FINANCIAL FLAGSHIP

A REVIEW OF CREDIT GUARANTEE SCHEMES IN THE MIDDLE EAST AND NORTH AFRICA REGION

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ABSTRACT

Many countries in the MENA region have established partial credit guarantee schemes to facilitate SME access to finance. These schemes can play an important role, especially in a period where MENA governments are making efforts to improve the effectiveness of credit registries and bureaus and strengthen creditor rights. This paper reviews the design of partial credit guarantee schemes in MENA, and assesses their preliminary outcomes. The paper is based on a survey conducted in 10 MENA countries in early 2010. We find that the average size of guarantee schemes in MENA (measured by the total value of outstanding guarantees) is in line with the international average, although there are wide differences across countries, and some schemes seem too small to make any significant impact. Most importantly, the number of guarantees looks generally small while their average value looks large. This suggests that guarantee schemes are not yet reaching the smaller firms. Guarantee schemes in MENA look financially sound and most schemes have room to grow. However, this growth should be accompanied by an improvement of some key design and management features, as well as the introduction of systematic impact evaluation reviews.

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1 Introduction

Expanding SME access to finance has proved a challenge in many developing countries, especially in the Middle East and North Africa (MENA) region. Research shows that SMEs contribute to a large share of employment and GDP in developing economies.[1] Despite their importance, SMEs are significantly more financially constrained than large firms, especially in developing countries. This problem seems severe in MENA countries, where about 33% of SMEs report difficulties in getting finance, compared to 25% on average in other emerging countries[2]. The lack of SME access to finance is to a large extent the consequence of weaknesses in the enabling environment for finance (e.g. weak credit reporting systems, collateral regimes) that result in informational asymmetries and high risks to creditors[3].

Deficiencies in the enabling environment have motivated government interventions designed to expand SME finance. Government interventions may be justified when it takes time to build an effective enabling environment, or where some groups remain difficult to reach, even when efficient financial infrastructure and regulations are in place. Traditionally, such policy interventions have included partial credit guarantee schemes, direct lending facilities, and lending by state-owned financial institutions.

Partial Credit Guarantee Schemes (PCGs) are operated by a large number of countries and are considered one of the most market-friendly types of interventions. In developed countries such schemes have been operational for over four decades while their use in developing countries is more recent. PCGs facilitate access to finance by creditworthy firms when such access is constrained by insufficient credit information and collateral. As a risk-sharing mechanism, PCGs reduce the risks and potential losses of creditors, inducing lending to riskier types of borrowers. Arguably, PCGs generate fewer market distortions compared to other policy interventions, such as directed lending programs or state banks, because they usually entail less interference in credit allocation and use private banks as the main vehicles for loan origination.

Many countries have also used PCGs as a countercyclical policy tool. Korea is one of the most notable examples of a country that have used credit guarantees during crises to alleviate the adverse effects on SMEs[4]. As another example, in the current global crisis the European Union has allowed PCGs in member states to increase the coverage ratio to 90 percent for distressed SMEs until end-2010, and allowed the possibility for subsidized guarantee premiums. In addition, some guarantee schemes introduced simplified and faster approval processes (e.g. Portugal, Romania, Greece) or raised the maximum guaranteed loan amount (e.g. Germany).

Many countries in the MENA region have established PCGs to facilitate SME access to finance. These schemes can play an important role, especially in a period where MENA governments are making efforts to improve the effectiveness of credit registries and bureaus

[1] Ayyagari et al., (2003) .
[2] See www.entreprisesurveys.org
[3] Beck, Demirguc-Kunt and Peria (2009) show that differences in the quality of the legal framework explain the differences in SME lending between developed and developing countries. Rocha, Farazi, Khouri, and Pearce (2010) provide similar evidence for MENA. A review of SME finance is provided in World Bank (2008) and IFC (2010)
[4] IFC (2010).

and strengthen creditor rights. There is some evidence that credit guarantee schemes have contributed to more SME lending in the region – the MENA countries that have larger and more established PCGs have larger shares of SME lending and this result seems to hold when controlling for other factors.[5] The central policy question, however, is whether these schemes are cost-effective, i.e., whether they are able to target financially constrained SMEs, reach a significant number of these firms, and remain financially sustainable.

The objective of this paper is to review the design of PCGs in MENA and assess their preliminary outcomes. A survey was conducted in 10 MENA countries in early 2010 to gather the information needed for the assessment. In each country, the largest credit guarantee scheme was surveyed. The survey covered the main rules of the scheme, the management of the scheme, and the key outcome indicators. The survey results allow for a review of these schemes based on comparisons with other mature schemes outside the MENA region.

The paper is structured as follows. The next section provides a brief survey of the literature on PCGs. The third section describes the MENA survey and the methodology adopted for reviewing PCGs. The fourth section reviews the rules of PCGs in MENA, while the fifth section provides a preliminary analysis of their outcomes. Finally, the sixth section concludes and identifies the main elements of the agenda for improving the effectiveness of PCGs in MENA.

2 A Brief Survey of the Literature

There is a growing body of literature on partial credit guarantee schemes, reflecting the increasing interest on this type of policy intervention to support SME access to finance. This literature can be classified into three broad areas. The first consists of cross-country surveys describing the main features of guarantee schemes (e.g. Beck and al. (2008), Bennett and al. (2005)). The second consists of individual country studies, including efforts to assess additionality (e.g. Ridding (2007), Cowan and al. (2009)). Finally, a third category focuses on best practices and design issues, drawing on the international experience (e.g. Deelen and Molenaar (2004), Green (2003)).

The World Bank conducted the first large scale cross-country survey of PCGs in 2008 (Beck, Klapper, and Mendoza, 2008). The objective of this survey was to provide an overview of the key features of guarantee schemes around the world, such as eligibility criteria, coverage ratios, fees, and selected indicators of operational and financial performance. The sample comprised 76 guarantee schemes operating in 46 developed and developing countries (However, Egypt was the only MENA country included). The survey shows that there are large differences in the organizational features and rules of guarantee schemes around the world. Interestingly, these differences are not systematically related to financial and economic development. One of the many interesting findings of the survey is that few guarantee schemes around the world use risk-based pricing or risk-management mechanisms. The authors call for further empirical research on specific schemes to better understand which features work best in practice. They also stress the importance of doing proper cost-benefit analysis to assess whether guarantee schemes are cost-effective.

Some country studies have concluded that PCGs have contributed positively to SME access to finance. Although measuring the impact of PCGs accurately remains technically

[5] Rocha, Farazi, Khouri, and Pearce (2010).

challenging (Section 5), some recent studies have concluded that PCGs have been able to extend finance to firms that otherwise would have remained constrained. For example, in Canada Ridding (2007) estimates that 75% of guarantees are used by firms that would not have been able to obtain a loan otherwise. In Chile, Larrain and Quiroz (2006) find that the guarantee scheme increases the probability of small firms to get a loan by 14%. At the same time, PCG schemes may add limited value and prove costly when they are not well designed. As noted by Honohan (2008), loose eligibility criteria, low fees, and overly generous coverage ratios may result in the provision of guarantees to enterprises that would have obtained credit anyway. They may also result in financial imbalances requiring recurrent government contributions. Along these lines, Bechri et al. (2001) studied the case of the Tunisian scheme FOPROPI, which became unsustainable and finally collapsed in 1997 as a result of major institutional failures.

Guarantee schemes around the world vary on fundamental design features, but there is a growing effort to identify good practices. The failure of several guarantee schems in the 1980s led to an intensive debate on their role (Levistky, 1997). As noted by Green (2003) the weaknesses of early guarantee schemes can be avoided through proper design and institutional arrangement. Some recent studies provide guidelines and discuss operational parameters of guarantee funds, based on international experience. Deelen and Moleenar (2004) published a practical manual for guarantee funds managers. Along these lines, the European Commission established an expert group on guarantee schemes to identify and disseminate best practices (European Commission, 2006). This literature converges on broad principles, including the need to build attractiveness while ensuring additionality through well designed eligibility criteria, proper coverage ratio and fees, sound risk management, and efficient operational procedures.

3 The MENA PCG Survey and the Review Methodology

3.1 Basic Description of the MENA Survey

This paper is based on a survey of MENA PCGs conducted in the first quarter of 2010. The questionnaire prepared for the survey covered the institutional set up, the main operational rules, and the main performance indicators. The questionnaire was partly based on Beck and al. (2008) to ensure comparability with other guarantee schemes around the world. The survey was initiated in February 2010 and completed in April 2010. The authors met with several managers of surveyed schemes to present the objectives of the survey and discuss technical issues. There was also a follow-up effort to ensure the timely completion of the survey and check the accuracy of the data.

The survey covered the largest credit guarantee schemes in 10 MENA countries. As shown in Table 1, the oldest guarantee fund in MENA was established in Morocco in 1949, while the youngest one in Syria starts operation in 2010. The average equity is US$50 million, ranging from US$10 million in Syria, to US$75 million in Morocco. Half of these guarantee schemes are majority state-owned (Morocco, Tunisia, Jordan, Syria, Saudi Arabia, UAE), while the others are majority owned by banks (Lebanon, Egypt, Iraq) or donors (Palestine).

3.2 The Review Methodology

The outcomes of a guarantee scheme can be assessed along three main dimensions: outreach, additionality, and financial sustainability. *Outreach* refers to the scale of the guarantee scheme, as measured by the number of guarantees issued to eligible SMEs and the amount of outstanding guarantees. The greater the outreach, the stronger is the impact of the scheme on the SME sector. However, the impact of the guarantee scheme will also depend on whether guarantees are extended to firms that are credit constrained, and not to firms that would be able to obtain a loan anyway. This is why *additionality* is another key outcome that is taken into account. Furthermore, reaching firms that are credit constrained involves risk-taking and financial losses. Even if the objective of a guarantee scheme is not to make a profit, the scheme should still be *financially sustainable* through sound rules, effective risk management, and regular funding.

Table 1: MENA Partial Credit Guarantee Schemes included in the Survey

	Name	Starting date	Equity (US$ million)	Shareholders (%)		
				Government	Banks	Other
Egypt	Credit Guarantee Company	1991	52	-	90	10
Iraq	Iraqi Company For Bank Guarantees	2007	12		100	
Jordan	Jordanian Loan Guarantee Corp	1994		60	14	20
Lebanon	Kafalat	1999	50	37.5	62.5	-
Morocco	Caisse Centrale de Garantie	1949	75	100	-	
Palestine	European-Palestinian Credit Guarantee	2005	40	100	-	
Saudi	Saudi Industrial Development Fund	2005	57	50	50	-
Syria	Loan Guarantee Institution of Syria	2010	10	94	-	6
Tunisia	Sotugar	2003	48	100	-	
UAE	Khalifa Fund	2010	NA	90	10	N/A

Designing a guarantee scheme may entail trade-offs among the main objectives. The design of a guarantee scheme must strike a balance between the objectives of outreach, additionality, and financial sustainability. For example, targeting riskier types of borrowers through strict eligibility criteria may have a positive impact on additionality, but may also reduce outreach and lead to larger losses. Similarly, very high fees improve additionality by discouraging banks to use the guarantee for good borrowers, but may reduce outreach, and may generate adverse selection effects. The optimal balance between these three objectives will depend to a good extent on country conditions. For example, in countries with more serious shortcomings in financial infrastructure and limited SME financing, high outreach and high additionality may be achieved simultaneously, while more advanced countries may only increase outreach at the expense of additionality.

The design of guarantee schemes in MENA was reviewed against general guiding principles and international practice. There is no unique recipe or one-size-fits-all formula

for designing effective guarantee schemes. Our review is based on general guiding principles derived from general insurance principles, a thorough literature review, and international practice[6]. For the international benchmarking, we selected a number of credit guarantee schemes in developing and developed countries that are reasonably well-established, including Canada's SLFP, Chile's FOGAPE, Colombia's Fondo Nacional de Garantías, France's OSEO, Hungary's Garantiqa, India's CGTMSE, Korea's KODIT, the Netherland's BMKB, Romania's National Credit Guarantee Fund for SMEs, Taiwan's SMEG, and the US SBA. Table 2 summarizes the design components and the outcomes that are assessed.

Table 2: Basic Design Components and Outcomes Assessed

MAIN OBJECTIVES OF THE SCHEME	
Main objectives	Mission statement of the PCG scheme
RULES OF THE SCHEME	
Eligibility criteria	Characteristics of eligible firms (size, sectors, age) and eligible financing
Coverage ratio	Percentage of risk taken by the guarantee fund
Fees	Price of the guarantee
Payment rules	Triggers related to the payment of the guarantee
Collateral and down payment	Collateral and down payment required when using the guarantee
MANAGEMENT OF THE SCHEME	
Operational mechanism	Individual, portfolio or hybrid approach
Credit risk management	Credit risk management tools (credit scoring and rating, credit registry)
Capacity building	Assistance to participating institutions designed to increase their lending and risk management capacity
OUTCOMES OF THE SCHEME	
Outreach	Number of eligible firms that are covered by the scheme
Additionality	Capacity to target firms that are effectively credit constrained
Financial sustainability	Capacity to contain losses and maintain an adequate level of equity given the expected liabilities

4 Reviewing the Design of Partial Credit Guarantee Schemes in MENA

4.1 Main Objectives of the Scheme

MENA PCGs generally have broader objectives than those in the benchmark countries. As shown in Annex 1, the mission statements of Guarantee Schemes in benchmark countries emphasize access to finance for SMEs that lack adequate collateral (Annex 1). By contrast, Annex 2 shows that MENA Guarantee Schemes have broader developmental objectives, such as supporting export capacity (Jordan, Morocco), fostering entrepreneurial spirit (UAE), improving the financial sector's skill base (Syria, Iraq), facilitating investment in innovation (Morocco), and supporting national industrialization programs (Saudi Arabia). These broad

[6] Beck and al. 2008; Honohan 2008 ; Green 2003; European Commission 2006; Deelen and Molenaar 2004.

objectives suggest that MENA schemes interpret the additionality objective more liberally than schemes in other countries.

4.2 Eligibility Criteria

General guiding principles and international experience

Eligibility criteria should target financially constrained SMEs while providing for some flexibility. Targeting is important to ensure additionality, although overly restrictive eligibility criteria should be avoided because there is uncertainty in practice about the firms that are credit constrained and the type of financing that is lacking. Very low ceilings, excessive restrictions on the types of loans or eligible sectors may exclude firms that are credit constrained and generate threshold effects (excluding many firms just above the threshold, even if credit constrained). The relevance of eligibility criteria can be strengthened through market surveys that identify SME financing gaps.

Most guarantee schemes in the benchmark group target SMEs in a broad sense and generally do not restrict sectors or types of loans (Table 3). All the countries in the benchmark group allow start-ups to apply for guarantees (though there is no uniform definition of start-ups across countries other than in the EU). It is also noticeable that these schemes do not impose restrictions on sectors (except for a general restriction on agriculture in the case of Canada), or type of loan (again, except for Canada, which does not guarantee working capital loans).

The main differences seem to lie in the limits imposed on firm and loan size. Korea does not impose any limits on firm size, while France and the Netherlands target SMEs following the EU's definition (maximum turnover of 50 million euros and 250 employees). The other countries impose much lower limits on firm size, especially regarding turnover. However, the limits imposed on loan size are probably the binding ones, and here the ranking changes significantly, especially when the limit is defined in relation to per capita income. As shown in Table 3, the Asian schemes look more generous in this case, while the Canadian, Dutch and US schemes look restrictive by comparison.

Reviewing Eligibility Criteria in MENA

Eligibility criteria differ significantly across MENA guarantee schemes. All schemes cover start-ups except for the Palestine, but there are significant differences regarding firm size (Table 4). Some schemes seem generous regarding firm size – Morocco and Tunisia do not set any ceilings, while Jordan and Syria set their ceilings at the high EU level (250 employees). By contrast, Egypt, Lebanon and the Palestine restrict the use of guarantees to smaller firms (respectively 50, 40 and 20 employees. The employee limit for the Palestine scheme is especially low by international comparison.

There are significant differences regarding the maximum size of loans. The guarantee schemes in Morocco and Tunisia cover loans up to US$ 2 million, or the equivalent of 600 times GDP per capita. These are high ratios by international standards as shown in Figure 1. The ratios in Egypt, Jordan and Syria are lower (150 times GDP per capita), but still high by international standards. By contrast, eligible loans in Lebanon, the Palestine, and Saudi Arabia are smaller and more comparable to other PCGs outside MENA (50-60 times GDP per capita).

Table 3: Eligibility Criteria in Benchmark Countries

	Start-ups	Firm size limit	Loan size limit (US$ million)	Sectors	Working capital
Canada	Yes	Sales: US$5 million	0.5	All (except agriculture)	No
Chile	Yes	Sales: US$3 million	0.45	All	Yes
Colombia	Yes	Assets: US$7.3 million	0.97	All (except agriculture)	Yes
France	Yes	Sales: 50 million euros Employees: 250	3.5[1,2]	All (except for most agriculture firms)	Yes
Hungary	Yes	Sales: 50 million euros or Balance sheet total: 43 million euros Employees: 250	12.5 million euro[1, 3]	All	Yes
India	Yes	Assets: US$1 million	0.2	All	Yes
Korea	Yes	All	3	All	Yes
Malaysia	Yes	Sales: US$1.6 million Employees: 50 Manufacturing: US$7 million Employees: 150	3	All	Yes
Netherlands	Yes	Sales: 50 million euros Employees: 250	1.8	All	Yes
Romania		Sales: 50 million euros Employees: 250	3.2	All	Yes
Taiwan, China	Yes	Services: US$3 million and 100 employees; Manufacturing: 200 employees	3[1]	All	Yes
US	Yes	Sales: US$7 million	2	All	Yes

1) Exposure limit

2) 800/2008 EU regulation for state aid applies

3) 800/2008 EU regulation for state aid applies to loans counter-guaranteed by the state, and is usually binding at a loan amount well below the exposure limit.

Table 4: Eligibility Criteria Adopted by MENA PCGs

	Start-ups	Firm size	Max Loan Size (US$ Million)	Max Loan Maturity (years)	Sectors	Short-term Working capital
Egypt	Yes	Max 50 employees	0.35	7	All	Yes
Iraq	Yes	Max 50 employees	0.25	5	All	
Jordan	Yes	Max 250 employees	0.6	8	All	Yes
Lebanon	Yes	Max 40 employees	0.4	7	Agriculture, Industry, Tourism, High Tech, Crafts	Yes
Morocco	Yes	All	1.5*	12	All	Yes
Palestine	No	Max 20 employees	0.1	5	All	Yes
Saudi Arabia	Yes	Max sales US$ 5.Million	0.4	7	All, except trading	N/A
Syria	N/A	Max 250 employees	0.4	7	All	No
Tunisia	Yes	All	2.5	15	Manufacturing, some services	No
UAE	Yes	All	1.3	7	All	Yes

*Exposure limit on each transaction

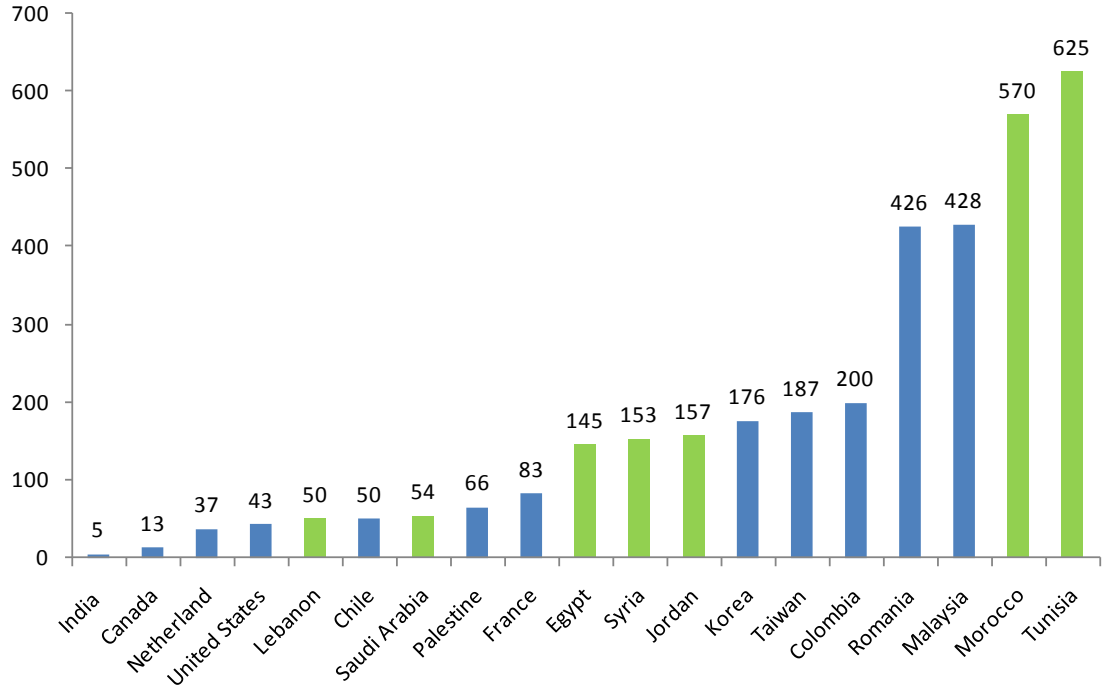
There are also significant differences regarding eligible sectors. Morocco, Egypt, Jordan, Palestine, and Syria allow the use of the guarantee for all sectors. A second group of countries, composed of Tunisia, Lebanon and Saudi Arabia, excludes trading and some services. However, there is some uniformity regarding maximum loan maturity, with most schemes setting the maximum maturity at 7-8 years, except for Morocco and Tunisia, which guarantee loans up to 12-15 years, and the Palestine, which imposes a very short maximum maturity. It is also noticeable that some schemes do not guarantee working capital loans.

There is scope for revising eligibility criteria in some MENA schemes. In some cases, eligibility criteria could be tightened to enhance additionality, while in others they look overly restrictive and could be relaxed in order to extend finance to small but promising firms. For example, in Morocco and Tunisia, there is no ceiling on firm size and the maximum loan ceiling is well above the international average (Figure 1). This may encourage banks to use the guarantee for large firms and loans, weakening the additionality of those schemes. The definition of SMEs in Jordan and Syria are very similar to the definition used in the EU (maximum 250 employees), which might not be relevant given their economic structures. On the other extreme, in the Palestine, the maximum size of firms (20 employees) seems overly restrictive. This limit can bias against labor-intensive sectors, such as small manufacturing firms, and firms having a higher share of formal employees (compared to firms with large share of informal employees). It can also generate threshold effects, excluding firms just above the threshold, even if credit constrained.

It is also surprising that some types of financing are restricted in some countries, such as the restriction on start-up loans in the Palestine. Similarly, guarantees cannot be used for working capital loans in Tunisia and Syria. Therefore, more flexibility might be needed in some schemes in MENA to allow a broader range of firms facing credit constraints to use the guarantee. At the same time, the rationale for guaranteeing loans with very long maturities (12-15 years) is not clear as most investment projects implemented by SMEs do not have such long durations.

Figure 1: Maximum Size of Eligible loans: MENA and Benchmark countries

(Scaled by GDP per capita, 2009)



4.3 Coverage Ratios

General guiding principles and international experience

Coverage ratios should preserve incentives for effective loan origination and monitoring while providing sufficient protection against the risk of default. The coverage ratio needs to provide sufficient protection against credit risk, while also preserving incentives for banks to screen and monitor borrowers. Beck et al (2008) show that the median coverage ratio in a large sample of PCGs is 80%. The Chilean experience with bidding procedures shows that banks demand a coverage ratio of about 70% to extend long term loans to riskier types of borrowers (Benavente, 2006). The bidding procedure adopted in Chile provides an interesting market test of the levels of coverage that make the scheme attractive to lenders.[7] In our comparator group (Table 5), the coverage ratio ranges from 30% to 100%, with a median value of about 75%.

[7] Banks bid for a given amount of guarantees indicating the coverage ratios they are willing to accept for a given level of fees. Banks requesting the lowest coverage ratio are those who win the auction.

Several PCGs provide higher coverage ratios to riskier types of borrowers. Banks will require higher coverage to extend loans to riskier borrowers. Many PCGs extend such higher coverage while also charging a higher fee. As shown in Table 5, in France and the Netherlands, the coverage ratio is higher for innovative firms and start-up loans. In Korea, risky firms with low credit scores get higher coverage. In Chile, the maximum coverage ratio for small firms is 80%, compared to 50% for medium firms. Setting a higher coverage ratio for riskier types of borrowers is a way to enhance additionality while providing some flexibility (less risky borrowers can use the benefit from the guarantee but with a lower coverage ratio, and paying a lower fee).

Table 5: Coverage Ratios in Selected Benchmark Countries

	Coverage ratio			Link to Risk Exposure
	Min	**Median**	**Max**	
Canada	85%	85%	85%	No scalability
Chile	50%	65%	80%	80% Small firms (Max sales US$ 750,000; Loan US$ 100,000); 50% Medium firms (Max sales US$ 3 million; Loan US$400,000)
Colombia	40%	60%	80&	According to type of loan/firm
France	40%	55%	70%	40%-50% in general, 60% Innovation, 70% start-ups
Hungary	n/a	n/a	90%	Max 80% in general, Max 60% on agricultural loans Max 90% firms affected by the crisis (until end-2010)
India	75%	80%	85%	75% in general 85% on loans to micro firms <= US$ 10,000
Korea	50%	70%	90%	Depending on firms credit score: Eligible firms with the lowest credit score: 90%, Firms with the highest credit score: 50%
Malaysia	30%	65%	100%	According to type of loan/firm
Netherlands	50%	65%	80%	50% in general, 60% innovative businesses, 80% start-ups
Romania	n/a	n/a	80%	According to type of loan/firm
Taiwan	50%	65%	80%	According to type of loan/firm
USA	75%	80%	85%	75 % on loans >US$ 150,000 85 % on loans<= US$ 150,000

Reviewing Coverage Ratios in MENA

Coverage ratios in MENA are generally in line with international practice, but some schemes seem to offer high coverage. As shown in Tables 6 and 7, the minimum, median, and maximum coverage ratios in MENA are similar to those in the benchmark group. The average minimum ratio in MENA is just slightly higher than the equivalent average in the benchmark group, the average median is very similar, and the average maximum is actually lower (Table 7). However, there are some differences across counties. Some schemes seem

to have high minimum ratios (Iraq, Jordan, Lebanon, UAE), and some of these have high maximum ratios as well (Lebanon, UAE). There is scope for calibrating coverage ratios in some of these cases.

Most importantly, some schemes in MENA do not link coverage ratios to the borrowers' risk profile. Morocco, Tunisia, Egypt and Saudi Arabia offer higher coverage ratios for riskier types of borrowers. However, in Syria, Jordan, Iraq, UAE and the Palestine, the coverage ratio is flat and not linked to the risk exposure. These schemes could consider introducing variable coverage ratios, in line with international practice.

Table 6 : Coverage Ratios of MENA PCGs

	Coverage ratio			Link to Risk Exposure
	Min	**Median**	**Max**	
Egypt	50%	60%	70%	Medium firms 50% (>10 employees); Small firms 75% (< 10 employees),
Iraq	75%	75%	75%	No scalability
Jordan	70%	70%	70%	No scalability
Lebanon	75%	82.5	90%	Small-sized loans (< US$ 200,000): 75%, Medium-sized loans (< US$ 400,000): 85%;, Innovative loans: 90%
Morocco	50%	65%	80%	Working capital 50% , Fixed assets 60%, Start-ups 80% (70% for loans > US$125,000)
Palestine	60%	60%	60%	No scalability
Saudi Arabia	50%	62.5%	75%	General: 50%; Start-ups 75%,
Syria	50%	50%	50%	No scalability
Tunisia	60%	67.5%	75%	General: 60%; Prioritized firms 75% (Development zones, start-ups)
UAE	90%	90%	90%	No scalability

Table 7 : Average Coverage ratios in MENA and Benchmark countries

	Average Min	**Average Median**	**Average Max**
Benchmark countries	54%	69%	84%
MENA	63%	68%	74%

4.4 Fees

General guiding principles and international experience

Fees should be related to the risk exposure and contribute to the financial sustainability of the guarantee scheme. Linking the price of the guarantee to the risk exposure is a basic insurance principle that should generally be adopted by guarantee schemes. Moreover, fees are not only a critical source of revenue (and therefore financial sustainability) for guarantee

schemes; they also play an important role in building additionality. When fees are sufficiently high, banks are discouraged to use the guarantee for good clients who can obtain loans without additional guarantees.

In our benchmark group, the level of fees ranges from 0.8% to 2.3% p.a., with an average fee of 1.5% p.a (Table 8). Note that these are basic standardized rates expressed as a percentage of the guarantee that are comparable across countries[8]. Although Beck et al (2008) report that only 21% of guarantee schemes around the world utilize risk-based fees, most of the schemes in our benchmark group link fees to the risk exposure. For example, in the Netherlands, higher fees are charged on guarantees to riskier types of firms, such as start-ups or innovative firms. In Korea, Malaysia and Taiwan, fees vary according to the credit rating of the borrower. In Hungary, fees are determined based on the credit rating of the borrower and the risk rating of the loan in the case of loans over approx. €350,000 with government counterguarantee, and all loans without government counterguarantees. The lower the credit score, the higher the fee. In Chile, the level of fees varies across banks according to the quality of their portfolio as measured by the default rate.

Table 8: Fees in Selected Benchmark Countries

	Fees		Link to Risk
	Official Definition	Basic standardized rate (% p.a.)	
Canada	2% of the loan amount + 1.25% p.a. calculated on the loan balance	2.3%	No scalability
Chile	1% to 2% p.a.	1.5%	Higher fees for banks with higher default rates
Colombia	0.95% - 3.85% p.a.		Fees are link to the product and coverage ratio
France	0.6% to 0.9% p.a. of the loan value	1.3%	Fees are linked to the coverage ratio: 0.6% (40% coverage ratio), 0.9% (70% coverage ratio)
Hungary	1% - 5% p.a. of guarantee amount	2%	For loans over 350,000 euros, fees vary according to firms' credit ratings
India	1.5% upfront + 0.75% p.a.	1.5%	Fees are lower for loans up to US$ 10,000 (1.25% per annum)
Korea	0.5 % to 3% p.a.	1.2%	Higher fees for low credit rating along with higher coverage ratio
Malaysia	0.5% to 3.6% p.a.	1.5%	Higher fees for low credit rating
Netherlands	2% to 3.6% one-off	1.7%	Fees are linked to the coverage ratio
Romania	1.5% per annum	1.5%	Fees are linked to the coverage ratio
Taiwan, China	0.75% to 1.5% per annum	0.8%	Fees are linked to risk profile
United States	2%-3.5% of the loan amount + annual rate of 0.55% of the outstanding guarantee balance	1.9%	Higher fees for larger loan amounts

Note: see footnote (7)

[8]To ensure comparability across guarantees schemes, we converted flat rates into per annum rates, assuming a loan maturity is 4 years. The "standardized fee rate" is expressed as a percentage of the guarantee amount. When several fee rates exist, we take the fee of the most important guarantee product (the "basic rate").

Reviewing Guarantee Fees in MENA

Some MENA schemes do not seem to price their guarantees adequately. The average fee charged by MENA schemes is 1.5% p.a., similar to the average fee in the benchmark group (Table 9). However, some MENA schemes seem to underprice the guarantee (Figure 2), which may undermine financial sustainability and weaken additionality. Moreover, most MENA schemes do not link the price of the guarantee to the risk exposure, excepting for Morocco. These countries may consider linking more closely the fee to the coverage ratio and other aspects of the risk exposure.

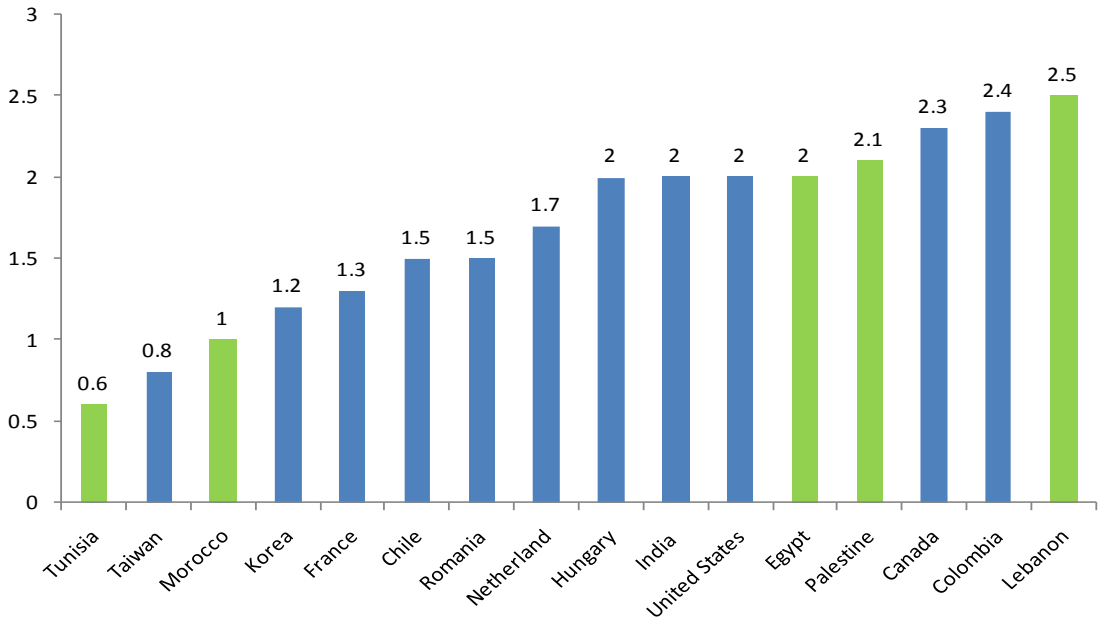
Table 9: Fees Charged by MENA PCGs

	Fees		Scalability
	Official Definition	Standardized (% p.a.)*	
Egypt	2% per annum	2%	Lower fees for health care
Iraq	2% per annum	2%	No
Jordan	1%-1.5%	N/A	N/A
Lebanon	2.5% per annum	2.5%	No
Morocco	2% of the loan value (flat)	1%	2% flat in general, 0.5% on working capital 1.5% for start-ups ≤ US$ 125,000
Palestine	1% of the original loan amount 1. 5% annual commission on the outstanding guarantee	2.1%	No
Saudi Arabia	N/A	N/A	No
Syria	N/A	N/A	No
Tunisia	0.6% per annum	0.6%	1% flat short-term loan (standardized 1.2%)
UAE	N/A	N/A	No

Note: see footnote (7)

Figure 2: Standardized Fees

(Percentage per annum, standardized basic rate)



Note: see footnote (8)

4.5 Payment Rules

General guiding principles and international experience

The payment of claims should be quick and predictable in order to build the credibility of the guarantee scheme, while encouraging loan collection. The capacity to pay promptly the claims is a key factor to induce banks to use the guarantee. However, the challenge is to design a payment rule which is reliable while providing incentives for loan recovery. There are four types of payment rules that can be considered: (i) a single payment after default is validated; (ii) a single payment after legal actions are initiated; (iii) partial payment at the time of default, followed by the remaining payment when judicial procedures are exhausted; and (iv) single payment when judicial procedures are exhausted. Beck et al (2008) show that in 66% of guarantee schemes around the world, banks are responsible for the recovery of defaulting loans. Moreover, in 34% of the schemes payouts are made after the borrower defaults. In 42% of the schemes, payout takes place when the bank initiates legal actions. In only 14% of the schemes payment is held until the bank writes off the loan.

The choice of a payment rule should take into account the efficiency of the judicial system. In countries with efficient judicial systems, the payment of claims can be made when all judicial procedures are exhausted. In France, Canada, and the US, claims are paid on the basis of realized losses, once all judicial procedures are completed. However, in countries where the judicial system is less efficient, paying claims at the end of the judicial process may result in long waiting periods and losses to lenders, and hinder the attractiveness of the guarantee scheme. Table 10 provides an illustration of the differences in the efficiency of loan collection among MENA countries and the benchmark group. The numbers in the table apply to the judicial system, and do not necessarily represent recovery rates and times for the respective PCG portfolios.

Table 10: Efficiency of the Judicial Process in MENA and Benchmark Countries

(Doing Business 2010)

Country	Recovery rate	Time (years)
MENA	**27.7**	**3.4**
Egypt	16.8	4.2
Iraq	NA	NA
Jordan	27.3	4.3
Lebanon	19	4
Morocco	35.1	1.8
Saudi Arabia	37.5	1.5
Syria	29.5	4.1
Tunisia	52.3	1.3
UAE	10.2	5.1
Benchmark Countries	**70.4**	**1.6**
Canada	88.7	0.8
Chile	21.3	4.5
Colombia	35.3	1.7
France	44.7	1.9
Hungary	38.4	2.0
India	15	7
Korea	80.5	1.5
Malaysia	38.6	2.3
Netherlands	82.7	1.1
Romania	28.5	3.3
Taiwan, China	80.9	1.9
United States	76.7	1.5

Reviewing Payment Rules in MENA

MENA countries are exploring different ways to reconcile payment efficiency and loan collection. Most MENA guarantee schemes have rules that allow payment of claims before legal procedures are exhausted (Table 11). This is probably the right approach, given the relatively low efficiency of judicial procedures in MENA – as shown in Table 11, the average recovery rate in MENA is 28% compared to 70% in the benchmark group, and the time needed to complete the process is 3.4 years, compared to 1.6 years in the benchmark group.

In order to induce banks to collect defaulting loans, some guarantee schemes in MENA are testing different incentive structures. Morocco and Tunisia provide an advance payment of 50% once the claim is presented, followed by the balance once legal procedures are exhausted. Lebanon's Kafalat makes the payment 90 days after the claim is validated, but recovers itself the collateral. In Syria, the payment is deposited in an escrow account at the bank until the legal procedures are exhausted.

These models have not been sufficiently tested yet, and it is too early to assess their effectiveness. The hybrid payment rules offer a potential solution to the challenge of building credibility while promoting loan collection by the banks, but these systems have not

been sufficiently tested. The hybrid rules will need to be further assessed using cost-benefit analysis and feedback from lenders. Hybrid systems should in any case include a maximum period (as in the case of Morocco) to avoid too much uncertainty for guarantee users.

Table 11: Payment Rules in MENA

Iraq	Single payment 30 days after the bank initiates legal procedures.
Jordan	After the bank initiates legal procedures to recover the debt. Single payment once the claim is presented and validated.
Lebanon	Payment 90 days after 3 unpaid installments. Single payment once the claim is presented and validated. The guarantor is mainly responsible for recovering the collateral
Morocco	Advance payment of a 50% once the claim is presented and validated, followed by the balance once legal procedures have been exhausted (maximum 3 years)
Palestine	Single payment after six months from default date
Saudi Arabia	After a fixed number of days following default. Single payment once the claim is presented and validated
Syria	Money is deposited in an escrow account at the bank until the legal procedures are exhausted.
Tunisia	Advance payment of a 50% once the claim is presented and validated, followed by the balance once legal procedures have been exhausted
UAE	Single payment once the claim is presented and validated. The guarantor is mainly responsible for recovering the collateral

4.6 Collateral and Down-payment Rules

General guiding principles and international experience

Guarantee schemes should be allowed to require collateral and down payments subject to reasonable limits. One of the main roles of guarantee schemes is precisely to compensate for the lack of collateral hindering SME access to finance. However, the complete absence of collateral may generate adverse selection and moral hazard effects and ultimately result in large losses for the scheme. To mitigate this risk, the scheme should be allowed to require whatever collateral is available up to reasonable limits. For example, in France and in Canada, the schemes are allowed to require personal guarantees but these guarantees are capped respectively at 50% and 25% of the loan value.

Reviewing Collateral Rules in MENA

Most MENA guarantee schemes allow banks to take collateral but do not impose ceilings (Table 12). This may contradict the objectives of PCGs, **a**lthough there is little information on additional collateral provided by guarantee users in MENA. This information should be collected and disclosed. Some enterprise surveys conducted by the World Bank indicate that banks in MENA tend to require high levels of collateral even when using

guarantees, which can defeat the purpose of a guarantee scheme[9]. Some countries set ceilings for collateral, such as Morocco (maximum collateral of 100%), and more recently Lebanon (50%). However, most other schemes do not impose ceilings.

Many MENA schemes also impose minimum down-payment rules. Requiring minimum contributions from borrowers can be an effective way to reduce adverse selection and moral hazard, especially for riskier types of loans, such as start-ups or long term investments. This feature is used in many MENA countries. With a significant down payment the loan amount represents a smaller percentage of the value of collaterized assets, thus improving the (theoretical) recovery expectancy. Moreover, the down-payment rules seem reasonable, capped at about 20%-30% of the project value.

Table 12: Collateral and Down-payment Rules in MENA

	Down-payment	Collateral
Egypt	Medium firms: 20%	Allowed, no ceiling
Jordan	30% SME loan, 30% industrial loan, Leasing 50%	Allowed, no ceiling
Lebanon	Kafalat plus: 20% of total investment, 30% if start ups	Allowed, Ceiling of 50% of the loan amount (Kafalat Basic)
Morocco	Start-up loans: 10%-20% depending on the loan amount	Allowed, Ceiling of 100% of the loan amount
Palestine	No	Allowed, no ceiling (in practice, the majority of loans are not secured against collateral)
Tunisia	30% of the cost of the investment	Allowed, no ceiling
Saudi Arabia	No	Allowed, no ceiling
Syria	N/A	N/A

4.7 Operational Mechanisms

General guiding principles and international experience

Guarantees can be delivered though the individual, portfolio or hybrid approaches. Under the individual approach, every loan application is assessed and approved by the guarantee scheme. The portfolio approach is more flexible and allows banks to extend guarantees without consulting the guarantee scheme. Each bank receives a guarantee allocation which can be used for eligible firms. The hybrid approach mixes elements of individual and portfolio approaches: certified lenders can extend guarantees without referring to the guarantee scheme up to a limit; above a certain threshold, the guarantee scheme adopts an individual approach and appraises the loan application before extending the guarantee. Beck et al (2008) report that 72% of schemes surveyed use the individual approach, 14% the portfolio approach, and 9% the hybrid approach. The schemes in our benchmark group adopt either the portfolio approach (Canada, Netherlands, UK, and Chile) or the hybrid approach (France, USA, Taiwan, Hungary, and Korea) as shown in Table 13.

[9] Lebanon Investment Climate Assessment, World Bank, 2009

Each approach has its advantages and limits. The main advantage of the individual approach is its potential to better control credit risk and ensure financial sustainability. In the case of banking systems with less experience with SME lending, the individual approach has another important value added, namely it allows the provision of information and technical support by the scheme to the bank through exchanges during the decision making process. By contrast, the portfolio approach involves higher risks for guarantee schemes, but reduces substantially operational and transaction costs. The hybrid approach aims to combine the advantages of the two approaches, while overcoming their limitations.

Table 13: Operational Mechanisms Adopted in the Benchmark Countries

Countries	Operational Mechanism
Canada	Portfolio
Chile	Portfolio: FOGAPE auctions available guarantee amounts, with the lenders bidding on the coverage ratio.
Colombia	Hybrid
France	Hybrid : individual in general, delegation of guarantee decision to banks for loans<US$ 140,000 (only for certified lenders)
Hungary	Hybrid: for guarantees subject to simplified and standardized procedures guarantee decision is delegated to banks (only for certified lenders). Individual assessment: for non-standardized transactions
India	Authorized approach: the guarantee scheme does not re-evaluate the proposals sanctioned by certified lenders. If the proposals satisfy the basic norms, the guarantee is automatically extended.
Korea	Hybrid: 95% of guarantees are issued under the Direct approach (borrowers get a guarantee certificate directly from the KODIT)
Malaysia	Hybrid: introduction of a new approach called guarantee. The borrower applies online, and after the application is reviewed by CGC, lenders are invited to bid online on the application.
Netherland	Portfolio
Romania	Hybrid: Individual guarantee or Standardized small guarantees (max US$ 120,000 granted under a simplified procedure, “scoring” type assessment of SME)
Taiwan	Hybrid: Authorized approach (delegation) or Direct guarantee (borrowers get a guarantee certificate directly from the SMEG)
United States	Hybrid: individual in general. Faster process for “certified lenders”. Delegation of guarantee decision to “preferred lenders”.

Reviewing Operational Mechanisms in MENA

The great majority of MENA schemes have adopted the individual approach. As shown in Table 14, most guarantee schemes in MENA have adopted the traditional individual approach. Morocco has introduced a hybrid approach, whereby banks can extend guarantees to start-ups (for loans up to US$ 700,000) without consulting the scheme. This option has been extensively used by banks, and 50% of all guarantees to start-ups are granted under delegation. In Egypt, a portfolio approach is used for micro loans.

MENA schemes could consider a partial delegation of guarantee decisions to banks provided that some prerequisites are met. Delegating guarantee decisions for small loans could be considered by more guarantee schemes in MENA, especially in countries where banks have sufficient capacity to deal with SME risk. Guarantee delegation should be accompanied by risk mitigation tools, such as stop loss rules and risk-based fees (higher fees for banks demonstrating higher default rate).

Table 14: Operational Mechanisms in MENA

Countries	Operational Mechanism
Egypt	Individual (portfolio only for micro-loans)
Iraq	NA
Jordan	Individual
Lebanon	Individual, to become hybrid from second half of 2010.
Morocco	Hybrid: Individual in general. Delegation of guarantee decision to banks for start-ups loans<US$ 70,000, to be extended to all loans below US$ 70,000 from second half of 2010.
Palestine	Individual
Saudi Arabia	Individual
Syria	Individual
Tunisia	Individual, but all eligible operations are accepted (no risk analysis made by SOTUGAR)
UAE	Individual

4.8 Risk Management and Regulation

General guiding principles and international experience

Effective credit risk management by the participating banks and the scheme itself can have a substantial impact on the sustainability of guarantee schemes. Well established guarantee schemes around the world have developed internal credit scoring systems and also rely intensively on information provided by credit bureaus and registries. In some countries such as Malaysia and Korea, guarantee schemes have developed their own SME credit bureaus. Some guarantee schemes have also provided assistance to banks in SME risk analysis and management. When interacting with banks, guarantee schemes can share their expertise and disseminate their methodologies and credit scoring models.

PCGs should be subject to high prudential standards and supervision regardless whether they are under special legislation or the general rules applying to financial institutions. If PCGs comply with high prudential standards, financial supervisory authorities could consider PCG guarantees as credit mitigation for provisioning and capital purposes.

Reviewing the quality of risk management in MENA

MENA guarantee schemes seem to be strengthening their risk management capacity. Most guarantee schemes in the region report using credit scoring models to assess loan applications. The recent development of private credit bureaus in the region and the upgrading of some public credit registries will be instrumental in improving the quality of their credit risk management.[10]

Regulation and supervision of MENA PCGs is not common. This can have negative consequences e.g. in terms of inadequate risk management by PCGs. Another adverse consequence of the lack of supervision is that PCG guarantees may not be used as credit mitigation.

4.9 Capacity Building to Participating Institutions

General guiding principles and international experience

Many PCGs provide technical assistance to participating banks and borrowers, and this service can contribute significantly to the effectiveness of the scheme.[11] This capacity-building potential is often overlooked in the literature, but can constitute a major positive externality of guarantee schemes since PCGs can improve significantly lending and risk management technologies, resulting ultimately in improved outreach, additionality, and sustainability. For example, France's OSEO shares risk management tools with participating institutions and trains bank staff in this area. Many schemes such as Korea's KODIT and Taiwan China's SMEG also provide assistance to SMEs in the areas of accounting, business plan preparation, management and marketing. Capacity building for financial institutions in the areas of credit evaluation and risk management are especially important in countries where SME lending is limited and banks have inadequate expertise in this business line.

Reviewing capacity building efforts in MENA

Most MENA PCGs still do not provide assistance to participating institutions. Although the objectives of several PCGs (such as Iraq, Saudi Arabia, Syria) state explicitly that the scheme intends to contribute to an improvement in SME lending know-how in the financial sector (e.g. credit evaluation and risk management), capacity building is usually not included in the services offered. In this regard, the Palestine PCG is a noticeable exception and a good example of a scheme that provides substantial assistance to participating banks and borrowers (Box 1). Introducing similar practices is highly recommended to other PCGs in the region since banks have less experience with SME lending than in advanced countries.

[10] Maddedu (2010) provides a review of credit reporting systems in MENA.
[11] See e.g. Green (2003) for a comprehensive discussion on other elements of PCG design.

Box 1. Training program by the European Palestinian Credit Guarantee Fund (EPCGF)

As an integral part of its mission, the EPCGF provides an extensive training program to its partner banks to strengthen financial institutions' capacity in SME lending. As part of its training program, the EPCGF awards credit officer, marketing officer, and credit management diplomas. By end-2009, 46 training modules have been conducted, with participation of 183 employees of partner banks. It also offers train-the-trainers capacity building programs. The EPCGF considers its training program as one of the scheme's key success factors in expanding outreach and the high quality of its portfolio. These training programs can play an important role in building up banks' capacity in various areas of SME lending, in risk management in particular, similar initiatives should be considered in other MENA countries, especially where SME lending is in a nascent stage.

4.10 The Use of Counter-Guarantees

General guiding principles and international experience

Counter-guarantees, a form of reinsurance, can significantly raise outreach as it can multiply the capacity of a PCG. Counter-guarantees are common in Europe both at the supranational (e.g. European Investment Fund) and national levels. For example, in our benchmarking group, Hungary's Garantiqa has been able to achieve a high equity multiplier due to the high share of guarantees counter-guaranteed by the government. While they can be useful in expanding outreach, the use of counter-guarantees needs careful consideration and should be accompanied by adequate regulation and supervision of the PCG scheme. Counter-guarantees may have adverse fiscal implications as they may increase contingent liabilities.

Reviewing the use of counter-guarantees in MENA

Counter-guarantees are not utilized in MENA at this point and consideration could be given to introducing them in the future as the schemes mature. However, MENA countries would also need to be mindful of the potential risk of excessive leverage and adverse fiscal implications of counter-guarantees.

5 Preliminary Assessment of Outcomes

5.1 Outreach

Measurement and international experience

The outreach of a guarantee scheme refers to the capacity of the scheme to meet the potential demand for guarantees from eligible SMEs. Ideally, outreach should be assessed against the SME finance gap, defined as the difference between the SME demand for bank finance and the available lending. The higher the number of creditworthy firms that are credit constrained in the country, the greater is the size of the potential market for guarantees. However, given the difficulty in carrying out this estimation, outreach is commonly assessed using basic indicators such as the number of guarantees issued or the amount of outstanding guarantees scaled by GDP.

The average ratio of outstanding guarantees to GDP is about 0.3%, as reported by Beck et al (2008). As shown in Table 15, the average size of outstanding guarantees in our benchmark group is much higher at 1.2% of GDP, due the greater weight of Asian countries. These countries have much larger schemes with outstanding guarantees as a percentage of GDP reaching 5% in Korea, 3.5% in Taiwan, and 1% in Malaysia. Canada, the Netherlands and the US have smaller schemes (about 0.2% of GDP), while France and Chile stand in an intermediate position (about 0.5% of GDP). In 2009, these guarantee schemes issued on average 2,100 guarantees per million people, and the average value of guarantees issued in 2009 was about 5 times per capita income. Again, there are substantial differences across schemes. According to these measures, the Asian schemes lead in terms of outreach.

Table 15: Outreach of Guarantee Schemes in Benchmark Countries

	Number of guarantees issued in 2009		Outstanding guarantees in 2009		Average value of guarantees issued in 2009	
	Number	Per million people	Amount in US$ Million	% GDP	Amount in US$	Scaled by GDP per capita
Canada	10,000	300	2,000	0.1	100,000	2.5
Chile	60,000	1,800	1,000	0.6	10,000	1.0
Colombia	200,000	4,440	1,380	0.6	13,000	2.4
France	80,000	1,250	10,000	0.4	60,000	1.4
Hungary	31,000	3100	2,680	1.9	76,500	5.5
India	100,000	100	1300	0.1	10,000	10
Korea	200,00	5,000	50,000	5.0	125,000	7.0
Malaysia	14,000	400	2,000	1.0	66,000	9.4
Netherland	3,200	200	1,500	0.2	230,000	5.0
Romania	6,600	285	700	0.4	80,000	10
Taiwan	220,000	8,000	12,000	3.5	50,000	3.0
United States	50,000	130	30,000	0.2	150,000	3.2
Average	*81,200*	*2080*	*9550*	*1.2*	*80,880*	*5.0*

Note: Colombia figures are for 2008

Assessing Outreach in MENA

The average size of guarantee schemes in MENA is broadly consistent with international standards. As shown in Table 16 and Figure 3, the average size of outstanding guarantees in MENA is 0.3% of GDP. This ratio is much smaller than the average ratio of the benchmark group, but comparable to the average ratio of 76 schemes reported by Beck et al (2008) and with the average ratio of non-Asian schemes in the benchmark group (both around 0.3% of GDP). Large schemes in MENA, such as Lebanon, Morocco, and Tunisia compare favorably to non-Asian schemes, the Palestine is close to the average, while guarantee schemes in Iraq, Egypt, Jordan, and Saudi Arabia look modest by

international standards.[12] However, the outreach of MENA guarantees schemes is expanding fast, especially the smaller schemes (Figure 4), with annual growth rate ranging from 20% to more than 100%. This reflects the growing demand for SME finance as well as increasing government support in these countries.

Despite a relatively large amount of guarantees outstanding, the number of firms reached still looks small. In terms of numbers of guarantees issued per population, MENA schemes compare poorly to those in other regions. As shown in Table 16 and Figure 5, on average, MENA schemes issued only 80 guarantees per million people in 2009, compared to 2,100 in the benchmark group and 1400 in the non-Asian schemes in the group. With 292 guarantees per million people issued in 2009, Lebanon's Kafalat is the top performer in MENA, followed by the Palestine scheme (128).

The average size of guarantees in MENA is large by international standards, suggesting that guarantees are concentrated in a narrower SME segment and possibly larger SMEs. On average, the average value of guarantees in MENA amounts to 21 times per capita income, compared to the average of 4 in the benchmark group (Tables 15 and 16 and Figure 6). Among MENA countries, the ratios in Morocco and Tunisia seem particularly high, with average guarantees reaching 60 and 33 times per capita income, respectively. The high average value of guarantees in these two countries probably reflects their broader eligibility criteria (Section 4.1), and the focus on manufacturing. All in all, these numbers suggest that many guarantee schemes in MENA still concentrate on medium-sized firms, and do not reach yet the bulk of small firms.

Table 16: Outreach of MENA PCGs

	Number of guarantees issued in 2009		Outstanding guarantees in 2009			Average value of guarantees issued in 2009	
	Number	Per million people	Amount in US$ Million	% GDP*	% Total loans to SMEs	Amount in US$	Scaled by GDP per capita*
Egypt**	3,595	45	162	0.07	9	37,830	22
Iraq	964	33	8	0.01	NA	10,000	5
Jordan	245	41	16	0.07	1.4	37,700	10
Lebanon	1,169	292	292	0.9	10	117,000	14.6
Morocco	1,119	33	374	0.4	4.2	155,000	60
Palestine	539	128	18	0.3	33	18,000	11.4
Saudi Arabia	504	18	69	0.03*	3.2	95,000	13
Tunisia	522	52	200	0.5	8.1	134,000	33.5
Average	*1,082*	*80*	*142*	*0.32*	*10%*	*75,000*	

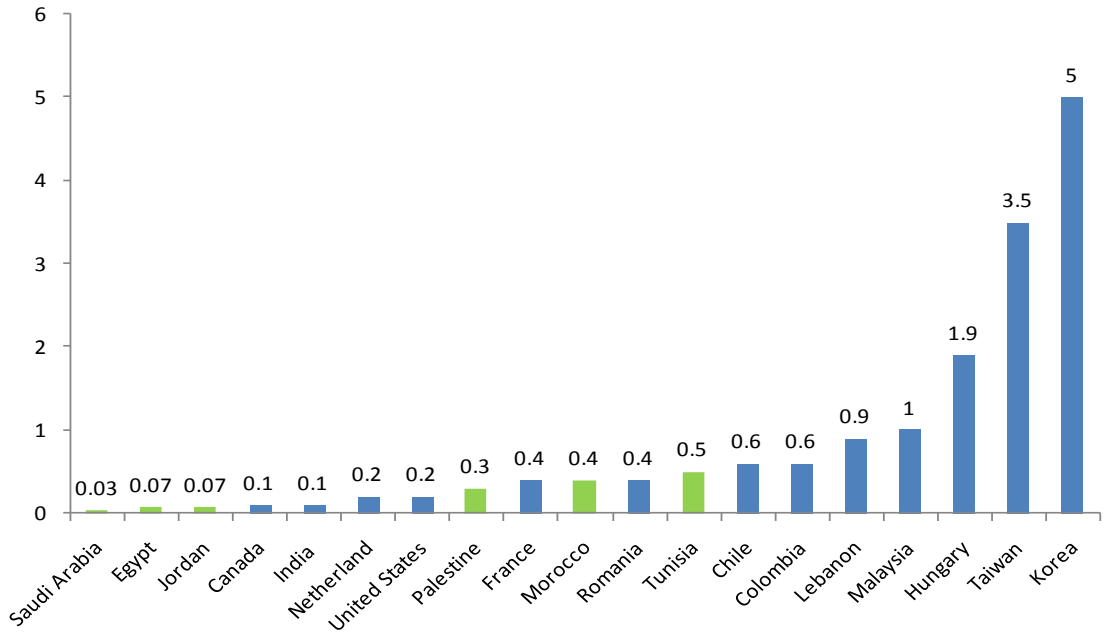
* Non-oil

** Excluding micro-loans

[12] In the case of Lebanon, various government interest rate subsidies related to Kafalat-guaranteed products make the scheme attractive for SMEs and banks. Lower reserve requirements by the Central Bank related to SME lending provide an additional layer of support.

Figure 3: Outstanding guarantees

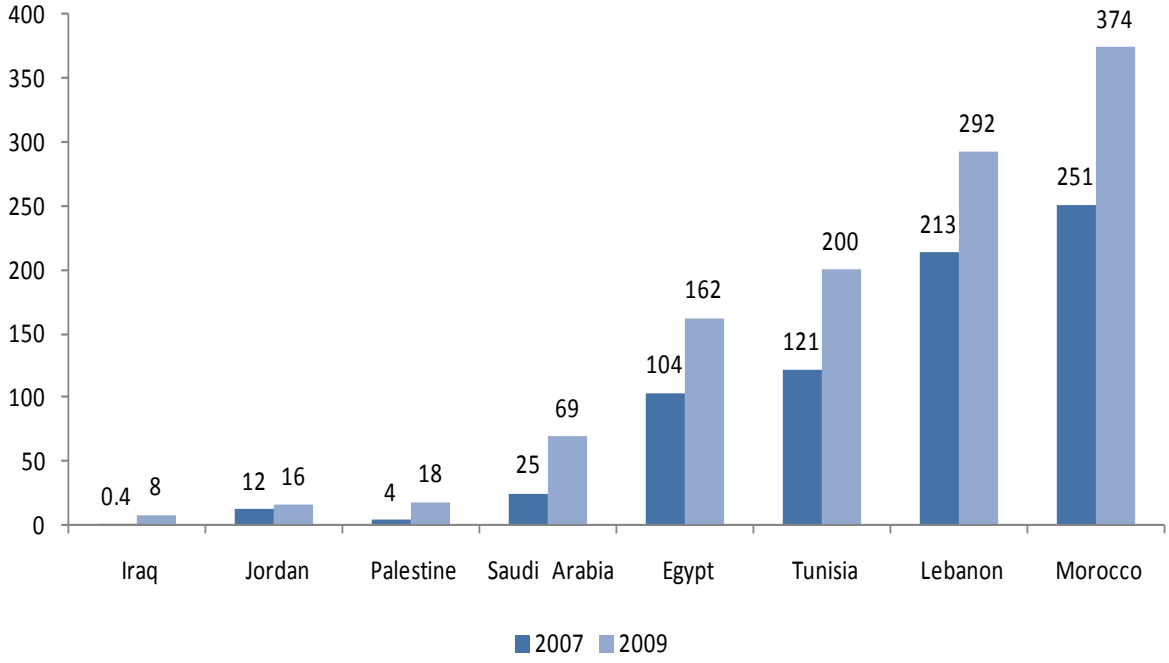
(as a percent of GDP, 2009)



Source: Respective PCG schemes

Figure 4: Outstanding guarantees

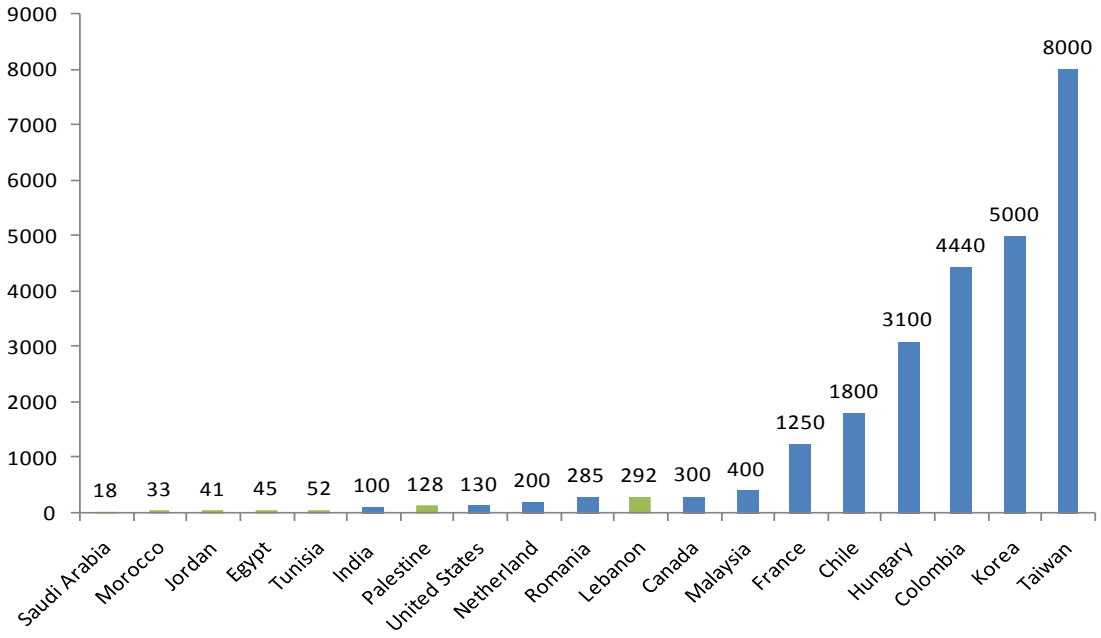
(US$ Million, 2009)



Source: Respective PCG schemes

Figure 5: Number of guarantees issued per year

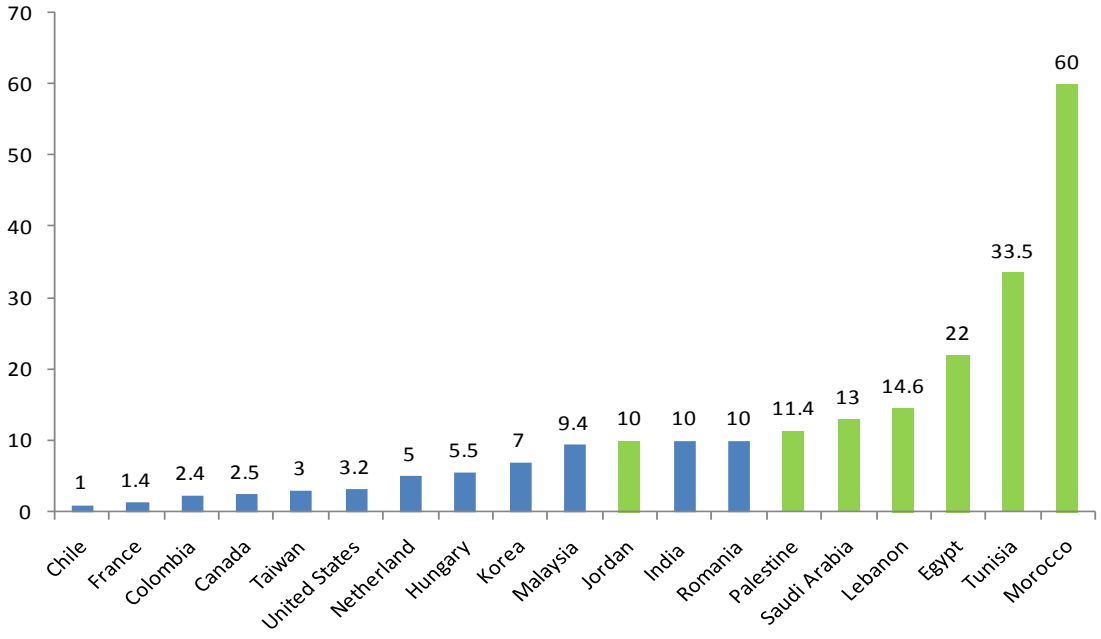
(per million people, 2009)



Source: Respective PCG schemes

Figure 6: Average size of guarantees

(scaled by GDP per capita, 2009)



5.2 Additionality

Measurement and International Experience

Additionality is one the primary objectives of guarantee schemes. Additionality refers to the capacity of a guarantee scheme to provide access to finance to SMEs which are

effectively credit constrained. Additionality also refers also to the developmental impact of the scheme, including the survival rate of firms, investment, growth, and job creation. Additionality also has another dimension, namely, the depth of financing: longer term financing instead of short term, financing of immaterial and intangible assets, financing of project type traditionally excluded by the banking sector.

Assessing additionality remains technically challenging. Assessing additionality entails comparing the financial and economic performance of guarantee users (the "treatment group") to those of non-users (the "control group"). The main challenge is to identify a correct control group, consisting of firms with similar characteristics to those of the guarantee users. As shown in Table 17, there are several methods used to assess additionality (see Annex 2 for more details). Some country studies conclude that their guarantee schemes generate significant additionality (Table 18), but assessing additionality remains technically challenging (see e.g., World Bank 2008).

Table 17: Alternative Methods to Assess Additionality

Methodologies	**Description**
Interviews	The basic way of measuring additionality consists of asking guarantee users and bankers: "would you have obtained (extended) the loan without using the guarantee scheme?"
Descriptive statistics	The share of guarantees extended to riskier types of borrowers (e.g. small firms, start-ups, firms seeking long-term finance, or SMEs with low risk scoring results) can be used as a proxy to assess additionality.
Propensity score matching	This method is based on a survey of enterprises, and employs econometric techniques to make the "control group" more comparable to the group of guarantee users, controlling for firms' characteristics.
Regression discontinuity	Many guarantee schemes use credit scoring to allocate guarantees to applicants. This method compares firms around the cut-off point. The "control group" is composed of firms just above the line, while the "treatment group" is composed of firms just below.
Natural and quasi-natural experiment	This method is based on a naturally occurring event that differently affects different groups of firms (e.g. change of eligibility criteria, use of guarantees by different banks, at different point of time or in different regions)
Randomized experiment	A control group is selected using a random process. Some eligible firms applying for the guarantee are randomly rejected. Additionality is measured by comparing these firms to a random sample of guarantee users.

Table 18: Findings of Selected Country Studies

Country	Study	Methodology	Results
Canada	Ridding, Madill and Haines (2007)	Propensity score matching	75% of guarantee users would not have been able to get a loan without the guarantee
Chile	Larrain and Quiroz (2006)	Quasi-Natural experiment (participation of banks at different point of time)	The scheme increases the probability of small firms to get a loan by 14%
France	Lelarge, Sraer, Thesmar (2008)	Quasi-Natural experiment (extension of the guarantee scheme)	Significant additionality
Korea	Oh, Lee, Choi and Heshmati (2006)	Propensity score matching	Significant additionality
Malaysia	Boocock, Sharif (2005)	Interviews of guarantee users	Additionality
UK	Cowling (2010)	Propensity score matching	Significant additionality
US	GAO (2007)	Descriptive statistics (comparison of the credit score of guarantee users to the score of non-guarantee users)	Additional measures are needed to evaluate additionality

Assessing Additionality in MENA

Until now, there have been no rigorous evaluations of the additionality of MENA schemes. Most guarantee schemes in MENA have not yet conducted rigorous impact evaluation studies to examine their degree of additionality and economic impact. This is partly due to the fact that some of these schemes are not sufficiently mature, but this is a deficiency that should be addressed in the near future, as these evaluations can provide substantive insights for improvements in the design and effectiveness of the scheme.

5.3 Financial Sustainability

Measurement and International Experience

The financial sustainability of a guarantee scheme refers to its capacity to contain losses and maintain an adequate equity base vis-a-vis its expected liabilities. One of the basic indicators used to assess the financial sustainability of a guarantee scheme is the equity ratio (the ratio of equity to outstanding guarantees) or inversely the multiplier (the ratio of outstanding guarantees to equity).[13] A sound guarantee scheme should maintain the multiplier below a certain threshold, which would depend on the risk of the portfolio. When the multiplier exceeds the target value, the guarantee scheme should take actions to reduce its costs, increase its revenues, or get additional funding. Multipliers of guarantee schemes vary widely from 3 to 20, reflecting government policies, risk management, and also the maturity of the scheme (Figure 7). Some guarantee schemes use counter-guarantees, allowing them to increase their leverage.

Sound rules and effective risk management are essential to contain losses and preserve the equity base. Although 60% of guarantee schemes around the world are not profit-oriented (Beck et al, 2008), containing losses is key to ensuring financial sustainability. As

[13] The equity ratio is roughly equivalent to the solvency ratio in the insurance sector.

shown in Figure 8, all countries in the benchmark group, have kept net loss ratios (payment of claims/outstanding guarantees) below the 3-4 percent threshold, even when targeting risky types of borrowers. Chile and the Netherlands report the lowest net loss ratios (1.5%), while the Hungarian scheme reports the highest ratio (4%). These net loss ratios need to be interpreted with care, however, as guarantee schemes have different maturities and portfolio compositions, and some may be accumulating risks that are not yet reflected in the numbers.

Equity increases are often needed to sustain the growth of the scheme while maintaining the multiplier under the target. Most guarantee schemes in our benchmark group do not make profits. Therefore, to sustain the growth of the guarantee scheme, additional funding is often needed from governments, donors, or private shareholders. In Canada and France, guarantee schemes are funded through regular budget appropriations. In Chile, the government does not make regular contributions to the guarantee scheme, but has recently increased the equity of FOGAPE from US$ 50 Million to US$100 million to enable the scheme to cope with the effects of the financial crisis. In Korea, a tax of 0.3% of total lending is imposed on banks to finance KODIT. When the guarantee scheme makes losses and requires government contributions, there is a presumption that the policy intervention generates net benefits (see Honohan (2008) for a more detailed discussion).

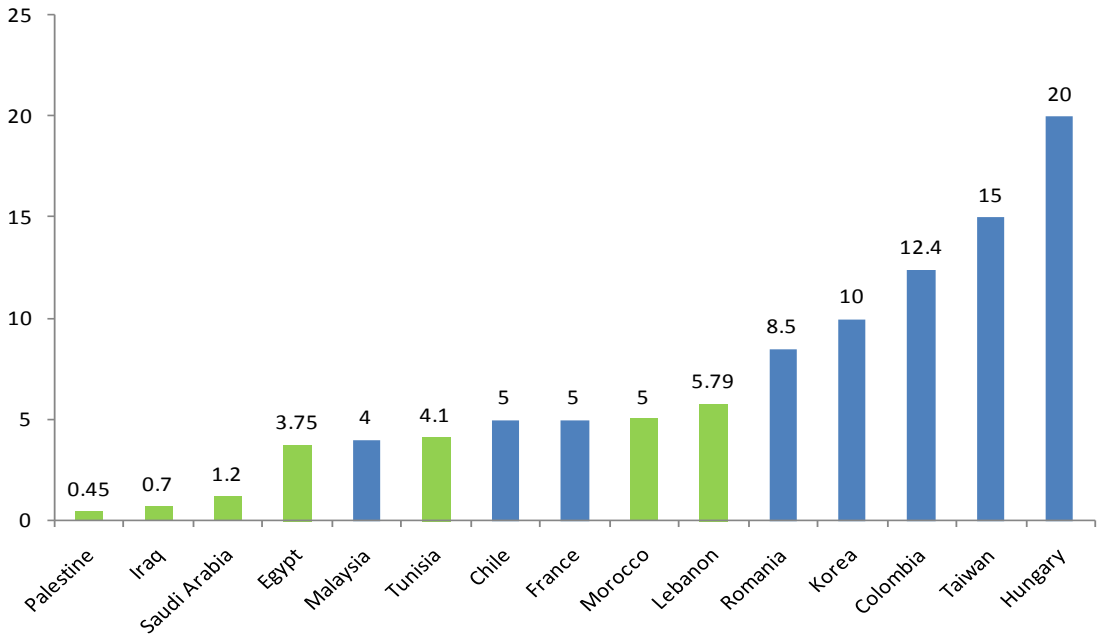
Assessing Financial Sustainability in MENA

Guarantee schemes in MENA are not over-leveraged or equity-constrained. As shown in Figure 7, the average multiplier in MENA is 3.4, ranging from 0.45 in Palestine to 5.8 in Lebanon. These are low leverage ratios by international comparison. Moreover, the survey responses show that guarantee schemes in MENA do not perceive themselves as equity-constrained either, as they are financially supported by their governments or donors.

The average net loss ratio of MENA schemes is low. As shown in Figure 8, net loss ratios in MENA are moderate – below 1% in most countries, except in Saudi Arabia where it reaches 3%. In the Palestine, only 4 claims were received from 2005 to 2009, out of 1,200 guarantees issued. As a result, several guarantee schemes in MENA show positive net results. For example, Lebanon's Kafalat generates a return on equity of 10%. The low default rate observed in MENA could be attributed to prudent risk management and to the practice of banks of requiring collateral with a value frequently exceeding the loan amount (on top of the scheme guarantee). However, the low default rate could also reflect the fact that some of these schemes are not yet reaching the smaller SMEs, or that the schemes are still young. As the stock of outstanding guarantees grows, guarantee schemes in MENA will accumulate risks that might translate into higher claims in the future.

Figure 7: Equity multiplier

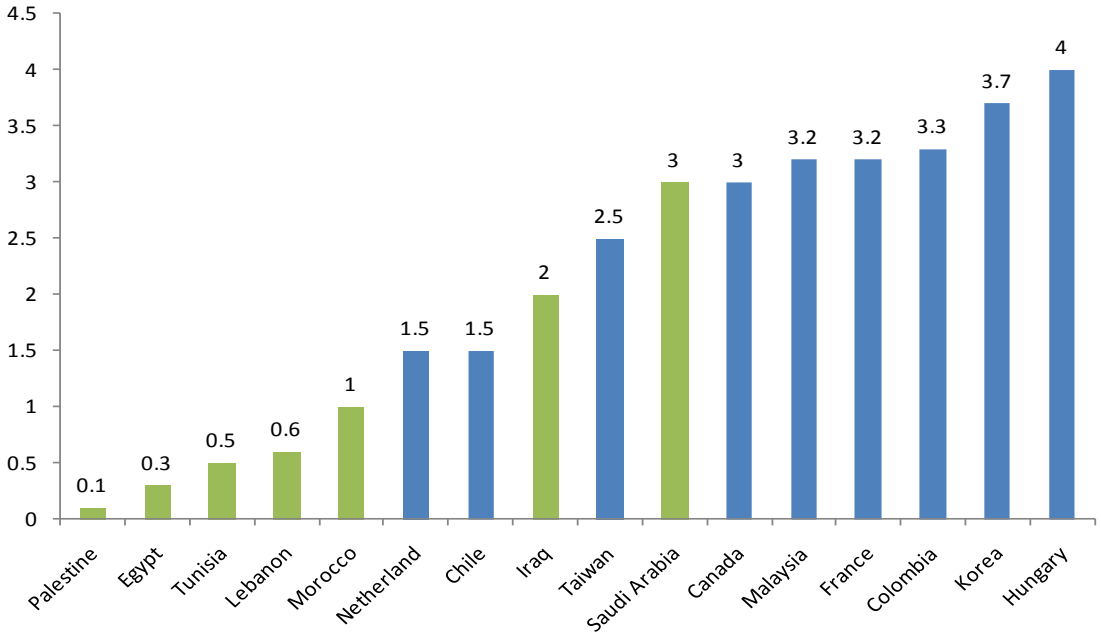
(Outstanding guarantees/ Equity)



Source: Respective PCG schemes

Figure 8: Net loss ratios

(Average of 2007-09)



Source: Respective PCG schemes

6 Summary of Findings and Policy Implications

Partial credit guarantee schemes can play an important role in MENA countries. Improving financial infrastructure should remain the policy priority in MENA, but guarantee schemes can also make an important contribution to SME finance, especially in the period when governments are making an effort to remedy the deficiencies in credit information and creditor rights. There is some empirical evidence suggesting that guarantee schemes have contributed to SME lending in some MENA countries or, equivalently, that countries with larger schemes have larger shares of SME lending in total lending.[14] However, this result does not necessary imply that MENA guarantee schemes are well designed and cost-effective. Improvements in design could arguably allow these schemes to reach a larger number of constrained SMEs with the same volume of resources.

This paper reported the results of a survey of guarantee schemes in the region and represents the first effort to assess their effectiveness. Ten guarantee schemes were covered by the survey, varying significantly in size and maturity. The paper reviews the design of the schemes against a diversified benchmark group comprising developing and developed countries, and makes a preliminary assessment of outcomes.

Regarding the main outcomes, outreach indicators portray a mixed picture. The average size of guarantee schemes in MENA is in line with the international average (outstanding guarantees amount to about 0.3% of GDP). However, there are wide differences across countries, and some schemes seem too small to make any significant impact on SME lending. More importantly, the number of guarantees issued per year (scaled by the population) looks very low by international comparison, while the average value of guarantees seems relatively large. This suggests that guarantees are still concentrated in a relatively limited segment of firms, and do not yet reach a significant number of smaller firms.

The survey responses do not allow for a meaningful assessment of additionality. MENA schemes are not yet conducting systematic impact evaluations, to measure the extent to which they have succeeded in targeting financially constrained firms. Some schemes seem more targeted than others, but the available indicators do not allow for a meaningful assessment of additionality.

Guarantee schemes in MENA look financially sound and most schemes have room to grow. Guarantee schemes in MENA report comparatively low net loss ratios and are not highly leveraged. Most schemes have a sufficient equity base to grow further and improve their outreach, while some schemes may require a large equity base to achieve a meaningful size and make an impact on SME lending. **However, this growth should be accompanied by an improvement of key design and management features, as well as the introduction of systematic impact evaluation reviews.**

Regarding the main design features, there seems to be substantial scope for calibrating the eligibility criteria of most guarantee schemes. Some schemes should consider tightening their eligibility criteria to improve targeting (e.g. reducing the ceiling on firm and loan size), while other schemes may need to build an additional margin of flexibility.

[14] Rocha, Farazi, Khouri, and Pearce (2010).

There is also scope for calibrating coverage ratios and fees. Some schemes should consider reducing slightly their coverage ratios to levels closer to international standards. Most schemes should consider linking both coverage ratios and fees more closely to risk. Hybrid payment rules could be tested in some countries, depending on the effectiveness of loan collection procedures, but most MENA PCGs should probably avoid excessively demanding payment rules, as this could reduce significantly the attractiveness of the scheme.

In some MENA countries guarantee schemes could play a more proactive role in capacity building. The low share of SME lending in some MENA countries may be due not only to weak financial infrastructure but also to weak lending technologies. In these cases, the PCG can play a fundamental role in jumpstarting SME lending while also improving risk management practices of domestic banks.

Finally, guarantees schemes should institutionalize a comprehensive review process. In order to ensure cost-effectiveness, MENA guarantee scheme should conduct systematic assessments of outreach, additionality, and customer satisfaction (bankers and borrowers). This comprehensive review should be conducted in a regular basis using appropriate analytical tools, including an SME survey and a banking survey. One of the best practices to consider is he *Comprehensive Review* conducted in Canada every five years by the Small Business Financing Program (Table 19).

Table 19: Building blocks for a comprehensive review

Measurement of Additionality	Measure of the financial and economic impact of the guarantee fund, using survey and econometric techniques.
Cost-benefit analysis	Comparison of all costs and benefits of the guarantee scheme, in order to measure its net social impact.
Identification of SME finance gap	Identification of the characteristics of firms that are credit constrained based on the business survey and bankers' feedbacks, in order to readjust eligibility criteria
Assessment of operational parameters	Assessment of the key operational parameters on the guarantee scheme, based on discussions with stakeholders and using comparisons with international best practices.
Assessment of internal processes	Review of internal processes and systems of the guarantee funds, including quality management, operational costs, credit risk management, recovery process etc.
Financial projections	Simulation of the need for funding over the medium term, based on assumptions on outreach and default rate
Awareness and customer satisfaction	Measurement of the awareness and satisfaction of bankers and firms though surveys.

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Annex 1. Mission Statements of Benchmark PCGs

	Objectives of the PCG
Canada	To help new businesses get started and established firms make improvements and expand, to improve access to loans that would not otherwise be available to small businesses, to stimulate economic growth and create jobs for Canadians
Chile	To guarantee a share of the credits, leasing operations, and other financing instruments from public and private financial institutions to eligible micro and small enterprises and exporters which do not have guarantees or when these are insufficient to secure financing from these institutions. From 2009, the scheme allows temporary access to guarantees to medium and large enterprises.
Colombia	To facilitate the financing of micro, small and medium enterprises in Colombia through the extension of guarantees.
France	To provide assistance and financial support to French SMEs in the most decisive phases of their life cycle: start up, innovation, development, business transfer / buy out. By sharing the risk, it facilitates the access of SMEs to financing by banking partners and equity capital investors.
Hungary	To operate as a catalyser in lending to national SMEs and organisations established for the accomplishment of employer joint proprietor programs by undertaking absolute guarantee, and guarantee for any type of fund involvement: bank guarantee, lease and factoring transaction, involvement of venture capital and for EU tenders.
India	To improve the availability of bank credit without the hassles of collaterals / third party guarantees to support the first generation entrepreneurs to realise their dream of setting up a unit of their own Micro and Small Enterprise (MSE)
Korea	To lead the balanced development of the national economy by extending credit guarantees for the liabilities of promising SMEs which lack tangible collateral.
Malaysia	To enhance the viability of SMEs through the provision of products and services at competitive terms and, with the highest degree of professionalism, efficiency, and effectiveness.
Netherlands	To stimulate the provision of credit for SMEs.
Romania	To improve SME access to finance by issuing (partial) guarantees for SME loans granted by partner banks (or other SME financing institutions).
Taiwan, China	To provide credit guarantees to those SMEs that are in normal operation but are short of collateral for external financing. The provision of guarantees from SMEG will help these enterprises secure financing from financial institutions.
USA	To help start-up and existing small businesses obtain financing when they might not be eligible for business loans through normal lending channels.

Annex 2. Mission Statements of MENA PCGs

	Objectives of the PCG
Egypt	To promote economic and social development by facilitating access to finance to micro and small firms facing a lack of collateral
Iraq	To assist small and medium size enterprises in Iraq to gain access to loan finance from Iraqi banks, and to assist banks using the guarantees to develop credible loan administration and risk management systems.
Jordan	1. Guaranteeing SME loans directed towards establishing economic projects or expanding existing ones in order to increase production capacity and marketing efficiency as well as create new job opportunities and the possibility of earning or saving foreign currencies. 2. Utilization of guarantees to cover the risks involved in export credit, particularly in those industrial sectors, which are in line with the aims of JLGC. 3. Guaranteeing credit operations in line with the doctrines of the Islamic Law
Lebanon	Assisting SMEs to access commercial bank funding. Kafalat helps SMEs by providing loan guarantees based on business plans / feasibility studies that show the viability of the proposed business activity
Morocco	To stimulate private entrepreneurship by supporting business start-up , expansion and modernization.
Palestine	1. To broaden the credit access in an underserved small and medium enterprises (SME) market because of lack or insufficient collateral and to enable SMEs to survive, regain some lost capacity, job retention, recreation or creation. 2. To encourage “Partner Banks” to approach smaller companies at an earlier stage, or that otherwise could be ruled out from qualifying for credit extension. 3. To help the Palestinian Monetary Authority revive the economy, generate employment and alleviate poverty.
Saudi Arabia	The Saudi Industrial Development Fund assumes an active role in the fulfillment of the objectives and policies of the programs for industrialization of Saudi Arabia. Such a role is carried out through provision of financial assistance in form of short-term loans to industrial investment along with technical, administrative, financial and marketing advices to borrower enterprises. The specialized advice rendered positively contributes to improvement of projects' performance and assists them in overcoming the problems they encounter.
Syria	Initially focusing on the SME sector, LGIS provides credit guarantees for viable businesses that cannot provide the level of collateral required by financial institutions. It is intended that the activities of the LGIS will contribute to the improvement in the skill base in the financial sector in Syria.
Tunisia	SOTUGAR’s mission is to contribute, in a significant way, to the development of SMEs: To facilitate the access of SME to financing, by sharing with financial institutions the risk inherent to SME financing
UAE	The Khalifa fund’s mission is to encourage an entrepreneurial spirit amongst UAE nationals and support their enterprise initiatives; to provide financial and business assistance and professional expertise to UAE nationals who wish to start their own business; to diversify and increase income sources in Abu Dhabi; to establish a solid economic platform and train and prepare UAE entrepreneurs to enable them to effectively manage their businesses themselves.

Annex 3. Alternative Methods to Assess Additionality

Methodology	Description
Interviews	The most basic way of measuring additionality consists of asking directly guarantee users and bankers: "would you have obtained (extended) the loan without using the guarantee scheme?" The main advantage of this method is its simplicity. However, answers are highly subjective and do not reflect necessarily reality. Users and bankers tend to be overoptimistic about the impact of the guarantee.
Descriptive statistics	A second simple method is based on descriptive statistics. Empirical evidence suggests that some types of borrowers are more credit constrained than others, such as small firms, start-ups, firms seeking long term finance, and firms with low credit scores. The proportion of outstanding guarantees allocated to those categories of firms could be used as a proxy for additionality. However, this method does not provide accurate estimates.
Propensity score matching	This method is based on a survey including 2 groups: a group of guarantee users called "treatment group" and a group of firms not using the guarantee called "control group". The estimation is carried out in 2 steps: first, we estimate a lending decision model based on the "control group". This estimation provides the probability for a firm to be credit constrained given its characteristics such as size, age, the experience of the manager, the financial structure. Secondly, using the parameters of this equation, we estimate the share of firms in the "treatment group" that would have been credit constrained without the guarantee. This method is the most used to estimate additionality in advanced countries. However, its main pitfall is the problem of *self-selection* -- the fact that firms in the "treatment group" are not fully comparable to firms in the "control group". Indeed, there might some unobservable reasons for which these firms apply for a guarantee, and not the others.
Encouragement design	This method is based on a survey of 2 groups of firms. A first group, randomly selected, is given intensive information about the guarantee. The basic idea is to create a variable (the information campaign), that is correlated with receiving the guarantee and it is uncorrelated with any other characteristic of firms. When included in a lending decision model, the coefficient of this instrumental variable provides a measure of additionality.
Regression discontinuity	Many guarantee schemes use credit scoring to allocate guarantees to applicants. The credit score has a cut-off point for eligibility. In this method, we should assume that the potential beneficiaries of guarantees just above the cut-off point are very similar to the potential beneficiaries just below the cut-off point. We can then compare access to credit of firms just above and below the cutoff point. One of the drawback of this method is that the number of applications rejected by guarantee schemes is generally low (around 5%), which reduces substantially the size of the control group.
Natural and quasi-natural experiment	This method is based on a naturally occurring event that differently affects different groups of firms (e.g. change of eligibility criteria, use of guarantees by different banks, at different point of time or in different regions). As this natural event is exogenous, guarantees are allocated in a way which is not correlated with individual characteristics of firms. In that case, a sample of non-beneficiaries can be used as a valid control group.
Randomized experiment	This method selects a control group using a random process: some eligible firms applying for the guarantee are randomly rejected. This random process is designed to ensure that the control group is similar to the group of guarantee users (the treatment group). Data on access to finance and economic performance are collected from both groups before and after the intervention. The differences between the two groups reflect the impact of the guarantee. This method is the most accurate for assessing the impact of a public intervention. However, it is rarely used to assess credit guarantee schemes, because of its high degree of complexity. Moreover, firms that are randomly rejected are not fully comparable to firms obtaining a guarantee. Indeed, after being rejected, firms might change their behavior and be discouraged from applying again for loans (Han et al 2008).