

KfW Development Bank

»» Evaluation Update



No. 3, May 2015

European Palestinian Credit Guarantee Fund

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Executive summary and lessons learnt

Credit guarantee facilities are promoted as a potentially promising way to increase the availability of financing for small and medium enterprises (SME) in developing markets. However, it is unclear to what extent the loans covered by credit guarantee facilities actually will be additional, i.e. they would not have been made otherwise. Guarantees usually come at a cost for the lender, but might also boost the lender's overall profit by reducing losses in the event of a borrower's default. Hence, it might well be the case that guaranteed loans would have been profitable in the absence of a guarantee as well. Moreover, credit guarantee facilities may undermine the incentives of banks to screen and monitor their borrowers. Both aspects, the additionality of credit guarantee facilities as well as their incentive effects need to be well understood for the future successful implementation of such schemes.

We analyze the impact of a direct partial credit guarantee scheme for SME using the example of the European Palestinian Credit Guarantee Fund (EPCGF), a revolving guarantee facility with the purpose of improving credit access for small and medium sized enterprises in the Palestinian Territories (henceforth: Palestine). EPCGF offers partial credit guarantees for SME loans to partner banks and has so far guaranteed loans with a total volume of 97.5 Mio. USD. A qualitative assessment of EPCGF's partner banks and a quantitative case study for one of the partner banks leads us to conclude that a major share of EPCGF loans are additional in the sense that they would not have been made without the availability of the guarantees. We do, however, also conclude that quantifying the exact share of loans that are additional is generally an intricate task. EPCGF loans blend in with the existing geographical and sector-wise distribution of loans in Palestine. Nevertheless, EPCGF has expanded the frontier and quality of finance in the existing SME sectors in Palestine while at the same time EPCGF's procedures give very limited reason to be concerned of moral hazard by the partner banks. Due to a thorough monitoring process and close ties with its partners, EPCGF has managed to keep the level of actual guarantees claimed low. The facility did not lose any of its capital over the years. Besides the institutional performance of EPCGF the following *lessons learnt* apply to a more general case and offer guidance with respect to the optimal design of partial credit guarantee facilities for SME. We find that some of the following 8 lessons are contrary to propositions commonly found in the mission statements of credit guarantee facilities. A first key lesson of this type concerns the role of collateral. Credit guarantees are generally perceived as a substitute for collateral that a borrower cannot supply. While this might be true in some cases, we conclude that credit guarantees in developing and particularly in fragile countries like Palestine can in fact be a complement to whatever existing collateral there is. Credit guarantee schemes should thus not restrict partner banks in the additional use of adequate collateral. Another lesson rests on the finding that the impact of partial credit guarantees varies more than expected with processes, know-how, size, maturity and ownership of the partner banks. Assessing the demand for a credit guarantee facility hence presupposes detailed knowledge of potential partner banks.

Lesson 1: Strong management as well as transparent and fast procedures are key success factors. The management of a guarantee facility needs to have excellent working relations with partner banks in order to understand the potential value of guarantees to each bank. Transparent and fast procedures are valued highly by banks (even if this is accompanied by standardization) as this reduces uncertainty and speeds up approval decisions. A rigorous screening and monitoring process by the implementing institution further helps the reduction of moral hazard by the partner banks.

Lesson 2: Lending policies and procedures of partner banks should be studied in detail. The use of the facility will depend strongly on internal credit policies and procedures as well as the strategic importance of the SME lending sector. It is very important to study the credit policies and procedures of potential partner banks and to have a broad coverage of different types of banks, which lend to the target population.

Lesson 3: Guarantee schemes should be open to covering the default risk of individual loans as well as credit portfolio risk. Credit guarantee facilities may be used by some banks to mitigate credit risk on individual loans. Other partner banks may use guarantees to mitigate concentration risk in their loan portfolio. A facility should be open to both types of risk and should therefore be willing to carry concentration risk that is an impediment to single banks' lending, but can be diversified in the guarantee fund.

Lesson 4: Credit guarantee facilities should define a clear target population, but be flexible in the types of loan contracts they cover. SME credit guarantee facilities should clearly define their target population, i.e. the size, type and location of targeted enterprises. That done, it seems unreasonable to exclude in advance certain types of loan contracts, e.g. short-term loans or overdraft facilities. The types of loan contracts demanded by the target population are likely to vary strongly across firms as well as over time.

Lesson 5: Guarantees and collateral should be treated as complements rather than substitutes. Collateral serves as a screening and monitoring instrument to reduce the probability of default on the one hand and as a buffer against loss given default on the other. In weak legal environments, however, collateral often does not serve its second function as a buffer to reduce loss given default. Accordingly, it is reasonable to complement collateral as a screening device by guarantees providing the missing buffer in the case of default. Thus,

guarantee facilities should not put restrictions on the collateralization of guaranteed loans, and rather encourage the additional use of adequate collateral.

Lesson 6: There is a fundamental trade-off between the outreach of a guarantee facility and its additionality. Lower fees and higher loss coverage will make the use of a guarantee facility more attractive to the partner banks. However, the lower the costs of the guarantee and the higher the guarantee coverage, the more likely banks will apply for a guarantee for loans that they would have made anyway. This implies that more attractive guarantee facilities for partner banks will be associated with a higher share of guaranteed loans that are not additional.

Lesson 7: Credit guarantees can expand the frontier of finance to previously unbanked businesses. Credit guarantees may be particularly important in expanding credit to first-time borrowers. Due to the lack of a credit history, banks may be particularly wary of lending to new clients, especially in countries where credit bureau data on existing borrowers is available and used by banks.

Lesson 8: Credit guarantees are compatible with Islamic Finance. Credit guarantees are not tied to the existence of interest payments and can be used to promote SME finance even when financial institutions adhere to principals of Islamic finance. Sharia conform financial contracts are often backed by collateral. Credit guarantees can complement other types of collateral for such contracts.

1. Objective and implementation of the assessment

The European Palestinian Credit Guarantee Fund (EPCGF) is a revolving partial guarantee facility jointly funded by German Financial Cooperation and the European Union / European Investment Bank. The purpose of EPCGF is to improve credit access for small and medium sized enterprises (SME) in Palestine. A mid-term appraisal of the EPCGF was carried out in 2008, focusing on the project's effectiveness, efficiency and sustainability. The development impact of the EPCGF was not analyzed in depth during the mid-term appraisal.

The objective of the following analysis is to provide an assessment of the development impact of EPCGF. The assessment will focus on the key question of additionality of EPCGF with respect to the supply of SME credit in Palestine. Hereby, we will seek to answer three sub-questions: First, to what extent has EPCGF contributed to increasing the volume of SME credit in Palestine? Second, which type of SME benefited most from EPCGF? Third, to what extent has EPCGF impacted on the broader supply of SME credit in terms of fostering new credit products and lending processes?

To set the stage for our assessment this document provides a conceptual analysis of partial credit guarantees as an instrument for promoting financial sector development. We clarify (i) why banks would want to use a partial guarantee to manage credit risk, (ii) to what extent a partial guarantee is a substitute for collateral, and (iii) how the pricing and coverage of the guarantee may affect the type of loans which are guaranteed. We also provide a summary of existing empirical studies documenting the impact of partial credit guarantees on the supply of credit.

This assessment will feed into an evaluation of EPCGF which will later be part of KfW Development Bank Evaluation Unit's (FZ E) regular evaluation cycle.

From 16th -20th June 2014 the assessment team consisting of Prof. Dr. Martin Brown (Uni St. Gallen) and Thomas Gietzen (KfW Development Bank, Evaluation Unit) visited Ramallah. We met with the management and staff of EPCGF as well as with representatives of all active partner banks of the project. We are indebted to EPCGF and KfW Ramallah office for an excellent preparation of our mission and assistance during our stay.

This report was commenced only days before the escalation of the Gaza-Israel conflict in July 2014. The possible consequences of this escalation for the Palestinian economy and in particular for the Palestinian banking sector and EPCGF cannot be assessed in detail at this moment. We do not expect the main results of this report to be affected.

2. Background Information

The main objective of EPCGF is to enhance access to credit for SME in Palestine. In order to do so, EPCGF cooperates with eight partner banks. In the following we provide a brief description of the Palestinian economy and the banking sector. We then portray the structure of small businesses in Palestine and provide evidence on their access to bank finance.

2.1 The Palestinian economy

In 2012 Palestine ranked 110th out of 187 countries on the UN Human Development Index. Average per capita income stood at 2,490 USD in 2011¹, while unemployment stood at 23% in 2012.² There is a huge gap in economic conditions between the West Bank (population: 2.8 million) and the Gaza Strip (population: 1.7 million): Per capita income is twice as high in the West Bank (2011 GDP per capita: 3,138 USD) than in the Gaza Strip (2011 GDP per capita: 1,535 USD), while unemployment in the West Bank (19%) is much lower than in the Gaza Strip (32%). Between 2006 and 2012 the Palestinian economy grew annually by 6% (average annual growth of GDP at constant prices).³ Growth was however much stronger in the West Bank (8.8%) than in the Gaza Strip (0.6%). Indeed as a consequence of the escalation of the Gaza-Israel conflict, economic activity in Gaza contracted by almost one-third between 2005 and 2008.

The Palestinian economy is heavily dominated by capital inflows on the one side and consumption (private and government) on the other side. In 2012 imported goods (mostly from Israel) amounted to 50% of GDP, while exports (mostly to Israel) accounted for 14% of GDP. The negative trade balance is made possible by private cross-border remittances as well as donor funding to the Palestinian Authority. Government consumption amounts to 27% of GDP, while private consumption mounts up to 88% of GDP and fixed investment to 24% of GDP.

¹ http://www.pcbs.gov.ps/Portals/_Rainbow/Documents/percapitcurrentE1994-2011.htm

² http://www.pcbs.gov.ps/Portals/_Rainbow/Documents/unemployment%202000-2012.htm

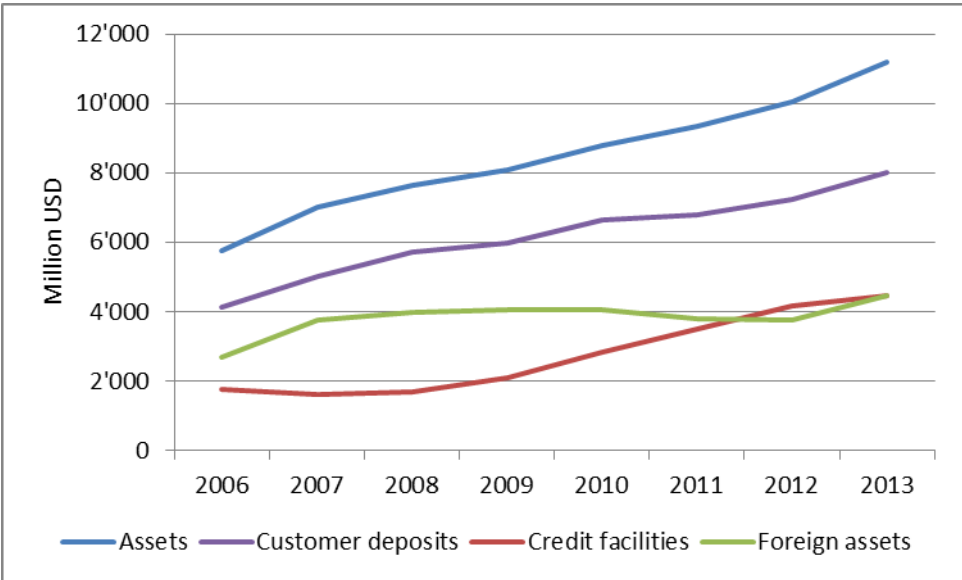
³ http://www.pcbs.gov.ps/Portals/_Rainbow/Documents/MajorConstantE1994-2011.htm. In 2013 GDP growth slowed to 2.4 % according to the Economist Intelligence Unit.

2.2. Financial sector

The Palestinian Monetary Authority (PMA) was established in 1994⁴ and has the responsibility for maintaining price stability and financial stability in Palestine. However to date, Palestine does not have its own currency. Instead, the Israeli Shekel (NIS) is typically used for day-to-day transactions, while the Jordanian Dinar (JD) and US Dollar (USD) are used for large value transactions. As a consequence the PMA is today effectively responsible for bank regulation, licensing and supervision only.

At the end of 2013 there were 17 banks operating in Palestine of which 8 are banks domiciled in Palestine, 7 are Jordanian banks operating through branches in Palestine, and 2 are branches of other foreign banks.⁵ Total assets of the banking sector amount to 10.7 billion USD, which is equivalent to 80% of GDP (13.3 billion in 2013). Total customer deposits amount to 8.2 billion USD (61% of GDP), while total credit facilities amount to 4.3 billion USD (32% of GDP). The banking sector is dominated by two large banks (Arab Bank, Bank of Palestine), which together hold just over 50% of total assets, credit facilities and customer deposits. These two banks also provide the largest network of branches and ATMs in Palestine. In 2013 all banks (except HSBC Middle East) made positive profits. Arab Bank and Bank of Palestine together accounted for nearly 70% of total sector profits (99 Mio. USD of total 143 Mio. USD).

Figure 1. Aggregate banking sector activities, 2006-2013



Source: Palestinian Monetary Authority

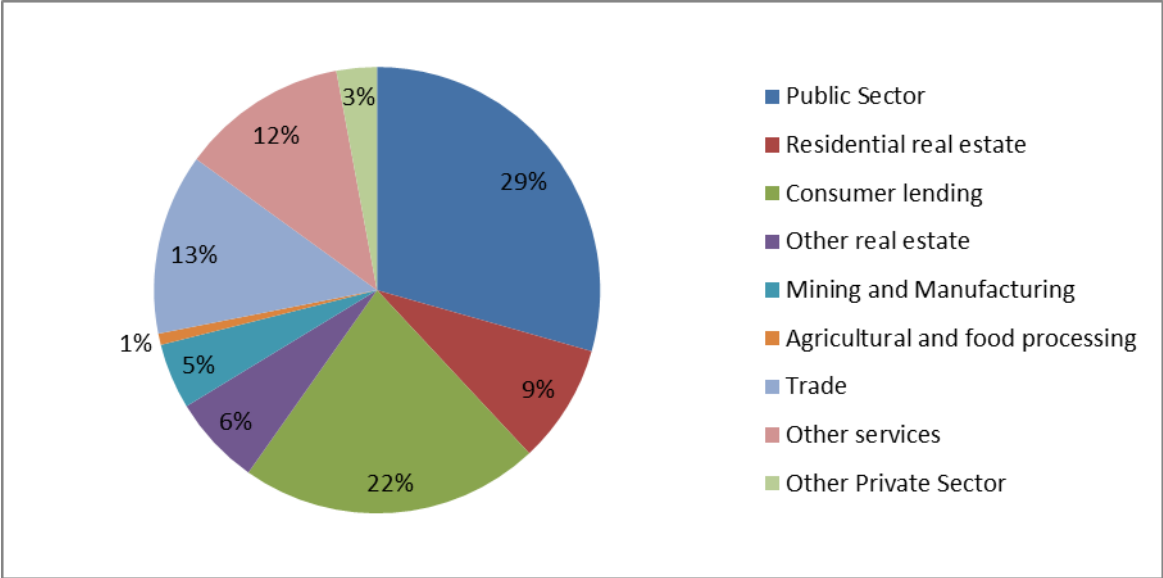
⁴ Following the Oslo accords and the transfer of jurisdiction over the West Bank and Gaza to the Palestinian Authority in 1993.

⁵ See appendix 2B for a list of all banks operating in Palestine as well as indicators of their operations at end 2013.

Figure 1 shows that the Palestinian banking sector has witnessed strong growth between 2006 and 2013. Total banking assets as well as customer deposits have doubled during this period. In terms of asset structure, there has been a stronger allocation to domestic credit at the expense of foreign assets: The outstanding volume of credit facilities has increased 2.5 times, while the volume of foreign assets has increased only 1.6 times. The stronger allocation of loanable funds to domestic credit is fostered by regulations of the PMA, which put limits on the share of foreign assets which banks can hold on their balance sheets. This regulation, introduced in 2008 has arguably forced banks - especially the branches of foreign banks - to increase their lending activities to households and the business sector within Palestine.

The strong increase in aggregate activity between 2006 and 2014 masks a strong regional disparity in financial sector development within Palestine, especially between the West Bank and Gaza. While bank deposits increased 2.3 times in the West Bank from 2006-2013 they actually declined in Gaza. Over the same period credit activity also increased twice as fast in the West Bank than it did in Gaza (268% vs. 138%). The Gaza strip currently accounts for only 10% of all bank deposits and 10% of bank credit extended within Palestine.

Figure 2. Allocation of credit facilities by banks in Palestine, 2013



Source: Palestinian Monetary Authority

As Figure 2 shows, a large share of bank credit in Palestine is allocated to the public and household sectors. Both domestic and foreign banks lend heavily to the Palestinian Authority, with 29% of total outstanding credit allocated to the public sector in 2013. Residential mortgages and consumer credit together account for over 30% of outstanding credit. Several banks focus their credit activities on retail clients, especially offering salary loans to public

sector and other formal sector employees. Corporate lending accounts for roughly 40% of total outstanding credit with the majority allocated to trade and other services. The manufacturing and agricultural sectors account for less than 10% of total credit.

Given the arguably high systematic credit risk due to political and economic uncertainty interest rates on credit facilities in Palestine are surprisingly low. In 2012 the average annual interest rates on USD denominated loans stood at 7%.⁶ The low lending rate is partly attributable to the low costs of funds, with interest rates on USD 1-year term deposits standing at less than 1%. In addition, credit risk seems to be quite low, with the average non-performing loan ratio amounting to 3% in 2012.⁷

2.3 Small enterprises in Palestine and their access to finance

Official statistics count roughly 130,000 **business establishments in Palestine**. Two-thirds of these establishments are located in the West Bank, while one-third is located in Gaza. Within the West Bank the governorates of Hebron, Nablus, Ramallah and Jenin boast the largest number of establishments.⁸ The overwhelming majority of all establishments are sole entrepreneurs (85%). Accordingly, almost all establishments in Palestine are small as measured by their number of employees: 117,234 establishments (89%) have less than 5 employees, 9,977 establishments (7.5%) have 5-9 employees, and 2,983 establishments (2.2%) have 10-19 employees. Most businesses in Palestine are active in service sectors: Less than 15% of establishments are active in manufacturing or construction. Wholesale and retail trade account for 55% of all establishments, while the remaining nearly one-third of all businesses are active in other service sectors (tourism, health care).

The Palestinian Monetary Authority defines small and medium enterprises as businesses with less than 25 employees or 7 million USD turnover. According to the official head-count of the Palestinian Central Bureau Statistics (see above) 130,194 business establishments (out of a total 131,730) would fall under this definition. Data reported in 2012 to the PMA by banks suggest that 16,960 SME hold savings or transaction accounts with banks, while only 4,303 SME have a bank loan.⁹

⁶ Source: PMA Financial stability report 2012

⁷ The low aggregate share of non-performing loans is strongly influenced by the large share of lending to the public sector and public sector employees. The share of non-performing loans is likely to be significantly higher for the SME and corporate loan segments.

⁸ See appendix 1 for a map of Palestine and appendix 2 for statistics on business establishments.

⁹ Source: PMA Financial stability report 2012

Table 1. Access to Finance for SME in Palestine, 2013

	Palestine			Middle East & North Africa		
	Small	Medium	Large	Small	Medium	Large
All businesses						
Have bank account (%)	68.6	87.2	100	55.1	83.9	98.5
Have bank loan (%)	4	19	67.8	9	24.9	75.2
Don't need loan (%)	71.5	83	56.3	47.9	49.1	50.5
Business with a loan						
Collateral (yes/no)	69.2	66.8	64.1	68.8	85.5	78.9
Collateral value (% of loan)		91.2		130.1	274.4	121.1

Source: World Bank Enterprise Survey of West Bank & Gaza. Small businesses have 1-19 employees; Medium-sized businesses have 20-99 employees; Large businesses have at least 100 employees.

A survey of SME conducted by the World Bank in 2013 suggests that **the majority of SME in Palestine are banked**, but that very few of these businesses use bank loans. The survey conducted as part of the Enterprise Survey Project¹⁰ covered 434 businesses (295 in the West bank and 139 in Gaza) of which 292 were small, 119 were medium-sized and 23 were large. Table 1 shows that 68% of the small businesses in Palestine have a bank account (checking or savings account), which is significantly higher than for small businesses through the rest of the MENA region (55%). By contrast, only 4% of the small businesses in Palestine report that they use bank credit compared to 9% in the MENA region. These statistics suggest a higher penetration of financial services among SME than the PMA statistics mentioned above. There are two likely reasons for these discrepancies: First, even among small businesses the World Bank survey is likely to cover larger firms which are more prone to use financial services. Second, as shown above, most small businesses are sole entrepreneurships, which are likely to use personal accounts as opposed to business accounts for their transactions. Indeed, the PMA counts 1.4 million personal deposit account holders with Palestinian banks.

The fact that only a small share of small businesses in Palestine use bank credit does not necessarily imply that **credit constraints** are tight. Indeed, the large majority of small businesses report that they do not need a bank loan (72%). Thus it seems that at most one-quarter of small businesses in Palestine are credit constrained. This figure is much lower than for firms in the rest of the MENA region. However, small businesses in Palestine do face substantially higher credit constraints than larger firms. Table 1 reveals that medium and large

¹⁰ <http://www.enterprisesurveys.org/Data/ExploreEconomies/2013/west-bank-and-gaza>

firms in Palestine are hardly subject to credit constraints: those firms that need bank credit use bank credit. A breakdown of the survey data by location also reveals a substantial gap in credit constraints within Palestine. In the West Bank businesses are twice as likely to have a bank account (80.4% vs. 42.2%) and four times more likely to use bank credit (7.4% vs. 1.8%) than in the Gaza strip. Despite the weaker economic conditions, the lower use of credit by businesses in Gaza is not driven by a lower demand for credit: The share of firms which want a bank loan is similar in Gaza (26%) to that in the West Bank (27%).

The survey data presented in Table 1 suggests that business lending in Palestine is not overly reliant on **collateral**. In comparison to other MENA countries, the share of loans which are secured by collateral is lower, and the average ratio of the collateral value to loan value is substantially lower. There are two likely reasons why Palestinian banks rely less on collateralized lending to business clients: First, the majority of credit facilities are working capital loans (i.e. credit lines, overdrafts, trade finance) to wholesale and retail traders. These credit facilities are typically short term and do not involve physical assets, which can be easily pledged. Second, even for long-term project financing the use of collateral as an instrument to reduce credit risk is only partly effective in Palestine. An incomplete land registry, the absence of a registry for pledged movable assets as well as lengthy and costly processes for insolvency and debt recovery imply that the expected recovery value of collateral for banks is very low. Indeed, the World Bank Doing Business indicators suggest that Palestine ranks among the weakest countries in the world in terms of secured lender rights.¹¹ Thus while collateralized lending may help banks to screen their borrowers and incentivize borrowers to repay, it hardly serves as a buffer against credit losses when a loan default does occur.¹²

¹¹ According to the World Bank Doing Business indicators Palestine scores 1 on a scale of 0-10 for secured lender rights (Legal rights index). No assessment of the recovery process for secured lenders is made, tellingly due to a lack of corresponding cases.

¹² See section 4 for a detailed discussion of the functions of collateral in lending.

3. The European Partial Credit Guarantee Facility

The European Palestinian Credit Guarantee Fund (EPCGF) is a revolving partial guarantee facility. In the first phase of the project (2006-2011) the facility provided partial guarantees to commercial banks in Palestine, which cover the credit risk on their SME loans. In the second phase of the project (2011-2014) EPCGF also provides guarantees on commercial bank loans to microfinance institutions. In both phases of the project EPCGF has undertaken activities to enhance the capacity of the commercial banks in Palestine to extend SME loans. By the end of 2014:Q1 the facility has provided guarantees on a total of 2,776 SME loans with a total loan volume of 97.5 Mio. USD. In addition the facility has guaranteed 6 loans by partner banks to microfinance institutions with a combined loan volume of almost 3 Mio. USD.¹³ Between 2006-2011 the TA activities included the training of 181 staff members of partner banks. Finally, EPCGF actively participates in the policy dialogue on SME lending in Palestine, e.g. as an advisor to the Palestinian Monetary Authority.

EPCGF's institutional design is intended to balance concerns of excessive risk taking by banks with the developmental impact of the fund. In order to alleviate concerns that banks will choose and monitor guaranteed loans less carefully than loans for which they bear the full extent of credit risk, EPCGF offers only a partial guarantee of 60% of the realized losses by partner banks on the guaranteed loan. The costs of the partial credit guarantee for partner banks are also significant. Partner banks pay 100 basis points (bp) up front on the total loan amount to EPCGF and an additional 150bp on the guaranteed part of the outstanding loan amount quarterly.

All loans under EPCGF must fulfill certain eligibility criteria. In particular EPCGF will only guarantee loans to SME that are privately owned and employ less than 20 people. SME must have been in operation for at least 2 years but clients can be either existing or new clients to the partner bank. Also, current EPCGF criteria do allow for start-up businesses but only to a very limited extent. EPCGF is currently granting loans up to 200K USD. Over the years, the initial loan ceiling had been increased from 50K USD to 100K USD (Nov. 2008) and then up to 200K USD starting in January 2013. Loans cannot be overdrafts or existing loans and EPCGF cannot grant working-capital loans with a maturity of less than one year.

To further reduce concerns of moral hazard among partner banks (i.e. lax screening and monitoring of loans), EPCGF maintains a strict due diligence which is based on its own Management Information System (MIS) that is fed with data by the partner banks at application. The MIS contains detailed information about the nature of the loan, the client and his or her business and information obtained from the credit reference bureau. The high degree of standardization in information requested by EPCGF promotes speed and quality of the assessment but might in some cases also increase costs for the partner banks. EPCGF also

¹³ Based on 3rd EPCGF quarterly report 03/2013.

monitors the risk of its portfolio by frequently meeting with and maintaining close and personal relationships with all partner banks.

There is a second loan guarantee facility (LGF) to promote SME loans in Palestine funded by the US Overseas Private Investment Corporation (OPIC) and the Palestine Investment Fund (PIF). Compared to EPCGF, this scheme guarantees higher-volume loans (up to 500K USD) and offers a 70% coverage. Up to now, about 100 Mio. USD (including 2014:Q1) have been approved under the alternative scheme. Appendix 6 provides a comparison of the two schemes.¹⁴ Reportedly, the level of informational detail that needs to be filed by banks before an application to the LGF is lower than that for an EPCGF application. However, many partner banks report that the lack of standardization at LGF leads to substantial follow-up questions which impede the speed and quality of the assessment compared to an EPCGF guarantee. Appendix 7 provides an overview of other partial credit guarantee schemes within the MENA region.

Table 2. EPCGF partner banks and accumulated guaranteed SME loans

Bank name	Abbr.	Signed as Partner	First loan guaranteed	Loans guaranteed (2006:Q3 – 2014:Q1)	
				Volume (Mio. USD)	Number
Cairo Ammann Bank	CAB	2006/08	2006/09	13.1	345
Bank of Jordan	BoJ	2006/08	2006/09	25.7	812
Arab Islamic Bank	AIB	2006/11	2007/07	16.3	356
Jordan Ahli Bank	JAB	2007/07	2007/08	18.4	465
Housing Bank	HBTF	2007/12	2008/02	16.9	605
Arab Bank	AB	2007/12	2010/08	0.1	2
Bank of Palestine	BoP	2009/09	2010/05	1.4	61
The National Bank	TNB	2010/06	2010/06	5.2	130
Jordan Kuwait Bank	JKB	2013/03	None		
Total:				97.5	2,776

Source: EPCGF

¹⁴ Also see <http://www.meiinitiative.org/?TemplatelD=info&PagelD=36&MenuId=22&Lang=1> and the provided documents for details.

Islamic Banking, Working Capital Financing and Collateral

Islamic banking refers to financial services which are compliant with the Sharia, which in particular prohibits the payment or receipt of interest or fees for loans / deposits of money. Sharia compliant lending and deposit products are based on risk-sharing, trade and safekeeping rather than fixed income lending and depositing as in conventional banking. The main islamic lending products are Mudharabah (profit sharing) Musharakah (joint venture), Murabahah (cost plus), and Ijar (leasing).

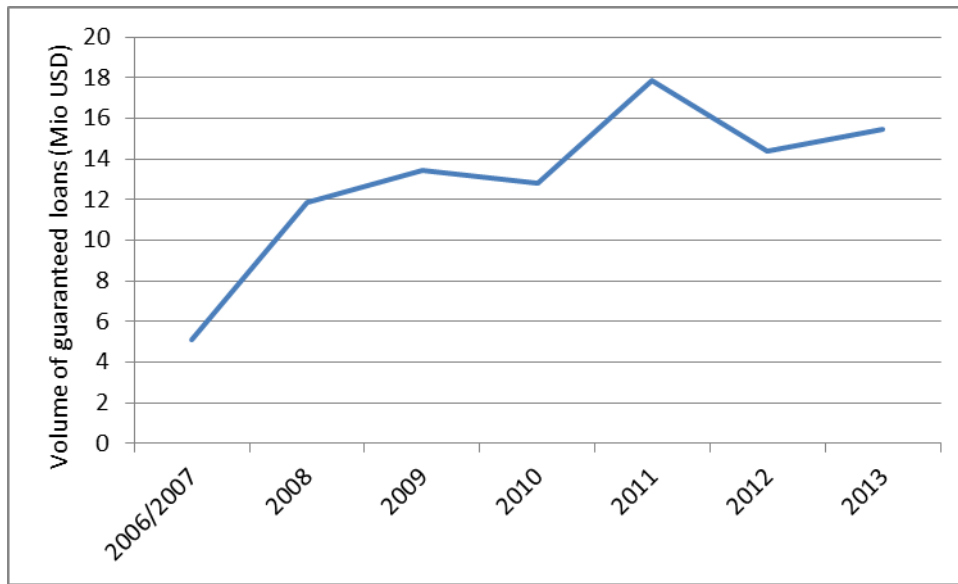
The major loan product offered by Arab Islamic Bank (AIB) is Murabahah which is used predominantly for working capital finance: The bank buys goods in the name of its clients and then resells these to the client at a profit. The client pays the total amount due to the bank in instalments. The goods are registered in the name of the client from the beginning. Accordingly, the corresponding financial transaction is not secured automatically via the goods being property of the bank. Moreover, as the goods in question are typically perishable or durable consumer goods they are hardly pledgeable as collateral.

The considerable use of guarantees by Arab Islamic Bank demonstrates the compatibility of credit guarantees with principles of Islamic Finance.

Between 2006 and 2013 EPCGF has signed partnership agreements with 9 of the 17 banks currently operating in Palestine. The facility has achieved a substantial coverage of the banking sector by partnering with 8 of the 10 largest banks (see appendix 2B). Moreover, the facility partners with all of the major types of banks in Palestine: domestic retail banks (BoP, TNB), Jordanian based corporate and retail lenders (CaB, Bo), JAB, HBTF, AB, JKB) as well as one of the Islamic finance banks (AIB). However, as Table 2 illustrates, the use of EPCGF by partner banks varies strongly. In particular, the medium-sized Jordanian banks (Bo, JAB, CAB, HBTF) and the domestic Islamic finance bank (AIB) have used the facility much more than the two largest banks in the banking sector (AB, BoP).

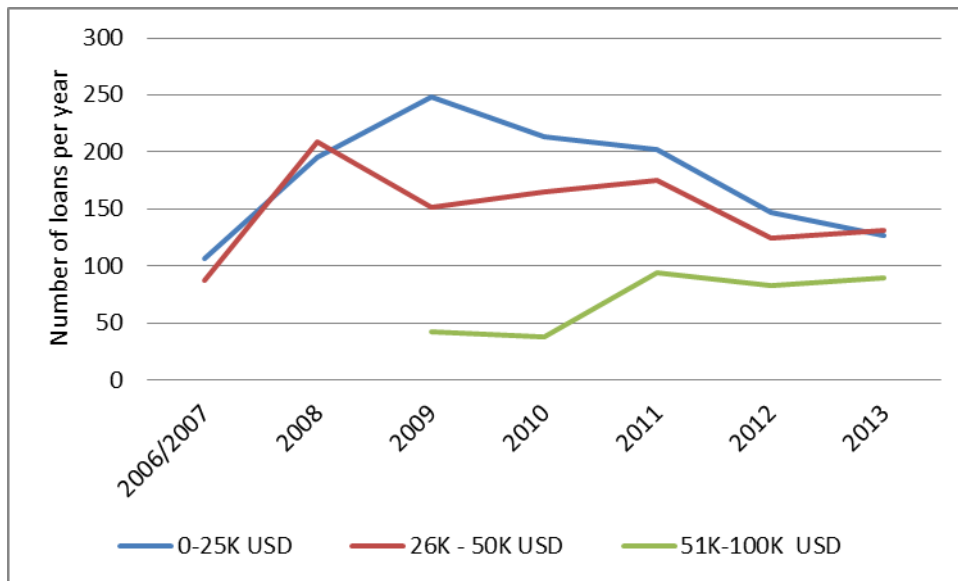
Figure 3a shows that after the initial introduction phase of EPCGF (2006-2007) the volume of guaranteed loans has increased slowly from 12-13.5 Mio. USD per year in 2008-2010 to 14.5-15.5 Mio. USD in 2012-2013. The peak year for loan guarantees so far has been 2011 with a volume of just under 18 Mio. USD. Figure 3b shows that the increase in the EPCGF loan threshold from 50,000 USD to 100,000 USD has contributed strongly to the stabilization of the guaranteed loan volume over time. While the number of guaranteed loans in the range 0-25K USD and 26K-50K USD has decreased steadily over time the number of larger loans (51K-100K USD) has been constant since 2011.

Figure 3a. Guaranteed loan volume by year, 2006-2013



Source: EPCGF

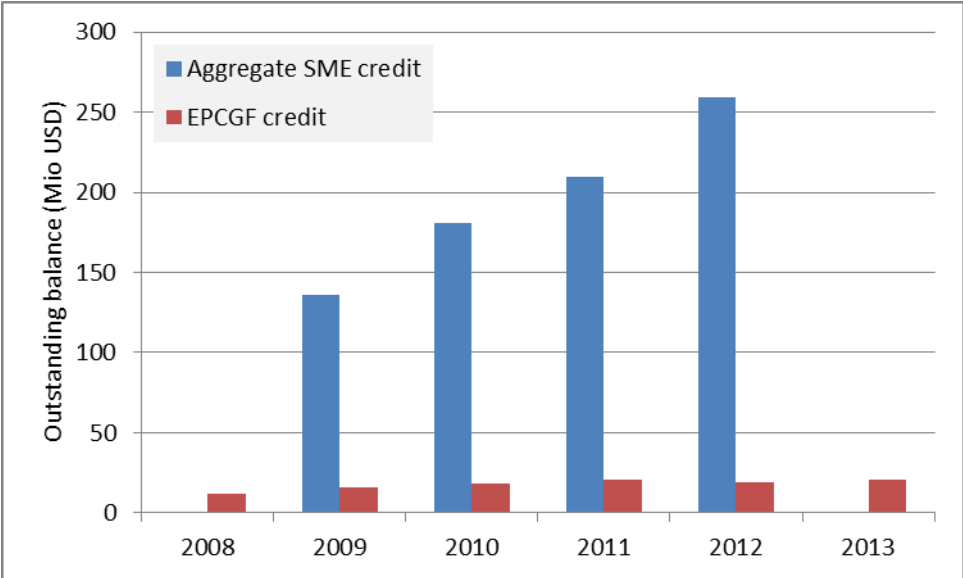
Figure 3b. Number of guaranteed loans guaranteed by size and year



Source: EPCGF

EPCGF accounts for a sizeable but gradually declining share of SME lending in Palestine. In Figure 4 we compare the outstanding volume of EPCGF guaranteed loans at the end of each year to available data on SME lending from the PMA for the years 2009-2012. This comparison suggests that EPCGF accounted for 11.7% of SME lending in 2009, but that this share declined to 7.3% in 2012. The drop in the share of EPCGF guaranteed loans is due to the fact that the volume of EPCGF guaranteed loans has remained constant between 2010-2012, while aggregate SME lending has increased strongly in line with aggregate banking sector developments (see section 2). It should be noted hereby that the PMA definition of small business loans includes a significant volume of large loans and short-term loans which are not eligible for EPCGF.

Figure 4. Share of aggregate SME lending guaranteed by EPCGF, 2009-2012



Source: EPCGF and PMA Financial Stability Report

Over the years EPCGF’s capital has maintained stable. In most years the fund broke even in terms of costs. There seems to be no indication of a permanent depletion of the fund’s capital at this point in time.

Table 3. EPCGF / Financial Indicators

	2013	2012	2011	2010	2009	2008
Revenues (Fees and interest income) (EUR)	231,921	350,867	433,314	258,573	291,951	846,268
Operational Costs (EUR)	391,945	373,186	354,818	376,149	284,668	269,723
Paid Claims, Net of Collections (EUR)	102,407	98,763	103,554	66,275	42,339	0
(in % of Total Guarantees)	(0.8%)	(0.8%)	(0.8%)	(0.6%)	(0.2%)	(0%)
Total Outstanding Balance (USD)	21,111,345	19,692,763	20,602,188	17,762,001	17,130,052	12,248,873
Total Outstanding Guaranteed Amount (USD)	12,666,807	11,815,658	12,361,316	10,657,201	10,278,031	7,349,327
Total Net Assets EUR	32,059,810	29,635,555	29,168,505	26,144,221	19,642,331	19,684,076

Source: EPCGF

4. Partial credit guarantees and bank lending

This section provides a conceptual framework to guide our analysis of the impact of EPCGF on SME lending in Palestine. We then briefly review existing empirical evidence on the impact of similar guarantee schemes.

4.1. Credit risk management and the use of credit guarantees

A (partial) credit guarantee is an instrument which enables banks to manage credit risk, i.e. the risk that borrowers will not make contractually agreed interest and principle payments on a loan. The banking literature distinguishes two types of credit risk¹⁵, individual loan risk and portfolio risk. Credit guarantees can help banks manage both types of risk.

Partial credit guarantees, collateral and individual loan risk

Individual loan risk refers to the expected loss of the bank on any given loan. The expected loss (EL) is determined by (i) the probability of default of a borrower (PD), (ii) the exposure of the bank to the borrower at default (EAD), and (iii) the loss given default of the borrower (LGD).

$$\begin{aligned} [1] \quad \text{Expected loss (EL, in percent of loan volume)} = & \\ & \text{Probability of Default (PD, in percent)} \\ & \times \text{Exposure at Default (EAD, outstanding loan volume)} \\ & \times \text{Loss given Default (LGD, in percent)} \end{aligned}$$

Banks use several instruments to mitigate individual loan risk, i.e. to reduce the expected loss on each loan: Banks invest substantial resources in credit analysis to assess the creditworthiness of the client and thus the probability of the default for a loan. Banks can choose the maturity and repayment schedule of the loan to reduce the probability of default (e.g. if economic conditions are uncertain) and also to reduce the exposure of the bank to the client at default (due to quick repayment).

Most important for our context, banks can reduce individual loan risk by securing their loans by demanding **collateral** (and personal guarantees) from borrowers. It is important to note that collateral and personal guarantees affect expected loss in two ways: First, and most obvious, collateral reduces the loss given default (LGD) on a loan. In case a borrower defaults on a loan

¹⁵ See e.g. Saunders, A. and M. M. Cornett (2011). Financial Institutions Management – A Risk Management Approach, 7th Edition. McGraw Hill. Chapters 11-12.

the bank can seize the collateral and sell it off. To what extent collateral of a given value to the borrower reduces the LGD for the bank depends on (i) the costs of seizing and selling the collateral, and (ii) the resale value of the collateral. Note that in jurisdictions like Palestine where the rights of secured lenders are weak and enforcement costs are high, the effective value of pledged collateral to the bank may be substantially lower than its value to the borrower. In this case, collateral may not significantly reduce LGD. However, even if collateral does not significantly reduce LGD it may strongly affect the probability of default (PD) due to selection and incentive effects: Theory suggests that borrowers which post collateral are likely to have a low ex-ante risk of default, because they would otherwise be reluctant to post collateral. Moreover, theory suggests that borrowers which post collateral are more likely to make an effort to repay their loans, because they fear losing their assets.¹⁶ Note that, besides reducing loss given default, personal guarantees have the same selection and incentive features as collateral: the guarantors will only extend a guarantee to borrowers which they think are creditworthy and will also monitor the borrower to make sure he or she repays.

How do partial credit guarantees such as EPCGF affect the expected loss on an individual loan? A partial credit guarantee issued by a third party reduces (by the coverage amount) the loss given default (LGD) on a loan if it defaults.¹⁷ In contrast to collateral or personal guarantees, a third-party partial guarantee does not reduce the probability of default (PD) through selection and incentive effects. Indeed, if anything the PD on a given loan may increase with a third party guarantee, as banks have less incentives to exert resources in credit analysis and loan monitoring. This is the moral hazard problem of credit guarantees which facilities like EPCGF mitigate by (i) issuing only partial guarantees, (ii) implementing strict due diligence procedures for partner banks and guaranteed loans, and (iii) monitoring guaranteed loans.

In the context of developing and emerging economies with weak legal environments partial credit guarantees are thus hardly a substitute for collateral. Instead, the two instruments (standard collateral and credit guarantees) are complementary to each other: Due to weak creditor protection the buffer function of standard collateral (reducing LGD) is very limited, as is the case in Palestine. Thus pledgeable collateral serves primarily as an instrument to reduce the probability of default by selecting creditworthy clients and ensuring that these make an effort to repay. By contrast, a partial credit guarantee reduces only the loss given default on a loan, while it does not reduce the probability of default. An important practical implication of this complementarity is that **partial credit guarantee schemes should not be limited to loans with “insufficient” collateral.**

¹⁶ Note that the screening and incentive effects of collateral only apply when the borrower must fear that the lender will actually try to seize the collateral. In jurisdictions where the costs of enforcing secured debt are sufficiently high borrowers may anticipate that lenders may not bother doing so.

¹⁷ As such a partial credit guarantee is similar to a credit insurance or a credit default swap.

Partial credit guarantees and credit portfolio risk

Portfolio risk refers to the risk that a substantial share of the banks total loan portfolio defaults at the same time. Portfolio risk may stem from two sources: First, the credit portfolio of a bank may be very concentrated in specific sectors or in specific locations¹⁸, so that an idiosyncratic shock to a sector or location leads to many loans defaulting at the same time. A bank can reduce this *concentration risk* by diversifying the credit portfolio across sectors and locations. It is important to note though, that credit portfolio concentration may be a desirable property for a bank, especially if it is the outcome of the local expertise or sector-specific expertise of a bank.

Even if the credit portfolio of a bank is well-diversified across sectors and locations, it may be strongly exposed to economy-wide (systematic) risk. Systemic risk may e.g. stem from political turmoil (for which Palestine is a good example) or from cross-border economic and financial developments.

Banks can use partial credit guarantees to reduce portfolio credit risk. In particular, banks may use guarantees as a buffer against credit risk concentrated in particular sectors or locations. It is important to note that - contrary to the case of individual loan risk - the use of guarantees to mitigate portfolio risk implies that banks may not seek to primarily insure the more risky loans. Instead, they may seek guarantees for loans in those sectors where they are most exposed. An important practical implication of this is that **guarantee facilities should be prepared to take concentrated credit risk off the books of partner banks**. In this case the guarantee facility can mitigate its own *concentration risk* by partnering with a diverse set of banks with different credit portfolios.

4.2. The trade off between the use and additionality of a guarantee facility

In this section we examine the demand for credit guarantees by banks, assuming that credit guarantees are used to mitigate individual loan risk, i.e. the loss given default on guarantees loans. To organize our analysis we will make use of a simple example: Consider a one-year loan to a small firm with a loan size of L . The firm has posted collateral to the bank, of which the net value to the bank (resale value minus costs of seizure and sale) is $V = v \cdot L$ with $0 \leq V \leq L$. The probability of default of the borrower is $0 \leq PD \leq 1$. In this case the expected loss of the loan without a credit guarantee is: $EL(\text{no guarantee}) = PD \cdot (L - V)$

¹⁸ Or both as in the case of regional mortgage banks in Germany.

Suppose that the interest rate on loans is r and the cost of loanable funds is i ¹⁹, so that the intermediation spread on the loan is $r-i$. The expected profit of the non-guaranteed loan to the bank is:

$$[2a] \quad (r-i) \cdot L - PD \cdot L(1-v) = (r-i) \cdot L - PD(L-V) \quad [\text{Profit, no guarantee}]$$

Now consider that the bank has access to a partial credit guarantee scheme which covers loan losses up to a coverage ratio c and charges a price of p on the loan principle. If the bank uses a guarantee its expected loss is: $EL(\text{guarantee}) = PD \cdot (L(1-c)-V)$. The expected profit of the guaranteed loan to the bank is:

$$[2b] \quad (r-i-p) \cdot L - PD \cdot L(1-c-v) \quad [\text{Profit, guarantee}]$$

Note importantly that the bank has three choices in the presence of a credit guarantee facility: the bank can choose (i) not to make the loan, (ii) to make the loan without a guarantee, or (iii) to make the loan with a guarantee. The guarantee will only be used if the profit from granting the guaranteed loan is positive and if it is more profitable to do so than make a loan without a guarantee. From [2a] and [2b] we can see that this will be the case if

$$[3a] \quad (r-i-p) \geq PD \cdot (1-v-c) \quad [\text{guaranteed loan is profitable}]$$

$$PD > p/c \quad [\text{guarantee} > \text{no guarantee}]$$

If both conditions in [3a] are fulfilled the bank will choose to use the guarantee. One can see easily from the second condition that for a given price p and coverage c there is a minimum threshold of $PD^* = p/c$ above which loans are proposed to the guarantee facility. Thus only the loans with a higher probability of default are guaranteed.

Note that there are two cases in which the bank will use the guarantee. The first case is the case of additionality: The bank would make negative profits without the guarantee, but makes positive profits with the guarantee. In this case it only lends if there is a guarantee. In the second case there is no additionality in terms of lending: The bank would make the loan even

¹⁹ The cost of funds can be thought of as either the cost of deposits or the alternative return on riskless assets as well as the administrative costs of making the loan.

without the guarantee but prefers to use the guarantee because it is associated with higher expected profits:

[3b] $(r-i) < PD \cdot (1-v)$	[no guarantee is not profitable: loan is additional]
$(r-i) \geq PD \cdot (1-v)$	[no guarantee is profitable: loan is not additional]

From the conditions [3b] we can detect that (given market interest rates as well as the price and coverage of the guarantee) **guaranteed loans which are additional are the more risky ones**. They will have the highest probability of default (PD) and the lowest collateral value (v).

In Appendix 3 we examine in more detail the relation between the use of a credit guarantee facility by a bank and its additional impact on lending. We provide a case study which is based on current parameters of EPCGF (price, coverage) and market conditions for SME lending in Palestine (interest rates). Our analysis leads to two important practical insights. First, a lower price and higher coverage by the guarantee will increase the use of the guarantee scheme. However, the increase in usage comes partly from the fact that banks guarantee low-risk loans which they would have made anyway. These low-risk loans are non-additional. Second, if we compare the impact of a price reduction to that of an increase in the coverage ratio we find that the share of additional risky loans among the newly guaranteed loans is higher with an increase of coverage. This is the case because a higher coverage ratio is of more value for more risky loans, while a price reduction has the same impact on expected profit independent of the riskiness of the loan. Obviously, this advantage needs to be weighed against the severity of moral hazard problems that are probably increasing faster in higher coverage ratios than in higher prices.

4.2. Empirical evidence on the additionality of credit guarantee facilities

The key question with regard to the developmental impact of credit guarantee schemes is to which extent they are able to achieve additionality. That is to which extent credit guarantee schemes are able to facilitate loans that would not have been made in the absence of the scheme.

From a methodological perspective, the empirical assessment of the amount of additional loans is challenging. One would ideally want to compare the loan volume and loan allocation by partner banks which have access to the credit guarantee facility, to the counterfactual lending of the same banks without access to the credit guarantee scheme. Unfortunately, this counterfactual lending volume cannot be observed. The counterfactual lending volume without the credit guarantee facility is most accurately approximated with a randomized control trial:

groups of clients are randomly chosen to have access to such a scheme and another group of clients is not. A second methodology to approximate the counterfactual is to exploit thresholds in the eligibility criteria for guarantees (or better still exogenous changes in these criteria) comparing lending to clients on either side of the eligibility thresholds. Both approaches require detailed micro-level data as well as substantial research effort. It follows that the existing evidence on the additionality of partial credit guarantee facilities is very limited. Honohan (2008)²⁰ provides a good overview of previous attempts to measure additionality of credit guarantee facilities. Most efforts rely on a qualitative assessment of various stakeholders of different schemes, while some harder evidence exists relying on changes in variation of eligibility criteria. Results on the extent of additionality vary widely with estimates ranging from almost zero up to three quarters of all loans. Two studies that rely on a quantitative assessment based on changes of eligibility criteria come up with very different results: Zia (2008)²¹ finds almost no additionality of subsidized credit in Pakistan while Riding et al. (2007)²² estimate the additionality of a Canadian credit guarantee scheme to be as high as 75%. Looking at the impact of a Partial Credit Guarantee Fund (FOGAPE) in Chile Larrain and Quiroz (2006)²³ find that firms that are part of the scheme have a 14 % higher chance of getting a loan compared to firms not participating. Lelarge et al. (2008)²⁴ provide evidence from a French loan guarantee program that participating firms obtain additional financing from external sources at lower rates, but the researchers also suggest an increase in firms' risk and a substantial cost element to the scheme.

Very different estimates are not necessarily unreasonable given the diversity of facilities under study. Much more research is needed to make more general statements about the additionality of credit guarantees. It should be clear, however, that additionality will not only be reflected in the extra number of loans extended but credit guarantee facilities can also help to extend maturity, volume (i.e. help to extend the intensive margin of lending) or even the quality of loans made.

²⁰ Honohan, P., 2010. "Partial credit guarantees: Principles and practice", *Journal of Financial Stability*, Elsevier, vol. 6(1), pages 1-9, April.

²¹ Zia, B. H., 2008. "Export incentives, financial constraints, and the (mis)allocation of credit: Micro-level evidence from subsidized export loans", *Journal of Financial Economics*, Elsevier, vol. 87(2), pages 498-527, February.

²² Riding A., Madill J. and Haines G., 2007. "Incrementality of SME Loan Guarantees", *Journal of Small Business Economics*, Springer, vol. 29(1/2), pages. 47-61.

²³ Larraín, C. and Quiroz J., 2006. "Estudio para el Fondo de Garantía de Pequeños Empresarios.", Santiago: Banco Estado, mimeo.

²⁴ Lelarge, C., Sraer D. and Thesmar D., 2008. "Entrepreneurship and Credit Constraints: Evidence from a French Loan Guarantee Program", Presented at World Bank Conference May, 2008, mimeo.

5. The impact of EPCGF on SME lending in Palestine

In this section we provide a comprehensive assessment of the impact of EPCGF on SME lending in Palestine. We first assess the impact of EPCGF on the volume and allocation of SME credit. We then examine to what extent EPCGF has influenced SME lending methods and available products at partner banks.

5.1. Credit volume

In section 3 we show that between 2006:Q3 and 2014:Q1 EPCGF has guaranteed 2,776 SME loans with a total loan volume of 97.5 Mio. USD. In this section we try to assess to what extent this volume of guaranteed SME loans is a good estimate for the impact of EPCGF on the volume of SME lending in Palestine. This assessment is challenging because it is possible that the guaranteed volume can either overestimate or even underestimate the credit volume impact of the facility.

On the one hand, as illustrated in section 4.1 it is very likely that some of the loans guaranteed by EPCGF would have been made even without the guarantee. These loans should be considered as non-additional, which implies that the guaranteed volume of loans overestimates the facilities additional impact on lending. Our analysis above suggests that non-additional loans are most likely to be those guaranteed loans with the lowest probability of defaults and highest collateral values.²⁵ However, our analysis ignored internal credit policies and processes which may encourage partner banks to use guarantees, even if the expected profit on the loan would be higher without a guarantee. Our discussions with partner banks of EPCGF showed that credit policies and procedures vary strongly across banks and do influence the use of guarantees.

On the other hand, it is possible that EPCGF has exerted a demonstration effect for at least some partner banks. Our discussions with EPCGF and its partner banks revealed that some banks were initially reluctant to lend to small businesses at all. For these banks, EPCGF through its guarantee and provision of know-how may have reduced the costs for entering the SME lending segment. Other partner banks are reluctant to lend to new clients. For these banks, EPCGF reduces the cost of establishing a long-term lending relationship. In both cases it is reasonable to argue that even loans which today are not guaranteed by EPCGF would not have been made (at least by this bank) if EPCGF had not helped to kick start their SME lending or particular lending relationships

²⁵ Our example in appendix 3 suggests e.g. that given the cost and coverage of EPCGF, loans with a probability of default lower than 5% are likely to be non-additional.

The discussion above suggests that the use of EPCGF guarantees and their additionality on SME lending volume will differ strongly across partner banks depending on (i) the historical role of SME lending in its business model, (ii) the structure of its SME clientele, and (iii) internal credit policies and procedures. Table 3 displays the volume of EPCGF guaranteed loans per year for each bank. Using data obtained by the partner banks we compare this volume to the total volume of SME lending which would have been eligible for EPCGF guarantees. While the precision of the data varies across partner banks, the table shows a clear pattern: The guarantee is only of marginal importance for the two largest banks in Palestine (AB, BoP). By contrast it plays an important role in SME lending for the mid-sized Jordanian banks (CAB, BoJ, JAB, HBTF) as well as for the Islamic finance provider AIB.

Discussions with EPCGF and partner banks suggest that there are several reasons for the different use of guarantees across banks, which also are very informative with respect to the additionality of the facility. In the following we provide a qualitative assessment of the additionality of EPCGF based on these discussions.²⁶

The market leader **Arab Bank** can be viewed as a very conservative lender which due to its market position can afford to pick the most creditworthy business clients. Representatives of the bank reported that due to their size they can also bear the credit risk on individual loans and so rarely opt to apply for guarantees. When they do so the loans are exceptionally risky compared to the rest of their portfolio.²⁷ Thus Arab Bank seems to be a bank for which the use of the facility is very low, but for which those loans which are guaranteed are very likely to be ones they would otherwise not make.

The second largest bank, **Bank of Palestine** only became a partner bank of EPCGF in 2010. Like Arab Bank the use of EPCGF guarantees has so far been very limited compared to their eligible portfolio. Discussions with the bank revealed that in the past the credit assessment for SME loans relied heavily on available collateral. They only seek a guarantee from EPCGF if their minimum collateral requirement (130% of the total loan volume) is not met. Thus those BoP loans which are guaranteed by EPCGF are very likely to be additional. Discussions with BoP revealed that the bank is currently increasing their focus on SME lending and revising their corresponding credit assessment process. As a consequence the volume of guaranteed loans by EPCGF has increased strongly in 2014.

The three Jordanian banks **Bank of Jordan**, **Jordan Ahli Bank** and **Housing Bank** use EPCGF guarantees²⁸ for the majority of their SME lending. Our analysis in section 4 would suggest that such high levels of guarantee use might go hand in hand with a large share of low-risk, non-additional guaranteed loans. Indeed, EPCGF data shows that all three of these banks have a

²⁶ A list of our meetings with EPCGF and Partner Banks is provided in the appendix.

²⁷ Indeed, EPCGF often declines guarantee applications from AB after due diligence.

²⁸ Or alternatively OPIC guarantees.

significantly lower claims ratio (volume of guarantee claims / volume of guaranteed loans) than the comparable Cairo Amman Bank (discussed in the next paragraph). It therefore seems reasonable to assume that many of the loans guaranteed by EPCGF would generate positive expected profits even without a guarantee. However, discussions with EPCGF and bank representatives revealed that there are important bank-specific organizational features which foster the use of credit guarantees. In particular, bank credit procedures specify that loans which are guaranteed may be approved by regional management in Ramallah, while non-guaranteed loans must be approved by the headquarters in Amman. As Palestinian loan applications are often declined at headquarters these banks have a strong incentive to use guarantees, even for loans that are viewed as profitable without a guarantee. The fact that many of these loans would be turned down by headquarters implies that most of EPCGF guaranteed loans are additional, despite the fact that the guarantee is not needed to make them profitable.

Cairo Amman Bank (CAB) and **Arab Islamic Bank (AIB)** also use EPCGF heavily for their SME lending. Discussions with representatives of both banks suggest that EPCGF (and other guarantee facilities) have helped these banks develop their lending to the SME market segment. In Palestine, CAB focusses primarily on large corporate lending and retail lending. SME lending is not of major strategic importance, but the bank is still interested in developing their activities in this segment. As it is a minor and developing business segment, CAB is very reluctant to lend to SME without third-party guarantees – especially to new clients. Prior to 2007 AIB had a policy of not extending financial facilities below 100,000 USD. The availability of third-party guarantees (and corresponding know-how) through EPCGF motivated this bank to go down-market to the SME segment. For both CAB and AIB it is thus reasonable to assume that a substantial share of their overall SME portfolios would not exist without credit guarantee facilities.

The **National Bank (TNB)**²⁹ is one of the most recent partner banks of EPCGF and (so far) uses guarantees only sparsely for its SME lending. TNB is the only partner bank which indicated that it purposely uses EPCGF guarantees to mitigate portfolio risk. Representatives of the bank revealed that they have a concentration of SME loans in sectors which are strongly exposed to systematic risk. Many of their SME loans are to taxi drivers who face the risk that their income deteriorates strongly when the political situation in Palestine escalates. One strategy of the bank to hedge the concentrated credit risk from taxi loans is to use EPCGF guarantees. It is very difficult to assess the degree of additionality of EPCGF when it is used to mitigate concentration risk rather than individual loan risk. But we think it is safe to assume that EPCGF guarantees do encourage TNB to expand their lending to the risky sectors more than they would do otherwise.

²⁹ Formerly the Al-Rafah Microfinance Bank

Overall, our qualitative assessment suggests that EPCGF does have a significant impact on the volume of SME lending by its partner banks. That said, we think it is equally important to note how diverse the impact of guarantees can be. The important lesson from this assessment is that the trade-off between the use and the additionality of a credit guarantee scheme will depend strongly on its partner banks. **It is therefore very important for the facility to understand the business model of the bank (i.e. the strategic importance of SME lending), as well as the credit policies and procedures within each bank.**

Table 3. EPCGF share of SME lending for each bank by year

Bank name	First EPCGF loan	Volume of new EPCGF loans, in Mio. USD (% of the banks' eligible SME loans guaranteed by EPCGF)						
		2007	2008	2009	2010	2011	2012	2013
Cairo Amman Bank (CAB)	2006/09	1.1 (58%)	0.6 (41%)	1.8 (36%)	1.8 (39%)	3.0 (54%)	2.3 (38%)	1.8 (43%)
Bank of Jordan (BoJ)	2006/09	2.3 (88%)	3.6 (65%)	5.3 (64%)	4.5 (78%)	4.5 (76%)	1.9 (67%)	2.4 (80%)
Arab Islamic Bank (AIB)	2007/07		1.7 (n/a)	1.7 (n/a)	2.6 (n/a)	3.0 (n/a)	3.2 (n/a)	2.7 (0.34*)
Jordan Ahli Bank (JAB)	2007/08		2.4 (n/a)	1.7 (n/a)	1.6 (n/a)	2.0 (66%)	3.5 (41%)	4.7 (51%)
Housing Bank (HBTF)	2008/02		3.6 (n/a)	2.9 (n/a)	2.1 (n/a)	4.1 (n/a)	1.9 (n/a)	1.5 (0.8*)
Arab Bank (AB)	2010/08					0.0 (0.00)	0.0 (0.00)	0.1 (0.00)
Bank of Palestine (BoP)	2010/05					0.0 (1%)	0.2 (2%)	0.7 (7%)
The National Bank (TNB)	2010/06					1.3 (n/a)	1.3 (n/a)	1.5 (n/a)

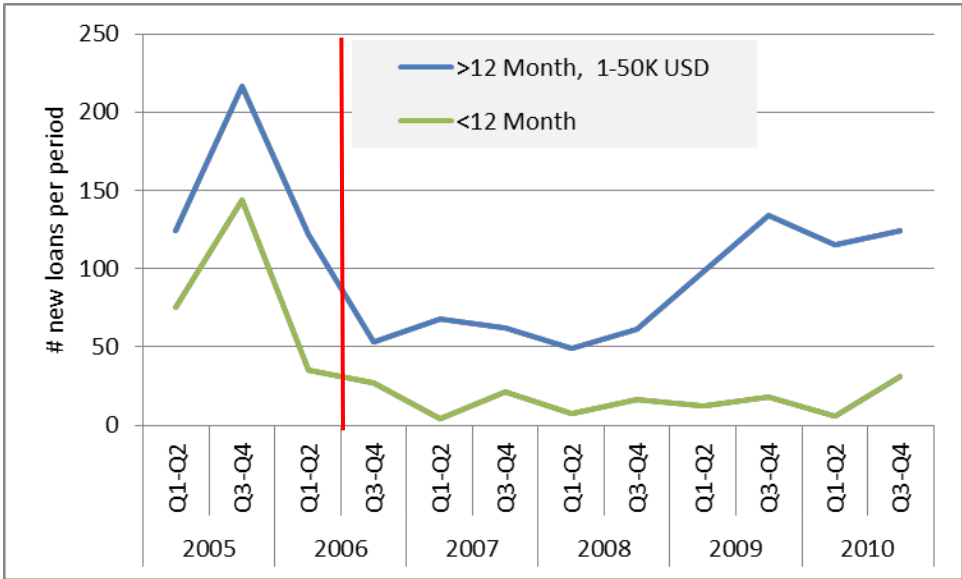
Note: EPCGF eligible loans are SME loans with a maturity exceeding 1 year and a loan volume of 0-50K USD (0-100K USD from 2009 onwards. The most recent increase to 0-200K USD is not yet reflected in the numbers). The share of EPCGF eligible loans which are guaranteed by EPCGF at each bank are estimated based on data provided by the banks on extended loans per period (CAB, HBTF, BOP), or end-of-period outstanding loan balances (BOJ, JAB). For some banks loans by size are available (CAB, HBTF, BOP, AB), for others total SME loans are used for comparison (BOJ, JAB). *For HBTF data are available only for the entire period of 2005-2013. For AIB we compare end of 2013 outstanding balances for EPCGF (3.8 Mio. USD) and total SME lending (11 Mio. USD). Sources: EPCGF, Partner Banks.

Case Study: Assessing the additionality of EPCGF at Cairo Amman Bank

To explore the magnitude of the impact of EPCGF on SME loan volume we complement our qualitative analysis with a quantitative exercise using data from Cairo Amman Bank. We focus on CAB as (i) it is an early adopter of EPCGF, (ii) it uses the facility for a substantial share of its SME lending, and (iii) the data provided to us by CAB are very precise. We conduct two thought experiments with the CAB data to examine to what extent EPCGF promotes SME lending by CAB.

The first thought experiment is that once CAB becomes a partner bank of EPCGF it should increase lending more strongly for loans that are eligible for EPCGF guarantees, than for loans that are not eligible. CAB became a partner bank of EPCGF in August 2006 and received the first guarantee in September 2006. At this time (and until end of 2008) only SME loans with a maturity exceeding 1 year and a loan volume below 50,000 USD were eligible for EPCGF guarantees. In our analysis we therefore examine the change in lending volume in the pre-EPCGF period (2005:Q1 – 2006:Q2) to the initial EPCGF period (2006:Q3 – 2008) for the *treatment group* of eligible loans (>1 year, <50K USD). We benchmark the change in lending volume for eligible loans against a “control group” of non-eligible loans, which should not be affected by EPCGF. As a control group for this thought experiment we use corporate loans with a maturity of less than 12 months. Our reasoning is that these loans are likely to be similar in terms of purpose (trading) to the eligible loans in the period 2007-2008. As a consequence any change in economic conditions which affects trade, such as the escalation of the conflict with Israel in 2006 and 2007, is likely to affect both types of loans similarly.

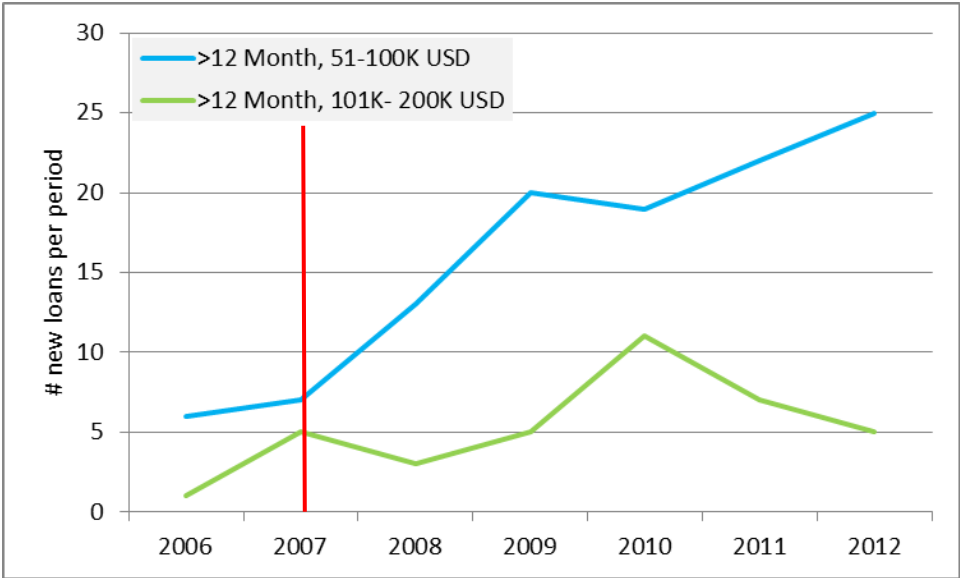
Figure 5. The EPCGF partnership and SME lending by Cairo Amman Bank



Note: The red line indicates the date at which CAB became a partner bank. Source: Cairo Amman Bank

Figure 5 provides indicative evidence that EPCGF may well have spurred SME lending by Cairo Amman bank. Both eligible and non-eligible loans experienced a sharp decrease in the first half of 2006 due to the worsening economic and political conditions. With the improvement of economic conditions lending recovered from 2008 onwards. Importantly, Figure 5 shows a differential development of lending for eligible vs. non-eligible loans following the initiation of EPCGF (marked by the red vertical line). First, lending for EPCGF eligible loans stabilized in the second half of 2006 and 2007 while that of non-eligible loans continued to decrease. Second, the recovery of lending from 2008 onwards seems to have been much stronger for loans that were eligible for EPCGF than for loans that were not.

Figure 6. Increase of the EPCGF loan threshold and SME lending by Cairo Amman Bank



Note: The red line indicates the date at which the loan threshold for EPCGF guarantees was increased from 50,000 USD to 100,000 USD. Source: Cairo Amman Bank

Our second thought experiment exploits the increase in the volume threshold for EPCGF eligible loans in 2009. Between 2006 and end 2008 the maximum loan eligible for an EPCGF guarantee was 50,000 USD. From 2009:Q1 this threshold was raised to 100,000 USD, where it remained until 2013.³⁰ If EPCGF spurs SME lending by Cairo Amman Bank we should see a significant increase in loans between 50K-100K USD from 2009 onwards. In our analysis we therefore examine the change in lending volume from the 2006-2008 period to the period 2009-2012 for the *treatment group* of newly eligible loans (>1 year, 50K-100K USD). We benchmark the change

³⁰ This increase in eligible loan size was one recommendation of the KfW mid-term evaluation of EPCGF.

in lending volume for newly eligible loans against a *control group* of non-eligible loans, which should not be affected by EPCGF. As a control group for this second analysis experiment we use corporate loans with a maturity of more than 12 months and a loan volume between 100K-200K USD. Our reasoning is that these loans are likely to be similar in terms of purpose and borrowers to the newly eligible loans. As a consequence, the improvement in stabilization of political and economic conditions from 2008 onwards is likely to affect both types of loans similarly.

Figure 6 again provides indicative evidence that EPCGF spurs SME lending by Cairo Amman bank. From 2008 onwards both the newly eligible loans (50K-100K USD) and the still non-eligible loans (100K-200K) experienced an increase. However, importantly Figure 6 suggests that the increase was much stronger and steadier for the newly eligible loans than for the non-eligible loans.

5.2. Credit allocation

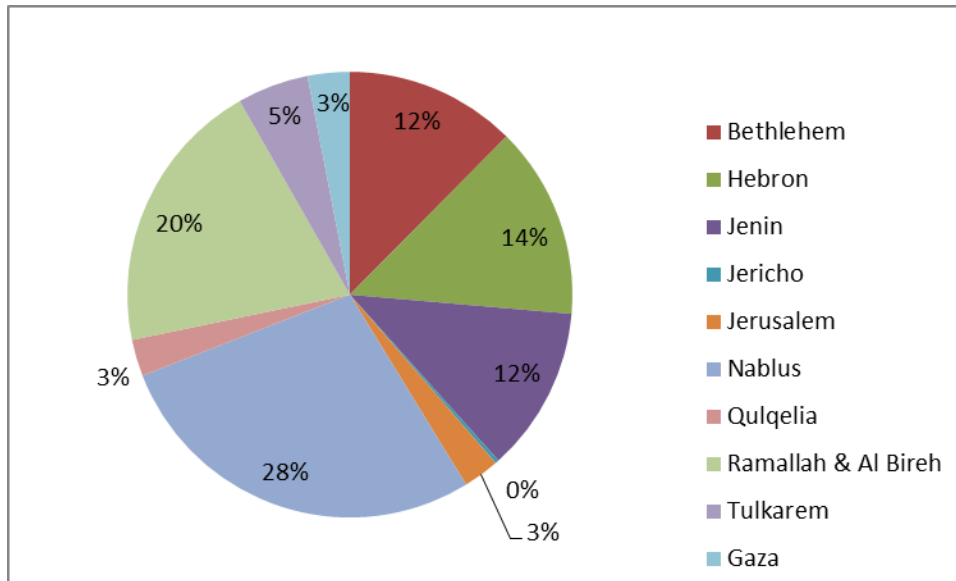
Our qualitative discussion of the use of EPCGF guarantees suggests that the impact of EPCGF on the allocation of credit is likely to differ strongly by partner banks. Some partner banks use EPCGF to mitigate the risk of lending to new SME clients (CAB, AIB). Other partner banks use EPCGF to mitigate the risk of borrowers which cannot provide collateral and/or have a high default risk (BoP, TNB). By contrast, several banks use EPCGF guarantees broadly due to internal credit policies (BoJ, JAB, HBTF). In this section we examine the distribution of EPCGF guaranteed loans according to three criteria: the sector of the borrower, the location of the borrower, and whether the borrower is a new client to the bank or not.

Figure 7 documents the geographic and sectoral composition of EPCGF guaranteed loans. Figure 7a shows that credit allocation by location largely corresponds to the distribution of business establishments in the West Bank. The economic centers of Hebron and Bethlehem (in the south), Ramallah (in the center) and Nablus and Jenin (in the north) account for the majority of guaranteed loans. The share of EPCGF loans guaranteed in Gaza is very small (3%) both compared to the relative number of business establishments (roughly 1/3 are in Gaza), and compared to the share of aggregate bank lending (roughly 10% in Gaza). This low level of activity of EPCGF in Gaza can be attributed to the low level of SME lending by partner banks in that region. Indeed, only the Bank of Palestine seems to have notable SME lending operations in Gaza. With this partner bank EPCGF has cooperated, e.g. to support financing of fishermen.

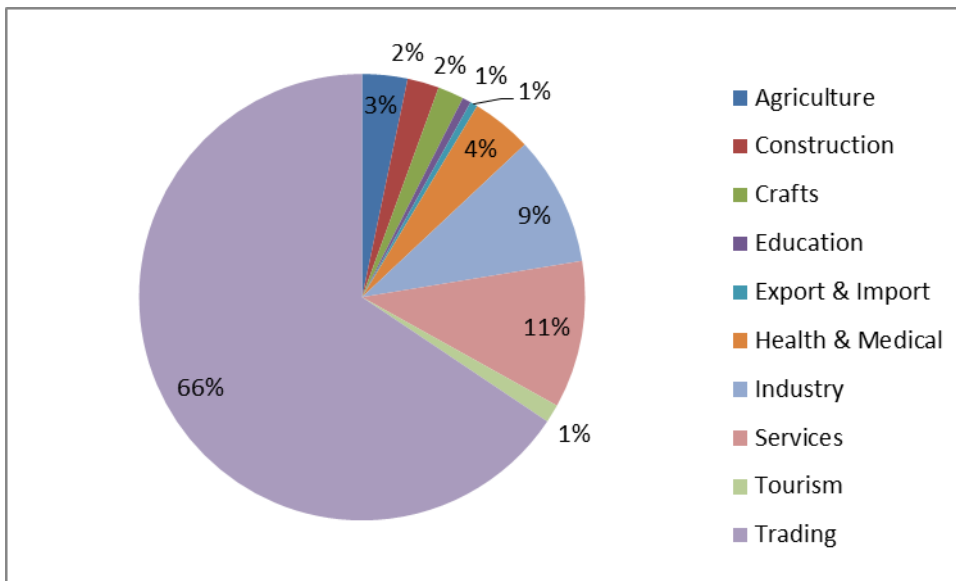
Figure 7b shows that the allocation of EPCGF guarantees by sector mirrors the dominance of trade and other services in the Palestinian economy. More than two-thirds of all EPCGF guaranteed loans are to retail or wholesale (import/export) traders, while another 15% are in other service sectors (including health services). Thus less than 15% of all EPCGF loans are allocated to manufacturing or agricultural sectors.

Figure 7 Distribution of EPCGF guaranteed loans (% of volume, 2006-2013)

Panel a. By location of borrower



Panel b. By sector of economic activity



Source: EPCGF

Figure 7 suggests that EPCGF only marginally contributes to broadening the sectoral and geographical allocation of SME credit in Palestine. However, in the main economic sectors and locations EPCGF does seem to expand the frontier of firms which have access to bank credit. Some partner banks (e.g. CAB) specifically use EPCGF loans to mitigate credit risk for first-time borrowers. Indeed, it is very likely that third-party guarantees are especially important for

lending to new clients. In Palestine there is a well-functioning credit registry which provides detailed information on the credit history for businesses which have borrowed before or which have used bank cheques to pay their suppliers.³¹ All partner banks reported that they rely heavily on the credit registry information for their credit analysis. The reliance on credit registry information implies, however, that those businesses without a credit history may find it particularly difficult to get credit. Data provided by EPCGF suggests that the facility's guarantees are very often used for first-time borrowers. To date 57% of all loans guaranteed by EPCGF were to borrowers without a previous credit history.

5.3. Credit products and credit analysis

The previous two sections suggest that EPCGF has boosted SME lending in Palestine, and especially to first-time borrowers in the main economic sectors and locations. It is likely, however, that a credit guarantee facility like EPCGF has broader impact on the credit products offered by partner banks to SME as well as their internal credit policies and procedures for SME loans.

Credit products

In terms of credit products EPCGF may have contributed to lengthening the maturity of loans available to SME in Palestine. EPCGF does not provide guarantees for short-term working capital credit facilities (e.g. overdrafts or loans with maturity less than 12 months), which is the predominant type of loan offered to the trading sector. Instead, as shown in Figure 8, EPCGF promotes medium-term and long-term financing to SME: Nearly 60% of the loans guaranteed by EPCGF have a maturity of 2-5 years.

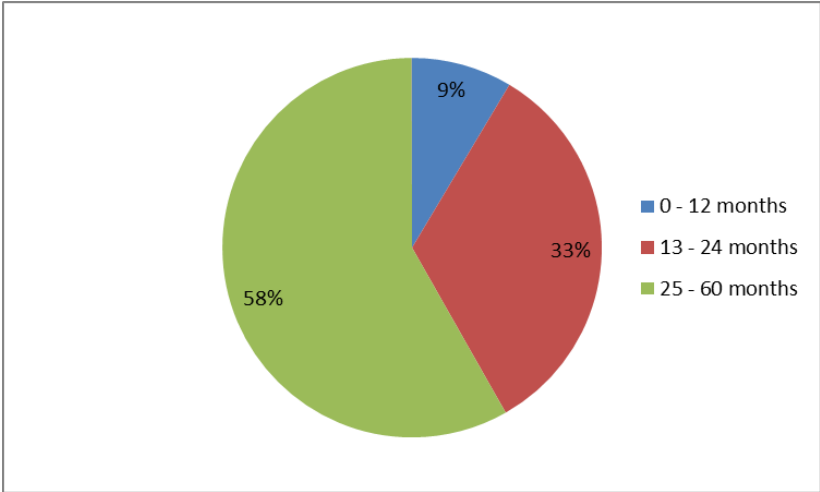
The provision of guarantees for longer term working capital loans has spurred some partner banks to provide such loans to their borrowers. Thus, EPCGF has arguably expanded the menu of loan maturities available to SME in Palestine. However, it is not clear whether the promotion of medium-term and long-term loans to borrowers which are predominantly active in retail and wholesale trading makes sense from the perspective of financial sector development. The promotion of long-term lending to SME is typically motivated by the assumption that manufacturing firms rely on longer-term credit facilities. Businesses in the trading and service sectors by contrast typically have turnover phases of well below one year. It is questionable whether a multi-year loan is more adequate for such borrowers than for instance a repeated one-year (or 6-month) credit line. For example, one partner bank reported that they were considering providing finance to small-scale poultry farmers who have a turnover cycle of 3-4

³¹ The public credit registry is operated by the Palestinian Monetary Authority to which banks report outstanding debt on a client-by-clients basis each month. Banks have online access to the credit history of prospective borrowers.

months. Such borrowers could (at the moment) only be guaranteed by EPCGF if they received loans of at least 12 months, while a repeated 4-month loan would more adequately suit their financing needs.

Based on these considerations we argue that **while partial credit guarantee schemes should clearly define their target group of enterprises (sector, size location), it seems unreasonable and unnecessary to limit the type of loans (contract type, maturity, collateralization) to this target group that are eligible for coverage.**

Figure 8 Distribution of EPCGF guaranteed loans by maturity (% of volume)



Source: EPCGF

Credit analysis

As described in section 3, EPCGF has developed a rigorous and standardized due diligence process for guarantee applications. This process includes a comprehensive assessment of the credit risk of each loan based on best practice in credit analysis. The assessment relies on an assessment of cash-flows, financial statement ratios, credit history of the borrower, qualitative information on the business, available collateral and third-party guarantors (see appendix 5 for details). This comprehensive credit assessment by EPCGF has arguably influenced the credit assessment processes for SME lending especially at the domestic partner banks. The Jordanian banks all reported that their credit assessment processes for corporate lending (and thus also SME lending) are determined by their headquarters in Amman and are largely compatible with the EPCGF assessment criteria. By contrast, Arab Islamic Bank reported that their credit assessment process for SME lending is based on the EPCGF framework. Also, Bank of Palestine reported that they are currently revising their credit assessment procedures for SME lending and that the EPCGF framework is contributing to this revision.

6. Conclusion

A precise quantitative estimate of the additionality of EPCGF with respect to SME lending in Palestine is hardly feasible. The non-random assignment of the credit guarantee facility to the target group and the limited data available from the partner banks do not permit a reliable estimate of the counterfactual lending volume of these banks without EPCGF. Nevertheless, based on the available data and the discussions held with partner banks we conclude that EPCGF has likely had a major impact on SME lending in Palestine. First, a sizeable share of loans extended by partner banks with guarantees from the facility are additional in the sense that they would not have been made without a guarantee. Hereby, the extent of additionality and the use of credit guarantee facilities will depend very much on the client structure, as well as the internal credit processes of the partner banks. EPCGF's partner banks have very different motives for using guarantees and reasons to take up guarantees include e.g. operational, risk-preference or risk-diversification issues. EPCGF has in all likelihood improved the quality of credit assessment processes and the know-how of the corresponding staff and management at its partner banks.

APPENDIX

Appendix 1. Map of the Palestinian Territories



Appendix 2: Economic Establishments in Palestine

Panel A. By legal status and region

Governorate	Total	Legal Status									
		Not Stated	Foreign.	Assoc. & Charities	Cooperative	Public Shareholding Co.	Shareholding Co.	Limited Part.	General Partnership Co.	Defacto Co.	Sole Proprietor.
Palestine	126,798	105	53	3,258	293	547	2,877	574	2,640	8,171	108,280
West Bank	84,547	102	50	2,001	266	405	2,040	317	1,981	5,467	71,918
Jenin	10,869	7	1	225	20	30	98	20	171	546	9,751
Tubas	1,508	4	-	40	7	12	4	3	40	58	1,340
Tulkarm	6,538	13	4	127	18	19	58	30	99	459	5,711
Nablus	14,710	9	10	317	47	82	536	62	367	1,264	12,016
Qalqilya	3,919	2	-	82	8	34	36	6	162	162	3,427
Salfit	2,337	-	-	60	20	9	9	9	36	19	2,175
Ramallah & Al-Bireh	12,604	17	17	433	44	101	733	66	251	839	10,103
Jericho & Al-Aghwar	1,226	3	1	58	24	8	20	8	51	80	973
Jerusalem	4,565	-	1	79	11	9	15	19	28	114	4,289
Bethlehem	6,929	8	11	262	13	36	151	3	216	499	5,730
Hebron	19,342	39	5	318	54	65	380	91	560	1,427	16,403
Gaza Strip	42,251	3	3	1,257	27	142	837	257	659	2,704	36,362

Panel B. By sector and size

ISIC	Economic Activity	Employment Size Group						Total
		+100	99-50	49-20	19-10	9-5	4-1	
B	Mining and quarrying	-	2	5	32	128	109	276
C	Manufacturing	27	54	335	935	2,700	13,373	17,424
D	Electricity, gas, steam and air conditioning supply	7	3	5	4	9	33	61
E	Water supply; sewerage, waste management and remediation activities	-	-	3	7	37	394	441
F	Construction	7	7	42	94	152	322	624
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	5	20	153	537	3,015	69,882	73,612
H	Transportation and storage	2	9	51	115	276	547	1,000
I	Accommodation and food service activities	6	11	73	143	585	5,978	6,796
J	Information and communication	12	10	42	89	162	629	944
K	Financial and insurance activities	13	10	53	143	140	735	1,094
L	Real estate activities	1	1	4	5	27	291	329
M	Professional, scientific and technical activities	2	6	35	85	421	3,380	3,929
N	Administrative and support service activities	4	1	8	23	146	1,758	1,940
O	Public administration and defence; compulsory social security	-	-	3	2	3	21	29
P	Education	17	45	172	317	988	1,573	3,112
Q	Human health and social work activities	26	22	68	129	283	4,558	5,086
R	Arts, entertainment and recreation	-	2	21	75	250	1,611	1,959
S	Other service activities	8	23	98	244	650	12,015	13,038
T	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	-	-	-	-	-	6	6
U	Activities of extraterritorial organizations and bodies	-	1	1	4	5	4	15
	Not stated	-	-	-	-	-	1	15
	Total	137	227	1,172	2,983	9,977	117,234	131,730

Appendix 2B: Banks operating in Palestine, 2013

	Total Assets	Credit Facilities	Customer Deposits	Profits	Branches	ATM's	Employees
Arab Bank	3'120	1'203	2'730	58.9	26	83	846
Bank of Palestine	2'348	1'103	1'745	40.4	48	102	1'212
Cairo Amman Bank	796	268	621	7.4	21	49	572
Bank of Jordan	592	163	499	4.9	16	37	345
Housing Bank	581	215	426	6.5	12	31	241
Quds Bank	531	287	420	4.7	22	49	468
The National Bank	529	228	302	3.6	7	22	247
Palestine Islamic Bank	502	268	399	6.5	16	30	397
Arab Islamic Bank	469	191	351	3.5	10	33	264
Palestine Investment Bank	288	99	182	1.9	13	18	218
Jordan Ahli Bank	264	111	180	3.6	5	8	134
Palestine Commercial Bank	237	99	156	0.1	7	12	165
Jordan Commercial Bank	156	48	73	1.3	4	5	76
Egyptian Arab Land bank	148	84	84	0	6	5	134
Jordan Kuwait Bank	116	13	54	1.0	2	3	32
Union Bank	74	10	32	0.3	1	1	14
HSBC	25	6	13	-1.7	1	0	14
Total	10'776	4'396	8'267	143	217	488	5'379

Source: Association of Banks in Palestine

Appendix 3. Simulating the additionality of a credit guarantee facility

To illustrate the trade-off between the use of a credit guarantee facility by a bank and its additional impact on lending we present an example which is based on current parameters of EPCGF and SME lending in Palestine. We assume that the lending rate $r=7\%$ and the cost of funds (including administrative costs) is $f=2\%$. We assume a loan for 2 years which is repaid in full at maturity. We assume that the credit guarantee costs $p=1.5\%$ p.a. (1% upfront fee and 1% per year) and covers $c=0.6$ of the principal for defaulted loans.

Given the above parameters the guarantee is only preferred to the no guarantee for loans with a default probability exceeding 2.5% ($PD > .015/0.6$). In white are loans which are made without a guarantee. Let us now consider loans with a probability exceeding 2.5% and examine which of these loans are profitable with a guarantee and without a guarantee depending on the collateral value v . Table 3a calculates the expected profit (in % of the loan volume) for non-guaranteed loans. In yellow we highlight all combinations of (PD, v) which have a positive expected payoff and thus which would be made even without a guarantee. These are the non-additional loans. In green we highlight all loans which have a negative expected profit without a guarantee, but a positive expected profit with a guarantee. These are the additional loans. In red we highlight loans which would not be made even with a guarantee. Table 3a shows that among the guaranteed loans, the loans with a low probability of default and a higher collateral value are not additional, while the more risky loans are additional.

Let us now consider the impact of reducing the price of the guarantee, e.g. to $p=1\%$. Replicating our analysis in Table 3b we see that the price reduction of the guarantee has two effects. The positive effect is that some risky loans which would have not been made before under the guarantee are now made (e.g. $PD=0.2, v=0.2$). The negative effect is that many low risk loans, which the bank would have extended without a guarantee are now made with a guarantee (all loans with PD between 1.7% and 2.5%).

Finally, let us now consider the impact of increasing the coverage of the guarantee, e.g. to $c=0.9$. This change has the same “negative” effect as the price reduction in that more low-risk, non-additional loans are guaranteed (those with PD between 1.7% and 2.5%). However, compared to the price reduction it has a stronger “positive” impact, in that more additional risky loans are made. (e.g. $PD=0.2, v=0.1$). This is the case because a higher coverage is of more value to more risky loans, while a price reduction has the same impact on expected profit independent of the loan risk.

The above analysis has three important practical implications. First, it should be expected that a share of loans guaranteed by a credit guarantee facility is non-additional. **Additional loans are more likely to be riskier in terms of default probability and low collateral value to the**

bank. Second, while a lower price and higher coverage of a guarantee will increase the use of the guarantee, a large share of the newly guaranteed loans will be low-risk, non-additional loans. Third, compared to a price reduction a coverage increase seems to increase the share of additional risky loans.

Table 3. Additional vs. non-additional guaranteed loans

Panel A. $r=7\%$, $i=2\%$, $p=1.5\%$, $c=0.6$

PD	v = value of collateral			
	0.1	0.2	0.3	0.40
0.017	0.03	0.04	0.04	0.04
0.025	0.03	0.03	0.03	0.04
0.05	0.01	0.01	0.02	0.02
0.075	-0.02	-0.01	0.00	0.01
0.1	-0.04	-0.03	-0.02	-0.01
0.15	-0.09	-0.07	-0.06	-0.04
0.2	-0.13	-0.11	-0.09	-0.07

Panel B. $r=7\%$, $i=2\%$, $p=1\%$, $c=0.6$

PD	v = value of collateral			
	0.1	0.2	0.3	0.40
0.017	0.03	0.04	0.04	0.04
0.025	0.03	0.03	0.03	0.04
0.05	0.01	0.01	0.02	0.02
0.075	-0.02	-0.01	0.00	0.01
0.1	-0.04	-0.03	-0.02	-0.01
0.15	-0.09	-0.07	-0.06	-0.04
0.2	-0.13	-0.11	-0.09	-0.07

Panel C. $r=7\%$, $i=2\%$, $p=1.5\%$, $c=0.9$

PD	v = value of collateral			
	0.1	0.2	0.3	0.40
0.017	0.03	0.04	0.04	0.04
0.025	0.03	0.03	0.03	0.04
0.05	0.01	0.01	0.02	0.02
0.075	-0.02	-0.01	0.00	0.01
0.1	-0.04	-0.03	-0.02	-0.01
0.15	-0.09	-0.07	-0.06	-0.04
0.2	-0.13	-0.11	-0.09	-0.07

Note. The tables calculate the expected profit of non-guaranteed loans. We show only loans for which a guarantee is preferred to no guarantee ($PD > p/c$). In yellow we highlight all combinations of (PD, v) which have a positive expected payoff and thus non-additional loans which would be made even without a guarantee. In green we highlight all additional loans, i.e. those which have a negative expected profit without a guarantee, but a positive expected profit with a guarantee. In white are loans which are made without a guarantee. In red we highlight loans which would not be made even with a guarantee.

Appendix 4. List of Meetings (in alphabetical order)

Partner	Contact Person
Arab Bank	Mr. Salah Hidmi – Vice President – Business Department Mr. Mohamad Shawar – SME Credit Officer
Arab Islamic Bank	Mr. Sami Al Saidi - General Manager Ms. Beesan Saleh – SME Credit Officer
Bank of Jordan	Mr. Hatem Foqaha – Deputy Regional Manager Mr. Qasem Nakhleh – Credit Department Mr. Mas’ad Yassin – SME Credit Officer Mr. Raed Al Masri – Business Development Manager – North Area
Bank of Palestine	Mrs. Suzane Khoury – Assistant General Manager for Credit Mr. Shaker Safadi – Head of SME Unit Mr. Ahmad Salahat – Credit Officer Mr. Mahmoud Shawa – Head of Risk
Cairo Amman Bank	Mr. Joseph Nesnas – Regional Manager/ Assistant GM Mr. Firas Najjab – Deputy Regional Manager for Credit Mrs. Lama Al Malki – Head of SME Unit Mr. Amjad Khalaf – Credit Officer
EPCGF	Hanna Sahar, GM
German Representative Office / Ramallah	Christiane Hieronymus
Housing Bank for Trade& Finance	Mr. Ibrahim Mulhim – Deputy Regional Manager Mr. Hussein Shtayeh – Credit Manager Mr. Ahmad Nour – Relationship Manager Mrs. Carol Kamel - Relationship Manager Mr. Ghasoub Aqel – SME Credit Officer
Jordan Ahli Bank	Mr. Moussa Kumkam – Regional Manager Mr. Tareq Al Khatib – Credit Manager Mr. Wisam Saleh – SME Credit Officer Mr. Tareq Sawafta – Credit Officer Mr. Mohamad Dahadha – Member of Credit Committee
KfW Office Ramallah	Mr. Thomas Eisenbach Ms. Fida Abdel-Latif
The National Bank	Mr. Mohammad Salameh – Executive Manager for Credit Mr. Jamal Moussa – Direct Sale Manager Mr. Haitham Al Taher - SME Credit Officer Mr. Ref’at Hmedan - Credit Officer

Appendix 5. Risk Rating Model for EPCGF guarantee applications

EPCGF		RISK RATING	
NAME:			
BANK / BRANCH:E6			
QUALITATIVE CRITERIA			55%
1	MANAGEMENT	pts	Max.
1.1	No. of years in business	7 Years	7
			10
1.2	Reputation	Trade References	4
		Perceived Personality	1
		Honesty	1
		Good quality products and services	1
		Branding	2
	Reputation Score		9
1.3	Management Qualification	Relevant education to the business	3
		Proper Administration, organization	1
		Bookkeeping	1
		Image	1
		Forward looking/or business plan	1
	Qualification Score		7
TOTAL			23
			32
2	MARKET		
2.1	Sector	Trade	6
2.2	Competition / Market share	Strong Competition	4
2.3	Sales Concentration	High Concentration	5
2.4	Suppliers Concentration	Minimal Dependence	4
2.5	Product	Diversification	1
		Uniqueness	1
		Availability	1
		Quality	1
		Customer Service	1
	Product Score		5
2.6	Geography	Low Risk	5
2.7	Location - If Relevant	Excellent	6
TOTAL			35
			43
3	BANK HISTORY		
3.1	Bank History(Relationship)	Six months and above	10
3.2	Borrowing History	Satisfactory	15
TOTAL			25
			25
QUALITATIVE CRITERIA / TOTAL			46
			55

QUANTITATIVE CRITERIA					30%
1	EBITDA/Total debt in the year	Low (Below 120%)	8		12
2	Current Ratio	High (Above 1.5)	4		4
3	Debt/ Equity	Average	5		7
4	Receivables	Satisfactory	3		4
5	Inventory Turnover-If Relevant	High	3	Relevant	3
QUANTITATIVE CRITERIA / TOTAL			23		30
PURPOSE OF THE LOAN					5%
Purpose of the Loan		Fixed Assets	3		5
PURPOSE OF THE LOAN / TOTAL			3		5
COLLATERAL					10%
1	PERSONAL GUARANTEES			10 POINTS MAX.	
	* Transferred salaries	No Personal Guarantees	0		10
	* Salaried but not transferred	No Personal Guarantees	0		7
	* Guarantor is an existing client of the bank (ie, Merchant)		7		7
	* Guarantor is nonexisting customer of the bank (ie, Merchant)		3		3
2	MOVEABLE ASSETS	Vehicles	0		10
3	LAND	Clean title mortgage	0		10
		Parceled land	0		6
		Irrevocable power of attorney	0		2
4	SHARES IN A PLC COMPANY	Traded	0		10
		Non traded	0		2
5	CASH AND CASH EQUIVALENT		0		10
COLLATERAL / TOTAL			10		10
TOTAL POINTS			82		100

Source: EPCGF

Appendix 6: Comparison of partial guarantee schemes in Palestine, EPCGF and LGF (funded by OPIC)

	EPCGF	LGF
In Operation Since	2006	2007
Disbursed Loans	97.5 Mio. USD (#2,776)	About 100 Mio. USD (# 590)
Average Loan Amount	35,122 USD	169,492 USD
Max. Guaranteed Volume	200,000 USD	500,000 USD
Partner Banks	9	9
Share of Loans in Gaza	3 %	0.1 %
Claims (% of total guaranteed amount)	~0.8 %	~ 3 %

Source: EPCGF and LGF (www.meiinitiative.org/?Templateld=info&Pageld=36&Menuld=22&Lang=)

Appendix 7: Comparison of MENA region partial credit guarantee schemes. Source: Zsofia Arvai and Roberto Rocha, 2011. "A review of credit guarantee schemes in the Middle East and North Africa Region" Policy Research Working Paper Series 5612, The World Bank. <http://elibrary.worldbank.org/action/doSearch?ContributorStored=Saadani%2C+Y&>

Country	Egypt	Iraq	Jordan	Lebanon	Morocco	Saudi Arabia	Syria	Tunisia	UAE
Name	Credit Guarantee Company	Iraqi Company For Bank Guarantees	Jordanian Loan Guarantee Corp	Kafalat	Caisse Centrale de Garantie	Saudi Industrial Development Fund	Loan Guarantee Institution of Syria	Sotugar	Khalifa Fund
Starting Date	1991	2007	1994	1999	1949	2005	2010	2003	2010
Equity (USD MIO)	52	12	N/A	50	75	57	10	49	N/A
Median	0,6	0,75	0,7	82.5	0,65	62.5%	0,5	67.5%	0,9
Max	0,7	0,75	0,7	0,9	0,8	0,75	0,5	0,75	0,9
Start-ups	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Firm size	Max 50 employees	Max 50 employees	Max 250 employees	Max 40 employees	All	Max sales 5 USD MIO	Max 250 employees	All	All
Max Loan Size (USD Mio.)	0.35	0.25	0.6	0.4	1.5	0.4	0.4	2.5	1.3
Max Loan Maturity (years)	7	5	8	7	12	7	7	15	7
Sectors	All	All	All	Agriculture, Industry...	All	All, except trading	All	Manufacturing, some services	All
Working capital	Yes	N/A	Yes	Yes	Yes	N/A	No	No	Yes

Imprint

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Cover Photo
Source: gettyimages.com, Photographer: korhan hasim isik