



**MINISTRY OF FOREIGN AFFAIRS
OF DENMARK**
Danida

MAY 2020

EVALUATION STUDY GUARANTEES AND INCENTIVES IN DEVELOPMENT AID



**MINISTRY OF FOREIGN AFFAIRS
OF DENMARK**
Danida

EVALUATION STUDY GUARANTEES AND INCENTIVES IN DEVELOPMENT AID

The Evaluation Study has been
prepared by Henrik Hansen, John Rand
and Ole Winckler Andersen.



MAY 2020

Production: Evaluation, Learning and Quality Department,
Ministry of Foreign Affairs of Denmark, May 2020

Graphic Production: OTW A/S

ISBN: PDF: 978-87-93760-37-0

ISBN: HTML: 978-87-93760-38-0

This report can be downloaded through the homepage of the Ministry of Foreign Affairs www.um.dk or directly from the homepage of the Evaluation, Learning and Quality Department <http://evaluation.um.dk>.

Contact: elk@um.dk

Responsibility for content and presentations of findings and recommendations rests with the authors.

CONTENTS

1	Introduction	6
2	Conceptual and analytical framework	8
2.1	Lack of credit as a binding constraint on agribusiness and SME development	8
2.2	Market failures	9
2.2.1	Incomplete information: moral hazard and adverse selection	10
2.2.2	Collateral requirements and limited liability	10
2.2.3	Monitoring costs	11
2.2.4	Lack of local private funds	11
2.3	Financial instruments	12
2.3.1	Subsidised loan schemes	12
2.3.2	Guarantee schemes	13
2.3.3	Equity finance/Venture capital schemes	14
2.3.4	A brief comparison of the three financial instruments	15
3	Evaluations of guarantees	17
4	Suggestions for designing credit guarantee schemes	21
4.1	The legal and regulatory framework	21
4.2	Corporate governance and risk management	22
4.3	The operational framework	23
4.4	Monitoring and evaluation	24
5	Illustration of framework with examples from three Danida-supported programmes	27
5.1	Brief presentation of the three programmes	27
5.1.1	Agricultural Business Initiative (aBi)	27
5.1.2	Micro-Enterprises Support Programme Trust (MESPT)	29
5.1.3	Private Agriculture Sector Support (PASS)	30
5.2	Illustrations of some key issues from the conceptual and analytical framework	31
6	Conclusions and need for further studies	34
7	List of References	36
	Annex 1: Documents used in the description of the three programmes	39
	Annex 2: The 16 principles from the World Bank and FIRST Initiative (2015)	41

1 INTRODUCTION

Development finance is provided using many different instruments, including support to individual institutions and firms in the form of subsidised loans, guarantees and equity investments. Some development programmes only use a single instrument, while other programmes use a combination of instruments. Despite an increasing number of studies and research in this area, the rationale for using the different instruments or their combination is not always clear. Several bilateral donors now consider the use of guarantees in bilateral programmes an attractive solution, but the relevance of using guarantees, as an alternative to other instruments, is rarely discussed or justified. This should be considered in a context where credit and risk guarantees are mobilising the bulk of private development finance. In the period 2012-2017, no less than 63 percent of the total volume of private finance for development was mobilised by guarantees (OECD/UNCDF, 2019, 11 and 27).

The purpose of this study is to gain a better understanding of the choice of financial instruments in order to contribute to ongoing discussions on the use of guarantees in Danish bilateral assistance. Several views exist on what constitutes a financial instrument. Here, the study follows Brown and Lee (2017) and use the following definition: Financial instruments are government instruments such as (i) subsidised loans, (ii) credit guarantees and (iii) equity finance schemes¹. The instruments are designed to overcome market failures in local financial markets.

The study serves four specific purposes. First, to develop a conceptual and analytical framework, which can be used to assess the relevance of different financial instruments. While covering the broad groups of instruments mentioned above, a main objective is to clarify the rationale for using guarantees compared to other financial instruments.

Second, to briefly review a sample of existing evaluations of the use of guarantees. While other financial instruments are increasingly covered by evaluations, this is only the case to a limited extent for guarantees. The review of evaluations of the use of guarantees provides an overview with a focus on the identification of basic methodological challenges as

1 Other distinctions can be found. DAC's Creditor Reporting System uses the following groups of instruments: grants; debt instruments; equity; mezzanine finance; guarantees/insurance (see stats.oecd.org).

well as some of the main conclusions. No attempt will be made to assess the quality of the individual evaluations.

Third, to illustrate the framework with examples from three Danida-supported programmes (aBi Trust in Uganda, MESPT in Kenya and PASS in Tanzania). The three programmes have been selected because they use various financial instruments, including guarantees. The purpose is to assess the explicit (as outlined in project documentation) as well as the implicit rationale, to the extent these are documented, for the chosen financial instruments and their design in the programmes.

Fourth, in view of the first three purposes the study seeks to identify the need for further analyses and the focus of potential evaluations. This could both imply conceptual and theoretical analyses as well as relevant themes for potential evaluations.

As the purpose of the analysis is to enhance the understanding of the rationale and justification for applying various financial instruments with a particular focus on guarantees, there is no attempt to describe the programmes or their achievements in any detail. This implies that detailed design issues, effectiveness, efficiency, potential results or sustainability are not discussed. All three programmes have received Danish support for a number of years, and the justification for the support may have been described in more detail in earlier programme phases. However, the document review only included recent programme phases. Only documents listed in the annex and the List of References have been consulted, and no interviews have been made.

The paper consists of five chapters including this introduction. Chapter 2 presents the theoretical background to a conceptual and analytical framework, which can be used to assess the relevance and justification of various financial instruments, including potential combinations of instruments. Chapter 3 briefly reviews a sample of evaluations of guarantees and identifies some main methodological challenges, while Chapter 4 gives a brief overview of the three selected programmes and applies the conceptual and analytical framework to the programmes. Finally, chapter 5 provides some conclusions as well as some ideas for further studies.

2 CONCEPTUAL AND ANALYTICAL FRAMEWORK

Several papers outline the various theoretical foundations for government interventions in financial markets.² Brown and Lee (2017) provides a succinct overview of the theories behind the use of financial instruments, focusing on how such instruments may alleviate credit restrictions for entrepreneurs and small and medium-sized enterprises (SMEs). Going back in time, Greene (2003) offers a thorough survey of the use and organisation of credit guarantee schemes. The survey includes both theoretical insights as well as empirical results, as they were established at the time, in an effort to determine whether credit guarantee schemes are efficient and effective instruments to promote private sector-led growth. Based on the theoretical foundations and more recent experience, the World Bank and FIRST Initiative (2015) proposes an elaborate set of principles (or good practices) that are meant to serve as a global reference for the design, execution, and evaluation of public credit guarantee schemes.

2.1 Lack of credit as a binding constraint on agribusiness and SME development

Two crucial, often explicitly stated suppositions in the above-mentioned studies are that (i) SMEs are credit constrained, and (ii) SME development is a key driver in economic growth and job creation in the economy in question. A third, implicit, premise is that the two suppositions can be combined to the assumption that if (more) credit is made available to SMEs, they will grow (more) and create (more) jobs. The premise may be formulated as an assumption that lack of credit is the binding constraint on SME growth (in the sector or economy).

The World Bank and FIRST Initiative (2015, 6) states that “in emerging markets, between 55 percent and 68 percent of formal SMEs are either unserved or underserved by financial institutions, with a total credit gap estimated in the range of USD 0.9 trillion to USD 1.1 trillion.” However, easing the credit gap will not necessarily increase economic growth and

2 Throughout the paper, we describe donor support programmes as government interventions. This does not imply any suggestion that the governments in the recipient countries should administer the programmes. It is done for notational simplicity.

job creation. There may be other constraints such as lack of (export) market access, lack of qualified labour, or lack of managerial capabilities. Such potential constraints should be considered when assessing a specific programme.

The survey of financial inclusion and inclusive rural transformation by Meyer (2011) lends partial support to the assumption that credit constraints on farmers and SMEs in the agricultural sector are the binding constraints on economic growth. But the study also notes that formal lenders must reconsider their approach to lending because many farmers with credit demand will not borrow because the payment terms do not take account of risks or match the liquidity cycle of planting and harvesting. Thus, this is another potential constraint that must be addressed when specific support programmes are developed and assessed.

2.2 Market failures

Even when an excess credit demand can be established, this does not imply a need for government intervention in the financial markets. In welfare economics, the core principle underlying the rationale for government intervention is the existence of one or more market failures. The type of market failure and the institutional settings will in many situations be important for the kind of intervention that should be used to address the failure. Furthermore, governments should not intervene unless the intervention can somehow 'solve' or overcome the problem. This has implications for the design of the intervention.

The main reasons for failures in financial markets are incomplete information and the time dimension involved because the credit is provided first and repaid later, with some uncertainty. Incomplete information comes from the fact that the lender does not know exactly what the borrower does with the money obtained. In commodity markets such lack of information is of little or no importance because a seller of a physical good does not care about the buyer's use of the good after the transaction. In contrast, in financial markets the buyer's use of the borrowed money may influence the likelihood of the future repayment of the loan, whereby information about the borrower and his/her actions is vital for the lender. Thus, the incomplete information leads to asymmetric information because the borrower, by controlling his/her own actions, has more information than the lender about the probability of repayment of the loan.

2.2.1 INCOMPLETE INFORMATION: MORAL HAZARD AND ADVERSE SELECTION

The work of Stiglitz and Weiss (1981) shows how asymmetric information may lead to credit rationing.³ First, if lenders are unable to monitor and influence the actions taken by borrowers after receiving the loans (*ex-post* asymmetric information), the market is said to be characterised by moral hazard. Second, if lenders are unable to distinguish between two types of borrowers with different characteristics in terms of repayment probabilities (*ex-ante* asymmetric information), there is adverse selection in the market. Both types of asymmetric information may influence the returns from loans and lead to credit rationing in the sense that some borrowers cannot obtain loans at the prevailing interest rate and, furthermore, lenders will not provide loans to the rationed borrowers even at a higher interest rate.

The credit rationing caused by the asymmetric information may lead to misallocation of credit because lenders will incorporate other information than the profitability of the borrowers' projects in their credit assessments and allocations. If there is misallocation of credit, and government interventions can counter the misallocation, there is scope for such interventions. In the following, we describe situations in which government interventions may be beneficial.

2.2.2 COLLATERAL REQUIREMENTS AND LIMITED LIABILITY

A solution to the asymmetric information problem is for the lenders to require collateral. However, collateral requirements may lead to rationing of credit to micro and small enterprises as well as small farmers if their credit demand exceeds the value of the collateral they can provide. In such a setting, government interventions in the form of subsidised loans or credit guarantees can either directly increase the loanable funds available or decrease the expected loss for the lenders, thereby indirectly increase the funds available for small farmers and enterprises at the going interest rates. Another possible result of such interventions is lending at lower interest rates, which would also benefit SMEs and farmers.

3 Stiglitz and Weiss (1981, pp. 394–5) defines credit rationing as follows: “We reserve the term credit rationing for circumstances in which either (a) among loan applicants who appear to be identical some receive a loan and others do not, and the rejected applicants would not receive a loan even if they offered to pay a higher interest rate; or (b) there are identifiable groups of individuals in the population who, with a given supply of credit, are unable to obtain loans at any interest rate, even though with a larger supply of credit, they would.” Other definitions are also used. Many researchers regard the situation in which all potential borrowers receive loans, but the loans are smaller than that desired at the equilibrium interest rate. Jaffee and Modigliani (1969, pp. 850–1) uses the following very classical definition “credit rationing [is] a situation in which the demand for commercial loans exceeds the supply of these loans at the commercial loan rate quoted by the banks.”

2.2.3 MONITORING COSTS

Another solution to the asymmetric information problem is for the lenders to obtain additional information about the borrowers (in the case of adverse selection) or to monitor the borrowers (in the case of moral hazard) to improve the assessment of the probability of repayment. Obtaining such information will be costly but once the information is obtained it is almost costless to disseminate. This means that lenders cannot exclude free riding by other financial institutions if they are present.⁴ Therefore, lenders may have little incentive to produce the costly information and, instead, use a practice of excluding certain types of borrowers based on relatively simple characteristics (often age and size of firms) that do not necessarily reflect their probability of success or risk profile. Such exclusion of borrowers based on 'observable types' will lead to in-optimal allocation of loanable funds. In this situation, the optimal government intervention is a subsidy to lenders who spend resources to obtain better information about the borrowers, because these lenders pay for information that benefits the whole financial sector and thus indirectly the economy as such.

If no lenders spend resources on improved information about loan applicants, the credit market (in the geographical area or the sector) may become thin because of the information asymmetries. In such situations, subsidised loans or credit guarantees can improve the functioning of the credit market because the intervention through increased market activity enables lenders to learn about the creditworthiness of the borrowers. Improved knowledge about the borrowers may subsequently decrease (or even eliminate) the credit rationing in the market as borrowers establish a repayment reputation. Clearly, this will only happen if the lenders improve their knowledge about the borrowers. If this is not the case, the government simply takes over the cost of the information asymmetry.

2.2.4 LACK OF LOCAL PRIVATE FUNDS

In rural areas, most formal banks are 'outsiders' with limited local information and mechanisms necessary to verify and enforce detailed credit contracts. They therefore need a local 'delegated monitor' to reduce the asymmetric information problems. Diamond (1984) shows that delegated monitors without committed capital will be more expensive to motivate than those with capital at risk (putting capital at risk allows delegates to better commit to monitoring, reducing the cost of providing monitoring incentives for the formal bank). Therefore, access

4 One way in which information about a borrower may be spread is if the borrower after obtaining a loan offer from one lender turns to another lender and asks for the same loan at a lower interest rate. The second lender need not obtain additional information about the borrower because the loan offer from the first lender acts as a screening device. Thus, the second lender has lower costs and free rides on the first lender if a loan is offered to the borrower at a lower interest rate.

to credit in rural areas may not be limited only due to lack of locally informed lenders, but also to lack of local intermediary capital. Government interventions may play a role in ensuring better access to credit by subsidising small local banks, which may subsequently attract and collaborate with larger private banks, thereby increasing the loanable funds to the targeted sectors or areas. In this situation, an important result of the intervention must be that the small local banks are able to increase their committed intermediary capital over time.

2.3 Financial instruments

The above briefly outlines some market failures that may justify the use of financial instruments. Below we describe three specific instruments: (i) subsidised loans, (ii) guarantees and (iii) equity finance.

2.3.1 SUBSIDISED LOAN SCHEMES

Subsidised loan schemes have a long history. In many countries, such schemes were administered by state-owned banks (SOBs) in attempts to fulfil long-term development goals by filling market gaps in long-term credit, infrastructure and agriculture finance. Cross-country research shows, however, that SOBs have generally not been efficient in allocating credit, mainly because SOBs often serve political interests. However, this cannot be used as evidence against subsidised loan schemes as such (Megginson and Netter, 2001).

Subsidised loan schemes in the form of micro credit have been studied extensively in the academic literature.⁵ The promise of micro-credit schemes was great but most recent evaluations find only a small average impact of micro-credit access on marginal borrowers (Banerjee, 2013 and Banerjee et al., 2015). On the other hand, the literature also finds relatively low costs to providing micro finance (Cull et al., 2018). Thus, overall, the benefits may still outweigh the costs. One of the main findings of the large literature is that micro credit has had little impact on entrepreneurship and business development.

Subsidised loan schemes aimed at commercial agriculture and agribusiness have received less attention than micro credit aimed at poor households. Meyer (2011) provides a review of subsidies as an instrument in agricultural finance that looks beyond microfinance. Meyer concludes that subsidies should be market friendly. His main points regarding subsidised loans are that they should “subsidize the institution but not the borrowers to reduce distortions; avoid subsidies to institutions that undermine competition; subsidize the creation of

5 Cull and Morduch (2018) provides a thorough and thoughtful review of the large literature on microfinance.

public goods that benefit the entire financial sector; subsidize individual financial institutions where there is natural spill-over to nonsubsidized institutions; identify quantitative performance measures so subsidies to financial institutions do not dull incentives for high performance; conduct comparative cost-benefit studies to identify subsidies that generate the greatest payoff; require grant recipients to demonstrate commitment through matching contributions; and design grants to financial institutions so recipients clearly understand the difference between grants and loans.” (Meyer, 2011, vi). As such, Meyer appears as a strong proponent of government support to the financial sector but not a proponent of subsidised loans.

2.3.2 GUARANTEE SCHEMES

A guarantee scheme is a risk transfer and risk diversification mechanism. The scheme lowers the risk to the lender by substituting part of the risk of the borrower as it guarantees repayment (of part) of the loan in case of a default event. Often, public guarantee funds seek to diversify risk by guaranteeing loans across different sectors or geographical areas.

There are three standard arguments for credit guarantee schemes. First, the problem of the asymmetric information described in Subsection 2.2.1. may be partly overcome if a guarantor has more information about the potential borrowers than the lenders. In this situation, guarantees can be constructed that will improve access to credit and reduce credit costs for the targeted group of borrowers. Second, risk across lenders that specialise within specific sectors or geographical areas may be pooled by a guarantor who has broader sectoral or geographical coverage. This is a standard risk pooling argument in which the guarantor is merely a larger financial entity than the lenders in the sector or area. Finally, if a guarantor is not subject to the same regulatory requirements as lenders, guarantee schemes may emerge to exploit such differences. A simple example may be if foreign banks have lower reserve requirements than domestic banks. In such a regulatory setting, it may be optimal for foreign banks to be guarantors for domestic banks if the latter have informational advantages with respect to borrowers.

None of the three arguments requires government involvement (Beck et al., 2010). They illustrate that a guarantor should have either an informational advantage, a risk pooling advantage or an institutional advantage compared to the (local) lenders. Among the three standard arguments, the argument for *government guarantee schemes* is typically that government agencies are better at coordinating and pooling common and idiosyncratic risk among specialised lenders.

Anginer et al. (2014) takes the risk pooling argument even further. They show how the Arrow and Lind (1970) result – proving that the state is the best suited entity for risk spreading over space and time in countries with risk averse lenders and insurance companies – is valid for govern-

ment guarantees in a situation when all risks are idiosyncratic. By this line of argument, public guarantees are easier to justify in countries where financial systems are less developed and have difficulties in distributing risk. If the government has a comparative advantage in spreading risk, it may use guarantee schemes to transfer (some of) the risk from the private lenders, thereby enabling them to take on riskier projects. In most cases, this will allow the private lenders to provide credit to a larger fraction of potential borrowers. Whether this is the case depends on the governance structure, risk management system, and evaluation design of the specific programme.

2.3.3 EQUITY FINANCE/VENTURE CAPITAL SCHEMES

Equity finance is an instrument whereby firms exchange share capital with an investor in return for liquidity. This also includes venture capital and risk capital for start-up firms.

Adverse selection may be of particular importance for equity finance and venture capital decisions. There are high fixed costs to the due diligence required to fulfil the information requirements in equity markets. While firm owners are assumed to have full information about the operational capacity of the firm and its balance sheets, official public or private valuation is required to bridge this information gap between insiders and outsiders. Equity finance providers therefore often focus on larger deals in simple markets, to reduce the sunk cost element of this process. Because of the high fixed costs, asymmetric information may lead to under-provision of equity finance to smaller companies (Brown and Lee, 2017). In such a situation, government venture capital aimed at smaller companies may be a beneficial intervention.

The rationale for introducing government supported equity finance/venture capital schemes is often related to the ‘thin markets’ argument (Nightingale et al., 2009). This is a type of information-based market failure that occurs when risk willing investors and (new) high-risk firms cannot find each other at reasonable costs. In such a situation, a government can intervene and seek to resolve the information problem by directly supporting entrepreneurs and start-ups or other high-risk firms and at the same time attract private equity finance. In this way, the government intervention may solve the coordination failure in the equity market. In practice, however, the equity financing/venture capital structure adheres to a ‘delegated investor’ model where the government often identifies an organisation with superior information about the local entrepreneurial landscape (a delegated investor), which then picks the firms to the benefit of both the delegate and the investor.

An important question is whether governments can and should act as private venture capitalists (PVCs). To discuss this, one must first understand the unique features of PVCs. Brown and Lee (2017) lists three key

characteristics of successful PVCs: (i) selection, (ii) smart money and (iii) signalling.

Successful PVCs are often able to both identify and screen firms using private local information ensuring that the pool of firms that they invest in have an above average probability of success in terms of both survival and growth (Selection). Moreover, PVCs often bring sector or managerial specific knowledge that adds value through an interactive approach to upgrading capabilities within the firms they invest in (Smart Money). Finally, the reputation of the PVC may act as a positive signal of the firm's legitimacy and can often utilise the network of customers and suppliers surrounding the PVC and it may also bring in additional PVC-backed institutional investors (Signalling).

Government venture capitalists (GVCs) are likely to differ from PVCs along the three dimensions. First, PVCs often have a short time horizon and very clear objectives: grow the businesses as fast as possible and ensure a viable and profitable exit strategy either through an initial public offering (IPO) or via a direct sale. GVCs may have more patient capital with broader objectives. This will lead to differences in the average risk profile of the enterprises that are considered interesting investment opportunities for PVCs and GVCs, respectively, meaning that PVCs and GVCs differ in their selection. Second, the smart money aspect of PVC-backed financing may not be available through GVCs as bureaucrats are unlikely to have similar entrepreneurial skills to pass on to their clients (Lerner, 2002). Third, GVCs are often considered to be more passive investors. This may result in less motivated clients leading to, on average, lower returns. The lower average return is a negative signal relative to firms that receive private venture capital. In sum, the *a priori* theoretical prediction would be that PVCs outperform GVCs on average (Brown and Lee 2017).

2.3.4 A BRIEF COMPARISON OF THE THREE FINANCIAL INSTRUMENTS

Arping et al. (2010) shows that guarantee funds can be more effective and less costly in expanding access to credit than directed lending schemes. Moreover, guarantees may also be easier to justify politically because they resemble market-friendly instruments, and because they imply relatively small initial costs of funding (losses only accumulate over time as defaults materialise).

The literature on which the above is based indicates that government guarantee schemes would be the preferred intervention in many situations in which an intervention is called for. Subsidised loan schemes should almost certainly be targeted at the poorest segments of the population. However, the link between job creation in the lowest income deciles and the availability of credit remains unclear. GVCs also receive mixed reviews, and the only clear-cut result is that more research is needed. However, it appears safe to conclude that engagement in

venture capital programmes should always be carried out in close collaboration with private investors who are expected to possess entrepreneurial skills and traits in the form of sector knowledge and smart money that are important for success.

3 EVALUATIONS OF GUARANTEES

Guarantee schemes have a long history and they are widespread globally. Greene (2003) reports that schemes existed in almost 100 countries at the time of writing, and the World Bank and FIRST Initiative (2015) notes that more than half of all countries in the world have a public guarantee scheme in place. The schemes have met with quite some criticism over time, particularly in Latin America in the 1980s, when a majority of the schemes failed because guarantees were triggered way too often, which led to capital depletion (Greene, 2003, 22-23). There was a revival in the use of guarantees in the 1990s and again increased interest in the last decade, following the financial crisis.

As noted by several studies, financial instruments should be assessed based on whether they achieve financial and development additionality (see e.g., Greene 2003; Brown and Lee 2017; Abraham and Schmukler 2017)⁶. Financial additionality indicates whether the instrument increases private lenders' provision of credit and/or improves lending conditions to targeted credible clients. Improvement in lending conditions may include enlargement of the loan size, increased loan maturity, decreased interest rates or decreased collateral demanded. Development additionality refers to improved performance of the firms that receive the additional credit with respect to investment and employment. This may ultimately lead to improvements in income and quality of life for both firm owners and employees and possibly even the firms' suppliers and customers.

Abraham and Schmukler (2017) summarises the empirical literature and concludes that it generally finds evidence in favour of financial additionality, in the sense that the majority of the guaranteed loans have been granted to firms that otherwise would not have obtained credit. The evidence of financial additionality in the short run is roughly consistent across both developed and developing countries. Public credit guarantee schemes, however, also bring negative effects in some situations. First, the creditworthiness of beneficiary firms appears to decline while default rates tend to increase. Second, introducing a public credit guarantee scheme does not alleviate moral hazard concerns, as such schemes tend to be associated with higher risk-taking behaviour by banks. Third, guaranteed loans do not only reach financially constrained firms, leading

⁶ In this paper we do not distinguish between development and economic additionality, which are sometimes used interchangeably.

to the (common) observation that a public credit guarantee scheme is not a silver bullet in solving capital misallocation problems. Finally, regarding development additionality, the evidence is mixed. Guaranteed loans are often found to be associated with increased employment, but the effect on various firm performance indicators is mixed and highly context specific.

IMF (2019) supports this conclusion stating that guarantees (alone) are unlikely to yield large benefits. However, the study acknowledges that credit guarantee schemes contribute to increased credit access of SMEs and financial inclusion, especially in developing economies. Nevertheless, it also weakens the general credit discipline of stakeholders in the schemes. A rigorous evaluation of the effects of these countervailing forces is therefore needed in order to determine the long-term impact of credit guarantee schemes' performance in terms of outreach, additionality, and financial sustainability. Current short-term impact studies may over-estimate the underlying positive effects of credit guarantee schemes as the potential negative effects need time to materialise.

Brown and Lee (2017) reviews 23 studies of public guarantee schemes for SMEs in OECD countries and concludes that guarantee schemes have had a positive impact on SME access to finance. They also find that introducing public guarantees has had a positive employment (inclusion) effect on beneficiary firms. However, the study likewise confirms rising default risk among beneficiary firms, and that guarantee schemes are not found to significantly improve investment probabilities or firm-level productivity, which questions the long-run sustainability of the stated employment impact.

Taking a step back from the broader summaries of evaluations of credit guarantee schemes that often focus on OECD and EU countries, the following focusses on the most recent findings for specific developing country cases.

Saadani et al. (2011) reviews the evidence from 10 credit guarantee schemes in the Middle East and North Africa and concludes that rigorous evidence is scarce at best. It is highlighted that there is room for improvement in the design of the schemes and that a redesign could help reach a larger number of constrained SMEs with the same resources. This goes both for setting transparent eligibility criteria as well as documenting the link between coverage ratios, fees and risk assessments. Moreover, some schemes seem to be operating below a minimum efficient scale, and guarantees are clearly concentrated on larger SMEs, which questions the financial additionality in most of the 10 schemes considered. However, this conclusion is not reached based on systematic impact evaluations of the schemes, and Saadani et al. (2011) concludes that MENA guarantee schemes need to "conduct systematic

assessments of outreach, additionality, and customer satisfaction (bankers and borrowers)“.

Huidobro and Reyes (2014) also finds limited support for financial additionality of credit guarantee schemes implemented in Mexico between 2003 and 2009. Using a combined qualitative and quantitative industry level approach, they find that guaranteed loans benefited mainly medium-sized SMEs, and that concessionary resources supported loans/risk profiles that the private sector would have approved anyway. The study concludes that the Mexican loan guarantee schemes appear to have been used mainly to support and strengthen existing financial intermediaries, without significant improvements in the credit terms of the customers. There is also evidence suggesting that the schemes have failed to promote credit supply to the vulnerable SMEs and to foster increased competitiveness in supported sectors. Furthermore, this study calls for a more rigorous approach to evaluating credit guarantees to ensure the validity of the results obtained.

Boocock and Shariff (2005) evaluates the effectiveness of the New Principal Guarantee Scheme (NPGS) offered by the Credit Guarantee Corporation (CGC) in Malaysia by combining survey evidence over a two-year period, case studies compiled from semi-structured interviews with borrowers and their lenders, with direct discussions with key informants. Considering both financial and development additionality, the study finds insufficient evidence of living up to traditional financial additionality requirements, that the guarantee schemes have significantly increased default rates and that lenders have borne a substantial portion of the risk incurred. Moreover, limited evidence is found in support of development additionality, and the study considers the Malaysian case to be a key example of the dangers faced when introducing credit guarantee schemes that have a tendency to duplicate other forms of government assistance already being implemented. A main message from the study is that potential contamination must be considered when conducting a rigorous evaluation of public guarantee scheme interventions.

Cowan et al. (2015) studies the Chilean Credit Guarantee Scheme (FOGAPE) and investigates whether credit guarantees improve credit availability to SMEs, and how they affect incentives for SMEs. They find that credit guarantees increase SME access to credit, but with an elasticity less than one. An additional dollar of guarantees only increases credit for SMEs by USD 0.65. However, they also find that guarantees reduce firms' incentives to repay loans and that the performance of beneficiary SMEs does not improve. They conclude that the increasing default rates as a consequence of being part of the guarantee programme, while firm performance remains unaffected, could signal severe adverse selection problems.

A more quantitatively rigorous approach is taken in Oh et al. (2009) in their analysis of credit guarantee policies in South Korea. The analysis indicates that credit guarantees influenced firm survival rates, but not their propensities to invest and, consequently, there is no impact on firm-level productivity. Adverse selection problems are found to be an important driver of these results, suggesting that guarantee schemes distort the creative destruction process in the manufacturing industry in Korea. Oh et al. (2009) concludes that policies need to revisit the selection mechanisms underlying the credit guarantee schemes.

Arráiz et al. (2014) also uses a quantitative evaluation approach when studying the effect of a partial credit guarantee scheme on SME performance. Zooming in on the Colombian National Guarantee Fund over a 10-year period (1997-2007), they find evidence that SMEs backed by guarantees increase the probability of obtaining credit and that this in turn improves both revenue and employment growth. But they do not find any effect on investments and productivity. Again, this questions the long-run development additionality of the scheme, and the results suggest that SMEs use the credit as working capital supplements to reach immediate performance gains rather than for investments in the fundamentals for future growth. However, beneficiaries were more likely to penetrate foreign markets, which – if learning-by-exporting externalities are present – could be accompanied by longer-run productivity gains. This aspect is not explored in the analysis. Arráiz et al. (2014) concludes that credit guarantee schemes in Colombia cannot be a substitute for general policies directed at improving the general financial market infrastructure, for example improving laws that affect creditor rights and judicial enforcement of contracts. As such, credit guarantee schemes should be seen as a policy tool that temporarily helps alleviate credit problems faced by SMEs, while implementing other policies aimed at solving more structural problems.

We end this chapter with a quote from the Global Financial Development Report 2013 that summarises very well what can be concluded from the above selective literature review: “Overall, although government-backed credit guarantee schemes might help jumpstart lending to certain borrowers in certain sectors, these schemes are not likely to have large macroeconomic effects nor are they likely to work as truly countercyclical tools. Furthermore, they cannot substitute for reform of the underlying institutional requirements of an effective credit system and should not diminish the focus on these long-term reforms. For instance, improving collateral laws and enforcement mechanisms is preferable to government interventions in addressing inadequacies of the legal framework associated with the credit system.” (World Bank 2012, 124)

4 SUGGESTIONS FOR DESIGNING CREDIT GUARANTEE SCHEMES

As should be clear, financial instruments, such as credit guarantee schemes, are established to address (financial) market failures. This means that prior to the design of any financial instrument, market failures should be analysed to decide if a government intervention is called. If so, the problem that is to be addressed must be described and linked to the design of the financial instrument.

Thus, guarantee schemes should be tailored to the local market conditions – both the financial market as well as the conditions in the (potentially) targeted production sector and the targeted geographical area. Therefore, no single recipe can be given that can be applied in all settings. However, the conceptual framework and the summary of the empirical literature given above alongside explicit suggestions for good practices specified in the Global Financial Development Report (2013) and further elaborated and extended in The World Bank and FIRST Initiative (2015) lead to quite specific suggestions for both design, implementation and evaluation of guarantee schemes. A main issue to note is that a public credit guarantee scheme should be regarded as an independent financial institution that should follow (global) best practices for such entities.

Sixteen suggestions for good practices specified in The World Bank and FIRST Initiative (2015) are listed in Annex 2. In this chapter, we briefly elaborate on the suggestions under four headings given in the report: (i) The legal and regulatory framework, (ii) Corporate governance and risk management, (iii) The operational framework and (iv) Monitoring and evaluation.

4.1 The legal and regulatory framework

Starting with the legal design of the guarantee scheme, the advice is to authorise the establishment of a financial institution (or a similar legal entity) by a domestic law or decree. This regulatory frame should clearly define the ownership and how this ownership is exercised, including who represents the government and donor(s) and which government (and donor) body is in charge of the supervision of the entity. To directly address the information asymmetry in the local credit market, one or more local private partners should have partial ownership of the entity,

alongside the government and donors. Such a mixed ownership will also help alleviate moral hazard problems in relation to delegated monitoring and local lenders' credit policies, thereby increasing the likelihood of establishing a financially sustainable scheme.

The legal framework should ensure a division of roles and responsibilities, among the ownership group, the supervising body, the board and the management. It is important that the legal entity is given autonomy in terms of its day-to-day operations, so as to avoid political influence on guarantee policies and operations.

The legal framework should also specify the funding sources. The entity should be funded primarily out of equity endowments, and the responsibilities of donors, the government, private partners and the legal entity in terms of providing the initial capital, as well as commitment to providing additional capital during the course of operations should be clearly stated. It is important that the entity has adequate capital to ensure effective implementation of its operation and measurable additionality. However, to alleviate the fiscal risk for the guarantors, the legislation should put limits on budget appropriations and guarantees.

4.2 Corporate governance and risk management

The legal framework should state a clear mandate for the entity. The mandate should include concise descriptions of the main lines of business and the target beneficiaries. If the guarantee scheme is part of a larger programme that entails complementary instruments, such as training programmes, counselling and technical assistance for the financial institutions and/or the target beneficiaries, these instruments should be described in the mandate. The mandate should also specify the desired level of efficiency by setting up goals and constraints on all activities. However, goals and restrictions should be formulated to accommodate adaptive management as circumstances under which guarantee schemes are implemented often face highly volatile financial sector conditions.

Based on the mandate, the management in collaboration with the board should develop the strategies and specific programmes. The strategies should include specific, realistic operational goals with a view to the financial sustainability of the guarantee scheme. The management and the board should also design and implement a strong system of internal controls to ensure that the entity's activities are conducted properly. Here, the board, or possibly a more technical body, plays an important role, as it should assume responsibility for periodically reviewing the internal control system.

The important role of the board necessitates a transparent process for appointing board members, who should serve a fixed term. There should be well-specified minimum standards of (financial) competency of board members and the process for appointment should be transparent. Both management and board members must be able to identify and understand the financial risks the entity faces and subsequently determine if the entity holds adequate capital against those risks.

In addition to the standard risks involved in financial operations (credit risk, liquidity risk and operational risk), the management and the board must also be able to identify and manage the social and environmental risks associated with the entity's activities. As development additional-ity and improved quality of life for the target beneficiaries and the geographical area are the ultimate purpose of the guarantee scheme, a system to assess these broader risks must also be developed.

4.3 The operational framework

Given the mandate, the entity should adopt and publicise clear criteria for eligibility. In addition to identifying the target beneficiaries and which lenders qualify for use of the guarantees, the targeted types of credit instruments should also be specified (e.g. investment finance, working capital, refinancing of existing loans, etc.). Moreover, the method of delivery should be specified.⁷

The method of delivery may depend on beneficiary characteristics such as loan size, firm size or sector. This should be described, and the chosen modality be based on a prior analysis of the local financial sector. Generally, guarantees on a loan-by-loan basis reduce the moral hazard on the part of the lenders compared to portfolio lending because all information about the borrowers is transmitted to the guarantor, but this comes at the cost of higher operating costs for the entity.

Another way to affect the moral hazard of both borrowers and lenders is by sharing the risk. With credit guarantees the risk is distributed through the coverage ratio — the share of the loan covered by the guarantee. Thus, the coverage ratio should be high enough to incentivise the lenders to participate but also sufficiently low to incentivise the lenders to efficiently assess and monitor the borrowers. The latter excludes full coverage.

7 There are two common methods of delivery: (i) an individual approach by which guarantees are provided to lenders on a loan-by-loan basis after consultation with the entity and (ii) a portfolio approach by which lenders can provide loans with guarantees to certain borrowers without consulting the entity.

The guarantee coverage ratio should be associated with the method of delivery because the moral hazard is presumably lower under a loan-by-loan modality relative to the portfolio lending modality. Hence, the scheme could and probably should have more than a single coverage ratio, and the ratios should be adjustable over time to accommodate both the learning in the financial market, unexpected losses as well as developments in the production sector and local area of the beneficiaries.

To ensure financial sustainability the entity should charge fees for the guarantees based on the riskiness of the underlying loan. Such risk-based fees are standard in well-functioning financial markets. For government guarantee schemes, they signal that the guarantees have a value, and at the same time they improve the financial sustainability of the scheme. Clearly, the size of the fee may be lower than the market value to increase outreach. As for the coverage ratio, the fee should be adjustable over time because fees and coverage rates are the main instruments in controlling the entity's expected financial flows.⁸

4.4 Monitoring and evaluation

A simple and well-established best practice for financial institutions is that they regularly (quarterly or annually) disclose financial statements, which include a balance sheet, a cash flow statement, a profit and loss statement and a statement of changes to equity. In addition to the financial statements, the entity should also regularly produce reports giving information about economic and social commitments and outcomes. It is also important that information about corporate governance structure, including the management, the board and possible sub-committees is continuously updated and disclosed to the public. Finally, comprehensive evaluation of the entity's performance at regular intervals (say three to five years) should be an integral part of the M&E system. The comprehensive performance evaluation should be linked with the internal control systems. The performance evaluation should follow best practice, and the evaluation should be focused on financial additionality, development additionality and financial sustainability. An external body should conduct the performance evaluation. Hence, the

8 Public guarantee arrangements for financial institutions serving poorer segments of the population often set coverage ratios relatively high and fees relatively low. Following basic insurance principles, the fees on guarantee should be linked to the risk exposure. Assuming that poor individuals are a high-risk group with expected higher default rates, fees would be expected to be relatively higher and not lower. Coverage ratios should be set to provide sufficient protection against credit risk, while preserving incentives for banks to screen and monitor borrowers. This can be done by using auctions among potential lenders (for the given fees/risk portfolios). This would lead to the expectation that poorer individuals would be offered relatively lower coverage ratios.

main task for the entity is to ensure that relevant data inform its operations and are collected and retained in a systematic manner.

Different evaluation approaches are needed for each of the three parts (i) the legal and regulatory framework, (ii) corporate governance and risk management and (iii) the operational framework. In the following, we briefly give a few examples of the complexities faced when carrying out evaluations of selected credit guarantee schemes. The examples go beyond the traditional counterfactual approaches described in the “Toolkit for Impact Evaluation of Public Credit Guarantee Schemes for SMEs” published by the World Bank and FIRST Initiative (2018).

Within the legal and regulatory framework, it should be relatively straightforward to establish whether a credit guarantee scheme is carried out by an independent financial institution and whether local private partners have partial ownership of this institution. It should also be feasible to evaluate whether the roles and responsibilities among owners and the management are divided according to the best practices listed above. However, a central challenge is related to the additionality requirements, as highlighted in World Bank and FIRST Initiative (2018). First, it is necessary to be clear about what is meant by ‘additional’; is it financial and/or development additionality that is subject to evaluation. Second, even when focusing on financial additionality only, several challenges emerge as described in Carter et al. (2018), illustrating how traditional counterfactual approaches to evaluation will be insufficient. They conclude that the methodological challenges in establishing a trustworthy counterfactual for identification of additionality should question the importance of ‘additionality’ as criteria for evaluation, and instead ask under what circumstances we believe additionality is more likely. Moreover, Carter et al. (2018) also questions whether we have a sufficient metric for measuring and comparing schemes with different degrees of additionality. Will a project setup that has a 100% chance of being financially additional necessarily lead to better outcomes (in terms of development additionality) than a project setup with only a 50% chance of being financially additional?

Looking at corporate governance and risk management, the most straightforward and feasible part to evaluate is whether specific operational goals concerning financial sustainability have been clearly established in a quantifiable manner. The same applies to transparency and detail regarding the entity’s use of various portfolio at risk measures, so that evaluators can get a clear picture of the risks involved in its financial operations. However, when evaluating the value-at-risk it is important to determine the degree to which subsidised financial operations are expected to take on more risky portfolios than market-based operators.

Finally, evaluation of the operational framework will often lead to a focus on the coverage ratio and the fee structure. As an example of an

4 SUGGESTIONS FOR DESIGNING CREDIT GUARANTEE SCHEME

evaluation of the latter, Kuo et al. (2011) proposes a methodology that aims at ensuring that the guarantee scheme (as a minimum) reaches a self-financing target by ensuring that default costs are at least covered with income from guarantee fees. This evaluation method relies on actuarial principles for determining a guarantee fee for each loan based on market-based information and risk-neutrality concepts.

In sum, a thorough evaluation of a credit guarantee scheme will need to adopt different qualitative and quantitative evaluation approaches, and it is recommended that a point of departure for a rigorous evaluation of credit guarantee schemes should be the 16 principles outlined in The World Bank and FIRST Initiative (2015).

5 ILLUSTRATION OF FRAMEWORK WITH EXAMPLES FROM THREE DANIDA-SUPPORTED PROGRAMMES

As mentioned in the introduction, this study will use three programmes as illustrative cases: aBi-Trust in Uganda, MESPT in Kenya, and PASS in Tanzania. This chapter, which is primarily based on Danida project documentation, consists of a brief presentation of the programmes followed by a discussion of the programmes in view of some of the key challenges discussed above in the design and implementation of guarantee schemes.

5.1 Brief presentation of the three programmes

The three programmes are all components in the Danish country programmes in the three countries.

5.1.1 AGRICULTURAL BUSINESS INITIATIVE (ABI)

The current Country Programme for Uganda 2018-2022 mentions three strategic objectives (ABI (1), 3, ABI (5), 1)⁹:

- Contribute to poverty reduction through inclusive and sustainable economic development,
- Promote democracy, good governance, and human rights,
- Support Uganda's stabilising role in the region.

While the three objectives are related, the first is particularly reflected in the thematic programme UPSIDE (Uganda Programme for Sustainable and Inclusive Development of the Economy), which has for its objective to promote sustainable and inclusive economic growth. Three development engagements will support this objective, including aBi (Agricultural Business Initiative (ABI (5), 5). The total budget for the Country Pro-

9 Please refer to Annex 1 for documents used in the description of the three programmes.

gramme is DKK 945 million of which DKK 230 million is allocated for aBi (ABI (5)).

aBi consists of two legal entities: aBi Finance and aBi Development ('aBi Trust' to the end of 2018). The Country Programme Document states that aBi "will pursue increased income and employment through environmentally and socially responsible investments in improved productivity..." (ABI (5), 13).

While the Country Programme provides explicit arguments for focusing on the agricultural sector, there is limited systematic analysis of Uganda's financial and agricultural sectors in the programme documentation (see e.g., ABI (4), 2-4). Likewise, there are only a few references to other actors – including donors – in these markets. The justification for the support has therefore to be found in aBi's own strategies and business plans (ABI (5), 13; ABI (7)).

According to aBi's homepage (<http://www.abi.co.ug/>) "ABI Development Ltd channels development funding as matching grants and Business Development Services to agricultural producers and agribusinesses to enhance their management, production, productivity, value addition, income, profitability and employment." In the period 2014–2017 the aBi Trust (now ABI Development) financed around 110 matching grant projects to six value chains with a total value of around US\$ 275 bn., of which US\$ 130 bn. were aBi grant contributions." In the review of aBi Development (ABI (3), 7) it is mentioned that credits and guarantees may also be used by aBi Development.

The homepage also provides the information that "aBi Finance Ltd provides Lines of Credit (LoCs) to Financial Institutions for on-lending to agribusinesses across the entire value chain. aBi Finance also runs an Agriculture Loan Guarantee Scheme (ALGs) for Financial Institutions to share losses incurred through defaulting loans. As at December 2017, aBi's financial products generated over 231,000 new loans to producers and businesses. Under the Financial Services Development (FSD) programme aBi Finance provides matching grants to FIs to build institutional capacity for enhancing the provision of financial services and increase outreach in rural areas."

Thus, the programme essentially uses two financial instruments jointly: (i) subsidised loans and (ii) credit guarantees. Twenty percent of the aBi Finance's capital is set aside for the Guarantee Scheme (ABI (4), 11), but guarantees constitute a much larger share of the portfolio (ABI (2), 18). In 2016, guaranteed loans by aBi were about the same amount as subsidised loans. However, the weight of loans compared to guarantees is increasing. Guarantees can take three forms (individual guarantees, portfolio guarantees and portable guarantees (ABI (2), 20)). The two first forms are used for small loans, whereas the last is for large loans.

Various criteria are applied for granting guarantees (ABI (2), 21), but the bottlenecks to be addressed are not described or analysed in any detail (see ABI (2), Annex 3). Financial intermediaries may obtain both credits and guarantees.

An evaluation of aBi Finance was conducted in 2017 (ABI (2)). The evaluation contains more detailed information about the two main financial products, including a summary of financial results (ABI (2), 24). The evaluation includes a discussion of the use of guarantees in Annex 3. The potential interaction between aBi Development – providing matching grants – and aBi Finance – providing credits and guarantees – is only briefly described in the documentation (see e.g., ABI (4), 6 and 13). The review (ABI (3), 21) mentions the potential of strengthening this interaction.

5.1.2 MICRO-ENTERPRISES SUPPORT PROGRAMME TRUST (MESPT)

Turning to Kenya, the country programme for 2016-2020 has a total budget of DKK 1,070.5 million. The programme consists of three thematic programmes:

- Governance,
- Green Growth and Employment,
- Health.

The Green Growth and Employment thematic programme includes two intervention areas and nine development engagements (MESPT (2)). One of the development engagements is MESPT (originally Micro-Enterprises Support Programme Trust, now named Trust Value Chain Greening and Financing Programme). Denmark has supported MESPT since 2005 (MESPT (1), 8). The budget for the present MESPT programme is DKK 70 million (July 2016-June 2020) (MESPT (1)). The programme, which works through financial intermediaries, first started implementation in the beginning of 2017. The Country Programme describes the objective of MESPT, which is “to promote economic growth, employment creation and poverty alleviation through support to microenterprises ...” (MESPT (1), 5) while the MESPT homepage states that the mission is “[T]o support the growth of micro, small and medium enterprises by providing integrated business solutions for sustainable development.” (<https://www.mespt.org/>).

The programme document (MESPT (1)) describes the Theory of Change in some detail, but the relationships between the various outputs and outcomes, including assumptions behind these relations, are not analysed. Output 2 (or Intervention Area 2) (‘Improved access to financial services for value chain and business development’) (MESPT

(1), 10)¹⁰ seems to be most relevant for this study. The contribution to this output is only DKK 13 million and will be allocated to a planned Green Technology Fund (GTF) (MESPT (1)). The Green Technology Fund together with the existing Value Chain Fund will be used to provide financing for farmers and other clients. Activities under the Intervention Area will comprise the identification of financing gaps, the development of appropriate products and identification of Financial Intermediaries (MESPT (1), 25 and 27).

MESPT uses a very rich and thus less transparent portfolio of financial instruments. The promotion of selected agribusinesses is done through a variety of financial instruments including (i) subsidised loans to financial institutions for onward lending, (ii) direct subsidised loans to selected businesses, (iii) cash-backed guarantees, (iv) grants, and (v) equity financing schemes.

5.1.3 PRIVATE AGRICULTURE SECTOR SUPPORT (PASS)

The Tanzania Country Programme (2014-2019) has three strategic objectives (PASS (1)):

- To promote inclusive green growth and employment,
- To improve the health and well-being of the poorest by strengthening national systems to enhance the delivery of and equal access to quality health services for all,
- To strengthen democracy, good governance, rule of law and respect for all human rights.

The overall budget for the Country Programme is DKK 1,950 million of which DKK 600 million is allocated for the business sector support (BSPS) (PASS (2), 5). The BSPS contains three components, and the Private Agricultural Sector Support (PASS, established in 2007) is – together with the Financial Sector Deepening Trust (FSDT) – part of component C, which is “Access to Finance” (PASS (2) 27). While the objective of FSDT is to improve the capacity of the financial sector in Tanzania, which includes developing new innovative financial products (PASS (2), 40-41), the objective of PASS is to accelerate investments and financing. A relatively detailed Theory of Change has been developed (PASS (6), 27). The budget for PASS is DKK 125 million (PASS (2), 39).

PASS has a well-defined structure with a focus on improving access to finance for agribusinesses. The clearly stated objective is to build

¹⁰ Intervention Area 4 (“Improved access to resource efficient, clean and climate sensitive technologies”) also mentions the need to promote “incentive structures based on innovative fiscal and financial instruments” (MESPT (1)).

and support successful and resilient micro, small and medium-sized commercial farmers and agribusinesses (PASS (2), 42-45; PASS (6), 8). The financial services “include the appraisal of loan write-ups in line with collaborating financial institutions’ terms and conditions and providing partial credit guarantees to cover inadequate collateral” (PASS (6), 8 and 22). Thus, PASS has a single financial instrument, which is the provision of guarantees for loans to clients from engaged major banks, community banks, and micro finance institutions. Still, the partial credit guarantees comprise (PASS (6), 9, 23):

- Traditional guarantees to end-clients (50-80 % guarantee). Apparently, this also includes SMEs that sell or buy from farmers.
- Portfolio guarantees to partner financial institutions.
- Guarantees to MFIs and smaller community banks.

The volume of loans under PASS guarantees has increased steeply since 2014 (PASS (6), 28 and 34), and although it was envisaged that guarantees would decrease, this has not been the case. There are some variations in guarantee coverage and fees (see PASS (6), 25-26, 32), but evidence documents that the core business of PASS is commercially viable.

5.2 Illustrations of some key issues from the conceptual and analytical framework

The brief presentation illustrates how Danida has engaged in programmes with noteworthy differences in the use of financial instruments even for programmes that have comparable target groups (marginalised and rural) and sectors (agriculture and agribusiness). Specifically, PASS relies more or less exclusively on guarantees, while aBi-Development has both guarantees and subsidised loan schemes, and MESPT operates the whole palette of financial instruments.

The three programmes share a common organisational feature as they primarily follow a “trust-intermediary-client” structure. Moreover, the three selected Danida-funded programmes target producers as well as micro-enterprises and SMEs in the agricultural sector.

The conceptual and analytical framework in Chapter 2 and the design suggestions in Chapter 4 identified a number of elements to be considered when setting up guarantee schemes. The following will highlight merely five of these:

- Clear programme objectives, analysis of credit demand, market failures and justification of government intervention

The three programmes are based on clear programme objectives and formulated theories of change (TOCs). It is not documented in the programme documentation that detailed analyses of the assumptions behind various steps in the TOCs have been made. This would have comprised assessments of whether credit is a binding constraint (Section 2.1.), analyses of market failure and the justification of government intervention (Section 2.2.). A clear justification for the choice of financial instrument, i.e. introduction of a guarantee scheme, was not found in the project documentation (Subsection 2.3.2).

- Rationale for using several instruments in combination

Two of the three programmes apply a combination of financial instruments. As shown, different instruments can have various designs with specific implications for incentives (see Section 2.3.). A combination of financial instruments will therefore create specific incentive structures. The two programmes, which use a combination of instruments, seem not – again based on recent programme documentation – to have carefully considered the interaction between the instruments and their specific designs.

- Use of financial intermediaries

The three programmes use financial intermediaries. As mentioned in Subsections 2.2.3 and 2.2.4, there can be good reasons (asymmetric information problems and monitoring costs) for using intermediaries and providing guarantees to these. Any decision on this issue must be based on an analysis of the availability of local intermediary capital and costs of alternative models. Such analyses were not found in the programme documentation.

- Various forms of guarantees

The programmes use various forms of guarantees and guarantee coverage. As mentioned in Subsection 2.3.2 and Section 4.3., the form of guarantee (individual or portfolio) should in principle have implications for guarantee coverage. Moreover, the guarantee coverage also reflects the degree of risk sharing with the borrower with implications for incentives. In addition, it seems that the level of guarantee coverage is used to promote specific objectives in the programmes, e.g. gender objectives. There can therefore be a trade-off between the policy objectives and future financial flows of the guarantee scheme (see Section 4.3. and Footnote 6), which must be carefully considered.

- Diversified fee structures

The programmes have developed a quite diversified fee structure, where some of the same arguments apply as to the guarantee coverage. Thus,

the specific design of the fees will have implications for incentives at the same time as fees must ensure sufficient future financial flows (see Section 4.3). Overall, all programmes have adopted the traditional ‘high coverage rate, low fee’ approach, even though an optimal design recommendation would be the exact opposite, if the target group is considered relatively more risky borrowers.

- A comprehensive M&E system based on international standards

Chapter 3 presented an overview of conducted evaluations, and together with Section 4.4., the sections indicated some of the methodological challenges associated with evaluations of guarantee schemes. As mentioned, the rationale for government interventions would be an assumption of financial and development additionality. While comprehensive monitoring seems to take place in all three programmes, the programme documentation does not contain discussions on how to establish a basis for future evaluations. Section 4.4. provides some ideas on how to organise and conduct such evaluations.

6 CONCLUSIONS AND NEED FOR FURTHER STUDIES

Various conclusions can be drawn from the above analysis. Some of the most important are mentioned below.

Elements to a conceptual and theoretical framework exist, which can be used in the design and implementation of future guarantee schemes. Use of this framework will ensure a more systematic and consistent approach to guarantee schemes, where the principles developed by World Bank and FIRST Initiative can be a useful reference.

Several evaluations have been conducted of guarantee schemes. They present a mixed picture indicating that the design of the schemes may have important implications for the success of the schemes. One important finding is that the schemes should be adapted to the specific local context, including the character of market failures and local financial markets.

The design of the schemes, including interaction with other financial instruments, guarantee coverage and fee structure, will have important implications for incentives, but also for potential future financial flows and the financial sustainability of the guarantee schemes. Therefore, it is important that resources are available for careful analysis and design of the schemes.

It must be realised that financial instruments can only have sustainable development impact if the financial institutions in the recipient countries and areas improve their information about the targeted borrowers and their credit assessment procedures and policies. Hence, the use of financial instruments must be regarded as support to the financial sector, possibly even more than support to the targeted parts of the agricultural sector.

There is a need for a discussion of how best to evaluate guarantee schemes and to ensure that the basis for such evaluations is established. Above it was suggested that evaluations should consider the legal and regulatory framework, governance and risk management and operational framework including development effect. This will require the application of a mixture of quantitative and qualitative methods.

Regarding potential further studies, there is a need for more detailed studies, including case studies, which can provide more information about how financial instruments work in practice.

7 LIST OF REFERENCES

- Abraham, F. and Schmukler, S. L. (2017). Are Public Guarantees Worth the Hype? Research and Policy Briefs. From the World Bank Malaysia Hub. No. 11, November 2017.
- Anginer, D. de la Torre, A. and Ize, A. (2014). Risk-bearing by the state: When is it good public policy? *Journal of Financial Stability*, 10: 76-86.
- Arping, S., Loranth, G., Morrison, A.D. (2010). Public initiatives to support entrepreneurs: credit guarantees versus co-funding. *Journal of Financial Stability*, 6(1): 26–35.
- Arráiz, I., Meléndez, M. and Stucchi, R. (2014). Partial credit guarantees and firm performance: evidence from Colombia, *Small Business Economics*, 43 (3): 711-724.
- Arrow, K.J. and Lind, R.C. (1970). Uncertainty and the evaluation of public investment decisions. *American Economic Review*, 60(3): 364–378.
- Banerjee, A.V. (2013) Microcredit under the microscope: what have we learned in the past two decades, and what do we need to know? *Annual Review of Economics*, 5(1): 487-519.
- Banerjee, A.V., Duflo, E., Glennerster, R. and Kinnan, C. (2015) The miracle of microfinance? Evidence from a randomized evaluation. *American Economic Journal: Applied Economics*, 7(1): 22–53.
- Beck, T., Klapper, L. F. and Mendoza, J. C. (2010). The typology of partial credit guarantee funds around the world, *Journal of Financial Stability*, 6(1): 10-25.
- Boocock, G., and Shariff, M. N. M. (2005). Measuring the Effectiveness of Credit Guarantee Schemes: Evidence from Malaysia. *International Small Business Journal*, 23(4): 427–454.
- Brown, R. and Lee, N. (2017). The theory and practice of financial instruments for small and medium-sized enterprises. EC-OECD Seminar Series on Designing better economic development policies for regions and cities. OECD.
- Carter, P., Van de Sijpe, N. and Calel, R. (2018). The Elusive Quest for Additionality. CGD Working Paper 495.

- Cowan, K., Drexler, A. and Yañez, Á. (2015): The Effect of Credit Guarantees on Credit Availability and Delinquency. *Journal of Banking and Finance*, 59: 98-110.
- Cull, R., Demirgüç-Kunt, A. and Morduch, J. (2018) The Microfinance Business Model: Enduring Subsidy and Modest Profit, *The World Bank Economic Review*, 32(2): 221–244.
- Cull R. and Morduch, J. (2018). Microfinance and Economic Development, In T. Beck and R. Levine (eds.), Chapter 20, *Handbook of Finance and Development*, Edward Elgar Publishing.
- Diamond, D. W. (1984). Financial Intermediation and Delegated Monitoring, *The Review of Economic Studies*, 51(3): 393–414, <https://doi.org/10.2307/2297430>.
- Greene, A. (2003). Credit Guarantee Schemes for Small Enterprises: An Effective Instrument to Promote Private Sector-Led Growth? UNIDO SME Technical Working Paper Series no.10.
- Huidobro, A. and Reyes, H. (2014). An Evaluation of Government Loan Guarantees in Mexico. Available at SSRN: <https://ssrn.com/abstract=2549399>.
- IMF (2019). Financial Inclusion of Small and Medium-Sized Enterprises in the Middle East and Central Asia. IMF Working paper no.19/02.
- Jaffee, D.M. and Modigliani, F. (1969). A theory and test of credit rationing. *American Economic Review* 59, 850–72.
- Kuo, C.-J. et al. (2011). Evaluating guarantee fees for loans to small and medium-sized enterprises. *Small Business Economics*, 37, 205-218.
- Lerner, J. (2002). When bureaucrats meet entrepreneurs: The design of effective 'public venture capital' programmes, *The Economic Journal*, 112(477): F73-F84.
- Meggison, W.L. and Netter, J.M. (2001). From State to Market: A Survey of Empirical Studies on Privatization. *Journal of Economic Literature*, 39(2), 321-389.
- Meyer, R. L. (2011). Subsidies as an instrument in agriculture finance: A review, Joint Discussion Paper, the World Bank, BMZ, FAO, GIZ, IFAD, and UNCDF. The World Bank.
- Nightingale, P., Murray, G., Cowling, M., Baden-Fuller, C., Mason, C., Siepel, J., Hopkins, M., Dannreuther, C. (2009). *From funding gaps to thin*

7 LIST OF REFERENCES

markets: UK Government support for early-stage venture capital. NESTA, London.

OECD/UNCDF (2019). Blended Finance in the Least Developed Countries 2019, OECD Publishing Paris, <https://doi.org/10.1787/1c142aae-en>.

Oh, I., Lee, J.D., Heshmati, A. and Choi, G.-G. (2009). Evaluation of Credit Guarantee Policy Using Propensity Score Matching, *Small Business Economics*, 33 (3): 335-351.

Saadani, Y., Arvai, Z. and Rocha, R. (2011). A review of credit guarantee schemes in the Middle East and North Africa Region. *World Bank Policy Research Working Papers*. The World Bank.

Stiglitz, J. E. and Weiss, A. (1981). Credit rationing in markets with imperfect information. *American Economic Review*, 71(3), 393-410.

World Bank (2012). Global Financial Development Report 2013: Rethinking the Role of the State in Finance. Washington, DC: World Bank.

The World Bank and FIRST Initiative. (2015). Principles for Public Credit Guarantee Schemes for SMEs. Washington, DC: World Bank.

The World Bank and FIRST Initiative. (2018). Toolkit for Impact Evaluation of Public Credit Guarantee Schemes for SMEs. Washington, DC: World Bank

ANNEX 1: DOCUMENTS USED IN THE DESCRIPTION OF THE THREE PROGRAMMES

ABI

ABI (1). Ministry of Foreign Affairs of Denmark. Danida. Country Policy Paper for Uganda 2018-2022. May 2017.

ABI (2). Carnegie Consult. aBi Finance at a crossroads: balancing strong commercial viability with clear development objectives. Evaluation report of aBi Finance, 2017. (10)

ABI (3) KPMG (2017). Review of the agricultural business initiative (ABI) trust for the period 2014-18. Final Report. 20 February 2018.

ABI (4). Danish Country Programme for Uganda 2018-2022: Uganda Programme on Sustainable and Inclusive Development of the Economy (UPSIDE).

ABI (5). Denmark-Uganda Partnership. Country Programme Document 2018-2022. 6 October 2017.

ABI (6). Ministry of Foreign Affairs (2018). Uganda. Agricultural Business Initiative & Northern Uganda Resilience Initiative. Appraisal Report. 22 November 2018.

ABI (7). ABI Business Plan (2019-23).

MESPT

MESPT (1). Kenya Country Programme 2016-2020. Thematic Programme for Green Growth and Employment. Development Engagement Document. Value Chain Greening and Financing Programme (Micro Enterprises Support Programme Trust – MESPT).

MESPT (2). Denmark-Kenya Country Programme 2016-2020. October 2015.

MESPT (3). Danida (2017). Denmark-Kenya Country Programme 2016-2020. Annual Report 2017.

MESPT (4). Kenya Country Programme. Mid-Term Review Report. January 2019.

MESPT (5). Annual Performance Report 2017. Annual stocktaking/ progress status from the Strategic Programme Management and M&E Support to the Kenya Country Programme.

PASS

PASS (1). Denmark-Tanzania. Country Policy Paper 2014-2018. Ministry of Foreign Affairs of Denmark. Danida.

PASS (2). Tanzania Country Programme Document (2014-2019).

PASS (3). Tanzania. Business Sector Programme Support Phase IV 2013-19. Programme Document. November 2013.

PASS (4). Tanzania Country Programme Appraisal. 23 April to 9 May 2014. Appraisal Report Final. June 2014.

PASS (5). PASS at a crossroads: commercial viability and development objectives. Report of a technical review mission. Private Agricultural Sector Support trust (PASS). September 28-October 12, 2016.

PASS (6). Ministry of Foreign Affairs of Denmark. Danida. Evaluation of the private agricultural sector support (PASS), Tanzania. March 2019.

PASS (7). Tanzania Country Programme. Mid-Term Review Report. March 2018.

PASS (8). Private Agricultural Sector Support (PASS) Trust. 5 year programme. 1st January 2013 – 31st December 2017. August 2013.

PASS (9). Private Agricultural Sector Support (PASS). Five-Year Strategy. January 2018-December 2022. Final Draft. December 2017.

ANNEX 2: THE 16 PRINCIPLES FROM THE WORLD BANK AND FIRST INITIATIVE (2015)

A: Legal and regulatory framework

1. The credit guarantee scheme (CGS) should be established as an independent legal entity on the basis of a sound and clearly defined legal and regulatory framework to support the effective implementation of the CGS's operations and the achievement of its policy objectives.
2. The CGS should have adequate funding to achieve its policy objectives, and the sources of funding, including any reliance on explicit and implicit subsidies, should be transparent and publicly disclosed.
3. The legal and regulatory framework should promote mixed ownership of the CGS, ensuring equitable treatment of minority shareholders.
4. The CGS should be independently and effectively supervised on the basis of risk-proportionate regulation scaled by the products and services offered.

B: Corporate governance and risk management

5. The CGS should have a clearly defined mandate supported by strategies and operational goals consistent with policy objectives.
6. The CGS should have a sound corporate governance structure with an independent and competent board of directors appointed according to clearly defined criteria.
7. The CGS should have a sound internal control framework to safeguard the integrity and efficiency of its governance and operations.
8. The CGS should have an effective and comprehensive enterprise risk management framework that identifies, assesses, and manages the risks related to CGS operations.

C: Operational framework

9. The CGS should adopt clearly defined and transparent eligibility and qualification criteria for SMEs, lenders, and credit instruments.
10. The CGS's guarantee delivery approach should appropriately reflect a trade-off between outreach, additionality, and financial sustainability, taking into account the level of financial sector development of the country.
11. The guarantees issued by the CGS should be partial, thus providing the right incentives for SME borrowers and lenders, and should be designed to ensure compliance with the relevant prudential requirements for lenders, in particular with capital requirements for credit risk.
12. The CGS should adopt a transparent and consistent risk-based pricing policy to ensure that the guarantee program is financially sustainable and attractive for both SMEs and lenders.
13. The claim management process should be efficient, clearly documented, and transparent, providing incentives for loan loss recovery, and should align with the home country's legal and regulatory framework.

D: Monitoring and Evaluation

14. The CGS should be subject to rigorous financial reporting requirements and should have its financial statements audited externally.
15. The CGS should periodically and publicly disclose nonfinancial information related to its operations.
16. The performance of the CGS—in particular its outreach, additionality, and financial sustainability—should be systematically and periodically evaluated, and the findings from the evaluation publicly disclosed.

EVALUATION STUDY GUARANTEES AND INCENTIVES IN DEVELOPMENT AID

MINISTRY OF FOREIGN AFFAIRS OF DENMARK

2 Asiatisk Plads
DK-1448 Copenhagen K
Denmark

Tel +45 33 92 00 00

Fax +45 32 54 05 33

um@um.dk

www.um.dk

ISBN: PDF: 978-87-93760-37-0

ISBN: HTML: 978-87-93760-38-0

