segmentation, credit and market risk management, channel and product development (e.g., SME-specific digital products), and developing complementary non-financial services (e.g., business

21. Crawford et al (2024) recently reviewed many such interventions and documented their performance in many countries. Bertoni et al (2023) show that such interventions have positive long-term effects on SMEs in France.

22. A well-known example of government direct lending to SMEs is offered by the Japan Finance Corporation's (JSC) Small and Medium Enterprise Business Unit, which provides "stable, long-term, fixed interest rate loans" of various kinds to foster business growth of SMEs. In a recent study employing Japanese data, Uesugi (2025) shows that credit guarantees perform better at enhancing welfare than direct government credit.

23. The Bounce-Back Support Scheme for businesses was launched as part of the stimulus package to deal with the effects of covid on South Africa's economy. The initiative has since been expanded to enable small business to install solar energy to alleviate the adverse effects of energy shortfalls on their operations.

24. Funding is arranged by the government through the Reserve Bank of South Africa (RBSA). RBSA lends money to participating banks at the repo rate plus a 0.5 per cent one-off charge of the amount disbursed. Participating banks, DFIs and NBFIs lend the money plus their own funds for the unguaranteed portion (79.5%) of the loan amount (which is raised through their usual funding channels) to SMEs at a floating interest rate of no more than the repo rate plus 6.50%.

25. The World Bank's 2019 report can be downloaded online.

skills, networking and mentoring). The IFC, through its Global SME Finance Facility, has successfully implemented such infrastructure measures in countries such as Nigeria; and the capacity enhancement facility for individual banks such as Atlantic Business International, a large West African bank, and KCB, a Kenyan bank with operations in many countries in East Africa.[26]

Sixth, as the stock of SME loans grows within the economy and capital markets develop and become more integrated, *securitization* can be explored to expand SME lending. Under this approach, banks originate SME loans, pool them into SME-loan-backed securities, and sell the pools to investors in the capital markets to raise funding to support additional lending to SMEs. However, given the 2008/9 global financial crisis experience that emanated from mortgage-backed securitization in the USA, great care is needed in the implementation of this strategy. Thus, for example, only high quality (prime) SME loans could be considered for securitization, and the resulting instruments must be subject to rigorous disclosure and reporting requirements (Aiyar *et al.*, 2015).[27]

In Africa, SME loan securitization has been used in Cote d'Ivoire, first in 2018 by COFINA, a West African regional financial services institution with a large SME loan book; the bank securitized CFA 10 million (USD 20 million) worth of SME loans, with the deal being listed on the Cote d'Ivoire-based regional stock exchange, *Bourse Régionale des Valeurs Mobilières* (BVRM). The second SME one, induced by the demonstration effect of the first, was in 2020 by NSIA Bank, Cote d'Ivoire, supported by the IFC (Harwood, 2021). Despite its usefulness, successful introduction and use of securitization needs regulatory intervention (e.g., to create rules and enforcement mechanisms for identifying eligible loans, and for collateralization; and disclosure), infrastructure development (e.g., setting up SME data banks, and IT infrastructure to support securitization), and, possibly, seed capital support.

A variant of securitization that is potentially easier to implement in Africa (given its underdeveloped capital markets) is *future flows securitization* (FFS). Under FFS, cash flows from a business, rather than a loan to that business, are securitized – this is less complex, more transparent, and easier to structure and therefore can be used as a first step towards boosting the contribution of securitization to total financing by "quickly creating demonstration transactions that increase visibility, educate stakeholders, and expedite the development of enabling environments" (Harwood, 2021). For example, m-Kopa's electric motorbike product can be securitized this way to facilitate its scaling.

26. IFC reports that the KCB intervention, which focused on customer segmentation and non-financial services, resulted in credit growth of 13 percentage points between 2016 and 2021 to female entrepreneurs.

27. In this regard, securitization of SME loans may be costly. The costs include upfront costs of structuring the instruments (setting up systems, pooling costs, legal documentation, due diligence, credit ratings, and credit enhancement tools such as high subordination levels for senior tranches, overcollateralization, and interest reserve accounts); the difficulty in generating enough returns to meet investor requirements; and lack of a sufficiently large investor base (Aiyar et al., 2015).

The sixth intervention strategy, commonly employed by way of partnerships between private sector service providers and governments, involves *human capital capacity building* for SME owners or entrepreneurs. The central idea is to capacitate entrepreneurs with the knowledge to develop "bankable" business proposals, business and financial management skills (cash flow management, bookkeeping and reporting, budgeting, inventory management, and the like), and debt management skills to reduce their information opaqueness and therefore, improve their ability to successfully apply for finance and manage it prudently to reduce moral hazard for the financier. In most countries, it is the government that undertakes or sponsors these activities but, lately, development banks are getting increasingly involved as well. For example, the AfDB's Access to Finance for SMEs program provides technical assistance on a case-by-case basis to entrepreneurs under the bank's lines of credit program "to enhance bankable loan requests".[28] Another well-known capacity enhancement program for SMEs is the Kenya government's initiative, the Micro and Small Enterprise Authority (MSEA), one of whose responsibilities is to spark industrialization through policy reforms and to implement targeted programs for SMEs including SME capacity building.[29]

28. See "Access to Finance for SMEs through Fis" on the AfDB website.

29. The core functions of the MSEA are outlined here.

# 6.0 Improving bank lending to SMEs in Kenya: recommendations

**There are two key issues to be addressed when attempting to improve SMEs' access to credit. These are the cost of credit and the *amount of funding available* to the SME market segment.**

The cost of credit can be reduced by reducing the SME premium, $k_{SME}$, in the interest charged to SME borrowers: this can be achieved through a simplified and more accurate risk assessment (e.g., digitalizing credit scoring can simplify the process while incorporating soft information can improve accuracy) and by reducing the cost associated with providing services to SMEs (e.g., reducing distance to the service center say through agency banking). Increasing the amount of funding is a bank's decision depending on the priority attached to the SME segment but can be aided by tools such as securitization. The proposals discussed in this section address specific mechanisms that Kenyan banks can use or, where they are already in place, improve on to achieve greater SME credit provisioning.

## 6.1 Review agent banking regulations

A key takeaway from both the theory and practice is the importance of soft information in SME lending. As Stein (2002) argues, the key characteristic of small business lending is that it leans more heavily towards soft information than other lending activities of the bank: indeed, the bank–firm relationship seems to be longer term and more exclusive when a firm borrows from small banks (Berger *et al.*, 2005) than when they borrow from larger banks which are distant and tend to interact more impersonally with their clients. This is one of the reasons certain practices such as group lending, and community banks and cooperative banks with roots in local communities perform better in SME lending than larger banks headquartered at a distance from local communities: Agarwal and Hauswald (2010) show that the odds of default on SME loans increases with the distance between borrower and lender largely due to lenders' reliance on hard information.

However, technological advances may enable larger banks to "soften" hard information, reducing default risks for their SME clients: this has caused a decline in the importance of community banks to SMEs (Berger *et al.*, 2014). These observations have important implications for Kenyan banks' SME lending.

Kenyan banks have been quick to adopt new technologies, including partnering with tech firms to enhance access to banking services. However, although the use of technology to "soften" hard information may improve efficacy of credit scoring tools and reduce SME default probabilities, it does not address the impersonal nature of distant relationships between banks and their SME clients. This may partly explain the low levels of SME credit services discussed in Section 2. Addressing this problem requires renewed recognition of the role of soft information in lending relationships. However, technology-based banking is appealing to banks for another reason: banking through physical branches is costly. Thus, the question is whether banks can balance their need to lower operating costs with the need to build long-term relationships with clients to exploit soft information.

A possible resolution is *agency banking*, which Kenya adopted in 2009 through an amendment to the Banking Act.[30] Since its introduction in Kenya, agency banking has realized substantial growth: for example, the number of bank agents grew by 5.7%, from 82,780 in 2022 to 87,531 in 2023; with cumulative value of transactions since 2010 of KES 11.56 trillion (approximately USD 89.47 billion). However, the growth in agency banking has not resulted in a notable change in SME credit. Over the two-year period between 2022 and 2024, for example, the proportion of MSME loans, by value, to total banking sector loan portfolio stood at 21.4% during 2024, a marginal decrease from 21.3% during 2022 (CBK, 2025). The CBK report attributes the weak performance partly to increased competition from alternative lenders, such as digital credit providers and SACCOs. Focusing on SACCOs, it is straightforward to argue that due to their intimate knowledge of the borrowers, they are in a better position than banks to use soft information in their lending decisions.

We argue that the relatively weak association between growth in agent banking and growth in SME credit in Kenya is attributable, at least in part, to regulatory constraints. Guidelines on Agent Banking issued by CBK prohibits bank agents from ". . . granting loans or carrying out any appraisal function for purposes of . . . granting of a loan or any other facility except as may be permitted by any other written law to which the agent is subject".[31] This prohibition essentially restricts the use of soft information. We *recommend*, therefore, that the CBK considers revising this provision in the guidelines to enable bank agents to perform initial

30. The amendment was introduced through the Finance Act 2009 to allow third parties to provide banking services on behalf of banks in accordance with the principles laid out in the Banking Act.

31. This is according to the Guidelines on Agent Banking – CBK/PG/15 (issued 30/4/2010).

appraisal (screening) of SME loan applications and make *recommendations* to banks' loan officers.[32] To facilitate this, the CBK may find it necessary to:

i) Make it a legal requirement that all aspiring bank agents be capacitated in loan appraisal before they are granted the agency contract/ license, and,

ii) For purposes of executing this requirement, develop a working legal definition of SME, which should, among others, speak to the size of the loan being applied for.

Although the implications of the "hierarchy effect" discussed by Liberti and Mian (2009), in which the distance (geographical and hierarchical) between senior employees and junior employees may restrict sharing of abstract and personal information for decision-making, appear to contradict this recommendation, recent studies have shown that technological advances can facilitate the breach of such distance barriers (Flögel and Beckamp, 2020). Thus, the bank decision-maker for a credit application that has been screened by the agent could engage further through, for example, a voice-over-internet call to obtain the personal information that informed the agent's recommendation.

## 6.2 Cultivate relationship lending

Based on interviews and participant observations at a regional German savings bank, Flögel and Beckamp (2020) establish that internal rating systems of banks only consider soft information to limited degrees, because such information is context specific and possess limited verifiability. Instead, the bank tends to validate soft information in the long-term through its relationships with clients, consistent with arguments in support of relationship banking (Boot, 2000). Consistent with the predictions of the functional distance literature (Stein, 2002; Liberti and Mian, 2009), the validated soft information, in turn, permeates the bank decision-making processes and hierarchies through interpersonal relationships within the bank such as close interactions between employees (e.g., loan evaluation officers) and decision makers (e.g., loan approving officers, branch managers).

According to Berger and Udell (2002), small business credit provisioning is characterized by two distinct lending technologies. First is *relationship lending*, in which the bank invests heavily in proprietary, customer-specific information acquired over time, as explained in Section 4.2.3. Second is *transaction-based lending*, which relies largely on easily available less proprietary, "hard", objective and transparent

32. It is important to point to some empirical context of the positive role that agency banking and, by extension, all remote banking such as digital and fintech banking can play in promoting financial inclusion. Hulme and Mosley (1996) in a review of microfinance provisioning in developing countries such as Bolivia and Kenya, observe that, "for women borrowers, often precluded by family responsibilities and, sometimes by social custom, from making long trips to cities to conclude a loan agreement, the difference in travel time in favor of the non-traditional lending institution may be particularly important".

information and engages with clients principally at arms-length. Transaction-based lending uses three key approaches:

*Financial statement lending,* in which the lending decision and terms of credit are informed by borrowers' financial statements (balance sheet, profit and loss account). Although better suited to large firms, this approach may also be used to assess the small firms with long trading histories and audited financial statements.

*Asset-based lending,* in which the lending decision and credit terms are informed by the value of pledgeable collateral. Both fixed and current assets may be pledged but lenders often prefer liquid assets (e.g., inventories and debtors), which can be quickly disposed of with minimal value loss. Due to the liquid nature of such assets, banks must undertake costly monitoring to mitigate moral hazard (asset quality decline).

*Credit scoring,* in which the lending decision and credit terms are informed by the outputs of statistical tools such as discriminant analysis. Such analysis is designed to capture the firm's ability to pay (typically gleaned from financial statements and quality of pledgeable assets) and willingness to pay (gleaned from the firm's financial history and financial condition, and in the case of an SME, its owner).

As this discussion shows, transaction-based lending appears more suitable for established, usually larger, businesses with available hard information that can be used to estimate the firm's default probability. For SMEs, evidence shows that relationship lending, which relies more on acquisition by the bank of soft information over time, is more suitable. Indeed, even with the application of superior technology, which can use big data to assess SME borrowers using the same hard information-based platforms often used for established enterprises (de la Torre *et al.*, 2010), evidence suggests that credit decisions based on hard information reduce the likelihood of SMEs using bank credit even in more advanced markets (e.g., Fasada and Cappa, 2022, for Italy). Additionally, Wang *et al.* (2022) demonstrate that soft information shows high predictive power, and if combined with hard information, increases banks' ability to predict defaults. Thus, relationship lending (Section 6.1), which is closely linked to soft information, presents several *benefits* to banks, such as:

Greater competitive advantage in the SME credit market segment, allowing the bank to retain premium SMEs.

a) Lower SME portfolio risk (lower proportion of nonperforming SME accounts), and

b) Increased SME credit market share and the concomitant higher returns.

Data from CBK (2025) shows that, in the 12 months to December 2024, the banking sector generated approximately 35.3% of its overall lending-related income from the MSME sector, almost half of which was from SMEs. With tighter bank-firm relationships in relationship lending models and SME-centric banking, there is great potential for individual banks to tap into the benefits discussed to improve their SME-related income. To achieve this objective, banks should consider implementing the following *recommendations*

(Bennette *et al.*, 2015) to exploit the full potential of the large SME credit market in Kenya:

***i) Core staff development and training***

Relationship building relies on interactions between the bank staff and the SME owner. Thus, banks must ensure that their front-office staff, who deal with SMEs regularly, loan officers, and relationship managers possess the necessary competencies (skills, behaviors and traits) to cultivate customer-centric relationships with SMEs. Such competencies need to be reinforced with commensurate rewards including non-monetary ones such as recognition of effort, proper alignment of skills with positions, and transparent career progression.

***ii) Emphasis on SME-centric approaches***

The bank's senior management team must explicitly communicate the bank's policy to build a long-term relationship with SMEs as a key aspect of the bank's strategic focus. This must be supported by well-articulated and resourced work plans and a dedicated well-resourced team to lead the effort. The bank should also institute an autonomous SME department and evolve SME-centric banking processes (unique approaches centered on customer needs) and operations (e.g., internal credit control policies and procedures) that differentiate the SME-line from other lines such as corporate banking.[33] To their credit, many banks in Kenya practice separation of SME business from both individual/retail and corporate business – whether this is accompanied by SME-centric systems and processes is however contentious.

## 6.3 Use value-adding services to attract SME borrowers

Whilst recommending relationship lending and the use of soft information as important for banks to reach SMEs, it is also important to note that some studies find that banks engage SMEs via alternative approaches. Specifically, de la Torre *et al.* (2010) document that banks in many developing and advanced markets find SMEs profitable through a mélange of complementary services, which makes "cross-selling" an important aspect of banks' SME business strategy. That is, banks have developed, and can exploit, a wide range of fee-based, non-lending value-adding financial services[34] to deepen their engagement with the SMEs. If such value-adding or complementary products and services gain traction among SMEs, constraints imposed by the institutional environment for credit contracting and the adverse effects of reliance on hard information become less imposing and banks, including large and distant ones, can more easily evolve SME credit products.

33. This recommendation is consistent with practices of banks involved in SME lending in other regions. For example, the results of surveys conducted by the World Bank during 2007 show that, of the participating banks, 77% in Argentina, 88% in Chile, 100% in Colombia, and 88% in Serbia, had dedicated units to manage their SME relations. Others had separate units for small, and medium enterprises (de la Torre, et al., 2010).

34. Among the non-lending products and services identified by de la Torre et al. (2010) are checking or savings accounts, investment products, factoring, leasing, international trade financing, foreign exchange, international payments and collection, employee payments, supplier payments, tax payments, collection of receivables, and insurance products.

Kenyan banks have long histories of offering value-added products and services to their client firms, large and small. Given this observation, our *first recommendation* is for Kenyan banks to strive towards differentiation of the services and products – for example, by pricing, by other relevant features, and, importantly, by level of 'personalization' of their provisioning – in ways that attract SMEs, where this is not already implemented. The evidence presented by de la Torre *et al.* (2010) suggests that banks that offer these products and services on a large scale tend to benefit the most, by having SME account managers that act as the "personalized" points of contact for SMEs. *Second*, given our recommendation to strengthen agency banking, these value-adding offerings should, to the extent allowable by banking regulations, also be incorporated into the suite of products and services offered by agent banks; this should enable banks to achieve greater "personalization" of these value-added offerings, engage more closely with the SME clients to build lasting relationships, and as part of the strategy to foster the acquisition of soft information of the client SMEs.

## 6.4 Broaden blended finance applications

As is clear in Section 4.2.5, blended finance, although innovative, is not a new concept. Blended finance can be regarded as an attempt to overcome market barriers by adjusting the risk-return relation for incentivizing capital flows to high impact projects, which would otherwise not be possible. In its original application, the basic idea is to combine the profit incentives of the private sector with the compassion incentives of the philanthropic sector through government facilitation. This combined approach enables some form of de-risking of the financed enterprise making it attractive to profit-centered private financiers. However, the current application of the blended finance concept is broader and goes beyond philanthropic finance to incorporate, for example, socio-economic welfare incentives of financiers such as development banks.[35]

The effectiveness of blended finance in achieving their objective of encouraging SME lending is not in question. Recently, Boccaletti *et al.* (2025), using data of about 31,000 Eurozone non-financial firms for the period 2009–2020, demonstrate that a combination of market-based finance and public financial support (such as grant-based finance) helps European SMEs to upscale their operations and to achieve significantly more robust growth. Successes of this kind strengthen the appeal of blended finance and are likely to explain its growing use globally. Blended finance has been used in Sub-Saharan Africa, with 34% of SME-focused blended finance transactions benefiting SMEs in the agriculture sector (18% in the agricultural inputs/farm productivity, and 17% in agro-processing).[36]

A more novel application of the concept has recently been discussed by Khan and Badjie (2022), who propose incorporation in the blended finance practice

35. DFIs can participate by providing concessional terms to borrowers. "Concessional terms" refers to financing terms that are more generous than market-standard terms. It can be achieved by a lender through, for example, offering lower interest rates or longer repayment periods than those available in the market, or a combination. However, blended finance can and does take place without concessional terms in the arrangement.

36. This is according to a recent report of Convergence Finance.

of a contract design that incorporates, consistent with conventional practice, a private sector financier (e.g., a bank operating on Sharia-banking principles) providing commercial finance to the borrower, and, new to practice and to the literature, an Islamic finance provider using Islamic social funds such as *Zakah*, *Waqf*, *Sadaqa*, and *Qard* (rather than, or in addition to, the traditional DFI or philanthropist), and a public sector facilitator. Because of the zero-interest charge resulting from this structure, Khan and Badjie (2022) make the case that the proposed design is particularly appropriate for financing ESG-compliant SMEs operating on the principle of *4Zeros-SS* (zero-waste, zero-emissions, zero-interest, zero-foreclosures, and service to society) to hedge their performance from the negative effects of the additional costs of doing business that they are likely to incur.

An important benefit of this Islamic blended finance model is that it enables the Islamic Social Funds to completely "buy out" the interest component of the financing, affording the SMEs' an interest free credit facility to increase their productivity. However, although Islamic banking practices are already incorporated in the Kenyan banking culture, they are not widely practiced yet. Similarly, Islamic Social Funds are not yet a common feature of Kenya's funds space. Thus, to implement this blended finance approach, it is recommended that Kenya considers developing an institutional framework to guide their creation and application as well as, possibly, an amendment to the regulatory framework. Alongside the regulatory framework, policymakers must also develop implementation guidelines covering blended finance principles in general and Islamic blended finance specifically.

## 6.5 Tap into technology to mitigate SME information opacity

As discussed, the preponderance of evidence appears to suggest that neighborhood and regional banks exploit their short distances to clients to their advantage in SME lending because it facilitates the use of soft information (e.g., Stein, 2002), which takes an elevated significance when quality hard information is either unavailable (e.g., in the case of SMEs without financial statements) or has limited ability to discriminate high-risk from low-risk borrowers (Flögel and Beckamp, 2020). However, some studies (e.g., Flögel, 2018; Agarwal and Hauswald, 2010; Li *et al.*, 2021) suggest that the information advantage of regional banks can be minimized or possibly eliminated by advances in financial technology such as big data applications, which have improved credit scoring and borrower monitoring at a low cost, reducing the geographical proximity advantage of regional banks.

Using observational and interview data of a bank in Germany, Flögel and Beckamp (2020) test the veracity of the claim that technological advances such as big data and machine learning may overcome the context specificity and limited verifiability of soft information. Their results suggest that the "problem" of *content specificity* of soft information may be mitigated by big data and machine learning. This is important for banks intending to exploit soft information of SMEs, but with limited reliance on agency banking or costly branches. This yields our *first recommendation* in this section: to stay competitive in the SME market segment, especially relative to the mushrooming and, in some cases, predatory digital lenders (Kodongo, 2024), Kenyan banks should bolster their investment in new

digital technologies and/or deepen their partnerships with mainstream technology and fintech firms at the frontier of such technologies.

However, Flögel and Beckamp (2020) also provide evidence that machine learning and big data applications struggle to address the limited verifiability problem of soft information, demonstrating its lack of efficacy in this regard on credit scoring and rating models which are applied widely in advanced markets.[37] That is, the results document the inability of technology to completely "crowd out" soft information in the SME lending practices of banks. This informs our *second recommendation*, adapted from the work of Flögel and Beckamp (2020), targeting the country's regulatory agencies. A "softening" of reporting regulation that makes it less burdensome on banks would make them almost comparable to fintech firms (which do not face such regulations) and improve banks' ability to invest (e.g., by hiring more agents) in the acquisition of soft information. Concurrently, a regulatory "sandbox" for fintech firms and other tech-oriented credit providers could incentivize their research and generation of innovative screening and monitoring technologies that would ultimately benefit all players in the lending space including banks and MFIs.

## 6.6 Improve lending infrastructure

As discussed in Section 4.3, the odds of borrower discouragement increase with information opacity. It follows that an improvement in the quality of the information environment should alleviate information asymmetry and reduce borrower discouragement. In their recent study, Mc Namara *et al.* (2025) test the hypothesis that a strong information environment or lending infrastructure (legal/judicial/bankruptcy framework, tax ecosystem and regulatory quality) may mitigate borrower discouragement. They find that information environments that foster greater sharing of credit information, more efficient judicial and bankruptcy regimes, lower corporate taxation, and superior regulatory quality reduces the likelihood of SMEs becoming discouraged borrowers. The results suggest that a well-designed lending infrastructure can mitigate information asymmetry, alleviate fears of premature liquidation, and create favourable market conditions for viable SMEs to borrow.

These results guide our next *recommendation*: the country must prioritize the pursuit of economic and institutional stability (e.g., a low and stable tax regime for businesses), improved regulatory framework, enhanced credit information infrastructure (e.g., efficient bankruptcy regimes and credit registries), and improved business environment (e.g., legal frameworks for contract enforcement) among the reforms that should encourage the banking sector to provision credit to the SME sector.

## 6.7 Invest in SME capacity building

Various studies have identified many capacity-related issues that hinder Kenyan SMEs from accessing formal financing. These include:

37. It is useful to point out that Kenyan banks have adopted artificial intelligence in their day-to-day operations, with services such as credit scoring, customer support, and fraud detection and risk monitoring now offered to customers round the clock through chatbots. This has eased and personalized service provisioning.

i) **Financial literacy:** Many SMEs, especially those owned by historically vulnerable individuals such as women, rural dwellers, and younger adults, have little knowledge of financing options (service providers and their products) accessible to them and the requirements of the many financiers that service their market segment (e.g., Kodongo and Ngui, 2024).

ii) **Inadequate human capital capacity:** A commonly raised issue that impedes SME access to finance is SME proprietors' and operators' inadequate capacity on various matters touching on business management and compliance.[38] For example, many SMEs lack the capacity to comprehend legal language, brand their businesses, prepare tender bids, file tax returns, prepare accounting statements, manage finances, and draw bankable business proposals.

iii) **Inadequate ability to develop pitch decks and to successfully pitch the business to financiers:** Unlike in more advanced capital markets, where investment banks and other intermediaries have a large set of pitch decks which they often avail to investors (e,g., via auctions), Kenya's markets are not yet advanced and investors report that most of their deals are proprietary (Divakaran *et al.*, 2018). Thus, in a market such as Kenya's, lenders have little information to make decisions and spend long periods creating meaningful relationships with SMEs.

A way to deal with these issues is through *training and capacity development programs*. Kenya is one of the few countries in Africa with a relatively advanced SME incubation and development facilities.[39] However, these facilities face some limitations including limited capacity to meet the high demand by SMEs. Further, the support programs are largely based in major urban areas, are skewed in favor of the technology sector at the expense of other sectors such as agriculture, manufacturing, and renewable energy, and are inadequately funded and financially unsustainable perhaps due to lack of a commercial mindset amongst operators. Given these observations, we recommend as follows:

i) To deal with capacity constraints, there is a need for more training and support programs run on commercial principles to enhance financial sustainability and reach. As a minimum, the support provided should include financial literacy training/coaching. CBK's bank supervision report, 2024, indicates that banks have invested considerably in financial literacy and other capacity building programs, actioned via face-to-face and e-learning platforms to enhance MSMEs' ability to access bank finance.[40] Thus, what is required is to intensify such efforts.

38. See, for example, a UNDP report, where this is discussed in detail.

39. A list of some incubators can be found here.

40. Further, in association with Strathmore University, Kenya Bankers Association in 2018 launched the Inuka Enterprise Program, a capacity building effort designed to impart financial management skills to SMEs to operate their businesses profitably. By July 2024, more than 70,000 MSMEs had received financial literacy training under the program.

ii) SME capacity development hubs should work with experienced and competent trainers who are well-versed with the array of funding opportunities available on the market including bank lending, private equity, crowdfunding etc. Trainers must periodically take refresher courses.

## 6.8 Consider SME loan securitization

Given its reasonably advanced capital markets and reasonably well-resourced investment banks[41] by regional standards, the banking sector in Kenya is in a good position to employ securitization as a tool to enhance greater availability of finance for SMEs. Under securitization, a bank (the originator) bundles a package of SME loans into a pool or portfolio, which it sells to capital market investors through a special purpose vehicle (SPV). Through securitization, banks would free up their resources, allowing them to lend more to small- and micro-enterprises while simultaneously moving portions of credit risk emanating from the SMEs to capital markets investors outside the banking system. In the process, banks can, for instance, reduce their nonperforming loan portfolios and improve their asset quality while serving societal objectives of expanding credit provisioning.[42]

However, the implementation of a securitization program must be preceded by regulatory provisions that specifically address, and lay the groundwork for, their application to SMEs. For example, given the observation that SMEs might be opaque relative to other borrowers, the regulatory framework must make adequate provisions to, for example, back them adequately with high quality assets to protect capital market investors in the securitized portfolios. Further, regulatory amendments may be required to mitigate barriers to issuance and investment in securitized assets such as high operational costs for issuers and investors, improve transparency in the issuance process, supervision and investor protection; to adjust the prudential framework for banks to better account for risks and safeguard financial sector stability; and to remove disincentives for institutional investors (e.g., insurance and asset management firms) to participate in the securitization market.[43]

## 6.9 Intensify loan guarantee schemes

As explained, credit guarantee schemes can help derisk SMEs, lowering their moral hazard risk and incentivizing banks to increase their credit provision to the SME market segment. Guarantees are often structured to cover, partly or fully, expected losses to the lender in the event that the borrower (SME) defaults on the obligation. In the context of the loan pricing mechanism discussed in Section 2.2, guarantees can help reduce the risk premium, "k", through its impact on the borrower's risk profile. It's

41. For example, a renewable energy firm recently engaged a consortium of banks led by Citibank (K) and Stanbic Bank (K) to arrange a securitization deal involving USD 156 million to solar affordable solar in Kenya.

42. For instance, a 2024 OECD report indicates that, in Greece, SME non-performing loans (NPLs) have declined from 43.2% in 2016 to 9.18% in 2022 owing to public sector interventions such as the Hercules Programme, which has enabled commercial banks to securitize and remove NPLs from their balance sheets.

43. Similar regulatory interventions are being considered by the European Union to encourage securitization of SMEs loans.

important to highlight that guarantees do not reduce risk of the financed project; rather, they "insure" banks against expected future losses from possible default by transferring the risk to a more creditworthy entity such as the government, enabling the bank to make credit to SMEs on better credit terms than would be the case without them.

In Kenya, the Kenya Credit Guarantee Scheme (KCGS) was created under the State Department of MSMEs Development to address limited access to affordable credit for MSMEs. By September 2024, the scheme, which provides partial guarantees, had catalyzed the disbursement of KES 6.34 billion to more than four thousand MSMEs. Besides government-operated guarantee schemes and subsidy arrangements, SMEs in Kenya can also benefit though credit guarantee programs of other entities such as Africa Guarantee Fund, which has partnered with lenders in Kenya, including Sidian Bank and Gulf African Bank, to promote credit access especially for women-owned and green SMEs. However, take-up of the available support by SMEs has not been adequate for several reasons[44]:

- Weak ancillary support for MSMEs to improve their odds of approval, such as provisioning of financial education in general and training, in particular, on completing guarantee application forms and presenting standardized supporting documents.
- Inadequate awareness by the target groups (SMEs) and limited bank distribution network for accessing loans covered by the guarantee programs.
- Bureaucratic processes and inadequate transparency particularly on the government-run guarantee schemes.[45]

## 6.10 Explore SME "aggregation" strategies

Application of the group lending concept to SMEs is common in developing countries. In China for example, banks have launched several SMEs group lending products, often categorized into two, namely, co-guarantee and mutual guarantee (Shang *et al.*, 2020). Under the co-guarantee lending model, SMEs set up a borrowing group to apply for bank loans, with each borrowing member taking responsibility for the debt of other members in the group, whereas for the mutual guarantee lending, SMEs set up a joint fund to provide group borrowers with a loan guarantor (Columba *et al.*, 2010). In the latter model, the joint fund acts on the same principles as a trustee, providing greater assurance to the bank. The SME group lending model is easy to replicate in Kenya where savings and cooperative societies (SACCOs) are well established. That is, SMEs can be encouraged to join or form a SACCO which can serve as the joint fund, guaranteeing their performance on bank loans. Where the SACCO is deposit-taking, which is also common in Kenya, banks often extend lines of credit (to the SACCO) for onward lending to SMEs. In both cases, since a large part of the monitoring burden is shifted to the SACCO (aggregator), the group lending model reduces monitoring costs for banks, which

44. See, e.g., the recent Alliance for Financial Inclusion report on the use of credit guarantees in the post-covid-19 period.

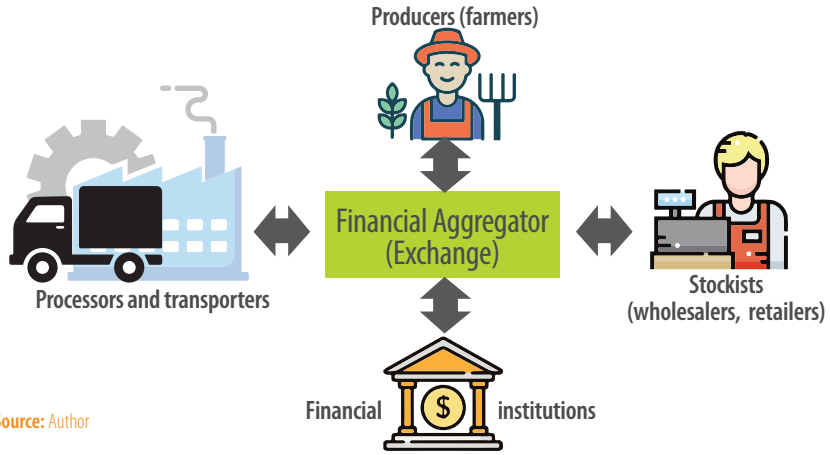
45. To address these concerns, this study has recommended enlarging the role of agent banks, greater use of emerging technology, and SME education.

lowers the moral hazard premium, thereby making bank loans more affordable to the aggregated SMEs. This proposal is consistent with Kenyan microfinance evidence (Kodongo and Kendi, 2013), which shows that group lending is more effective at reducing moral hazard than individual lending.

### 6.11 Exploit supply chain finance

Value chain finance is more often used in the agriculture sector, where firms' activities are closely interlinked and there is a "natural" tendency for firms at different levels in the value chain to finance each other. The intervention involves provisioning of financial services, which may, or may not, include formal financial institutions, to various activities along the value chain (e.g., a marketer providing credit to the farmer to finance harvesting, and transport), with a view to improving the efficiency of production activities in the sector. By availing actors in the agricultural sector of reasonably priced finance, thereby fostering the adoption of new technologies and creating agricultural support infrastructure (e.g., pesticide production plants), value chain finance plays a catalytic role in enhancing the productivity of resources employed in agriculture, expands food production, and increases incomes of sector actors. To enhance the efficiency of value chain finance, sector players could use the aggregation technique to avoid the efficiencies associated with small and expensive credit transactions in the system. Figure 7 illustrates. This innovative approach could be designed along the same principles as a derivatives exchange, where both parties to the financing transaction approach the aggregator ("exchange") to satisfy their needs regardless of their place in the value chain. Thus, counterparties need not negotiate directly with each other, obviating the need for a fortuitous matching of interests inherent in such bilateral contracting and its associated credit risks. The aggregation approach also incentivizes MFIs'/banks' participation, for example, by financing the aggregator, further growing the pool of funds that can be mobilized.

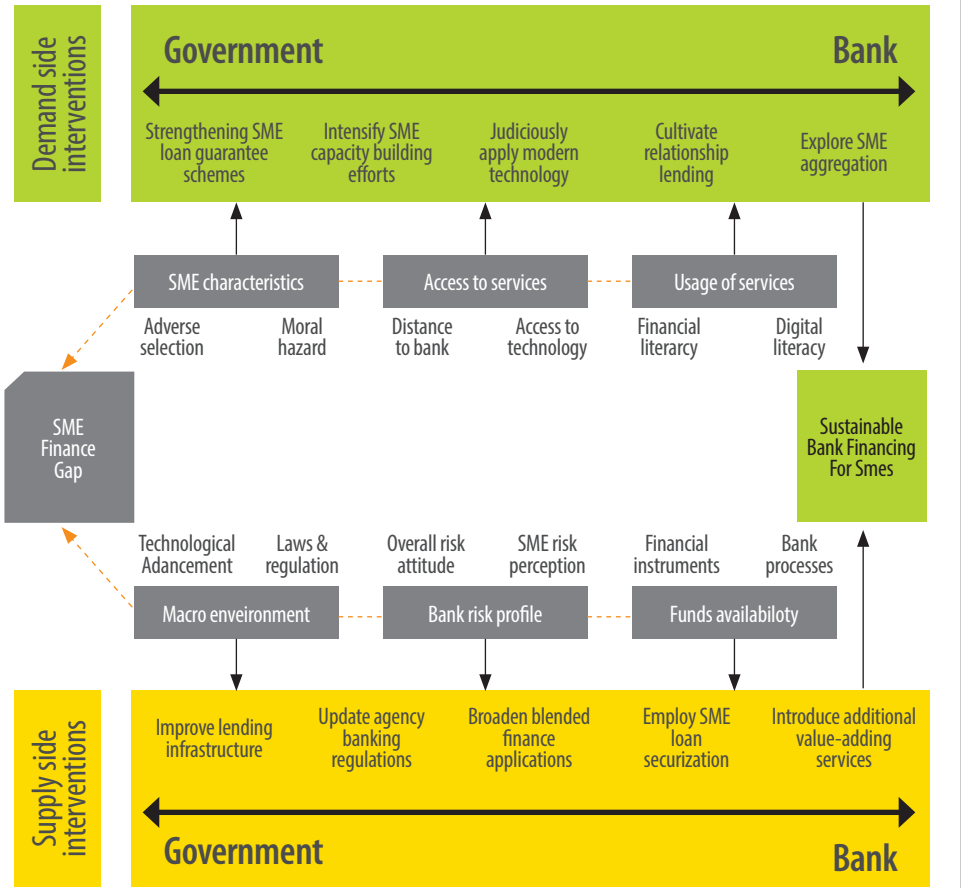
**Figure 7: A possible value chain finance aggregation model**




Source: Author

# 7.0 Proposed framework for sustainable bank financing of SMEs

Drawing from the foregoing recommendations for improved bank SME financing, we now propose a formal framework to facilitate credit provisioning to SMEs in Kenya.



# References


1. Adams, R. M., Brevoort, K.P. & Driscoll, J.C., 2023. Is lending distance really changing? Distance dynamics and loan composition in small business lending. *Journal of Banking and Finance, 156,* 107006.
2. Agarwal, S., & Hauswald, R., 2010. Distance and private information in lending. *Review of Financial Studies,* 23(7), 2757–2788.
3. Aiyar, M. S., Al-Eyd, M. A. J., Barkbu, M. B. B. & Jobst, A., 2015. *Revitalizing securitization for small and medium-sized enterprises in Europe*. International Monetary Fund.
4. Ang, J. S., 1991. Small business uniqueness and the theory of financial management. *Journal of Small Business Finance,* 1(1), 1–13.
5. Arraiz, I., Melendez, M., & Stucchi, R. (2014). Partial credit guarantees and firm performance: Evidence from the Colombian National Guarantee Fund. *Small Business Economics, 43*(3), 711–724.
6. Bates, T. & Nucci, A., 1989. An analysis of small business size and rate of discontinuance. *Journal of Small Business Management, 27*(4), 1–7.
7. Bellucci, A., Borisov, A., Giombini, G. & Zazzaro, A., 2019. Collateralization and distance. *Journal of Banking and Finance, 100,* 205–217.
8. Benavente, J. M., Crespi, G., & Maffioli, A., 2007. *Public Support to Firm-Level Innovation: An Evaluation of The FONTEC program*. OVE Working Paper 05–07. Inter-American Development Bank.
9. Bennett, D., Richardson, P. & Nyauncho, E., 2015. *SME Relationship Banking Approaches.* FSD Kenya, Nairobi.
10. Benston, G. J. & Smith, C. W., 1976. A transactions cost approach to the theory of financial intermediation. *Journal of Finance, 31*(2), 215–231.
11. Berger, A. N. & Udell, G. F., 1992. Some evidence on the empirical significance of credit rationing. *Journal of Political Economy, 100*(5), 1047–1077.
12. Berger, A. N. & Udell, G. F., 2002. Small business credit availability and relationship lending: The importance of bank organisational structure. *The Economic Journal, 112*(477), F32–F53.
13. Berger, A. N., Cerqueiro, G. & Penas, M. F., 2015. Market size structure and small business lending: Are crisis times different from normal times? *Review of Finance, 19*(5), 1965–1995.
14. Berger, A. N., Goulding, W. & Rice, T., 2014. Do small businesses still prefer community banks? *Journal of Banking and Finance, 44,* 264–278.

15. Berger, A. N., Miller, N. H., Petersen, M. A., Rajan, R. G. & Stein, J. C., 2005. Does function follow organizational form? Evidence from the lending practices of large and small banks. *Journal of Financial Economics, 76*(2), 237–269.

16. Bernanke, B. S., & Gertler, M., 1989. Agency costs, net worth, and business fluctuations. *American Economic Review, 79*(1), 14–31.

17. Bertoni, F., Colombo, M. G. & Quas, A., 2023. The long-term effects of loan guarantees on SME performance. *Journal of Corporate Finance, 80,* 102408.

18. Bharath, S. T., Dahiya, S., Saunders, A. & Srinivasan, A., 2007. So, what do I get? The bank's view of lending relationships. *Journal of Financial Economics, 85*(2), 368–419.

19. Bharath, S. T., Dahiya, S., Saunders, A. & Srinivasan, A., 2011. Lending relationships and loan contract terms. *Review of Financial Studies, 24*(4), 1141–1203.

20. Bhattacharya, S. & Thakor, A. V., 1993. Contemporary banking theory. *Journal of Financial Intermediation, 3*(1), 2–50.

21. Boccaletti, S., Ferrando, A., Rossi, E. & Rossolini, M., 2025. European SMEs' growth: the role of market-based finance and public financial support. *Small Business Economics, 64*(2), 691–727.

22. Boschi, M., Girardi, A. & Ventura, M., 2014. Partial credit guarantees and SMEs financing. *Journal of Financial Stability, 15,* 182–194.

23. Brancati, E., 2015. Innovation financing and the role of relationship lending for SMEs. *Small Business Economics, 44*(2), 449–473.

24. Brown, R., Liñares-Zegarra, J.M. & Wilson, J.O., 2022. Innovation and borrower discouragement in SMEs. *Small Business Economics, 59*(4), pp.1489–1517.

25. Butters, J. K. & Lintner, J., 1945. *Effect of Federal Taxes on Growing Enterprises*. Boston: Harvard University.

26. Cabossioras, Y. & Tielens, J., 2025. Bank specialization and credit relationships in small-business lending. *Available at SSRN: https://ssrn.com/abstract=5327976*

27. Calabrese, R., Girardone, C. & Sclip, A., 2021. Financial fragmentation and SMEs' access to finance. *Small Business Economics, 57*(4), 2041–2065.

28. Carbo-Valverde, S., Rodriguez-Fernandez, F. and Udell, G. F., 2009. Bank market power and SME financing constraints. *Review of Finance,* 13(2), 309–340.

29. Carpenter, R. E. & Petersen, B. C.,2002. Is the growth of small firms constrained by internal finance? *Review of Economics and Statistics, 84*(2), 298–309.

30. Central Bank of Kenya (CBK), 2025. *Survey Report on MSME Access to Bank Credit, 2024.* Central Bank of Kenya, Nairobi.

31. Chakraborty, A. & Hu, C. X., 2006. Lending relationships in line-of-credit and non-line-of-credit loans: Evidence from collateral

use in small business. *Journal of Financial Intermediation, 15*(1), 86–107.

32. Chan, Y.S. & Kanatas, G., 1985. Asymmetric valuations and the role of collateral in loan agreements. *Journal of Money, Credit and Banking, 17*(1), 84–95.

33. Chemmanur, T. J., Qin, J., Sun, Y., Yu, Q. & Zheng, X., 2020. How does greater bank competition affect borrower screening? Evidence from China's WTO entry. *Journal of Corporate Finance, 65,* 101776.

34. Chong, T. T. L., Lu, L. & Ongena, S., 2013. Does banking competition alleviate or worsen credit constraints faced by small-and medium-sized enterprises? Evidence from China. *Journal of Banking and Finance, 37*(9), 3412–3424.

35. Coco, G., 2000. On the use of collateral. *Journal of Economic Surveys, 14*(2), 191–214.

36. Cole, R. A. & Sokolyk T., 2016. Who needs credit and who gets credit? Evidence from the surveys of small business finances. *Journal of Financial Stability,* 24, 40–60.

37. Cole, R. A., Cowling, M. & Liu, W., 2024. The effect of collateral on small business rationing of term loans and lines of credit. *Journal of Financial Stability, 74,* 101320.

38. Columba, F., Gambacorta, L. & Mistrulli, P. E., 2010. Mutual guarantee institutions and small business finance. *Journal of Financial stability, 6*(1), 45–54.

39. Cowling, M. & Mitchell, P., 2003. Is the small firms' loan guarantee scheme hazardous for banks or helpful to small business? *Small Business Economics, 21*(1), 63–71.

40. Crawford, J., Cui, Z. Y. A. & Kewley, D., 2024. Government finance, loans, and guarantees for small and medium enterprises (SMEs) (2000–2021): A systematic review. *Journal of Small Business Management, 62*(5), 2607–2637.

41. De Haas, R., Ferreira, D., & Taci, A., 2010. What determines the composition of banks' loan portfolios? Evidence from transition countries. *Journal of Banking and Finance, 34*(2), 388–398.

42. De Jonghe, O., Dewachter, H., Mulier, K., Ongena, S. & Schepens, G., 2020. Some borrowers are more equal than others: bank funding shocks and credit reallocation, *Review of Finance,* 24(1), 1–43.

43. De la Torre, A., Pería, M. S. M. & Schmukler, S. L., 2010. Bank involvement with SMEs: Beyond relationship lending. *Journal of Banking and Finance,* 34, 2280–2293.

44. Degryse, H., & Cayseele, P., 2000. Relationship lending within a bank-based system: evidence from European small business data. *Journal of Financial Intermediation, 9*(1), 90-109.

45. DeYoung, R., Glennon, D., & Nigro, P., 2008. Borrower–lender distance, credit scoring, and loan performance: evidence from informational-opaque small business borrowers. *Journal of Financial Intermediation, 17*(1), 113–143.

46. Di, W. & Pattison, N., 2023. Industry specialization and small business

lending. *Journal of Banking and Finance, 149,* 106797.

47. Diamond, D., 1984. Financial intermediation and delegated monitoring. *Review of Economic Studies, 51*(3), 393–414.

48. Divakaran, S., McGinnis, P. and Schneider, S., 2018. *Survey of the Kenyan Private Equity and Venture Capital Landscape.* Policy Research Working Paper No. WPS8598, October.

49. Drakos, K., 2013. Bank loan terms and conditions for Eurozone SMEs. *Small Business Economics, 41*(3), 717–732.

50. Duarte, F., Gama, A. P. M. & Esperança, J. P., 2016. The role of collateral in the credit acquisition process: Evidence from SME lending. *Journal of Business Finance and Accounting, 43*(5-6), 693–728.

51. Elsas, R., 2005. Empirical determinants of relationship lending. *Journal of Financial Intermediation, 14*(1), 32–57.

52. Evans, D. S., & Jovanovic, B., 1989. An estimated model of entrepreneurial choice under liquidity constraints. *Journal of Political Economy, 97*(4), 808–827.

53. Fasano, F. & Cappa, F., 2022. How do banking fintech services affect SME debt? *Journal of Economics and Business, 121,* 106070.

54. Fazzari, S. M., Hubbard, R. G. & Petersen, B. C., 1988, Financing constraints and corporate investment. *Brookings Papers on Economic Activity,* 141–207.

55. Feder, G., Onchan, T. & Raparla, T., 1988. Collateral, guaranties and rural credit in developing countries: evidence from Asia. *Agricultural Economics, 2(*3), 231–245.

56. Financial Sector Deepening (FSD), 2024. *Transforming the MSME Industry in Kenya.* Nairobi: FSD Kenya. Available at: *FSD Kenya website.*

57. Fischer, K.H., 2000. Acquisition of information in loan markets and bank market power-An empirical investigation. *Available at SSRN: http://dx.doi.org/10.2139/ssrn.240921*.

58. Flögel, F. & Beckamp, M., 2020. Will FinTech make regional banks superfluous for small firm finance? Observations from soft information-based lending in Germany. *Economic Notes, 49*(2), e12159.

59. Flögel, F., 2018. Distance and modern banks' lending to SMEs: Ethnographic insights from a comparison of regional and large banks in Germany. *Journal of Economic Geography, 18*(1), 35–57.

60. Fraser, S., 2009. Is there ethnic discrimination in the UK market for small business credit? *International Small Business Journal, 27*(5), 583–607.

61. Fried, J. & Howitt, P., 1980. Credit rationing and implicit contract theory. *Journal of Money, Credit and Banking, 12*(3), 471–487.

62. Friedman, M., 1970. Controls on interest rates paid by banks. *Journal of Money, Credit and Banking, 2*(1), 15–32.

63. Gopal, M., 2023. *How collateral affects small business lending: The role of lender*

*specialization*. US Census Bureau, Center for Economic Studies. Available at: https://manasagopal23.github.io/files/jmp.pdf

64. Han, L., Fraser, S. & Storey, D.J., 2009. The role of collateral in entrepreneurial finance. *Journal of Business Finance and Accounting, 36*(3-4), 424–455.

65. Hanedar, E. Y., Broccardo, E. & Bazzana, F., 2014. Collateral requirements of SMEs: The evidence from less-developed countries. *Journal of Banking and Finance, 38,* 106–121.

66. Harwood, M., 2021. *Accelerating Securitization in Africa to Finance the SDGs: Future Flow Securitization.* MILKEN Institute, Los Angeles CA. Available at: *Accelerating Securitization in Africa.pdf*

67. Hasan, I., Jackowicz, K., Kowalewski, O. & Kozłowski, Ł., 2017. Do local banking market structures matter for SME financing and performance? New evidence from an emerging economy. *Journal of Banking and Finance, 79,* 142–158.

68. Hernández-Cánovas, G. & Martínez-Solano, P., 2010. Relationship lending and SME financing in the continental European bank-based system. *Small Business Economics, 34*(4), 465–482.

69. Holtz-Eakin, D., Joulfaian, D. & Rosen, H. S., 1994. Sticking it out: entrepreneurial survival and liquidity constraints. *Journal of Political Economy, 102*(1), 53–75.

70. Hulme, D. & Mosley, P., 1996. *Finance Against Poverty.* Routledge, London. doi.org/10.4324/9780203980132

71. Igawa, K. & Kanatas, G., 1990. Asymmetric information, collateral, and moral hazard. *Journal of Financial and Quantitative Analysis, 25*(4), 469–490.

72. Johnson, M. S., Reyes, M. G. C. & Johnson, M. F., 1989. *Small Business Access to Capital Markets: The Impact of Asymmetric Information on the Cost of Capital*. Small Firm Financial Research Symposium, 27-28 April, Fresno, California.

73. Jovanovic, B., 1982. Selection and the evolution of industry. *Econometrica, 50*(3), 649–670.

74. Kang, J. W. & Heshmati, A., 2008. Effect of credit guarantee policy on survival and performance of SMEs in Republic of Korea. *Small Business Economics, 31*(4), 445–462.

75. Keasey, K. & McGuinness, P., 1990. Small new firms and the return to alternative sources of finance. *Small Business Economics, 2*(3), 213–222.

76. Kenya Bankers Association (KBA), 2021. *Micro, Small, and Medium Enterprises Survey Report – 2021.* Nairobi: KBA. Available at: *KBA website.*

77. Kersten, R., Harms, J., Liket, K. & Maas, K., 2017. Small firms, large impact? a systematic review of the SME finance literature. *World Development, 97*, 330–348.

78. Khan, T. & Badjie, F., 2022. Islamic blended finance for circular economy impactful SMEs to achieve SDGs. *Singapore Economic Review, 67*(01), 219-244.

79. Kinyua, K. M., Changwony, F. K. & Campbell, K., 2025. Government procurement contracts, external audit certification, and financing of

small- and medium-sized enterprises. *Small Business Economics, 64,* 1163–1231.

80. Kodongo, O. & Ngui, D., 2024. Can fintech really address gender disparity in financial inclusion? Some answers from Kenya. *African Finance Journal, 26*(2), 1–26.

81. Kodongo, O. & Kendi, L. G., 2013. Individual lending versus group lending: An evaluation with Kenya's microfinance data. *Review of Development Finance, 3*(2), 99–108.

82. Kodongo, O., 2024. Financial inclusion effects of engaging with the fintech ecosystem. *International Review of Economics and Finance, 96,* 103671.

83. Kon, Y. & Storey, D. J., 2003. A theory of discouraged borrowers. *Small Business Economics, 21*(1), 37–49.

84. Leland, H. E. & Pyle, D. H., 1977. Informational asymmetries, financial structure, and financial intermediation. *Journal of Finance, 32(*2), 371–387.

85. Léon, F., 2025. Blended binds: How DFI's support programs stifle bank lending in Africa. *World Development, 191*, 106998.

86. Levenson, A. R. & Willard, K. L., 2000. Do firms get the financing they want? Measuring credit rationing experienced by small businesses in the US. *Small Business Economics, 14,* 83–94.

87. Li, B., Xiao, B. & Yang, Y., 2021. Strengthen credit scoring system of small and micro businesses with soft information: Analysis and comparison based on neural network models. *Journal of Intelligent and Fuzzy Systems, 40*(3), 4257–4274.

88. Liberti, J. M., & Mian, A. (2009). Estimating the effect of hierarchies on information use. *Review of Financial Studies, 22*(10), 4057–4090.

89. Love, I., & Peria, M., 2014. How bank competition affects firms' access to finance. *World Bank Economic Review, 29*(3), 413 – 448.

90. Lucchetti, R., Papi, L., & Zazzaro, A. (2001). Banks' inefficiency and economic growth: A micro-macro approach. *Scottish Journal of Political Economy, 48*(4), 400–424.

91. Mc Namara, A., Murro, P. & O'Donohoe, S., 2025. Discouraged borrowers and the importance of countries' lending infrastructure for SMEs. *International Review of Economics and Finance, 98,* 103959.

92. Mertzanis, C., 2017. Ownership structure and access to finance in developing countries. *Applied Economics, 49*(32), 3195–3213.

93. Meslier, C., Sauviat, A. & Yuan, D., 2020. Comparative advantages of regional versus national banks in alleviating SME's financial constraints. *International Review of Financial Analysis, 71*, 101471.

94. Mishra, P., Prabhala, N. & Rajan, R. G., 2022. The relationship dilemma: Why do banks differ in the pace at which they adopt new technology? *Review of Financial Studies, 35*(7), 3418–3466.

95. Mkhaiber, A. & Werner, R. A., 2021. The relationship between bank size and the propensity to lend to small firms: New empirical evidence from a large sample. *Journal of*

*International Money and Finance, 110,* 102281.

96. Niinimäki, J. P., 2018. Collateral in credit rationing in markets with asymmetric information. *Quarterly Review of Economics and Finance, 68,* 97–102.

97. Ninh, L. K. & van Hon, C., 2023. Geographical distance and access to bank credit of Vietnamese farmers. *Journal of Economic Development, 48*(1), 111–128.

98. Pandey, R., He, X. & Zhang, D., 2024. Firms' gender composition, loan collateral, and sustainable finance. *Global Finance Journal, 63,* 101051.

99. Petersen, M. & Rajan, R., 1994. The benefits of firm-creditor relationships: evidence from small business data. *Journal of Finance, 49*(1), 3-37.

100. Petersen, M. A. & Rajan, R. G., 1995. The effect of credit market competition on lending relationships. *The Quarterly Journal of Economics, 110*(2), 407–443.

101. Pettit, R., & Singer R., 1985. Small business finance: a research agenda. *Financial Management, 14*(3): 47–60.

102. Qian, X., Ding, Z., Cao, X. & Qi, S., 2020. Cross-ownership and collateral in lending. *International Review of Financial Analysis, 72*,101572.

103. Rajan, R. G., 1996. Why banks have a future: Toward a new theory of commercial banking. *Journal of Applied Corporate Finance, 9*(2),114–128.

104. Ren, Y., 2023. The Role of collateral in small business lending: Evidence from SBA 7 (A) Program. *Available at SSRN: https://ssrn.com/abstract=4655759*

105. Riding, A. L. & Haines, G., 2001. Loan guarantees: Costs of default and benefits to small firms. *Journal of Business Venturing, 16*(6), 595–612.

106. Rostamkalaei, A., & Freel, M., 2016. The cost of growth: small firms and the pricing of bank loans. *Small Business Economics, 46*(2), 255–272.

107. Rostamkalaei, A., Nitani, M. & Riding, A., 2020. Borrower discouragement: the role of informal turndowns. *Small Business Economics, 54*(1), 173–188.

108. Ryan, R. M., O'Toole, C. M. & McCann, F., 2014. Does bank market power affect SME financing constraints? *Journal of Banking and Finance, 49*, 495–505.

109. Sääskilahti, J., 2016. Local bank competition and small business lending after the onset of the financial crisis. *Journal of Banking and Finance, 69,* 37–51.

110. Santomero, A.M., 1984. Modeling the banking firm: A survey. *Journal of Money, Credit and Banking, 16*(4), 576–602.

111. Scherr, F. C., Sugrue, T. F. & Ward, J. B., 1993. Financing the small firm start-up: Determinants of debt use. *Journal of Small Business Finance, 3*(1), 17–36.

112. Shang, Q., Ma, Z. & Wang, X., 2020. In search of the best interest rate for group lending: Toward a win–win solution for SMEs and commercial banks in China. *The Chinese Economy, 53*(3),

285–299.

113. Sharpe, S. A., 1991. Credit rationing, concessionary lending, and debt maturity. *Journal of Banking and Finance, 15*(3), 581–604.

114. Shen, C. H., 2002. Credit rationing for bad companies in bad years: evidence from bank loan transaction data. *International Journal of Finance and Economics, 7*(3), 261–278.

115. Sheng, T., 2021. The effect of fintech on banks' credit provision to SMEs: Evidence from China. *Finance Research Letters, 39,* 101558.

116. Stein, J. C., 2002. Information production and capital allocation: Decentralized versus hierarchical firms. *Journal of Finance, 57*(5), 1891–1921.

117. Stiglitz, J. E. & Weiss, A., 1981. Credit rationing in markets with imperfect information. *American economic review, 71*(3), 393–410.

118. Thein, E. E., Niigata, A. & Inaba, K., 2024. Concentrated bank market and SMEs' collateral issues: a study of the firms of developing Asian countries. *Journal of Economic Structures, 13*(1), 18.

119. Uesugi, I., 2025a. Government Involvement in SME Finance, Current Situation and Theoretical Background. In *The Economics of SME Finance* (pp. 105-138). Singapore: Springer Nature Singapore.

120. Vatiero, M., 2010. The Ordoliberal notion of market power: an institutionalist reassessment. *European Competition Journal, 6*(3), 689–707.

121. Voordeckers, W. & Steijvers, T., 2006. Business collateral and personal commitments in SME lending. *Journal of Banking and Finance, 30*(11), 3067–3086.

122. Wahinya, P. W., Ondiba, R. O. and Kariuki, P. W. O., 2023. Competition, risk-taking behavior and stability of commercial banks: evidence from Kenya. *African Journal of Economic and Management Studies, 14*(4), 600–614.

123. Wang, X., Han, L. & Huang, X., 2020. Bank competition, concentration and EU SME cost of debt. *International Review of Financial Analysis, 71*, 101534.

124. Wang, Y., Zhang, H., & Zhao, Z., 2022. SME investment and financing under asymmetric information. ***European Financial Management***, 28, 1347–1375.

125. Yildirim, A., 2020. The effect of relationship banking on firm efficiency and default risk. ***Journal of Corporate Finance***, ***65***, 101500.

126. Zecchini, S. & Ventura, M., 2009. The impact of public guarantees on credit to SMEs. ***Small Business Economics***, ***32***(2), 191–206.

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