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SME and Entrepreneurship Financing: The Role of Credit Guarantee Schemes and Mutual Guarantee Societies in supporting finance for small and medium-sized enterprises

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SME and Entrepreneurship Financing: The Role of Credit Guarantee Schemes and Mutual Guarantee Societies in supporting finance for small and medium-sized enterprises

Final Report

This document contains the final report on "SME and Entrepreneurship Financing: The Role of Credit Guarantee Schemes and Mutual Guarantee Societies in supporting finance for small and medium-sized enterprises". It is part of the WPSMEE Programme of Work and Budget for 2011-2012 in the area of SME and entrepreneurship financing.

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ABSTRACT

Credit Guarantee Schemes (CGSs) are a widely used policy tool to ease access to finance by SMEs, which, in some countries, ramped up in the aftermath of the 2008-09 financial crisis. The present study aims to improve understanding about the role, impact and sustainability of CGSs, by investigating their characteristics along several dimensions, such as the ownership structure and funding, the legal and regulatory framework, and the operational characteristics of the schemes, including types of services, eligibility criteria, guarantee assignment process and credit risk management. The study explores these dimensions, using detailed examples from OECD countries and non-OECD economies. It identifies structural and emerging challenges for the financial sustainability and the financial and economic additionality of these schemes, in a rapidly changing economic and regulatory environment. The study investigates in particular the case of Mutual Guarantee Schemes, which are created by borrowers in order to improve their access to finance.

JEL codes: G21, G28
Keywords: SME Finance, Credit Guarantees, Mutual Guarantee Schemes, Financial Crisis

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EXECUTIVE SUMMARY

In many countries, Credit Guarantee Schemes (CGSs) represent a key policy tool to address the SME financing gap, while limiting the burden on public finances. SMEs and start-ups are typically limited in their capacity to access credit because of under-collateralisation, limited or no credit history and, often, lack of expertise needed to produce sophisticated financial statements. The information asymmetry that exists between the firm and the potential lender implies the latter attributes a high risk of default to the borrower and, in the absence of adequate collateral, eventually results in a partial or negative response to the credit demand. The credit guarantee mechanism is a commonly used response to this market failure. By protecting a part of the requested loan with a guarantee, the CGS reduces the risk of the lender and favours the provision of financing to viable businesses that are credit constrained.

In some OECD countries, CGSs have been an instrument of choice for policy makers to improve access to finance by SMEs and entrepreneurs in the recent global financial crisis. In several non-OECD economies, CGSs have also developed rapidly as a mechanism to expand credit markets and improve financial inclusion. The expansion of public guarantee instruments, as well as the increased support to private guarantee schemes, through funding or co-guarantees, has triggered greater demand for monitoring and evaluation. At the same time, there is a need to distinguish the specific challenges arising from the extensive use of credit guarantees as a countercyclical tool from their ordinary functioning as a structural element of financial systems.

The present study aims to improve understanding about the role, impact and sustainability of CGSs, by investigating their characteristics along several dimensions, such as the ownership structure and funding, the legal and regulatory framework, and the operational characteristics of the schemes, including types of services, eligibility criteria, guarantee assignment process and credit risk management. The study explores these dimensions, using detailed examples from OECD countries and non-OECD economies. It identifies structural and emerging challenges for the financial sustainability and the financial and economic additionality of these schemes, in a rapidly changing economic and regulatory environment.

The report shows that the use of Public Guarantee Schemes (PGSs) is widespread across OECD countries and non-OECD economies, as a direct policy tool to alleviate financial distress by SMEs. The design and delivery mechanisms of public schemes are rather heterogeneous, however. The variations across countries reflect different policy priorities and market needs, as well as diverse legal and economic framework conditions. PGSs are generally managed by government-related agencies, but guarantee services may also be provided in a decentralised manner, through the financial system, with little government intervention in terms of how the guarantee scheme is run. In other cases, the public guarantee services are delivered through private legal entities started on public initiative and with majority participation by public entities.

Privately funded schemes and mixed models, which are characterised by the direct participation of the private sector, SME organisations and banks in the funding and management of the scheme, are significantly more developed in OECD countries than in non-OECD economies, and may take different organisational forms.

The study investigates in particular the case of Mutual Guarantee Schemes (MGSs), which are private societies created by borrowers in order to improve their access to finance. MGSs are among the oldest existing guarantee schemes and have developed mainly in areas characterised by economic specialisation, highly interconnected SMEs and mature local institutions. In fact, MGSs are characterised by strong ties with the local business community and territorial system. Taking advantage of their specific knowledge about member firms and their economic environment, and unlike many PGSs, MGSs participate actively in the process of credit risk assessment and lending decisions, adopting a retail approach. The peer review process acts as a powerful mechanism for controlling risk and limiting opportunistic behaviour.

Governments and local authorities define the regulatory and legal framework and may provide financial support to MGSs, mainly in the form of counter-guarantees. These enhance the guaranteed credit volume that can be made available to SMEs (i.e. the leverage ratio), as well as the schemes' credibility and reputation.

PGSs and support to MGSs have significantly expanded in the aftermath of the 2008-2009 financial crisis. In many countries, existing loan guarantees programmes were ramped up during the crisis, in terms of the total amount of guarantee funds and direct lending available, the percentage of the loan guaranteed, the size of the guaranteed or direct loan and the number of eligible enterprises. In other countries, new programmes were introduced or new instruments were created outside the traditional guarantee programmes. Furthermore, over 2011-2012, in some countries, as crisis measures were phased out and new programmes introduced to foster growth and job creation, some guarantee instruments have been tailored to specific categories of SMEs, such as start-ups or innovative firms. In other cases, guarantee schemes have been introduced to support equity investments, addressing, among other objectives, the need for de-leveraging firms and supporting them in key transitions, such as expansion or ownership transmission.

The countercyclical use of CGSs to offset SME financial distress, through direct funding or counter-guarantees, has implied, in many instances, an important change in their scale and scope. Evidence shows that CGSs have been effective in mobilising large amounts of credit and easing access to finance for a larger population of enterprises. This however has substantially increased their exposure to risk, which may threaten their soundness over the medium to long term. As anti-crisis measures are phased out, the public support is also expected to reduce. However, the evidence shows that public support is inherent in credit guarantee systems in many countries.

Public support to the credit guarantee system is common and possibly essential for its long-term sustainability and for the engagement of private investors, at conditions that also meet government objectives, such as the service to a large number of viable but credit-constrained SMEs. However, the ordinary support of government should be clearly distinguished from temporarily extraordinary measures and be designed as to ensure additionality and avoid excessive transfer of risk from the private to the public sector. As a general principle, all parties concerned in addition to the government (SMEs, banks, guarantee schemes) should retain a sufficient share of the risk and responsibility to ensure proper functioning of the system and avoid moral hazard.

The design of CGSs is crucial for their effectiveness and sustainability. Target population, coverage ratio, credit risk management and fee structure should ensure additionality, that is, support access to finance of viable enterprises that face limitations in financial markets. An appropriate design is also crucial to ensure financial sustainability, taking into account on the one hand the need to limit default rates and cover the operating costs, and, on the other hand, the implications that coverage ratio and fees have on the type of applicants. Also, supervision, transparency and certainty about contract enforcement are crucial for the development and sustainability of guarantee systems.

Most existing studies provide positive evidence of the *financial* additionality of guarantee schemes; however, measuring *economic* additionality has proven more difficult, in part due to data and methodological limitations. In particular, MGSs appear to be an effective instrument to ease access to finance for viable SMEs, although some studies indicate that this has been the case mainly for established sectors and firms. On the other hand, it seems the mutual model has been less relevant for enterprise creation or to support new sectors, the objective of many recent public guarantee initiatives.

For some of the mutual schemes, however, the countercyclical expansion has brought about an important change in scale and greater exposure to risk. This change is taking place in conjunction with the on-going transformation induced by regulatory reforms, although the impacts of key provisions under Basel III, which will affect SME loans' risk evaluation and requirements to guarantee schemes, are still a matter of discussion. The greater complexity of the environment has further increased the need to upgrade the organisational efficiency and the skill level of schemes.

In several instances, the response to these challenges has been a change in scale, with mergers or consolidation. This can help reduce the relative costs of the service, as well as broaden the offer of guarantee instruments, which may respond to differentiated needs in the target population, including expansion, internationalisation or ownership changes. At the same time, a trade-off is emerging between efficient scale and proximity to borrowers, which historically has been MGSs' competitive advantage. In some countries, this has been addressed by accelerating the rationalisation of guarantee provision into a strong credit guarantee *filiere*, which includes: i) first-tier schemes that are close to the firms and the local systems; ii) second-tier regional or intersectoral schemes, which provide mainly counter-guarantees; and iii) a well-established national guarantee fund, and, in the case of European countries, a supra-national counter-guarantee fund. The experience of each individual system is rather unique and difficult to replicate in other areas. However, the principles underlying these schemes, and the counter-guarantee role played by public institutions, can offer insights to other countries on the regulatory conditions and incentives that can facilitate bottom up initiatives or private sector engagement.

Assessment evidence on CGSs in general, and MGSs in particular, is rather scarce. There is a need for more in-depth evaluation at the micro and macro levels, to assess the overall welfare implications of guarantee systems. More investigation is needed on the multi-dimensional aspects of credit guarantee systems, which take into account direct and indirect costs and benefits. Full-fledged assessment demands that financial sustainability and additionality are jointly taken into account, and that CGSs are evaluated against alternative policy instruments. For this purpose, it is necessary to improve the availability of data at the level of the firm and the scheme. In the case of PGSs that are run by public agencies which may have several programmes in place, this requires an accounting approach which accurately records expenditures and incomes of the schemes on a regular basis.

SME AND ENTREPRENEURSHIP FINANCING:
The Role of Credit guarantee schemes and mutual guarantee societies in supporting finance for Small and Medium-sized Enterprises

1. Introduction

The work conducted by the OECD Working Party on SMEs and Entrepreneurship (WPSMEE) in 2009-2010, including the *Assessment of Government Support Programmes for SMEs and Entrepreneurs Access to Finance in the Global Crisis* (OECD, 2010) highlighted the widespread use by governments of credit guarantee schemes (CGSs) to offset the effects of the global crisis on business lending. The work underlined in particular the role of mutual guarantee schemes (MGSs) in maintaining SMEs' and entrepreneurs' access to finance at a time of credit tightening.

WPSMEE delegates expressed their interest in advancing the state of knowledge about guarantee instruments, and mutual guarantee schemes in particular, to improve understanding about their effectiveness, the opportunity for broader use, as well as their costs and challenges. The present report discusses the rationale and functioning of MGSs, within the broader framework of credit guarantee instruments. The objectives of the study are to:

i. Investigate the regulatory framework, nature and operational characteristics of credit guarantee schemes and the extent to which they are in place across countries;
ii. Improve understanding about mutual guarantee schemes and investigate the support provided by policy makers;
iii. Analyse the policy measures undertaken in OECD countries and non-OECD economies to develop or strengthen credit guarantee schemes, focussing in particular on the type of public support provided to mutual schemes;
iv. Assess the effectiveness of these schemes in sustaining SME finance, identify best practices, discuss policy challenges and provide policy recommendations.

The evidence presented in the study draws from secondary sources that cover OECD countries and non-OECD economies. The analysis also draws on original data from the OECD Scoreboard on SMEs and entrepreneurship finance (2013) and a survey to credit guarantee schemes jointly designed with the European Association of Mutual Guarantee Societies (AECM) and administered by AECM to its public, private and mixed member schemes in June 2012. The survey, which covered 35 credit guarantee schemes in Europe, concerned general characteristics of institutions and guarantee products, operational characteristics of the loan guarantee schemes, performance and funding. AECM integrated the survey outcome with other detailed information on member schemes. The evidence on financial performance of scheme is however available only for a sub-sample (17) of schemes and presented (Section 6) only in aggregate form, for confidentiality reasons. Caution should thus be exercised in interpreting this evidence.

In the following sections, the report illustrates the prevalence of guarantee schemes worldwide (Section 2), the rationale for the policy support to credit guarantee instruments

(Section 3) and the characteristics of different guarantee schemes and policy experiences (Section 4). The report categorises guarantee schemes along key dimensions, such as the legal and regulatory framework, their governance structure, sources of funding, eligibility criteria, credit risk management, and role in the credit assignment process. In addition, the report discusses the role of CGSs during the recent financial crisis (Section 5) and addresses the theme of evaluation, discussing key dimensions for assessment and presenting findings from recent evaluation studies (Section 6). The report concludes with a discussion about current challenges and transformations in credit guarantee systems and about policy implications (Section 7).

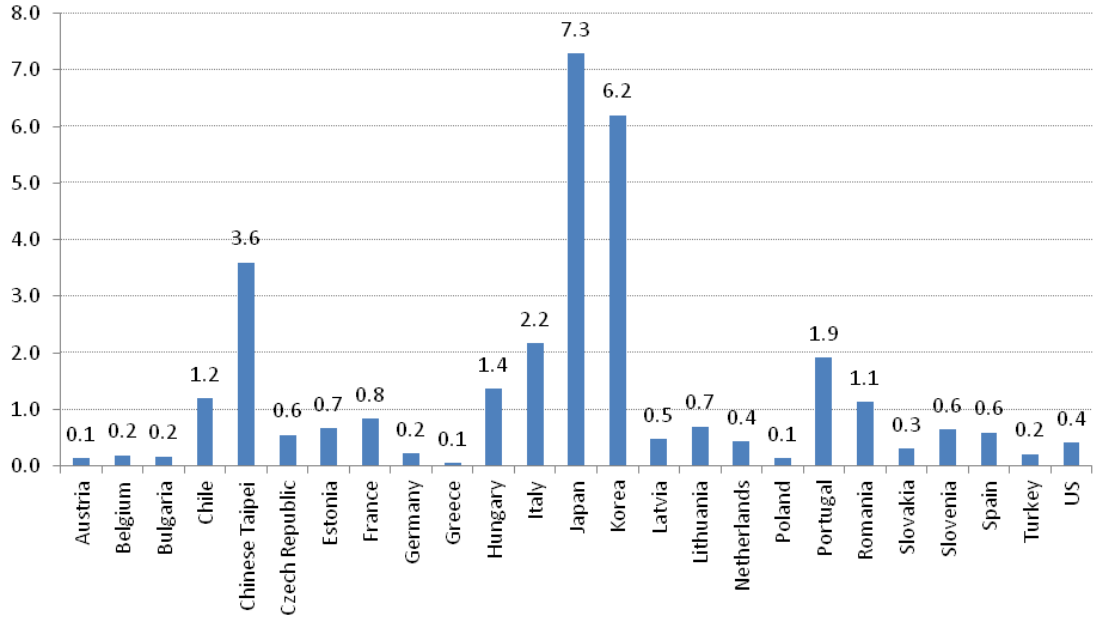
2. Credit Guarantee Schemes worldwide

Credit Guarantee Schemes (hereafter CGSs) are a common feature of financial systems across the world. In many countries, CGSs have existed since the beginning of the 20th century (Beck et al., 2010), but they have experienced unprecedented growth over the last several decades, across OECD and non OECD countries alike. In particular, CGSs have been an instrument of choice for policy makers to improve access to finance by SMEs and young firms during the recent global financial crisis. Over 2008-2010, in many countries, new guarantee programmes were set up and existing loan guarantee programmes ramped up, as part of government anti-crisis packages. In several non-OECD economies, CGSs have also developed rapidly as a mechanism to expand credit markets and improve financial inclusion.

According to Green (2003), more than 2 250 guarantee schemes exist in over 100 countries worldwide. Pombo (2010) estimates that some form of credit guarantee service exists in most regions of the world, with a few country exceptions in Asia, Northern and Eastern Europe and Central America. In some countries, credit guarantees amount to a significant portion of the national GDP (Figure 1). In Europe this is especially the case in those countries where a network of local or sectoral guarantee institutions is well established, like in Italy and Portugal. It is however in Asia that the volume of outstanding guarantees amount to the highest share of GDP: 3.6% in Chinese Taipei, 6.2% in Korea and 7.3% in Japan.

Figure 1. Credit Guarantee Schemes worldwide: volume of outstanding guarantees in portfolio, 2011

As a percentage of GDP



Notes: 1. For European countries, members of the European Association of Mutual Guarantee Societies, including mutual, public and private-public schemes. 2. For Chile, Chinese Taipei, Japan and US the data refer to 2010.
Source: AECM (2012), Pombo (2010).

3. The rationale for Credit Guarantee Schemes

CGSs are used widely across economies as important tools to ease financial constraints for SMEs and start-ups. These firms are typically limited in their capacity to access credit because of under-collateralisation, limited credit history and, often, lack of expertise needed to produce sophisticated financial statements. Because of the information asymmetry that exists between the firm and the potential lender, the lender attributes a high risk of default to the borrower. In the absence of adequate collateral, this eventually results in a partial or negative response to the credit demand. The credit guarantee mechanism is a commonly used risk transfer instrument to overcome these constraints. The loan guarantee implies that, should the SME default, the CGS will reimburse a pre-defined share of the outstanding loan[1]. In other terms, by reducing the financial loss suffered by the financial institution in the case of default, CGSs reduce the lender's credit risk.

In many countries, the demand for collateral increased significantly during the crisis (OECD, 2012), and the sharp drop in property prices has had a strongly negative impact on the availability of credit to SMEs owing to the reduced value of collateral. This problem has been especially acute for small enterprises, which often use real estate as collateral for loans. As such, the financial crisis has revived the long-standing debate on the so-called

[1] This is the case of *partial* credit guarantees, which leave the lender with some of the risk. Variants to partial guarantees include the *pari passu*, where lender and guarantor each absorb a fixed fraction of any loss, and the *first-loss*, where the guarantor pays out on all the loss up to some fixed fraction of the total loan obligation (Honohan, 2010).

"SME financing gap". It has brought to the forefront of the policy agenda the need to respond urgently to the increasing lack of funding for SMEs, as well as to implement innovative "structural" solutions for easing SMEs' and entrepreneurs' access to finance.

The term "financing gap" was first developed in relation to the financing hurdle a small firm may encounter when growing (MacMillan Committee, 1931). The "gap" described the situation where a firm had grown to a size where it had made maximum use of short-term finance. In other terms, the early finance gap argument highlighted that SMEs are forced to rely more on short-term funds because of the lack of long-term finance (Chittenden et al., 1996).

Over time, however, the term has come to indicate that a sizeable share of economically significant SMEs cannot obtain financing from banks, capital markets or other suppliers of finance. In other terms, some SMEs and entrepreneurs that have the capability to use funds productively were they available, do not have access to those funds (OECD, 2006).

At the theoretical level, there is some divergence of views as to whether government policies should be designed to plug alleged business funding gaps (Cressy, 2002). The controversy centers on the concept of the financing gap itself. The conceptual debate has focused on the *excess of demand* versus the *credit rationing* hypotheses. According to the first (e.g. Meza and Webb, 1987), there exists such a gap if interest rates are below the equilibrium, market-clearing rate, as a result of intervention by authorities, which leads to excess demand for loanable funds. The seminal work by Stiglitz and Weiss (1981), on the other hand, underlines the existence of failures in financial markets, due to asymmetric information and agency problems. In particular, banks have difficulties distinguishing good risks from bad risks and in monitoring borrowers once funds have been advanced. They will hesitate to use interest rate changes to compensate for risk, in the belief that, by driving out lower-risk borrowers, high interest rates may lead to a riskier loan portfolio, thus setting in motion a process of adverse credit selection. Therefore, they have an incentive to engage in credit rationing and to allocate credit by quota. In this way, they do not provide or extend the full amount of credit demanded even when the borrower is willing to pay higher rates. In the Stieglitz-Weiss formulation, credit rationing is said to occur if *i)* among loan applicants who appear to be identical some receive credit while others do not; or *ii)* there are identifiable groups in the population that are unable to obtain credit at any price (OECD, 2006).

Although the credit rationing argument applies to businesses in general, SMEs are particularly affected because the problem of information asymmetry is more acute in their case. In fact, most of them are unlisted and are not required to disclose financial information. The broad range of SMEs' productivity and survival rates also contributes to the credit rationing by financial institutions. The asymmetric information often leads to situations in which lending is not based on expected return but rather upon access to collateral[2], which may reduce or eliminate contract problems such as "moral hazard" and "adverse selection", limiting the downside loss for the lender (Berger and Udell, 1990). However, using collateral increases the cost of borrowing, because transferring control of the collateralised assets often involves legal and other administrative costs and the collateral may be worth more to the borrower than to the lender, whose incentive to sell the assets as quickly as possible may result in underpricing (Leitner, 2006). In addition, the use of collateral may impose opportunity costs on borrowers, affect business performance and increase the risk of default, to the extent that it ties up assets that might be put to more productive uses (Berger et al., 2011).

[2] Collateral is an asset of borrowers, the possessive right of which is provided to lenders in case of default.

Credit guarantee mechanisms are intended to address this market failure, by reducing the financial loss suffered by the financial institutions in the case of defaults. Furthermore, in the case of individual assessment of loans (i.e. *retail* credit guarantee systems), participation in a CGS can improve the relationship between borrowers and lenders, to the extent that it represents an ex-ante positive signal to the bank on the creditworthiness of the firm. This can favour the development of a longer-term trust-based relationship, in which the incidence of information asymmetries is reduced (Honohan, 2010).

CGSs can also work to improve the efficiency of local financial markets. To the extent that the lender's financing activities is limited to local firms only or to firms that operate in a narrow set of sectors, CGSs provide a way to spread risk. This happens if the scheme supports firms from several regions or sectors.

4. Typologies and operational characteristics of Credit Guarantee Schemes

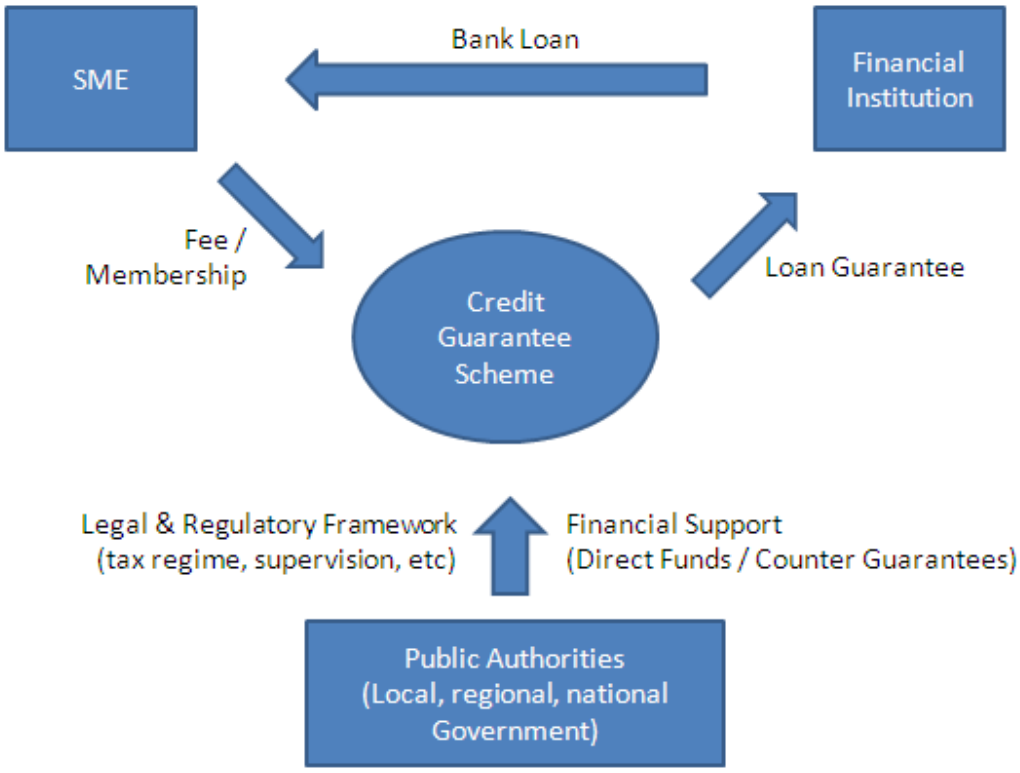
There is a wide variety of designs and types of CGSs, within and across countries. In principle, across all types of schemes, relevant players in the guarantee mechanism include the SME that demands credit, the financial institution that performs an assessment of the borrower's creditworthiness, the CGS that covers a share of the loan with its guarantee, and the government (Figure 2).

The government plays an important role in its function as regulator of financial markets, but can also play a direct role in the guarantee schemes, by providing financial support, participating in their management, or, indirectly, by granting counter-guarantees. In this case, the guarantees emitted by the CGSs are backed by public counter guarantees, typically provided by local and/or national governments. In issuing the counter guarantee, the government takes over the risk from the guarantor, up to a pre-defined share of the guarantee.

The actual engagement and role of the different players depend on the legal and regulatory framework, which reflects both international standards and country-level policy objectives, but also on the operational features of the individual scheme. The following sections illustrate this heterogeneity, by characterising CGSs along several dimensions:

1. Ownership and management;
2. Funding;
3. Legal and regulatory framework;
4. Operational characteristics, including:
    - types of services;
    - firm eligibility;
    - guarantee assignment process; and
    - risk management.

Figure 2. The functioning of credit guarantee schemes



4.1. Ownership and management

Depending on the ownership structure and role of shareholders in the management of the scheme, CGSs can be classified into three main typologies:

i. Public Guarantee Schemes;
ii. Public-Private (or mixed) Guarantee Schemes;
iii. Private Schemes.

These typologies are described in the following paragraphs with the support of numerous examples from OECD countries and non-OECD economies, which further illustrate the variety of forms and experiences in the design and implementation of guarantee schemes. Even within a given typology, these forms may be very different from country to country, responding to specific market needs and legal and economic framework conditions.

4.1.1 Public Guarantee Schemes

Public Guarantee Schemes (PGSs) are founded on government initiative as a direct policy tool to alleviate financial distress by SMEs. These public schemes are used widely in low-income and emerging economies, where they represent the main type of guarantee instrument. In India, for instance, the Credit Guarantee Fund Scheme for Micro and Small Enterprises (CGMSE) was launched in 2000, run by the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE), owned by the Government of India and Small Business Industries Development Bank of India. In Indonesia, the state-owned fund Perum Jaminan Kredit Indonesia (Perum Jamkrindo), established in 1971, provides guarantees and technical assistance to SMEs and cooperatives in all industries. In Thailand, the Small Business Credit Guarantee Corporation (SBCG) was established by the Ministry of Economy and Finance in 1991. Numerous examples of PGSs exist also in advanced economies.

PGSs are generally managed by government related agencies, such as public guarantee banks, or by an administrative unit of a ministry. In some cases, the guarantee schemes are operated through agencies with participation by the private sector.

Examples of public schemes operated by public agencies include: the Canada Small Business Financing Program (CSBF), a loan loss-sharing programme for government and private sector lenders, managed by Industry Canada, the government's department with responsibility for regional economic development, investment, R&D and innovation; Chile's *Fondo de Garantía para Pequeños Empresarios* (FOGAPE), managed by BancoEstado, the state-owned bank; Denmark's Vaekstfonden (Growth Fund), a government investment fund which provides guarantees and subordinate loans to SME's as well as equity funding for early stage businesses; Estonia's KredEx, a legally independent credit agency 100% owned by the Ministry of Economic Affairs and Communications; the Japanese Credit Guarantee Corporations (CGCs), which are run by the government owned Japanese Finance Corporations (JFCs) (see Box 1); the Slovak Republic's SME guarantee programmes managed by the Slovak Guarantee Development Bank, owned by the Ministry of Finance; the government-owned Slovene Enterprise Fund; and the US Small Business Administration's (SBA) 7a Loan Program.

In some countries, particularly those characterised by a strong federal model, public guarantee funds are articulated as a network of local or regional funds, overseen by a central institution. In the Russian Federation, the Programme of Guarantee Fund Creation and Development was set up by the Ministry of Economic Development and began operation in 2006. The Guarantee Fund, whose capitalisation amounted to about RUR 32 billion in 2012, is co-funded by the federal and regional governments. The capital

contributions may vary across regions, with the federal level providing at least 50% of the capital. On average, however, regions contribute up to 30%, and the remaining 70% is provided by the Ministry of Economic Development. In some regions, such as Moscow and St. Petersburg the level of co-financing is equal at 50% each, while in some less developed areas the local contribution can be as little as 20%. Eighty-three organisations have been created in 79 regions to operate this Fund, which has replaced an earlier federal network model to provide credit guarantees, the Federal Fund for the Support to Small Business, established in 1995 and articulated in 75 regional funds and 175 municipal funds (OECD, 2013). The guarantee organisations are mainly public non-profit legal entities established by regional governments with the sole purpose of providing guarantees for SME loans issued by commercial banks.

Regional PGSs also exist across OECD countries, which respond to the specific objectives of regional governments. In Belgium, Sowalfin (*Société wallonne de Financement et de Garantie des Petites et Moyennes Entreprises*) was set up in 2002 by the Walloon government, as a Public Interest Joint Company, to provide direct guarantees to SMEs, counter-guarantees to the region's mutual guarantee schemes (SCMs) and micro-guarantees, below EUR 25 000, whose management is delegated to SCMs. In the Flemish Region, since 2005, a corporate company owned at 100% by the regional government, PMV (*Participatiemaatschappij Vlaanderen*), manages a public guarantee system, which guarantees loans and leasing contracts.

In the case of PGSs, public authorities provide funds for CGSs, but their direct involvement in the management, credit risk assessment and loss recovery is less common. In their survey of 76 CGSs worldwide, Beck et al. (2010) found that 11% of publicly owned CGSs assess the borrower's credit risk. This share is reduced to 8% in the case of loan recovery. In turn, in more than 50% of the surveyed CGSs, the private sector is involved in risk assessment, management and recovery.

Box 1. Japan's Public Credit Guarantee Schemes: the Credit Guarantee Corporations (CGCs)

The first Japanese Credit Guarantee Corporation (CGC) was founded in 1937 in Tokyo by the local government, commercial and industrial associations and financial institutions. In 2008, there existed 52 CGSs, distributed in the 47 prefectures and 5 metropolitan cities across the country. As a consequence of the Credit Guarantee Corporation Law enacted in 1953, all CGCs have the legal status of a public institution and are under the umbrella of the National Federation of Credit Guarantee Corporations (NFCGC).

The size threshold of eligibility to guarantees varies by industry. In manufacturing, SMEs are eligible for guarantees if they have less than 300 employees, whereas for the retail sector the size upper threshold is set at 50. An additional criterion for eligibility exists, which relates to the maximum capitalization allowed for the SME: this amounts to 1 million Yen (9,410 Euro) per employee.

From a quantitative point of view, the Japanese credit guarantee sector is among the most important worldwide. On average, more than one third of Japanese SMEs are supported by CGCs[3]. The share of the guaranteed loan volume over GDP equaled 7.3% in 2010.[4]

Source: De Vincentiis P. (2008); "Japanese Credit Guarantee Foundation (2011).

Guarantee services may also be provided by public entities in a decentralised manner, through the financial system, with little or no direction in how the guarantee scheme is run. For instance, in the case of the United Kingdom's Enterprise Finance Guarantee (EFG), created in 2009 as a counter-cyclical instrument, lending is all held in individual lenders' loan books. Capital for Enterprise Limited (CfEL), a private company entirely owned by the UK government, is responsible for oversight of the scheme; i.e. collecting premia from borrowers, making payments to lenders to cover defaults, monitoring lending flows and providing audit capability in general. The delivery of the scheme, including the decision to offer an EFG loan or not, is fully delegated to the lender and, the central government does not interfere in the operation of CfEL[5].

In the Netherlands, a full partnership principle is applied by BBMKB (Besluit Borgstelling MKB Kredieten), the debt guarantee instrument of Agentschap NL, an agency of the Ministry of Economic Affairs, Agriculture and Innovation. Through this scheme, the government allocates, out of a given total annual budget, guarantee envelopes to partner banks. Banks supply the guarantee on their own credits without an individual decision made by the fund, that is, decision-making is delegated to banks. However, the fund establishes the general principles for allowing the issuance of a guaranteed loan (EC, 2006). The maximum guarantee is 50% of the credit request. For start-up companies and innovative companies, larger guarantee possibilities apply[6].

In other cases, the public guarantee services are delivered through private legal entities, mostly non-banking financial institutions, which are started on government initiative and in which the public sector is the sole shareholder of the institution. Examples include the Romanian National Credit Guarantee Fund (NCGFSME / FNGCIMM), a joint stock

[3] In 2010, 37% of Japanese SMEs were granted support by CGCs (Japanese Credit Guarantee Foundation, 2011).

[4] Calculations based on Statistics published in Japanese Credit Guarantee Foundation 2011.

[5] See 'Framework Document for Capital for Enterprise Limited', at www.capitalforenterprise.gov.uk/

[6] See www.ddfservices.nl/loan-applications/bbmkb/

company entirely owned by the Romanian Ministry of Economy, Trade and Business Environment (AECM, 2012a), and Colombia's Fondo Nacional de Garantia (FNG), a state- and privately-held fund with an independent legal status, which is articulated in nine regional funds providing guarantees to SMEs in all sectors, except agriculture, served by a specific fund, the Fondo Agropecuario de Garantias (KPMG, 2012).

4.1.2 Public-Private Guarantee Schemes

Public financial institutions, development banks or SME agencies often play a catalytic role in the establishment of public-private guarantee schemes, in which the public entity may keep a majority stake. In Hungary, Garantiqa Hitelgarancia, the main guarantee institution in the country, was founded in 1992 by the Hungarian government - which holds the majority share through the Hungarian Development Bank Group - large commercial banks, co-operative savings associations and some enterprise interest group associations, all of which are minority shareholders. In Turkey, the Kredi Garanti Fonu (KGF) is held in equal shares by KOSGEB (Turkey's SMEs Development and Support Organisation), TOBB (The Union of Chambers and Commodity Exchanges of Turkey) , entrepreneurial associations and banks. In Malaysia, the main guarantor of credit to SMEs is the Credit Guarantee Corporation Malaysia Berhad, a development financial institution held by the central bank with a 79.3% stake and by a number of commercial banks with minor shares.

In France, a large guarantee programme is managed by OSEO, a development agency owned 90% by the state and 10% by private banks and other institutions. OSEO is headed up by a public sector holding company and reports to both the Ministry for the Economy, Finance and Industry, and the Ministry for Higher Education and Research. At the operational level, however, it is characterised by large management autonomy.

In the case of public-private schemes that originate from the private sector, such as mutual schemes, the public entities usually hold a minority stake. This is the case of regional mutual schemes in Spain, outlined below, participated by local authorities with minor shares. A different case is represented by SPGM in Portugal, which was started by the public authorities and then mutualised, maintaining a public minority stake (see Box 2).

4.1.3 Private Guarantee Schemes: The case of Mutual Guarantee Schemes (MGSs)

Private guarantee schemes are characterised by the direct participation of the private sector, SME organisations and banks in the funding and management of the scheme. Among these are mutual schemes, which are private societies created by borrowers in order to improve their access to finance.[7] These are among the oldest existing guarantee schemes, predominantly found in European and South American countries. In these regions, international associations exist which group a large number of mutual schemes, often federating also public and public-private schemes. These include the Association Européenne du Cautionnement Mutuel (AECM), the Asociación Latinoamericana de Entidades de Garantía (ALEGA) and the Red Iberoamericana de Garantías (REGAR), among others.

The role of the government is generally limited to the regulatory and legal framework and to the provision of financial assistance. Financial support comes either in the form of counter-guarantees or direct funding. Some governments also support MGSs by granting tax reductions, as in the case of Spain's Sociedades de Garantía Recíproca.

[7] In anglophone countries, mutual guarantee schemes are also called mutual guarantee associations/funds/societies, in francophone countries societiés de cautionnement mutuel, and sociedades de garantía in hispanic countries.

In Portugal, the MGS system was initiated by the public sector with the aim to set basic framework conditions and demonstrate to the private sector the potential of the system. In 1992, drawing on international experience, a pilot project was launched. Entrepreneurs and SME associations were gradually engaged and, over time, the operational functions of the public pilot entity were transferred to newly created MGSs. However, although the public player still maintains an oversight and coordination function, as well as the role of counter-guarantor (Box 2).

MGSs tend to serve to a greater extent the smaller segment of the SME sector and generally play an active role in the process of evaluating applicants and granting credits. Besides providing loan guarantees, MGSs evaluate their members, assess their creditworthiness, express recommendations to lending institutions and are involved in the recovery of losses should the borrower default. Moreover, member firms are frequently involved in the management of MGSs.

In fact, MGSs are characterised by strong ties with the local business community and territorial system. Being founded as an association of local firms, they typically have in-depth knowledge of the business cases under assessment. Often, member firms operate in a specific sector or value chain, which implies the MGS can rely on specific knowledge with regards to the sector and the prospects for development and investment by local firms. For this reason, MGSs have been considered effective in addressing the information asymmetries between the bank and the SME and in a good position to assess the SME creditworthiness.

The peer review process acts as powerful mechanism for controlling risk and limiting opportunistic behaviour. Since the MGS suffers a loss in case of default, members have strong incentives to closely monitor their peers, which may prevent borrowers from excessively risky behaviour and increase the probability of loan repayment.

Box 2. Public initiatives to develop a Mutual Guarantee system: the case of Portugal

The Mutual Guarantee System in Portugal arose from public initiative. In 1992, following the experience of other European countries, the IAPMEI, the Portuguese public agency that supports SMEs, launched a feasibility study about a pilot project in this area. The central idea was that public institutions should take the first step in promoting this initiative. The second step – the leadership and distribution of the project - would then be taken by the private sector, entrepreneurs and enterprise associations, who may accrue the benefits of such a system.

A pilot society was created, SPGM Sociedade de Investimento S.A., whose main objective was to test the interest for this project in the market. To do so, it built guarantee operations and other services aimed at SMEs, using frameworks similar to those of the future Mutual Guarantee Societies (MGSs). This society also had the mission of preparing a legal framework that would come to regulate the entire Mutual Guarantee sector in Portugal, including a counter-guarantee mechanism. Since 2003, three MGSs (Norgarante, Lisgarante and Garval) have entered operation, continuing the activities of SPGM, which contributed its assets to the newly established entities. In 2007, another MGS, Agrogarante, began its activities, specifically focused on the primary sector.

SPGM acts as the holding company of the system, stimulating the creation and development of MGSs, raising SME awareness and supporting MGSs product image, offering a range of non-operational services to all entities of the system, and managing the publicly funded Mutual Counterguarantee Fund (FCGM), which covers part of the risk of the MGSs and can counterguarantee itself with the European Investment Fund.

Source: www.spgm.pt

Direct and indirect mutuality

MGSs can be classified into institutions with direct and indirect mutuality. Direct mutual schemes are the result of a collective effort of small businesses in order to improve their access to credit. In other words, direct MGSs resemble cooperatives, implying that participating entrepreneurs are at the same time shareholders of the institution. Hence, they are capitalised by the contribution of member firms, which take on joint responsibility for outstanding credits. In order to be eligible for support from mutual guarantee schemes, firms generally have to be members of the institution. Moreover, membership implies that they are directly involved in the management, for example by voting the board of directors of the institution.

A highly developed system of MGSs with direct mutuality can be observed in Italy, where a large number of MGSs (*Confidi*) operate at the local level, typically in industrial areas that are characterised by clustering of highly specialised and interconnected SMEs and a well-defined territorial economic identity, related to a sector or value chain (Box 3). This suggests that firms located in areas endowed with high stocks of social capital and mature SME institutions typically find it easier to form MGSs (de Gobbi 2003).

Regional and sectoral specialisation are also a feature of the Spanish model of mutual schemes (*Sociedades de Garantia Reciproca* – SGR), based on the 1/1994 law, which established their banking nature and operational characteristics and defined the system of public counter-guarantees through a state-owned reinsurance company, CERSA (*Compañía Española de Reafianzamiento, S.A.)* (see Box 4). The first MGS in Spain was created in 1979, following political changes that prompted economic reforms to foster competitiveness and innovation. At present, three MGSs, specialised by industry (Leisure, Transport, Audiovisual), operate at the national level. At the regional level there exist 20 schemes, promoted by public agencies, financial institutions cooperatives, associations,

chambers of commerce and SMEs. CESGAR (*Confederación Española de Sociedades de Garantía Recíproca*) is the umbrella organisation of all MGSs and is the central negotiator with the government, the central bank and with competition authorities. The organisation also supports MGSs by organising periodical training sessions, providing technical assistance and liaising with international organisations and networks.

Box 3. Mutual Guarantee Schemes in Italy (Confidi)

Italian mutual guarantee schemes (Confidi) are among the most important schemes in Europe. Almost 1 million Italian SMEs are members of a MGS and guarantees granted by Italian MGSs account for 41% of all guarantees issued by European CGSs and 1.4% of Italian GDP. The coverage ratio typically amounts to 50% of the loan volume.

The first Italian mutual guarantee scheme was created spontaneously by entrepreneurs in the late 1950s as a mean to increase their bargaining power vis-a-vis banks and to improve their access to finance. Despite a profound process of reorganisation and mergers over the last 50 years, Confidi have maintained their mutuality character, that is, entrepreneurs are both members and shareholders of the institutions and are often heavily involved in their management. The mutuality character is codified into law as at least 20% of their capital endowment must come from affiliated firms.

The Italian system is characterised by a great variety of mutual schemes, which differ with regard to the territorial coverage and industry affiliation of their member firms. More than 200 institutions exist which are grouped into 7 aggregate national Italian Federations, according to their sector of operation: Fedart Fidi, FederConfidi, Fincredit, FederAscomFidi, FederFidi, CreditAgri, Asscooperfidi. These federations provide the link between the guarantee institutions themselves and the business associations which promote them. The system works in fact as a two layer system and generally at two interrelated territorial levels. The first layer or level is the local one, which allows for strong ties to the territory and to affiliated SMEs. At this level, credit risk assessment is performed, benefiting from the specific knowledge of local members. The second, higher level generally operates with a regional scope and provides counter-guarantees to the local level. These are second-tier MGSs, which are set up by groups of the same institutions. By providing counter guarantees they allow for a broader sharing of risk across schemes. At the same higher level, counter-guarantees are also offered by entities funded by the regional government. However, banks can by-pass this second level and apply for direct guarantee from a state supported guaranteed funds, such as the Central Guarantee Fund.

Source: De Vincentiis (2008) ; Zecchini and Ventura (2009); Locatelli (2012).

The Spanish model has had a significant influence in Latin America. In Chile, a law enacted in 2007 introduced the possibility to establish SGRs. In Brazil, since 2008, SEBRAE has been promoting the establishment of privately-held guarantee schemes, along the Spanish SGR model (KPMG, 2012).

Box 4. Mutual Guarantee Societies in Spain: The role of CERSA

In Spain, Mutual Guarantee Societies are a special type of limited liability societies that counts two types of shareholders: 'participatory members', who subscribe some shares against the guarantee service (about 86,000 SMEs in 2011) and 'protective members', who include local authorities, banks, chambers of commerce and other entities that are involved in SME development. Typically, the guarantees issued by MGSs cover 100% of the bank loan.

The Spanish system of public support to MGSs is based on certain limited tax exemptions and mainly on counter-guarantees granted by CERSA (*Compañía Española de Reafianzamiento, S.A.)*, an instrumental society of the Ministry of Industry, Energy and Tourism's General Management Policies for SMEs. The coverage rate (30 to 75%) depends on policy priorities, such as innovation promotion, and types of operations, such as investments. CERSA has also a helpline to assist companies with less than 100 employees.

The Central Bank of Spain recognizes the guarantees issued by the MGSs to enable banks to reduce their relevant provisions and capital requirements. Also the counter-guarantees of CERSA are recognized to enable MGS to reduce provisions and capital requirements.

Source: AECM (2012a).

Another example of direct mutualism among cooperatives can be observed in Turkey, with TESKOMB, the Union of Credit and Guarantee Cooperatives for Tradesmen and Craftsmen. The system is divided into three levels: 910 cooperatives at the local level, 32 regional unions and one national umbrella organization, TESKOMB, created in 1970. In this case, the shareholders and beneficiaries are the cooperatives. With the guarantee from the cooperative, a member can access credit at lower interest rates from Halk Bank, Turkish state-owned bank,. The difference between the interest rate applied to the loan and the commercial rate is compensated by the State (AECM, 2012a; KPMG, 2012).

In France, three main credit guarantee institutions coexist, which differ in their degree of mutuality and size. The institution with the highest degree of mutuality is SOCAMA (Société de Caution Mutuelle Artisanale), which was founded in 1917 to support craftsmen. Nowadays, it still focuses exclusively on craftsmen, which are members of the 42 cooperative societies that form SOCAMA (Box 5).

Box 5. Mutual Guarantee Institutions in France: The case of SOCAMA

SOCAMA (Société de Caution Mutuelle Artisanale) is a French institution supporting craftsmen through credit guarantees. In order to access guarantees, firms have to acquire shares of SOCAMA, which also give them rights to elect the board of directors.

The financial institutions with which SOCAMA cooperates are the Banques Populaires, cooperative banks, implying that only credits granted by them can be guaranteed by SOCAMA. Coverage rates are typically high, reaching between 80% and 100% of the outstanding credit. In combination with loan guarantees from SOCAMA, the Banques Populaires often decrease their interest rates by 0.2% - 0.8 %. Almost 75% of guaranteed loans are used for investment projects, mostly for investment into physical capital. Loans guaranteed by SOCAMA are partly counter-guaranteed by the European Commission's SME Guarantee Facility under the EU Competitiveness and Innovation Framework Programme (CIP).

In 2006, the total amount of guarantees was 919 million Euros. Typically, the size of the individual guarantee is rather small, amounting to EUR 26 500 on average.

Source: De Vincentiis (2008).

In schemes with indirect mutuality, the institution is managed by a chamber of commerce or a trade association of which firms are members. The involvement of firms in the scheme's management is therefore less pronounced than in the case of direct mutual schemes. Examples include: in France, SIAGI (*Société de caution mutuelle de l'artisanat et des activités de proximité*), created in 1966 by the Chambres des Métiers et de l'Artisanat and later participated also by banks; in Germany the *Bürgschaftsbanken*, owned by financial institutions or business associations (Box 6); in Luxembourg, MCAC (Mutualite' de Cautionnement et d'Aide aux Commercants), created in 1969 as a cooperative corporation, owned by the Chamber of Commerce (94%) and SME members (6%); in Chile, *PROAVAL*, the first mutual guarantee scheme created in the country in 2008 by a group of professionals, companies and business associations, following the law enacted in June 2007, which introduced the possibility to establish MGSs.

Box 6. Mutual Guarantee Schemes in Germany (Bürgschaftsbanken)

The German "Bürgschaftsbanken" are a network of 17 guarantee banks which operate throughout the country. They were founded between 1949 and 1955 to encourage post-war reconstruction. After the reunification in 1990, new banks were founded in the new German regions. They all have a banking status and are owned either by financial institutions such as banks or insurance companies or by business associations. All 17 regional banks are grouped under an umbrella organisation, the "Association of German Guarantee Banks" (Verband deutscher Bürgschaftsbanken).

The Bürgschaftsbank interacts directly with banks during the guarantee process. Their credit examination committee receives application from the bank. Recently, new forms of interactions have been made possible, according to which the SME first contacts the guarantee institution before referring to the lender. The maximum share of the loan volume that can be guaranteed varies according to the location of the SMEs. The maximum share of the loan volume that can be guaranteed varies among the guarantee banks, with the highest coverage ratio being 80%.

Guarantees can be issued to SMEs from all sectors allowed by EU regulation, and there is no restriction concerning the use of the guaranteed loan or the type of lending institution. In 2011, the credit covered by new guarantees granted was amounted to about EUR 1.7 billion, whereas the total volume of outstanding guarantees was EUR 5.9 billion.

Source: Verband deutscher Bürgschaftsbanken (www.vdb-info.de/); De Vincentiis (2008).

4.2. Funding

CGSs can be directly funded by public authorities, by the private sector or receive funds from both sources. For example, Japanese Credit Guarantee Corporations receive 75% of their funds from local governments and 24% from financial institutions.[8] Other sources include supra-national institutions such as the European Investment Fund, or, especially in developing countries, NGOs. Among the 76 CGSs surveyed in Beck et al. (2010), 58% received funds from the public sector, 49% from the private sector and 3% from NGOs.

In some developing regions, development cooperation agencies have been particularly active in supporting and funding CGSs for SMEs. As a case in point, DEG (Deutsche Investitions- und Enwicklungsgesellschaft mbH), a subsidiary of Germany's KfW Bankengruppe and one of the largest European development finance institutions, has implemented in Afghanistan a USD 9 million credit guarantee scheme (Afghanistan Credit Support Programme), which also comprises extensive capacity building for local banks' staff. The project is co-funded by the United States Agency for International Development (USAID), which finances CGSs across many countries, entering guarantee agreements with private lenders. It is estimated that, over 2008-12, by guaranteeing loans to more than 2 500 SMEs, this scheme helped to create or retain more than 25 000 jobs and benefited about 200 000 family members, experiencing a relatively low rate of non-performing loans (2.1%)[9].

Generally, the source of direct funding is also involved in the management of the scheme. However, as above commented, when it comes to public providers of funding, across OECD countries, these are not commonly involved in management, risk assessment and lending decision.

8 See the annual report 2011 of the Japanese Credit Guarantee Corporation, available at www.zenshinhoren.or.jp/pdf/English_Annual_Report.pdf

9 See http://afghanistan.usaid.gov/en/USAID/Activity/28/Afghanistan_Credit_Support_Program_ACSP

Public financial assistance to CGSs through counter-guarantees is commonly observed in OECD economies, especially in the case of mutual guarantee schemes. For example the German Bürgschaftsbanken receive counter-guarantees from both regional and the national government. The Central Guarantee Fund in Italy acts as lender of the last resort to MGSs. A similar counter-guarantee model applies in Spain, where the state-owned company CERSA provides counter-guarantees to SGR, and in Portugal, where, the holding company of the mutual guarantee system, SPGM, also manages the public counter-guarantee fund. The Turkish Treasury provides counter-guarantees to the public-private scheme KGF. In the European Union, the Competitiveness and Innovation Framework Programme (CIP 2007-2013) provides guarantees and counter-guarantees, so-called "EU Guarantees", which are managed by the European Investment Fund (EIF) (see Box 7).

In contrast, in non-OECD economies, direct funds from the government prevail (Green, 2003). It is, however, interesting to note that in recent years, several counter-guarantee funds have been set up as part of governments' efforts to engage the financial private sector in SME lending to a greater degree.

Box 7. European Commission's SME Guarantee Facility

The EU Competitiveness and Innovation Framework Programme (CIP 2007-2013) provides capped guarantees to financial intermediaries partially covering portfolios of financing to SMEs. These are known as EU Guarantees and are operated by the European Investment Fund (EIF) under the "SME Guarantee Facility", funded by the European Union. The EIF is the European Investment Bank (EIB) Group's specialist provider of risk financing for entrepreneurship and innovation across Europe.

Under the CIP, the guarantees are provided by the EIF to financial intermediaries, free of charge, to enable SMEs to benefit from enhanced access to finance, for instance in the form of a reduced request for collateral, or to provide lending to otherwise excluded SMEs, like start-ups. The Facility includes four product windows of which three have a specific focus. The "Loan Guarantee Window" consists of guarantees aiming at the general support of SMEs via lending and guarantee institutions, with partial coverage of underlying portfolios of loans, lease agreements or other types of debt finance.. The "Micro-Credit Window" supports micro enterprises with a maximum loan amount of EUR 25 000. The "Equity Guarantee Window" is intended to reduce the particular difficulties which SMEs face because of their weak financial structure by supporting subordinated or convertible loans to SMEs. Under the "Securitization Window", the Facility guarantees mezzanine tranches of SME securitisations subject to the financial intermediary increases its volume of new SME lending in the future.

As of 30 June 2012, under the SME Guarantee Facility, the EIF had entered into 54 guarantee agreements in 20 countries. The volume of guarantees amounted to EUR 6.6 billion supporting loans totaling EUR 11.6 billion, granted to 191 583 SMEs. The average loan volume was EUR 52 000 and the supported SMEs had 3.8 employees on average. During the period 2014–2020, several programmes of the European Union will provide loan guarantees for small businesses. Among these, the European Commission has proposed a loan guarantee facility of EUR 746 million under the programme for Competitiveness of Enterprises and SMEs (COSME). Other programmes include: Horizon 2020, under which the EIF will operate a SMEs & small midcaps guarantee facility, intended to support loans over EUR 150 000 for RDI-driven enterprises. In 2013, a pilot project for Horizon 2020 has been launched, which meets strong demand. The Risk Sharing Instrument for Innovation (RSI) is a joint pilot guarantee scheme of the EIF, the EIB, and the European Commission to support the financing of innovative SMEs and small mid-caps. It targets an overall portfolio of EUR 1bn of loans to innovative European SMEs and it is likely to be increased early 2013. Moreover "Creative Europe" has been proposed by the European Commission, with a loan guarantee facility to improve access to finance for SMEs and organisations in the cultural and creative sectors.

Sources: www.eif.org; ec.europa.eu.

4.3. Legal and regulatory framework

Credit Guarantee Schemes are typically not-for-profit organisations to which specific regulatory systems apply. In some countries, profit oriented public or private-public schemes exist, which distribute returns only to their public shareholders. In general, the legal and regulatory framework recognises that guarantee institutions provide support to SMEs by facilitating their access to finance, generate information that is useful to the banking system, and channel public funds (Leone and Vento, 2012).

As above illustrated, CGSs' composition of own funds and management are very different from country to country. However, as financial intermediaries, they are subject to specific regulatory design with regard to minimum capital requirements, solvency ratio and transparency criteria. In particular, CGSs are subject to the control of the prudential supervisory authority. The way the norms of prudential supervision applicable to banks impact the guarantee institutions depends on whether they are qualified as supervised financial intermediaries (see Box 8 on Basel III regulation). If this is the case, these norms directly influence their *modus operandi*. If, on the other hand, the CGS is not recognised as a supervised financial intermediary, the influence of the norms is indirect, as they affect the technical characteristics of the guarantees issued by the scheme. This is the case of a certain category of MGSs in Italy (the so-called 106-type Confidi), for which the compliance of the guarantee with the standard implies that this is recognised as a valid risk mitigation tool for the beneficiary bank (De Vicentiis, 2008). It should also be noted that some public CGSs, which act on behalf of their ministries, are not subject to Basel III rules, since the funding comes directly out of public budgets and does not figure on their books as own funds.

Control over CGSs can be exercised at various levels, including by public bodies and the Central Bank. The supervision and control of public schemes is generally performed by central government ministries or, if the organisation has the status of financial intermediary, as in the case of France's OSEO, by the Central Bank. For instance, in Korea, KODIT (Korea Credit Guarantee Fund), as a government sponsored organisation, is monitored and assessed by related government departments: the Ministry of Strategy and Finance (Budget Planning), the Financial Services Commission (Operation Supervision) and the Small and Medium Business Administration (Capital Contribution).[10]

The control function can also be delegated to *ad hoc* control structures, supervised by the Central Bank. This is the case, for instance, of Mutual Guarantee Schemes in Italy (Confidi), which can be classified into supervised schemes (under the direct supervision of the Bank of Italy) and the smaller unsupervised schemes (under inspection of an external body, also subject to the Bank of Italy's supervision). These supervised and non-supervised schemes co-exist and compete in the same markets. In France, different regulations apply to CGSs, depending on whether these are classified as 'financial institutions' or 'specialised financial institutions' (see Box 9). However, in some countries, especially where credit guarantee system is at a relatively early stage of development, CGSs may not be subject to specific regulation; that is, control over them may be carried out by the authorities that supervise the entire financial system (Leone and Vento, 2012).

[10] www.kodit.co.kr/

Box 8. Basel III and credit guarantees

The main regulatory reforms developed in response to the recent financial crisis consist of revisions to the rules relating to minimum capital requirements, and the introduction of new ones relating to liquidity management, as defined by the Basel Committee of Bank Supervisors. The objective of the so-called "Basel III" reforms/new standards, which extend and complement the Basel II framework, is to improve the banking sector's ability to absorb shocks arising from financial and economic stress, whatever the source, thus reducing the risk of spill-over from the financial sector to the real economy.

The most important change affecting capital requirements arising from Basel III is that the minimum capital adequacy ratio, or the ratio of core Tier 1 capital (common equity and retained earnings) to "risk-weighted" assets, will increase from 2% to 7%.This will comprise a minimum common equity requirement, to be phased in by 2015, and a "capital conservation buffer", to be phased in by 2019. The "risk-weights" are parameters intended to measure the "riskiness" of assets in bank portfolios, which, under Basel II, are determined by one of two methods: the "standardised" method or the "internal ratings-based method" (IRB), intended for use mainly by the largest banks. In addition, where national circumstances are believed to warrant it in order to protect the financial system against large swings in asset prices, a counter-cyclical buffer of 0%-2.5% may be added to the ratio. Banks can meet their ratios by increasing their capital, reducing the average risk weights that apply to their assets or decreasing their total assets.

For loans to individuals and small businesses, the risk weight is 75% if the bank's retail portfolio is diverse and no loan exceeds EUR 1 million, otherwise the risk weight is 100%. In contrast, claims against sovereign governments and central banks with an AAA to AA- rating have a 0% risk weight. Basel III regulations also allow enterprises to make use of collateral and collateral substitutes such as government guarantees, which can reduce or "mitigate" the risk weights. Under the standardised approach the credit rating of the collateral or the guarantor will be substituted for the rating of the borrower for the collateralised portion of the exposure, if certain conditions are met. Hence, guarantees issued by entities with a lower risk weight than the SME can lead to reduced regulatory capital. For example, where the guarantor is a sovereign government with an AAA rating, the risk weight for the guaranteed portion of the SME loan would be zero.

The risk weight applied in the case of non-government guarantees has been the object of debate and proposals by guarantee institutions and SME associations to modify the relevant rules, to address possible negative impact on SME lending. In particular, key issues under discussion include:

1. The eligibility of guarantees provided by private or public mutual schemes and guarantee banks as Credit Risk Mitigation Techniques. These schemes are not in fact explicitly cited by the relevant article (Art. 197, para 1 of the draft CRD IV, implementing the Basel III accord into EU law).

2. The prudential requirements applied to credit guarantee societies, that is, the degree to which these requirements for bank institutions should be adapted to their activity and proportionate to the risk incurred.

Another issue under discussion, which is not directly related to the treatment of guarantees, regards the introduction of a balancing factor for the risk weight to be applied to SME loans in the context of the retail portfolio, currently at 75%. In May 2012, the European Parliament approved the so-called 'Karas Report', which proposes to decrease this risk-weight from 75% to about 50%, through an SME balancing (or supporting) factor, so as to neutralize the restrictive effect of the new requirement on overall loan supply. Accordingly, a reduction is being considered in the ongoing discussions between the European institutions with a view to a final adoption of the Directive.

Source: OECD (2012); AECM issues position paper on CRD IV (Nov 2011), available at www.aecm.be.

In some countries, a special tax regime is in place to favour the credit guarantee activity. The guarantors may be exempt from the payment of taxes, which enables them to fully re-invest the surplus earned from the activity. This is the case of the German Guarantee Banks (*Bürgschaftsbanken*). These are at all the effects private banks, with legal status of limited liability companies, but their banking license is limited to the issuing of guarantees, that is, they are not allowed to disburse loans or collect deposits. Created by private initiative to enhance the development opportunities for SMEs, these institutions benefit from total exemption from the profit taxation, which is expected to favour reinvestment of gross earnings in the guarantee activity (De Vicentiis, 2008). Another example of special tax treatment is provided in Spain by the Sociedades de Garantía Recíproca (SGR). These mutual guarantee institutions are exempt from taxes on public subsidies and the returns gained from their investment, which are allocated to a Technical Reserve Fund, intended to increase their solvency (Pia, 2008).

Box 9. Regulatory framework of Credit Guarantee Schemes: the case of France

In France, the Banking Law passed on 24 January 1984 classifies financial intermediaries into six categories, of which only the first four types are allowed to collect deposits from the public:

i. banks;

ii. mutualistic banks;

iii. cooperative banks;

iv. municipal banks;

v. financial institutions;

vi. specialised financial institutions.

The three main guarantee institutions in France are classified as financial institutions (SIAGI and SOCAMA) and specialised financial institution (OSEO). As such, these are not authorised to collect deposits from the public. However, even if they are not recognised as banking institutions, these three organisations are legally subordinated to government accounting controls and are under the prudential supervision of the Banque de France

Source: De Vincentiis (2008).

4.4. Operational characteristics

4.4.1. Types of services

CGSs often combine their main service – the provision of a partial credit guarantee on a bank loan or loan portfolio – with the offer of complementary services to SMEs, such as assistance in the preparation of accounting statements and information on financial markets. Some CGS provide services to help improve SMEs' capacity to interact with the financial system. For instance, in 2010, the Korean Credit Guarantee Fund (KODIT) launched the "Online Loan Market" project, aimed at improving the exchange of information between borrowers and lenders. This is an internet platform that enables Korean SMEs to exchange lending information with banks and select the institutions that offer them the most favourable conditions. The service is also expected to benefit the banks, since they can reduce their marketing costs when searching for new SME customers (KODIT, 2010).

Some CGSs also offer consultancy-type services, intended to assist SMEs in improving their competitiveness and productivity. These services include training programmes and assistance in the development of business plans, as in the case of the mutual Hungarian

Rural Credit Guarantee Scheme and its recently established consultancy agency (Box 10). In it is however to be noticed that, in most cases, MGSs are dedicated exclusively to the guarantee activity, whereas non mutual systems generally combine this with other functions.

Box 10. Consultancy services by Credit Guarantee Schemes: the case of AVHA KFT, Hungary

In 2007, the Hungarian Rural Credit Guarantee Foundation established AVHA Szolgáltató és Tanácsadó Kft, an entity specialized in providing consultancies to firms located in rural areas. The objective of the organization is to provide firms with the knowledge required to design and implement business projects. SMEs are assisted by professional consultants at the different stages of the project development, from drafting of initial plan until completion. Consulting activities are complementary to the guarantee provided by the Guarantee Foundation and include the following areas:

1. Application monitoring;
2. Elaboration of the project idea;
3. Advising on credit facilities;
4. Writing of the application;
5. Application management.

Source: Rural Credit Guarantee Foundation (www.avhga.hu).

Typically, PGSs combine their main guarantee services with a range of other financing support instruments, including risk capital, mezzanine capital, and support for internationalisation. Export credit guarantees are used widely to ensure exporters against the risk of foreign customers' defaults. In Finland, for instance, Finnvera, the state-owned enterprise that provides financial services for the start, growth and internationalization of Finnish enterprises (especially SMEs), issues export credit guarantees that cover different types of risks. These may be related to the buyer or borrower (commercial risks), as in the case illustrated in Box 11, as well as to the buyer's or borrower's country (political risks). Finnvera's guarantees also extend to import activities, such as import of basic raw materials, and to investments by Finnish companies in foreign countries (in the form of equity investments, shareholder loans and guarantees granted by a shareholder).

Box 11. Export Credit Risk Guarantees by Finnvera (Finland)

Finnvera, Finland's state-owned financial institution, provides to Finnish enterprises Credit Risk Guarantees, which insure exporters against credit loss related to an export transaction. The guarantee covers either the risks due to cancellation of the delivery contract prior to the delivery or the credit risk arising from the buyer (commercial risks) or the buyer's country (political and sovereign risks). The guarantee can be granted for individual export transactions or for continuous deliveries. It can be used for export transactions with a short-term or a medium/long-term credit period. Cover percentage is normally 75-90 %.

However, as an official export credit agency, Finnvera does not issue guarantees with a risk period of less than 2 years (including manufacturing period and repayment period) for operations in EU markets (except for Greece) and in Australia, Canada, Iceland, Japan, New Zealand, Norway, Switzerland and the USA

Source: www.finnvera.fi/eng/Products/Export-credit-guarantees.

Since 1950, the Federal Government of Germany runs an export credit guarantee scheme, Hermes Cover, which supports especially activities towards developing countries and Eastern Europe. A credit guarantee schemes is also central to Germany's Raw Material Strategy, launched in 2010, to secure the supply of raw material on a long-term basis. The Untied Loan Guarantee (UFK) scheme, which exists since the 1960s, provides guarantees on lending to commercial projects in the mining, oil and gas sector.

4.4.2. Firm eligibility

CGSs differ according to the firms that are eligible for guarantees. In most cases, guarantees are issued only to firms below a given size threshold, as defined in terms of either sales or number of employees, although this threshold may then vary by sector and on whether the firms are active in international markets. For instance, in the cases of the SBA 7a Loan Program in the United States (Box 12), size threshold depends on the industry; in Brazil's guarantee fund for SMEs (Fundo de Avail às Micro e Pequenas Empresas - FAMPE) the threshold is higher for exporting firms (Box 13).

Box 12. Credit Guarantee Schemes in the United States: the 7(a) Loan Program

Several credit guarantee programs are in place in the US, the most important being the 7(a) Loan Program.[11] The program is operated by the Small Business Administration (SBA), a government agency, and started operation as early as 1953, the year of foundation of the SBA.

Size threshold determining eligibility of the program varies by industry affiliation. For manufacturing, firms must have less than 500 employees. For other sectors, the threshold is defined in terms of turnover. Guaranteed loans are allowed to finance various business purposes, including working capital, investment in fixed assets and lands, and – under special conditions – debt refinancing. Importantly, to be eligible borrowers have to certify that they were unable to obtain credits on the regular financial market.

The coverage ratio depends on the loan volume. In the case of small loans (under 150 000 USD), 85% are guaranteed compared to 75% of larger loans. The maximum amount of loan is 2 million USD. Maturity depends on the use of the loan. For working capital, the threshold is 10 years as compared to 25 years in the case of fixed assets. The program also specifies a maximum interest rate, which is pegged to the prime (up to 2.75% above the prime) and decreases with the volume of the loan and its maturity. To mitigate the adverse effects of the financial crisis for access to finance of small firms, within the framework of the Small Business Jobs Act of 2010, the maximum amount of loan volume was increased to 5 million USD.

Guarantee fees are expressed as a percentage of the guarantee and are generally paid by the borrower. They consist of an upfront fee and an annual fee. The latter is fixed at 0.54%, while the former increases with the loan volume the maturity of the loan. The maximum upfront fee is 3.7% (for guarantees exceeding 1 million USD and a maturity larger than 1 year).

Source: www.sba.gov; OECD (2012).

Some schemes are targeted to firms operating in specific sectors or geographic areas. Eligibility also differs with respect to the activity for which finance is provided. For example, the Canadian Small Business Financing Program (CSBFP) does not grant guarantees for loans intended to finance working capital needs. This was also the case of Chile's FOGAIN, a guarantee fund for investment loans managed by CORFO, until 2001, when it was extended to working capital needs.

In some cases, in order to be eligible, firms have to prove that they have been denied finance on the market due to a lack of collateral. This is the case of the US SBA 7a Loan Program, FAMPE in Brazil, and KGF in Turkey.

As a policy instrument, PGSs may also be directed at specific categories of firms, such as start-ups or innovative firms, in accordance with broader policy objectives. KIBO (Korea Technology Finance Corporation) is a guarantee institution funded by Korea's central government and banks, under the supervision of the Financial Services Commission, which targets tech-oriented ventures. KIBO may guarantee up of 100% of the loan for companies that invest in technology (Box 14).

[11] The other programs are CDC/504 Loan Program, Microloan Program, and the Disaster Assistance Loan Program.

Box 13. Credit Guarantee Scheme in Brazil (FAMPE)

The main Brazilian credit guarantee scheme is the Fundo de Avail às Micro e Pequenas Empresas (FAMPE). It was launched in 1995 and is operated by the Brazilian Support Service for Micro and Small Enterprises (Servico Brasileiro de Apóio às Micro e pequenas Empresas, SEBRAE), a private not for profit entity, created by public authorities in 1972 to support the development of micro and small firms.

FAMPE operates as a second floor institution, providing guarantees for loans issued by financial institutions to SMEs. Eligibility of firms depends on their size, as defined by their turnover. The threshold is higher for exporting firms, increasing from USD 1.2 million to USD 5.2 million. Loan guarantees are granted only to firms which do not obtain financing on regular financial markets. The maximum amount of guarantees per borrower may raise up to BRL 72 000 Reals (EUR 30 600). Fees, in turn, depend on the maturity of the loan. The upfront fee can be up to 6% of the guarantee. Coverage ratios are not allowed to exceed 50% of the volume of the loan.

The development of FAMPE experienced a slight decrease over the last years. In 2008, 66 630 loans were guaranteed corresponding to a guarantee volume of BRL 1.6 billion (EUR 684 million). The same figures amounted to 44 000 and BRL 1.1 billion (EUR 467 million) in 2009, respectively.

Source: SEBRAE, see www.agenciasebrae.com.br/noticia/9530572/economia/fampe-garante-r-43-bi-em-credito-para-micro-e-pequenas/ .

4.4.3. Guarantee assignment process

CGSs can be distinguished according to the role the scheme has in the guarantee assignment process. More precisely, three broad types of schemes exist which regulate the relationship between CGSs, banks and SMEs and establish the tasks undertaken by the scheme: *retail, portfolio* and *wholesale* guarantee systems.

In *retail guarantee systems,* CGSs typically examine the eligibility of firms, assess the risk of credits on a case by case basis, and decide whether the guarantee will be granted. In order to be able to execute these tasks, CGSs in retail schemes require qualified personnel. Assessing the credit risk on individual basis typically implies high administrative costs. In some cases, credit risk assessment is done by both the CGS and the lender. Retail-type guarantees are more common among mutual schemes. By assessing the credit risk, the detailed information MGSs often have about their member is transferred to the bank.

In portfolio guarantees, the decision to grant a guarantee is not assessed on an individual basis. Rather, the decision of whether a guarantee is granted is based on some common characteristics such as the volume of the loan, a minimum level of creditworthiness based on financial statistics, the intended use of the funds, the geographic location of the firm or its industrial affiliation. This regime typically requires a lower expertise on the part of the CGS and entails lower administrative costs.

Table 1 illustrates, for a large number of guarantee schemes in Europe associated with AECM, their operational characteristics, including the model of credit risk assessment and the role in the actual guarantee decision. All the listed schemes adopt a retail model, in a few cases also combined with a portfolio approach. In France, OSEO for instance, assesses guarantees on a retail basis, except for small guarantees commitments, which are assessed on a portfolio basis. A similar approach is taken by Thailand's Small Business Credit Guarantee Corporation (SBCG), which has both a portfolio and retail schemes. The choice of which scheme is used depends mainly on the size of the loan: the portfolio scheme is intended for small loans while larger credit volumes are guaranteed under the retail

scheme[12]. Also in Korea, the retail approach is dominant, with 99.3% of KODIT's guarantees issued directly to borrowers in 2011.

Box 14. Korea Technology Finance Corporation (KIBO)

In 1989, the Korean Government funded KOTEC (Korea Technology Credit Guarantee Fund), as a non-profit guarantee institution under the special enactment, "Financial Assistance to New Technology Businesses Act". The mission of KOTEC was to contribute to the national economy by providing credit guarantees to facilitate financing for new technology-based enterprises while promoting the growth of technologically strong SMEs and venture businesses. In 2002, the founding Act went through a full-scale revision and was newly titled "Korea Technology Finance Corporation Act". The fund changed its name to Korea Technology Finance Corporation (KIBO).

Since it was founded, the Fund has provided more than US$167 billion (₩183 trillion) worth of guarantees to SMEs that possess prominent technology and business prospects but lack security for financing. In particular, more than 80% of the total guarantee amount was provided to companies that intended to develop or apply new technologies via the Technology Credit Guarantee System. Under this program, a small technology-based company that cannot meet a bank's lending criteria (which usually implies provision of collateral) applies for a technology guarantee. KIBO investigates and evaluates the creditworthiness and the value of the technology of the company. In most cases, the banks rely on the investigation and the approval by KIBO for their decision of the loan extension. Besides guarantee provision, KIBO handles defaults and claims.

KIBO also provides technology appraisals and technological and management-support. The appraisal services include: i) technology value appraisal, which estimates the monetary value of the current or prospective technology; ii) feasibility assessment of technology business, which evaluates the feasibility of commercializing a current or prospective technology or of expanding a technology investment; iii) comprehensive technology appraisal, which evaluates the monetary value of all the technologies of the enterprise, taking into account current and expected business framework conditions.

Source: http://eng.kibo.or.kr/; KPMG (2012); Hong (2006).

A portfolio approach is generally observed in the case of guarantee schemes managed by specialised SME lending institutions. Examples include the Canada Small Business Financing Program (CSBFP), which stipulates that SMEs contact the bank which assesses their credit risk. If the SME has a turnover lower than CAD 5 million and the loan is smaller than CAD 350 000 or CAD 500 000, depending on the intended use of the loan, then the bank can make use of the CSBFP's guarantee.

Table 1 highlights, for several European CGSs, their direct role in the credit risk assessment and decision to issue the guarantee, although these activities are often carried out together with the lending institution. There are only a few exceptions to this pattern, with sole engagement by lenders in credit risk assessment, SOCAMA and OSEO in France, although in this latter case business organisations and other private agencies may be also involved in the risk assessment. Furthermore, OSEO may perform its own assessment and provide a second opinion about the bank's risk evaluation, particularly when it has some specific expertise or knowledge about the case at stake.

[12] See SBCG (2005).

Table 1. Credit Guarantee Schemes in Europe: operational characteristics

Country	Credit Guarantee Scheme	Ownership	Restricted to SMEs	Retail vs Portfolio			Credit Risk Assessment		Guarantee Decision	
				Retail	Portfolio	Combination	Guarantee Scheme	Lending Institution	Guarantee Scheme	Lending institution
Austria	AWS	Public	x	x			x	x	x	x
Austria	NöBEG	Public-private	x	x			x		x	
Belgium	Sowalfin	Public	x	x	x[1]		x	x	x[2]	x[3]
Belgium	PMV	Public[9]				x	x[11]		x	x
Bulgaria	NGF	Public	x	x			x	x	x	
Czech Republic	CMZRB	Public		x			x	x	x	
Estonia	KredEx	Public		x	x[5]		x	x	x	x[7]
France	SOCAMA	Mutual	x	x				x	x	
France	OSEO	Public-Private	x	x	x[4]			x[6]	x	x
Germany	VDB	Private		x			x		x	
Greece	ETEAN S.A.	Public	x	x			x	x	x	x
Hungary	Garantiqa	Public-Private	x				x	x	x	
Hungary	AVHGA	Mutual	x	x			x	x	x	x
Italy	Federconfidi - Confindustria°	Mutual	x	x			x		x	
Italy	Federascomfidi - Confcommercio	Mutual	x	x			x	x	x	
Italy	SFGA - ISMEA	Public	x	x			x		x	
Latvia	LGA	Public		x			x		x	x
Lithuania	Garfondas	Public	x	x			x	x	x	
Luxembourg	MCAC	Mutual	x	x			x		x	
Netherlands	Agentschap NL	Public				x	x	x	x	x
Poland	NAGF	Public-Private	x	x			x	x		x
Portugal	SPGM / SCM	Mutual[10]	x			x	x	x	x	x
Romania	FGCR - Rural	Public-Private	x	x			x	x		x
Romania	FRGCIP - RLGFPE	Private		x			x	x	x	
Romania	NCGFSME / FNGCIMM	Public[13]	x	x[12]	x[12]		x	x	x	
Russian Federation	FSECA	Public	x	x			x	x	x	
Slovenia	SEF	Public	x	x			x	x	x	
Spain	SGR / CESGAR	Mutual	x	x			x		x	
Turkey	KGF	Public-Private	x	x			x	x	x	

Notes: 1. For loans below EUR 25.000 with 75% maximum coverage rate; 2. For loans below EUR 25.000; 3. For loans up to EUR 25.000; 4.Portfolio approach only for small guarantee commitments. 5. Up to certain loan amount. 6. Business organizations and other private agencies are also involved in credit risk assessment. In some cases, OSEO performs its own risk assessment giving a second opinion of the bank's risk evaluation. 7. Lenders can make decisions up to certain loan amount if the borrower meets the terms set by the Guarantee scheme. 9. Corporate company owned at 100% by the Flemish Region, which manages a public guarantee system. 10 Founded by a public entity. 11. For guarantees up to EUR 750 000. 12. Combination of retail and portfolio mechanism. 13. Operated by a private entity.

Source: AECM.

In Malaysia, an *i-guarantee* approach has been recently developed by the Credit Guarantee Corporation (CGC), an institution established in 1972 by Bank Negara Malaysia (the Central Bank) and all the commercial banks to ease access to finance for under collateralised SMEs. Under this system, the borrower applies online for a guarantee; the CGC reviews the application, after which lenders are invited to bid online for the application. The scheme also provides a portal to SMEs with easily accessible comparative information about available guarantee options[13].

In *wholesale guarantee systems*, there is no direct relationship between the CGS on one side and the borrower and lender on the other. Typically, the role of CGSs is to provide counter-guarantees for non-banking intermediaries, often micro-credit institutions. In fact, in the case of micro-credit, transactions costs implied by retail or portfolio assessment may be relatively high. ACCION International[14] and Women's World Banking[15] are examples of microfinance networks that have been experimenting with this model.

In OECD countries, an example for a wholesale guarantee system is the publicly owned Italian SME Guarantee Fund, which provides counter-guarantees to MGSs (Confidi), with a 90% coverage ratio.

4.4.4. Risk management

Several instruments exist for CGSs to manage risk, used in varying degrees across typologies of schemes. Risk management is extremely important for the sustainability, performance and impact of guarantee schemes, since it affects the incentives of borrowers and lenders and determines the incidence of moral hazard type behaviour. Key levers in guarantee risk management are coverage ratio, term of the guarantee (i.e. length) and pricing.

Coverage ratio

One instrument to manage risk is the *coverage ratio*, which defines the extent to which a defaulted loan is guaranteed. The share varies across schemes, ranging from 20% to 100%. Beck et al. (2010) report a median coverage ratio of 80% across 76 schemes worldwide. An 80% ratio is also set as the upper threshold for guarantee coverage through public funding in the European Union State Aid Framework. As Table 2 shows for some European CGSs, some schemes impose lower caps, as in the case of Luxembourg's MCAC (Mutualite' de Cautionnement et d'Aide aux Commercants), which guarantees up to 50% of the loan.

Auction systems can be used to assign guarantee rights, which determine different coverage ratios, as in the case of Chile's FOGAPE and Mexico's National Guarantees Fund (Box 15).

[13] See www.iguarantee.com.my

[14] ACCION International is a non-profit organization founded in 1961, and a pioneer in micro-finance activities, started in 1973. See www.accion.org

[15] Women's World Banking is a microfinance network, composed of 39 financial organizations from 27 countries, which focuses exclusively on lending to women. See www.swwb.org

Box 15. Auction systems for guarantee rights: Chile's FOGAPE and Mexico's National Guarantees Fund

Coverage rates of the Chilean credit guarantee scheme FOGAPE are determined by auctions which take place four to six times per year. The scheme is government owned and managed by the state-owned bank BancoEstado, which also manages the auctions.

In the auctioning process, banks can acquire guarantee rights for three types of credit, depending on their maturity. About half of guarantee rights are for long term credits, 30% are for short term credits and the remaining 20% are for contingent operations, such as letters of credit. In each bid, banks indicate the amount of guarantee rights they wish to acquire as well as the maximum coverage rate associated with the guarantee. Guarantee rights are assigned starting with the bid indicating the lowest coverage rate. Subsequently, bids with higher coverage rates are assigned until the total amount of guarantee rights equals total bids. A single bank can acquire no more than two thirds of all guarantee rights each time. After a bank has been assigned guarantee rights, FOGAPE specifies the details of the guarantee contract, in particular the fees charged to the borrower and the coverage rate.

The BancoEstado can influence the coverage rate by setting reservation prices which depend on the type of products. For long term loans and contingent credits coverage rates must not exceed 80%, for short run credits the maximum is 70%. Moreover, the BancoEstado can exclude banks if their previous default rates exceed a given threshold or if banks do use less than 90% of the guarantees previously acquired. Between 2006 and 2010, coverage rates have increased from 65% to 77%. In 2011, preliminary evidence indicates a reduction to 68%. At the same time, the number of guarantees has increased from 25 000 in 2006 to 64 000 four years later.

The auction approach to guarantee rights in Mexico is modeled largely after the Chilean system. The National Guarantees Fund is approved by the Mexican Congress each year through reserved resources from the SME Fund, created in 2004 to integrate four enterprise support funds. The guarantee funds are distributed through two channels: the banking system and the non-bank financial system. With respect to the banking system, the government, through the SME Fund and NAFIN (Nacional Financiera), allocates funds to the commercial banks in two ways: 1) through an auction (portfolio basis), or 2) through counter-guarantees.

In the auction model, banks make a bid for funds (paying for the right to offer guaranteed loans) in which the bidder indicates the factor by which they will leverage any guarantees provided and the interest rate charged on such loans. The successful bidders are the banks prepared to offer the highest leverage and the lowest interest rates.

Source: Bozzo (2011), available at www.aecm.be/servlet/Repository/presentation-alessandro-bozzo-fogape-chile.pdf?IDR=327; Benavente (2006), OECD (2013), Mexico. Key Issues and Policies. OECD Studies on SMEs and Entrepreneurship, OECD Publishing, Paris.

In some countries, governments use the coverage ratio as a policy tool to attract a particular group of small entrepreneurs. For example, the coverage ratio of Costa Rica's FODEMIPYME can increase up to 75% (from 50%) if female entrepreneurs in rural areas apply for guarantees. Similarly, the Indian Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) provides more favourable coverage ratios for female entrepreneurs and SMEs located in the North East of the country (Box 16).

Box 16. Credit Guarantee Fund Scheme for Micro and Small Enterprises in India (CGMSE)

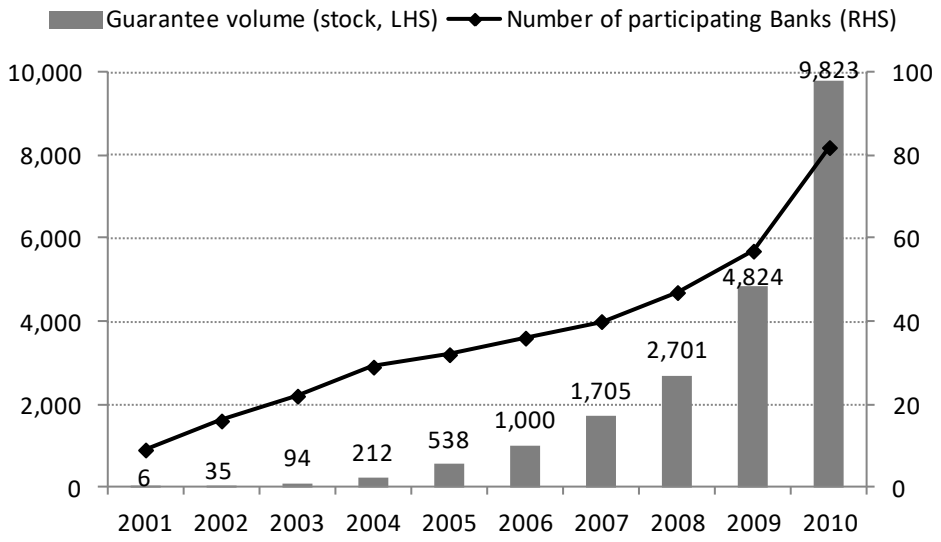
The Indian Credit Guarantee Fund Scheme for Micro and Small Enterprises (CGMSE) is run by the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) and was launched in August 2000 in order to ease financial constraints faced by micro and small firms. The trust is publicly owned, with shareholders being the Government of India and the Small Industries Development Bank of India. Lending institutions which make use of CGMSE guarantees are commercial banks, the majority being regional rural banks (53,6%).

Eligibility of borrowers is defined by investment thresholds, which vary according to the industry in which the firm operates. In particular, the threshold is larger for manufacturing SMEs than for SMEs working in services. The coverage ratio depends on the size of the firm and on the volume of the credit. 85% of small loans (< 7 600 €) demanded by micro enterprises are guaranteed, this ratio falls to 50% in the case of small firms and a larger credit volume. Female entrepreneurs and firms located in the North East of the country are granted more favourable coverage ratios. Guarantee costs are structured as follows. A one-time guarantee fees of 1% of the credit volume is charged if the latter is below 500 000 Rupees (ca. 7600 Euros). For larger credits, the fee increases to 1.5%. Additionally, lending institutions have to pay an annual service fee which amounts to either 0.5% or 0.75% of the credit depending on whether the credit volume exceeds 500 000 Rupees. Again, firms from the North East are charged lower fees.

Evidence shows that the CGTMSE has continuously grown over the past 10 years, in terms of the overall credit volume guaranteed and number of participating banks. The credit volume has increased from INR 60.6 million (EUR 870 thousand) in 2001 to INR 68.7 billion (EUR 987 million) in 2010. Both the number of guarantees and the number of participating banks experienced a surge during this period: the first increased from 951 to 151 387 and the second rose from 9 to 85. The importance of CGTMSE has also increased in relation to the overall volume of credits granted in the country. As of March 2008, 8.5% of all small credits were backed by CGTMSE guarantees corresponding to almost 14% of the guaranteed volume. In 2009, these shares increased to 9.77% and 22%, respectively. The majority of guaranteed loans is directed towards micro firms (83.5 % in 2010). This high share however corresponds to only 27% of the volume of loans guaranteed.

Guarantee Volume and number of participating banks (left scale) CGMSE

In 100 000 Indian Rupees (RHS) and numbers (LHS)



Source: Reserve Bank of India (2010), Indian Ministry of Micro, Small & Medium Enterprises.

Term of the guarantee

In addition to a maximum coverage, some schemes have a *maximum guarantee period.* In their study of 76 schemes worldwide, Beck et al. (2010) find that the average length of guarantees is 10 years, but in some schemes this length reaches 25 years. The specification of the maximum guarantee period is often used when start-ups are financed, as in their case the default risk tends to decrease over time.

In Europe, CGSs usually operate on a short to medium-term basis, particularly in the case of MGSs. A survey on pricing practices conducted in 2012 by AECM among 30 guarantee schemes in Europe shows that nearly all (93%) grant guarantees for short term redeemable loans[16], a large majority (77%) offers guarantees for overdrafts and nearly all provide guarantees for investment (medium- to long-term) loans[17].

Table 2 illustrates the guarantee terms for CGSs in Europe. Typically, the schemes set an upper threshold to the amount of the guarantee, which may differ depending on the firm size class. The maximum guarantee period varies broadly across schemes, in a range between five and 25 years. Nevertheless, the average guarantee period is generally below ten years and, in many cases, it is not above five years. In particular, MGSs provides guarantees whose length is on average below two years.

[16] Redeemable loans are short maturity loans for which the principal is paid back according to a fixed schedule.

[17] It should be noted however that the schemes do not apply a standard definition of short, medium and long term. For instance, to distinguish short term commitments, guarantee schemes consider thresholds that vary from 12 to 18 months, whereas for medium term guarantees, the upper threshold varies from 3 to 7 years. In addition, in some cases, schemes do not distinguish maturities in their portfolio (AECM, 2012).

Table 2. Credit Guarantee Schemes in Europe: Loan guarantee characteristics

Country	Credit Guarantee Scheme	Ownership	Guarantee limit	Guarantee Period (years)		Coverage Ratio (in %)		
				Maximum	Average	Minimum	Maximum	Average
Austria	AWS	Public	n.a.	20	7.2	33	80	78
Austria	NöBEG	Public-private	EUR 1.2 million	10	6	50	80	63
Belgium	Sowalfin	Public	EUR 1 million	10	5	not defined	75	45
Belgium	PMV	Public[9]	EUR 1.5 million	20	4.9	n.a.	75	64
Bulgaria	NGF	Public	EUR 500 thousand	15	3.3	n.a.	50	43
Czech Republic	CMZRB	Public	n.a.	15	7	not defined	80	75
Estonia	KredEx	Public	EUR 1 million [1]	not defined	2.4	not defined	75	66
France	SOCAMA	Mutual	EUR 200 thousand	7[2]	n.a.	100	100	100
France	OSEO	Public-Private	EUR 1.5 million	15	6	20	80	48
Germany	VDB	Private	EUR 1 million	23	6	50	80	70
Greece	ETEAN S.A.	Public	EUR 1 million	10	3	not defined	80	80
Hungary	Garantiqa	Public-Private	HUF 2.5 billion	25	2	not defined	80	65
Hungary	AVHGA	Mutual	HUF 1 billion	25	3.7	20	80	61.6
Italy	Federconfidi - Confindustria°	Mutual	EUR 2 million	15	1.5	n.a.	n.a.	50
Italy	Federascomfidi - Confcommercio	Mutual	n.a.	>5	1.5	n.a.	n.a.	50
Italy	SFGA - ISMEA	Public	EUR 2 million[3]	not defined	12	30	80	62
Latvia	LGA	Public	EUR 1.5 million	10	5	n.a.	n.a.	60
Lithuania	Garfondas	Public	LTL 4 million	not defined	5	not defined	70[5]	55
Luxembourg	MCAC	Mutual	EUR 200 thousand	10	6	n.a.	50	34
Netherlands	Agentschap NL	Public	EUR 1 million[7]	12	n.a.	n.a.	n.a.	45
Poland	NAGF	Public-Private	n.a.	5	2	n.a.	n.a.	50
Portugal	SPGM / SCM	Mutual[10]	EUR 1.5 million [4]	n.s.[6]	4	n.a.	n.a.	10%-100%
Romania	FGCR - Rural	Public-Private	EUR 2.5 million	n.a.	n.a.	n.a.	n.a.	n.a.
Romania	FRGCIP - RLGFPE	Private	n.a.	n.a.	3	n.a.	n.a.	n.a.
Romania	NCGFSME / FNGCIMM	Public[11]	EUR 2.5 million	n.a.	2.7	n.a.	80	50.3
Russian Federation	FSECA	Public	RUB 70 million	not defined	1.8	not defined	70	48.8
Slovenia	SEF	Public	EUR 1.2 million	10	7	60	80	n.a.
Spain	SGR / CESGAR	Mutual	legal limit 20% of own funds	15	8	n.a.	80	n.a.
Turkey	KGF	Public-Private	TL 1 million	8	3	n.a.	n.a.	73

Notes: 1. EUR 1.5 million for large enterprises, according to EU definitions. 2. In some cases for commercial real estate financing. 15 years. 3. For micro and small businesses. EUR 2 million for medium-sized businesses. 4. For certain credit lines the maximum guarantee is EUR 2.5 million. 5. For young farmers the maximum coverage ratio is 80%. 6. Depending on guarantee type. 7. For BMKB scheme. 9. Corporate company owned at 100% by the Flemish region, which manages a public guarantee system. 10. Founded by a public entity. 11. Operated by a private entity.
Source: AECM.

Pricing

CGSs generate revenue by charging *fees* for the provision of a loan guarantee, which also impact incentives of borrowers. Two common types of fees include up-front fees and annual fees, which often coexist. The former have the advantage of discouraging unqualified borrowers and ensuring that early defaulting borrowers contribute to the scheme. At the same time, up-front fees imply a higher financial burden for the user at the start of the investment. This method is for instance applied by BBMKB, in the Netherlands, which charges a flat rate of 3% over the guaranteed loan amount, to be paid up-front. This type of fee was in fact introduced to limit the administrative cost (Deelen and Molenaar, 2004).

In addition to guarantee fees, administrative fees may be charged by the scheme, generally to be paid up front, to cover the costs of issuing or amending the guarantee contract.

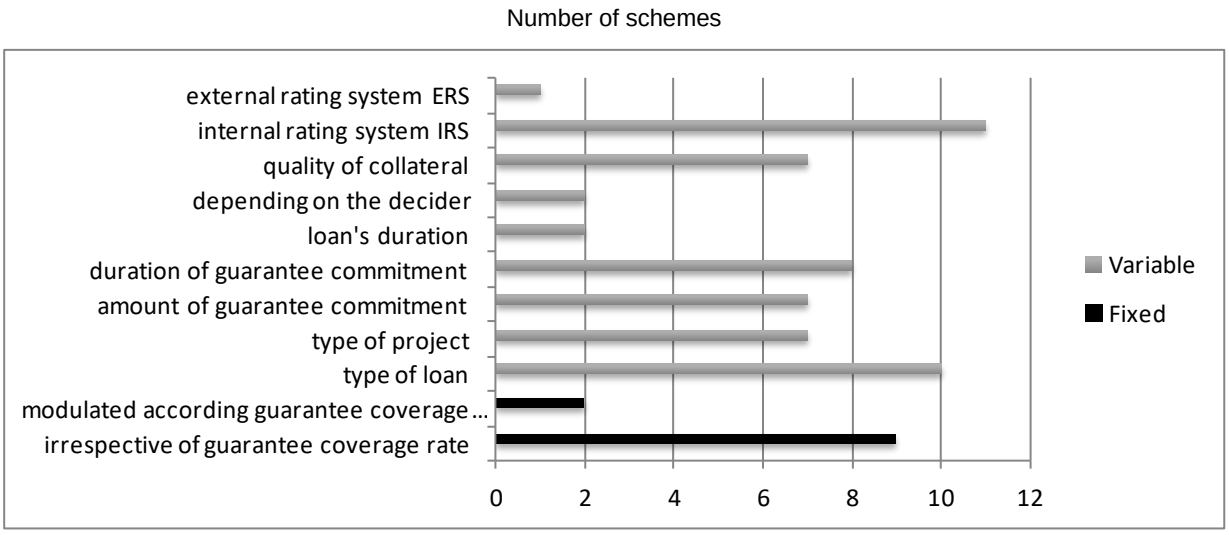
The calculation of the guarantee fees can be based on the size of the loan or on the amount guaranteed. The premium basis typically depends on the type or term of the loan. In this regard, the 2012 AECM survey on pricing reveals that the most common basis for premium is the nominal amount of the guarantees. In more detail:

i. On overdrafts and working capital loans, which are generally issued as credit line, the guarantee is commonly calculated on the nominal amount of the guarantee commitment (64% of respondents). As the use of credit volume can be variable over time[18] and difficult to track, this method offers the advantage of reducing management and administrative costs.
ii. For guarantees on short term, such as redeemable loans, the fee calculation is also generally based on the guarantee's nominal amount (74%).
iii. For guarantees on medium to long term investment loans, the pricing practices are more varied. In this case, typically, the guarantee amount decreases over time, in proportion with the loan amount, as the latter is progressively repaid. For 44% of respondents, the guarantee premium is calculated on the basis of the guarantee amount, which is a percentage of the outstanding amount of credit, according to the *effective* repayment schedule. In other cases (24%) reference is made to a *theoretical* repayment schedule, which reduces management costs implied by the follow-up of the outstanding guarantee. In other instances, the nominal amount of the guarantee is used.
iv. In the case of counter-guarantees, the guarantee's nominal amount is also the most common basis for premium calculation.

In some cases, annual fees are variables and related to type of loan or guarantee or to the borrower's risk profile. For example, the annual fee charged by Japanese Credit Guarantee Corporations depends on the credit risk of the borrower determined by the CGS's credit risk database and varies between 0.5% and 2.2%. Figure 3 illustrates, for the sample of 30 schemes covered by the AECM 2012 pricing survey, the main determinants of the guarantee premium calculation, which is variable for 63% of respondents. In many cases, more than one criterion is used. It should be noted, however, that the internal rating is generally key to the process, as well as the type of loan and term of the guarantee, and that the quality of collateral is also taken into account. On the other hand, reference to external rating systems to compute the premium is not common across the surveyed schemes.

[18] Credit lines are characterised by a maximum amount, but the extent to which the line is effectively used can vary over time, as the customer can draw according to his/her operational needs.

Figure 3. Determinants of guarantee premium computation



Source: AECM (2012) Pricing Survey. Sample of 30 guarantee schemes in Europe.

Firms in specific target groups often enjoy fee reductions. For instance, Korea's KODIT reduces fees by 0.1%-0.3% if the firm is innovative or engaged in green growth.

Whether the fee is paid by the borrower or the lender depends on the scheme. Among the 76 schemes analysed, Beck et al. (2010) report that in 56% of the cases fees are paid by the borrower, whereas in 20 % of the scheme it is the bank that covers the fee. In the case of the Canada's CSBFP it is the lender who has to pay the upfront fee of 2% and the annual fee of 1.25%. In principle, under this setting, the bank can transfer both fees to the borrower. In fact, the CSBFP's 2% upfront fee can be financed as part of the loan, whereas the annual fee may be collected as part of the interest rate.[19]

With regard to the European schemes surveyed by AECM (2012b), the bank collects the fee in the majority of the cases (63%). However, in some other cases (37%) SMEs pay the guarantor directly, without intermediation from banks. These cases include OSEO in France, the German Guarantee Banks, and the mutual schemes in Spain and Portugal, among others.

Raising the price of the loan, by charging guarantee fees, may ensure additionality of the scheme, as only higher risk borrowers that cannot obtain financing without the scheme are attracted. At the same time, if adverse selection sets in, and highly risky borrowers self-select into the programme, the default probability of the scheme may increase and its overall performance lower. Thus, guarantors face a trade-off between, on the one hand, prices that ensure additionality and allow the fund to cover its costs, and, on the other, premia that attract borrowers with a manageable risk profile.

In some cases, partial or full public subsidies are granted to help SMEs pay the guarantee premium. The rationale is that the additional cost for SMEs, on the top of the interest rate, may limit the reach of the guarantee scheme, although in many cases the fee is compensated, at least in part, by a reduction in the interest rate applied by the lender. The AECM pricing survey shows that subsidies are relatively common: out of the 30 schemes

[19] At the same time, CSBFP limits the maximum interest rate that the bank can charge at the prime rate plus 3%, including the 1.25% fee.

analysed, 40% indicate the SMEs benefit from a subsidy, which is partial in most of the cases. For example, in Hungary, for the guarantees issued by the Rural Credit Guarantee Foundation (AVHGA), the premium is partially covered by public subsidies if the loan programme is itself subsidised. In the Czech Republic, the State contributes substantially to the payment of the guarantee fees to the Czech-Moravian Guarantee and Development Bank. In the case of Spain's MGS, subsidies on premiums are in some instances provided by regional governments (AECM, 2012b).

5. The role of Credit Guarantee Schemes during the financial crisis

Access to finance for enterprises deteriorated in the aftermath of the 2008-09 global financial crisis. Facing increased difficulties in re-financing, banks demanded better credit rankings in order to grant loans. In the Euro area, at the end of 2008, the share of banks reporting a tightening of credit standards during the preceding quarter increased from 65%, as compared to 43% in the middle of the same year.[20]

The tightening of credit standards hit SMEs particularly hard, since they rely to a comparatively large extent on bank lending. The OECD Scoreboard on SME and entrepreneurship finance (OECD, 2012), which collects indicators on debt, equity, general market conditions, and measures to promote SME and entrepreneurship financing, shows that business loans and SME loans declined markedly during the recession and, while they recovered somewhat in 2010-11, they had not returned to their 2007 levels. Loan authorisation rates for SMEs decreased considerably in a number of countries due to tighter credit standards and more negative prospects as a result of the crisis. According to the survey on SME access to finance conducted by the European Commission and European Central Bank, in the euro area, rejection rates rose from 12% to 18% between the first and second half of 2009.

5.1. Expansion of public support to credit guarantee schemes

Governments were sensitive to the increasing difficulties faced by SMEs in accessing finance and responded by injecting capital into their loan guarantee programmes and direct lending programmes. In many countries, existing loan guarantee programmes were ramped up during the crisis, in terms of the total amount of guarantee funds and direct lending available, the percentage of the loan guaranteed, the size of the guaranteed or direct loan and the number of eligible enterprises. In some case, co-financing by public agencies was increased and banks pension funds were used to augment loan guarantee schemes.

The 2010 OECD report on "Assessment of Government Support Programmes for SMEs' and Entrepreneurs' Access to Finance during the Crisis" shows that in many OECD countries the capital endowment of CGSs was increased by boosting direct financial support. This was observed, among others, in Austria, Belgium, Denmark and Japan. Alternatively, governments in Spain, France, Germany, Italy and Hungary, among others, increased the counter-guarantees of CGSs allowing schemes to expand their reach (OECD, 2010; OECD, 2012). This was the case of the Italian Central Guarantee Fund, which was re-financed to increase support to the different levels of the guarantee chain, including banks and MGSs, as illustrated in Box 17.

In some countries, new guarantee programmes were introduced. In the United Kingdom, the Enterprise Finance Guarantee (EFG) was launched in 2009, replacing the Small Firm Loan Guarantee Scheme (SFLG), in operation since 1981 with similar design features. EFG

[20] ECB, "Euro Area Bank Lending Survey", October 2008.

supports counter-cyclical lending. That is, it facilitates additional lending to viable SMEs that would be able to secure lending from banks under normal circumstances, but are lacking the security or proven track record required by financial institutions in the post-crisis environment. In fact, to ensure additionality, applicants must show that they have first been denied a loan outside of the EFG scheme. Furthermore, with respect to the earlier scheme, it provides assistance to a larger number of firms, as eligibility criteria have been modified. While SFLG provided guarantees on loans up to GBP 250,000, the EFG indicates an upper limit of GBP 1 million. Also, the upper limit of the turnover for beneficiaries increased from GBP 5.6 million to GBP 25 million. As a result, there was a three-fold increase in the volume of guaranteed loans between 2007-8 and 2009 (OECD, 2012). In March 2012, the turnover ceiling was further increased to GBP 41 million and the Fund is expected to benefit a significantly larger share of enterprises.

In Ireland, where total business lending declined during the crisis and even more during the recovery period, in April 2012, the government announced the creation of a first Credit Guarantee Scheme. In its initial stage, this will facilitate up to EUR 50 million of additional lending per annum to SMEs for three years, providing guarantees at 75% coverage rate to banks for loans up to EUR 1 million. The target groups will be commercially viable SMEs which have a good performance, solid business plan and a defined market for their goods and services (OECD, 2013).

Drawing from the *OECD Scoreboard on SME and entrepreneurship finance* (OECD, 2013), Table 3 shows, for a number of countries, the trend in government guarantee support over 2007-2011, measured in terms of value of guarantees or value of guaranteed loans. In most cases, government guarantees provided to SMEs, via the financial system, increased dramatically over 2009-2010. The value of guaranteed loans increased by 65% in Turkey, 80% in Chile, 86% in Italy, 155% in the Netherlands and 338% in Denmark. In Hungary, the flows of guaranteed loans increased by 38%. In Spain, the stock of guarantees intended for the securitisation of funds increased by 24%. In Switzerland, which reports data on government loan guarantees, rather than on guaranteed loans, their value increased by 15%, from CHF 187 million to CHF 215 million.

In a few countries, the upsurge in government guarantee activity took place earlier, at the outbreak of the crisis. Between 2008 and 2009, government guaranteed loans increased by 64% in France and by 87% in the Czech Republic. In Portugal, loans to SMEs guaranteed by the public Mutual Counter-guarantee Fund more than doubled. In Korea, the value of loans guaranteed by KODIT and KIBO increased by 42% between 2007 and 2009, and remained stable afterwards, also due to the policy measure that allowed the roll-over of loans without any guarantees.

In 2011, in some countries, namely the Czech Republic, France, Italy, Korea, the volume of government guaranteed loans declined, although, with the exception of the Czech Republic, it remained far higher than in the pre-crisis period. In some cases, this matched a negative or flat trend of SME loans, which may suggest a general slowdown in SME lending activity. In the United Kingdom, the level of guaranteed loans declined in both 2010 and 2011, as banks were reaching their limit in terms of what they could receive under the guarantee programmes. Thus, they became less willing to lend, whereas the SMEs' uptake of the programme continued to increase. In fact, guaranteed loans utilised compared to those offered increased over the period from 83% to 90%. As a result, in March 2012 the UK government announced an increase in the limit on guarantee payments which can be made to lenders, to encourage further lending.

In other countries, including Chile, Denmark, the Netherlands, the Russian Federation, Spain and Turkey, the upward trend in guarantees or guaranteed loans continued in 2011. Also in Finland, where Finnvera loan guarantees had increased during the crisis before declining moderately in 2010, the positive trend in 2011 led to an overall increase by 19% in relation to the value of SME guarantees recorded in 2007. In this framework, Canada represents an exception, as the value of government's guaranteed SME loans remained rather stable over this period. However, also in the case of Canada, contrary to other stimulus measures implemented as part of the government Economic Action Plan, changes to the CSBFP, such as the increase to the maximum loan amount, were not phased out in the course of 2011.

Box 17. Italy's Central Guarantee Fund during the crisis

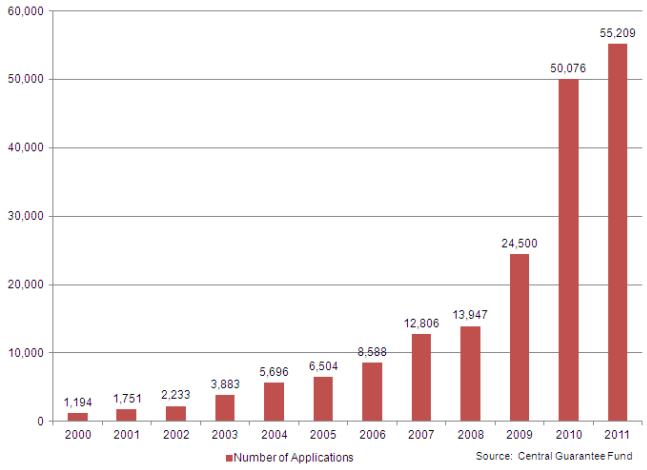
In response to the financial crisis, the Italian Government has re-financed the Central Guarantee Fund, in order to expand its credit guarantee operations. The Central Guarantee Fund provides direct guarantees to banks and acts as a guarantor of last resort for the MGSs, to the benefit of SMEs with less than 250 employees.

From 2000-2007 it provided EUR 4.2 billion in guarantees for EUR 8.7 billion worth of loans. In 2009, the endowment was increased to EUR 2 billion until 2012. Furthermore, criteria for issuing guarantees changed and the eligibility of the previously excluded crafts enterprises was introduced. Moreover, the maximum guarantee per firm was increased from EUR 0.5 million to EUR 1.5 million.

In 2009 alone, guarantees worth EUR 2.7 billion were issued, against an amount of EUR 8.1 billion over the entire 2000-2009 period. This corresponded to an amount of credit of EUR 4.9 billion in 2009, against an amount of EUR 15.9 over 2000-2009. Throughout 2010-2011 the CGF showed an unprecedented growth. In the first half of 2011, applications grew by 28.9% (with respect to the first semester 2010). The counter-guarantee operations increased at a higher rate than direct guarantees (25.8% vs. 12.3%).

Although the demands authorised continued to grow, the amount of funding decreased (from 4.2. billion Euro during the first semester 2010 to 4.0 billion Euro during the first semester 2011). In addition to public support via the Central Guarantee Fund, Chambers of Commerce also acted to ease SME access to finance, by providing direct funds as well as counter-guarantees to the Confidi.

Italy's Central Guarantee Fund: number of applications, 2000-2011



Source: AECM (2009); Zecchini and Ventura (2009); Mistrulli et al. (2011).

In the US, on the other hand, the 2008-2009 the crisis had a pronounced impact on the SBA's Capital Access Programs. In particular, the volume of its two largest loan guarantee programmes declined sharply, to rebound in 2010 after the major interventions by the Federal government. The programmes were especially affected by the drop of inter-bank confidence and the negative implications on activities in the secondary market, where about 40% of the 7(a) guaranteed loans are traded (OECD, 2012).

Table 3. Government guaranteed loans in selected countries, 2007-2011

Country	Unit	2007	2008	2009	2010	2011	Definition
Canada	CAD billion	1.2	1.3	1.2	1.3	1.3	Guaranteed loans for SMEs, flows from central government
Chile	CLP million	284 405	263 610	799 310	1 441 186	1 964 176	Government guaranteed loans to SMEs, flows
Czech Republic	CZK million	2 959	5 094	9 550	10 070	630	Government loan guarantees, SMEs, value of guarantee fund
Denmark	DKK million	130.5	93.8	117.8	515.6	824.8	Government guaranteed loans to SMEs
France	EUR million	5 850	6 861	11 267	10 883	8 826	Government guaranteed loans to SMEs
Hungary	HUF million	381 400	436 400	600 300	472 019	437 200	Government guaranteed loans to SMEs, (flows)
Italy	EUR billion	2.3	2.3	4.9	9.1	8.4	Government guaranteed loans to SMEs by the Central Guarantee Fund.
Korea	KRW trillion	39.7	42.9	56.3	56.1	55.5	Value of loans guaranteed by KODIT, KIBO; stocks.
Netherlands	EUR million	409	400	370	945	1 040	Government guaranteed loans to SMEs
Portugal	EUR million	740	1 552	4 961	6 285	6 147	Government guaranteed loans to SMEs by the public Mutual Counter-guarantee Fund
Russian Federation	RUB billion	n.a.	n.a.	38.9	66.8	122.7	Loans guaranteed by regional funds of SME assistance
Serbia	EUR million	n.a.	10.5	2.6	2.2	n.a.	Loans to SMEs guaranteed by government, flows
Slovak Republic	EUR million	115	157	143	139	167	Government guaranteed loans to SMEs, flows
Spain[1]	EUR million	5 210	7 053	5 906	7 236	7 502	Government guaranteed loans to SMEs, stocks
Sweden	SEK million	157	131	107	0[2]	0[2]	Government guaranteed loans, by Swedish Credit Guarantee Association
Thailand	THB billion	n.a.	n.a.	21	n.a.	n.a.	Government guaranteed loans to SMEs, stocks
Turkey	TL million	75.4	402.5	790.6	1 302	1 622	Government guaranteed loans
United Kingdom	GBP million	207.0[3]	178.0[3]	759.5	588.6	362.6	The value of Enterprise Finance Guaranteed (EFG) Loans offered to SMEs.
United States	USD billion	20.6	16.1	15.4	22.5	18.7	Government guaranteed loans, SMEs, by the Small Business 7(a) loan program

1. Figures are for guarantees issued for the securitisation funds (stocks).
2. No new government guaranteed loans for SMEs were issues in 2010-11 by SKGF (Swedish Credit Guarantee Association), which, however, is not the only provider of government guaranteed loans for SMEs.
3. Figures are for the Small Firms Loan Guarantee scheme and relate to financial years.

Source: OECD (2013).

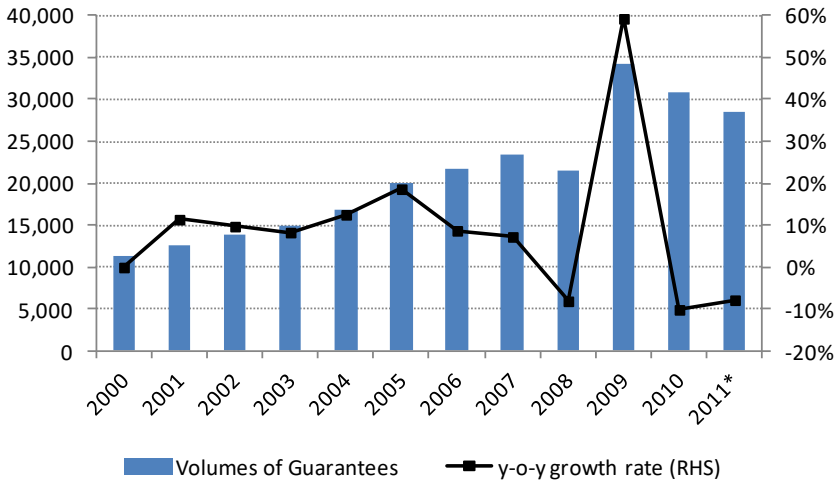
Figure 4 provides a complementary perspective on the trends during the crisis, focusing on the guarantee schemes level. It illustrates the trends in the value of guarantees granted by a number of CGSs in the euro area, over 2000-2011. The highest growth rate was recorded in 2009, when the value of guarantees increased by 60% with respect to the previous year. The

value of guarantees decreased in 2010 and 2010, by 7.45%, but remained well above the level of 2008.

The remarkable increase in the overall volume of guarantees in 2009 corresponded to an increase in the number of guarantees granted per year by 30% with respect to 2008 (Figure 4). However, in 2010, the number of issued guarantees sharply declined, to return, in 2011, to about the 2008 level (Figure 5).

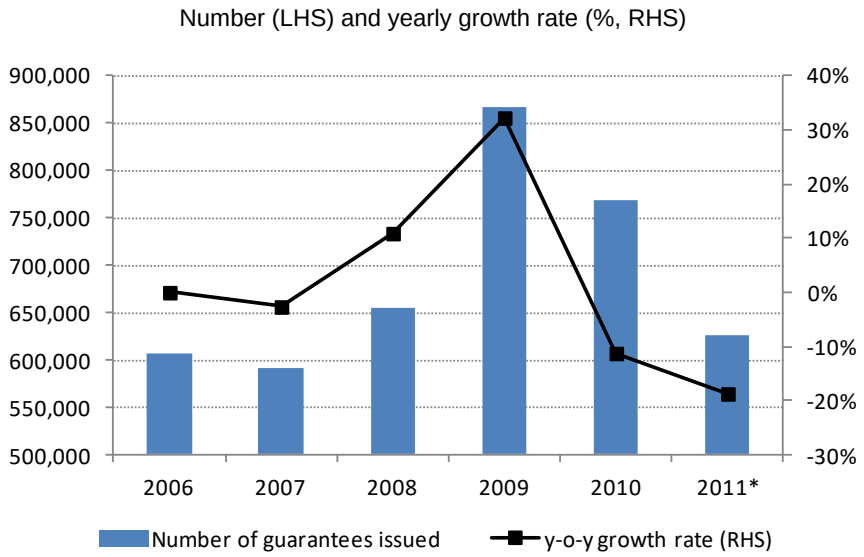
Figure 4. Value of guarantees granted per year in selected European CGSs, 2000-2011

In EUR million (LHS) and percentages



Note: Data for 2011 is preliminary.
The schemes included are: AWS (Austria), NöBEG (Austria), SCM/MOB (Belgium), Sowalfin (Belgium), Sowalfin / Socamut (Belgium), PMV (Belgium), NGF (Bulgaria), CMZRB (Czech Republic), KredEx (Estonia), Finnvera (Finland), SOCAMA (France), Siagi (France), OSEO (France), VDB - Bürgschaftsbanken (Germany), ETEAN S.A. (Greece), Garantiqa (Hungary), AVHGA (Hungary), Fedartfidi (Italy), Federconfidi (Italy), Fincredit (Italy), Federascomfidi (Italy), Federfidi (Italy), Coldiretti (Italy), SFGA - ISMEA (Italy), LGA (Latvia), INVEGA (Lithuania), Garfondas (Lithuania), MCAC (Luxembourg), Agentschap NL (Netherlands), BGK (Poland), NAGF (Poland), SPGM / SCM (Portugal), FGCR - Rural (Romania), FRGC - RLGF SMEs (Romania), NCGFSME (FNGCIMM) (Romania), FRC - Counter-guar. (Romania), SGR / CESGAR (Spain), SZRB (Slovak Republic), RRA-GIZ (Slovenia), SEF (Slovenia), SKGF (Sweden), Teskomb (Turkey), Kredi Garanti Fonu (Turkey).
Source: AECM

Figure 5. Number of guarantees granted per year in selected European CGSs, 2000-2011



Note: Data for 2011 is preliminary.
For schemes included; see note Figure 4.
Source: AECM

5.2. Changes in elements of Credit Guarantee Schemes to ease SMEs' access to finance

In order to offset the credit crunch and ease SME access to finance, over 2008-2010, new elements were added to CGSs in many countries. In some cases, new instruments were created outside the traditional guarantee programmes (OECD, 2010; OECD 2012). Relevant changes included increasing the coverage of guarantees sometimes to 100%, as in the case of Korea (Box 18). In the European Union, raising the threshold to over 80% was made possible by temporary changes of the provisions regarding admissible state aid (see Box 19). For instance, France's OSEO and the German Guarantee Banks temporarily increased the maximum coverage ratio to 90%. The European Union Temporary State Aid Framework also allowed for higher aid amounts of EUR 500 000 (equivalent to EUR 3.8 million in guarantees) instead of EUR 200 000 over three years.

In order to enhance the scope of CGSs, in several countries the eligibility criteria for guarantees were made less stringent, in terms of firm size and in terms of the use of the loan. For instance, in Italy, crafts firm, which had been excluded from loan guarantees provided by the Central Guarantee Fund before the crisis, were allowed to apply for guarantees. Across many countries, loans intended to finance working capital needs were increasingly guaranteed, in response to a shortage of working capital funds. This was the case of CGSs in Austria (AWS), France (OSEO) and Germany (Guarantee Banks), among others (AECM, 2009). As part of the Canada's Business Credit Availability Program (BCAP), launched in 2009 and ended in October 2011, the Business Development Bank of Canada (BDC) introduced an Operating Line of Credit Guarantee, to provide incremental access to working capital loans.

Other changes in CGSs' objectives and operations included: guaranteeing short-term loans and countercyclical loans; postponing the repayment of guaranteed loans; combining guaranteed loans with business advice services (get started loans); and guaranteeing equity

capital (OECD, 2010; OECD; 2012). For instance, in the Netherlands, the Growth Facility programme (*Groeifaciliteit*), which offers banks and private equity companies a 50% state guarantee on newly issued private equity capital for the private sector (including SMEs), was extended in October 2009. The maximum individual equity capital amount, for which the 50% state guarantee can be applied, was raised from EUR 5 million to EUR 25 million (OECD, 2010).

Box 18. Korea's "Intensive Rescue Plan"

In order to alleviate the adverse effects of the financial crisis on SMEs' access to finance, the Korean Credit Guarantee Fund (KODIT) established the "Intensive Rescue Plan" in 2009. As part of this Plan, conditions for issuing guarantees were made less stringent and funding was increased. For example, the maximum amount of guarantee per loan was increased from KRW 3 billion (EUR 1.8 million) to KRW 10 billion (EUR 6.5 million). At the same time, the coverage ratio increased temporarily up to 100%, implying that the entire loan granted by the bank was guaranteed. In order to reduce the bureaucratic burden associated with the guarantee, the screening of borrowers was substantially reduced.

The corresponding capital injections were undertaken by both government and banks. The former increased their contribution by more than 20 fold, from USD 74 million to 1,534 USD million, between 2008 and 2009. Financial institutions more than doubled their financial support from USD 624 million to USD 1,440 million.

As a consequence of these measures, the volume of outstanding credit guarantees increased from USD 27 billion in 2008 to USD 39 billion in 2009. The associated leverage ratio, in turn, decreased from 8.5 in 2008 to 7.4 in 2009. As the economy recovered from the crisis, in 2010 the coverage ratio was reduced to 85%, on average. Moreover, thorough screening process was resumed.

Source: KODIT (2010a; 2010b); APEC (2010).

Box 19. The European Union State Aid Framework and Credit Guarantee Schemes

In order to improve access to finance in the realm of the crisis, the European Commission adopted in 2009 the "Temporary Union Framework for State aid measures to support access to finance in the current financial and economic crisis", which modified the criteria defining State Aid,, introducing a less stringent approach to guarantees.

Article 107 of the Treaty of the Functioning of the European Union State (ex. Article 87 TEC) states that *"any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall […] be incompatible with the internal market"*. In the case of credit guarantee schemes, aid granted by a Member state refers to the public funding of schemes, either through direct financial support or in the form of counter-guarantees. Hence, to the extent that privately run guarantee schemes like MGS receive counter guarantees from government sources they are subject to Article 107.

The rules and conditions defining State Aid in the form of guarantees are summarised in a Commission Notice (OJ C 155/10 2008). This stipulates that, in order to rule out that Guarantee Schemes are classified as State Aid, they (a) have to be closed to borrowers in financial difficulties; (b) have to be limited in time and amount; (c) must not cover more than 80% of the loan; (d) dispose of a pricing structure which mimics market prices and, in all probability, allows the scheme to be financially sustainable; (e) have to review regularly the level of their premiums charged on the basis of the scheme's effective loss rate; (f) and, in order to accurately reflect market prices, the premiums have to cover administrative costs of the scheme, the risks associated with the granted guarantees and provide an adequate remuneration of capital.

If the scheme is limited to SMEs[21], the legislation allows for two derogations from the regulations governing the credit risk assessment and the calculation of premiums. First, points (d), (e), and (f) are deemed to be fulfilled if the scheme charges a minimum "safe-harbour" premium, which is applied on the guaranteed amount and calculated on the basis of the credit riskiness of the borrower[22]. Second, by way of derogation from (d), the scheme is allowed to charge a single yearly premium applied on all borrowers rather than assessing the borrower's credit risk on a case-by case basis. In the latter case, a limit on the guaranteed amount per firm applies (EUR 2.5 million).

Where guarantees are to be considered as state aid, they can be considered as non-distortive of competition in the EU Internal Market, as long as their coverage rate does not exceed 80%, the guarantee amount granted in form of state aid does not exceed EUR 1.5 million in guarantees over three years and they do not support enterprises in difficulties. These provisions are contained in the De Minimis Regulation (Commission Regulation 1998/2006). If guarantee measures containing state aid cannot fulfil the requirements under the De Minimis Regulation, the scheme can still be declared compatible with competition in the Internal Market by the Commission after a notification procedure. Many guarantee schemes in Europe make use of De Minimis Regulation as a relatively uncomplicated way to account for state aid (AECM, 2012a).

The first State Aid temporary framework was introduced in 2009 and applied to guarantees granted before December 2010 (OJ C 83/1 2009). In particular, it allowed guarantee schemes to reduce "safe-harbour" premium by up to 25%, to increase the coverage rate to a maximum of 90%, to provide state aid in form of guarantees for up to EUR 3.8 million (corresponding to EUR 500.000 of gross grant equivalent) and to guarantee loans intended to finance working capital needs. Moreover, guarantees were allowed to be granted to firms in financial difficulties. For the year 2011, the second temporary framework fixed the reduction of the "safe-harbour" premium to max 15%, returned to the maximum coverage ratio of 80% and maximum guarantee state aid equivalent of EUR 200.000 over three years and excluded firm in financial difficulties (OJ C 6/5 2011).

[21] SMEs are defined in the Community Guidelines on State Aid for Small and Medium-Sized Enterprises (see OJ No C/213/4 1996, p.2).
[22] Point 3.3 in OJ C 155/10 2008 contains details on the calculation of the safe-harbour premium.

In some European countries, characterised by established mutual guarantee schemes, these also played a key role to ensure liquidity was maintained for SMEs, as illustrated by Mistrulli et al. (2011) and Bartoli et al. (2012) for the Italian case. Indeed, the financial support provided to them by central or regional governments, in the form of co- or counter-guarantees, and the loosened eligibility requirements, suggests they were identified as a potentially effective countercyclical instrument (see Box 20). However, for some of these schemes, this has brought about an important change in scale and scope, which combines with the ongoing transformation induced by regulatory reforms, such as Basel II and Basel III. Furthermore, their countercyclical function has resulted into greater exposure to insolvency, which may affect their long-term sustainability, as later discussed.

Over 2011-12, in some countries, as crisis measures were phased out and new programmes introduced to foster growth and job creation, some guarantee instruments have been tailored to specific categories of SMEs, such as start-ups or innovative firms. In other cases, guarantee schemes have been introduced to support equity investments, addressing, among other objectives, the need for de-leveraging firms, support them in key transitions, including expansion or ownership transmission. This is the case of Germany, where the pre-existing KfW assistance programmes and the ERP Special Fund have been focused more on new start-ups and company hand-overs.

Box 20. Mutual Guarantee Schemes as a counter-cyclical instrument: the case of Confidi in Lombardy, Italy

The Lombardy region is the main platform for financial services in Italy, characterised by a high density of financial intermediaries and a well-established network of institutions that provide financial services to SMEs, such as mutual guarantee schemes (Confidi). In 2011, a survey by Unioncamere Lombardia (the regional Union of Chambers of Commerce) on 31 regional Confidi counted 238,000 firms associated to these schemes. Historically, the Confidi system has been highly fragmented, with a large number of small schemes serving specific groups of enterprises and territories. However, over the last five years, the entire financial system has been undergoing a process of consolidation, which has also affected the Confidi structure. Medium-sized players have emerged that, nowadays, control about 76% of the regional guarantee market. Important changes have been also taking place at the higher regional level. Through a process of aggregation, a supervised second-tier Confidi was created, Federfidi Lombarda. This is now the sole counter-guarantee institution in the region and the main guarantor for local guarantee institutions, which in turn provide guarantees benefiting SMEs in the artisan and industry sector.

As credit conditions deteriorated in 2008-2009, the regional government has responded mainly with measures that supported the existing network of SME-oriented schemes and institutions, such as Confidi. A fund, “Confiducia”, was created in 2009 by the regional government, Unioncamere Lombardia, and the chambers of commerce, to limit the effects of the crisis and ease access to finance by regional SMEs. The fund amounted to EUR 57 million, of which the greatest share (EUR 51 million) was assigned to counter-guarantee or co-guarantee the guarantees by the Confidi affiliated to Federfidi Lombarda (the second-tier regional scheme), and a minor part (EUR 6 million) was assigned to support the Confidi outside of the Federfidi coverage. The operations of the Fund terminated on 31 March 2011, having supported 14 500 financing procedures, amounting to more than EUR 1 billion.

Source: Unioncamere Lombardia (2011).

6. Evaluation of Credit Guarantee Schemes

The evidence provided in this report highlights the diffusion of credit guarantee schemes, across OECD countries and non-OECD economies, to address the SME financing gap. These are long-established elements of many financial systems worldwide, whose policy

relevance has increased in recent years, implying, in some cases, changes in scale, operational characteristics and targets against which their performance is assessed.

In spite of the growing attention by policy makers on CGSs, however, there is a dearth of analysis to systematically inform the process of design, implementation and evaluation of these instruments (Beck et al., 2010). As more public support is extended to guarantee schemes, accountability, through public reporting of results, is essential. At a time of stringent public budget constraints, policy assessment is all the more critical. Evaluation is also needed to foster learning by policy makers and other stakeholders, identify good practices, opportunities and challenges to improve design and implementation of credit guarantee measures.

As this report illustrates, there exists a large heterogeneity across schemes, along several dimensions, including regulatory framework, governance, funding, operational characteristics and risk management practices. This diversity makes comparative assessment particularly challenging. However, some common issues can be identified, based on general evaluation dimensions, recent trends and insights from studies undertaken on specific schemes.

The literature identifies some key dimensions of evaluation:

i. *Financial sustainability* refers to the ability of the scheme to generate autonomously the net resources required for operating. In other terms, it indicates the degree to which the scheme depends on public funds, or the public subsidy component implied in its operations.
ii. *Financial additionality* relates directly to the rationale for developing or supporting guarantee schemes, that is, to mitigate failures in financial markets, which prevent viable firms from obtaining funds. Financial additionality captures the increase in the flow of funds towards viable SMEs that can be attributed to the existence of the scheme[23].
iii. *Economic additionality* describes the effect of increased access to finance on overall economic welfare, as measured by changes in sales, employment, investment and innovation performance of the small businesses supported. At the aggregate level, the SME financing gap translates into reduced growth and lower economic welfare (OECD, 2006). Thus, at the macro level, economic additionality is measured by the effects on competitiveness and economic growth, taking into account both the indirect benefits of CGSs, including knowledge flows, learning and upgrading of financial skills, and their broad opportunity costs.

The following paragraphs discuss these performance dimensions, as well as a key indicator, the *leverage ratio*, which can be used to evaluate both additionality and sustainability. The discussion is informed by evidence from recent studies, which also point to related methodological challenges.

6.1. Financial sustainability

Determinants of financial sustainability

Financial sustainability indicates the ability of the scheme to cover the costs related to its operations and to loan defaults. To the extent that CGSs are financed by public money, the

[23]The term 'incrementality' is also used in the literature to indicate 'additional effects'.

degree of financial sustainability captures the taxpayer's burden from the operations of the scheme.

Financial sustainability of CGSs is determined by comparing operating costs and financial returns of the scheme. Table 4 indicates the main types of costs and returns typically related to the activity of the CGS.

On the expenditure side, a CGS incurs costs stemming from the acquisition of funds, operations and losses on defaulted loans. The costs of funds depend mainly on the sources of funding, that is, on whether these are provided by public sources, private stakeholders or are collected in the credit financial market. Market interest rates are considered in the latter case, whereas equity contributions are valued at their opportunity cost, that is, as a standard practice, at the inflation rate (Deelen and Molenaar, 2004).

Table 4. Financial Sustainability: key variables

Costs	Financial returns
Costs of funds	Guarantee fees
Operational costs	Administrative fees
Losses on guarantees	Return on financial investments

Source: Adapted from Deelen and Molenaar (2004).

The operational costs are mainly composed of administrative and management costs. Costs for personnel can be particularly high in the case of retail schemes and direct engagement in the credit risk assessment, as more administrative tasks are implied and qualified personnel is required. Operational costs are also affected by the engagement of the scheme in the loan follow-up and by the methods for handling claims.

Loan losses arise when the borrower defaults on a loan and the CGS is called to pay out to the lender. The amount of these losses thus depends directly on the volume of guarantees and the default rate. However, these are themselves affected by other variables, related to the scheme design, including the eligibility criteria, the guarantee terms (e.g. coverage ratio, guarantee limits) and the credit risk assessment, which may also influence the borrower's behaviour. In other terms, these variables impact directly on the amount paid out to lenders, but also indirectly as selection mechanisms and signals to potential borrowers, limiting or increasing adverse selection and moral hazard. The effective loss implied by defaulted loans depends also on other risk management tools, such as counter-guarantees, insurance, and portfolio securitization.

In the literature, the cost element has been a frequent argument against a retail approach (e.g. Beck et al., 2010). On the other hand, retail schemes are sometime associated to higher quality in risk assessment, lower probability that the borrower defaults on a loan, and thus lower expenses for loan losses. As Honohan (2010) underlines, in the trade off between costs and benefits from individual risk assessment, a discriminating factor is whether the guarantor has an information advantage for retail appraisal.

On the side of returns, CGSs generate income by charging a guarantee fee to borrowers and/or lenders. As illustrated in Section 4, pricing is a key dimension in the design of CGSs and the guarantee fess carries a trade-off: charging high fees may ensure that costs are covered and that only constrained firms are attracted to the scheme, but, on the other hand, it can limit the uptake to highly risky borrowers only.

CGSs also generate resources from the investment of their own funds. The amount available for investment is closely related to the losses on guarantees and the share of retained profits. As commented above, in some countries (e.g. Germany, Spain) tax

exemptions for mutual schemes are intended to favour reinvestment of gross earnings in the guarantee activity.

Assessment of financial sustainability

Following the extensive use of guarantees to limit effects of the crisis on SME lending, the exposure of CGSs to risk has substantially increased over the last years. Default rates have increased in most cases, which may threaten the soundness of schemes over the medium to long term. According to a recent survey of nine large guarantee players in Europe and Asia[24], guarantee schemes used as anti-crisis tools for supporting SMEs reported a considerable increase in bad debts (KPMG, 2012). In Italy, in 2011, 50% of the MGSs registered net losses (Schena, 2012). In Spain, the default rate for MGSs increased from 6.09% in 2007 to 12.68% in 2009. However, this compares with an increase from 2.76% to 8.50% for banks and from 2.89% to 9.10% for savings banks ('Cajas'), which suggests, for mutual schemes, which are more exposed to risk in light of their activity, the relative increase was smaller than for other financial institutions (Afi and CESGAR, 2010).

The countercyclical expansion of CGSs has responded to temporary policy measures and has most often implied a greater commitment on public finances, in the form of direct funding or counter-guarantees. As anti-crisis measures are phased out, the public support along these forms is also expected to decline. At the same time, as solvency problems persist, the increased default rates may continue to affect the financial performance of the schemes and the burdens on public budget. In this regard, however, continuing with extraordinary support may result in much of the credit risk, which would normally be borne by financial markets, to be transferred to the public sector (OECD, 2010).

It should however be noted that some form of public support is inherent in credit guarantee systems in many countries. Although the empirical evidence is scarce, existing studies identify a public subsidy element in many different types of schemes, including private or mixed models, which may benefit from public co- or counter-guarantees. Income from fees is generally not sufficient to cover both operational costs and loan losses (Green, 2003). Analysing several recent studies on large guarantee programmes, Honohan (2010) concludes that the range of net fiscal cost may vary substantially between zero and at least 15% annum of outstanding guarantees. For instance, in the case of Chile's FOGAPE, fees have been sufficient to cover the administrative expenses of the scheme as well as claims, thanks to increase in annual charges (Benavente et al. 2006). On the other hand, in the case of schemes in Mexico, Benavides and Huidobro (2005) estimate that the charges of between 0.5% and 4% of the sum guaranteed cover only about a half of the operating costs and underwriting losses.

This evidence suggests that public support to the credit guarantee system is common and possibly essential for the business to be viable for private investors, at conditions that also meet government objectives, such as the service to a large number of viable but credit-constrained SMEs. In the framework of the evaluation of Canada's CSBF in 2010, interviewed lenders did not see any incentive for private financial institutions to offer an *equivalent* loan guarantee programme and indicated government involvement to be essential for these types of schemes[25].

[24] The study by KPMG (2012) covers OSEO (France), Garantiqa (Hungary), Perum Jamkrindo (Indonesia), Eurofidi (Italy), CGC Tokyo (Japan), KODIT (Korea), SGR Valenciana (Spain), SBCGC (Thailand) and KGF (Turkey).

[25] See www.ic.gc.ca/eic/site/ae-ve.nsf/eng/03105.html.

The losses of the guarantee schemes may also depend on the portfolio composition. A study conducted by Equinox (2008) on Canada's CSBF over 1996-2007 shows that a higher probability of credit default is associated with several attributes of borrowers, including age and size, with younger and smaller firms being more likely to default, as well as of the types of loan with higher default rates associated to larger credit volumes and longer loan maturity. The sector of operation also tends to explain default risks.

Furthermore, CGSs' income position appears to be closely linked to their design, approach to credit risk assessment, organisational efficiency and quality of management. For instance, Beck et al. (2010), by comparing 76 CGS across developed and developing countries, find that losses (as measured by the share of defaulted loans) are lower in the case of younger schemes, which may be explained by the time needed for guarantee portfolios to consolidate and defaults and losses to emerge. The authors also find that losses are lower when the private sector is actively engaged in the scheme, although the direct involvement of government in recovery, management and funding is not associated *per se* with higher losses. This suggests the expertise of private financial institutions may be important in assessing and managing risk, but also that public schemes may pursue different objectives than financial sustainability. Interestingly, the country's overall level of development and the size of the fund do not seem to have an effect on the performance of the scheme, which may however be affected by other country-level characteristics, such as the development of the financial sector and the quality of the overall legal and regulatory system.

The recent regulatory reforms of the financial system (e.g. Basel II and Basel III) also have implications on the financial performance of CGSs. In fact, the greater complexity of the regulatory environment is likely to increase operational costs, whose level may change also as a result of the greater scale and broader scope of schemes triggered by the new requirements. Greater efficiency will thus be needed to limit the transfer of these costs to prices and to compete in this changing environment. At the same time, new regulations are likely to incentivise the use of guarantees, particularly of government-backed guarantees, to reduce the risk weight of SME loans in the lenders' portfolio (see Box 8).

In light of the policy objective to mobilise loanable funds to the advantage of credit constrained SMEs, the adoption of a multi-dimensional perspective in the assessment of public schemes, rather than a focus on financial sustainability *per se*, has been proposed. Sustainability is thus assessed, for instance, against the reduction in guarantee premia, which may facilitate uptake by credit constrained viable businesses. In other terms, sustainability and additionality are evaluated at the same time, taking into account the alternative use made of public resources to achieve similar economic objectives.

Along this approach, Zecchini and Ventura (2009) analyse financial sustainability and additionality of the Italian Guarantee Fund over 2000 – 2004. For this purpose, the authors develop an indicator of fund's deficit, defined as the amount of expenses not covered by revenues divided by the volume of outstanding guarantees. For the Italian Fund, the authors calculate a deficit ratio of 0.0028, meaning that, on average, 0.28% of a guaranteed Euro is paid through public subsidy. However, the authors compare this implicit subsidy with other State-funded subsidy schemes for enterprises, which carry a much higher grant element, and conclude the public cost of the scheme is relatively low.

A similar point is argued also by Deelen and Molenaar (2004), who maintain it is questionable for CGSs to strive to achieve financial sustainability at any cost. Urging schemes to generate sufficient income to be financially independent can provide appropriate incentives for efficient management and organisation. At the same time, however, this approach can induce overly risk-averse behaviour on the part of the scheme,

implying that only the more creditworthy firms obtain loan guarantees. This, in turn, increases the probability that the riskier, but viable SMEs, the target in principle of guarantee schemes, remain without funds. This is especially the case when the loan guarantee program is part of a policy to support a group of particularly credit constrained firms, such as start-ups, female entrepreneurs or businesses located in a disadvantaged geographic area.

More investigation is needed in this area, but assessing financial sustainability in practice has proved difficult due to the lack of accurate and timely data. In the case of publicly owned credit guarantee schemes, these are often only part of a set of financing instruments for SMEs. The possibility to assess the individual scheme is limited if the responsible Ministry or government-related agency does not produce separate financial statements.

Adequate accounting practices are crucial for the management and assessment of CGSs. This is especially the case for public guarantees, as governments are often drawn to such schemes because of relatively small upfront cash commitment, against a possibly large volume of credit that may be supplied. However, the adequacy of the scheme may become evident only over time, as losses start to emerge. In particular, accounting provision should be made for foreseeable losses in advance (Honohan, 2010). This accounting principle is embodied in the International Financial Reporting Standards (FRS37 and 39), which recommend that financial guarantees, as all financial liabilities, are recognised from the outset in the balance sheet of the guarantor at fair value plus transaction cost[26].

6.1.1. Financial performance of Credit Guarantee Schemes: evidence from an AECM survey

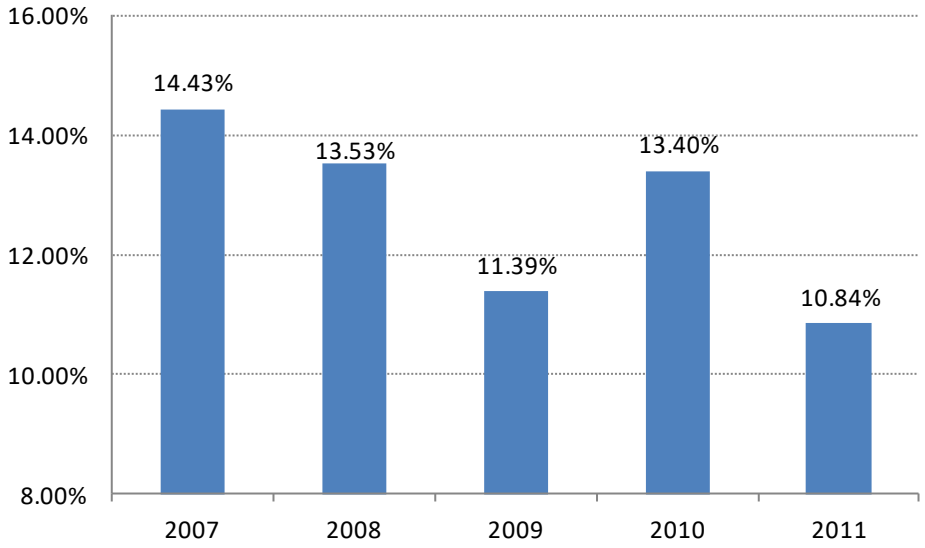
The following paragraphs provide some insights on the financial performance of a sample of CGSs in Europe over 2007-2011. The evidence is based on the survey designed jointly by the OECD and AECM and submitted in June 2012 to AECM public, private and mixed schemes. However, for financial variables, this is limited to 17 schemes, of which eight are public, five are public-private and four are mutual schemes, and to aggregate trends, for confidentiality reasons. Caution should therefore be exercised in interpreting the results.

These limitations notwithstanding, the evidence provides some factual elements about the increased risk exposure of CGSs in the aftermath of the global financial crisis and their deteriorating balance sheets, as losses emerge over time. Despite the limited sample, the evidence suggests some differences across types of schemes, with a larger and earlier impact of increased exposure to firms' insolvency for public and mixed guarantee schemes, which can be related to their more extensive use as counter-cyclical tools during the crisis.

[26] See www.ifrs.org

Figure 6. AECM survey: guarantee rejections, 2007 - 2011

Ratio of rejected guarantee requests to guarantees granted (in %), yearly average



Note: Sample of 17 Credit Guarantee Schemes in Europe.
Source: AECM.

Figure 6 illustrates the relative expansion of the guarantee activity over the period, in terms of the share of guarantee requests being rejected, to the total number of guarantees granted in a given year. The indicator decreased over the period, particularly in 2009. This trend may reflect greater creditworthiness of firms that request a guarantee, or of firms that passed through a first screening by lenders, but it may also suggest that CGSs loosened the eligibility criteria or adopted less restrictive risk assessment parameters.

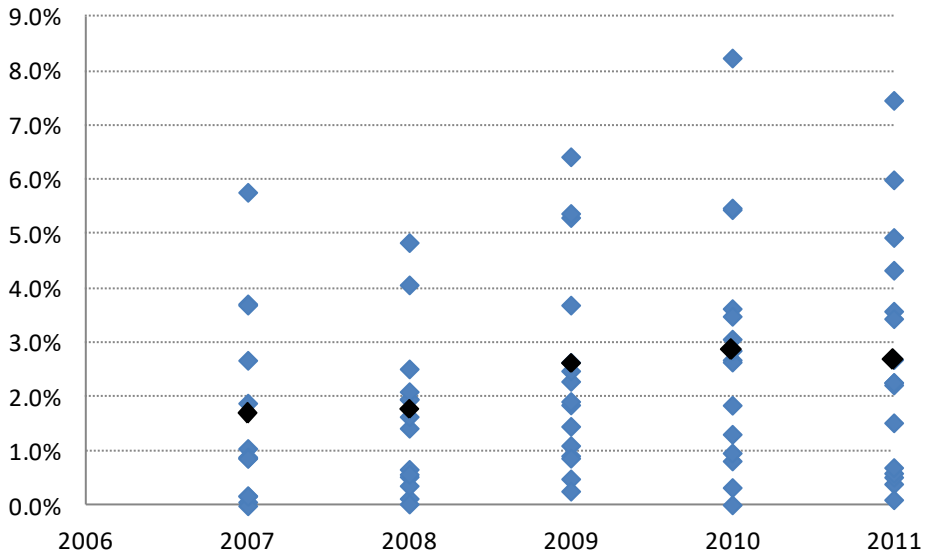
Given this general trend, it is important to note that the level of this ratio varies significantly by ownership of the scheme, with mutual schemes characterised by a relatively low rejection rate (5.8% on average in 2011) compared to public and mixed schemes (respectively 14.5% and 12.4% in 2011). This can be explained by the nature of mutual schemes and their close relationship with affiliates, whereas public or mixed schemes are generally open to a broader population of firms and often do not have a direct relationship with borrowers.

The positive trend in loan losses seems to indicate that the creditworthiness of borrowers deteriorated, or that the share of 'bad loans' in the portfolio increased. Figure 7 plots the relative loan losses over the period 2007-2011. The indicator is defined as the ratio of the amount paid out to lenders to the amount of outstanding guarantees. As outlined above, the amount paid out to lenders represents a major component of costs for guarantee schemes, and, as a consequence, a key determinant of financial sustainability. This amount accounted, on average, for 1.77% of the guarantees granted in 2007. This average value almost doubled in 2010, when it increased to 3.07 %, to fall slightly in 2011 (2.82%). Taking into account that the value of guarantees granted increased significantly over the period, the positive trend in the ratio points to a remarkable increase in the level of costs for the schemes. Overall, the average performance is consistent with the argument that the loan portfolio of CGSs has become riskier and that their recent counter-cyclical function has put

their financial sustainability under pressure. At the same time, the figure also highlights a greater degree of dispersion of the indicator over time, hence an increasingly differentiated incidence of loan losses across schemes.

Figure 7. AECM survey: Relative Loan Losses, 2007 - 2011

Amount paid out to lenders over amount of outstanding guarantees (in %), yearly individual values (blue) and average (black)



Note: Sample size differs over the period due to data availability: 13 schemes in 2007, 14 in 2008, 15 in 2009 and 2010, 16 in 2011.
Source: AECM.

For mutual schemes, it appears that, on average, payment on loan losses were less important, in relation to the outstanding guarantees, than for schemes with direct public participation, which experienced a pronounced increased over 2008-2010. In 2010, the average value was 3.4% for mixed schemes, 2.8% for public schemes and 2.1% for mutual schemes. The differences however reduced in 2011, when relative loan losses equalled, respectively, 2.6% (mixed), 2.8% (public) and 2.4% (mutual). This may suggest that, for mutual schemes, the losses on loans were emerging with some delay, or as borrowers' difficulties persist. However, the limitations in the data do not allow for definite conclusions.

Across schemes, a higher incidence of defaults was recorded for loans to micro-firms. In 2011, the share of defaulted loans was equal to 2.61% in the case of micro firms, 0.93% for small firms and 0.21% for medium-sized firms.

6.2. Financial and economic additionality

Financial additionality refers to the increase in the flow of funds towards viable SMEs that can be attributed to the existence of the scheme. That is, there is financial additionality if the credits backed by CGSs would not have been granted without the guarantee or if the loan guarantee translates into more favourable credit conditions, for example in terms of maturity or interest rate charged.

On the other hand, e*conomic additionality* describes the effect of increased access to finance on overall economic welfare. These effects are measured in terms of changes in sales, employment, investment and innovation performance of the small businesses supported, or, at the macro level, by the fostered competitiveness and economic growth.

A major challenge to guarantee programmes' additionality comes from selection mechanisms, whose importance largely depends on the design of the scheme. The first selection mechanism concerns the type of firms which seek guaranteed loans. As financial conditions of guaranteed credits are generally more favourable than ordinary loan contracts, the scheme may attract borrowers with solid creditworthiness, which might be able to obtain funds without the guarantee support. Also the agency operating the scheme may have an incentive to issue guarantees to viable businesses, as this tends to decrease loan losses and hence improve operating results.

A second selection mechanism that may reduce additionality takes place at the level of the lending institutions, as they may have an incentive to transfer regular credits to the program, to reduce the overall risk of their outstanding credits. In the extreme case of banks shifting their entire loan portfolio under the program, financial additionality would be zero. According to Uesugi et al. (2010), at the time of the 1990s Asian financial crisis, Japanese banks took advantage of the loosened conditions for loan guarantees, shifting their loan portfolio under guarantee programs.

Vogel and Adams (1997) discuss another channel, which may reduce additionality, "inter-lender substitution", which means that borrowers have an incentive to shift their demand towards lending institutions that are linked to guarantee schemes. The observed uptake of the programme would thus be largely driven by established borrowers, rather than by new, previously constrained ones.

At the other extreme, financial additionality may be absent if loan guarantees are attracting firms which seek finance for highly risky projects (adverse selection) or if the existence of the guarantee induces a riskier behaviour by borrowers and lenders. This latter is the 'moral hazard' problem, whereby the provision of a third party guarantee alters the behaviour of both borrowers and lenders in the sense that both may find it convenient to reduce efforts to minimize the probability of loan defaults. The incentive of banks to thoroughly assess the creditworthiness of their clients decreases, whereas firms are encouraged to undertake excessive risks.

The design of the scheme is crucial to ensure that guarantees are provided only to viable SMEs which fail to obtain the financing they need on the regular financial markets. In particular, the literature emphasises the key role of the following design variables, which may govern the selection mechanisms and alter the behaviour of borrowers and lenders (Honohan 2010):

- *Credit risk assessment:* Retail appraisal and close follow-up by the guarantor may reduce adverse selection and moral hazard, though at relatively high operational costs.
- *Coverage ratio:* A high coverage ratio is typically an attractive feature for borrowers and lenders, but may lower the incentive of the lender to properly screen borrowers. At the same time, low coverage ratios may limit the scheme's uptake by both firms and lenders. Uesugi et al. (2010) show that an excessively high coverage ratio can lead to moral hazard type behaviour. In order to mitigate the credit crunch during the Asian financial crisis in the late 1990s, the coverage ratio of the Japanese credit guarantee scheme was lifted to 100%. As a consequence, those firms which

obtained guarantees displayed lower profitability and a higher probability of falling into distress as compared to firms which did not obtain guarantees.

- *Eligibility of CGSs:* In an attempt to maximise additionality, some schemes restrict eligibility to those firms which have been denied credits on regular financial markets, among them the SBA Loan Guarantee Program in the US and KFG in Turkey. However, overly restrictive schemes bear the risk that credits are artificially modified to fit formal requirements (Vogel and Adams, 1997). In some cases, additionality is sought by narrowly defining the target of the programme, which may be a sector or specific categories of firms, for which severe market failures were identified.
- *The price of guarantees*: The fees levied on guarantees are an important source of income for the scheme and bear relevant consequences for the extent of firm selection. CGSs need to strike a balance between financial returns and attraction of viable customers. While high fees may increase operating budget, they may also discourage creditworthy firms from applying for guarantees and reduce the overall uptake of the scheme, hence impact on its capacity to leverage the equity fund.

Assessment of economic and financial additionality

The assessment of additionality follows two main approaches (Jonsson, 2009): i) studies that compare a target group of firms which have benefited from guaranteed loans ('treated firms') to a representative control group of firms which have relied on conventional bank loans ('untreated firms'); ii) studies that adopt credit scoring methods, in order to determine which firms in a given group that have benefitted from loan guarantees were in fact 'additional'; that is, they would not have benefited from a loan if the guarantee had not been in place.

In spite of a growing body of literature, the assessment of additionality often needs to address important methodological limitations and lack of data, especially at the micro level. The main challenge is typically related to the identification of an appropriate control group, so that firms which have accessed guaranteed loans can be analysed against other firms, with similar characteristics and/or behaviour, which have not benefited from guarantees. In this regard, financial statements would be often required from both treated and untreated SMEs. In many cases, however, this information is not available or disclosed for assessment purposes.

Most of the existing studies provide positive evidence of the financial additionality of guarantee schemes, as a structural element of financial systems, that is, at times of 'normal' functioning of credit markets. In addition, in many countries, early evidence about the financial crisis period (2008-2009) and the uncertain recovery (2010-2011) suggests that, at times of increased tightness of credit markets, CGSs can be an effective countercyclical tool to support lending and restore a sustainable level of financing for credit-constrained SMEs (OECD, 2010). The European Association of Mutual Guarantee Societies (AECM) estimate that, in 2009, the anti-crisis guarantee instruments delivered by its members had provided over 120 000 SMEs access to finance that was crucial to maintain operations (AECM, 2010). Based on a survey of nine large guarantee schemes in Europe and Asia, KPMG (2012) estimates that 80% to 90% of the borrowers would not have been able to access credit without the guarantee support.

The empirical evidence shows that financial additionality of CGSs typically takes the form of better conditions in accessing credit for SMEs, such as higher loan volumes, lower interest rates or longer loan maturity. On the other hand, the evidence is less conclusive with regard to the increase in the number of loan beneficiaries and, especially, to greater

access to finance for new entrepreneurs or firms in innovative sectors, although targeted mechanisms have been increasingly implemented over the last decade.

Comparing a sample of 'treated firms' to a control group, Lelarge et al. (2009) study the effect of OSEO's guarantee scheme in France (earlier named SOFARIS) over 1989-2000. They find that the scheme had a positive effect on the financial position of beneficiary SMEs. In particular, the authors show that it has increased the volume of the loans, while reducing interest payments of targeted firms. Furthermore, the improved access to finance has translated into higher growth rates of firms. Also, the study finds the fee on guarantees was high enough to deter unconstrained firms from applying to the program. However, comparing firm entry at the industry level, the study finds no significant effect of credit guarantees on entry rates. The authors therefore conclude that most of the effects take place at the 'intensive margin', that is, by helping existing new firms to grow, rather than by allowing new firms to be created. In recent years, however, OSEO has been increasing its support to firm creation through guarantees. In 2011, about 75% of the beneficiaries were start-ups, to which about 35% of the total guaranteed funding was directed (OSEO, 2012).

Cowling (2010) assesses the economic impact of the UK Small Firms Loan Guarantee (SFLG) scheme through matching techniques, that is, by comparing a sample of SFLG supported businesses with a control group of unassisted firms, matched in terms of legal status, sector, age of business and size. The evaluation focuses on the 2006 cohort of supported firms over a two year period (2006-2008) and is based on their self-reported assessment of SFLG benefits and business performance. The study shows high levels of self-reported additionality: 79% of SFLG loans were reported to be additional, that is, to have been essential for accessing funding. The actual proportion of SFLG loans that were financially additional and not likely to have displaced existing businesses is estimated at 55%.

Drawing on a large dataset of loan applications to Canadian banks, Riding et al. (2007) assess the additionality of the Canada Small Business Financing Program (CSBF). The authors estimate a loan denial function on data for loan applicants that were not eligible for the loan guarantee scheme. In doing so, they predict how many of those firms that successfully applied under the scheme would otherwise have been denied credit and conclude that 75% of guarantees generated additional loans.

D'Ignazio and Menon (2012) estimate the impact of a CGSs launched in 2008 by a regional government in Italy, in agreement with a covenant bank. Drawing on a large sample of firms and identification of a control group, the authors find that, while the total amount of bank debt was unaffected, the programme allowed for a significant increase in the long-term component of the loan. Furthermore, targeted firms benefited from a substantial decrease in interest rates.

In their assessment of the Italian Guarantee Fund over 2000 – 2004, Zecchini and Ventura (2009) show this was effective in reducing SMEs' borrowing cost and easing their financing constraints, while limiting default rates and containing the public subsidy element. This was the outcome of a high degree of selectivity of the programme with regard to the targeted SME groups, the individual beneficiaries and the guarantee coverage ratios. In this respect, though additional to the pre-existing situation, the programme may have represented a rather 'conservative' instrument, in the sense that it has supported mainly the industrial sector under stress and backward regions, traditionally the target of financial transfer, but it has not promoted entrepreneurship and risk taking in innovative sectors to a significant scale. Overall, the public guarantee fund also seems to have played an important role in promoting the emergence of a national guarantee system, founded on a large number of MGSs. However, the authors also underline that the absence of a preference for MGSs

vis-à-vis other institutions deprives the fund of a possible incentive effect, which could induce more SMEs to resort to mutual schemes, thus strengthening the sense of mutual responsibility among borrowing firms.

Several recent studies have investigated the impact of mutual guarantee societies in Italy. Colomba et al. (2010) estimate the effect of MGSs on credit costs of SMEs and place particular emphasis on the size of the MGS. While they find that being affiliated with a guarantee scheme decreases loan interest rates by 0.2 percentage points, this effect turns out to be non-linear in the size of the scheme. Specifically, an increase in scheme's size, as measured by the number of affiliated firms, first decreases the interest rate charged, suggesting that larger funds have more collateral which translates into better credit conditions. On the other hand, a further increase in the size of the fund seems to induce free riding in the debt-repayment decisions, thereby increasing the cost of credit.

Studies on the impact of mutual schemes during the crisis also show that they have contributed to ease SME financial tensions. In the case of Italian *Confidi*, according to Bartoli et al. (2012), the most important effect of MGSs was to increase the credit line for borrowers. Interestingly, they also show that the effect of the MGS affiliation was larger for firms with shorter lending relationships with their banks. This result underlines the signalling effect of MGSs, in that affiliated firms are perceived as being more creditworthy by banks and can improve their credit position. This evidence supports the view that MGSs may play an important role in facilitating the development of a trust-based relationship between the lender and the borrower. Mistrulli et al. (2011) also indicate that, during the crisis, MGSs eased access to greater loan volumes at a lower cost, but also attracted a larger number of riskier firms.

Most of the empirical assessments of CGSs' financial additionality focus on the beneficiary firms. On the other hand, the evidence on the impact of guarantee instruments on lenders' overall behaviour towards the SME sector is rather scarce. Drawing on evidence from Chile, Egypt, India and Poland, a study by the UK Department for International Development (DFID, 2005) investigates the effect of CGSs on financial sector deepening, that is, on non-guaranteed lending to SMEs. The study finds significant variability in lenders' attitude and highlights CGSs on their own can hardly achieve financial sector deepening without support from governments or donors, to ensure that initiatives are coordinated and that below-market products and services, such as subsidised credit, do not crowd out market-driven initiatives. In other terms, CGSs can be accelerators rather than drivers of financial deepening. The study also underlines the key enabling role of some macroeconomic conditions, including a competitive banking environment, a monetary and regulatory environment that is conducive to lending to SMEs and a dynamic business sector. Further, the report points to the importance of active interest and participation by lenders to CGSs, based on the perception of clear and significant benefits, such as the opening up of new markets, as opposed to coercive approaches or non-transparent benefits unrelated to financial sector deepening.

Measuring *economic* additionality has proven particularly challenging and the evidence is relatively scarce. In a recent study, Oh et al. (2009) analyze the effects of loan guarantees issued by the Korean CGSs, KODIT and KIBO, on Korean manufacturing firms. Specifically, the study examines the impact of the guarantees on firm growth, survival rate, total factor productivity, R&D expenditure and overall investment. The period under study ranges from 2000 – 2003, which corresponds to the recovery phase of the Korean economy after the Asian financial crisis. Applying propensity score matching, the authors find that the credit guarantees had increased firm growth in terms of sales and employment, wages

and the survival rate of treated firms. However, the growth of total factor productivity as well as expenditure in R&D appear to be unaffected by the loan guarantees.

Schmidt and van Elkan (2010) adopt a modelling approach to assess economic additionality of the German Guarantee banks. They use data from a survey conducted among 1 200 German firms together with approval statistics of the Guarantee banks as input data to simulate the economic impact of the guarantees for the forecast period 2009-2015. Results suggest that, over this period, guarantees would trigger an increase in overall GDP of 3.4 EUR billion per year, while the number of unemployed is estimated to decrease by a yearly 23 200. At the same time, the additional boost in state income is estimated to exceed the utilisation of the counter guarantees seven fold, even after taking default payments into account.

The economic evaluation of the SFLG scheme in the United Kingdom indicates that the benefits outweighed the costs in terms of Gross Value Added (GVA). The conservative cost-benefit analysis presented by Cowling (2010), which considers only the first two years' benefits of SFLG loans obtained in 2006, estimates that for every GBP 1 spent, there was a return of GBP 1.05 to the economy, through additional economic output. The study identifies other economic benefits of the scheme, in terms of beneficiaries' sales growth, export and jobs. Over two years, the sales of the firms that received support grew at a similar rate to other firms, generating between GBP 75 million and GBP 150 million additional sales, but their employment grew more quickly than businesses that did not borrow. They created between 3 550 and 6 340 additional jobs and the estimated costs per additional job amount to GBP 5 500-10 000. Holding business characteristics constant, beneficiary firms are found to be 6% more likely to export than non-borrowing firms, 17% more likely to use new technology and 24% more likely to use "cutting-edge technology" than similar borrowing firms. In 2009, the scheme was replaced by the EFG programme, whose forthcoming evaluation (2013) is expected to shed light on the impact of a similarly designed credit guarantee mechanism at a time of severe credit tightening.

6.3. Leverage ratio

Although a proxy for financial additionality, the increased uptake of guarantee schemes and their ability to mobilise, or 'leverage', credit volumes can provide insights on their effectiveness in easing credit constraints for a target population.

The leverage ratio is an indicator of usage intensity of guarantee schemes. It is defined as total outstanding guarantees divided by the size of the guarantee fund. As not all borrowers default and only part of the credit is guaranteed, the total amount of guaranteed credits is larger than the capitalisation of the scheme. More precisely, the leverage tells how much credit towards SMEs has been generated by a given amount of capital endowment of the fund.

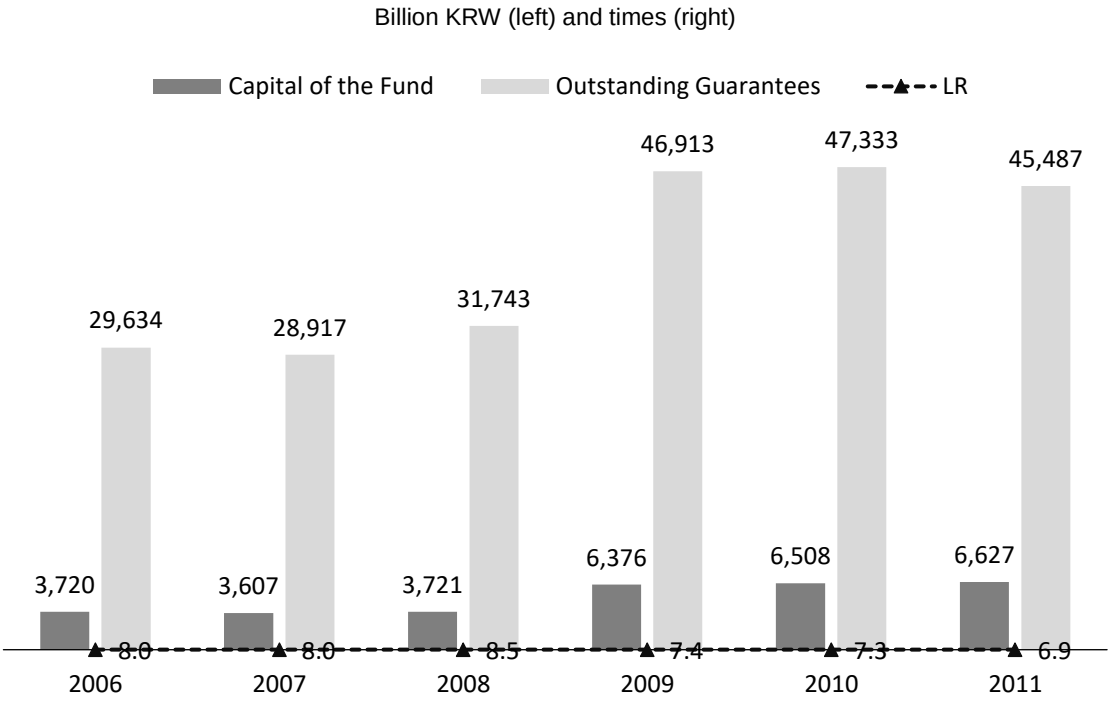
The leverage effect is one of the most important arguments for the implementation of CGSs (Honohan 2010, Levitsky 1997). A high leverage ratio means that the CGS is able to mobilise a relatively high amount of credit finance for SMEs. The ratio directly depends on the popularity of the scheme among the target population. A high ratio can be related to a good level of awareness about the scheme on the side of lenders and/or borrowers, but also to a sustained demand for credit by SMEs. On the other hand, a low leverage ratio can be explained by lack of awareness or reputation among lenders and borrowers. This is typically the case when users do not trust the scheme to abide to its commitment to reimburse promised guarantees, or when rules and responsibilities governing the guarantee contract are not clearly stated. Clear and transparent procedures, reasonable fees and a low share of defaulted loans have proved to be key to establish a good reputation of CGSs and

increase their uptake. Also, public support to private schemes, in the form of co- or counter-guarantees, has played an important role in establishing confidence and favouring their greater outreach.

To increase their diffusion and enhance their reputation, schemes are often advertised among lending institutions and borrowers. Especially for newly founded schemes, appropriate marketing is important in order to enhance their visibility and to build a solid reputation. For instance, in order to increase awareness, in India, the CGTMSE launched an "Awareness Program", organising workshops and seminars, participating in exhibitions and meetings of business associations. Moreover, an advertisement campaign in 194 newspapers was implemented.

Changes in the leverage ratio can be the outcome of a varied degree of diffusion of the scheme in the target population, but can also result from changes in the scheme's capital endowment. When new capital is injected into the scheme, the leverage ratio tends to decrease. Reversely, an equity drain can boost the ratio. This was recently observed for Korea's KODIT, whose capital endowment increased by more than 70% between 2008 and 2009 as a mean to offset the adverse effect of the economic and financial crisis (Figure 6). Although the measure led to an increase by almost 50% in the amount of guarantees, the leverage ratio decreased from 8.5 to 7.4.

Figure 8. Capital Endowment, Outstanding Guarantees and Leverage Ratio of the Korean KODIT



Source: KODIT, available at www.kodit.co.kr/html/english/about_kodit/intro/cap_fund.jsp.

It is also important to notice that a high leverage ratio can turn into a weakness of the scheme. If the amount of outstanding guarantees is large compared to the capitalisation of the fund, the scheme becomes in fact more vulnerable to default events. In this regard, the leverage ratio is also a useful indicator for monitoring the financial sustainability of CGSs. Indeed, some schemes specify an upper limit for the leverage ratio. For example, the amount of outstanding guarantees issued by Thailand's Small Business Credit Guarantee

fund (SBCG) must not exceed 10 times the fund's capital endowment. In the case of KODIT, the maximum leverage ratio is fixed at 20.

The observed leverage ratio varies broadly across schemes and countries. Leverage ratios are typically higher in advanced countries with long-established schemes than in emerging countries, generally characterised by a more recent experience in this area. Also, the leverage ratio tends to increase over time as the scheme acquires a reputation and becomes known among borrowers and lenders. In fact, a low leverage ratio can be observed in the case of young guarantee funds building up their portfolio. Also, it can be related to an SME population with a relatively high risk profile. In any case, according to Levitsky (1997), a leverage ratio of less than 3 after the first 5 years of operation should raise concerns about the effectiveness of the scheme.

Table 5 shows, for the period 2006-2010, the capital endowment and leverage ratio of a sample of European credit guarantee schemes, disaggregated into three types of ownership: mutual, purely public and private-public schemes. The leverage ratio varies largely across schemes and, in some cases, over time. Among the schemes that display a continuous high ratio (above 10) are several MGSs, including Socama and SIAGI in France, German Guarantee Banks and various Confidi in Italy[27]. This is consistent with the argument about their advantages in terms of proximity to target groups (lenders and SMEs) and long-established reputation at the local level, which favour uptake of guarantees. The reputation is generally built on their effectiveness in reducing asymmetric information between the lender and the borrower and on their track record with defaulted loans, limited by direct risk appraisal. The reputation as a reliable guarantor increases request for their guarantees and raises the leverage ratio.

Among the public-private schemes, Garantiqa in Hungary exhibits a consistently high leverage ratio, although the increased values over time can also be related to a declining equity fund. In the public scheme category, AWS in Austria and INVEGA in Lithuania have also a high leverage ratio, which increases over time against a stable or increasing equity fund.

Table 5 also highlights the role of CGSs in providing finance during the 2008-2009 financial crisis. As outlined in section 4, governments in several countries increased the capitalisation of funds, either through direct capital injection or through the provision of counter guarantees. This evolution shows in the trends. The aggregate capital endowment of the surveyed public schemes increased almost threefold between 2008 and 2009. In some cases, however, the stock of outstanding guarantees increased at a higher rate, resulting in an increase of the public schemes' leverage ratio. For mutual schemes, the increased public support through counter-guarantees also favoured the expansion of their coverage. This evidence suggests that the injection of funds into CGSs was effective in mobilising credit towards SMEs. At the same time, high leverage ratios also indicate an increased exposure to risk.

[27] According to AECM, the average leverage ratio among their members is about 8-9.

Table 5. Credit Guarantee Schemes in Europe: Capital Endowment and Leverage Ratio, 2007-2011

	Country	Credit Guarantee Scheme	Year of Foundation	2007		2008		2009		2010		2011	
				Equity (EUR thousands)	Leverage Ratio	Equity (EUR thousands)	Leverage Ratio	Equity (EUR thousands)	Leverage Ratio	Equity (EUR thousands)	Leverage Ratio	Equity (EUR thousands)	Leverage Ratio
Private/mutual	France	SOCAMA	1968	82,000	28.87	75,000	32.27	70,000	33.57	74,000	31.93	74,000	34.6
	France	SIAGI	1966	64,327	10.39	65,803	10.6	68,672	11.11	71,513	11.6	71,513	n.a.
	Germany	VDB	1949	332,800	15.93	347,000	15.56	360,000	15.52	366,000	13.83	360,000	n.a.
	Hungary	AVHGA	1991	77,772	2.61	78,790	2.71	79,659	2.86	80,199	2.73	80,199	2.9
	Italy	Assoconfidi[1]	1975	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2,061,000	10.24	2,263,000	9.6
	Italy	Fedartfidi	1994	722,000	7.53	805,000	6.87	845,000	7.51	n.a.	n.a.	n.a.	n.a.
	Italy	Federconfidi	1910	752,000	5.55	351,000	10.64	407,000	13.48	n.a.	n.a.	n.a.	n.a.
	Italy	Fincredit	1992	620,000	7.38	170,000	29.36	175,000	32.11	n.a.	n.a.	n.a.	n.a.
	Italy	Federascomfidi	1944	283,000	12.07	380,000	4.38	473,000	4.66	n.a.	n.a.	n.a.	n.a.
	Italy	Federfidi	1971	183,326	12.98	125,000	21.53	139,000	21.28	n.a.	n.a.	n.a.	n.a.
	Italy	Coldiretti	1944	21,973	6.97	24,000	7.08	22,000	6	n.a.	n.a.	n.a.	n.a.
	Spain	SGR / CESGAR	1982	602,235	9.36	646,506	9.19	689,870	9.46	714,764	9.14	678,784	9.1
	Romania[2]	FRGC-RLGPE	1994	7,726	0.99	7,091	1.31	6,302	1.54	6,490	1.52	225,208	1.5
Publ.-priv.	Austria	NöBEG	1969	7,668	3.65	7,300	3.9	9,007	3.48	9,180	3.41	9,305	3.5
	Hungary	Garantiqa	1992	101,273	12.63	100,498	13.6	91,135	16.23	64,264	21.11	46,605	24.4
	Poland	BGK	1996	n.a.	n.a.	n.a.	n.a.	433,439	1.02	160,709	2.4	151,588	2.2
	Portugal	SPGM / SCM	1994	207,663	2.24	217,605	4.13	441,757	6.22	633,885	5.93	730,532	4.4
	Romania	FGCR - Rural	1994	43,615	3.16	50,013	2.86	77,453	3.12	298,685	1.07	345,682	1.8
Public	Austria	AWS	1955	24,000	16.56	23,487	16.93	23,487	19.15	23,500	18.03	21,697	17.7
	Bulgaria	NGF	2005[2]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	40,903	0.77	40,903	1.5
	Czech Republic	CMZRB	1992	181,000	2.49	194,753	2.72	205,300	3.42	227,135	4.15	223,295	3.7
	Estonia	KredEx	2001	6,697	6.17	14,129	2.99	19,700	3.47	24,606	4.00	21,000	4.9
	Greece	ETEAN S.A.	2004	250,686	0.33	240,000	0.56	1,700,000	2.06	1,420,790	1.78	388,483	3.4
	Italy	SFGA - ISMEA	2008	482,904	19.43	496,926	20.49	507,290	n.a.	575,174		633,322	17.4
	Latvia	LGA	2005	6,897	2.68	17,349	2.44	17,349	2.44	98,200	0.87	105,565	0.9
	Lithuania	INVEGA	2001	5,120	15.17	7,712	11.59	7,530	12.75	9,249	10.83	6,053	17.2
	Lithuania	Garfondas	1997	20,306	4.21	24,738	4.09	24,109	5.15	25,556	4.57	26,187	3.8

Note: 1. Assoconfidi is the umbrella organisation for Federconfidi – Confindustria, Federascomfidi – Confcommercio, FEDART, FEDERFIDI – Confesercenti, FINCREDIT – Confapi and Coldiretti. Since 2010, their statistics are gathered together under the name Assoconfidi.2.Fully private fund.
Source: AECM.

7. Conclusions and policy considerations

Credit guarantee schemes represent a key policy tool in many countries, to ease SMEs' access to finance, while limiting the burden on public finances. The present report has illustrated the large variety of schemes that exist across OECD and non-OECD countries and highlighted key dimensions for assessing their performance, financial sustainability and additionality. The report has addressed in particular the characteristics and effectiveness of Mutual Guarantee Schemes, which have attracted new interest at difficult times, given the early evidence on their resilience in providing SMEs with access to finance during the recent financial crisis.

Over recent years, the countercyclical use of CGSs to offset SME financial distress, through direct funding or counter-guarantees, has implied, in many instances, an important change in their scale and scope. Evidence shows that CGSs have been effective in mobilising large amounts of credit and easing access to finance for a larger population of enterprises. This however has substantially increased their exposure to risk, which may threaten their soundness over the medium to long term. These changes are taking place in conjunction with the ongoing transformation of guarantee systems induced by regulatory reforms, which have substantially increased the complexity of the environment.

The countercyclical expansion of CGSs has responded to temporary policy measures and has most often implied a greater commitment on public finances, in the form of direct funding or counter-guarantees. As anti-crisis measures are phased out, the public support along these forms is also expected to decline, also to limit the transfer of risk from financial markets to the public sector. However, the evidence shows that public support is inherent in credit guarantee systems in many countries and is often essential for achieving additionality.

Key challenges to mutual guarantee schemes

In the current context, MGSs are facing distinct challenges, which may call for a number of transformations over the coming years. The present study has highlighted in particular the role these schemes have been playing as counter-cyclical instruments and the implications in terms of operational practices and scale, costs and exposure to risk. This combines with changes that have been triggered by regulatory reforms, such as Basel II and Basel III.

The case of the Italian system of mutual schemes, Confidi, provides an illustrative example in this regard. The necessity to reform this system is commonly attributed to three factors (de Vincentiis et al. 2012): a h*igh level of fragmentation*, as most guarantee schemes serve a limited range of firms; *a low degree of economies of scale* in the provision of guarantees, with relative high operational costs implied by the retail approach; *high risk exposure*, due to their limited geographic and sectoral coverage of guaranteed firms, which is however balanced by a high quality of credit risk assessment and follow-up. Adding to this, the use of the guarantee schemes as a countercyclical instrument has brought about a greater degree of insolvency, which has contributed to increase the cost burden on the existing institutions. Furthermore, there is concern among actors in MGSs about the administrative costs which may be associated with complying with the more stringent supervision requirements. The new regulatory framework, in particular the supervision of financial intermediaries as stipulated in Basel II and the new capital requirements of Basel III, have raised the complexity of the environment. This has

further increased the need to upgrade the organisational efficiency and the skill level of schemes.

These challenges are common across mutual guarantee systems in different countries, where the costs of operation and the requirements in the reformed financial systems make efficiency ever more important. In particular, greater efficiency is needed to limit the transfer of potential increases in administrative costs to the prices of the services provided.

In several instances, the response to these challenges has been a change in scale, with mergers or consolidation. This can help reduce the relative costs of the service, as well as broaden the offer of guarantee instruments, which may respond to differentiated needs in the target population, including expansion, internationalisation or ownership changes. At the same time, the increase in scale and the broadening of scope, in terms of beneficiary SMEs and the guarantee instruments provided, further demands an upgrade of technical and organisational competences and the development of new skills and strategies.

If a change in scale and procedures is needed to comply with the new regulation and compete in a changing market, on the other hand a concern exists that the greater scale may come at the cost of loosening the relationship these schemes have with SMEs and their local systems, which has historically represented their competitive advantage. An emerging response to this trade-off has been a move toward a greater rationalisation of the system and the structuring a strong credit guarantee *filiere*, which includes: i) first-tier schemes that are close to the firms and the local systems, with larger supervised schemes gradually gaining the largest market shares, though a dual system of supervised and non-supervised schemes still coexists; ii) second-tier regional or intersectoral schemes, which provide mainly counter-guarantees or co-guarantees to the first level and are the main counterpart of public institutions for the allocation of public resources to the guarantee system; iii) and a well established national guarantee fund, which provides counter-guarantees. In the European Union, the Competitiveness and Innovation Framework Programme provides guarantees and counter-guarantees, which are managed, on behalf of the Commission, by the European Investment Fund (EIF).

Policy implications

From the conceptual discussion and evidence presented in the study, the following key findings and policy implications can be highlighted, which concern CGSs in general and MGSs in particular:

- As financial intermediaries, CGSs are highly sensitive to the legal and regulatory environment. This, combined with the schemes' characteristics, affects the incentives of lenders and borrowers and the incidence of moral hazard in the financing relation. Supervision, transparency and certainty about contract enforcement are crucial for the development and sustainability of guarantee systems. Furthermore, the effect of regulatory reforms on their activities and the implications of differentiated tax regimes should be thoroughly assessed, taking into account the specific nature and working mechanisms of different types of schemes.
- Public CGSs and counter-guarantees to private guarantee schemes are usually part of a broader set of government measures to assist SMEs. Furthermore, often several CGSs exist in a country, with direct or indirect government participation. It is important that the goals and the population targeted by each scheme be

clearly specified, to avoid duplication, and that CG instruments are coordinated with other SME finance support measures.

- CGSs are designed to ease access to finance of viable enterprises that face limitations in financial markets, often due to under collateralisation or limited credit history. The proper design of schemes (i.e. taking into account target population, coverage ratio, risk management and fee structure) is important to ensure they provide financial and economic additionality. An appropriate design is also crucial to ensure financial sustainability, taking into account on the one hand the need to limit default rates and cover the operating costs, and, on the other hand, the implications that coverage ratio and fees have on the type of applicants.
- CGSs can be an effective instrument to reduce the information gap that exists between lenders and borrowers, particularly in the case of SMEs. The experience of MGS suggests that guarantee schemes can be particularly effective in this when they benefit from in-depth knowledge about the market and industry framework of the target SME population. In this regard, public-private partnerships, also including intermediate institutions such as business associations, professional groups and chambers of commerce, can bring highly valuable information input to the risk assessment process and guarantee decisions. The retail approach and the engagement of a broader set of shareholders should however be considered only when the information advantage outweighs the higher operational costs.
- Trust-based relationships and peer review are key to the development and effectiveness of MGSs These function according to a cooperative principle, whereby members contribute to the provision of guarantees and, at times, benefit from them. The peer review process acts as powerful mechanism for controlling risk and limiting opportunistic behaviour. These bottom-up schemes are typically found in areas characterised by dense networks of SMEs specialised in specific sectors or value chains, a high level of social capital and mature SME institutions. This suggests that the experience of each individual MGS is rather unique and hardly replicable in other areas. However, the principles underlying these schemes, and the counter-guarantee role played by public institutions, can offer insights to other countries on the regulatory conditions and incentives that can facilitate bottom up guarantee experiences or on country-specific factors that might limit the adoption of this model.
- Public support to the credit guarantee system is common and possibly essential for its long-term sustainability and for the engagement of private investors, at conditions that also meet government objectives, such as the service to a large number of viable but credit-constrained SMEs. A system of public counter-guarantees is especially relevant for private or public-private schemes, as it enhances the guaranteed credit volume that can be made available to SMEs, as well as the schemes' credibility and reputation. During the recent financial crisis, the public counter guarantee function was important to ensure continued effectiveness of these schemes. This suggests counter-guarantee funds can result into important leverage effect of private funds, even at difficult times. However, the ordinary support of government should be clearly distinguished from temporarily extraordinary measures and be designed as to ensure additionality and avoid excessive transfer of risk from the private to the public sector. As a general principle, all parties concerned in addition to the government (SMEs, banks, guarantee schemes) should retain a sufficient share of the risk and responsibility to ensure proper functioning of the system and avoid moral hazard.

- The greater exposure to risk and the transformation brought about by regulatory reforms make operational efficiency increasingly important for CGSs. There is a need to upgrade skills and procedures, to navigate a more complex environment, but also to adapt long-established mechanisms to a different scale of operation and to new functions, including the provision of guarantees for non-debt financing (e.g. equity, hybrid instruments), support to SMEs' expansion, innovation and internationalisation.
- In countries characterised by a well-established system of Mutual Guarantee Schemes (MGSs), a trade off is emerging between efficient scale of the schemes and proximity to borrowers, which historically has been a competitive advantage of mutual systems. In some cases, this has been addressed by accelerating the rationalisation of guarantee provision into a strong credit guarantee *filière*, with a public counter-guarantee fund that acts as a guarantor of last resort. The experience of each individual system is rather unique and difficult to replicate in other areas. However, the principles underlying these systems can offer insights to other countries on the regulatory conditions and incentives that can facilitate bottom up initiatives or private sector engagement.
- Assessment evidence on CGSs in general, and MGSs in particular, is rather scarce. There is a need for more in-depth evaluation, particularly on their financial sustainability and on their financial and economic additionality. There are number of areas where further action is needed for better evaluation:

i. It is necessary to improve the availability of firm level data and SME credit statistics, in order to properly address the various forms of self-selection inherent in the provision of credit guarantees, and control for possible crowding out effects;

ii. Improving the availability of financial statements of schemes is crucial to assess CGSs performance and sustainability. In order to produce the data necessary for the evaluation of financial sustainability, an accounting approach which accurately records expenditures and incomes of the schemes on a regular basis is required. This is particularly important in the case of public CGSs, which are run by a public agency that has several support measures in place.

iii. Case studies are important to take into account specific contextual elements. These are all the more relevant in the light of the large heterogeneity of schemes, within and across countries, which limits the scope for general comparative assessment.

iv. More investigation is required on the multi-dimensional aspects of credit guarantee systems, which take into account direct and indirect costs and benefits. Full-fledged assessment demands that financial sustainability and additionality are jointly taken into account, and that CGSs are evaluated against alternative policy instruments. In this regard, substantial improvement is needed to assess the overall welfare implications of guarantee systems.

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