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GREEN CREDIT GUARANTEE SCHEMES FOR MSMEs

SUMMARY

While the use of credit guarantees is a well-known conventional credit enhancement and risk sharing instrument, the global experience of credit guarantee schemes (CGSs) to support the financing of green initiatives of micro, small and medium enterprises (MSMEs) is very limited.

The development of green markets for MSMEs is challenged by a lack of policy and regulatory guidance, as well as economic efficiency (i.e., projects which produce social returns but insufficient private returns, given the perceived risks). However, progress is being made; combining financial inclusion approaches with sustainability objectives is gaining traction across AFI member jurisdictions.

In low and middle-income countries, green segments are still considered a new frontier for most financial institutions, and therefore, credit guarantees may be useful instruments where credit risk is perceived to be the key barrier to accessing finance.

Credit guarantee schemes can help to bridge the initial phase of uncertainty of MSME financing of green projects by:

> Improving the bankability of transactions, where collateral is poor.
> Encouraging lenders to provide financing to target groups by sharing credit risk.
> Creating market learning opportunities for green business and technologies.
> Improving the ability of lenders to price risk for MSMEs and green projects.
> Helping banks to initiate and grow their green lending business by revealing new clients.

Certain policy and regulatory pre-conditions are necessary to ensure that greening goals can be achieved through MSME financing. Defining what is “green” as well as an “MSME” is a priority being addressed by AFI member jurisdictions. Aligning CGS objectives with national definitions will prove to be a critical factor in addressing inclusive green policy objectives.

A proper design is crucial to achieving successful green policy goals for MSME financing, while maintaining the ongoing financial viability of operating a CGS. Depending on funding and market situations, there are numerous approaches for implementing a CGS; schemes can be publicly funded and administered, privately administered, or a combination of the two (hybrid). Determining the appropriate guarantee approach given the desired target groups (individual versus portfolio) and calibrating coverage ratios, costs, operational procedures and monitoring methods are critical factors to consider.

Several AFI members have implemented MSME CGSs with varying design approaches and experiences. Adapting these schemes to meet future green finance policy goals is being widely considered.

There are many challenges to financing green projects; from the risk appetite of lenders to the lack of awareness of borrowers which should be considered by policymakers when implementing a scheme. Ultimately, a credit guarantee is a specific instrument that has limitations for supporting access to finance. A CGS can be - and is often - designed to accompany other government support interventions such as concessionary refinancing facilities, capacity building programs, and targeted regulatory treatments, all of which are part of a comprehensive approach to tackling barriers to finance for MSMEs.
BACKGROUND AND CONTEXT
INCLUSIVE GREEN FINANCE

Climate change and environmental degradation pose a significant risk to the performance, competitiveness and sustainability of the economic activity of MSMEs in developing countries.

As jurisdictions seek to alleviate the negative effects of climate change and environmental degradation on their constituents, they can undertake financial sector policy measures to promote the “greening” of their economies through interventions that support green lending (i.e., lending to support green projects, including renewable energy, energy and resource efficiency, sustainable transport, waste management, and climate change resilience and adaptation measures), especially to the most vulnerable sectors like women, smallholder farmers and MSME owners.

These efforts will often happen in parallel to ongoing financial sector policies that aim to increase financial inclusion of underserved segments. The traditional role of central banks and regulators - ensuring financial stability - can be aligned with promoting responsible financial inclusion, while simultaneously responding to environmental crises.

Inclusive green finance (IGF) is a rapidly evolving policy area for AFI member institutions. IGF policies and initiatives seek to include disadvantaged groups, such as women, youth, the elderly, forcibly displaced persons, persons with disabilities, and MSMEs in climate mitigation and resilience-building efforts.

These policies have three things in common: they catalyze financial services from the private sector for climate and environmental action; they use financial infrastructure to deploy them; and they strengthen the resilience of financial institutions providing financial inclusion solutions to the effects of climate change.

These policies are presented in a simple framework of the 4Ps of IGF: Promotion, Provision, Protection and Prevention.
CREDIT GUARANTEE SCHEMES

In order to enhance financing conditions faced in specific lending segments, governments, NGOs and the private sector have developed initiatives such as CGS. The CGS first emerged in Europe in the 19th and early 20th centuries, and now there are over 2,250 schemes implemented in different forms in almost 100 countries.\(^2\)

CGSs provide guarantees to groups that do not have access to credit by covering a share of the default risk of the loan. In case of a borrower default, a lender can resort to a full or partial repayment from a third-party guarantor. CGSs transfer all or part of the borrower’s credit risk and compensate for factors such as deficient collateral and weak creditor rights.

CGSs can often take advantage of diversifying concentration risks to which specific lenders may be exposed. For example, lenders may be concentrated in certain geographic areas or particular market segments. By diversifying the pool of lenders, guarantors spread default risk across a broader portfolio of borrowers.

In order to enhance the impact of CGSs, the facilities that provide them will often also include accompanying programs such as technical assistance to borrowers and lenders, capacity building in the specified segments, and specialized rating or due diligence services.

Research indicates that CGSs are just one of many instruments used to influence lending policies, they are often deployed alongside other instruments such as directed lending programs (i.e. usually provided by development finance institutions (DFIs)\(^3\) or central banks) which extend term loans to local financial institutions for on-lending to eligible projects or customers in a target segment with a specifically defined use of proceeds.

PROVISION OF CREDIT GUARANTEES FOR INCLUSIVE GREEN LENDING

CGSs that target MSME segments can be particularly useful in addressing information gaps in the short to medium-term (especially in countries where the institutional experience with green projects is limited) by mitigating borrower risk from the perspective of lending financial institutions (FIs).

Theoretically, CGSs should allow lenders to build capacity in particularly challenging new green themes, while improving their financial and business understanding of MSME borrowers. The idea is that CGSs can kickstart lending in early-stage green markets by serving as a bridge in the initial phase of uncertainty where FIs may perceive target groups as too risky\(^4\).

During periods of economic downturns, CGS can also play a role in stabilizing access to finance for MSMEs by offsetting the increased risk aversion that lenders may perceive.

For more information read, Credit guarantee schemes: Facilitating MSME financing in Africa during the Covid-19 pandemic. > View here

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\(^2\) Green, 2003.

\(^3\) “National and international development finance institutions (DFIs) are specialized development banks or subsidiaries set up to support private sector development in developing countries. They are usually majority-owned by national governments and source their capital from national or international development funds or benefit from government guarantees” - World Bank. “DFIs can play a crucial role in financing private and public sector investments in developing countries, in the form of higher risk loans, equity positions, and guarantees. Some development banks include socially responsible investing and impact investing criteria into their mandates. Governments often use development banks to form part of their development aid or economic development initiatives” - Wikipedia. They are playing an increasing role in climate and sustainability finance.

\(^4\) Aldana, Braly-Cartillier & Shuford. 2014.
**TARGET AUDIENCE**

The intended audience of this report includes policymakers and supervisors of the banking sector.

Since CGSs are instruments intended for licensed FIs that perform lending services, depending on the mandates of regulators in each jurisdiction, the role of regulators may vary, i.e. central banks may provide policy objectives and determine the regulatory environment, while supervisory authorities supervise the relevant FIs and CGSs.

In the set-up of a CGS, it is possible that the financial regulator or central bank is also an administrator or provider of the guarantee scheme, in which case another government agency is usually necessary to supervise the schemes so that there is a separation of duties.

CGSs can support a wide range of formal financial transactions - from project finance to corporate lending for a wide variety of policy initiatives. While some elements of a guarantee scheme design are universal, this special report aims to address the CG instrument from the specific view of supporting financial inclusion of MSMEs that have greening outcomes.

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**REPORT METHODOLOGY**

This special report was prepared based on comprehensive desk research and in-depth interviews with AFI members.

Specifically, the analysis included the following:

> A review of global literature on CGSs that is relevant when considering their design to support green lending to MSMEs, individuals and households.

> Selected survey results from the AFI 2021 Annual Inclusive Green Finance Survey (Appendix A).

> In-depth research interviews and the review of five AFI member subject matter experts with a strong professional understanding of sustainable finance. The interviewees also included two credit guarantee fund managers from member institution countries.

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For more information read, *Promoting Inclusive Green Finance Initiatives and Policies.*

> View here

For more information read, *Greening the Financial Sector through Provision Policies: The role of Central Banks.*

> View here
ENABLING POLICIES AND FRAMEWORKS

Financial inclusion has been found to be an integral tool in enabling MSMEs to sustainably adapt to climate change. In developing countries, MSMEs employ a large proportion of the working population and make a significant contribution to GDP. As such, they can play a potentially significant role in strengthening a country’s resilience to climate change.\(^5\)
A necessary pre-condition for the provision of green credit guarantees to support MSME lending is the existence of a sustainable or green framework for the local financial system. The provision of associated credit guarantees will be challenged, if not impossible without a clear pathway to financial system integrity and materiality that will support the financial sector’s ability to finance green and inclusive segments.

**NATIONAL POLICIES**

A green CGS can address two unique characteristics of financing: supporting access to finance and targeting green economic outcomes. These two seemingly mutually exclusive goals can be combined to efficiently address national policy goals without constraining one or the other. However, in application, these policy goals may be contradictory. On the one hand, a CGS can support access to finance while on the other, they can restrict the market by requiring specific “green” criteria.

Jurisdictions which have formalized a financial inclusion agenda and a sustainable finance or green finance agenda will be best-positioned to implement a green CGS for MSMEs that can measurably address financial sector development expectations.

Ensuring alignment of a green CGS design with both the national roadmap for financial inclusion and the national sustainable or green finance strategy will be key to defining the success of the scheme, in terms of addressing the desired economic additionality.6

**FIGURE 1: NATIONAL STRATEGIES ACROSS AFI MEMBERS, %**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>In-process</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>37</td>
<td>41</td>
</tr>
</tbody>
</table>

Source: AFI, 2021 IGF Annual Survey

**INCLUDING SUSTAINABILITY POLICIES IN THE FINANCIAL INCLUSION STRATEGY**

The Central Bank of Solomon Islands recently launched their “National Financial Inclusion Strategy 3” (2021-2025).7 The strategy was designed to be in alignment with the broader national goals of the Solomon Islands National Development Strategy 2016-2035, with one of the harmonized objectives being sustained and inclusive economic growth. Four of the six strategic objectives in the inclusion strategy distinguish specific sectoral policies for green finance, gender equality and education to be coordinated and led by different ministries.

This strategy reflects the Solomon Islands’ recently updated commitments on nationally determined contributions for carbon reduction, as well as the global Maya Declaration on financial inclusion and the Denarau Action Plan for gender and financial inclusion.

**INCLUDING FINANCIAL INCLUSION IN A SUSTAINABLE FINANCE ROADMAP**

The central bank of Morocco (Bank Al-Maghrib) led a large, combined effort demonstrated by the financial sector at COP 22, held in Marrakech, with the implementation of a national roadmap for sustainable finance. This roadmap formally includes financial inclusion as a key strategic objective to achieve sustainable development and promotes green financial products on the opportunity side.

Through an inter-agency cooperation process, this financial system-wide strategic roadmap helps build consensus among stakeholders and provides a broad framework and principles for the coordinated and progressive alignment of the financial sector with sustainable development goals.

For more information read, Inclusive Green Finance Policies for MSMEs.

> View here

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6 Economic additionality is the effect of increased access to finance at the business level, employment level, and environmental level (discussed in-depth in the monitoring and evaluation section below).
NATIONAL DEFINITIONS FOR INCLUSIVE AND GREEN FINANCE

Although MSMEs are typically defined in jurisdictions by criteria such as the number of employees, sales revenue and asset size, they will often cover a broad range of economic actors (such as corporates, small business cooperatives, farmers, diverse individuals) and market segments (industry and service sectors, geographic clusters, etc.) that may need further definition and categorization to address national priority areas.9

FIs will likely have existing internal guidelines for what constitutes the different lending segments of their businesses, but this may or may not align with the regulator’s expectations or that of the CGS. The definition of micro versus small versus medium enterprises may vary considerably with the different stakeholders of a particular CGS.

Defining “green” outcomes for MSMEs could also be taken from several different perspectives. For example, green projects could entail incorporating green practices and improving sustainability of a business (green performance), or green business development that focuses on the sale of sustainability related goods and services (green innovation). Green financing policy goals can also include providing access to finance in the form of savings, loans and insurance, and payments (including digital payments) that are made available to populations that are economically vulnerable, with limited coping capacities, and with high-risk exposure to the impacts of climate-related events.

How a jurisdiction views local green financing priorities should be articulated to market actors via national climate policies or sustainability policies, circulars and guidelines.

Since the pre-requisite of providing green credit guarantees is the provision of green loan products, the development of national green or sustainable taxonomies is critical to ensure that financing activities are aligned with policy goals. A green taxonomy will support lenders developing green financing frameworks to standardize categories of green economic activity.

This will allow lenders to:12

> Originate and structure green banking products (such as loans and guarantees) more easily and consistently
> Boost efficiency of green lending and funding operations
> Lower transaction costs through faster identification and verification of eligible assets
> Reduce uncertainty and reputational risk (i.e. preventing “green-washing”)
> Understand and disclose exposure to sustainable investments as required by regulators

9  Setting priority areas is a practice in the formulation of national strategies (AFI, National Financial Inclusion Strategies: Current State of Practice, 2018). In the context of inclusive green finance, this means selection of policies, activities or target groups to which relatively high importance needs to be attached in the effort to achieve the goals articulated in the national financial inclusion strategy and sustainable finance strategy.
10  Details for Thailand’s MSME definitions can be found here: https://www.sme.go.th/en/page.php?modulekey=363
11  Details for Malaysia’s SME Definition can be found here: https://www.sme corp.gov.my/images/pdf/2021/Guideline_on_SMEDefinition_Updated_Sept2020_Final.pdf
ROLE OF REGULATORS IN LEADING GREEN INITIATIVES IS STILL AT AN EARLY STAGE

The majority of AFI members noted that their respective jurisdictions do not yet have systematic sustainable finance policies, however, interviews revealed that a number of jurisdictions are currently developing approaches to include greening aspects in their planning efforts, for example:

> While the Central Bank of Solomon Islands has not formally declared sustainable finance guidelines or definitions, it launched an internal sustainability strategy in April 2021, which includes an objective to launch at least one green finance product under the SME Credit Guarantee Scheme by the first quarter of 2023 and the development of a concept note for a green definition in the context of financing. The central bank also noted that a potential guarantee program with the Ministry of Commerce could be useful in the area of climate related disaster relief, tailoring finance for when such situations occur.

> In Jordan, a National Green Growth Plan (NGGP) was launched in 2016 by the Ministry of Environment, which identifies the most urgent projects that need to be financed in the water sector, sustainable land management, energy efficiency, resource efficiency and renewable energy.

> The National Bank of Cambodia stated that the adoption of sustainable finance principles has been led by the local banking association, which noted that these principles have been adopted by 47 banks.

> The Central Bank of Seychelles has formulated an action plan to develop a green taxonomy and sustainable finance roadmap, ESG framework and concept note on the definition of green finance for Seychelles, providing a way forward for its interventions in this area. The central bank is also undertaking internal initiatives which include automating processes to reduce waste, green and sustainable criteria in the procurement process and the use of solar energy.

> The Bangladesh Bank, the Financial Regulatory Commission of Mongolia and the Central Bank of Malaysia (Bank Negara Malaysia) are the only AFI members surveyed so far that have rolled out green taxonomies in their jurisdictions.

> Bank Al-Maghrib commented that regulators have a huge role to play in setting green definitions, providing supportive regulations, building capacities and raising awareness and that the central bank is actively preparing for such activities. Morocco’s central bank is further working on a simplified green taxonomy for the financial sector with the support of the World Bank to help allocate and direct finance to green activities and projects.

VARIOUS APPROACHES OF REGULATORS IN SUPPORTING SME CREDIT GUARANTEE SCHEMES

The research interview respondents were asked to indicate whether or not their respective institutions or jurisdictions have an SME definition and what it was. This was considered an important element of the interview questions as, firstly, having an SME definition in-place allows a policy approach to be applied to the SME sector and, secondly, it provided an indication of the level of commonality in the SME definition applied by the respondents.

Three respondents indicated that SME definitions were used at an institutional or national level. Two respondents indicated there were no SME definitions used at all, whilst the remaining two respondents indicated there is a national definition from the government that defines micro, small and medium based on sales revenue and the number of employees.

In the Seychelles, for example, while certain banks have their own internal classification between retail and corporate customers, regulatory reporting to the central bank use a standardized national definition for MSME, based on sales revenue and the number of employees.

Other AFI member institution’s jurisdictions have more consistent definitions, for example in Thailand, where MSME definitions for industry are mandated according to ministerial regulations on the designation of the characteristics of an SME (The SME Promotion Act), MSMEs have been defined on the basis of annual revenue and employment.

In Malaysia, a common definition for SMEs, endorsed by the National Entrepreneur and SME Development Council, was adopted and updated in 2013 across all government ministries and agencies. A business will be classified as an SME if it fulfills three conditions in regards to the qualifying criteria: sales revenue or number of full-time employees (whichever is lower), type of establishment and shareholding structure.

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11 Available at: https://www.bnm.gov.my/-/climate-change-principle-based-taxonomy
13 Available at: https://www.bbb.org.bd/aboutus/draftguidemuction-
guideline/draft_sfpolicy_bankfi.pdf
14 Available at: https://www.ifc.org/wps/wcm-
connect/6d8c96-65-3e1e-462f-16b-5f070d7bfffe97
MongoliaGreen_Taxonomy-Eng-RSP-for-publishing.
pdf/MOD=AJPER58CVID=milkyblik
15 Available at: https://www.bnn.gov/my/-/climate-change-principle-based-taxonomy
BARRIERS TO GREEN FINANCING FOR MSMEs

Financing green projects has both financial and non-financial barriers, many of which are specific to the nature of green projects, but the traditional challenges of MSME financing must also be considered. The barriers are on both the supply side (lender) and demand side (borrower). Although the precise financing challenges will vary depending on the jurisdiction and the level of sophistication of the business entities or projects involved, the following are some of the common challenges faced by borrowers in inclusive green segments and identifies which can and cannot be addressed by implementing a CGS16:

UNDERSTANDING THE USES AND LIMITATIONS OF GREEN CREDIT GUARANTEES

Green CGSs can be established to address market failures that prevent MSMEs from accessing credit for greening purposes at socially desirable levels. Hence, they are not an end in themselves, but a means to solve a problem. It is, therefore, essential that market failures are analyzed comprehensively to identify and define the problems to be addressed, and to determine whether there is evidence that government intervention through a CGS is justified.17

Properly designed and effectively implemented CGSs for green market segments can address some but not all market failures that borrowers face (as shown below in Figure 3).

The credit guarantee instrument on its own cannot compensate for the lack of technical or financial capacity of a lender or borrower, however, most CGSs have accompanying capacity building programs and are often connected to a concessionary financing program, which to some extent, address these challenges.

16 Sources come from the author’s experience and: Aldana, Braly-Cartillier & Shuford. 2014.
17 AFI. 2020.

FIGURE 3. CHALLENGES OF PROVIDING GREEN FINANCING TO MSMEs

<table>
<thead>
<tr>
<th>CAN BE ADDRESS BY CGSs</th>
<th>CANNOT BE ADDRESS BY CGSs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Collateral eligibility (MSMEs often do not have traditionally eligible collateral such as land and building assets to pledge, instead they may have minor moveable assets)</td>
<td><strong>1</strong> Uncertainties on green policies and the regulatory environments (both lenders and borrowers often lack guidance on defining what constitutes “green”)</td>
</tr>
<tr>
<td><strong>2</strong> Borrower information asymmetries (more typical for micro and small enterprises which often do not have any or poor formal relationships with lenders)</td>
<td><strong>2</strong> Lack of borrower awareness (MSMEs lack awareness about the environmental impact of their activities, the effect of environmental regulations on the industry and the growing need for green skills)</td>
</tr>
<tr>
<td><strong>3</strong> Longer payback periods (green projects covering energy efficiency and agriculture often have longer payback periods than typical working capital type loans)</td>
<td><strong>3</strong> Legal framework issues (the lack of favorable legal environments guaranteeing energy prices or land rights are often obstacles to the stability of future business conditions)</td>
</tr>
<tr>
<td><strong>4</strong> Lack of technical know-how (knowledge of green financial technical and management approaches is often new for lenders and borrowers. Human capacities may need substantial shifts in skills, leading to a lack of qualified personnel on both the demand and supply sides.)</td>
<td><strong>4</strong> High monitoring costs (evaluation and validation of successfully achieved green benefits are often complex and require an increase in monitoring resources)</td>
</tr>
</tbody>
</table>

In general, inclusive green projects are perceived as more difficult to define, encompassing greater unquantifiable risks and having higher transaction costs and lower profitability.
GREEN CREDIT GUARANTEE SCHEMES FOR MSMEs

Smallholder farmers are also often resistant to adopting new and improved approaches to production and financial management. This has been exacerbated by the hollowing out of agricultural extension programs in many countries which were instrumental in cascading expertise and inputs.

This lack of structure also amplifies poor contractual compliance by many smallholders, which affects the predictability of repayment – typically the breach of offtake agreements when spot market prices exceed those contracted. This feeds into a cycle of distrust that makes it harder to structure value chains and capitalize for growth.

Where public finance is involved to enhance access to finance or subsidize borrowing costs, smallholders have been known to treat these loans as a form of grant finance – to be restructured infinitely at the slightest excuse. The strong role of farmers as a political lobby means that governments have often yielded to demands to write-off or restructure agricultural debt.

This has been linked to patterns of poor repayment levels by smallholders – some of which are due to exogenous factors, and while others relate to values and behaviors that negatively affect creditworthiness. Policymakers and development financiers commonly used CGSs to attempt to remedy the difficulties that smallholders find in accessing finance. They have often had limited success due to the same risks that impede loans from credit institutions – evident in consistently high default rates in agricultural CGSs. Indeed, defaults are typically significantly higher than for SME CGSs, which inevitably leads to unsustainable capital attrition.

CHALLENGES IN FINANCING SUSTAINABLE SMALLHOLDER AGRICULTURE

Sustainable agriculture was often noted as a priority area for AFI members in need of credit enhancements. Smallholder farmers in emerging markets remain one of the most financially excluded groups, despite repeated and far-reaching attempts to include them. The dire need to reform the sustainability of agriculture, as well as helping farmers adapt to profound climate change and other environmental degradation risks, add a new dimension to the question of financial inclusion for small holders. Building sustainability and resilience into agriculture is vital to the attainment of a range of Sustainable Development Goals.

For example, in Morocco and Ghana, sustainable agriculture is featured prominently as part of their national development goals. The following are some of the specific financing challenges faced by smallholders in accessing finance:

> Agriculture is generally considered quite risky and prone to catastrophic losses from natural disasters. This limits the appetite for agricultural risk assets, especially where market conditions make it difficult to diversify. Clearly, this situation is worsening due to the effects of climate change and environmental degradation - the latter often caused by unsustainable farming methods.  

> Financing agriculture through a traditional bricks and mortar distribution model has proved to be expensive and cumbersome compared to building urban branch networks. Many rural and agriculturally-focused financial institutions are under-capitalized, and have significant capacity challenges.

> The seasonality of so much agriculture can make crop financing a particular challenge. The logistical challenges of liquidity management in the sowing and growing seasons, and the anxiety of relying on large cash inflows post-harvest are intimidating for smaller and less sophisticated financial institutions with rural franchises.

> Many countries have not fully developed their land registration frameworks, streamlined their processes for the collateralization of smallholdings, improved the efficiency of realizing security, and maintained parallel systems of traditional land titles. This often makes it difficult for smallholders to pledge their land as effective collateral.

> In many developing markets, smallholders are often not well structured within value chains, meaning a great deal of value addition is often lost significantly, reducing profitability as well as increasing the costs for financial institutions to access markets.

Credit guarantees by themselves also cannot overcome policy regulations that deter investment in green lending (e.g. energy subsidies that make electrical energy projects non-viable). They also cannot overcome the weaknesses of technology providers or solve legal loopholes. On a general level, guarantees cannot address structural banking sector problems, such as liquidity constraints or inadequate financing sources (including tenor issues and the mismatch between short-term deposits and long-term project lending), nor can they address time lags between financial flows and debt repayment.

However, credit guarantees can enhance the collateral position of borrowers so that lenders can either provide lending where they otherwise would not or increase their debt exposure to a target borrower segment. A credit guarantee does not enhance a borrower’s credit risk profile, that is, the probability of a borrower defaulting on their loan obligation does not improve because of the credit guarantee.

Rather, the credit guarantee enhances the collateral position of the lender in a default scenario (measured by the loss given default), as it can claim on the credit guarantee.

The impact of Basel standards on capital costs has increased the importance of the probability of default measures, while the International Financial Reporting Standard (IFRS) 9 also has balance sheet provisioning requirements for banks regarding defaulting borrowers. A default scenario is one which lenders prefer to avoid and, for this reason, some lenders in more recent years have tended to focus on cashflow-based lending techniques (i.e. can the borrower pay the loan?) rather than pure collateral-based lending (i.e. can the lender enforce the security to pay back the loan if the borrower defaults?).

A credit guarantee instrument should therefore be seen as having limitations as it cannot improve a borrower’s credit risk, it can only improve the weak collateral position of a borrower. Therefore, it should be seen as one (limited) element in tackling the identified barriers of inclusive green financing.

20 Aldana, Braly-Cartillier & Shuford. 2014.

FIGURE 4: MSME CREDIT GUARANTEE SCHEME MODELS

Government-funded and managed programs that are set up to address national priority areas or international development goals.

Examples:
- Ministries (Finance, Commerce, Industry)
- Central banks
- Multilateral, bilateral and regional development banks

Hybrid schemes have public administrative oversight, but may outsource functions such as management, credit risk assessment, use of funds verification, or the recovery of defaulted loans.

May be set up as a private company with partial or full government ownership.

Typically a collective of independent businesses committed to granting a collective guarantee to credits issued to their members (i.e. mutual guarantee associations). They, in turn, take part directly or indirectly in the formation of the equity and the management of the scheme. Mutual guarantee associations can also receive public support.

Note: Irrespective of the scheme design model, there should always be a separate oversight role facilitated by the appropriate regulator.
do. They will likely suffer from moral hazard issues since borrowers are not pledging their own assets as in the case of an MGA arrangement. This is why the design of a public CGS is so important. If the lenders are not properly incentivized to undertake effective due diligence of borrowers, public schemes can take on too much risk and become financially unsustainable.

Regardless of their institutional structure though, the vast majority of CGSs are not for profit entities. The financial goals of CGSs are usually to recover operating costs with marginal profits being ploughed back to build up a capital reserve to cover future payouts. Avoiding ongoing subsidies and achieving financial sustainability is critical to a scheme’s success. This, however, requires a careful balancing between achieving policy goals and prudent financial management.

Whichever model is adopted, in all cases prudential oversight by a government regulator is required, and the licensing and supervision requirement may differ depending on the legal structure.

Public CGSs, for example, are often set-up based on specific legislation. In these cases, the guarantees that are issued will usually qualify as sovereign guarantees, thus supervision of the CGS by an independent agency of the government is important in mitigating any conflict of interest and maintaining prudent oversight.

Private and hybrid schemes are typically regarded as non-bank financial institutions or, more rarely, as insurance schemes and their establishment is subject to licensing from central banks or from other financial sector regulators. Their operations are also supervised by regulatory bodies to ensure that operations are in line with basic principles of financial prudence. This typically involves setting up rules for provisioning and ceilings on the volume of guarantees that can be issued in relation to the capital.24

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21 World Bank. 2015.
22 AFI. 2019.
23 Honohan. 2010.
24 Hamp, Rispoli & Agwe. 2014.
VARIOUS APPROACHES OF REGULATORS IN SUPPORTING SME CREDIT GUARANTEE SCHEMES

Existing credit guarantee schemes among AFI members have various design features. For example, Bank Al-Maghrib supports government financing programs that targets SMEs and individual entrepreneurs in urban and rural areas by integrating guaranteed loans to SMEs into its eligible collateral for refinancing operations and easing prudential requirements for these loans. The credit guarantee scheme is supported equally by Bank Al-Maghrib and the Moroccan government. It is designed to benefit early-stage project entrepreneurs and small and medium-sized enterprises by supporting their access to financing, in addition to promoting the economic and professional integration of workers in the informal sector.

The Central Bank of Solomon Islands has a partnership program with commercial banks, in which the central bank administers the SME credit guarantee scheme when claims are made, and funding comes from the Ministry of Commerce. The scheme can guarantee 90 percent of the total shortfall or unsecured portion of the loan provided by a participating financial institution, providing support to SME borrowers that would otherwise have insufficient collateral.

In Ecuador, the Superintendencia de Economía Popular y Solidaria (SEPS) supervises and controls a national microfinance credit guarantee scheme called the Corporación Nacional de Finanzas Populares (CONAFIPS) which has implemented a guarantee mechanism that seeks to facilitate the delivery of credits via cooperatives to entrepreneurs that do not have sufficient collateral, thus becoming a guarantor for the cooperatives.

In Cambodia, the Credit Guarantee Corporation of Cambodia Plc. provides a CGS that supports SMEs with limited collateral and provides them with collateral protection insurance to enhance their access to formal loans for both working capital and investment or business expansion. Known as the Business Recovery Guarantee Scheme, the CGS provides collateral of 70%-80% of the loan amount borrowed by businesses from participating financial institutions.
National Corporation of Popular and Solidarity Finance (CONAFIPS) is a public financial institution that provides refinancing and credit guarantees to the national network of cooperatives to pursue national policy objectives such as sustainability, gender inclusivity and climate disaster response.

The Ghana Incentive-Based Risk-Sharing System for Agricultural Lending (GIRSAL) guarantee scheme supports small farmer groups up to large corporates for agro-value chain and renewable projects. It also has an accompanying technical capacity building program for borrowers. The principal shareholder is the Ministry of Finance, with seed funding from the Bank of Ghana and the African Development Bank (AfDB).

The Credit Guarantee Corporation of Cambodia (CGCC) provides an SME Co-Financing Scheme for the SME Bank of Cambodia.

The Central Guarantee Fund (Caisse Centrale de Garantie) is a public-private corporation that provides credit guarantees for a broad range of priority sector lending such as renewable energy, agriculture adaptation, and disaster response.

The Jordan Loan Guarantee Corporation (JLGC), a private company with a 45% shareholding by the Central Bank of Jordan, provides credit guarantee support for industrials in renewable energy, energy efficiency, SMEs and microfinance, and offers preferred coverage to women-owned SMEs.

The Seychelles Energy Efficiency and Renewable Energy Program (SEEREP) is managed by the Ministry of Finance and administered by financial institutions. The ministry provides interest subsidies and partial guarantees on loans for MSMEs and households.

The MSME Credit Guarantee Scheme is a partnership between the central bank and the Ministries of Commerce and Finance. The program is considering mobilizing guarantees for climate-related disaster relief.
Respondents were asked if their institution (or the responsible institution in their country) were to administer a green credit risk guarantee scheme, what types of MSME financing products would they want to target and why. While several of the respondents were unsure what could be possible, there were some points worth noting:

- In Ecuador, CONAFIPS operates a retail lending guarantee program for individual borrowers and a wholesale lending guarantee program for cooperatives to provide credit support to end borrowers. There is the potential for both programs to incorporate "green" features in the future.²⁷

- The Jordan Loan Guarantee Corporation has a program in place which provides portfolio guarantees to banks to lend on their portfolio. Therefore, it is not product-specific, i.e. banks already have the freedom to take advantage of the guarantee program on any of their products, so when banks design new green products, the guarantee program will still be supportive.²⁸

- In the Seychelles, there are two CGSs of note, the SME Government Scheme (for MSMEs) and the Seychelles Energy Efficiency and Renewable Energy Programme (SEEREP) which focus on energy efficiency and renewable energy, based on annual revenue criteria. Both schemes are open to micro and small enterprises.

- The National Bank of Cambodia indicated that a future CGS should likely target working capital loans and trade finance for SMEs, and that sustainability and green topics are not yet well understood.

- In Morocco, Bank Al-Maghrib stated that it permits commercial banks to pledge SME loans as collateral for financing from the central bank. Additionally, banks can utilize the guarantee program to provide additional collateral for those loans.

- The Central Bank of Solomon Islands commented that qualifying loans in the SME Credit Guarantee Scheme (Collateral Guarantee) cover 90% of the unsecured portion whereby underlying loans can range from SBD50,000 - SBD1million (approximately USD6250 to USD125,000 equivalent) with a maximum guaranteed coverage of SBD300,000 (approximately USD37,250 equivalent).

- In Ecuador, the CONAFIPS credit guarantee fund provides guarantees with coverage up to a maximum of USD50,000 with 70% coverage for loans with a period up to 72 months. For returning migrants, guarantees can be provided for up to 90% of the loan amount. Another credit risk guarantee fund provides guarantees with coverage up to a maximum of USD400,000 with 80% coverage, facilitating access to credit for MSME entrepreneurs.

- GIRSAL, a non-bank financial institution in Ghana, currently provides support for loans that are typically USD5,000 to USD15million, noting that tenors and loan sizes depend on the lending FI. Loan transactions must meet the requirements of the guarantee fund and not only be based on the bank’s risk acceptance, which would indicate that there are additional compliance costs in administering the fund. GIRSAL indicated that it only provided guarantees in respect of feasible, new transactions (not necessarily new projects) that are agriculture-focused, stating that, “We normally look at existing businesses or applications that are new initiatives that seek to add value to their operations.”

- Lastly, the Seychelles Central Bank, suggested that its green CGS, the Seychelles Energy Efficiency and Renewable Energy Programme (SEEREP), has been relatively successful with 91 loans having been approved for a total amount of USD261,000 (as at December 2020) but it has not yet developed an ESG framework and is currently developing a roadmap as part of a national strategy and defining “green” for the purposes of financing.

²⁷ Available at: https://www.finanzaspopulares.gob.ec/
²⁸ Available at: https://www.jlgc.com/en
PORTFOLIO VS. INDIVIDUAL APPROACH

When considering CGSs to support inclusive lending, a distinction between individual (retail) and portfolio (wholesale) approaches is needed. An important consideration for inclusive approaches is the concept of portfolio guarantees.

A portfolio guarantee may be the only financially viable way to provide credit support with respect to individual loans for smaller loan amounts (i.e. loans made by MFIs, credit cooperatives, etc.) given the administrative costs of running a CGS (i.e. including the certification and validation of the use of funds). This is even more the case with green lending, as validation of the use of proceeds is often more burdensome.

Essentially, there are three possible guarantee approaches that a Green CGS can take:

GUARANTEES OF INDIVIDUAL LOANS

In the case of individual guarantees, the CGS usually conducts its own due diligence on the individual borrower, complementing the analysis performed by the banks. The credit guarantee is issued when both institutions have completed their respective due diligence process and approval is given.

GUARANTEES OF PORTFOLIOS

Portfolio guarantees cover a larger number of loans and are not applied on a case-by-case basis. The operation of a portfolio facility is usually governed by a framework agreement between participating FIs and the CGS. Portfolio guarantees can be applied to wholesale loans made by commercial banks to intermediary FIs (e.g. MFIs, credit cooperatives, etc.).

In this scenario, individual borrowers deal directly with an intermediary FI and disbursed loans that meet predefined criteria are automatically granted guarantees. This minimizes the administrative burden of the CGS, which performs periodic ex-post inspections to verify the FI's compliance with the framework agreement rather than having to undertake individual borrower level due diligence.

While the portfolio approach takes advantage of scale and diversification, moral hazard and capital efficiency becomes more of an issue since the intermediary FIs may include loans that they would have made anyway in the covered portfolio.

Also, the disconnect between the individual borrowers and fund agreed FIs means that the perceived benefits of using CGSs in reducing information asymmetry is somewhat lost. These problems can be tempered by applying strict criteria for loan eligibility, loan size, or project activity, but care must be taken not to verge into directed lending and to preserve the market-orientation of banks’ loan decisions.²⁹

²⁹ ADB. 2016.

FIGURE 6: INSTITUTIONAL STAKEHOLDERS ACROSS AFI MEMBERS

Which institutions are involved in the design, implementation, promotion or provision of MSME credit guarantee schemes in your country?

<table>
<thead>
<tr>
<th>Institution</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central bank</td>
<td>11%</td>
</tr>
<tr>
<td>National government</td>
<td>9%</td>
</tr>
<tr>
<td>Commercial financial institutions</td>
<td>6%</td>
</tr>
<tr>
<td>State/national/development</td>
<td>4%</td>
</tr>
<tr>
<td>International donor agencies</td>
<td>3%</td>
</tr>
<tr>
<td>Private/nmutual guarantee</td>
<td>2%</td>
</tr>
<tr>
<td>Ficro Finance Institutions</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: AFI, 2021 IGF Annual Survey

FIGURE 7: TYPES OF CREDIT GUARANTEE SCHEMES ACROSS AFI MEMBERS, %

Are there any credit guarantee schemes that support inclusive lending in your country?

- Yes (for MSMEs) 14%
- Yes (for agriculture) 23%
- Yes (for other sectors, e.g. women, entrepreneurs, start-ups, etc.) 32%
- In the exploration process 5%
- No 27%
HYBRID GUARANTEES
A hybrid guarantee is a combination of individual and portfolio guarantees. A hybrid framework agreement has the advantage of policy support for lending to specific sectors or populations that can be more broadly targeted. The qualifying guarantees are then just issued either on a portfolio or individual basis depending on the specified criteria (i.e. loan amount).

In operational terms, the administration of the individual approach is comparatively more intensive and would be expected to generate higher operating costs for the CGS. However, although individual guarantees are more expensive to facilitate, they can add value to the screening process. For cost efficiency reasons, portfolio guarantees are more common for microfinance and small enterprise lending, whereas individual guarantees may be more appropriate for larger loans such as those for medium-sized enterprises.

Due diligence conducted by the CGS typically involves reviewing different aspects from those analyzed by banks, with the latter focusing primarily on traditional financial analysis and the former paying more attention to “intangible” factors (e.g. reputation and professionalism of borrower). The two approaches may coexist within the same CGS, with certain types of borrowers being treated through wholesale (portfolio) approaches and others through retail (individual) approaches.

COVERAGE AND LEVERAGE RATIOS
The coverage ratio is the portion of a loan that is covered by a guarantee. In reality, there are only a handful of credit guarantee schemes found globally that cover 100 percent of the loan. Most CGSs will cover a portion less that 100 percent and thus most guarantees are actually partial guarantees.

Guarantee losses that are shared equally between the lender and the guarantor are called “pari-passu”. However, sometimes schemes are designed with a first-loss facility, which can absorb up to 100 percent of the loss. How those covered portions are ultimately paid out by a guarantor will depend on the specific risk-sharing principle in a guarantee agreement.

30 Hamp, Rispoli & Agwe. 2014.
With a “first loss” guarantee, if the primary borrower defaults (i.e. MSME or MFI), the lender can claim directly against the guarantor, without first seeking to enforce its claims against the borrower. In other words, the beneficiary of the guarantee is not required to undertake enforcement actions against the borrower.

Under a “final loss sharing”, the lender must seek to enforce its claims against the borrower before being able to enforce its claims against the guarantor. In other words, there is a conditional precedent that must be satisfied before the lender is able to turn to the guarantor for payment.

Regardless of which type of loan guarantee (first loss or final loss) is used, a fee will usually be charged to the borrower either upon the initial granting of the guarantee or for portfolio guarantees, an annual fee is common to access the CGS. Depending on the design, there may also be additional, specific requirements that apply to a green CGS that may include screening, verification of the loan’s purpose, administration and confirmation that the use of loan funds is consistent with the aims of the underlying green CGS. These requirements may increase the administration and funding costs that a borrower incurs in participating in such a green CGS.

MEASURING AND MONITORING RESULTS

The importance of effective monitoring of CGSs cannot be overstated. Regular measuring of results is critical to ensuring that inclusive green policy goals are being addressed and that the schemes are financially viable. Monitoring tools should be designed as a way to provide feedback on CGS programs to improve results during their implementation rather than ex-post, so that any problems or abuses can be mitigated before a scheme fails.

The experience of CGSs globally is that, without close monitoring, there is a tendency for financial institutions to take advantage of loopholes or lack of oversight. This would be a particular risk in emerging and developing economies where capacity for close monitoring is limited. To achieve a positive impact, management of a CGS must respond to specific and well-established demand and pursue clear and measurable objectives that can be monitored. Without such procedures, the professional management and long-term viability of the fund is at severe risk.

The three primary monitoring and evaluation aspects noted are:

I. **Financial additionality**: the increase in loan volume (and often loan conditions) for targeted borrowers as a result of the scheme.

II. **Economic additionality**: the effect of increased access to finance. This could include, for example:
   a. At the business level - increased sales, investments, or innovations of supported MSMEs
   b. At the employment level - i.e. the number of women employed
   c. At the environmental level - increased resilience to climate change effects, measurable reductions in pollution, or adaption and conversion to renewable inputs of production or technologies (i.e. photovoltaic energy usage, recycling, etc.)

III. **Financial Performance**: This is the ability of a CGS to cover its costs while increasing leverage towards its target group. This requires reporting on the efficiency and health of the scheme’s portfolios and will need to employ financial reporting metrics such as loss rates, recovery rates, guarantees at risk, operational efficiency KPIs, and portfolio quality metrics.

A green CGS should achieve both additionality and financial sustainability (performance) goals concurrently to be considered successful.

If a scheme fails due to financial insolvency, this can cause significant financial loss for participating FIs and create financial stability issues in the system. If a scheme fails to deliver additionality, it is an inefficient deployment of economic capital that could have been used elsewhere (creates an opportunity cost for the supplier of the scheme’s capital), there is also the risk that it creates unfavorable market distortions and disrupts productive commercial business.

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32 Aldana, Braly-Cartillier & Shuford. 2014.
WHAT WORKED WELL DIFFERED BETWEEN INTERVIEW RESPONDENTS

The respondents were asked how well credit guarantee schemes worked in their respective countries. Five out of seven respondents commented that they considered their credit guarantee schemes to be operating successfully although the Central Bank of Solomon Islands (CBSI) mentioned difficulties with limited uptake which, following a transformation exercise, resulted in a more successful rollout:

“In 2016 to 2017, the CBSI noted that there was very low uptake of approved small medium enterprise (SME) loans from commercial banks. In response, in 2018, the MSME working group revised the scheme. Significant changes were made following the revision; a rebranding of the scheme name from Micro Small Business and Medium Enterprise (MSME) to the Small Medium Enterprise (SME) Credit Guarantee Scheme was one example. A review of the SME Credit Guarantee Scheme was also recommended to extend financial service providers to credit institutions and the Development Bank of Solomon Islands (previously only the banks were participating). Another other major change was a streamlined process for paying the guarantees.

Initially, the mechanism for paying out guarantees relied on a bureaucratic process that required banks to provide proof of legal proceedings against the borrower to possess collateral. The revised recovery process goes through the legal officer of the commercial bank who advises the central bank of a claim against the guarantee - it should be a default >90 days past due with all recovery efforts having been undertaken under the requirements of the Financial Services Partnerships agreement.”

GIRSAL commented that rigorous proactive monitoring is the key to avoiding pay-outs on the guarantees. The participating financial institution monitors individual transactions on a daily basis and will become aware of potential defaults early on. The first-loss payee under the arrangement is always the bank. If a guarantee is claimed, then the bank sells security providing the proceeds to reduce GIRSAL’s exposure after the pay-out. GIRSAL further noted that if non performing loans decline, then CGSs can effect more successful changes, but that there should be measurable impacts from their provision.
REGULATORY TREATMENT

A very important factor to incentivize uptake of CGSs is how local regulations treat guaranteed loans on the balance sheets of banks. As introduced in the Basel II accord - the calculation for capital requirements for credit risk allows for the recognition of guarantees to reduce the capital charge paid by lenders. This is due to the effect of transferring credit risk from the borrower to the guarantor. Assuming the probability of default of the guarantor is lower than that of the borrower, a guaranteed transaction should require a lower capital charge, thus, lowering the lender's funding costs for that particular transaction. This in turn may incentivize lenders to extend more credit to segments that are covered by the guarantor.

For jurisdictions that have not fully adopted the Basel standards, the capital adequacy requirement for lenders should be aligned with this concept, otherwise, one of the main perceived credit risk mitigation benefits of CGs will not translate to any regulatory capital relief from the supervisory authority.

ACCOMPANYING CAPACITY BUILDING FOR GREEN PROJECTS

Accompanying capacity building measures are a common feature of CGSs and are especially critical for the implementation of green CGSs. Technical assistance helps overcome some of the most common non-financial barriers faced in green projects, such as the lack of understanding and expertise on the part of lenders and lack of awareness or financial and technical readiness on the part of borrowers. Capacity building programs can target the supply and demand side of credit provision.

For FIs, capacity building programs that support the credit risk assessment process are especially useful in the short run, as lenders often need to learn about risks specific to the green segment that were previously misunderstood or not considered. As lenders build up in-house skills, they should be able to better understand and price risk in these segments and eventually no longer need to rely on guarantees to offset the unknown risks.

For borrowers, capacity building can be offered to MSMEs, for example, to help them design financially viable projects that will attract adequate financing and raise awareness of the benefits to the market segment. Examples include training programs on sustainable agro-practices and the benefits and characteristics of energy efficiency projects, including enhancing skills on project siting, conducting energy audits or environmental impact assessments, working with local stakeholders, and developing a business plan.

Capacity building programs should be customized to the specific needs of the local situation and can also be used to assist in developing appropriate contracting, validation and accreditation processes.

Overall, well-designed accompanying measures benefit the FIs, borrowers, and stakeholders by raising awareness regarding the social and economic benefits of green market segments and building acceptance of a guarantee scheme.

TRANSITION AND EXIT STRATEGIES

As green segments mature over time, it is expected that even without guarantees, FIs would become willing to provide lending to micro, small and medium enterprises, as information, knowledge and economics improve. A certain amount of turnover of participants in the schemes should be anticipated as borrowers grow their businesses and mature, and new ones enter the market. In instances where the target market segments are stable or static, CGSs should be evaluated to determine if they need to be terminated or redeployed to other segments. During the design phase of a CGS, the relevant criteria for such objectives should be carefully considered, and regular monitoring and assessment of the CGS policy objectives should be undertaken to ensure its mandate is being followed.

33 When guarantees are recognized, the loss given default component of the risk weighting calculation for determining the risk weighted assets is reduced for the collateralized portion of an exposure and the unsecured portion.

34 Studart & Gallagher. 2018.
IMPLEMENTATION CONSIDERATIONS AMONG AFI MEMBERS
ABILITY TO PRICE RISK FOR GREEN TRANSACTIONS

As financial institutions seek to become effective managers of environmental and social risk, lenders and guarantee providers need to quantify sustainability factors across sectors and effectively put in place the tools and processes needed to price risks and take advantage of opportunities. At the same time, they must ensure that their operations are aligned with the demands of external stakeholders.

Responsibility for due diligence of any loan application covered by a guarantee scheme can rest with the lender or guarantor, or both. Clearly, the capability of either party is important to the allocation of this responsibility, as is the willingness to allow the other party to undertake the assessment. In principle, the party with the most to lose in the event of default should perform the loan assessment.35

In most of the interviewed AFI jurisdictions, it was noted that the technical capabilities of financial institutions to understand the credit risk associated with specific green transactions is extremely limited. Four respondents did not indicate any capability of understanding such credit risk in the banking sector, with one interviewee stating, “Credit departments of banks are not willing to take enough risk. There is a need to balance exposure to credit risk and capital. Banks are aware of the need to ensure a focus on probability of default issues.”

Therefore, it not surprising that trends from AFI member interviews and surveys showed that the provision of credit risk guarantees to finance specific green segments is also at a very early stage of development.

From a public policy point of view, the appropriate pricing of state-provided credit guarantees is a critical point. When a guarantee is not correctly priced, there is distortion in the allocation of finance within the economy. If lending increases, the associated risks have merely been transferred to another party. There is no change to the probability of loan losses. In the case of any additional loan losses, that cost is ultimately transferred to the taxpayers (or in the case of international donors, they will absorb any losses and the opportunity cost of less funding for other initiatives will be borne by the population).36

FIGURE 8: SECTOR DEMAND FOR CREDIT SUPPORT ACROSS AFI MEMBERS

<table>
<thead>
<tr>
<th>Sector</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>18</td>
</tr>
<tr>
<td>Services</td>
<td>11</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>8</td>
</tr>
<tr>
<td>Trade</td>
<td>7</td>
</tr>
<tr>
<td>Energy</td>
<td>6</td>
</tr>
<tr>
<td>Transport</td>
<td>6</td>
</tr>
<tr>
<td>Do not know</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: AFI, 2021 IGF Annual Survey

35 ADB. 2016.
36 ADB. 2016.
APPETITE FOR GREEN PROJECTS

Agriculture and renewable energy, and energy efficiency projects were noted as having the highest priorities for sustainable investment in AFI member jurisdictions. Other green segments indicated were recycling, transport (i.e. electric and hybrid), forestry, biodiversity and conservation. Jordan was noted for supporting projects with an energy savings component as imports of oil and energy make up about 20% of GDP.

In terms of the feasibility of financing different green segments, it was noted that while renewable energy projects are often a high priority, these are usually large projects that smaller entrepreneurs and SMEs would not undertake.

The Central Bank of Solomon Islands has identified and expressed their interest in green segments such as renewable energy (particularly solar-related) and other energy efficiency programs, further suggesting that a future CGS may focus on the forestry and solid waste management and treatment sectors, as well as other renewable energy sources and energy efficiency.

Further, the Central Bank of Seychelles suggested a risk appetite for renewable energy (solar and wind), municipal waste, sustainable agriculture, forestry, biodiversity, natural conservation, and transportation (electric and hybrid).

GIRSAL (Ghana) focuses mainly on agricultural-related project lending but would consider exposure to other types of green transactions, for example, in renewable energy projects that their agriculture SME clients may want to undertake (i.e. upgrading to small solar plants for meeting energy needs), but these would need to be developed on a case-by-case basis.
CONSIDERATIONS FOR ADAPTING EXISTING CREDIT GUARANTEES SCHEMES FOR GREEN PROJECTS

Jordan’s JLGC noted there are two key steps to approving its CGS transactions, first, considering if the transaction is technically feasible, and second, if it is financially feasible. Compliance with regulatory issues, including with an environmental and sustainability plan, should be and are integral to assessing the technical feasibility of their client projects.

The JLGC also stated that a renewable energy fund provides an interest rate benefit of 0.5% to banks that finance renewable energy projects alongside their guarantee product. This is a key accompanying benefit that drives borrowing, however, such transactions must have the capacity to meet future debt servicing requirements.

Respondents were asked about the perceived risks in being associated with implementing a green credit risk guarantee scheme under existing schemes and how those risks would be mitigated. Three of seven respondents were unsure, however Morocco’s central bank, Bank Al-Maghrib, stated that the “risks include the technical feasibility of green projects and financial feasibility for banks and entrepreneurs with investing in green smaller projects.”

There is need for a risk/return profile of green projects, while Ecuador’s CONAFIPS commented that this can be accommodated as “risk is shared with other cooperatives”. CONAFIPS suggested that factors affecting the feasibility of lending were definitely project profitability and the ability to access lower cost financing facilities (i.e. subsidized interest costs).

Ongoing due diligence of a green loan is a challenge according to JLGC. For the National Bank of Cambodia, the main risk associated with a green credit risk guarantee scheme is default risk while guarantees do not (and should not) cover 100% of the risk. There is also a reputational risk associated with paying out on a credit guarantee, therefore, lenders may, if appropriate, agree to forgive interest on the outstanding loan amounts to alleviate the financial burden.

FACTORS THAT MAY INCREASE GUARANTEE SCHEME UTILIZATION

The interview research uncovered several different reasons why credit guarantee schemes may not have been successfully utilized in their jurisdictions. Morocco’s Bank Al-Maghrib suggested that commercial banks lack credit risk skills for green transactions while the Central Bank of Solomon Islands (CBSI) initially encountered a limited uptake with its credit guarantee scheme as bank lending criteria for business loans was not aligned with the country’s financial inclusion policy - the certification process had to be revised to enable SMEs to access the guarantee scheme. However, it found that having an advisory center to assist SMEs in building capacity is an important feature, stating that “capacity building should be bank-ready and able to meet the document requirements of the banks”.

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HOW INCLUSIVE GREEN GROWTH IS SUPPORTED BY JORDAN’S LOAN GUARANTEE CORPORATION

The government of Jordan, as noted earlier, launched their NGGP in 2016, identifying the most urgent projects in water, sustainable land management, energy efficiency, resource efficiency and renewable energy. As part of that plan, loan guarantees through various mechanisms from international development agencies and the Jordan Loan Guarantee Corporation (JLGC) were identified to assist SMEs in the country de-risk business loans to develop the green economy.\(^{37}\)

The JLGC,\(^{38}\) an active loan guarantee provider in Jordan since 1994 with a mandate to engage in financial inclusion at large and enhance lending to SMEs, was set up as a public shareholding company with the majority of its shares held by the Central Bank of Jordan (CBJ).

Energy costs in Jordan currently comprise about 20% of GDP, therefore, a special emphasis is placed on energy saving programs to reduce this significant cost burden.

Additionally, there is a desire for Jordan to transition from being dependent on oil for energy to focusing on renewable energy sources.

To support this policy goal, the Jordan Renewable Energy and Energy Efficiency Fund (JREEEF)\(^ {39} \) was created in 2012 at the Ministry of Energy and Mineral Resources (MEMR). JREEEF supports programs and financial mechanisms allowing renewable energy and energy efficiency projects to get financing support from banks, which includes loan interest rate subsidies, revolving funds, financial risk mitigation, credit guarantees, and various investment subsidies.

The JLGC plays a critical role by supporting SMEs and larger corporates who participate in the program with credit guarantees. Borrowers receive loan funds at subsidized rates, while banks receive the benefit of JLGC’s loan guarantees free of charge. This is a collective approach to support green technology across Jordan’s economy.

Other loan guarantee programs for SMEs are offered by the JLGC, including one which supports the Jordanian economy as a result of the global Covid-19 pandemic. This is an initiative of the CBJ in which the JLGC coordinates and provides qualified credit guaranteed transactions. The JLGC credit guarantees programs provide loan coverage ratios ranging from 70% to 85% of the loan value, consistent with the targeted outcome of each loan guarantee program. Other financial inclusion areas are addressed, for

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20% Energy costs in Jordan currently comprise about 20% of GDP, therefore, a special emphasis is placed on energy saving programs to reduce this significant cost burden.

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\(^{37}\) Available at: https://www.greengrowthknowledge.org/sites/default/files/files/NGGP_Jordan.pdf

\(^{38}\) Available at: https://www.jlgc.com/en

\(^{39}\) Available at: http://jreeef.memr.gov.jo/En/Pages/About_JREEEF
example, with a microfinance guarantee program that targets small productive and income-generating loans (industry, professions, crafts, trade, services and communications) that has a 70 percent coverage ratio, and provides a special coverage benefit of up to 80% for projects that either owned or managed by women.

EXPERIENCE WITH ASSESSING CREDIT RISK
The JLGC notes that in assessing credit risk, banks and fund providers usually consider the overall cashflow of a company to make a credit decision. That is, they consider a borrowing company’s capacity to meet future repayment obligations. Banks will typically consider the loan guarantee provided and the financial implications of a project. Interestingly, the JLGC specifically notes that it does not assess the credit risk of a loan transaction after the bank has made a credit decision, i.e. it does not take part in any credit decision process of individual loans, nor does it provide any guidance as to individual lending decisions.

EXPERIENCE WITH RENEWABLE ENERGY DUE DILIGENCE
Small-medium sized enterprises (SMEs) may apply to the JLGC for loans with respect to solar energy and energy efficiency as it is scalable and capable of meeting energy needs. JREEF has its own accreditation of implementing agencies specialized in the installation of renewable energy, mainly solar. However, the JLGC does not undertake any technical due diligence itself, instead, relying on expert third parties.

The JLGC also has its own green credit guarantee program, a standard declining loan balance guarantee product which is provided through CBJ-licensed banks. Loan guarantees that are provided for MSMEs can have tenors of up to eight years. But if the underlying loan purpose is working capital finance, tenors are limited to 24 months given that underlying loan sizes are sector-specific.

The over-riding requirement by the JLGC is to assess that the borrower has the capacity to repay the loan that it guarantees - and lending for a green purpose does not mean that a company’s other loans also need a green purpose. The JLGC doesn’t provide loan guarantees for companies that specialize in energy production as the technical due diligence would be problematic.

BANK IMPACTS
The JLGC believes there are challenges with respect to risk-sharing with banks. From a bank regulatory capital perspective, loan guarantees from the JLGC are treated as equivalent to cash collateral. However, Jordanian banks generally do not consider the benefit of loan guarantees when setting loan pricing for clients. That is, banks do not pass on the benefit of JLGC loan guarantees (which are treated as equivalent to cash collateral) to the pricing of their loans. It is, however, recognized that there are some successes in providing better access to bank financing for clients that may not have access without such a loan guarantee.
SUPPORTING AGRICULTURE FINANCE IN GHANA: GHANA’S INCENTIVE-BASED RISK-SHARING SYSTEM FOR AGRICULTURAL LENDING

The lack of financing as well as climate change risk have been identified as major challenges for the agriculture sector in Ghana. In 2014, as a result of a national stakeholder forum, the Central Bank of Ghana (BoG) in collaboration with the Ministry of Agriculture, and with technical support from the Alliance for a Green Revolution in Africa (AGRA), established GIRSAL as a vehicle to leverage the agricultural lending of financial institutions in Ghana.

GIRSAL is a non-bank financial institution incorporated as a private company in Ghana, with a core objective to de-risk agricultural financing by financial institutions by issuing agricultural credit guarantee instruments together with a policy goal of enhancing the total amount of credit to the agricultural and agribusiness sectors. GIRSAL received seed funding from the Bank of Ghana and the African Development Bank and its principal shareholder is the Ministry of Finance.

GIRSAL’s medium to long-term goal is to double the percentage of lending by the banking sector to the agriculture sector in five years, from 3.4 percent (as of September 2015) to 6.8 percent, and to quadruple total lending to the agricultural sector by 13.6 percent in 10 years.

GIRSAL focuses mainly on agricultural project-related lending but is considering exposure to other types of green or sustainable transactions (i.e. renewable energy, especially solar) as demanded by their agriculture clients on a case-by-case basis. GIRSAL considers both technical and financial risk. If the technical risk is too great (i.e. vulnerability of the funding purpose to climate change) then a transaction will not be further assessed. It was noted that there is a deep need to get the financial incentives right before being able to tackle more difficult-to-quantify climate risks. Currently, the local market is not demanding many green products, and therefore, there is not yet much demand for specific green credit guarantees.

While GIRSAL can support borrowers, from small farmer groups to SMEs, it is not limited and can lend...
to large corporates as long as the loans meet its objectives (e.g. agricultural lending in specific value chains).

Transaction sizes typically range from USD5,000 to USD15 million, noting that tenors and loans sizes depend on the lending FI. Transactions, however, must meet GIRSAL’s strict requirements, not just the bank’s internal risk acceptance. GIRSAL has developed strong capabilities to assess credit risks, for example, applications for guarantees are strictly assessed according to internal criteria and are often declined (roughly three out of 10 are rejected). The risk assessment of borrowers includes basic checks such as compliance with environmental standards, having the necessary permits, and assessing other potential negative externalities. The coverage is capped at 70%, depending on the results of the risk assessment.

Payouts are very strictly controlled, as GIRSAL has an internal due diligence process that is independent of participating banks, monitors individual transactions on a daily-basis and becomes aware of potential defaults as soon as the lenders do. In the event that loan repayments are delayed, the preference is always to help banks restructure loans with the client to prevent moral hazard.

The first-loss payee under the arrangement is always the bank in this program. GIRSAL staff are in constantly close communications with the bank through the default process. Following a loan default and a guarantee payout, if there is a subsequent performance of the loan or a sale of the collateral, GIRSAL can take action to recover the guarantee payout.

One of the other key features of GIRSAL is the success of their technical assistance facility, which acts as a bridge to bring borrowers and lenders together. On the supply side, it helps banks to understand the nuances of agriculture in Ghana, while on the demand side, it helps agriculture-related MSMEs understand financing pre-requirements and due diligence procedures, as well as matching them with potential lenders.

The BoG believes that its involvement in the sector can help change the perception of risk in agriculture and motivate more investments in Ghana’s agriculture sector.
What is apparent from the AFI membership surveys and interviews is that the green and sustainable finance policies and enabling regulations that are needed to promote inclusive green lending (and by extension, CGSs that support such lending) are at the very early stages of development. The research underscores that capacity building to improve credit risk assessment skills for green transactions (such as through training and workshops) and operational experiences gained from existing CGSs will be important success factors for implementing green CGSs for MSMEs.

Once green finance policies and guidelines are in place, opportunities to kickstart green lending include adapting existing CGSs and leveraging regional and international donor-driven schemes that support green financing for MSMEs.
ABILITY TO PRICE RISK FOR GREEN TRANSACTIONS

At the macro-policy level, there are some enabling pre-conditions which should be addressed while considering the implementation of a green credit guarantee scheme for MSMEs:

> In developing green markets and businesses (sometimes referred to as a “green growth” strategy), policymakers often focus only on the role of larger companies and banks in financing and implementation, when they should be more explicitly considering the role of MSMEs in contributing to national targets both with regards to mitigation and adaptation.

> Ensure that there is adequate guidance for FIs to have a common understanding of which specific business enterprises are being targeted under national financial sector policies (i.e. under a National Financial Inclusion Strategy). Formal definitions of lending segments may be required.

> Make sure that FIs have a common understanding of what constitutes green activities, which are normally in line with the national financial sector policy goals (i.e. under a Sustainable Finance Roadmap). To this end, some form of a sustainable or green taxonomy will be required for defining national categories of economic activities that can be classified as “green”.

> A supportive green activity verification framework for borrowers will be necessary to ensure that proceeds of green lending are deployed in accordance with nationally recognized green standards.

> Ensure the regulatory capital calculation for risk weighted assets is properly calibrated to reduce risk weighting of loans that are guaranteed. This lowers the cost of capital for respective loans and incentivizes banks to extend more credit.

The interview research and survey provided a consensus on a number of points as well as insights for supporting green financing of MSMEs. During the interviews, AFI respondents were asked about which design elements they believe are important for a green credit guarantee scheme to succeed. The most common themes were:

> Building-up the technical expertise of both regulators and commercial banks to assess the inherent risks in green transactions.

> Ensure the scheme’s green standards and definitions are well-aligned with national guidance.

> Create demand by raising awareness of climate change risks and mitigation and adaptation strategies with MSMEs.

> Promote the scheme and provide training and workshops to support the interactions between borrower and lenders.

> Create KPIs for both financial performance and policy progress.

> Be aware of being overly ambitious at the outset, start small and learn.

> Allow policymakers and regulators to develop their own manuals and processes and give some flexibility to the local operating environment.

> Manage the scheme’s operational costs very carefully (ensure good governance), beware of overly burdensome bureaucratic procedures that may lead to underutilization.

> Try to build the capital base of the scheme over time so that operations are not totally dependent on fees.

| Knowledge/know-how/resource capacities | 15 |
| Lack of “green” definitions | 14 |
| Regulatory environment | 10 |
| Funding availability | 10 |
| Political/public appetite | 9 |
| Do not know | 2 |
| Lack of awareness of climate change | 1 |

Source: AFI, 2021 IGF Annual Survey
ROLE FOR CGSs IN SUPPORTING GREEN AGRICULTURAL VALUE CHAINS

As small-scale agricultural projects were continually flagged by AFI members as an area demanding credit support and sustainability reform, the following are some considerations when designing green CGSs to support smallholder agriculture:

- Work along value chains reinforcing sustainability rather than across smallholders as a cohort. Gaining a deep understanding of a specific value chain significantly reduces the risks of asymmetric information. CGSs will understand the major players and flows of cash that underpin the value chain.
- Identify value chains that either have (or have the potential for) some sophistication and value addition. Typically, they will involve significant levels of input and agrovet supplies, transport and cold chain logistics, grading and trading, processing and packaging, wholesaling, retail and exports. There are also likely to be opportunities to identify creative sustainable interventions.
- Develop smallholder supplier and buyer partial finance guarantees with major suppliers and buyers who provide trade credit with a sustainable element. There is usually no better partner placed to assess creditworthiness than one with an active trading track record with smallholders.
- Establish close links with private sector development programs that are strengthening and reinforcing the sustainability of agriculture value chains through activities such as promotion of producer and processor co-operatives, out grower schemes, or general agricultural extension services. As well as productivity, leverage the comfort of group guarantees, which is particularly feasible in the case of well-functioning cooperatives.
- Consider approaches to develop more products based around movable property lending rather than fixed asset collateral, particularly land. This includes the potential for warehouse receipts and other forms of commodity finance.
- Use insurance to mitigate catastrophic physical risks where possible, both for the CGS at a portfolio level, as well embedding or incentivizing suitable insurance into guarantee products for clients.
- Identify partner finance institutions that have the right culture and competencies to successfully access and utilize the CGS and consider supplementing technical assistance where capacity gaps are evident. Ensure that the full suite of the financial system’s infrastructure is correctly applied, notably the credit bureau and collateral registries.
APPENDIX A

AFI INCLUSIVE GREEN FINANCE ANNUAL SURVEY (2021)

The second edition of the IGF Survey was launched in June 2021. The objective of the survey was twofold:

1. To track financial inclusion policymaking progress on IGF policies and look at how AFI MU could support such initiatives and their implementation.
2. To gather the information that will be used in developing ongoing knowledge products.

This survey, targeted at the entire IGFWG membership, was completed by the following 29 member institutions:

- Banco Nacional de Angola
- Bangladesh Bank
- Royal Monetary Authority of Bhutan
- Banque de la République du Burundi
- National Bank of Cambodia
- Superintendencia General de Entidades Financieras de Costa Rica
- Superintendencia de Bancos de Ecuador
- Superintendencia de Economía Popular y Solidaria de Ecuador
- Central Bank of Egypt
- Banco Central de Reserva de El Salvador
- Centre for Financial Inclusion of Eswatini
- Reserve Bank of Fiji
- Bank of Ghana
- Central Bank of Jordan
- Central Bank of Liberia
- Maldives Monetary Authority
- National Banking and Securities Commission of Mexico
- Banco de Moçambique
- Financial Regulatory Commission of Mongolia
- Bank Al-Maghrib
- Palestine Monetary Authority
- Bank of Papua New Guinea
- Bangko Sentral ng Pilipinas
- Central Bank of Samoa
- Bank of Sierra Leone
- Centrale Bank van Suriname
- Bank of Tanzania
- Central Bank of The Gambia
- Banco Central de Timor-Leste

APPENDIX B

AFI GREEN CREDIT GUARANTEE INTERVIEW SERIES (2021)

Qualitative interview research was undertaken. The nature of the research topic on credit guarantees for green and inclusive segments is specialized and covers information that requires subject matter expertise. The research itself was small in scale which lent itself well to an interview approach.

A non-probability sampling technique called purposive sampling was used. Non-probability sampling means that the sample is not statistically representative of the population. Rather, the researcher’s judgment is used to build-up a sample to satisfy the research needs of the project.

The research follows the “grounded theory” approach which emphasizes the generating of theories rather than their testing. Grounded theory also focuses on the collection of data to support real world scenarios by using empirical data to generate theories.

The interview data was analyzed to facilitate extracting references and quantifying the frequency of pertinent comments and inferences using the constant comparative method. Key relationships between the coded data are then further identified via axial coding. Eventually, the most significant categories of data were identified via selective coding. This approach to coding is consistent with the grounded theory approach which uses the constant comparative method to analyze data via a continual validation of coding, categories and concepts as they emerge.

The sample consists of seven subject matter experts with a strong professional understanding of sustainable finance. These research interviewees were selected specifically on the basis of their relevance to the research as is consistent with purposive sampling. The interviewees included four central bank or regulatory authority representatives and two guarantee fund managers:

- Bank Al-Maghrib (Central Bank of Morocco)
- National Bank of Cambodia
- Superintendencia de la Economía Popular y Solidaria de Ecuador (SEPS) & Corporación Nacional de Finanzas Populares (CONAFIPS)
- Ghana Incentive-Based Risk-Sharing System for Agricultural Lending (GIRSAL)
- Jordan Loan Guarantee Corporation (JLGC)
- Central Bank of Seychelles (CBS)
- Central Bank of Solomon Islands (CBSI)
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>4Ps</td>
<td>Four Policies: Promotion, Provision, Prevention and Protection</td>
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<tr>
<td>AfDB</td>
<td>African Development Bank</td>
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<tr>
<td>AFI</td>
<td>Alliance for Financial Inclusion</td>
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<tr>
<td>AGRA</td>
<td>Alliance for a Green Revolution in Africa</td>
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<td>BIS</td>
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<td>Bank of Ghana</td>
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<td>CG</td>
<td>Credit Guarantee</td>
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<td>CONAFIPS</td>
<td>Corporación Nacional de Finanzas Populares (Ecuador)</td>
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<td>National Financial Inclusion Strategy</td>
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