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The Typology of Partial Credit Guarantee Funds around the World

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Abstract

This paper presents data on 76 partial credit guarantee schemes across 46 developed and developing countries. Based on theory, the authors discuss different organizational features of credit guarantee schemes and their variation across countries. They focus on the respective role of government and the private sector and different pricing and risk reduction tools and how they are correlated across countries. The findings show that government has an important role to play in funding and management, but less so in risk assessment and recovery. There is a surprisingly low use of risk-based pricing and limited use of risk management mechanisms.

This paper—a product of the Finance and Private Sector Team, Development Research Group, and Latin America and Caribbean Region, Finance and Private Sector Development Department—is part of a larger effort in the departments to study SME finance. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at lklapper@worldbank.org.

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1. Introduction

During the last decade, due to the combination of a generally stable macroeconomic environment, global liquidity, and better banking practices and technology across the globe, domestic credit to the private sector has been growing in most developing countries at rates higher than gross domestic product (GDP). However, there is anecdotal and increasingly statistical evidence that small and medium enterprises (SMEs) have not benefited from this financial deepening to the same extent as other borrower groups, most prominently consumers.

A recent literature has shown that SMEs not only report higher financing obstacles than large firms, but the effect of these financing constraints is stronger for SMEs than for large firms (Beck, Demirguc-Kunt and Maksimovic, 2005; Beck et al., 2006; see Beck and Demirguc-Kunt, 2006 for an overview). While the size of the SME sector does not seem to have a causal impact on growth, an economy depends on new and innovative enterprises, which are more often than not small (Klapper, Laeven and Rajan, 2006). These two observations have led policy makers to focus on policies and institutions that help alleviate SMEs' financing constraints.

Both high transaction costs related to relationship lending and the high risk intrinsic to SME lending explain the reluctance of financial institutions to reach out to SMEs (Beck and de la Torre, 2007). The high churn rate among SMEs results in a high default probability.[1] In addition, it is often difficult for banks to conduct risk assessments, since data might be sparse and of limited reliability as SMEs' financial statements are generally not audited. Weak credit information systems – which often exclude the smallest firms in developing countries – make it even more difficult to collect historical credit information on firms. Furthermore, the net losses once default takes place are high as in many emerging markets weaknesses in collateral registration, contract enforcement, bankruptcy codes, and the judicial process and collection mechanisms limit the ability for banks to recover assets of the enterprise. The limited liability structure of most SMEs also prevents the lender from having recourse to the assets of the owners. Directed credit

[1] However, there is also evidence that the tail risk is lower for SME loans than for loans to large enterprises (Adasme, Majnoni and Uribe, 2006).

programs and credit subsidies with the aim to alleviate SMEs' financing constraints have rarely had the expected success, due to mis-targeting, rent-seeking and lack of fiscal sustainability (Khwaja and Mian, 2005; Zia, 2008).

Many countries around the world have therefore made Partial Credit Guarantee (PCG) funds a central part of their strategy to alleviate SMEs financing constraints. Multi- and bilateral donors have supported the set-up of such schemes around the developing world. These schemes seek to expand lending to SMEs, sometimes focusing on specific regions or sectors through reducing lending risk for banks or other financial institutions. Specifically, a PCG fund is a risk transfer and risk diversification mechanism; it lowers the risk to the lender by substituting part of the risk of the counterparty by that of the issuer of the PCG (the fund), which guarantees repayment of part of the loan upon a default event. A PCG fund can also help diversify risk by guaranteeing loans across different sectors or geographic areas. Furthermore, there can be informational gains if the guarantor has better information about the borrower than the lender.

Partial (and full) credit guarantee funds have existed at least since the beginning of the 20th century and have become more popular over the past decades. Beck, Demirguc-Kunt and Martinez Peria (2008) report that banks see partial credit guarantee schemes as the most common and most effective government support program for SME lending, ahead of directed credit and interest rate or regulatory subsidies. In spite of their recent growth and initial evidence suggesting success of some of these funds, there is a dearth of analysis to systematically inform the process of design of PCG funds, pricing of their guarantees, their regulation, and the implication that PCG fund characteristics have with respect to the prudential regulation of banking portfolios covered by such guarantees.

This paper is a first effort to provide evidence on the variety of partial credit guarantee funds across the world.[2] Specifically, based on a recent survey of PCG funds

[2] There are a few surveys of partial credit guarantee schemes, such as Gudger (1998) and Green (2003), but none provides the same wealth of quantitative information as our database.

we provide evidence on the variety of different schemes around the globe.[3] The survey collects general questions on the characteristics of the fund (ownership, type, etc.), as well as detailed information on operational characteristics, such as eligibility, pricing structures, etc. Information is also collected on the size of the PCG's activities, such as the number of loans guaranteed, the number of loan defaults, etc.

The purpose of this study is to broadly review PCG "typologies" around the world. We find that while many countries have such schemes, their ownership, management and funding structures vary widely. We find an important role of government in the funding and management of PCG funds, but less so in risk assessment and recovery, roles that are mostly confined to the private sector. Similarly, there is a variety of specialization among PCG funds; while most are restricted, some are restricted to small enterprises, other are limited to specific regions or sectors, with some funds facing multiple restrictions. Similarly, pricing, risk assessment and risk management strategies differ across the different schemes. While some schemes focus on loan-level guarantees, others guarantee loan portfolios. There is a surprising dearth of schemes that reduce risk through risk-adjusted and performance based pricing and payout only after the lender starts legal action against a defaulting borrower. Finally, we find that the role of government in risk assessment, as observed in a few PCG funds, is associated with higher loan default rates, while many other PCG characteristics are not. PCG funds that do not use risk management tools as well as older PCG funds also have higher default rates, indicating that losses accumulate at a later stage after the set-up of such a scheme, a feature that makes such funds attractive for politicians.

The remainder of the paper is organized as follows. Section 2 provides a short overview over theoretical aspects of PCG funds and organizational characteristics and pricing tools that are important to analyze and compare across countries. Section 3 discusses the variety of different schemes around the world. Section 4 focuses on the roles of government and the private sector in funding, management and governance of PCG funds, while section 5 compares pricing and risk management tools across the

[3] The complete survey is available in Appendix 2. The database itself is available on the web at: econ.worldbank.org/programs/finance.

globe. Section 6 analyzes the variation of loan defaults with different organizational characteristics and pricing mechanisms and section 7 concludes and points to future research.

2. Partial Credit Guarantee Schemes – What Does Theory Tell Us?

To motivate our empirical analysis of credit guarantee schemes around the world, we discuss the theoretical underpinnings for their existence as well design issues. Throughout this section, we will draw parallels with another popular financial sector policy, deposit insurance schemes.

2.1 The Reasons for the Emergence of Partial Credit Guarantee Schemes

As discussed by Honohan (2008), credit guarantee schemes can emerge for three main reasons. First, informational advantages of the guarantor over the lender can help overcome information asymmetries and improve access to and/or reduce costs of borrowing of financing for certain borrower groups. Requiring guarantors for new borrowers was one of the pillars for the success of the cooperative banking movement in Germany and other European countries in the 19th century (Ghatak and Guinnane, 1999). Second, guarantee schemes can help diversify risk across lenders with different sectoral or geographic specialization. Cooperative central banks, as created in several European countries, serve to insure individual cooperatives heavily invested in specific regions or sectors. Third, guarantee schemes can emerge to exploit regulatory arbitrage if the guarantor is not subject to the same regulatory requirements as the lender. The recent growth in guarantee schemes in China might be due to such regulatory arbitrage (Honohan, 2008). None of these three reasons imply government involvement, and they alone can explain the existence of many privately funded and managed credit guarantee schemes around the globe. However, as we will discuss in section 4, government is involved in many credit guarantee schemes around the world, be it in the funding, management or even credit assessment and recovery of loans.

This raises the question of the rationale of government involvement or socio-political reasons for government involvement. Coordination failure among private parties and first mover disadvantage could prevent private providers from entering the

market for credit guarantees or prevent lenders to pool resources for such a scheme and thus justify government intervention (De la Torre, Gozzi, and Schmukler, 2008). Subsidies for such a scheme, however, especially if they go beyond set-up costs, would have to appeal to either distributional arguments or externalities that stem from the additional entrepreneurial activities financed by such a guarantee scheme.

Public choice theory points to political reasons for government support for partial credit guarantee schemes. First, theory shows that PCG funds are more effective and less costly in expanding access to external finance than directed lending (Arping, Loranth and Morrison, 2008). Second, unlike directed credit and other intervention mechanisms, PCG funds have the resemblance of market-friendly instruments, as the lending decision mostly stays with the (private) lender. However, even if the lending decision stays with private parties, government support might still be distorting due to other criteria, such as sectoral or geographic restrictions. Third, there is little initial cost of funding, with potential liabilities due to insurance events much further down the line. There is quite a resemblance with deposit insurance schemes along these lines. Deposit insurance is designed to foster depositors' trust in the financial system. While there is no direct influence on lending decisions, deposit insurance schemes can give incentives to aggressive risk taking, if not designed properly and in weak institutional environments (Demirguc-Kunt and Kane, 2002). Finally, the initial cost is low, with potential liabilities only incurred in the case of a large bank failure or a systemic crisis.

2.2 The Features of Partial Credit Guarantee Schemes

To better understand the implications of the different features of PCG funds and their guarantee product, we will continue to draw a parallel between deposit insurance and partial credit guarantee schemes. Both face the trade-off between the public policy goal of financial stability (deposit insurance schemes) and expanding access to credit (partial credit guarantee schemes), on the one hand, and the moral hazard risk of excessive risk taking by banks, on the other hand. The deposit insurance literature has pointed to several mechanisms to alleviate the moral hazard risk of such schemes (Demirguc-Kunt and Kane, 2002, for an overview). First, private management and funding, especially if provided by the beneficiary banks themselves, can align interests of risk-decision taking

banks and the ultimate owner of deposit insurance schemes, tax payers. Second, coverage limits and co-insurance can help instill market discipline by creating a depositor/creditor group that is excluded from the benefits of deposit insurance. Are there parallels to partial credit guarantee schemes?

The assignment of responsibilities among government, private sector and donors might be important for the incentives of lenders in screening borrowers properly. Funding of the scheme through proper pricing of the guarantees and limiting government funding to set-up costs might be important in giving the lenders the proper incentives to monitor borrowers, avoid excessive risk taking and thus minimize loan losses. Credit risk assessment by private parties rather than government bureaucrats can help improve the quality of these risk decisions and again minimize loan losses. Similarly, loan recovery by lenders rather than the government can maximize recovery as the lender has typically more information about the borrower and potentially stronger incentives to recover loan resources. This takes us directly to the question of whether a scheme should assess and guarantee individual loans or rather portfolios. The first approach might reduce the risk, but can be very costly. The critical question is whether the staff of the guarantee scheme (or members in the case of mutual guarantee associations) have any advantage in assessing the risk of individual loans. When guaranteeing portfolios rather than individual loans, however, other risk management mechanisms have to be in place to guarantee a certain minimum quality of the guaranteed loans. Performance-based pricing seems one possibility, with premiums or coverage ratios based on past portfolio performance of the respective institution (Cowan, Drexler and Yañez, 2008).

The coverage ratio can be an important instrument of risk minimization. Retaining part of the risk with the lender can increase her incentives to properly assess and monitor borrowers and thus reduce loan losses. Too low a coverage ratio, on the other hand, might reduce the value of the guarantee and dampen take-up. However, the impact of the coverage ratio on incentives might vary with the informational advantage. If the guarantor has an informational advantage over the lender, a higher coverage ratio might be sustainable than if the informational advantage lies with the lender.

Another question is whether schemes should be targeted on specific sectors or be rather broad. Targeting specific sectors or geographic areas might be in the interest of policy makers that want to focus the fund on alleviating financing constraints of specific disadvantaged groups and thus maximize the additionality of such a scheme. Too specific targeting, on the other hand, might increase the bureaucratic costs of running such a fund – e.g. verification costs – and again limit take-up. Further, such restrictions might distort the lending market and lead to net weigh losses (Zia, 2008).

This paper does not test whether these different characteristics discussed so far are related to the performance of credit guarantee schemes, as our aggregate cross-sectional data do not allow us to do so. Rather, using survey results for 46 developed and developing countries, we will show the variation in 76 PCG funds around the world. We will provide descriptive statistics and correlation analysis to see how these different mechanisms and features vary across countries and are linked with each other in a systematic way. We will focus on two areas – the role of government in partial credit schemes and the role of different mechanisms to reduce risks. Finally, we will provide some indication of how loan losses vary across schemes with different characteristics.

3. The Sample and Some General Characteristics

While sections 4 and 5 focus on two specific dimensions along which partial credit guarantee schemes differ across countries, this section provides some general information about the survey on which our analysis is based, and the sample of PCG funds on which we have information.

Our sample includes 76 PCG funds across 46 countries, both developing and developed economies. Specifically, we have information on PCG funds in 20 high-income, 25 middle-income, and 1 low-income country (India). In terms of regional distribution among developing countries, we have information on six schemes in Asia, 24 in Latin America, 11 in transition economies and one in Africa (Egypt).[4] In general, we include all national PCG funds if a country has more than one fund; this sometimes includes both publicly and privately operated funds (e.g. Argentina), in other cases – such

[4] See Appendix 3 for the complete list of countries and funds.

as in the case of Italy- we include multiple public funds with different objectives, i.e. SMEs, priority sectors, etc. In some countries with large numbers of similar regional PCG funds, we include a "representative" regional fund, as in the cases of Italy and Mexico.

We obtained the information on the PCGs from a detailed questionnaire that we sent to all PCGs for which we could find public contact information. While we sent this questionnaire to more than 60 countries, we received responses from PCG funds in 46 countries. The survey responses were cleaned and double checked for consistency, with detailed follow-up with the respective fund management where necessary. Appendix 2 includes the questionnaire.

Partial credit schemes around the world differ along some basic characteristics in systematic ways (Table 1). While the median age across all schemes is 15, it is 27 in high-income, but only 13 years in developing countries. For example, the Small Business Association in the United States was created in 1953, while the credit guarantee fund in Moldova was established in 2005. As shown in Figure 1, most PCGs in our sample were established after 1990, with a surge of new schemes occurring in the past four years. The younger age of schemes in the developing world is driven by schemes in transition and Latin American economies, while schemes in Asian countries are almost as old as schemes in developed economies (23 years). The high median age in Asia, however, is dominated by the two large technology oriented PCGs in Korea.

In terms of total outstanding loan guarantees, schemes in high-income are almost three times as large as schemes in developing countries; if outstanding guarantees are measured relative to GDP, however, schemes in developing countries are larger, with a median of 0.30% of GDP as compared to 0.21% in developed countries.[5] The region with by far the largest schemes is Asia, where the median size is almost 5% of GDP. Behind that seemingly low median, however, is a large cross-scheme variation, ranging from very small schemes in Italy (of which there are many in this country), to the Korean scheme whose outstanding loan guarantees amount to over 9% of GDP, or almost 10% of

[5] Please note that these statistics are based only on 27 schemes that reported these data.

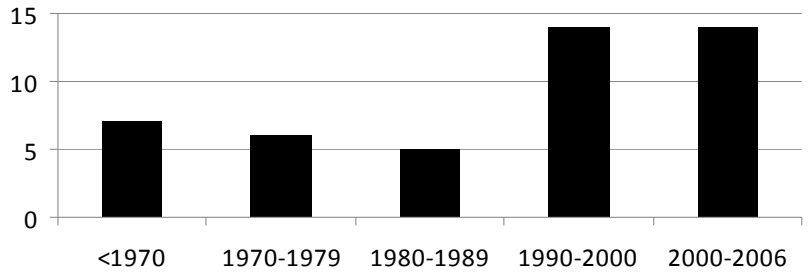
total banking credit to the private sector. In terms of the number of employees, schemes in developing countries are somewhat larger than in developed economies; the outlier again is Asia, with a median size of 179 employees.

Table 1: Summary statistics, medians

	No. of Obs.	Median Age	Total Outstanding Guarantees (US$ million)	Total Outstanding Guarantees/ GDP	No. of Employees
All schemes	76	15	3,700	0.61	18
By Income					
High	34	27	909	0.21	15
Middle/Low	42	13	360	0.30	21
By Region					
Asia	6	23	41,143	4.7	179
Latin America	24	11	682	0.06	11
Transition	11	14	149	0.35	25

There is important variation in the degree to which schemes are profit-oriented and subject to taxation. 40% of the schemes are for-profit, while the remaining 60% are non-profit; 52% are subject to corporate income tax, while 48% have tax-exempt status. The likelihood that a scheme is taxable does not vary across income levels of countries. In the East Asian and Pacific region, schemes are more likely to be tax-exempt than in other regions. Non-profit oriented PCG funds are typically tax-exempt.

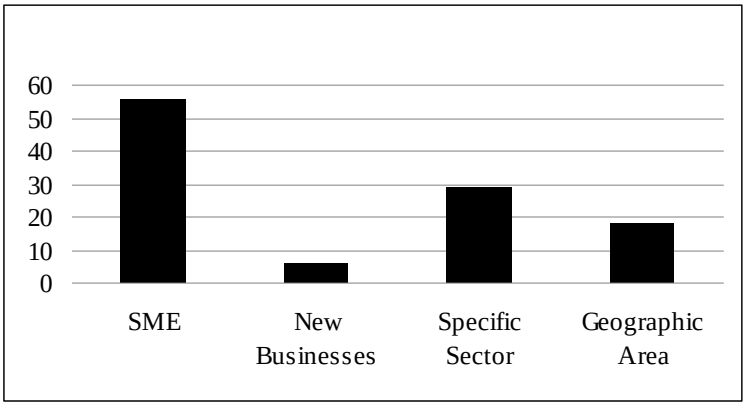
Figure 1: The distribution of PCG creation over time



The large majority of PCG funds in our sample were created with specific goals and thus have restrictions in terms of the sector, type of business or geographic area

whose loans they can guarantee. Overall, 95% of the schemes have a target restriction (Figure 2); the few unrestricted funds are in Latin America and Italy. While 30 schemes have only one restriction, 42 have more than one. 45% of schemes were established to assist SMEs. Other PCG funds are restricted to specific sectors or new firms. Specifically, there are 29 schemes that can guarantee loans only of a specific sector; among these, 12 schemes specialize in agriculture or rural businesses. 8% can only guarantee loans to new businesses, among those all but one scheme have to focus on new businesses in a specific sector. Some PCGs are established by states or municipalities and are only eligible to firms operating in their geographic area. Overall, 24% of schemes can only guarantee loans in a specific geographic area. Finally, some guarantees are used to foster specific economic policies (i.e. to promote loans to women or minority populations). When asked whether the guarantee schemes pursue specific economic policies, 31 responded affirmative, among them even schemes that are funded and managed privately.

Figure 2: Number of PCG funds, by eligibility requirements



A smaller number of PCGs responded to questions on the number of businesses assisted and jobs created.[6] For example, PCGs in India, Hungary, and France guaranteed loans to over 20,000 businesses in 2006, while in the same year, Funds in Turkey, Estonia, El Salvador (and others) assisted fewer than 150. For example, the 100% government-funded and -operated PCG fund in Brazil has guaranteed loans to less than 100 firms. In comparison, the privately funded and managed PCG fund in Brazil claims

[6] We would like to caution that this information is self-reported.

to have created over 3,000 jobs at 350 new firms. In addition, in 2006, a PCG fund in Spain reports creating over 8,500 jobs, while the Canadian PCG reports fund that it assisted the creation of over 18,000 jobs in about 10,000 firms. Overall, it appears that PCG funds guarantee loans at small firms (with less than 10 employees). However, this 'impact' data is only meaningful relative to the cost per loan, business, and employee, which firms were unwilling to report (as proprietary data) and is therefore (unfortunately) beyond the scope of this paper.[7]

These basic characteristics we have been discussing provide a first glance at differences in the way partial credit guarantee schemes operate across countries. They already underline that one size does not fit all. In the following two sections, we will consider in more depth two dimensions that theory suggests are critical to the performance of partial credit guarantee schemes, i.e. (i) the ownership and governance structure of schemes, as well as the respective roles of government and private sector and (ii) the pricing and risk management mechanisms applied by different PCG funds around the world.

4. Ownership, Governance and Funding of PCGs across the Globe

The funding, ownership and governance structure of schemes can provide critical incentives for lenders and borrowers in how they manage their risk and to which extent the scheme has a degree of additionality, as we have already discussed in section 2.

4.1 Governance of PCGs

We first consider the corporate structure of schemes. There are three common types of corporate governance across the globe:

(i) *Mutual Guarantee Associations (or Societies)* are a collective of independent businesses and/or organizations that grant *collective* guarantees to loans issued to their 'members', who are involved as shareholders and/or in management of the

[7] Several country-level studies have tried a rigorous assessment of impact. Columba, Gambacorta and Mistrulli (2008) find that firms participating in the mutual guarantee schemes pay significantly lower interest rates than non-participating firms. Lelarge, Sraer and Thesmar (2007) find that the French program indeed alleviates credit constraints, with the net effect being positive in spite of higher loan losses from participating borrowers. Hancock, Peek and Wilcox (2007) find that guarantees by the Small Business Administration in the U.S. had a stabilizing impact on states' economy, while Wilcox and Yasuda (2007) find a positive effect of guarantees during the Japanese crisis.

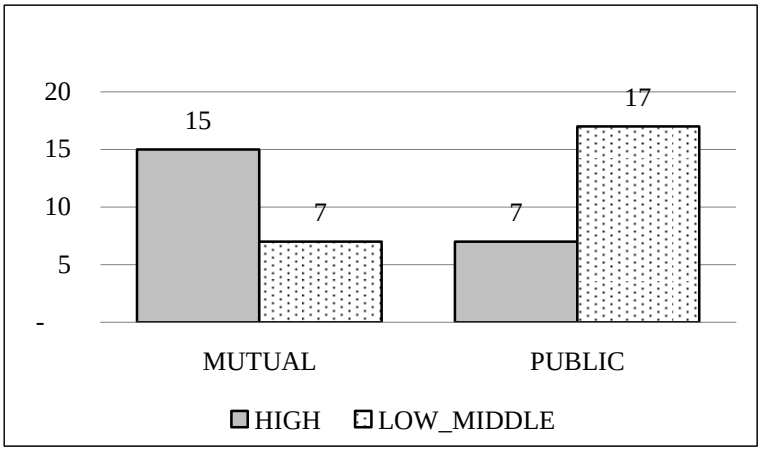
association. These associations may include government support. Examples include the partial credit guarantee schemes in Italy (Columba, Gambacorta and Mistrulli, 2008).

(ii) *Publicly Operated National Schemes* are government initiatives at the local, regional, or national level. These are generally established as part of a public policy towards providing financing to SMEs or some other priority sector or demographic group (i.e. women or minorities). Although publicly funded, these might be managed by private groups. Examples include the credit guarantee schemes in Korea (Kang, 2005).

(iii) *Corporate Associations* are established – and generally funded and operated – by the private sector. Examples include guarantee schemes in Greece and Romania.

As shown in Figure 3, the majority of PCGs in high-income countries are mutual guarantee associations, while the majority of funds in middle- and low-income countries are publicly operated. There are only five schemes in the sample that have the form of a corporate association.[8]

Figure 3: Type of guarantee systems



[8] The numbers do not add up to 76 as we have missing observations for this question.

In addition, we find that publicly operated schemes are on average significantly younger than mutually operated funds and significantly more likely to be operating in emerging markets, suggesting that this is the guarantee system of choice in the recent wave of new PCG funds. However, this pattern might also reflect a survivor bias, with mutually funded schemes being financially more sustainable. In addition, as will be discussed in the next section, we find that publicly operated funds are significantly less likely to have private sector participation or market based pricing structures or use any ex-post risk management tools.

4.2 Funding, Ownership, and Management of PCGs

Next, we take a closer look at the respective roles of government, donors and private sector in the funding, ownership and management of partial credit guarantee schemes. Specifically, we examine in detail four aspects of the PCG: First, the funding of PCG funds; second, the management of PCG operations; third, the ex-ante credit risk assessment of loans; and fourth, the ex-post responsibility of loan recoveries. In each case, we identify the role of (i) government agencies, (ii) central banks and banking supervisors (government *related* agencies), (iii) NGOs and multi-lateral agencies, and (iv) the private sector (financial institutions and private companies). Table 2 summarizes the percentage of PCG funds across ownership types (note that columns do not sum to 100%, i.e. a PCG might receive funding from both government and private sources, and we exclude multilateral agencies and business associations), while Table 3 shows the correlation among some of the categories and with GDP per capita and financial development.

Table 2: Responsibilities in PCG funds

	Funding	Management	Credit Risk Assessment	Recovery
Government	49%	17%	11%	8%
Government-Related	3%	9%	8%	1%
NGO (e.g. donors)	5%	5%	4%	3%
Private	58%	51%	57%	55%

There are several interesting findings in Table 2. First, central banks and supervisory authorities (government-related) have little involvement in the management and risk assessment and even less in funding and recovery. Similarly, donors have a

limited role in the different aspects of partial credit guarantee schemes. Third, while governments do have an important role in funding – over a third of schemes rely at least partially on government funding – they have a much more limited role in management, risk assessment and recovery. Finally, while the private sector shares in funding with governments, it is dominant in management, risk assessment and recovery, i.e. the banks that are generating the loans being guaranteed are mostly responsible for credit risk assessment and recovery of defaulting loans.

Table 3: Correlations of responsibilities

	Funding_G	Manage_G	CrRisk_G	Recovery_G	Funding_P	Manage_P	CrRisk_P
Manage_G	0.23**						
CrRisk_G	0.05	0.46***					
Recovery_G	0.12	0.47***	0.51***				
Funding_P	-0.02	-0.15	-0.10	-0.21*			
Manage_P	-0.04	-0.18	-0.16	-0.11	0.49***		
CrRisk_P	-0.05	0.19	0.06	0.18	0.00	0.31***	
Recovery_P	-0.03	0.25**	0.19*	0.10	0.10	0.18	0.69***

Note: Asterisks *, **, and *** indicate significance at 1%, 5%, and 10%, respectively. P indicates private, while G indicates government or government-related.

Table 3 shows the correlation among responsibilities. We find, for example, that PCGs with government or government related funding (including government agencies, banking supervisors and central banks) are significantly more likely to also have government or government related management. Similar results hold for private funding and management. Interestingly, even funds with government management and credit risk assessment responsibilities are significantly more likely to use private parties to recover loan losses.

We also include two indices to measure government and private sector 'responsibility'. The first index measures the government's role in the PCG, *Responsibilities-Government*; a higher value indicates a smaller role for the private sector. The index is calculated as the sum of four sub-indices for Credit Risk, Funding, Management, and Recovery. Each sub index is equal to three if government agency; two if government related (central bank or bank supervisor); one if NGO or bilateral organization; and zero otherwise (financial institution or private company; i.e. the minimum is zero (if all four categories are private) and the maximum is 12 (if all four

categories are government). Categories might involve multiple parties – e.g. funding might come from private and government sources. For this variable, any government involvement identifies the variable as "government" (equal to three). The mean value of this variable is 3.14, with a minimum value of zero and a maximum of 12. We also construct an analogous variable, *Responsibilities-Private,* for which any private sector involvement identifies the category as private (equal to zero); the average value of this variable is 1.69, with a minimum value of zero and a maximum value of nine. Lower values indicate a higher involvement of the private sector in the management and funding of PCG funds.

There are 21 PCG funds with no government involvement at all, while funds in Macao and Malta show the highest degree of government involvement. There are 21 PCG funds where the private sector is involved in all four areas, funding, management, risk assessment and recovery. Overall government involvement is lower in developing than in developed economies. Further, government involvement is especially high in the East Asia and Pacific region.

5. Risk Management and Pricing

While we find that risk assessment and recovery are mostly in private hands across countries, there is a variety of mechanisms that can be used to reduce risk and maximize the additionality of credit guarantee schemes, ranging from guarantee origination over pricing to pay-out mechanisms.

5.1 Guarantee Mechanisms and Coverage Ratios

First, PCG funds can guarantee loans directly or in the form of counter- or co-guarantees. Specifically, the two mechanisms are:

(i) *Direct guarantees to the bank* directly cover outstanding loans; and

(ii) *Counter-guarantees or co-guarantee with mutual guarantee institutions* provide indirect protection to the lender through a guarantee of the main guarantor. This might be in the form of a guarantee in the case of default of the main guarantor or

as a percentage of each loss incurred by the main guarantor. Counter-guarantors can be states, public agencies, or international financial institutions.

For our sample of PCG funds, all but five funds offer only direct guarantees to the bank. Of the five funds that offer counter-guarantees, four are in high-income countries.

Another important dimension at guarantee origination is whether a scheme guarantees individual loans or loan portfolios. Many schemes provide "loan-level" guarantees, which generally involve the guarantee agency in the screening stage to not only review eligibility (i.e., whether the potential borrower is within the PCG's target group) but also risk profile (i.e., whether the level of credit risk associated with the borrower is within adequate limits). In this approach, a lender will usually first approve a loan and then seek a guarantee approval on the borrower's behalf. Alternatively, the "portfolio" model allows lenders, at their discretion, to assign guarantees to higher risk loans or targeted borrowers (i.e. SMEs) and inform the guarantor after the loan is approved or the loan defaults.[9] While the loan-level approach might allow for more careful screening and risk management, it is also more costly for the credit guarantee fund. We find that 72% of PCGs use a loan or "selective" basis, while 14% use a portfolio or "lump screening" approach. 9% use a combination of the two approaches. There is no significant difference between high-income and developing countries in the extent to which schemes use the loan or the portfolio approach, neither is there a significant difference among countries at different levels of financial development. PCG funds with no eligibility restrictions are more likely to choose the portfolio approach.

A related issue is the risk coverage offered by a guarantee agency. Around 40% of all schemes in our sample offer guarantees of up to 100%. Given the discussion in section 2 on incentives for lenders to properly assess and monitor risk, this is a quite surprising finding. While many schemes offer only up to 50% coverage, the median coverage ratio is 80%. There is no significant correlation of economic and financial development with the maximum coverage ratio. Further, there is no significant correlation of the coverage

[9] For the purpose of our summary statistics, we include an "intermediate" approach – which includes PCGs that guarantee a combination of both loan and portfolio mechanisms – in the "portfolio" category, since our interest is in identifying PCGs that only guarantee specific loans.

ratio with the type of guarantee scheme (mutual guarantee, publicly operated or corporate association) or with the role of government. Coverage ratios thus do not seem to be set in line with informational advantages or incentives structures. In addition to maximum coverage ratios, almost half the schemes in our sample have an absolute maximum guarantee amount, this especially holds for schemes that are restricted to guarantee loans to small enterprises.

In addition to maximum coverage, about 40% of PCGs have a maximum guarantee period. This ranges from 3 to 25 years, with a median of 10 years. About a quarter of the PCGs in our sample have restrictions on guarantee limits and periods and on eligibility; in other words, some PCGs are designed to more strictly limit their guarantees and the resulting risk. Schemes in economically and financially more developed countries are more likely to have maturity restrictions.

There is also variation in what features of the loan PCGs will cover. This includes the principal, interest, and other costs. We find that most PCGs guarantee at least the loan principal (74%), while fewer guarantee only interest (34%) or other costs (13%); almost 30% guarantee both principal and interest.

Summarizing, there is a wide variation in guarantee mechanisms and coverage ratios across countries. Perhaps most striking, a large proportion of schemes provide 100% guarantees, certainly not in line with providing incentives for lenders to properly assess and monitor borrowers.

5.2 Pricing and Pay-out of Guarantees

Appropriate pricing is an important part of a guarantee scheme, both in terms of incentives for lenders and borrowers, as well as for the sustainability of the scheme. In 56% of our sample, the fees are paid directly by the borrower and in 21% by the financial institution receiving the guarantee (although this cost might be passed on to the customer). 63% of PCGs in our sample (48) have a per-loan fee, while 30% of the schemes levy an annual fee; 15% charge a membership fee. There is also variation in the basis that schemes use to compute fees: 57% base the fee on the amount guaranteed, while 26% base it on the loan amount. Further, 25% of the schemes that charge on a per-

loan basis take into account the maturity of the guaranteed loan when computing the fee, while 25% adapt the fee according to the risk of the loan or the borrower. Only few PCGs use a risk-based pricing structure – in only 7% of PCGs in our sample does success in the repayment of loans lower the price of future guarantees, while only 10% impose penalty rates for financial institutions with below-average loan performance.

There is large variation in the time after default that the guarantee fund pays the lender. This ranges from very short durations, where the guarantee fund may arrange rescheduled payments with borrowers, to longer periods (i.e. 12 months in Germany). In addition, there is variation in whether or not the lender is required to first write-off the loan or to initiate legal action, although the latter might be infeasible in many developing countries. In 34% of the schemes in our sample, payouts are made after the borrower defaults. In 42% of the schemes, payout happens after the bank initiates recovery, while in 3% it happens after the PCG initiates recovery. In only 14% of all cases, payout has to wait until the bank writes off the loan. Schemes in more developed countries are more likely to pay out after default or after write-off, while schemes in developing countries are more likely to pay out after the bank initiates legal action. This might be a mechanism to reduce moral hazard risk on the side of lenders who might be too quick to write off a loan after default, especially with PCG funds with high coverage ratios.

Summarizing, there is again a large variation across schemes and countries in terms of pricing and pay-out mechanisms. Overall, there seems a dearth of schemes that base their pricing on risk calculation and structure pay-out as to maximize incentives for lenders to minimize loan losses.

5.3 Risk Management of PCGs

Guarantee funds may reduce their own ex-post exposure to loan defaults through reinsurance, loan sales, or portfolio securitizations. Their ability to diversify risk depends, however, on the development of local capital markets and financial products. There are a number of risk management instruments for diversifying loan portfolio risk, including (re)insurance and securitizations. We find that 20% of PCGs in our sample purchase some form of loan insurance and 10% securitize their loan portfolios (about 5%

use both risk management strategies). Overall, 76% of all schemes in our sample use risk management tools, while 24% report not using any type of risk management tools to manage their risk.

To gauge the "risk-basedness" of pricing, we compute an index that indicates the degree to which pricing and payout enhance risk assessment and monitoring incentives of lenders. The index is calculated as the sum of the following: one if additional penalty rates are applicable in the case of default in the payment; one if success in the repayment of loans lowers the price of future guarantees; one if the pricing structure of the fees is adapted to risk; and one if payout happens after the bank initiates legal action against the borrower. While the theoretical maximum value for this index is four, in reality, the index varies between zero and three, with a median of one and an average of 0.8. Interestingly, the components do not show a very high correlation among each other, suggesting that PCGs see them as substitutes rather than complements.

Risk pricing does not vary significantly with the level of economic and financial development of countries. Funds that are restricted to small borrowers, however, are more likely to have elements in place that base pricing and payouts on risk.

Table 4 shows a correlation matrix among the operational characteristics of PCG funds in our sample. First, we examine differences between PCG funds that guarantee on the loan-level (3) versus PCG funds that guarantee portfolios (4). We find that PCG funds that use a loan-basis approach are significantly more likely to have a guarantee limit, presumably as tool to minimize risk exposure. We also find that PCG funds that use a portfolio approach are significantly more likely to receive government funding – and use the private sector for credit risk assessment (not shown).

Table 4: Correlation matrix of operational mechanisms

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Guarantee Limit (1)	1.00							
Principal Coverage Ratio (%) (2)	-0.01	1.00						
Operational Mechanism -- Loan Basis (3)	0.25**	-0.01	1.00					
Operational Mechanism – Portfolio (4)	0.05	-0.14	-0.08	1.00				
Loan repayment Lowers Costs of Future Guarantees (5)	0.01	0.23*	0.05	-0.11	1.00			
Payout – At Time of Default (6)	-0.17	-0.02	0.01	0.10	-0.56***	1.00		
Payout -- After Bank Initiates Recovery (7)	0.18*	-0.07	-0.01	0.03	-0.30***	-0.28**	1.00	
Payout – After Bank Writes off the Loan (8)	0.05	0.14	0.09	-0.06	-0.01	-0.02	0.08	1.00
Risk Management – Insurance or Portfolio Securitization (9)	0.16	0.02	0.08	-0.02	0.06	-0.09	0.13	0.19
Risk Management – None (10)	0.09	-0.19	0.10	0.13	-0.05	-0.27**	0.66***	0.24**

Note: Asterisks *, **, and *** indicate significance at 1%, 5%, and 10%, respectively.

Next, we find a significant relationship between repayment performance lowering the cost of future fees and higher coverage ratios and later payouts (i.e. a significantly lower likelihood of payouts at the time of default or when the bank initiates recovery). This indicates that schemes compensate higher coverage ratios with an incentive for banks to minimize loan losses, while a later payout of loan losses is complementary to the lower future fee incentive for lenders. We also find that PCGs that pay out at the time of default are more likely to have a risk management program, whereas the reverse is true for PCGs that pay out later (after the bank initiates recovery or writes off the loan). In other words, it appears that PCG funds that take on more ex-post risk (and recovery costs), correct for this by better risk management.

Finally, we examine the relationship between pricing and risk management mechanisms, on the one hand, and government responsibility, on the other hand. Table 5 shows the disaggregated indices indicating government responsibility, for funding, credit risk, and recovery. PCG funds with government responsibility for credit risk and recovery are older and significantly more likely to guarantee loan portfolios, pay out after the bank initiates recovery, and have no risk management program. These results are

consistent with the general notion that PCG funds with greater government involvement are less likely to manage risk and losses. On the other hand, there are few significant correlations between government funding and management and operational, pricing and risk management mechanisms.

Summarizing, there is some evidence that more generous schemes compensate with better risk management, while funds with government involvement in credit decisions and recovery are less likely to manage risks and losses. Overall, there seems much less risk management by PCG funds than one would expect.

Table 5: Correlation matrix of government responsibilities

	Funding_G	Manage_G	CrRisk_G	Recovery_G
Age	0.15	0.15	0.33***	0.26**
Operational Mechanism – Loan Basis	0.07	0.13	0.04	0.08
Operational Mechanism – Portfolio	-0.03	0.24**	0.29***	0.23**
Pricing Structure – Fee Adapted to Risk	0.08	0.13	-0.12	-0.11
Time of Payout – At Time of Default	0.13	0.26	-0.08	-0.11
Time of Payout -- After Bank Initiates Recovery	0.02	-0.10	0.34***	0.25**
Time of Payout – After Bank Writes off the Loan	-0.18	-0.06	-0.08	-0.07
Risk Management – Insurance or Portfolio Securitiz.	0.11	0.17	-0.02	-0.01
Risk Management – None	-0.04	0.00	0.20*	0.20*

Note: Asterisks *, **, and *** indicate significance at 1%, 5%, and 10%, respectively.

6. Explaining Loan Losses with Characteristics of Credit Guarantee Schemes

How do loan losses covered by PCG funds vary across schemes with different characteristics? To answer this question, we consider the ratio of the number of loans in default to total number of loan guaranteed and assess how it varies across schemes with different characteristics.[10] We find that this ratio varies greatly, from zero in Honduras and Argentina to 36% in the Bahamas.

[10] While the ratio of loans requiring payout to total loans guaranteed might be a more adequate measure, data on this ratio are available for fewer countries.

Table 6: Total loans guaranteed and default rates

	# obs	Total number of loans guaranteed	Average value of loan guaranteed	% of loan defaults
Means	50	117,133.20	85,177.48	5.37%
Guarantee type:				
Loan	32	26,102.53	86,437.54	5.97%
Portfolio	12	408441.90 **	89,782.00	4.22%
Ex-post risk management:				
Insurance or securitization	3	133,375.30	7,884.00	18.00%
None	12	14050.55 *	38,715.50	2.24%**
Payout:				
After initiation of recovery	23	196,072.30	52,608.05	3.99%
After write-off	8	34,992.33	55,380.33	11.45%
After default	16	67,048.38	152,247.20 ***	5.28%
Responsibility_Private:				
Greater than zero	19	38,612.45	75,759.93	7.75%
Equal to zero	27	188,354.50	107,043.90	3.56% *

Note: Asterisks *, **, and *** indicate significance at 1%, 5%, and 10%, respectively.

We find that default rates are higher in older schemes, which underlines the attractiveness of these schemes for politicians, as discussed above. Loan losses accumulate at later stages of the life of a PCG fund, while the initial costs are limited. As shown in Table 6, defaults are higher in schemes that allow pay-out after a bank writes off a loan, while they are not higher or lower in schemes which require banks to initiate legal actions before payout. We also find a strong correlation of default with government's role in partial credit guarantee schemes.

These simple comparisons are confirmed by regressions reported in Table 7. Here, we regress the percentage of loan defaults on different characteristics of PCG funds. Given the limited sample size of 37 PCG funds for which we have the necessary data, only few of the variables enter significantly and only so at the 10% level. We find that older funds and funds that do not use risk management tools such as reinsurance or securitization have higher losses. Similarly, the regression analysis suggests that government involvement in credit decisions is associated with higher losses, while government involvement in funding, management, and recovery is surprisingly not. Furthermore, lower default rates are associated with our overall index of private sector responsibility. It is important to note that these are partial correlations and do not imply

causality. Biases, such as reverse causation, simultaneity and selection, might be driving the results. However, these results give us important first insights into what might be driving the sustainability of PCG funds across countries.

It is also interesting to consider insignificant correlations of loan losses. First, there is no significant variation in default rates between countries at different levels of economic development. Second, the size of the PCG funds is not robustly correlated with loan losses. Also, the governance structure, loan vs. portfolio approach and timing of the payout are not correlated with the loan losses a PCG fund incurs. Finally, in unreported correlations, we also could not find any correlation of loan losses of PCG funds with the degree that funds restrict themselves to specific target groups.

Table 7: What explains loan losses - multivariate regressions

Ln GDP per capita	0.00	-0.01	-0.02	-0.02	-0.01
	[0.92]	[0.61]	[0.32]	[0.37]	[0.66]
Ln Total Assets	0.00	0.01	0.01	0.01	0.01
	[0.58]	[0.18]	[0.10]*	[0.09]*	[0.28]
Ln Age	0.04	0.04	0.04	0.04	0.03
	[0.09]*	[0.08]*	[0.06]*	[0.06]*	[0.18]
Mutual Guarantee	-0.03	-0.02	-0.02	-0.03	-0.03
	[0.51]	[0.59]	[0.65]	[0.48]	[0.44]
No Risk Management	0.06	0.07	0.07	0.07	0.06
	[0.10]	[0.09]*	[0.05]*	[0.06]*	[0.10]
Loan Basis	0.00	0.01	0.02	0.01	0.04
	[0.93]	[0.64]	[0.41]	[0.74]	[0.26]
Default Payout	0.01	0.00	0.01	0.01	0.01
	[0.58]	[0.96]	[0.50]	[0.61]	[0.59]
				-0.02	
Govt Funding	-0.03				
	[0.30]				
Govt Management		0.05			
		[0.25]			
Govt Credit Risk			0.07		
			[0.06]*		
Govt Recovery				0.09	
				[0.18]	
Private Responsibility					-0.06
					[0.09]*
Constant	-0.13	-0.11	-0.08	-0.05	-0.05
	[0.36]	[0.46]	[0.56]	[0.75]	[0.72]
Observations	37	37	37	37	37
R-squared	0.27	0.31	0.37	0.36	0.35

Note: Asterisks *, **, and *** indicate significance at 1%, 5%, and 10%, respectively.

7. Conclusions

Credit guarantee schemes have become the instrument of choice for policy makers to increase access to lending, especially for constrained groups such as small or new enterprises. Little has been known, however, about how these schemes vary across countries. This paper is a first effort to fill this gap. Using a survey of partial credit guarantee schemes across 46 developed and developing countries, it provides a first overview of how schemes differ in their characteristics.

We find a large variation in the organizational structure, the role of the government and private sector, and the risk management and pricing mechanisms that partial credit guarantee schemes use around the world. However, there is surprisingly little systematic variation in many of these characteristics with economic and financial development.

Our survey shows an important role of government in partial credit guarantee schemes around the world, but mostly limited to funding and management, and much less in credit risk assessment and recovery. This might be for the better, as we also find that where government is involved in credit risk assessment, default rates are typically higher. Older schemes are also more likely to be government funded and managed and also have higher loan losses, consistent with the notion that the costs and liabilities of a PCG fund become obvious only after some time. We find a surprisingly low incidence of risk-based pricing and limited use of risk management mechanisms. However, there are some indications that funds that take on more risk also compensate for this by better risk management.

While this database is an important first step to better understand the typology of credit guarantee schemes around the world, there are also clear limitations. Using cross-country data such as the ones presented here do not allow to properly asses the effect of different characteristics of partial credit guarantee schemes on banks' risk-taking decisions and on the effect that credit guarantee schemes have on access to credit, entrepreneurship and job creation. Such assessments would require loan-level data,

preferably over a longer time-period and changes in specific characteristics of guarantee schemes.

Looking forward, we hope that this first overview based on a survey of PCG funds motivates more research. First, more theory is needed to better understand which organizational, pricing and risk management features can help maximize the impact of PCG funds, while minimizing the risk. Second, more empirical research on specific funds and how they have developed over time can help understand which features have worked best in practice. Such research, however, requires time-series data and preferably relies on loan- and borrower-level data. Finally, more research is needed to do a proper cost-benefit analysis of PCG funds compared to other SME government interventions. Even if one agrees with the hypothesis that subsidies are justified to foster the access of SMEs to external finance, it is still important to understand, which intervention is the most cost-effective to do so.

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Appendix 1: Variable definitions and summary statistics

Question numbers correspond to the World Bank PCG Survey in Annex A. All variables are mean, with the exception of *PCG age* and *Total Assets*. All summary statistics include 76 observations, with the exception of *Guarantee Coverage* (52 observations) and *Total Assets* (64). For "q08", "government" includes Government Agencies, Central Bank, and Banking Supervisors; "private" includes Financial Institutions and Private Companies (NGOs are Multilateral Agencies are excluded).

Question	Variable	Mean
q01	PCG Age (mean / median)	20.6 / 15.0
q02	Total Assets (median, US$ millions)	$ 27.4
q04	Type of Guarantee System – Mutual Guarantee Association (%)	28.94
q04	Type of Guarantee System – Publicly Operated National Schemes (%)	31.58
q05	Profit (versus Non-Profit) (%)	39.39
q06_1	Type of Guarantee – Direct Guarantee to Banks (%)	78.95
q06_2 or _3	Type of Guarantee – Mutual (%)	11.84
q09_1_1 or _2	Eligibility – SMEs (%)	30.26
q11	Guarantee Limit (%)	57.89
q13_1	Guarantee Coverage – Principal Coverage Ratio (%)	79.86
q14_1	Operational Mechanism – Loan Basis/ Selective (%)	72.37
q14_2	Operational Mechanism – Portfolio / Global Approach (%)	14.47
q16_3_4	Pricing Structure – Fee Adapted to Risk (%)	21.05
q18	Does Repayment of Loans Lower the Price of Future Guarantees? (%)	6.58
q19_1	Time of Payout – At Time of Default (%)	34.21
q19_2	Time of Payout – After Bank Initiates Recovery (%)	42.11
q19_4	Time of Payout – After the Bank Writes Off the Loan (%)	14.47
q20	Collateral – Provided by Borrowers (%)	56.58
q21	PCG Rejection – Bank Offers Loan for Higher Rate/ Collateral (%)	55.26
q23_1 or _2	Risk management – (Re)Insurance or Portfolio Securitization (%)	25.00
q23_3	Risk management – None (%)	23.68
q_08_Fu_g	Funding_Government	48.68
q_08_Fu_p	Funding_Private	48.68
q_08_Ma_g	Management_Government	23.68
q_08_Ma_p	Management_Private	43.42
q_08_Cr_g	Credit Risk_ Government	17.11
q_08_Cr_p	Credit Risk_Private	55.26
q_08_Re_g	Recovery_Government	9.21
q_08_Re_p	Recovery_Private	53.95

Appendix 1: Variable definitions and summary statistics (cont.)

Question	Variable	Mean
q_responsibility_g	An index indicating the public role in the PCG; a higher value indicates a smaller role for the private sector. The index is calculated as the sum of four sub-indices for Credit Risk, Funding, Management, and Recovery. Each subindex is equal to three if government agency; two if government related (central bank or bank supervisor); one if NGO or bilateral organization; and zero if each column gives a three if govt., two if govt-related, one if non-profit and zero otherwise (financial institution or private company. I.e. the minimum is zero (if all four categories are private) and the maximum is 12 (if all four categories are government). Categories might involve multiple parties – e.g. funding might come from private and government sources. For this variable, any government involvement is identified as "government".	3.15
q_responsibility_p	For the definition, see "g_responsibility_g", except for this variable, any financial institution or private company involvement is identified as "private" (equal to zero).	1.69
q_index_default	An index indicating risk based pricing of loan defaults; a higher value indicates greater responsibility. The index is calculated as the sum of the following: one if additional penalty rates are not applicable in the case of default in the payment (q18 equals "NO"); one if success in the repayment of loans lowers the price of future guarantees (q17 equals "Yes"); one if the pricing structure of the fees is adapted to risk (q15); and one if 18 is if the time of payoff is after bank writes off loan (q19).	1.32

Appendix 2: World Bank questionnaire on Partial Credit Guarantee Funds

Panel A: General Characteristics

1. **Year of beginning of activities**:_____

2. **Total assets:** _____

3. **Number of employees**: _____

4. **Type of guarantee system:**
   - □ Mutual Guarantee Association
   - □ Publicly Operated National Schemes
   - □ Corporate Association
   - □ Based in Bilateral or Multilateral Cooperation
   - □ NGOs

   Other: _____

5. **Purpose**: □ Profit □ Non-Profit

6. **Type of guarantee:**
   - _1. Direct Guarantee to Banks
   - _2. Counter-Guarantee to Mutual Guarantee Institutions
   - _3. Co-guarantee with Mutual Guarantee Institutions
   - _4. On equity participation or participatory debt

   Others: _____

7. **Tax Regime**
   - □ Taxable
   - □ Tax Exempt

8. **Responsibilities (Please check all that apply):**

	Funding	Ownership	Management	Credit Risk Assessment	Monitoring	Recovery
Government Agency						
Financial Institution						
Central Bank						
Banking Supervisor						
Private Company						
NGOs						
Multilateral Agency						
Other:						
Other:						

Panel B: Operational Characteristics

9. **Eligibility** (please check all that apply)**:**

□ Restricted by borrower size

□ Small: Number of employees: _____ *or* level of sales: _____ (currency: _____)

□ Medium: Number of employees: _____ *or* level of sales: _____ (currency: _____)

□ Large: Number of employees: _____ *or* level of sales: _____ (currency: _____)

□ Restricted to: □ new business □ existing businesses

□ Restricted to specific sector: _____

□ Restricted by geographic area: _____

□ Restricted to investment (i.e. capital formation)

□ No restrictions applicable

Other: _____

10. **Are guarantees used to foster any specific economic policies (i.e. to promote loans to women or minority populations)?** □ Yes □ No.

If yes, please specify: _____

11. **Guarantee limit:** □Yes □ No. If yes, please specify:

□ Maximum: In national currency: _____ *or* percentage of the loan amount: _____%

□ Minimum: In national currency: _____ *or* percentage of the loan amount: _____%

12. **Maximum guarantee period (in years**):_____

13. **Guarantee coverage:**

_1. Principal; Please specify coverage ratio: _____%

_2. Interest

_3. Other costs

14. **Operational Mechanism:**

_1. Loan Basis/ Selective[11]

_2. Portfolio/ Global Approach/ Lump Screening[12]

_3. Intermediary approach[13]

Other: _____

15. **Provide training and guidance?**

To the Lender □ Yes □ No

To the Borrower □ Yes □ No

16. **Pricing structure** (please check all that apply)**:**

□ Annual fee: □Yes □ No

□ Membership fees: □Yes □ No

□ Per loan fee: □Yes □ No

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[11] Guarantees extended on a case-by-case basis by the guarantor.

[12] When accredited lenders are entitled to attach guarantees to loans within an eligible category without previous consultation of the guarantor.

[13] Combination of loan basis and portfolio mechanisms.

If yes, based in (check all that apply):

_1. Size of the loan
_2. Amount guaranteed
_3. Fee adapted to risk
_4. Maturity
Please specify fee: ____%
Payment: □ in advance, □ quarterly, □ others: _____

□ Application fee: □Yes □ No. If yes, please specify amount:_____
□ No fees

Are fees paid by (please check all that applies)**:**
□ Financial Institution
□ Borrower

17. Are additional penalty rates applicable in case of default in the payment? □Yes □ No.
If yes, please specify rate: _____

18. Does success in the repayment of loans lower the price of future guarantees? □Yes □ No

19. Time of payout:

_1. At time of default
_2. After bank initiates recovery
_3. After PCG initiates recovery
_4. After the bank writes off the loan

20. Do borrowers need to provide collateral? □Yes □ No
If yes, is there a minimum collateral value? □Yes _____ □ No

21. If a loan is rejected by the PCG is a bank more likely to reject the loan or offer the loan at higher rate/ greater collateral? □Yes □ No

Estimated percentage of borrowers that would not have been able to receive a loan with out a guarantee: _____%

22. Information requirements:
What kind of loan documentation are financial institutions required to provide?
Please, specify: _____
What is the estimated cost (in basis points) of these reporting requirements?
Please, specify:_____

23. Risk management:
Does the PCG use any risk management tools to mange their risk?

_1. (Re)Insurance
_2. Portfolio securitizations
_3. None

□ Other _____

24. What is the PCG's total operating budget in 2006[14]? _____ (currency ____)

What is the contribution of government/public funding? _____ (currency ____)

[14] Or most recent available year.

Panel C: Monitoring

25. Please, provide data for[15]:

Outcomes	Stock[16]	2006[17]
Number of loans guaranteed		
Number of guarantee requests denied		
Average value of guarantees		
Number of default loans		
Average default amount		
Total amount of loan guarantees		
Total amount paid-out to lenders		
Number of loans that required pay-outs		
Currency:		
Businesses assisted		
Total number of businesses		
Number of new Jobs created		
Number of new business created		
Number of new Jobs created		
Business assisted per size		
Micro enterprises		
Small		
Medium		
Large		
Business assisted by sector		
Manufacturing		
Services		
Agriculture		
Construction		

[15] If available, please specify in US$.
[16] Since the creation of the PCG.
[17] Or most recent available year.

Appendix 3: Surveyed PCG Funds

Country	Fund
Argentina	Afianzar S.G.R
Argentina	Agroaval S.G.R
Argentina	FO.GA.BA. S.A.P.E.M.
Argentina	Garantizar Sociedad de Garantía Reciproca
Argentina	Intergarantias Sociedad de Garantía Reciproca
Bahamas	Agricultural Credit Guarantee Fund
Belgium	Sowalfin
Brazil	Brazilian Micro and Small Business Support Service
Brazil	Fundo de Garantia para a Promocao da Competitivida
Canada	Canada Small Business Financing Program
Chile	Fondo de Garantía para Pequeños Empresarios
Colombia	Fondo Agropecuario de Garantías FAG
Colombia	Fondo Nacional de Garantías
Colombia	Fondo Regional de Garantías del Tolima S.A
Costa Rica	FODEMIPYME
Croatia	Croatian Agency for Small Businesses
Egypt	Credit Guarantee Company
El Salvador	Sociedad de Garantías Reciprocas
Estonia	Credit and Export Guarantee Fund KreDex
France	Ose Garantie
France	SIAGI
Greece	Tempte SA (Credit Guarantee Fund of Small and very small Enterprises)
Honduras	Fondo de Garantía del Programa de Financiamiento para el Sector Rural en Apoyo a la Seguridad Alimentaria Fonga Finsa
Hungary	Hitelgarancia Zrt
Hungary	Rural Credit Guarantee Foundation (AVHGA)
India	Credit Guarantee Fund Trust for Small Induestries (CGTSI
Israel	ISMEA, Israel SMEs Authorities
Italy	SFGA Srl.
Italy	Artigiancredit Toscano Societa cooperativa
Italy	CONFIDI (FEDERASCOMFIDI)
Italy	CONFIDI Veneziano Soc. Cooperativa
Italy	Federdifi Lobarda SC
Italy	SGFA Srl
Italy	UNIONFIDI S.C
Korea, Dem. Rep.	Kibo Technology Fund
Korea, Dem. Rep.	Korea Credit Guarantee Fund
Lithuania	SME Guarantee Fund
Luxembourg	Mutualité D'aide Aux artisans
Luxembourg	Mutualité de Cautionnement et d'Aide aux Commerçants. S.c.
Macau, China	Industrial and Commercial Development Fund
Macedonia, FYR	Macedonian bank for Development promotion
Malta	Malta Enterprise Corporation Loan Guarantee Scheme
Mexico	Banco Nacional de Comercio exterior SNC

Annex B: Surveyed PCG Funds (Cont.)

Country	Fund
Mexico[18]	Mexico Regional Average (All)
Moldova	Interbank Guarantee Society GARANTIVEST
Netherlands	Besluit Borgstelling Midden en Klein Bedrijf
Organisme International[19]	FONAS de Solidarité Africaine
Panama	Fondo de Garantías para la Micro y Pequeña Empresa
Paraguay	Fondo de Garantía para las Micro, Pequeñas y Medianas Empresas
Peru	Fundación Fondo de Garantía para Prestamos a la pequeña Industria FOGAPI
Portugal	AGROGARANTE - Mutual Guarantee Society (Agrogarante)
Portugal	GARVAL - Mutual Guarantee Society (Garval)
Portugal	LISGARANTE - Mutual Guarantee Society (LISAGARANTE)
Portugal	Mutual Counter Guarantee Fund (MCGF)
Portugal	NORGARANTE - Mutual Guarantee Society
Romania	National Loan Guarantee Fund for SMEs - FNGCIMM S.A.
Romania	Romanian Loan Guarantee Fund for Private Entrepeneurs
Romania	Rural Credit Guarantee Fund NFI
Slovak Republic	Slovak Guarantee and Development Bank
Spain	ISBA Sociedad de Garantía Reciproca
Spain	SGR
Spain	Sociedad de Garantía Reciproca
Spain	Transaval S.G.R
Sri Lanka	Credit Guarantee Schemes of the Regional development Department of the Central Bank of Sri Lanka
Sweden	ALMI Foretagspartner AB
Switzerland	CSC Centrale Suisse de Cautionnement
Taiwan, China	Small and Medium Enterprise Credit Guarantee Fund of Taiwan (Taiwan SMEG)
Thailand	Small Business Credit Guarantee Corporation (SBCG)
Turkey	Kedi Garanti Fonu (Credit Guarantee Fund)
United Kingdom	Small Firm Loan Guarantee
United States	US Small Business Administration
Uruguay	Banco de La Republica Oriental de Uruguay
Uruguay	FOGAR. Fondo Nacional Cooperativo de Garantías
Uruguay	Fondo de Garantía
Uruguay	Fondo de REC Laboral
Venezuela	SGR Sogarsa Sociedad de Garantías Reciprocas para el Sector Agropecuario, Forestal, Pesquero y Afines S.A

[18] This is the average of 38 regional PCG funds.
[19] Provides guarantees to banks within the West African monetary union.